European Commission

FWC BENEFICIARIES 2013 - LOT 1 RURAL DEVELOPMENT AND FOOD SECURITY

EuropeAid/132633/C/SER/multi

Specific Contract 2015/370301

Study on Current and Forecast Market Developments for ACP Sugar Suppliers to the EU Market

Final Report

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July 2016

This study is funded by The European Union

Study contractor: CARDNO Emerging Markets UK

KEY DATA

Name of Project:	**Study on Current and Forecast Market Developments for ACP Sugar Suppliers to the EU Market**
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DISTRIBUTION LIST OF REPORT: The Inception Report shall be distributed in electronic format only

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Study on Current and Forecast Market Developments for ACP Sugar Suppliers to the EU Market

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List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol countries
ASR	American Sugar Refining
CAFTA	Central American Free Trade Area
CAFTA-DR	Dominican Republic-Central American Free Trade Agreement
CAP	Common Agricultural Policy
CARICOM	Caribbean Community
CET	Common External Tariff
CIF	Cost, Insurance and Freight
COMESA	Common Market for East and Southern Africa
CXL	Article number (*Roman numerals*) regarding preferential access for 0.67 million tonnes sugar into the EU
DEFRA	Departments for Environment, Food and Rural Affairs
DNA	Distribuidora Nacional do Açucar (Mozambique)
DRC	Democratic Republic of the Congo
EAC	East African Community
EBA	Everything But Arms Initiative
EC	European Commission
EIB	European Investment Bank
EPA	Economic Partnership Agreement
ESA	East and Southern Africa
EU	European Union
FOB	Free On Board
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GuySuCo	Guyanese Sugar Corporation Inc.
HFS	High Fructose Syrup
ICE	Inter-Continental Exchange
KPI	Key Performance Indicator
KWh	Kilowatt Hour
LDC	Least Developed Country
MIP	Multi-annual Indicative Programme
MFN	Most Favoured Nation
MW	Mega Watt
NAO	National Authorising Office
NAS	National Adaptation Strategy
NOS	Non Originating Sugars
SADC	Southern African Development Community
SIRDI	Sugar Industry Research and Development Institute
TCTS	Tonnes Cane to Tonnes Sugar
TFTA	Tripartite Free Trade Area
TRQ	Tariff Rate Quota
USA	United States of America
VCS	Voluntary Coupled Support
VRS	Voluntary Retirement Scheme
WTO	World Trade Organisation

Country Groupings

List of sugar producing LDC and ACP countries

Grouping	**Countries**
ACP-LDC	Benin, Burkina Faso, Burundi, Central African Republic, Chad, Congo DR, Ethiopia, Gabon, Guinea, Madagascar, Malawi, Mali, Niger, Mozambique, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Zambia, Uganda.
Non-ACP LDC	Bangladesh, Cambodia, Laos, Myanmar, Nepal.
Non-LDC ACP	Barbados, Belize, Dominican Republic, Cameroon, Côte d'Ivoire, Congo Brazzaville, Fiji, Guyana, Jamaica, Kenya, Mauritius, Nigeria, Papua New Guinea, Swaziland, Zimbabwe.

Note: South Africa and Cuba are ACP countries but they have been excluded from the list because, historically, they have not benefitted from preferential access to the EU sugar market. However, South Africa has recently gained access for 150,000 tonnes under the Southern African Development Community Economic Partnership Agreement.

Résumé

I Le contexte

L'industrie sucrière est définitivement considérée comme ayant une importante contribution socio-économique dans de nombreux pays du Groupe des États d'Afrique, des Caraïbes et du Pacifique (ACP). Cette activité génère des recettes d'exportations et permet la création d'emplois dans les zones rurales. Néanmoins, il est important de noter que beaucoup de pays ACP ont été amenés a adopter une politique de diversification afin de réduire leur dépendance envers l'industrie sucrière. La conséquence est que dans certains pays, le sucre n'est pas aussi important que par le passé.

Le groupe sucre au sein des ACP est diversement composé. Ainsi, Il comprend certains des pays ayant les plus faibles couts de production au niveau mondial et où de plus la production s'est accrue au fil du temps (Malawi, Swaziland, Zambie). Il inclut également certains pays ayant à la fois des coût élevés et une production en baisse ainsi que des activités usinières opérant a perte (Barbade, Guyana, Fidji, Jamaïque).

Le sucre est produit dans plus de 100 pays dans le monde entier. Cependant, les prix du sucre sur le marché mondial sont extrêmement volatiles. Dans le long terme, ils sont déterminés par les coûts de production d'un petit nombre d'exportateurs sur le marché mondial, notamment le Brésil. Toutefois, la grande majorité des industries fonctionne avec une certaine forme d'aide gouvernementale. En conséquence, le sucre est reconnu comme étant un produit bénéficiant d'une forte protection.

II. Réforme au sein de l'UE et l'impact sur les pays ACP

Entre 2006/07 et 2009/10, l'industrie de sucre de l'UE a connu une période de réforme. Ainsi, les prix de référence institutionnel pour le sucre brut et blanc ont été réduits de 36 %, les quotas de sucre et d'isoglucose ont été réduits d'environ 6 millions de tonnes et plus de 80 usines fermées. Cela a créé un plus grand écart entre la demande intérieure et les quotas de production, qui devait être fourni par une augmentation des importations préférentielles. Les rendements de sucre de betterave sont en amélioration constante dépassant les progrès accomplis dans le secteur de la canne. Ces deux éléments ont placés l'industrie de l'UE sur un pied plus compétitif pour faire face a une libéralisation future. Entretemps, la Commission européenne a alloué des mesures d'accompagnement (AMSP)pour aider les pays ACP signataires du protocole sucre à s'adapter au nouvel environnement du marché.

A partir du 1er octobre 2017, l'UE fera l'objet d'autres réformes : les quotas de sucre de betterave et d'isoglucose seront abolis, cependant les tarifs externes s'appliquant aux importations non-préférentielles resteront inchangés. En outre, tous les cultivateurs de betteraves recevront des paiements par exploitation non liés à la production, tandis que les cultivateurs de betteraves dans 10 des 19 États membres producteurs de sucre recevront des appuis volontaires couplés (AVC) donc lies à la production. Tandis que le résultat final de cette réforme est encore incertain, il n'en demeure pas moins que production de sucre de betterave et d'isoglucose est appelée à augmenter. Ceci aura pour effet d'augmenter la concurrence au sein de l'UE, de réduire les importations et d'éroder la préférence de prix dont les pays ACP ont bénéficié de par le passé. Il devrait aussi se traduire par une augmentation des exportations de sucre de l'UE.

L'impact de l'érosion des préférences sur les pays ACP sera diffèrent d'un pays à l'autre, selon leur niveau (a) de dépendance sur le marché l'UE (b) l'accès a d'autres marchés (intérieur, régional ou autres préférentiels) et savoir si ces marchés continueront d'offrir des primes sur le prix du marché mondial après les réformes de l'UE et (c) leur structure de coûts. Les pays peuvent être classés en trois grandes catégories.

- Pays qui ont des coûts compétitifs et sont géographiquement très bien situés pour approvisionner les marchés régionaux potentiellement rémunérateurs (Malawi, Zambie, République dominicaine).

- Industries compétitives avec une forte dépendance sur l'UE et moins bien situé pour approvisionner les marchés régionaux potentiellement rémunérateurs (Mozambique, Swaziland, Zimbabwe).

- Pays avec une forte dépendance sur l'UE et/ou des coûts de production plus élevés (Barbade, Fidji, Guyana, Jamaïque, Maurice). Bien que Belize a un niveau de dépendance élevé sur l'Union européenne, ses coûts sont inférieurs à ces autres pays.

La capacité des producteurs ACP de se tourner vers les marchés régionaux rémunérateurs est un moyen important pour atténuer l'érosion des préférences de l'EU. Toutefois, les marchés régionaux sont limités en taille et l'accès est souvent limité par des barrières douanières, même au sein et entre les pays faisant partie des zones de libre-échange (ALE). Par conséquent, il y a un risque élevé que ces marchés soient saturés et deviennent très concurrentiels entraînant une baisse des prix et l'érosion des primes. Un tel risque est particulièrement élevé en Afrique australe.

III. Les stratégies d'Adaptation Nationaux et les mesures d'accompagnement

En 2006, chaque pays ACP a mis au point une stratégie d'Adaptation National (RNA) pour fournir le cadre à travers lequel le soutien AMSP serait apportee. Chaque stratégie a été conçue pour répondre aux besoins spécifiques du pays concerné. Cependant, on trouve quelques thèmes communs dans tous les pays. Les objectifs qui ont été énoncés sous chaque NAS peuvent être regroupés en cinq grandes catégories : (a) expansion de l'industrie sucrière, (b) amélioration de la compétitivité de l'industrie sucrière, (c) la diversification du secteur sucre (p. ex. électricité, éthanol et autres activités ajoutant de la valeur), (d) diversification hors du sucre à d'autres activités économiques et (e) fournir un appui aux revenus et moyens d'existence des personnes affectées par les réformes du secteur sucre.

L'AMSP a été conçu pour contribuer à la réalisation des objectifs énoncés dans le NAS. Il y avait trois piliers dans le soutien AMSP: (a) l'amélioration de la compétitivité du secteur sucre (b) la promotion de la diversification économique et (c) l'atténuation des impacts résultant du processus d'adaptation.

IV. Modalités de déboursement AMSP

Les fonds de l'AMSP furent livrés selon quatre façons principales: (a) une gestion centralisée, (b) une gestion partielle décentralisée comprenant un soutien budgétaire ainsi qu'un soutien au secteur, (c) l'appui budgétaire dédié au secteur (d) l'appui budgétaire général. Pour les pays n'ayant pas reçu l'appui budgétaire, le lent décaissement des fonds a été une contrainte majeure. Cela découle des procédures administratives complexes de l'UE et des contraintes de capacité au niveau local, soit de l'organisme responsable de la gestion des fonds ou des délégations de l'UE. Ce constat indique que si la gestion décentralisée partielle augmente le niveau de participation du gouvernement, le ministère ou l'organisme qui prend le contrôle des fonds AMSP a besoin d'avoir une capacité suffisante de gestion sinon il devient un goulot d'étranglement dans le décaissement des fonds. Pour les pays bénéficiant d'un soutien budgétaire, le décaissement n'a pas été un problème majeur. Toutefois, il y a inévitablement moins de contrôle sur la façon dont les fonds ont été dépensés, augmentant le risque de fonds AMSP étant déconnecté des objectifs du NAS.

V. Les forces et les faiblesses de l'AMSP

En général, les mesures AMSP ont été bien accueillies par les acteurs du secteur sucre et ont été reconnus comme ayant joué un rôle important en soutenant la restructuration. Par exemple, à Maurice et à la Jamaïque, les fonds AMSP ont permis aux industries de se restructurer, tout en s'assurant que les réformes nécessaires étaient socialement acceptables. Il y a aussi beaucoup d'exemples des AMSP complétant les dépenses effectuées par les secteurs privé et public dans des pays comme le Swaziland. L'expérience a également été positive au Mozambique et au Malawi. Cependant, les affectations AMSP dans ces pays étaient beaucoup plus modestes, ce qui signifie que la contribution des activités AMSP vers le NAS était limitée. L'AMSP a également contribué a favoriser la stabilité macroéconomique et, dans le cas de Maurice, facilité l'accès aux fonds de la Banque européenne d'investissement (BEI).

En ce qui concerne les faiblesses, le problème le plus fréquent avec AMSP était la lenteur à laquelle les projets ont été mis en œuvre. Dans certains cas, ceci a eu pour conséquence le non-débours de sommes importantes. En outre, certains pays comme le Mozambique et la Zambie n'ont obtenu que des petites allocations. Alors que cela limitait la portée des travaux qui pourraient être entrepris, ces pays ont eu à faire face à des coûts administratifs semblables aux pays avec de plus grandes dotations. De plus, l'ampleur du financement signifiait qu'ils étaient incapables d'établir une autorité nationale spécifique afin de mieux gérer ces fonds. Au Belize, l'utilisation prévue a partir de l'AMSP différait significativement des objectifs NAS et ainsi un pourcentage fonds alloués n'a pas été utilisé. Enfin, à l'exception de la Barbade, dans la plupart des pays non-africains, seule une faible proportion du financement AMSP visait à une diversification hors du sucre. Aucun montant n'était prévu dans les pays ACP africains. En fait , quelques industries (notamment en Afrique australe) ont augmenté la production pour fournir l'importation accrue de l'UE conséquence des baisses de quotas mis en place en vertu de la réforme de 2006.

VI. Situation existante et les perspectives pour les pays ACP

Les industries de sucre ACP sont dans divers états de préparation pour faire face à l'évolution du marché conséquemment à l'abolition des quotas au sein de l'UE a partir du 1er octobre 2017. Tandis que fonds AMSP ont aidé les pays ACP à s'adapter en vue du nouvel environnement du marché, beaucoup d'industries dépendent encore fortement des préférences reçus de la vente à l'Union européenne.

Le tableau E1 résume la situation actuelle de chaque pays ACP et met en évidence les progrès accomplis vers la réalisation des objectifs énoncés dans le NAS, tandis que le tableau E2 présente les perspectives et les risques encourus dans chaque pays. Alors que chaque pays ACP fera face a une situation spécifique, tous les pays ACP connaîtront la plus faible moyenne des prix du sucre dans la perspective où les prix de l'UE deviennent plus étroitement alignés sur les prix mondiaux. Cela est susceptible d'entraîner une baisse des revenus dans les zones dépendantes du sucre dans ces pays.

- Il y a quelques industries de sucre qui jouent un rôle important dans leur pays où dans certaines régions du pays qui font face à des défis majeurs, à savoir Fidji, Guyana et la Jamaïque.
- Il y a autres industries où la grande majorité de la production de canne à sucre et le sucre n'est pas menacée, mais il peut y avoir néanmoins des acteurs vulnérables, notamment de petits producteurs, et la capacité des sociétés usinières d'offrir des services sociaux pourrait être réduite (par exemple en Afrique australe).

VII. Conclusions

Dans une situation où le secteur privé ne veut pas investir dans un secteur, les gouvernements de ces pays doivent décider si et comment ils souhaitent atténuer les effets nuisibles de la réforme de 2017. Les choix possibles sont: (a) transferts des ressources budgétaires pour le secteur sucre ou (b) taxation des consommateurs par l'intermédiaire de prix plus élevés du sucre, d'éthanol ou d'électricité. Ces transferts existent déjà et sont en augmentation (p. ex. l'augmentation récente des prix du sucre domestique à Belize, Fidji, Maurice, Mozambique ou le renflouement du déficitaire Guyana Sugar Corporation Inc. (GuySuCo) par l'État Guyanais)

Si les gouvernements souhaitent soutenir leurs industries de sucre, mais autrement que par le budget, la seule autre source possible de financement est par l'intermédiaire de transferts des consommateurs par le biais des prix qu'ils paient pour le sucre, l'électricité ou l' éthanol.

- ***Sucre.*** *Les prix du sucre sur le marché local peuvent être augmentés grâce à l'utilisation des droits de douane. Toutefois, la portée de cette mesure de soutien dépend de la taille du marché intérieur. En outre, cela signifie que les pays ACP augmenteront les prix du sucre à un moment où ils baisseront dans l'UE, créant une situation où les consommateurs dans certains pays africains devront payer des prix plus élevés pour leur sucre que les consommateurs de l'UE. Intégration régionale sera essentielle pour assurer l'accès aux marchés pour la production de sucre excédentaire. Toutefois, cela dépend du succès des accords de libre-échange régionaux établissant un accès préférentiel au marché pour le sucre et, jusqu'à présent, les progrès dans ce sens ont été lents.*
- ***Électricité/éthanol.*** *à ce jour, l'investissement dans ces deux activités créatrices de valeur ajoutée est très limité avec seulement Belize, Maurice et le Swaziland ayant effectué des investissements majeurs notamment dans la cogénération d'électricité et sa vente subséquente au réseau électrique. Deux conditions doivent être réunies pour permettre des développements a une plus grande échelle (a) les gouvernements doivent établir un cadre attrayant pour l'investissement et (b) le secteur privé doit investir. La tâche n'est pas aisée dans un contexte où les prix de l'énergie sur le marché mondial sont bas et aussi pour les industries où le coût de production est élevé et l'avenir des exportations incertain.*

Un autre domaine qui reste à revoir est la structure des coûts de certaines industries ACP qui ont été gonflés par des institutions et des pratiques gouvernements visant à distribuer les bénéfices découlant de l'accès de l'UE. Alors que ceux-ci ont été partiellement résolus dans certains pays comme Maurice, des programmes similaires seront certainement nécessaires dans d'autres industries, en particulier, la Guyane, si l'on veut assurer la viabilité future des parties les plus rentables de son industrie sucrière.

La perte de préférence EU se traduira par davantage de contraction de la superficie sous canne dans les pays à coûts élevés. Là où les terres de canne seront perdues, cela devrait se faire de manière réfléchie et constructive permettant aux pays à bien diversifier leur agriculture et à minimise les conséquences environnementales et esthétiques. Cela exigera une évaluation minutieuse des autres utilisations des sols, qu'ils soient à des fins agricoles conventionnelles (comme est actuellement à l'étude en Guyane) ou pour la production de plantes riches en fibres pour utilisation comme biomasse pour la production d'électricité (comme suggéré à l'île Maurice).

Enfin, les efforts visant à atténuer l'impact de l'érosion des préférences ont été ébranlés par les événements qui sont hors du contrôle de certains pays. La sécheresse en Afrique australe et les effets du cyclone Winston à Fidji signifient que ces industries vont vers 2017/18 en situation de faiblesse. Les prévisions de changement climatique suggèrent que

les phénomènes météorologiques sont susceptibles d'être plus sévères que par le passé mettant les industries plus à risque à l'avenir. Aux Fidji, par exemple, la question de l'assurance-récolte a été soulevée, tandis que la gestion de l'eau a fortement est à l'ordre du jour en Afrique australe.

VIII. Recommandations

Tandis que AMSP ont sans aucun doute aidé les industries à s'adapter au nouvel environnement de marché, leur contribution a été disparate et la plupart des pays n'ont pas été en mesure d'atteindre les objectifs énoncés dans leur stratégie d'Adaptation nationale. Cela signifie que tous les pays ACP ont encore des efforts à faire. En effet, certains ont encore à faire face à d'énormes problèmes qui nécessitent des réformes profondes pour remédier aux conséquences de la réforme de l'UE.

Ci-dessous, nous résumons notre recommandation pour des actions futures pour les pays ACP et les bailleurs de fonds incluant l'UE.

Accès au marché

ACP

- Poursuivre en priorité l'intégration régionale pour le sucre.
- Continuation des politiques destinees a ameliorer la competitivite des industries sucrieres
- S'assurer que des mesures amenant des distordions du marché tant au niveau régional que global ne soient adoptées.

Éventuel soutien de l'UE/autre bailleur de fonds

- Assistance technique pour appuyer le processus d'intégration régionale.

Considérer l'impact de nouveaux accords commerciaux sur les partenaires commerciaux historiques incluant les ACP Ceci s'applique au sucre et aux sucres a valeur ajoutée.

- Evaluer les mesures destinées a retenir la présence des ACP dans certains segments du marché (notamment les sucres raffines et spéciaux) afin de faciliter la tarensition vers un marcheq plus compétitif

Alors que les gouvernements sont libres de soutenir leurs industries en augmentant les tarifs douaniers au sein de leurs engagements envers l'OMC, une coordination entre pays au sein de l'ALE est requise afin que les exportateurs soient à même d'obtenir les avantages d'un l'accès plus large au marché régional. Cela voudrait dire un accord entre membres d'un ALE et la mise en œuvre effective et la surveillance des tarifs extérieurs communs. Si l'accès au marché est d'inclure le sucre raffiné, il serait nécessaire d'harmoniser les révisions tarifaires avec les investissements du secteur privé en capacité dans les régions où il manque actuellement de raffinage. Un des défis majeurs sera l'alignement des politiques diverses importations actuelles et la réconciliation des intérêts des consommateurs et des producteurs de sucre, et une assistance technique de l'UE contribuerait à faciliter ce processus.

Les mesures concernant l'accès au marché européen peuvent avoir un impact immédiat, alors qu'une intégration plus poussée du commerce régional pourrait prendre plusieurs années. Lors de l'examen des mesures de soutien aux activités à valeur ajoutée, l'Union

européenne doit être consciente que ces marchés sont limités en taille. En effet, l'expansion de la production dans les pays ACP pourrait entraîner une surproduction et une grosse augmentation de offre (même si l'accès à des pays tiers est limité).

Dans le même temps, les industries devront continuer d'améliorer leur compétitivité afin de s'assurer qu'ils sont capables d'opérer de manière rentable dans un environnement de marché plus libéralisé. Cependant, avec la période de financement AMSP touchant à sa fin, ces activités seront plus en plus axée sur le secteur privé à moins que d'autres sources de financement soient disponibles. Par exemple, le Programme de recherche de sucre ACP, qui a été financé par l'UE, est reconnu par les intervenants, comme avoir eu une contribution importante au développement de nouvelles variétés de canne. Il sera également important pour les gouvernements ACP de surveiller les politiques qu'adoptent d'autres pays. Au niveau mondial, les politiques des pays qui exportent de grandes quantités de sucre peuvent avoir un impact sur le niveau des prix mondiaux du sucre. À l'échelle régionale, les politiques nationales peuvent influer sur la libre circulation de sucre au sein de blocs commerciaux.

Diversification

ACP

- Évaluer les possibilités de diversifier en dehors du sucre là où les industries sont insoutenables dans leur taille actuelle.
- Créer un environnement et un climat propice à l'investissement afin d'encourager la diversification dans le secteur du sucre où la production de canne peut être maintenue.

Éventuel soutien de l'UE/bailleurs de fonds

- Soutenir les études sur l'utilisation alternative des terres et soutenir les revenus et limiter les impacts environnementaux.
- Assistance technique à l'élaboration de politiques appropriées et de la législation s'y référant.

Pour les industries faisant face à une baisse de production de sucre et devant diversifier hors du sucre, une assistance technique sera nécessaire pour identifier les autres utilisations des sols et d'élaborer des stratégies pour maintenir des possibilités d'emploi et soutenir les moyens d'existence, ainsi que pour minimiser les impacts environnementaux de la perte de terres de canne.

La diversification à l'intérieur du secteur sucre est en fin de compte une activité du secteur privé. Cependant, les investisseurs devraient bénéficier du soutien des gouvernements ACP sous la forme de la législation nécessaire pour créer un environnement d'investissement attractif pour de nouveaux produits. L'assistance technique sera nécessaire là où les contraintes de capacités locales sont un obstacle à l'efficacité de la conception et la mise en œuvre de la politique.

Résoudre les questions institutionnelles qui datent du l'époque protocole sucre

ACP

- Examiner les lois du travail conçus pour permettre le partage de la valeur des préférences de l'UE parmi la population au large, mais qui ne sont plus réalisables dans les conditions commerciales actuelles.
- Revoir le rôle que l'industrie sucrière joue dans la prestation des services sociaux.
- Évaluer la viabilité future des planteurs. Dans certains cas, ils représentent une part plus importante de l''approvisionnement depuis 2006, mais sont vulnérables aux impacts de la réforme de 2017. Dans d'autres cas, les planteurs représentent une partie importante de l'approvisionnement des industries mais leur contribution est en baisse, ce qui affecte la situation financière et la viabilité du secteur usinier.
- Évaluer les répercussions des modifications à apporter à des structures de commercialisation à guichet unique dans le cadre de discussions où les usiniers désirent une plus grande indépendance dans le marketing pour compenser.

Éventuel soutien de l'UE/Bailleurs de fonds

- Fonds du FED pour soutenir l'ajustement structurel.
- Assistance technique afin d'évaluer la réforme du travail, de fourniture de services sociaux, de la viabilité de plantations et d'accords de commercialisation.

Dans le passé, certains pays choisirent de partager la valeur de la préférence de l'EU avec des intervenants de l'industrie à travers les conditions d'emploi offertes aux travailleurs dans le secteur. Dans certaines industries, ces termes ne sont plus abordables et sont un obstacle pour assurer la viabilité future du secteur. La résolution de cette question tout en restant socialement acceptable, sera à coût élevé.

Les gouvernements devraient revoir le rôle qu'ils jouent dans la prestation de fourniture de services sociaux dans les régions dépendantes du sucre, prenant en considération les circonstances commerciales de l'industrie sucrière et les transferts de revenus de la nation vers et qui profitent à l'industrie.

Alors que plusieurs régimes ont été mis au point depuis les réformes de l'UE de 2006 et de nombreux fonds AMSP alloués à cet effet, une évaluation de leur viabilité future est nécessaire pour s'assurer qu'ils sont viables à long terme.

La libéralisation de la vente du sucre par des structures de commercialisation à guichet unique comporte de nombreuses implications, soulevant des questions autour de propriété du sucre et de la transparence des prix pour les producteurs. Il s'agit d'une question très sensible et le support technique est essentiel pour aider les industries à parvenir à un consensus sur la voie à suivre.

Industries de redimensionnement et réduction de la vulnérabilité

ACP

- Dans les pays où des réformes profondes sont encore nécessaires, des stratégies nouvelles et réalistes doivent être élaborées pour atténuer les impacts économiques et sociaux de la réforme de l'UE.
- Élaborer des stratégies pour atténuer les menaces causées par des phénomènes météorologiques extrêmes (sécheresses et cyclones).

Éventuel soutien de l'UE /Bailleur de fonds

- Assistance technique et le support par EDF pour mettre en œuvre les stratégies.

Là où il est convenu que les industries sont incapables de couvrir leurs coûts et qu'ils ne peuvent être rentables à leur taille actuelle, ils doivent droit-redéfinis à une taille qui leur permettent de vendre du sucre à profit sur des marchés correspondant à leur taille. Cela devrait faciliter l'acceptation sociale des transferts de revenus des consommateurs ou des contribuables vers ces industries. Toutefois les questions de transferts et de réduction de taille représentent des décisions politiques difficiles.

Là où canne est irrigué et disponibilité en eau est limitée, le soutien peut être nécessaire pour améliorer l'efficacité du système de gestion de l'eau. Des événements ponctuels et extrêmes tels que les cyclones peuvent exiger l'examen des programmes d'assurance-récolte.

L'environnement et le développement durable

ACP

- Considérant le plus large rôle multifonctionnel que peuvent jouer les industries de sucre ACP, en particulier dans les pays où la diversification est difficile.

EU/Bailleurs de fonds

- Soutien pourrait atténuer les conséquences des changements au sein de l'industrie sucrière dans certains pays.

Dans certains pays, le secteur de la canne à sucre joue un rôle socio-économique et environnemental important. Il est important que cela soit reconnu par les gouvernements. Par exemple, avec certains pays ACP identifiant l'environnement comme une question clé à examiner au titre du 11ème FED, il y a le potentiel pour les fonds provenant de cette source de jouer un rôle dans la lutte contre toutes les conséquences négatives liées à la restructuration de l'industrie.

Le rôle de la coordination de l'Union européenne et l'Agence

- Compte tenu de la vaste gamme d'activités que les pays ACP doivent encore entreprendre et des contraintes de capacité au sein de chaque pays, il est toujours nécessaire pour l'UE/autres bailleurs de fonds de s'engager avec les pays ACP pour les aider à s'adapter à l'environnement futur.

L'AMSP touche à sa fin et l'UE devrait aider les bénéficiaires à s'assurer tout montant alloué mais non engagé soit pleinement utilisé. Les gouvernements ACP et l'UE devraient

envisager ensuite un soutien supplémentaire par le biais des autres instruments financiers à sa disposition, notamment le programme de la FED. Cependant, cette assistance devra être examinée dans le contexte des objectifs nationaux plus larges et les priorités de chaque pays. L'accès à un financement préférentiel via la BEI pourrait également soutenir le secteur privé en ce qui concerne les investissements. Pour que ces plans et mesures fonctionnent correctement, une étroite coordination entre (et dans) la Communauté européenne et ces fonds/organisations, gouvernements ACP, le secteur privé et autres parties prenantes est nécessaire afin d'assurer que les objectifs de la réforme soient enitérement atteints.

Tableau E1: Résumé des conclusions — situation actuelle

Pays	Dependance sur l'EU	Accès au marché alternatif	Niveau de diversification dans le secteur du sucre	Progrès accomplis vers les objectifs NAS
Barbade	Forte	Limitée	Sucres spéciaux.	Diversification de l'économie a continué. Aucun progrès vers l'établissement d'un secteur diversifié de canne à sucre, qui exige la construction d'une nouvelle usine capable de produire le sucre, l'éthanol et l'électricité.
Belize	Forte	Limitée	Sucre Fairtrade (commerce équitable) sucres spéciaux, électricité.	AMSP financement diffère considérablement de la NAS. Les revenus ont été diversifiés grâce à l'investissement dans la production d'électricité, mais il y a des possibilités considérables pour améliorer l'efficience dans le secteur de la canne.
République dominicaine	Faible	Bon	Électricité.	Ne s'applique pas.
Fidji	Forte	Limitée	Fairtrade.	Les progrès sont lents et les objectifs NAS n'ont pas été atteints. Certaines améliorations de la productivité ont été faites, mais le récent cyclone a créé un nouveau revers.
Guyane	Forte	Limitée	Sucres spéciaux et Fairtrade.	NAS objectifs sont très ambitieux et finances à leur mise en œuvre n'était pas disponible. L'industrie est très faible financièrement et s'appuie sur le gouvernement pour la renflouer. Industrie en train d'élaborer un nouveau plan.
Jamaïque	Forte	Limitée	Fairtrade , éthanol.	L'industrie a été entièrement privatisée, conforme aux objectifs du NAS, mais le secteur est toujours confronté aux énormes défis et l'avenir de certaines usines et plantations est incertain. La diversification du secteur canne à sucre n'a pas été atteint.
Malawi	Moyen *	Bon	Fairtrade , sucres spéciaux, éthanol.	Certains progrès réalisés vers l'expansion horizontale et verticale. L'industrie a augmenté, mais la productivité n'a pas emboîté le pas. La viabilité future des petits planteurs est un enjeu important.
Ile Maurice	Forte	Limitée	Sucres spéciaux, Fairtrade, sucre raffiné, éthanol, électricité.	Plan de l'industrie a été largement mise en œuvre, y compris au champ et concernant la rationalisation des usines, valeur ajoutée et la diversification du revenu. Cependant, l'industrie continue de souffrir de la perte de terres de canne de planteurs petits / moyens et l'industrie est toujours incapable de concourir au prix du marché mondial.
Mozambique	Moyen	Limitée	Fairtrade.	La production a augmenté, mais est en deçà des objectifs de production énoncés dans le NAS. Industrie encore fortement exposé au marché européen avec potentiel de marché alternatif limité.
Swaziland	Moyen	Limitée	Fairtrade, sucres spéciaux, éthanol, électricité.	Progrès accomplis dans les deux objectifs NAS : restructuration de l'industrie et l'expansion de la production des petits planteurs. Mais pas de diversification hors du sucre. Industrie encore fortement exposé au marché européen.
Zambie	Moyen *	Bon	Sucres spéciaux et Fairtrade.	Expansion à grande échelle dans la production de sucre et de l'investissement associé a aidé l'industrie pour faire avancer les objectifs NAS. Lenteur des progrès vers la diversification du secteur.
Zimbabwe	Moyen	Modérée	Sucre raffiné	Production en deçà des objectifs de la NAS, mais l'industrie est en train de récupérer des graves difficultés économiques rencontrées par le pays.

Remarque: * Le Malawi et la Zambie sont moins exposés à l'UE que le Mozambique, le Swaziland et Zimbabwe et sont géographiquement bien placés pour approvisionner les marchés régionaux potentiellement rémunérateurs. Cependant, il existe un risque que les prix /primes dans leurs marchés locaux et régionaux pourraient être affectés à la baisse s'il y a une plus compétition après la grande réforme de l'UE .

Tableau E2: Résumé des conclusions — perspectives pour les risques du secteur et la clé

Pays	Mesures d'atténuation proposées	Principaux risques
Barbade	Un plan visant à diversifier l'industrie est encore à l'étude mais la mise en œuvre et le financement est incertain.	Le nouvel investissement n'entraîne pas automatiquement un secteur sucrier concurrentiel. Les coûts élevés signifient qu'une augmentation de la production de canne est peu probable en l'absence de subventions.
Belize	Améliorer l'efficience et réduire les coûts, surtout dans la culture de la canne et de la logistique post-récolte.	Marchés alternatifs limités augmente l'exposition au marché mondial. Niveau élevé d'endettement dans le secteur agricole mine les moyens de subsistance de cultivateur. Risque d'abandon de la plantation de cannes. Ventes de Fairtrade sous pression.
Rep DOM.	Aucun – incidence de la réforme devrait être faible.	Libéralisation du marché américain.
Fidji	Infrastructure et améliorations afin de réduire les coûts de l'agriculture. Prix préférentiels pour l'électricité produite à partir de bagasse et l'investissement de diversification. Hausse des prix intérieur du sucre suite à l'imposition du tarif.	Un déclin du prix de la canne entraînent davantage de perte de canne, mettant en péril l'approvisionnement de l'usine en cannes. Source de financement pour la diversification du secteur du sucre non encore identifié. L'industrie est exposée aux aléas climatiques, y compris les cyclones. Vente commerce équitable reste sous pression.
Guyane	Éventuelle privatisation de l'industrie. Plan de diversification hors du sucre formulé par GuySuCo.	GuySuCo sera difficile à privatiser. Énorme coût associé à la révision des contrats de travail. Investissement important encore nécessaire pour atteindre les objectifs.
Jamaïque	Le risque de fermetures d'usines met l'industrie est dans un état d'incertitude, et il n'y a aucun plan clair en ce qu'il s'agit de mesures destinées à atténuer les réformes de l'UE.	Viabilité à long terme de plusieurs usines/plantations.
Malawi	Davantage l'accent sur les marchés intérieurs et régionaux. Développer des produits de valeur plus élevée, par exemple des sucres spéciaux.	Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Réforme de l'UE accroît la vulnérabilité des planteurs. Marché de sucres spéciaux dans l'Union européenne devient saturé. Disponibilité future de l'eau due au changement climatique.
Ile Maurice	Limiter l'abandon des terres en encourageant le regroupement. Maximiser la capacité de production de sucre via les NOS. Des efforts supplémentaires pour produire et vendre valeur de sucres ajoutés. Transferts des consommateurs, via la hausse des prix de sucre local, d'une taxe sur l'alcool de bouche et le prix de la bagasse pour l'électricité, aux planteurs. Utilisation temporaire des réserves du Fonds d'assurance du sucre.	Abandon de la canne se poursuit. Marché de sucres spéciaux dans l'Union européenne devient saturé. Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Les coûts de main d'œuvre continuent à augmenter.

Tableau E2 (suite): Sommaire des résultats — perspectives pour les risques du secteur et la clé

Pays	Mesures d'atténuation proposées	Principaux risques
Mozambique	Un meilleur accès au marché régional. Production d'électricité et de l'éthanol. Sucres speciaux.	Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Marché/politiques ne supportent pas les investissements dans l'électricité. Réforme de l'UE augmente la vulnérabilité des planteurs et met la prestation des services sociaux sous la menace. Marché de sucres spéciaux dans l'Union européenne devient saturé.
Swaziland	Un meilleur accès du marché régional. Production d'électricité. Stockage de l'eau et récupération de l'eau.	Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Marché/politiques ne supportent pas les investissements dans l'électricité. Réforme de l'UE augmente la vulnérabilité des planteurs et met la prestation des services sociaux sous la menace. Disponibilité future de l'eau due au changement climatique. Manque de diversification augmente l'exposition aux effets de la réforme de l'UE.
Zambie	Un meilleur accès au marché régional. Production de sucre raffiné afin de récupérer des opportunités sur les marchés régionaux.	Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Réforme de l'UE augmente la vulnérabilité des planteurs et met la prestation des services sociaux sous la menace. Disponibilité future de l'eau due au changement climatique.
Zimbabwe	Un meilleur accès au marché régional.	Risque de fourniture excédentaire des marchés locaux/régionaux suite à la perte de préférence EU ; ce risque sera accru si la libre circulation de sucre au sein des ALE existants ou à venir ne progresse pas. Réforme de l'UE augmente la vulnérabilité des planteurs et met la prestation des services sociaux sous la menace. Disponibilité future de l'eau due au changement climatique.

Executive Summary

I. Background

The sugar industry is widely recognised as making a significant socio-economic contribution to many African, Caribbean and Pacific (ACP) Group of States, particularly in generating export earnings and creating employment in rural areas. Nevertheless, it is important to note that many ACP countries have been diversifying to reduce their reliance on the sugar industry. This means that, in some countries, sugar is not as important as it was in the past.

The ACP sugar group is diverse. It includes some of the world's lowest cost sugar producers where production has been growing over time (Malawi, Swaziland, Zambia). It also includes some higher cost industries, where production has been falling and the milling sectors are suffering from poor financial performance (Barbados, Guyana, Fiji, Jamaica).

Sugar is produced in over 100 countries worldwide. However, sugar prices in the world market are extremely volatile. In the long term, they are driven by the supply costs of a small number of world market exporters, most notably Brazil. Moreover, the vast majority of industries operate with some form of government support. As a result, sugar is recognised as being a highly protected commodity.

II. EU Reform and the impact on ACP countries

Between 2006/07 and 2009/10, the EU sugar industry undertook a period of reform. Institutional reference price for raw and white sugar were cut by 36%, sugar and isoglucose quotas were reduced by around six million tonnes and more than 80 factories closed. This created a larger gap between domestic demand and quotas, which was to be supplied by an increase in preferential imports. Beet sugar yields are improving steadily, outpacing improvements in the cane sector. Both developments have put the EU industry on a more competitive footing in preparation for further liberalisation. Meanwhile, the European Commission made available funds to support ACP countries adjust to the new market environment under the Accompanying Measures for Sugar Protocol (AMSP) countries.

On 1st October 2017, the EU will undergo further reform: quotas on beet sugar and isoglucose will be abolished, but external tariffs will remain unchanged. Moreover, all beet farmers will receive decoupled single farm payments, while beet farmers in 10 out of 19 sugar-producing member states will receive voluntary coupled supports (VCS). While the final outcome of this reform is uncertain, production of beet sugar and isoglucose is expected to increase. This, in turn, will increase the level of competition within the EU, reduce imports and erode the price preference from which ACP countries have benefitted in the past. It is also expected to result in an increase of EU sugar exports.

The impact of the erosion of preferences on the ACP will differ from country to country, depending on their (a) level of exposure to the EU market (b) access to alternative markets (domestic, regional or other preferential) and whether these markets will continue to offer premiums over the world price following the EU reforms and (c) their cost structure. Countries can be categorised into three broad groups.

- Countries that are cost competitive and are geographically well located to supply potentially high-priced regional markets (Dominican Republic, Malawi, Zambia).
- Competitive industries with high exposure to the EU and less well located to supply potentially high-priced regional markets (Mozambique, Swaziland, Zimbabwe).

- Countries with large exposure to the EU market and/or higher costs of production (Barbados, Fiji, Guyana, Jamaica, Mauritius). While Belize has a high level of exposure to the EU, its costs are lower than these other countries.

The ability of producers to divert sugar from the EU to remunerative regional markets is an important means of mitigating the loss of EU preference. However, regional markets are limited in size and access is often restricted by trade barriers, even within established free trade areas (FTAs). There is a high risk, therefore, that these markets will become oversupplied and very competitive, potentially driving down prices and eroding premiums. This risk is greatest in southern Africa.

III. National Adaptation Strategies and the Accompanying Measures

In 2006, each ACP country developed a National Adaptation Strategy (NAS) to provide the framework through which AMSP support would be delivered. Each strategy was designed to address the specific needs of the country. However, there were some common themes across countries. The objectives that were set out under each NAS can be grouped into five main headings (a) sugar industry expansion (b) improved sugar industry competitiveness (c) the diversification of the sugar sector (e.g. electricity, ethanol and other value adding activities) (d) diversification away from sugar into other economic activities and (e) providing support to the livelihoods of those affected by sugar sector reforms.

The AMSP were designed to contribute towards the goals set out in the NAS. There were three pillars of AMSP support: (a) improving competitiveness in the sugar sector (b) promoting economic diversification and (c) addressing the broader impacts resulting from the adaptation process.

IV. AMSP delivery modalities

AMSP funds were delivered in four main ways: (a) centralised management (b) partial decentralised management (c) sector budget support and (d) general budget support. For countries that did not receive budget support, a major issue was slow disbursement of funds. This reflected the EC's complex administrative procedures and local capacity constraints, either in the authorising agency or in the EU delegations themselves. This experience suggests that, while partial decentralised management increases the level of government involvement, the department or organisation that takes control of the AMSP funds needs to have sufficient capacity otherwise it will become a bottleneck in fund disbursement. For countries receiving budgetary support, slow disbursement was not a major issue. However, there was inevitably less control over how funds were spent, increasing the risk of AMSP funds being disconnected from the objectives of the NAS.

V. Strengths and weaknesses of the AMSP

In general, AMSP measures were viewed positively by stakeholders and were recognised as playing an important role in supporting the restructuring that has taken place. For example, in Mauritius and Jamaica, AMSP funds allowed the industries to restructure, while ensuring that the necessary reforms remained socially acceptable. There are also many examples of AMSP complementing expenditure by the private sector and government in countries such as Swaziland. The experience was also positive in Mozambique and Malawi. However, AMSP allocations in these countries were much more modest, meaning that the contribution of AMSP activities to the NAS was limited. AMSP also played a role in encouraging macro-economic stability and, in the case of Mauritius, helped them access funds from the European Investment Bank (EIB).

In terms of weaknesses, the most common problem with AMSP was the slow pace at which projects were delivered. In some cases, this problem resulted in significant funds not being spent. Moreover, some countries were granted small allocations, such as Mozambique and

Zambia. While this limited the scope of work that could be undertaken, these countries also faced similar administrative costs to those countries with larger allocations. However, the scale of funding meant that they were unable to establish a specific national authority in order to better manage this funding. In Belize, AMSP funding differed greatly from NAS objectives and a considerable percentage has been uncontracted. Finally, with the exception of Barbados, only a small proportion of AMSP funding was directed towards diversification away from sugar in most countries, and none at all in African ACP countries. Indeed, a few industries (notably in southern Africa) expanded production to supply the EU's increased import need following the quota cuts implemented under the 2006 reforms.

VI. Current situation and prospects for ACP countries

ACP sugar industries are in varying states of readiness for the market changes that are expected following the abolition of quotas in the EU on 1st October 2017. While AMSP funds have helped ACP countries to adjust in anticipation of the new market environment, many industries still rely heavily on the preferences they have received from sales to the EU.

Table E1 summarises the current situation facing each ACP country and highlights the progress that has been made towards achieving the objectives set out in the NAS, while Table E2 considers the prospects and risks faced in each country. While each industry faced a specific situation, all ACP countries are likely to experience lower average selling prices of sugar as EU prices become more closely aligned with world prices. This is likely to result in a decline in incomes in sugar-dependent areas in these countries.

- There are a few sugar industries that play an important role in their countries or regions that face major challenges, namely Fiji, Guyana and Jamaica.
- There are other industries where the vast majority of cane and sugar production is not under threat, but there may nevertheless be vulnerable stakeholders, notably smallholder producers, and the ability of milling companies to offer social services could be reduced (e.g. parts of southern Africa).

VII. Conclusions

In a situation where the private sector is unwilling to invest in a sector, the governments of these countries must decide if and how they wish to mitigate these impacts. Their choices are: (a) to direct budgetary resources to the sugar sector or (b) to tax consumer via higher prices for sugar, ethanol or electricity. Such transfers already exist and are increasing (e.g. the recent increases in domestic sugar prices in Belize, Fiji, Mauritius and Mozambique and government bailouts of Guyana Sugar Corporation Inc. (GuySuCo), the loss-making state-owned sugar industry in Guyana.)

If governments wish to support their sugar industries, but not from the budget, the only other possible source of funds are consumers via transfers from the prices they pay for sugar, electricity or ethanol.

- ***Sugar***. In the case of sugar, local sugar prices can be increased via the use of tariffs. However, the extent to which this helps support an industry is dependent on the size of the domestic market. Moreover, it mean that ACP countries will be raising prices at a time when they will fall in the EU, raising the prospect that consumers in some African countries will be paying higher prices for their sugar than EU consumers. Regional integration will be critical to ensuring access to markets for surplus sugar production. However, this depends on the success of free trade agreements establishing preferential market access for sugar and, so far, progress towards this has been slow.
- ***Electricity/ethanol.*** To date, there has been very limited investment in either of these value adding activities, with only Belize, Mauritius and Swaziland having made major investments in electricity cogeneration for sale to the grid. For this to happen on a

broader scale, two things must happen: (a) governments must create an attractive policy environment and (b) the private sector must invest. This is more challenging in the current environment of low world energy prices and is more difficult in industries where the underlying cost of growing cane is high and future supply is at risk.

Another area that still needs to be addressed is the cost structures of some long-standing ACP sugar industries, which have been inflated by institutions and practices as governments sought to distribute the past benefits of EU access. While these have been partly resolved in some countries such as Mauritius, similar programmes will be almost certainly needed in other industries, in particular, Guyana, if it is to ensure the future viability of the most cost-competitive parts of its sugar industry.

Loss of EU preference will result in further contraction of cane area in higher cost countries. Where cane land will be lost, this should be done in a considered and constructive way that allows the country to become more agriculturally diverse and minimises the environmental and aesthetic consequences. This will require careful assessment of alternative land uses, whether they be for conventional agricultural purposes (as is currently being studied in Guyana) or for production of high-fibre plants for use as biomass for electricity generation (as has been suggested in Mauritius).

Finally, efforts to mitigate the impact of preference erosion have been undermined by events that are outside of the control of some countries. Drought in southern Africa and the effects of cyclone Winston in Fiji mean that these industries will be heading towards 2017/18 below full strength. Climate change forecasts suggest that weather events are likely to be more severe than they have been in the past putting industries at greater risk going forward. In Fiji, for example, the issue of crop insurance has been raised, while water management has moved strongly up the agenda in southern Africa.

VIII. Recommendations

While AMSP have undoubtedly helped industries to adjust to the new market environment, their contribution has been varied and most countries were not able to achieve the goals set out in their National Adaptation Strategies. This means that all ACP countries still have work to do. Indeed, some still face considerable challenges and require far-reaching reforms to address the impact of EU reform.

Below, we summarise our recommendation for future action for both the ACP and potential donors, including the EU.

Market access and competitiveness

ACP

- Pursue regional integration for sugar as a matter of priority.
- Continue to improve industry competitiveness.
- Monitor market distorting policies at a regional and global level.

Potential EU/Donor support

- Technical assistance to support the regional integration process.
- Consider the impact of new trade agreements on historical trading partners including the ACP. This applies to overall access for sugar and for value-added sugars.
- Consider measures to retain ACP presence in value added market segments (e.g. refined and speciality sugars), which could help to the ease the transition to a more competitive market.

While governments are free to support their industries by raising tariffs within their WTO commitments, coordination between countries within FTAs is required if producers are to gain from the benefits of wider regional market access. This would mean agreement on, and effective implementation and monitoring, of common external tariffs. If market access is to include refined sugar, it would be necessary to co-ordinate tariff changes with private sector investments in refining capacity in regions where it is currently lacking. A key challenge will be alignment of current diverse import policies and balancing the interests of sugar producers and consumers, and technical assistance would help facilitate this process.

Measures regarding access to the EU market can have an immediate impact, while greater integration of regional trade could take many years. When considering measures to support value adding activities, the EU should be aware that these markets are limited in size. This means that the expansion of production within the ACP could result in over-supply (even if access for other countries is restricted).

At the same time, industries will need to continue to improve their competitiveness to ensure that they are able to operate profitably in a more liberalised market environment. However, with the AMSP funding period coming to an end, these activities will be increasingly private sector-led unless other funding sources are available. For example, the ACP Sugar Research Programme, which has been EU funded, is recognised by stakeholders as having played an important contribution to the development of new cane varieties.

It will also be important for ACP governments to monitor the policies that other countries employ. At a global level, policies in countries that export large quantities of sugar can have an impact on the level of world sugar prices. At a regional level, national policies can influence the free movement of sugar within trading blocs.

Diversification

ACP

- Assess opportunities to diversify away from sugar where industries are unsustainable at their current size.
- Create a policy and investment climate that is supportive to responsible investment to encourage diversification within the sugar sector where cane production can be sustained.

Potential EU/Donor support

- Support studies on alternative land use aimed at supporting livelihoods and limiting environmental impacts.
- Provide technical assistance in the development of appropriate policies and legislation.

For industries facing a decline in sugar output and diversifying away from sugar, technical assistance will be required to identify alternative land uses and to develop strategies to maintain employment opportunities and support livelihoods, as well as minimise the environmental impacts of loss of cane lands.

Diversification within the sugar sector is ultimately a private sector activity. However, ACP government support should be provided, where appropriate, in the form of legislation needed to create an attractive investment environment for new products. Technical assistance should be considered where local capacity constraints are a barrier to effective design and implementation of policy.

Resolving institutional and legacy issues

ACP

- Address employment legislation that was designed to share the value of EU preferences among the wider population, but is no longer affordable in current commercial circumstances.
- Review the role that the sugar industry plays in the provision of social services.
- Assess the future viability of outgrowers. In some industries, they have become a larger share of supply base since 2006, but are vulnerable to the impacts of the 2017 reform. In others, outgrowers are an important part of industries' supply base but are declining, which is affecting livelihoods and the viability of the milling sector.
- Evaluate the implications of changes to single-desk marketing arrangements that are currently being discussed, as millers seek greater independence in marketing to offset.

Potential EU/Donor support

- EDF funds could support structural adjustment.
- Technical assistance to assess labour reform, social service provision, outgrower viability and marketing arrangements.

In the past, some countries chose to share the value of the EU preference with industry stakeholders through the terms of employment offered to workers in the sector. In some industries, these terms are no longer affordable and are an impediment to ensuring the future viability of the sector. Measures to resolve this situation, while remaining socially acceptable, will be high cost.

Governments should review the role that it plays in the delivery of social service provision in sugar-dependent area, taking into consideration the commercial circumstances of the sugar industry and any welfare transfers that benefit the industry.

While several outgrower schemes have developed since the 2006 EU reforms, and many with AMSP funds, an assessment of their future viability is required to ensure that they are sustainable in the long term.

Liberalisation of single-desk marketing has far-reaching implications, raising issues around ownership of sugar and price transparency for growers. This is a very sensitive area and technical support is critical in helping industries arrive at a consensus and way forward.

Right-sizing industries and reducing vulnerability

ACP

- In countries where far-reaching reforms are still needed, new and realistic strategies must to be developed to address the social and economic impacts of EU reform.
- Develop strategies to mitigate the threats caused by extreme weather events (e.g. droughts and cyclones).

Potential EU/Donor support

- Technical assistance and support via EDF to implement the strategy.

Where industries are unable to cover their costs, and it is agreed that they cannot be profitable at their current size, they must right-size to match the markets where they can sell sugar profitably. This should allow for socially-acceptable transfers from other segments of society (e.g. consumers or tax payers). This will involve difficult political decisions.

Where cane is irrigated and water availability is limited, support may be needed to improve the efficiency of water management system. One-off events such as cyclones may require consideration of crop insurance schemes.

The environment and sustainability

ACP

- Consider the wider multi-functional role that ACP sugar industries can play, particularly in countries where diversification is difficult.

Potential EU/Donor support

- Funding could provide support to mitigate the consequences of the changing shape of the sugar industry in some countries.

In some countries, the sugarcane sector plays an important socio-economic and environmental role. It is important that this is recognised by governments. For example, with some ACP countries identifying the environment as a key issue to be addressed under the 11th EDF, there is the potential for funds from this source to play a role in addressing any negative consequences associated with industry restructuring.

The role of the EU and agency coordination

- Given the wide range of activities that ACP countries still need to undertake, and the capacity constraints within each country, there is still a need for the EU, or other donors, to engage with ACP countries to help them to adjust to the future market environment.

AMSP is coming to an end and the EU should assist beneficiaries to ensure all remaining committed but uncontracted funds are fully used. ACP governments and the EU should then consider support through the other instruments at their disposal, notably the EDF program. However, such assistance will have to be considered in the context of the broader national objectives and priorities of each country. Access to preferential finance through the EIB could also help support relevant private sector investments. For this to work successfully, close coordination between (and within) the EC and these funds/organisations, ACP governments, the private sector and other stakeholders will be required to ensure that reform objectives are fully achieved.

Table E1: Summary of findings — current situation

Country	EU exposure	Alternative market access	Level of diversification in the sugar sector	Progress towards the NAS objectives
Barbados	High	Limited	Speciality sugar.	Economic diversification has continued. No progress towards establishing a diversified sugar cane sector, which requires construction of a new mill able to produce sugar, ethanol and electricity.
Belize	High	Limited	Fairtrade sugar, speciality sugar, electricity.	AMSP funding differed dramatically from the NAS. Revenues have been diversified following investment in electricity generation, but the there is considerable scope to improve efficiencies in the cane sector.
Dominican Republic	Low	Good	Electricity.	Not applicable.
Fiji	High	Limited	Fairtrade sugar.	Progress has been slow and the NAS objectives have not been achieved. Some improvements in productivity have been made but the recent cyclone has created another setback.
Guyana	High	Limited	Speciality and Fairtrade sugars.	NAS objectives were very ambitious and finance to implement them was not available. Industry is very weak financially and relies on government bail-outs. Industry currently formulating a new plan.
Jamaica	High	Limited	Fairtrade sugar, ethanol.	The industry was fully-privatised, in line with NAS objectives, but the sector still faces huge challenges with the future of some mills/estates looking uncertain. The diversification of the sugar cane sector has not been achieved.
Malawi	Medium*	Good	Fairtrade sugar, speciality sugar, ethanol.	Some progress made towards vertical and horizontal expansion. The industry has expanded, but productivity has not followed suit. Future viability of small-scale outgrowers is an important issue.
Mauritius	High	Limited	Fairtrade sugar, refined and speciality sugar, ethanol, electricity.	Industry plan has been largely implemented, including field and factory rationalisation, value addition and revenue diversification. However, the industry continues to suffer from loss of cane lands from small/ medium planters and the industry is still unable to compete at world market prices.
Mozambique	Medium	Limited	Fairtrade sugar.	Output increased, but has fallen short of production target set out in the NAS. Industry still heavily exposed to the EU market with limited alternative market potential.
Swaziland	Medium	Limited	Fairtrade sugar, speciality sugar, ethanol, electricity.	Progress made towards two NAS objectives: meeting industry restructuring needs and expansion of small-scale outgrowers. But little or no diversification away from sugar. Industry still heavily exposed to the EU market.
Zambia	Medium*	Good	Speciality and Fairtrade sugars.	Large scale expansion in sugar production and associated investment has helped the industry to move towards NAS objectives. Slow progress towards diversification of the sector.
Zimbabwe	Medium	Moderate	Refining.	Output has fallen short of NAS objectives, but industry is in the process of recovering from the severe economic difficulties faced by the country.

Note: * Malawi and Zambia are less exposed to the EU than Mozambique, Swaziland and Zimbabwe and are geographically well placed to supply potentially high-priced regional markets. However, there is a risk that price premiums in their local and regional markets could be depressed if there is greater competition post EU reform.

Table E2: Summary of findings — prospects for the sector and key risks

Country	EU reform mitigation measures proposed by stakeholders	Key risks
Barbados	A plan to diversify the industry is still under consideration but implementation/funding is uncertain.	New investment does not result in a competitive sugar sector. High costs mean an increase in cane supply is unlikely in the absence of subsidies.
Belize	Improve efficiency and lower costs, especially in cane farming and post-harvest logistics.	Limited alternative markets increases world market exposure. High level of indebtedness in the farm sector is undermining grower livelihoods. Risk that cane lands could be lost. Fairtrade sales under pressure.
Dom. Rep.	None – impact of reform expected to be low.	US market liberalisation.
Fiji	Infrastructure and farming improvements to lower costs. Preferential pricing for electricity from bagasse and investment for diversification. Higher domestic sugar prices following the imposition of tariff.	Declining cane prices result in further loss of cane area, undermining cane supply and mill costs. Source of funding for diversification of the sugar sector not yet identified. Industry is exposed to climate hazards, including cyclones. Fairtrade sales remain under pressure.
Guyana	Potential privatisation of the industry. Plan for diversification away from sugar being formulated by GuySuCo.	GuySuCo will be difficult to privatise. Huge cost associated with revising worker contracts. Significant investment still required to achieve goals.
Jamaica	Potential mill closures place the industry is in a state of flux, and there is no clear plan for further measures to mitigate EU reforms.	Long-term viability of several estates/mills.
Malawi	Greater focus on domestic/regional markets. Develop higher value products, e.g. speciality sugars.	Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. EU reform increases vulnerability of outgrowers. Speciality sugar market in the EU becomes saturated. Future water availability due to climate change.
Mauritius	Curtail land abandonment by encouraging regrouping. Maximise sugar production capacity via NOS. Further efforts to produce and sell value added sugars. Transfers to small/medium planters from consumers via higher local sugar prices, duty of local alcohol sales and electricity. Temporary use of reserves of the Sugar Insurance Fund.	Cane abandonment continues. Speciality sugar market in the EU becomes saturated. Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. Labour costs continue rising.

Table E2 (*continued*): Summary of findings — prospects for the sector and key risks

Country	EU reform mitigation measures proposed by stakeholders	Key risks
Mozambique	Enhanced regional market access. Electricity/ethanol production. Speciality sugars.	Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. Market/policy environment does not support investments in electricity and ethanol. EU reform increases vulnerability of outgrowers and puts delivery of social services under threat. The speciality sugar market becomes saturated, undermining premiums.
Swaziland	Enhanced regional market access. Electricity production. Improved water storage and water harvesting.	Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. Market/policy environment does not support investments in electricity. EU reform increases vulnerability of outgrowers and puts delivery of social services under threat. Future water availability due to climate change. Lack of diversification increases exposure to the effects of EU reform.
Zambia	Enhanced regional market access. Refined sugar production to develop opportunities in regional markets.	Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. EU reform increases vulnerability of outgrowers and puts delivery of social services under threat. Future water availability due to climate change.
Zimbabwe	Enhanced regional market access.	Risk of over-supplied local/regional markets following loss of EU preference; this risk will be heightened if free movement of sugar within TFTA does not progress. EU reform increases vulnerability of outgrowers and puts delivery of social services under threat. Future water availability due to climate change.

1 Introduction

This Draft Final Report is the third deliverable of this project. It addresses the Terms of reference, which are presented in Annex 1.

The objective of the report is to provide policy makers with a structured economic analysis to facilitate decision-making towards the ACP in respect to EU sugar policy. This is achieved through (a) a comprehensive review of recent evolutions in the regulatory and market conditions under which EU-ACP sugar trade is conducted, (b) an evaluation of the effectiveness of the AMSP and (c) an assessment of ACP states strategies to cope with the new EU trading environment and the likely challenges that ACP sugar industries face.

The report focuses on 12 countries: Barbados, Belize, Dominican Republic, Fiji, Guyana, Jamaica, Malawi, Mauritius, Mozambique, Swaziland, Zambia and Zimbabwe. The team of consultants has carried out field visits to five of these countries (Belize, Fiji, Mauritius, Mozambique and Swaziland) to meet with stakeholders. For countries not visited, the team has carried out telephone consultations with EU delegations and other stakeholders. To assist with this process, a questionnaire was widely circulated via the ACP Secretariat to ensure that all stakeholders had the opportunity to comment on the issues if they wished to do so. Details of these visits and the persons met, along with the initial findings are presented in the profiles completed for each country, which are contained in Annex 2.

To address the issues covered in the Terms of Reference, we have structured the report as follows:

1. Background: the importance of sugar to the economies of ACP countries and the international context
2. The EU sugar market since 2006
3. The outlook for the EU sugar market
4. The impact of EU reform on ACP countries
5. Adapting to the new market environment
6. Responding to the challenges of EU reform
7. Conclusions

2 Background

This section addresses two issues:

a) The importance of sugar to the economies of ACP countries.

b) The international context within which the EU and ACP sugar industries operate.

2.1 The importance of sugar to the economies of ACP countries

The sugar industry is widely recognised as making a significant multi-functional (socio-economic and environmental) contribution to ACP countries, particularly in terms of generating of export earnings and creating employment in rural areas. Nevertheless, it is important to note that many ACP countries have been diversifying in order to reduce their reliance on the sugar industry. For example, in Mauritius, the World Bank reports that the sugar industry contributed around 20% of GDP in 1973 and employed more than 20,000

families. Today, there are fewer than 8,000 direct workers and its contribution to GDP is less than 3%.

This process of reducing reliance on sugar revenues, which has been supported by the AMSP, has been happening in two ways.

- First, some countries have been diversifying away from sugar. Mauritius has been successful in developing other sectors of its economy and has rationalised its sugar industry, reducing the number of factories in operation from 11 in 2005/06 to just four today. Other countries, such as Trinidad and Tobago and St. Kitts have closed their sugar industries completely, with St. Kitt's focusing instead on economic diversification and social development.

- Second, many have invested in, or are looking to invest to, diversify the revenue streams that are earned from the processing of sugarcane.

- Both Belize and Mauritius produce renewable electricity for sale to the national grid, and this green energy now provides a significant contribution to national electricity supply and saves foreign exchange on energy imports. Fiji is also considering this option.

- Mauritius has also invested to move up the value chain rather than rely solely on the revenue generated from raw sugar. It did this by building two refineries (with loans from the EIB) and also developed sugar logistics to create an efficient supply chain into the EU market. Mauritius is also a well-established producer of speciality sugars, with other countries such as Malawi and Mozambique following suit.

Table 1 summarises the current contribution that sugar makes to the socio-economy in the ACP countries that are the focus of this report.

Table 1: Socio-economic contribution of the sugar sector

	Sugar % GDP	Sugar % Ag. GDP	No. employed	Date	Notes:
Barbados	<1%	6%	n.a.	2014	Sugar sector accounts for 3% of national workforce.
Belize	5%	28%	6,000	2012	Sugar sector supports 15% of the population.
Dominican Republic	<1%	9%	n.a.	2014	
Fiji	2%	14%	19,000	2013	Employment figures include both permanent and seasonal workers
Guyana	3%	15%	16,000	2014	
Jamaica	<1%	12%	38,000	2014/2010	Employment figures include both permanent and seasonal workers
Malawi	5%	15%	11,000	2014	Employment figures include both permanent and seasonal workers
Mauritius	3%	30%	~11,000	2014	
Mozambique	<1%	~5%	35,000	2014	LMC estimates
Swaziland	13%	73%	n.a.	2013	Sugar sector accounts for 35% agricultural employment; Irrigation systems run using mill-generated power.
Zambia	1%	11%	11,000	2013	Irrigation systems run using mill-generated power.
Zimbabwe	1%	~10%	24,000	2014	Sugar accounts for 95% of the Masvingo province's GDP.

Note: In the case of Mozambique and Zimbabwe, sugar's contribution to GDP includes the value added by the processing sector.

- Of the countries featured in this report, the country that stands out as still being heavily reliant on the sector is Swaziland, where it accounts for 13% of GDP.

- In some African countries, the sugar sector is among the largest industries in the country (e.g. Mozambique). In Swaziland, it is the largest private sector employer, accounting for around 35% of agricultural employment.
- Moreover, sugar often makes an important contribution in the rural areas where it is located. While sugar is only a small proportion of GDP in Zimbabwe, it accounts for an estimated 95% of formal economic activity in Masvingo province.
- The sugar industries often contribute to social service provision, such as education, healthcare and malaria/HIV support, which benefit both their employees and the wider communities as well. This is particularly the case in southern Africa, where responsibility for these would otherwise fall to government as they do in the EU and elsewhere.
- In Barbados, Fiji and Mauritius, sugarcane is recognised as having a positive environmental impact in terms of preventing soil erosion and creating a pleasant landscape which supports the tourism sector.

2.2 The international context within which the EU and ACP sugar industries operate

2.2.1 *Overview of the global sweetener market*

Global sugar consumption is rising steadily and currently exceeds 180 million tonnes in raw sugar terms. World sugar output fluctuates around global demand, resulting in periods of surplus and deficit. The world market is currently entering a period of deficit after five years of surplus (Diagram 1).

The sugar industries in the EU and ACP-LDC producers (excluding South Africa and Cuba, which have ACP status but do not benefit from unlimited duty-free access to the EU) account for approximately 14% of global output (Diagram 2). Cuba and South Africa together account for a further 2% of global production.

Diagram 1: World sugar supply/demand balance

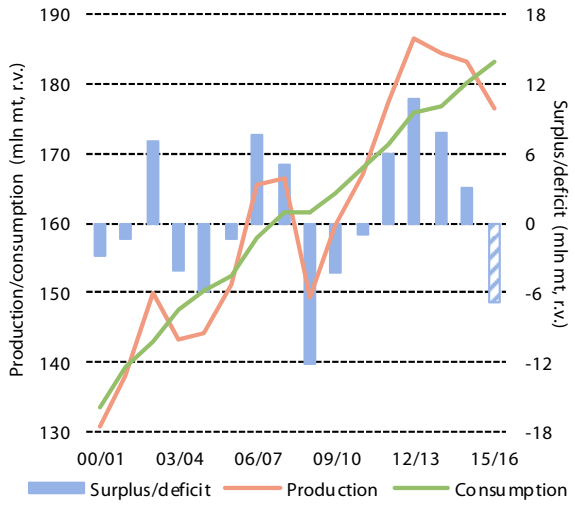
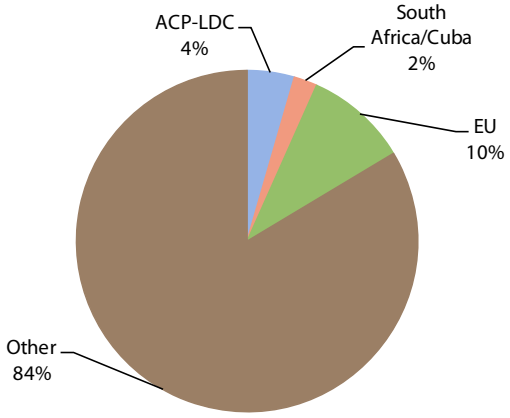


Diagram 2: EU, ACP and LDC share of world sugar production



In addition to sugar, the world consumes approximately 15 million tonnes (raw sugar equivalent) of high fructose syrup (HFS), which is a caloric substitute for sugar in liquid applications. HFS is referred to as *isoglucose* in the EU. Production and consumption of

HFS is concentrated in a small number of countries, most notably the USA. There is also consumption of 17-18 million tonnes (sugar-equivalent) of non-caloric sweeteners globally.

2.2.2 *Sugar is a highly protected commodity*

The overwhelming majority of global sugar production receives government support. This support takes many forms, reflecting numerous, often complex policies that govern sugar industries worldwide. Some widely used measures include:

- Crop price guarantees for farmers (e.g. China, India, Indonesia, Pakistan, USA and [until 2017] the EU).
- Domestic sugar prices support, which is achieved among other means through the use of sales quotas (Thailand, USA and [until 2017] the EU), domestic market intervention (China) and import licensing (China and Indonesia).

Support for Brazil's cane industry stems from the government's fuel ethanol policy, which creates demand through a mandate to blend ethanol with gasoline and also encourages discretionary use of ethanol by levying higher taxes on gasoline than on ethanol.

These measures, which are by no means an exhaustive list, ensure that almost all producers sell part, or all, of their output at higher prices than would prevail without government support. For illustrative purposes, Table 2 identifies some of the measures used to support beet and cane farmers and processors in four major sugar-producing countries: Brazil, India, Thailand and the USA.

Table 2: Some of the measures used by governments to support local beet/cane growers and processors

Country	Policy instruments
Brazil	Ethanol blending mandate and differential sales taxes on ethanol and gasoline.
India	Federal and state level fixed cane prices, export subsidies.
Thailand	Domestic sugar sales quotas, levy on local sugar sales, import licences.
USA	Domestic sugar sales quotas, import quotas, guaranteed minimum prices for beet and cane.

As we discuss below, these government measures influence the behaviour of local growers and processors and therefore affect the level and dynamics of world sugar prices.

2.2.3 *Dynamics of the global sugar market*

World sugar prices are determined by three main influences:

- Brazil's cost structure and the value of its exchange rate
- The link to energy prices via ethanol in Brazil
- India's sugar production cycle

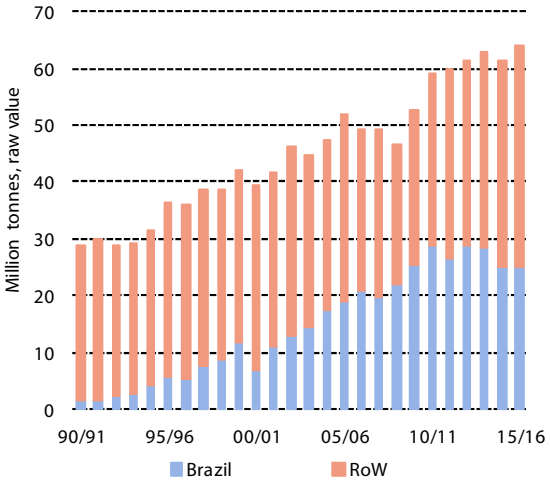
As we shall explain, the first two influences dictate the **level** of world sugar prices; the third influence drives the **movement** of prices around this level.

2.2.4 *Brazil's cost structure*

Brazil dominates the world sugar market.

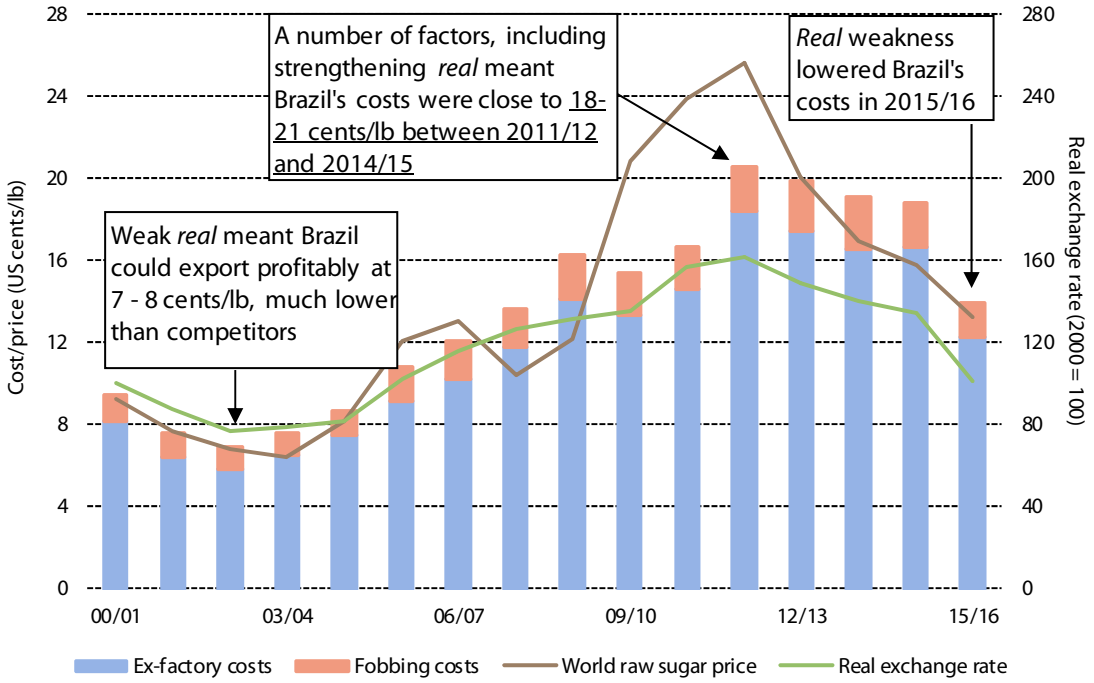
- It is the largest sugar producer in the world, accounting for over 20% of global output in recent years. The growth of sugar output in Brazil stems from the expansion of cane production in the country's Centre/South region following the introduction of a fuel ethanol programme in the early 1970s.
- It is the world's largest exporter, accounting for 40-50% of global exports (Diagram 3).
- It is a low-cost sugar producer and, together with Thailand, is the only major world market exporter with large-scale expansion potential.

Diagram 3: Brazil's share of world exports



Because of its prominent position, Brazil has become the *price maker* in the world market. As a result, world sugar prices have tended to follow Brazil's production costs. This is shown in Diagram 4, which charts the evolution of the cost of producing raw sugar in Centre/South Brazil since 2000 alongside the country's exchange rate and world sugar prices. It shows that, over time, world sugar prices (also shown on the chart) have tracked the evolution of Brazil's costs (and its exchange rate).

Diagram 4: Centre/South production costs vs. the world sugar price and real R$/US$ exchange rate



Source: LMC estimates.

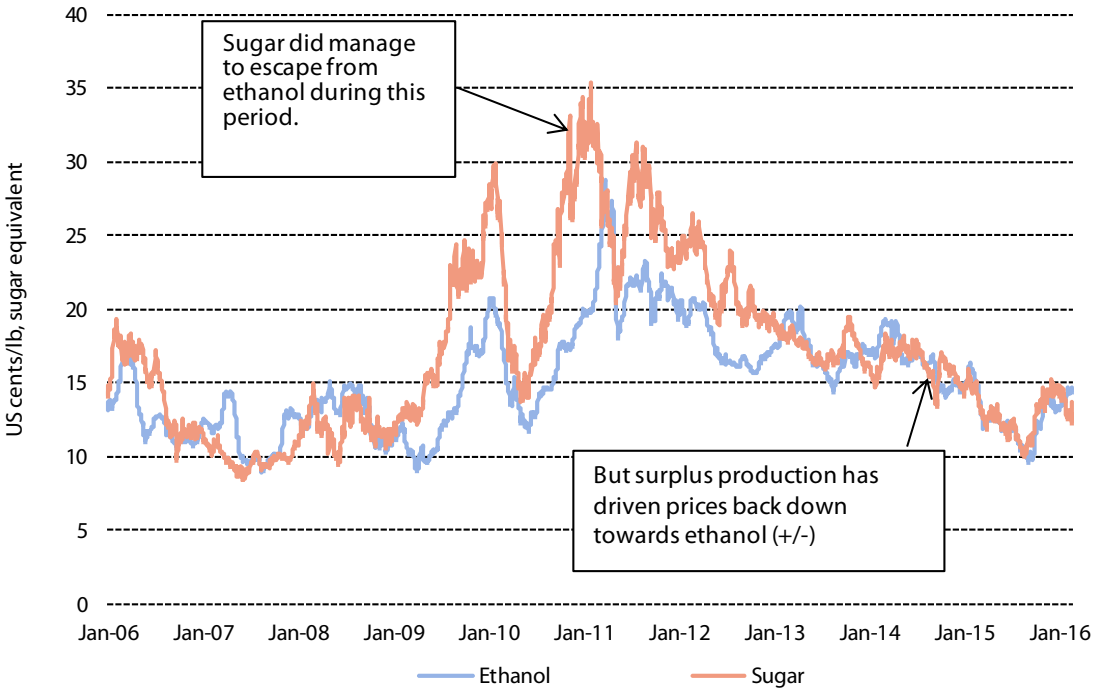
- Costs represent the cost of growing cane and processing it into raw sugar, including a return on capital. The costs of exporting sugar are included, so they are presented on an f.o.b. basis, which is equivalent to the world (ICE No.11) raw sugar price.

- Costs have risen sharply since the middle of the last decade, driven in part by the strengthening of the *real* against the US dollar during the second half of last decade, which is also shown on the chart. More recently, the weakening of the *real* has led to a decline in Brazil's dollar costs.

2.2.5 *The link between world sugar prices and Brazil's energy market*

An important feature of the Brazilian industry is that cane mills produce both sugar and ethanol in integrated factories. This means that producers can alter (within their capacity constraints) the proportion of cane juice that goes to ethanol and sugar production depending on the relative prices of the two products. This creates an arbitrage potential that links the prices of these commodities over time (Diagram 5).

Diagram 5: Raw sugar vs. hydrous ethanol prices (ICE No.11 equivalent)



Source: ICE futures exchange, ESALQ.

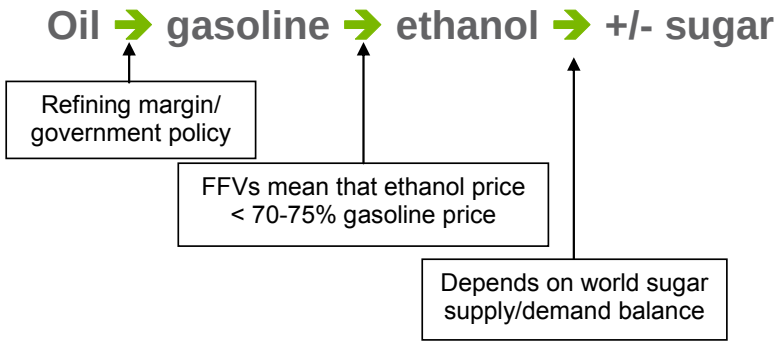
An important development last decade was the commercialisation of flex-fuel vehicles in Brazil. These vehicles are able to run on any combination of gasoline or ethanol and consumers choose which fuel to use every time they fill their cars. In order for them to choose ethanol, it must be priced competitively with gasoline (less than 70-75% of the price of gasoline to account for its lower energy content). As the gasoline price is determined ultimately by the oil price (although it is subject to considerable government influence), gasoline, ethanol and, ultimately sugar, prices are influenced by energy prices. This relationship is shown in Diagram 6.

- ***Oil→ Gasoline***. The relationship between oil and Brazil's gasoline price is heavily influenced by the Brazilian government, which controls the producer price of gasoline and also adjusts taxes along the value chain.

- ***Gasoline → Ethanol.*** Ethanol must trade at less than 70-75% of the consumer price to be competitive with gasoline due to its lower energy content.

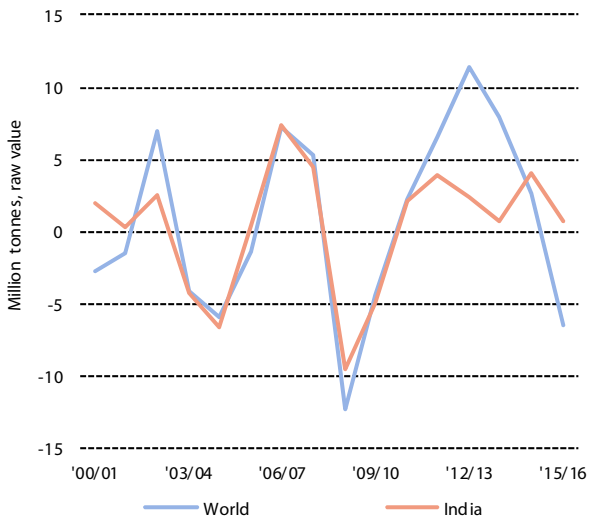
- ***Ethanol→Sugar.*** The relationship between ethanol and sugar is influenced by the world sugar market balance. When the market is in deficit, sugar typically trades at a premium to ethanol to encourage millers to produce more sugar and less ethanol. The opposite is true when the world market is oversupplied.

Diagram 6: The link between sugar and energy



2.2.6 *The cyclical influence of India*

Diagram 7: India's sugar balance vs. global sugar balance



While India may not dictate the absolute level of world sugar prices, it plays an important role in determining the movement of prices around the level that is set by Brazil's prevailing cost structure and gasoline prices. This is because India's sugar production cycle is a key driver of the global supply/demand balance (Diagram 7).

The diagram reveals that, while India is an important driver of the world sugar balance, it does not explain all its movements. This is because India is not the only country where production exhibits a cyclical pattern; other Asian countries with cyclical output include China and Pakistan. However, India's cycle is by far the most pronounced.

3 The EU sugar market since 2006

In November 2005, European Union agriculture ministers agreed a programme of reform, which was formalised in the Council regulation (EC) No 318/2006 in February 2006. The stated goals of the reforms were to enhance the competitiveness and market orientation of the EU sugar sector to secure its long term future and attain a sustainable market balance in relation to domestic consumption levels and the EU's international commitments.

The international commitments referred to two main developments: (a) a WTO ruling that restricted EU exports to a maximum of 1.37 million tonnes each year and (b) the Everything But Arms (EBA) initiative that granted unlimited, duty-free access to the EU imports of sugar from all Least Developed Countries (LDCs).

The EBA agreement added to the list of countries with preferential access to the EU, which included countries with long-standing preferences (namely ACP beneficiaries of the Sugar Protocol) as well as countries that had gained preferential access as a consequence of newer trading arrangements. The beneficiaries of preferential access to the EU sugar market are summarised below. Annex 1 presents a timeline of the EU's external trade arrangements since 2006, alongside the reforms to the internal sugar market.

- ***ACP*.** A number of ACP countries have had long-standing duty-free access to the EU. This access, which was governed by the Sugar Protocol of the Lomé and Cotonou agreements, was subsequently subsumed within the Economic Partnership Agreements. Since 2015, ACP access has been unlimited.

- **LDC** access to the EU sugar market was phased using a system of quotas in the first nine years after the EBA initiative was signed in 2001. Access became unlimited in 2009.

- ***Balkans.*** The EU grants duty-free access quotas to countries in the Balkans. This currently amounts to 0.2 million tonnes.

- **FTAs.** The EU has granted increased duty-free access as part of a series of bi-lateral FTAs. The principal beneficiaries are Colombia, Peru and CAFTA[1], who have combined access of approximately 250,000 tonnes; this will increase to around 300,000 tonnes by 2020. Vietnam and South Africa were recently granted quotas, of 20,000 tonnes and 150,000 tonnes respectively, and the EU is currently negotiating other FTAs. In additional, Moldova has a quota of 34,000 tonnes and Ukraine has access for 20,000 tonnes.

- ***CXL.*** The EU allows 677,000 tonnes of sugar to enter its market at a reduced duty of €98/tonne. This access has been granted under WTO rules to ensure that countries that supplied sugar to member states prior to them joining the EU were not prejudiced by their accession. The principal beneficiaries are Brazil (334,000 tonnes) and Cuba (69,000 tonnes); the balance is mainly *erga omnes*.

All other imports must pay the full MFN duty of €339/tonne on raw sugar and €419/tonne on white sugar.

3.1 Implications of the reform programme for supply

A central pillar of the reform was the reduction of quotas to around 13 million tonnes to accommodate enhanced duty-free access for imports from LDCs. This resulted in major changes in the landscape of the EU sweetener market:

3.1.1 *Beet sector*

Two key proposals of the reform were a 36% cut in the guaranteed minimum sugar price and the renunciation of six million tonnes of sugar and isoglucose production quotas.

To incentivise processors to relinquish quota, the EC implemented a voluntary restructuring scheme over four years. Under the scheme, participating companies received a lump sum payment in return for dismantling factories, which was funded by a levy on domestic sugar sales. In total, more than 80 factories were closed under the scheme and 5.8 million tonnes of sugar and isoglucose production quotas were renounced. The reforms led to a marked improvement in factory performance, with average beet processing campaign increasing

[1] Central American Free Trade Area — comprising Panama, Guatemala, Costa Rice, El Salvador, Honduras and Nicaragua.

from 90 days to around 110-120 days (although several industries now operate for 120-140 days), while sugar output per factory rose from 100,000-110,000 tonnes to 160,000-170,000 tonnes.

Compensation for growers came in the form of decoupled single farm payments, to which they had previously not been eligible. This means most beet farmers now receive the same farm payment for growing beets as other crops. The exception is farmers in countries that accepted a compromise whereby they would receive temporary (five-year) coupled area payments in return for giving up at least half their quota. This period has now passed, but a total of ten higher-cost member states now provide beet growers with voluntary coupled support (VCS) under the current Common Agricultural Policy (CAP) that runs until 2020. The total value of these VCS payments is €170-180 million per year and the combined sugar output of the ten countries that receive this support averages around four million tonnes.

So far, VCS has had no impact on the world sugar market because EU export quantities are subject to a WTO limit. After 2017, this limit will lapse. To the extent that sugar production is supported in higher-cost areas because of VCS, future exports will be higher than they otherwise would be. This also the true to the extent that support for sugar production in the French overseas territories (DOMs), which also receive significant coupled supports, maintains future production above levels they would do.

Despite these compromises, the 2006 reforms led to a concentration of beet sugar production into North/West Europe, because industries in this more cost-competitive region did not retire as much quota as other areas (Diagrams 8 and 9)[2].

Diagram 8: Distribution of sugar quotas in 2005/06 (pre reform)

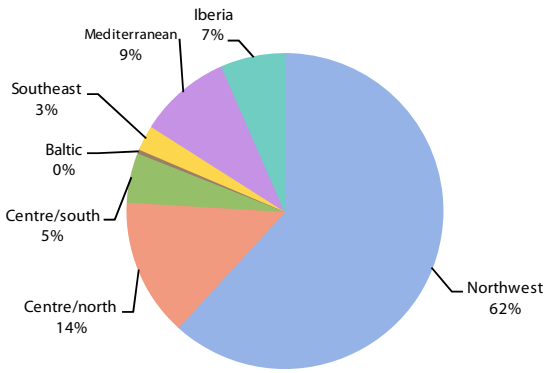
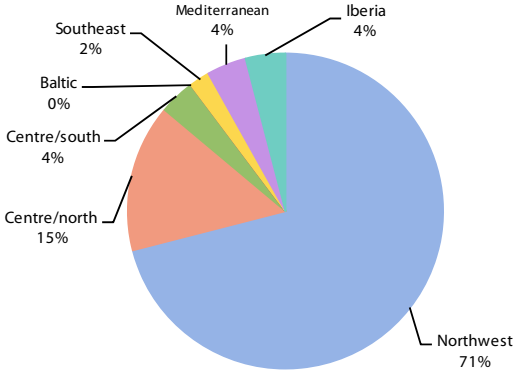


Diagram 9: Distribution of sugar quotas since 2010/11 (post reform)



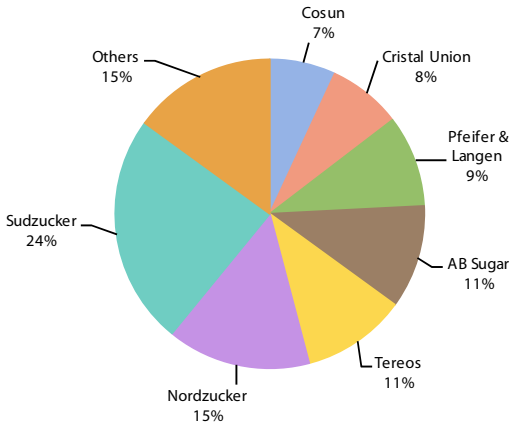
The process of quota retirement also resulted in a concentration of capacity at the company level, which was accelerated by mergers and acquisitions. Among the largest changes within the beet sector were:

[2] As part of the 2006 reform package, the EC offered beet growers and processors financial compensation for relinquishing quotas. This occurred over four seasons, 2006/07 to 2009/10. Since then, national quotas have remained unchanged.

- Suiker Unie's acquisition of the sugar division of CSM (Netherlands) in 2007.
- British Sugar's (now AB Sugar) purchase of Azucarera Ebro (Spain) in 2008.
- Nordzucker's acquisition of Danisco (Denmark, Sweden and Finland) in 2009.
- Cristal Union's purchase of Groupe Vermandoise (France) in 2011.

Diagram 10 depicts the resulting distribution of beet sugar quotas by company.

Diagram 10: Current allocation of beet sugar quotas by company



Some companies also invested to strengthen their links to industries with preferential access to the EU.

- In 2006, AB Sugar acquired 51% of South African company, Illovo, which owned production in Malawi, Mozambique, Swaziland, Tanzania and Zambia.
- Also in 2006, Tereos acquired 50% of the Mozambican sugar company, Sena Holdings; it has since increased its shareholding in the company. Through its acquisition of the majority shareholding of Groupe Quartier in Réunion in 2010, Tereos then acquired a stake in the Tanzanian sugar company, TPC.

At the same time, some companies established strategic marketing alliances that allowed them to extend their presence over a broader geography within the EU. For example:

- Tereos set up a marketing link with Accor in Spain (and together invested in refining capacity at Accor's beet factory). More recently, it bought the sugar marketing and distribution company, Napier Brown, in the UK.
- Cristal Union established a link with Eridania in Italy in 2011.
- Pfeifer & Langen entered into an association with CoProB in Italy, which also resulted in investment in refining capacity at the Minerbio beet factory.

3.1.2 *Refining sector*

There was significant investment in refining capacity, including construction of two new refineries (one each in Spain and Italy), as well as investment at several beet factories to process imported cane raw sugar. These investments raised annual raw sugar refining capacity in the EU by approximately two million tonnes, to more than five million tonnes.

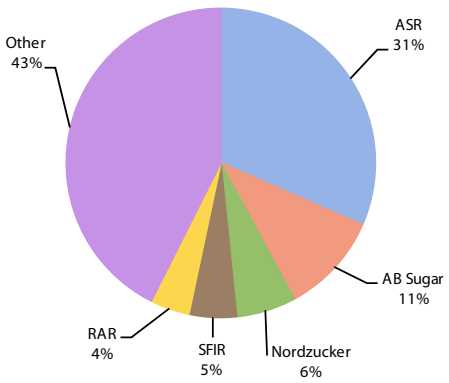
The current landscape of refining capacity is depicted in Map 1, which distinguishes between refineries that have full-time refiner status (which comprise stand-alone/dedicated cane sugar refiners and some beet factories that also process imported raw sugar) and those that do not (which are exclusively beet factories that can also refine imported cane raw sugar).

There have also been changes at the corporate level, most notably:

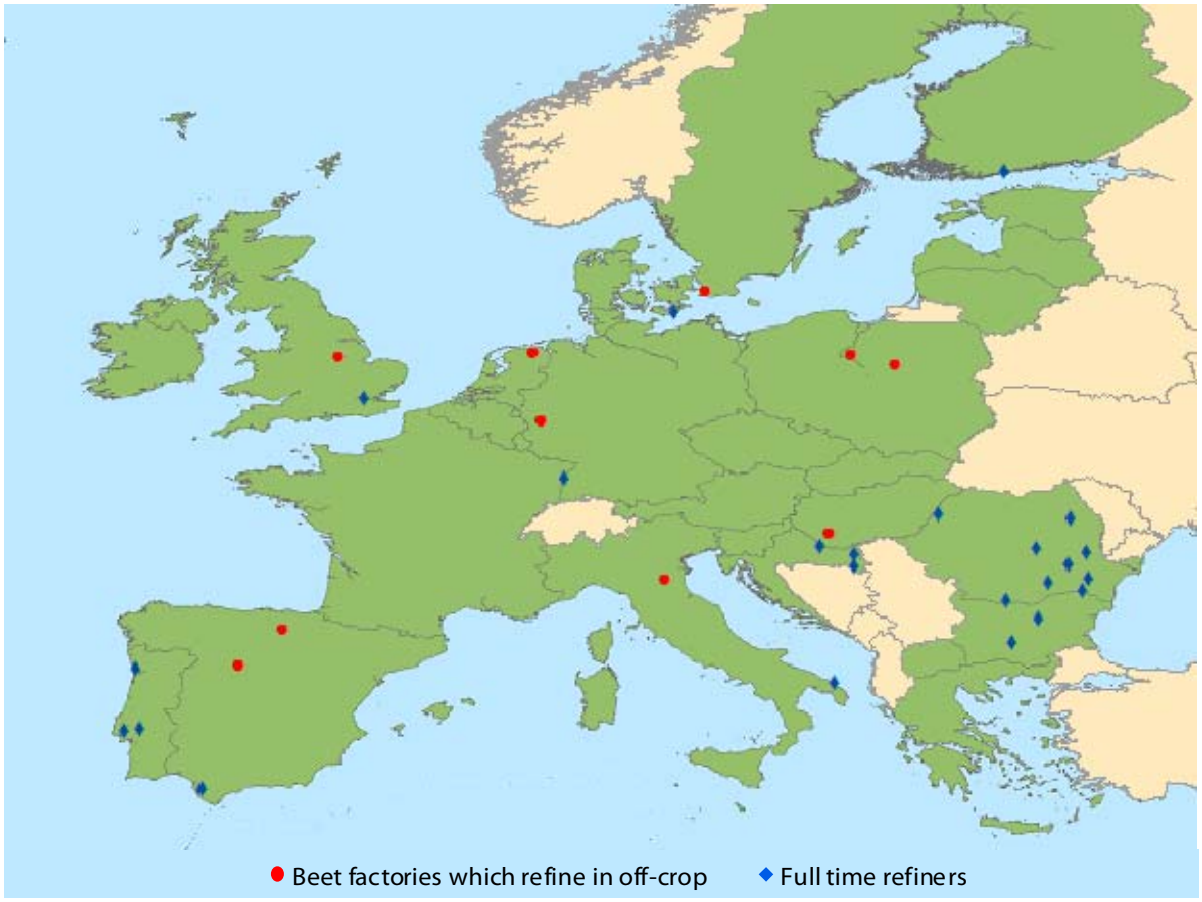
- ASR's acquisition of Tate & Lyle's sugar business (in UK and Portugal) in 2010 and its subsequent purchase of 50% of the new refinery in Brindisi, Italy in 2013.
- Cristal Union's acquisition of 33% of the Brindisi refinery in Italy in 2015.

Diagram 11 depicts the distribution of ownership of sugar refining capacity in the EU, which shows ASR as the largest player in the sector.

Diagram 11: Distribution of cane sugar refining capacity by company



Map 1: The location of the cane sugar refineries and beet factories that can refine imported cane raw sugar but do not have full-rime refiner status



3.1.3 *Isoglucose sector*

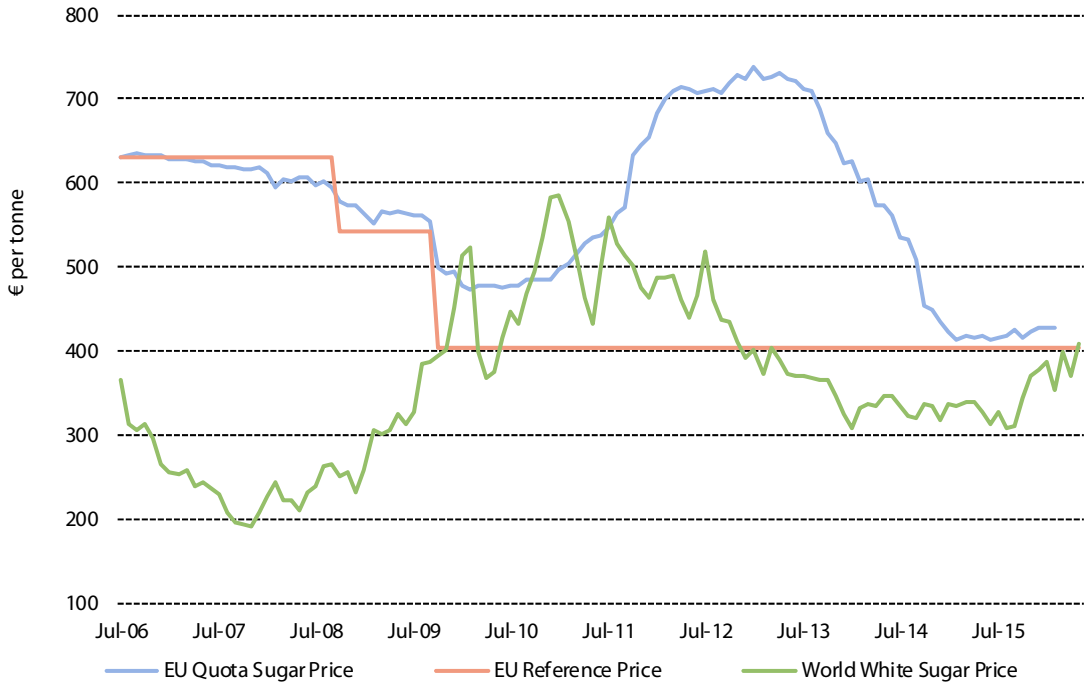
Although some isoglucose quotas were also retired, the sector remains small (with quotas totalling 0.7 million tonnes, white sugar equivalent).

3.2 Implications for prices

A cornerstone of the regime prior to 2006 was the *intervention price*, which stood at €631.9/tonne for white sugar and €523.70/tonne for raw sugar. This price was defended by a variety of policy tools that included production quotas, export restitutions, import tariffs and tariff-rate quotas, and generally traded above this floor price.

The 2006 reforms replaced the intervention price with a *reference price*, which was to underpin the market price. The reference price was cut in two stages, arriving at a new level of €404/tonne in 2009/10. Although market prices (represented by the reported EU white sugar price and published by the EC) initially followed the reference price downward, since 2009/10 they have exhibited considerable volatility (Diagram 12).

Diagram 12: Evolution of sugar prices in the EU versus the world market



3.2.1 *Falling prices: 2006-2010*

In the first few years after the reform, sugar prices in the EU fell more or less in line with the cut in the reference price, reflecting ample supplies and reduced institutional support. This translated into reduced earnings for all stakeholders, including ACP industries that supplied the EU.

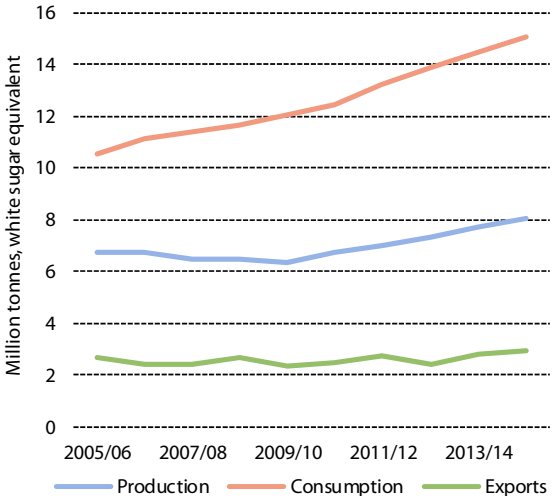
3.2.2 *Rising prices: 2010-2012*

This was followed by a steep rise in EU sugar prices between 2010 and 2012. This benefitted ACP suppliers to varying degrees depending on the nature of commercial contracts with their counterparts in the EU. There were two main reasons for this.

- There was a steep increase in world sugar prices. This reflected developments in the world sugar market, which are discussed in Section 2.2 above. The effect of this was to inflate the price in the EU that was required to attract imports.
- The supply of duty-free imports under the EBA and new Economic Partnership Agreements (EPAs) did not increase as much as had been expected. This resulted in a drawdown of stocks within the EU, creating supply tightness in the internal market.

At the time of the 2006 reforms, it was expected that sugar producers in the ACP/LDCs would expand production the meet the EU's increased import demand that would result from the reduction in quotas. However, this did not happen for a number of reasons:

Diagram 13: Production, consumption and exports in ACP/LDCs[3]



- Sugar output fell in some ACP industries, e.g. Mauritius, Fiji and Guyana.
- Expansion of production in some LDCs — notably Ethiopia and Sudan — was much slower than expected.

The consequences of this are highlighted in Diagram 13, which shows that total production in LDC and ACP countries was broadly stable between 2005 and 2010. At the same time, consumption in these countries continued to rise, limiting any expansion of exports. However, production and exports have since increased.

3.2.3 *Falling prices: 2013-2015*

To counter the low level of stocks, the EC could have allowed prices in the EU to rise to the level needed to attract sugar from the world market. However, to prevent the very high prices this would have entailed (owing to the inflated level of world sugar prices and the high MFN duties levied on world market imports), the EC introduced a number of *exceptional measures* to supplement supplies. These included duty-free quotas for imports, an import quota tendering scheme, as well as reclassification of out-of-quota sugar into quota sugar.

Between 2010/11 and 2012/13, the EC allowed 3.1 million tonnes of *exceptional sugars* into the quota market. At the same time, the EU began to sign free trade agreements with sugar-exporting countries in Central and South America that granted duty-free access for approximately 250,000 tonnes of sugar from these countries. Moreover, the availability of sugar from ACP and LDC countries began to increase (Diagram 15). This additional supply replenished stocks in the EU and prices fell to close to the reference price of €404/tonne.

This steep drop in EU sugar prices was unexpected and unwelcomed in ACP countries, as it has resulted in a sharp drop in earnings two years prior to the 2017 reform and at a time when their sugar industries are still preparing for the reform. In addition to lowering growers' and millers' incomes, it also reduced their ability to fund investments in efficiency improvement and cost reduction.

3.2.4 *Current situation*

Despite the increase in imports under the EU's preferential access arrangements, the combined level of imports remains below the level needed to bridge the gap between sugar consumption and beet sugar quotas. In 2015, this situation was accentuated by the fact that EU sugar prices fell below the level needed to attract CXL sugars that pay a duty of €98/tonne. In other words, the premium of prices in the EU over the world raw sugar prices was not high enough to compensate refiners for the costs of importing raw sugar from these countries, paying €98/tonne duty and incurring the cost of refining the sugar.

[3] All ACP/LDC nations, excluding Cuba and South Africa. See table on page iv for a full list of countries included.

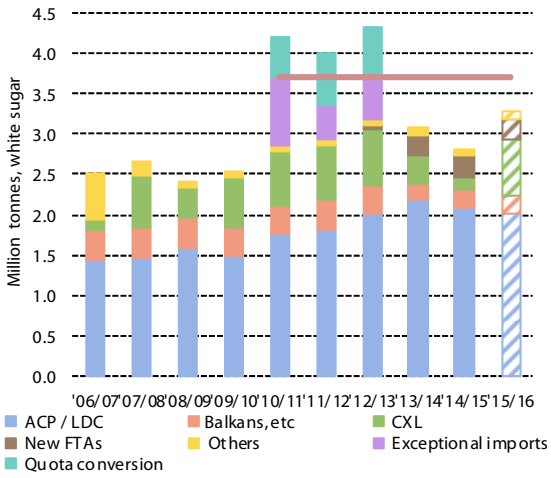
As a result, there has been a steady erosion of the stocks that accumulated as a result of the *exceptional measures* and, during 2015, prices first stabilised and then started to rise. This will provide respite to ACP sugar producers prior to 2017, as prices in the EU will have to reflect (a) world prices (which are currently higher than they were in 2014 and 2015) and (b) the €98/tonne duty on CXL sugar imports.

3.3 Implications for the ACP group

Quotas on sugar and isoglucose mean that the EU must import of sugar under its preferential access arrangements to meet its internal sweetener needs. The gap between sugar consumption and beet sugar quotas has averaged approximately 3.7 million tonnes since sugar quotas were retired in 2010/11.

Imports since 2006 are charted in Diagram 14, which classifies them according to the EU's access arrangements, and contrast them with the 3.7 million tonne import need since 2010/11. The diagram also identifies sugar imported under the EC's *exceptional measures* and also indicates the volume of out-of-quota beet sugar that was reclassified as quota sugar as part of these measures.

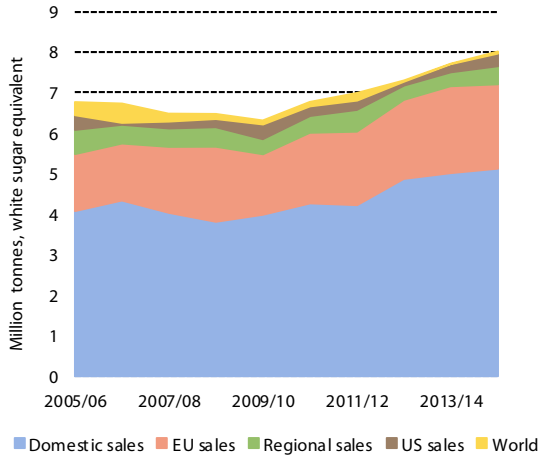
Diagram 14: EU sugar imports versus its average annual import need



In the next two sections, we consider exports from ACP and LDC countries in the context of their overall sugar sales, and also evaluate the impact of volatile EU sugar prices on the revenue from sugar sales.

3.3.1 *Distribution of ACP and LDC sugar sales*

Diagram 15: Distribution of ACP and LDC sugar sales by market



Sugar production in the combined ACP and LDC group of countries far exceeds their sales to the EU, with domestic sugar markets in these countries absorbing the largest portion of their total sales.

This is highlighted in Diagram 15, which illustrates the distribution of sales from all countries in these groupings (excluding Cuba and South Africa, which do not have unlimited access to the EU). The chart identifies sales to the EU and US (under preferential access arrangements) as well as regional, world market and domestic sales.

Diagrams 16 and 17 present the same information for ACP and non-ACP LDCs, respectively. This demonstrates that the ACP states provide the overwhelming share of exports to the EU, but represent only a small share of total sales by non-ACP LDCs.

Diagram 16: Distribution of ACP sugar sales by market

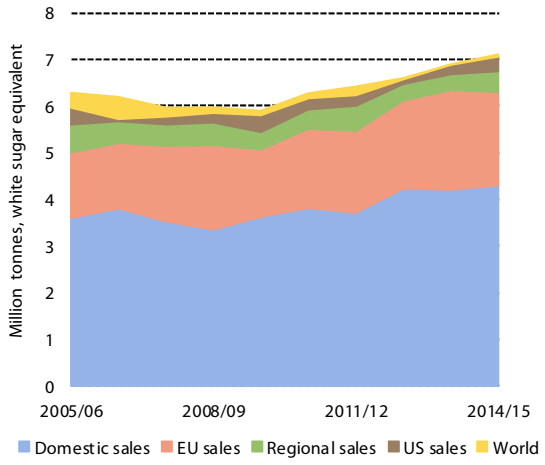
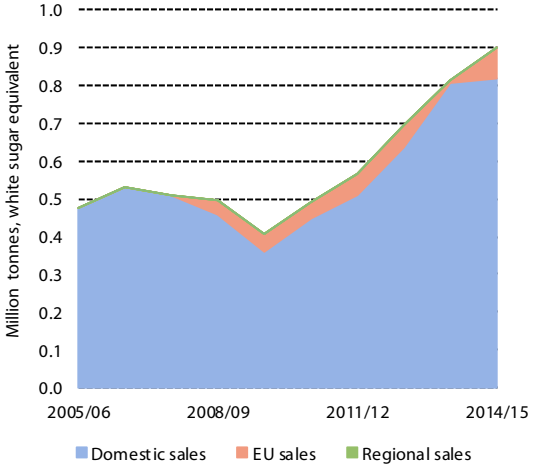


Diagram 17: Distribution of non-ACP LDC sugar sales by market



3.3.2 *Evolution of income earned from ACP and LDC sugar sales*

Diagrams 15-17 reveal that ACP and, especially, non-ACP LDCs sell the majority of their sugar in their domestic markets. Nevertheless, the EU and, to a lesser extent, the US, provide valuable outlets for surplus sugar production, especially for ACP industries.

The revenue producers earn from sales in these markets depends on the prices in each market. Prices in the world market, EU and the US are publically available, but this is not the case in most domestic markets, especially in many of our featured countries. In Diagrams 18 and 19, we therefore focus on the world, EU and US sugar markets. These show prices and revenues, respectively.

Diagram 18: World, EU and US raw sugar prices

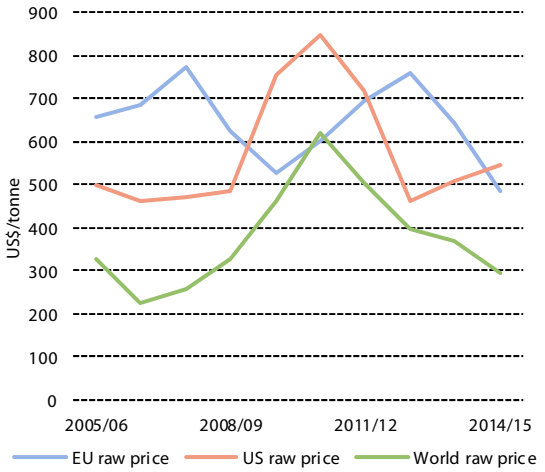
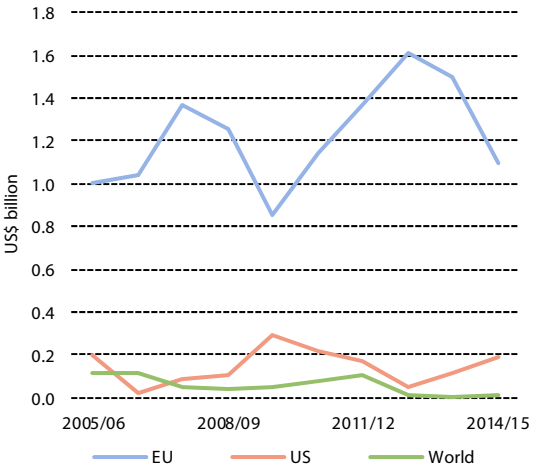


Diagram 19: Revenues from the sale of raw sugar to the world, EU and US



- Diagram 18 depicts the world FOB raw sugar price and the CIF prices of raw sugar in the EU and US. Ex-mill prices differ from these reported benchmark prices by the cost of transport associated with delivering from the factory to an FOB or CIF location. This differs from country to country.
- Diagram 19 presents revenues calculated as the product of sales volumes (from Diagram 15) and prices (Diagram 18). This understates revenues to the extent that some sales are of white sugar or value added direct consumption sugars. However, it

over states revenues to the extent that they are derived from FOB or CIF prices, not ex-factory values.

The diagrams reveal that, in most years the EU has offered attractive prices compared with other markets, especially the world market. However, prices in the EU have shown comparable levels of volatility to other export markets over this 10-year period.

In terms of revenue, the EU has provided by far the largest source of income from the surplus sugar output of these industries. This highlights the threat to them from any future reduction in the value of the preference earned from sales in the EU sugar market.

4 The Outlook for the EU Sugar Market

Management of the EU sugar market will change on 1st October 2017. The main policy changes relate to two of the central pillars of the current sugar regime:

- Quotas on sugar (13.5 million tonnes) and isoglucose (0.7 million tonnes) will be abolished. This will allow producers to sell unrestricted quantities of each sweetener in the internal market.
- The minimum beet price (€26.29 per tonne) will cease to apply.

There will be no change to the EU's import arrangements. The MFN duty on raw sugar imports will remain at of €339/tonne; the duty on white sugar will stay at €419/tonne. Current preferential access arrangements will remain. Additional preferential access may be granted as and when the EU signs and implements new free trade agreements. The EU is currently negotiating FTAs with several sugar-producing countries, including Australia, Brazil (as part of Mercosur), Philippines and Thailand.

An indirect effect of these reforms is that the EU will no longer be bound by the current WTO restriction on sugar exports, which currently limits shipments to 1.37 million tonnes per year.

4.1 The EU sugar market landscape after 2017

When quotas are removed, beet sugar and isoglucose producers will be free to sell all their output (including product that is currently classified as out-of-quota) within the EU. How they react will have far-reaching implications for the future EU market balance. This, in turn, will influence the need for imports and, therefore, the prospects for overseas suppliers with preferential market access as well as for EU sugar refiners.

The challenge in determining the market landscape after 2017 is that the combined output potential of these three sources of supply – beet sugar, isoglucose and imports – far exceeds the EU's internal market needs of around 18 million tonnes. In the long run, the 18 million tonne market should be supplied by the most cost-competitive sources of supply. This means that the outcome will be determined by the cost base of each supply source.

There are many cost elements that are common to each of these sources of supply, such as energy, labour and capital. However, there are two that play very different roles, especially between the cost of domestic supply sources (beet sugar and isoglucose) and imports. These are the prices of cereals and world sugar.

To appreciate the reason for this, we summarise briefly how these prices feed through to each sector's cost base.

- *Beet sugar.* To attract beets, processors must pay their farmers beet prices that offer them an attractive return relative to the returns they could earn from growing alternative crops (e.g., wheat, maize and rapeseed). This means that a fall in the wheat price would lower the income a farmer could earn from growing wheat and this, in turn, would lower the price a processor has to offer the farmer to include beet in their crop rotation.

- *Isoglucose.* Cereals are a major cost for starch processors' and therefore have a major influence on their cost base.
- *Imports.* By contrast, the cost base of imports is affected by prevailing world sugar prices. This is because third country suppliers will only sell their sugar to the EU if the price they receive is better than the price they can earn from selling it in other markets. The lowest-price alternative market is the world market.

The different roles that EU cereals and world sugar prices play in forming suppliers' cost base means that the cost competitiveness of domestic sources of supply and imports will be influenced by the relative prices EU grain and world sugar prices. A few years ago, when world sugar prices were very high relative to cereals, the competitive advantage looked very much in favour of domestic sources of supply versus imports. Now, world sugar prices are much lower. However, cereal prices are also low. Uncertainty over the future prices of cereals and sugar make it very hard to predict the outcome after 2017.

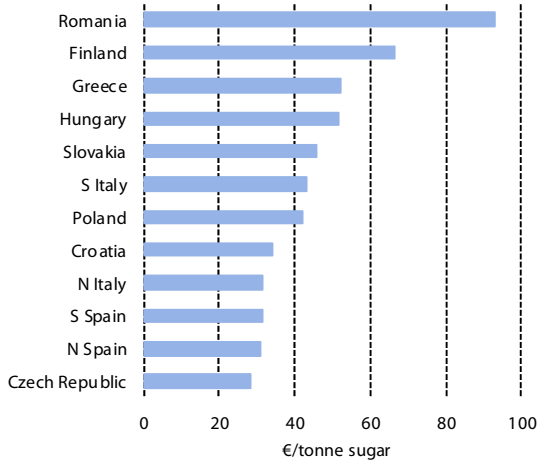
In the sections below, we summarise the key factors that will influence the likely reaction of each source of sweetener supply. This is followed by an assessment of the future landscape of the EU sugar market.

4.1.1 *Beet sugar*

Following the 2006 reforms, some beet processors chose to rationalise their capacity and extend their processing seasons to their optimum length (around 120-140 days in most countries). However, not all did this. From 2017, processors that still have potential to increase their operating (slicing) days — notably in France and Germany — will decide whether or not to raise their output. Which route they take will have a major bearing on the EU market balance.

- If they do not lengthen their seasons by processing more beet, their unit fixed costs will remain inflated relative those that have already extended their seasons. This will make it harder for them to compete.
- If they do extend their operating period, their unit fixed costs will decline, but the supply of sugar in the EU will increase. Tereos and Cristal Union, the two largest sugar companies in France, have recently announced their intention to secure sufficient quantities of beets to extend the length of their processing seasons to around 130 days per year from 2017.

Diagram 20: Voluntary Couple Aids by Country



In principle, one would expect production in the member states that are more efficient and have lower costs to expand and production in the less efficient, higher cost member states to contract. However, 10 member states who, between them, produce approximately four million tonnes of sugar, have chosen to grant their beet growers VCS. This increases their ability to withstand lower sugar prices and suggests that the beet sugar output in these countries will be higher than it would be in the absence of VCS payments. Diagram 20 depicts the value of these VCS payments in each country and expresses them per tonne of sugar produced, using average sugar yields per hectare in each country or region.

It shows that, in some cases, the value of VCS is substantial and is likely to support beet production in many of the regions where they have been granted. This suggests that the EU

sugar market will be more fully supplied by beet sugar and the need for imports will be less than in the absence of VCS.

4.1.2 *Isoglucose*

The way in which starch processors respond will also affect the future EU market balance. However, an important difference between the isoglucose sector and the beet sector is that starch processors will have to invest to boost output significantly, whereas beet processor that have surplus capacity will not have to make similar investments.

4.1.3 *Imports and refiners*

The impact on imports and refiners will depend on the future EU market balance.

- If the combined output of beet sugar and isoglucose is insufficient to meet internal demand for caloric sweeteners, the EU will have to import sugar. In this case, sugar prices in the EU will have to trade at a sufficient premium over the world price to pay for these imports (so-called *import parity*). For raw sugar, the minimum CIF price in the EU will have to compensate overseas suppliers for not supplying sugar to the world market *plus* the cost of freight to the EU. In other words, prices earned by ACP sugar producers should at least match world prices and may offer a premium.
- If the combined output of beet sugar and isoglucose exceeds internal demand for caloric sweeteners, the EU will not need to import sugar. In this outcome, sugar prices in the EU should trade at a level that makes imports (other than special and organic sugars) uneconomic. In other words, prices will trade below *import parity* and could fall as low as *export parity*, i.e., the price that reflects returns from exports to the world market. This implies that returns to ACP countries from sales to the EU will be less than they could earn on the world market.

4.2 Outlook for the EU sugar market balance and prices after 2017

There are two recent studies of the future of EU sugar market balance and prices after 2017.

- EU Agricultural Outlook, Prospects of EU Agricultural Markets and Income 2015-2025. European Commission, December 2015.
- Modelling the EU Cane Refining Sector after 2017, UK Department for Food, Rural Affairs and Agriculture, November 2015.

In this section, we review the projections contained in these reports. Of the two, only the EU report contains a comprehensive set of projections, which are summarised in Table 3.

Table 3: EC's market balance and price projections

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Supply											
Beet sugar	13.8	16.8	17.4	17.2	17.2	17.2	17.3	17.5	17.6	17.7	17.7
Isoglucose	0.7	0.7	1.4	1.5	1.6	1.8	2.0	2.1	2.2	2.3	2.3
Imports	3.5	3.7	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8
Consumption	19.4	18.5	18.5	19.0	18.9	19.1	19.0	19.1	19.3	19.3	19.2
Sugar	18.7	17.8	17.2	17.6	17.4	17.5	17.1	17.1	17.2	17.1	17.1
Isoglucose	0.7	0.7	1.3	1.4	1.5	1.7	1.9	2.0	2.1	2.2	2.2
Exports	1.6	1.5	2.0	2.0	2.0	1.9	2.1	2.2	2.2	2.4	2.5
Prices											
EU sugar (€)	485	495	397	395	390	390	401	410	410	401	399
World white sugar (€)	371	362	341	314	310	314	323	337	340	330	319
Premium (€)	114	133	56	80	80	76	77	73	70	70	80
World white sugar ($)	415	410	405	405	413	422	438	457	463	451	437

The EU report projects increases in beet sugar and isoglucose production, which squeeze out some imports (Diagram 21) and lead to a slightly higher level of exports. They show EU sugar prices remaining around €400 per tonne, which is below the values at which they have traded in recent years, but at a premium of €70-80 per tonne over world white sugar prices (Diagram 22).

Diagram 21: EU and world white sugar prices

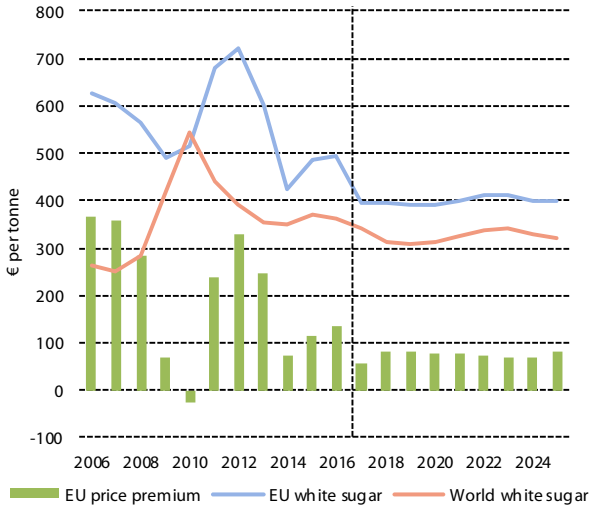
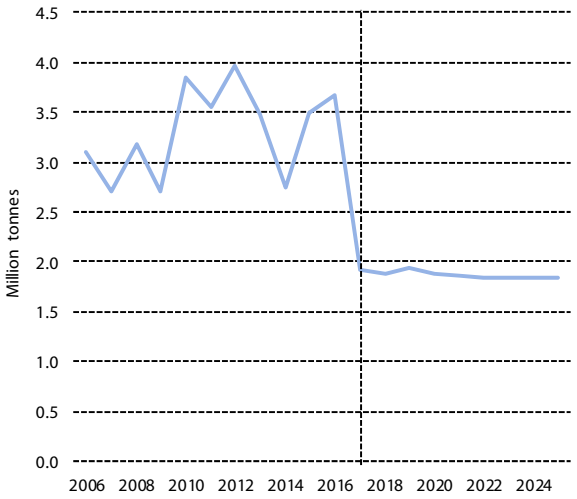


Diagram 22: EU sugar imports



The EC report also envisages no expansion in the use of beets for the production of ethanol. In our opinion, the ethanol market may present processors with more attractive outlet for surplus beets than the world sugar market in some years. If and when this is the case, it would lower sugar exports, but it is unlikely to have a material impact on the future level of imports. Moreover, its impact on export volumes is also likely to be modest, because the vast majority of EU beet factories do not have ethanol production capacity.

The report by DEFRA does not present detailed forecasts of each component of the EU market balance. However, it does project imports in the range of 1.8-2.0 million tonnes, of which around 1.0-1.1 million tonnes are raw sugar.

Both reports also state that VCS for sugar beet in 10 member states may support beet production at a higher level than projected, as they will provide support to production in otherwise vulnerable regions. The EC report notes that, in total, almost 500,000 hectares of sugar beet could be supported by average VCS support of above €300/hectare, reducing the incentive for farmers to witch to alternative crops such as wheat[4]. As we discussed earlier, sugar output in these countries has averaged around 400,000 tonnes in recent years.

The impact of current VCS (which apply to 2020) will be felt most in the first years after the reform, because this is when the competitive intensity in the market will be greatest, as beet sugar, isoglucose and imports all seek to defend or expand their share of the fixed EU sugar market.

During this period when competition will be most intense, there is a risk that the price of sugar in northern EU will be driven down towards, or even to, the level of world white sugar prices. If this is the case, then there would be little or no price premium in the EU market, as is forecasts in the EC's assessment shown in Table 1.

[4] EU Agricultural Outlook, Prospects of EU Agricultural Markets and Income 2015-2025. European Commission, December 2015, p.24.

4.2.1 *Implications for imports and refiners*

The outlook for imports and refiners presented by the EC and DEFRA reports are similar, and LMC's own views are in line with this.

- Import volumes are forecast to decline. It is important to note that some imports will enter as white sugar from Mauritius and neighbouring European countries, most notably Serbia, and (on a much smaller scale) Ukraine and Moldova. Moreover, around 0.20-0.35 million tonnes will enter as special (value-added direct consumption) sugars, which originate from ACP countries, while some (around 0.15 million tonnes) will be organic sugar, most of which originates from countries without preferential access to the EU sugar market. These volumes will be supplemented by imports of direct consumption sugars under the Fairtrade label. These imports will lower the quantities that will enter as raw sugar.

- The volume of imports is projected to be less than in recent years, during which they have reached three million tonnes (see Diagram 14 above). The implication of this is that there will be a surplus of preferential sugars available relative to the EU's import needs. This has three implications:

    1. There is unlikely to be any need to import CXL sugar, which is subject to a duty of €98 per tonne. This means the EU sugar price will not have to reflect this duty (and forecasts in the EC report do not).

    2. Third country suppliers will be in a weak negotiating position to command any significant premium over the world raw sugar price is future import supply exceeds the EU's import need. This balance between supply and demand is difficult to assess at this stage.

    3. Utilisation of EU refining capacity will fall.

In summary, the prospects beyond 2017 are for lower EU import volumes and a limited premium over world market prices. Projecting the likely level of world price is difficult and, as we discuss in Section 2, this will be influenced to macro-economic conditions as well as energy policy in Brazil. However, current weak macro-economic conditions, and its depressing impact on the value of the Brazilian currency and world energy prices, point to modest world sugar prices in the short to medium term. This is reflected in the EC's forecasts of world white prices.

5 The Impact of EU Reform on ACP Countries

5.1 The availability of ACP/LDC sugar to supply the EU market

Before assessing the impact of EU reform on the ACP group, we establish how much sugar will be available to supply the EU market in the future. To derive our projections for ACP/LDC production we have split countries into two groups:

- Where industries have plans to expand capacity and these are currently under construction we have allowed for them in our production forecasts.

- For industries that do not have known plans to expand, or where production has been declining gradually over time, we have assumed that this trend continues. Of course, the extent to which this happens will depend on the magnitude of the impact of EU reform.

Diagram 23 compares our forecasts of production with consumption growth in the LDC/ACP countries. Consumption forecasts are based on forecasts of population growth data and projections of GDP per capita from the IMF, which are key drivers of sweetener demand.

- While total production in the ACP/LDC is expected to increase, consumption is forecast to grow at a faster rate. One reason for this is that many projects that were due to come on stream, in Africa in particular, have either been delayed or are now not expected to go ahead due to the recent low level of world sugar prices and unsupportive domestic policies. However, there are some countries where production is increasing, most notably Ethiopia where there are a number of large-scale sugar projects that are currently being constructed.

- Diagram 24 shows a breakdown of the industries that are in the process of expanding. Ethiopia has the largest plans, and we have projected production to increase from around 0.4 million tonnes to over 1.0 million tonnes by 2025. In theory, production could exceed this level if all the mills currently under construction achieve a good level of capacity utilisation within this time period. However, history suggests that output tends to increase at a slower rate than planned and it is unclear whether our projected level of output will be achieved.

- Other countries that are increasing production include Belize, Laos and Cambodia, while there is potential for Sudan to increase output from current capacity if the domestic policy environment improves. When added together the expansions of these five countries have the potential to increase ACP/LDC output by up to 1.5 million tonnes between 2015 and 2025.

Diagram 23: Production and consumption in LDC/ACP countries

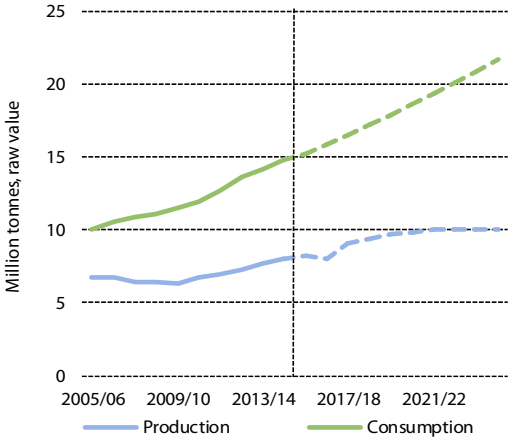
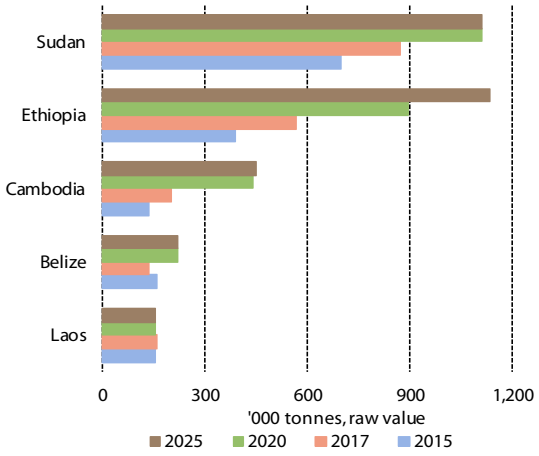


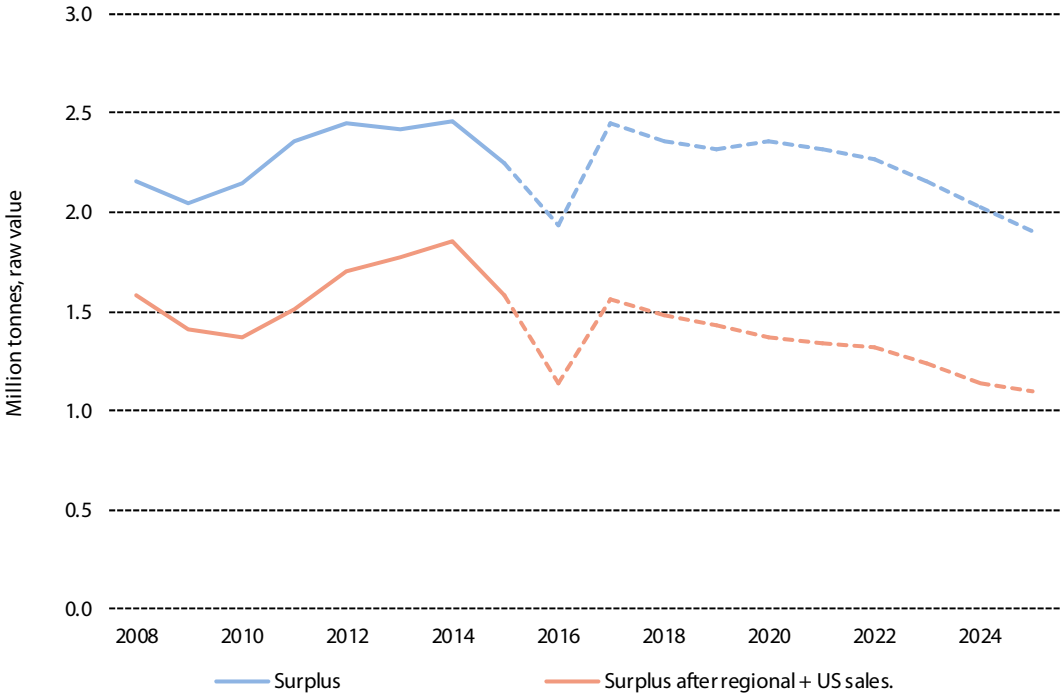
Diagram 24: Projected production in LDC/ACP countries that are expanding



Based on these forecasts, Diagram 25 shows our estimate of the surplus that would be available to supply the EU market after domestic market sales have been taken into account. The chart shows that exportable surpluses are projected to decline towards 2.0 million tonnes as domestic consumption continues to grow.

Furthermore, not all of this surplus sugar will be sold to the EU since many countries also have access to regional markets where they can earn attractive price premiums. Moreover, there is a risk that price premiums in these regional markets could even be undermined if they become oversupplied in the future, as ACP producers divert sales into these markets following the erosion of preference in the EU. Nevertheless, when regional sales (plus US TRQ shipments) are taken into account, the tonnage available for sale to the EU market is likely to be around 1.0-1.5 million tonnes in 2020.

Diagram 25: Total ACP/LDC surplus production, 2008 to 2025



5.2 The impact of EU reform on the ACP countries

In this section, we focus on the impact of EU reform on the ACP countries featured in our study. These are: Barbados, Belize, Dominican Republic, Fiji, Guyana, Jamaica, Mauritius, Mozambique, Swaziland, Zambia and Zimbabwe.

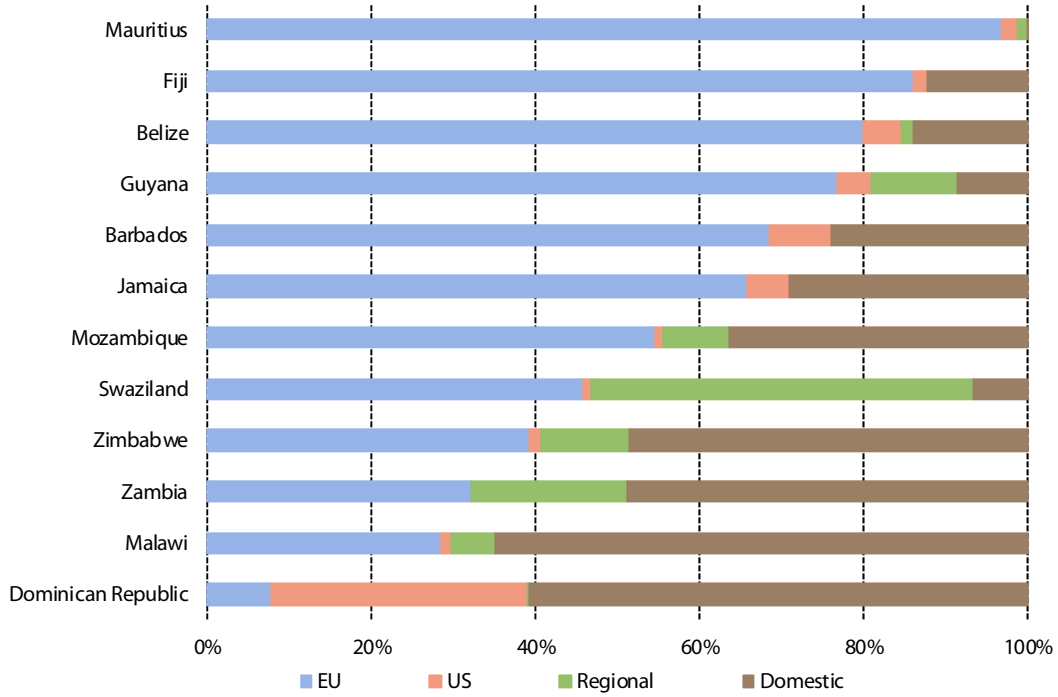
As we have discussed, the abolition of quotas in the EU market looks set to erode the price premium over the world sugar price that ACP countries currently benefit from when selling their sugar to the EU. The impact this will have on each ACP country will depend on the following factors:

- Their exposure to the EU market.
- Their access to alternative markets (domestic, regional or other preferential) where premiums can be earned over the world price.

Diagram 26 shows the current level of exposure of each industry to the EU by presenting the share of output that each industry has sold in different markets over the last few years. The chart shows clearly that:

- Producers in the Caribbean and some island industries such as Fiji and Mauritius have the highest exposure to the EU. The exception is the Dominican Republic, which sells a large proportion of its output in the US market, where it holds a large quota allocation, and in its domestic market.
- Producers in mainland Africa tend to sell a much smaller share of their output to the EU, with a greater focus on domestic and regional markets. This is the case especially for countries that are land-locked and have access to high-priced markets in central Africa.

Diagram 26: Current distribution of sugar sales by market, average 2011-2014



To summarise the situation facing each ACP country, Table 4 categorises each country into a broad grouping depending on their exposure to the EU market and the extent to which they have access to alternative markets.

The industries that are most exposed to EU reform are those that sell a large proportion of their output to the EU and have limited access to domestic/regional or other preferential markets. These countries include Barbados, Belize, Fiji, Guyana, Jamaica, Mauritius, Mozambique and Swaziland.

Table 4: EU exposure vs access to alternate markets

Good access to alternate markets?	EU exposure: Low	EU exposure: High
Yes	Malawi Dominican Republic Zambia Zimbabwe	
No		Barbados Swaziland Guyana Belize Fiji Mauritius Mozambique Jamaica

Note: Countries with high exposure to the EU market are defined as those that sell more than 40% of their output to the EU. Countries are defined as having good access to alternative markets if they can sell more than 70% of their output in other markets (domestic, regional or other preferential) that achieve a significant premium over the world price.

5.2.1 *Where will ACP sell their sugar post EU reform?*

While the EU is currently a more attractive market than many alternative markets, after EU reform this situation may change, and ACP countries will alter their distribution of sales to concentrate on the most remunerative markets.

5.2.1.1 Domestic markets

Most ACP countries benefit from higher prices in their domestic markets than the price that would be received on world market exports. This point is illustrated by Diagram 27, which shows the tariffs that apply to world market sugar that is imported into ACP markets. This means that, in most cases, domestic market opportunities will be more attractive than exports after EU reform. This has not always been the case in the past, with some industries choosing to focus on supplying the EU and importing sugar to meet domestic market needs.

Diagram 28 shows the size of the domestic market in relation to production in each ACP country. It should be noted that, in some cases, the extent to which producers can sell sugar locally depends on the quality of sugar they produce. For example, domestic sales in Guyana and Jamaica are limited by the fact that the industry only produces raw sugar, which prevents it from accessing all of its domestic market, despite the tariff.

Diagram 27: Domestic market tariffs on white sugar imports in ACP countries

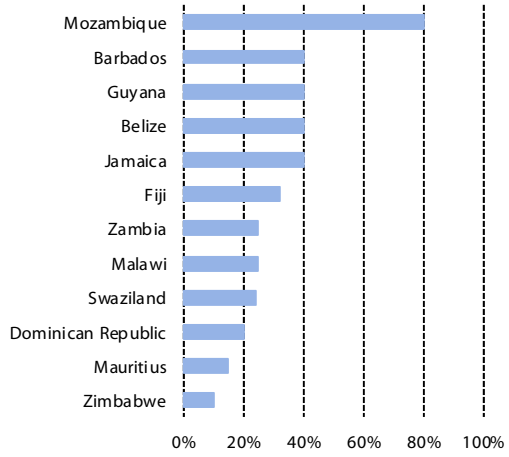
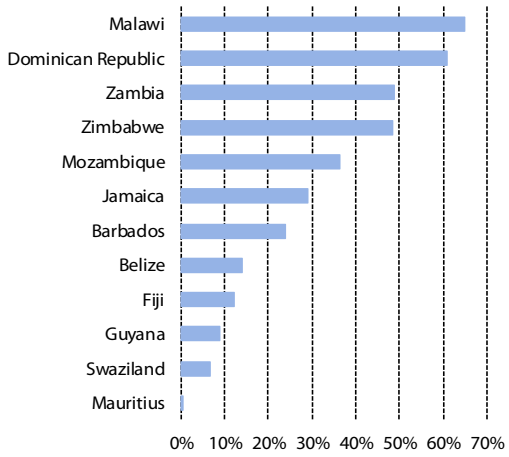


Diagram 28: 2011-2014 domestic market size in relation to output

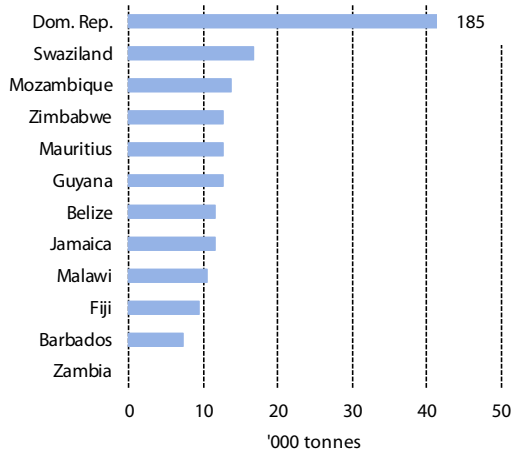


Note: Both Mozambique and Swaziland apply reference prices to determine their tariffs. Ad valorem equivalents have been estimated based on prevailing world market prices.

5.2.1.2 The US market

Many ACP countries also benefit from preferential access to the US market where they receive a premium over the world price. The minimum duty-free TRQ allocation that is granted to each country is shown in Diagram 29. By far the largest beneficiary in the ACP group is the Dominican Republic, which can sell at least 185,000 tonnes into the US market in 2015/16.

Diagram 29: Minimum US TRQ allocation in 2015/16



The US sugar market is protected by high tariffs and controls on how much sugar can enter the country, either under the TRQ or from Mexico under NAFTA. This, along with the marketing allotments that limit sales of local-produced sugar in the US market, ensures prices are supported well above world market levels.

Following a recent trade dispute between the US and Mexico, new regulations state that Mexican sugar can only be sold into the US at a minimum price of 22.2 cents/lb, ex-mill. When transportation and logistics costs are taken into account, raw sugar prices (No.16 equivalent) will need to be well above this level to attract this sugar. This suggests that US prices will be supported well above normal world market levels most of the time in the future.

5.2.1.3 Regional markets

In addition, some countries will have access to regional markets where they can earn significant premiums over the world price. These are summarised in Table 5.

- Malawi and Zambia stand out as having good access to regional markets such as Congo DR and the Great Lakes, where prices tend to trade well above world market levels.
- As a member of SACU, Swaziland has access to the South African sugar market, where prices also trade at a premium to the world price.
- Elsewhere, opportunities are more limited. While most of the producers in the Caribbean are members of CARICOM[5], the common external tariff for sugar (which is set at 40%) applies only to brown sugar and is not enforced rigorously in all markets. Where this is the case, local exporters of brown sugar must compete with world market sugar.
- While Mauritius and Mozambique are both members of regional free trade areas in Africa, these countries do not usually benefit from a tariff advantage when selling sugar to other member states, owing to import restrictions applied by other members of these trade blocs.

Table 5: Access to regional markets

	Access to regional markets?	Comments
Barbados	Limited	CARICOM CET applies only to brown sugar
Belize	Limited	CARICOM CET applies only to brown sugar
Dominican Republic	None	None
Fiji	None	Limited to small neighbouring Pacific islands
Guyana	Limited	CARICOM CET applies only to brown sugar
Jamaica	Limited	CARICOM CET applies only to brown sugar
Malawi	Good	Well placed to sell to the Great Lakes region of Central Africa
Mauritius	Limited	SADC / COMESA member, but has little advantage into these markets
Mozambique	Limited	SADC member, but surrounded by surplus producers
Swaziland	Good	Access to the SACU market
Zambia	Good	Well placed to sell to Congo DR / Great Lakes region of Central Africa
Zimbabwe	Limited	Sells some sugar into Zambia

[5] Dominican Republic is not a member of CARICOM. It is a member of CARIFORUM, which signed an EPA with the EU.

5.2.2 *Evaluating the impact of EU reform*

Taking their market access into account, we have estimated the impact of EU reform on the revenue earned by each ACP industry. To do this, we have considered two scenarios

(a) Quotas are abolished in October 2017 and raw sugar price earned from sales to the EU falls towards world market levels. In this scenario, we assume ACP producers achieve a modest premium of US$10/tonne over the ICE No.11 from EU sales.

(b) Our "reference" case, which no change to current EU sugar policy. In this scenario, raw sugar prices in the EU are assumed to continue to reflect the CXL duty, which means ACP suppliers achieve a premium over the ICE No.11 equivalent €98/tonne (US$108/tonne).

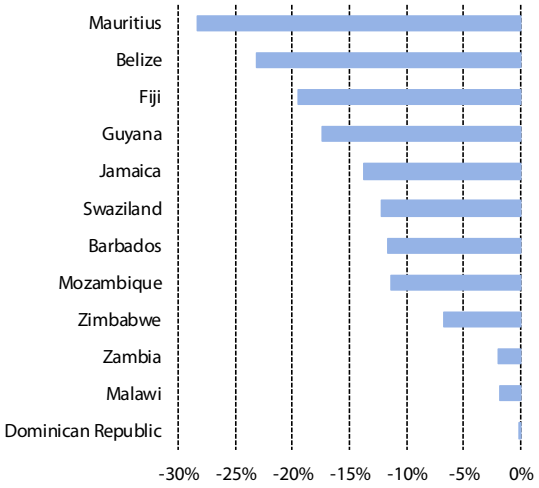
In theory, the impact on industry revenue should reflect the decline in EU prices by multiplied by the tonnage sold to the EU. However, some countries may be able to offset part of this effect in a number of ways:

- Growth in demand in domestic and regional markets will create new markets for producers in some countries, most notably in mainland Africa.
- Countries that sell little sugar into their domestic market currently may choose to do so in the future if it offers a better return than the EU.

Diagram 30 shows the potential impact of EU reform on the average selling price received by ACP countries in 2020. The diagrams show that impact will be greatest on countries that are most exposed to the EU and have limited access to alternative markets where they can earn a premium over the world price.

Industries with alternative, potentially premium markets should be less affected by EU reform. For example, the Dominican Republic may be able to offset part of the impact of EU reform by selling more in its domestic market. Malawi and Zambia may be able to achieve favourable prices in their domestic and regional markets, although this will depend on how prices in the region unfold as they and other producers divert sales to central and southern Africa.

Diagram 30: Impact of EU reform on the average price received by ACP countries

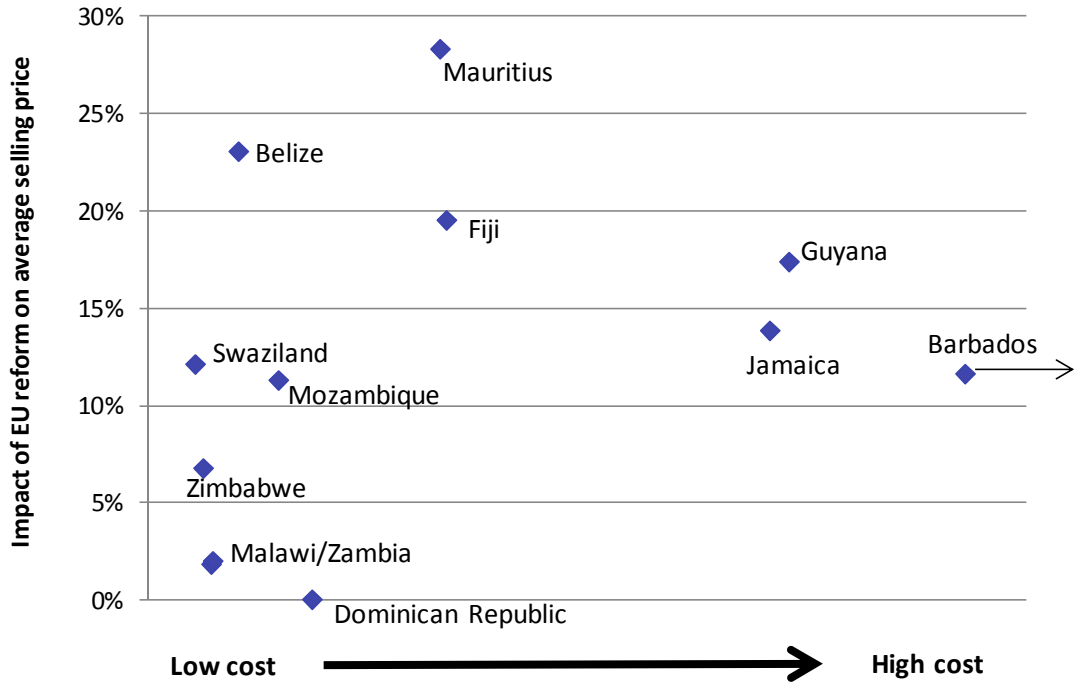


In order to identify those industries that will be most heavily threatened by EU reform, we have contrasted the expected impact of EU reform on their average selling price with their cost of production (Diagram 31). This analysis allows us to group the countries into three broad categories:

- Countries that are cost competitive and are geographically well located to supply potentially high-priced regional markets (Dominican Republic, Malawi, Zambia).
- Competitive industries with high exposure to the EU and less well located to supply potentially high-priced regional markets (Mozambique, Swaziland, Zimbabwe).

- Countries with large exposure to the EU market and/or higher costs of production (Barbados, Fiji, Guyana, Jamaica, Mauritius). While Belize has a high level of exposure to the EU, its costs are lower than these other countries.

Diagram 31: EU reform impact vs. costs of production



This analysis raises an important question: why are some industries higher cost than others? Sugar production costs are driven by two factors: (a) the cost of inputs to the production process (labour, capital, fertilisers etc.) and (b) the productivity of those inputs (yields, recovery rates etc.). While the cost of inputs do vary from country to country (e.g. wages vary depending on the level of economic development), a key driver of costs is productivity. To make this point, we have prepared Diagrams 32 to 35, which compare key industry performance indicators in the field and the factory.

- In the field, costs are driven by the amount of sugar produced per hectare (sugar yields) and the amount of cane needed to produce one tonne of sugar (tonnes cane to tonnes sugar [TCTS] ratio). Industries located in or close to sub-tropical climates, such as those in southern Africa, tend to outperform those in tropical climates, such as the Caribbean and Fiji. This is because the agro-climate is more favourable for the development of sucrose in these regions.

- Cane milling incurs many fixed costs, which means that unit costs of production are heavily influenced by scale and capacity utilisation (measured here in terms of sugar produced per mill). In these respects, performance in Barbados, Jamaica and Guyana is especially poor. In contrast, processors in Malawi, Swaziland, Zambia and Zimbabwe operate relatively large mills that produce at least 150,000 tonnes of sugar per year.

This analysis highlights a key point: it is not possible for some of the industries featured in this report to become competitive exporters of sugar at world market prices, even with investment in farms and mills. This is because world prices are set by producers who achieve much higher levels of performance and this translates into lower costs. For example, Brazil, the world's dominant sugar exporter and world price setter, achieves sugar yields of more than 10 tonnes per hectare, while its mills each produce the equivalent of 250,000 tonnes of sugar per year (in the form of sugar and ethanol).

Diagram 32: Sugar yields

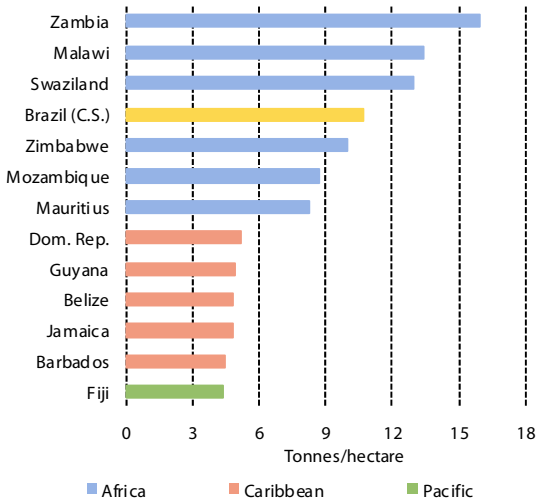


Diagram 33: Tonnes cane: tonnes sugar ratio

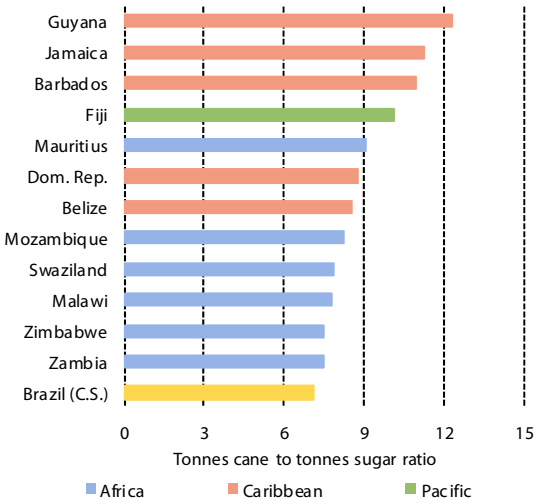


Diagram 34: Factory scale

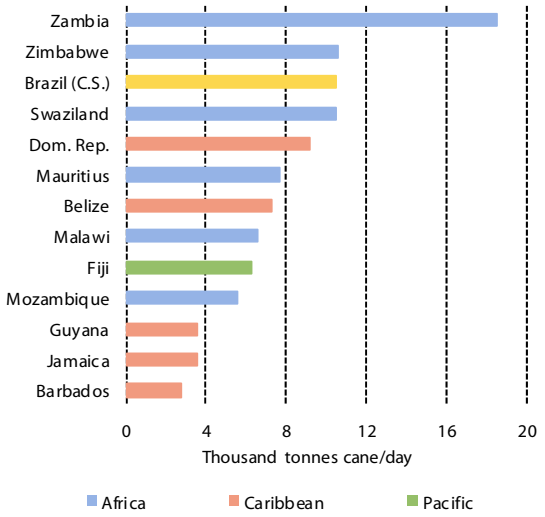
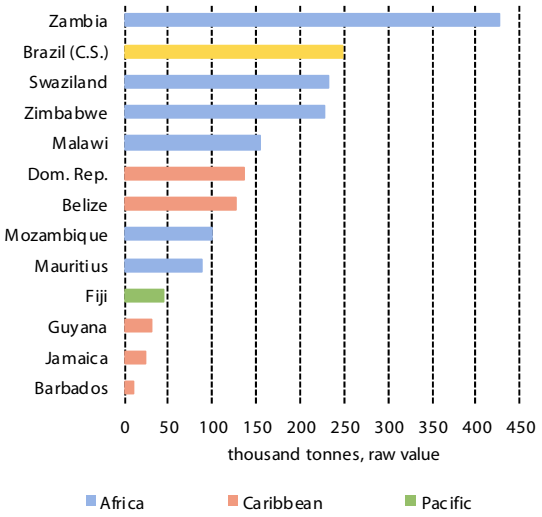


Diagram 35: Sugar produced per mill



Diagrams 36 and 37 highlight the fortunes of these ACP sugar industries by charting the trends in their sugar production since 2000.

- In Africa (Diagram 35), production has been increasing in most countries, reflecting their underlying cost competitiveness. Private sector investment has expanded milling capacity in Malawi, Mozambique, Swaziland and Zambia and has been supported by expansion in cane area, much of it by smallholder outgrowers. Zimbabwe has also increased its output after production fell sharply at the end of the 2000s due to political instability. The main exception in the region is Mauritius, where technical performance levels are more modest and costs are higher. This has resulted in a gradual loss of cane area farmed by small and medium planters.

- In the Caribbean and Fiji, output has been on a declining trend in most countries. The exceptions are Belize and Dominical Republic, which are the two best performers in the region in terms of technical performance and cost competitiveness.

Diagram 36: Production trends in African ACP countries

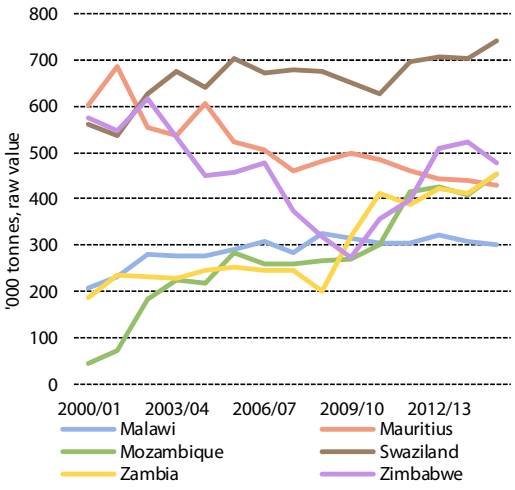
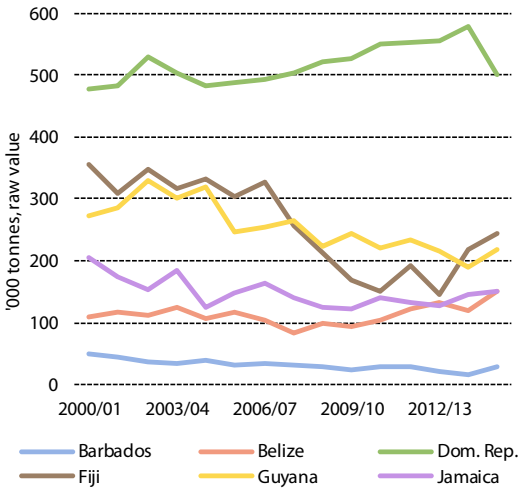


Diagram 37: Production trends in the Caribbean and Fiji



6 Adapting to the new market environment

To assist past beneficiaries of the ACP Sugar Protocol adjust to the new market conditions that were expected to follow the 2006 reforms, the European Union made available approximately €1.25 billion in the form of Accompanying Measures to the Sugar Protocol (AMSP).

6.1 National Adaptation Strategies

Before AMSP funds were released, each country was required to develop a National Adaptation Strategy (NAS) to provide the framework through which support would be delivered. Discussions with stakeholders raised differing views regarding the national commitment to implementing the NAS. In Mozambique, for example, while there was a clear commitment to developing the sugar industry, the existence of the NAS was not widely known among stakeholders. In others, there were large differences between the NAS and the focus for AMSP funding (e.g. Belize).

Each strategy was designed to address the specific needs of the country. However, there were some common themes across countries. Table 6 summarises the objectives that were set out under each NAS. For presentational purposes, we have grouped them into five categories:

- ***Sugar industry expansion***. Many countries in southern Africa identified the expansion of production through smallholder outgrower schemes as a key goal, with a view to boosting economies of scale and increasing the sector's contribution to supporting livelihoods and reducing poverty. In the Caribbean, Guyana targeted expansion as a means of compensating for some of the decline in output that had been witnessed in previous years.

- ***Sugar industry competitiveness***. Improving productivity and efficiency with a view to lowering costs was also identified as a key objective for the vast majority of industries.

- ***Diversification of the sugar sector***. Many industries also sought to move away from bulk raw sugar to other products including refining, speciality sugar, ethanol and electricity.

- ***Diversification away from the sugar sector***. A smaller group of countries looked to diversify away from sugar. These countries were principally in the Caribbean and Fiji. While Swaziland also identified the diversification away from sugar as an objective, this was not acted upon in the AMSP (as we discuss further below).

- ***Livelihood support.*** The NAS were also aware of the need to support the livelihoods of groups who were adversely affected by EU sugar market reform, but were not well placed to move into other sectors. These countries included Belize, Guyana, Jamaica, Mauritius, Mozambique and Swaziland.

Table 6: Summary of NAS objectives

	Expected Cost (€ million)	Sugar Industry Expansion	Sugar Industry Competitiveness	Diversification in Sugar	Diversification away from Sugar	Livelihood Support
Caribbean/Pacific						
Barbados	n.a.	✗	✗	✓	✓	✗
Belize	116	✗	✓	✓	✓	✓
Fiji	n.a.	✓	✓	✓	✓	✓
Guyana	552	✓	✓	✓	✓	✗
Jamaica	556	✗	✓	✓	✓	✓
Africa						
Malawi	170	✓	✓	✓	✗	✗
Mauritius	575	✗	✓	✓	✗	✓
Mozambique	185	✓	✓	✓	✗	✓
Swaziland	~300	✗	✓	✓	✓	✓
Zambia	n.a.	✓	✓	✓	✗	✗
Zimbabwe	n.a.	✓	✓	✗	✗	✗

One important feature of the table above is that it shows that the NAS adopted by countries in the Caribbean tended to have a broader range of objectives than those in mainland Africa. This reflects the importance of sugar in these countries and the need to improve the state of their sugar industries, while also reducing their reliance on the sugar sector. Both Guyana and Jamaica formulated ambitious plans, which had high costs associated with them.

6.2 The Accompanying Measures to the Sugar Protocol (AMSP)

The AMSP were designed to contribute towards the goals set out in the NAS. There were three pillars of AMSP support:

- Improving competitiveness in the sugar sector.

- Promoting economic diversification.

- Addressing the broader impacts resulting from the adaptation process.

Each country received an allocation based on an estimation of needs according to the expected impact of reform and the importance of the sugar sector to the economy. Table 7 summarises the amount that was allocated to each country and how it compared to the cost of the NAS, where this information is available. The table shows that the AMSP fund allocation made a significant contribution towards the cost of the NAS in Guyana, Mauritius and Swaziland[6]. However, it only made a modest contribution in countries such as Mozambique, where the AMSP funds available were very small. In others, such as Belize, the allocation of AMSP funding differed greatly from than envisaged in the NAS.

[6] It should also be noted that, even where the contribution of the AMSP was significant, the NAS did not always include all of the investments planned by the industry, which were significant in some cases, e.g. Swaziland.

Table 7: The financial contribution of AMSP to meeting NAS objectives (€ million, unless otherwise stated)

	AMSP Allocation	NAS Cost	AMSP Funding % NAS Cost
Caribbean/Pacific			
Barbados	61	n.a.	n.a.
Belize	74	116	63%
Fiji	120	n.a.	n.a.
Guyana	169	552	31%
Jamaica	145	556	26%
Africa			
Malawi	22	170	13%
Mauritius	250	575	43%
Mozambique	11	185	6%
Swaziland	124	~300	41%
Zambia	6	n.a.	n.a.
Zimbabwe	31	n.a.	n.a.

The AMSP funds were spent on a wide range of different activities. More detailed information is provided in the annexes to this report. For simplicity, Table 8 summarises the key activities that were undertaken, grouping them under five broad headings. These groupings are not comprehensive and there are examples of funds being used for other purposes. Moreover, under the initial AMSP allocations in 2006, funds were used to fund the development of the NAS and other consultancy support.

It is important to note that, while diversification within the sugar sector was highlighted as an objective by several industries, these activities were not funded through the AMSP since they were viewed as being commercial in nature and therefore better undertaken by the private sector. However, in some cases, support was provided to create an enabling environment where these private sector investments could be made. Moreover, funding for some private sector investment was secured from the EIB.

Table 8: AMSP activities

	AMSP Allocation (€ million)	Cane area Development	Infrastructure	Capacity Building	Diversification away from sugar	Livelihood Support
Caribbean/Pacific						
Barbados	61	✗	✗	✓	✓	✗
Belize	74	✓	✓	✓	✓	✗
Fiji	120	✗	✓	✓	✓	✓
Guyana	169	✓	✓	✓	✗	✓
Jamaica	145	✗	✓	✓	✓	✓
Africa						
Malawi	22	✓	✓	✓	✗	✗
Mauritius	250	✗	✓	✓	✗	✓
Mozambique	11	✓	✗	✓	✗	✓
Swaziland	124	✓	✓	✓	✗	✗
Zambia	6	✓	✓	✓	✗	✗
Zimbabwe	31	✓	✓	✓	✗	✗

6.2.1 *Cane area development*

In southern Africa (Malawi, Mozambique, Swaziland, Zambia) a key activity was the development of outgrower schemes. These schemes were designed to give independent small-scale farmers the opportunity to take part in the formal economy and move away from subsistence agriculture. At the same time, it increased the cane supply to mills, allowing them to expand and take advantage of economies of scale to improve their cost competitiveness.

In Zimbabwe, Mauritius and the Caribbean, AMSP funds were used to help rehabilitate existing cane areas. In the Caribbean, this included the establishment of funds to help farmers replant their cane (Belize, Guyana and Jamaica). In Mauritius, there was a scheme to regroup farmers and prepare lands for mechanisation and irrigation.

6.2.2 *Infrastructure*

AMSP also funded investment in transport infrastructure (roads and bridges), aiming to help lower the costs incurred by independent farmers when transporting cane to the mills, and reducing the time taken to boost sucrose content, and therefore the revenue earned by the grower (e.g. Belize and Swaziland). In Belize, more than 60% of AMSP funds were allocated to road rehabilitation, although this activity represented only 4% of funding identified in the NAS. Road infrastructure was also identified as a priority in Fiji. In Zimbabwe, funds were used to upgrade a railway line and improve dams holding water used to irrigate cane areas.

6.2.3 *Capacity building*

Capacity building was a key activity undertaken using AMSP in all countries featured in this report. However, the types of capacity building were wide ranging and designed to meet the specific needs of each country.

- In southern Africa, AMSP funds were used to build capacity in outgrower associations to ensure they had the agricultural and financial skills required to operate their businesses (Swaziland, Mozambique, Malawi). Training was also delivered to farmers in Zimbabwe.

- Jamaica used some AMSP funds to develop a policy framework for an ethanol programme to help create a new market that could be supplied by the sugar sector.

- In Belize, funds were used to construct a research station and develop farmer outreach and information systems. Similarly, in Fiji, support was given for cane variety research.

- In Guyana, training in production, the creation of a clear and transparent investment climate and streamlining the quality and export certification process were supported by AMSP.

6.2.4 *Diversification away from sugar*

In the Caribbean, AMSP funds were used to help reduce reliance on sugar. In Barbados, funds were spent on human resource development to increase capacity in other sectors, such as financial services, as well as carry out an institutional review of the cane sector. In Belize, a small amount of funds were used to promote alternative activities in agriculture. In Fiji, support was given to rural credit, to support on farm and off-farm alternative economic activities.

It was also the intention to use funds to support diversification in Swaziland. However, in reality, funds were not used for this purpose because there was a lack of interest among outgrowers to move away from cane, which offered the best return.

6.2.5 *Livelihood support*

AMSP funds were also used to support the livelihoods of those most directly affected by sugar sector reform. In Jamaica, a key objective was the establishment of a viable private sector industry (a part of which was under government ownership in 2006). AMSP funds were used to make redundancy payments to the existing workforce, some of whom where

re-hired as part of the restructuring process. Housing was also constructed for sugar workers who were previously living in sugar barracks. Similarly, a key activity in Mauritius was a voluntary retirement scheme to reduce the size of the field and factory labour force to help lower costs and improvement the competitiveness of the sugar industry.

Mozambique used funds to support social service commitments in sugar dependent areas, including the construction of schools and equipment, collaboration on HIV/AIDS programmes, anti-malaria campaigns, health infrastructure upgrades and the purchase of an ambulance.

In Fiji, AMSP funds helped farmers in Fiji attain Fairtrade accreditation. All the farmers in Fiji now hold Fairtrade status, which means they are eligible to receive a premium of US$60/tonne of sugar produced when sugar is sold under the Fairtrade label. These funds are used to support community projects.

6.3 Delivery modalities

AMSP funds were delivered in four main ways: (a) centralised management (b) partial decentralised management (c) sector budget support and (d) general budget support (Table 9). The different delivery modalities have advantages and disadvantages, with different countries having very different experiences.

Table 9: AMSP delivery modalities

Centralised Management	Partial Decentralised Management	Sector Budget Support	General Budget Support
Zambia	Belize	Barbados	Jamaica
Malawi (pre MIP II)	Malawi (MIP II onwards)	Guyana	Mauritius
Swaziland (pre MIP II)	Mozambique (MIP II onwards)	Jamaica	
Fiji	Swaziland (MIP II onwards)	Mozambique (pre MIP II)	
	Zimbabwe		

6.3.1 *Centralised management*

A centralised approach to AMSP funding was used in MIP I (2007-10) in Fiji, Zambia, Malawi and Swaziland, with the EU delegation directly contracting and disbursing funds to support specific projects. While this modality gave the delegation control over how funds were used, this approach was not without its problems.

In Swaziland, stakeholders reported the slow release of funds. While this was partly due to EU contracting procedures, it also reflected the limited capacity within the EU delegation. It was noted that the AMSP approximately doubled the EU budget for expenditure in Swaziland, but was not accompanied by a significant change in the number of staff employed at the delegation. As a result, funding was switched to partial decentralised management for MIP 2011-2013.

The other disadvantage with this approach was the lack of government involvement in the process. In Malawi, funding modality was switched to a decentralised approach. For MIP 2011-13, the National Authorising Office (NAO) at the Ministry of Agriculture took over responsibility for the contracting of funds.

6.3.2 *Partial decentralised management*

Partial decentralised management was used in Belize and Zimbabwe throughout the AMSP funding process, while it was adopted in Malawi, Mozambique and Swaziland for MIP II. A key issue was the capacity of the contracting authority to deliver funding.

In Belize, recognition of a lack of capacity to manage the AMSP funds meant that technical assistance was used, However, problems between the government and the consultants brought in to assist hindered implementation.

In Zimbabwe, the Canelands Trust was viewed positively, being the only credible organisation for delivery of funds and support in country. However, stakeholders felt that the operational and financial capacity of the Trust should have been better assessed prior to start of the AMSP. The Trust only had a small number of employees and was assigned the vast majority of funds.

In the case of Swaziland and Mozambique, the switch to decentralised management was seen as an improvement on the previous arrangement (Swaziland was previously centrally managed, while Mozambique had previously been receiving sector budget support via the Ministry of Agriculture). In the case of Mozambique, improvements were witnessed after the introduction of a "call for proposal" system, which invited the milling companies to bid for funds, which has been organised through the National Authorising Office for Mozambique-EU Cooperation and European Union.

However, in some cases, partial decentralised management did add another layer of bureaucracy to an already slow procedure. In Swaziland, the involvement of the Ministry of Economic Planning and Development (MEPD) was reported as not increasing the speed at which funds were dispersed. Similarly, in Malawi, the shift to decentralised management was undertaken in order to increase the engagement of the government in the process. However, this did not occur, with the NAO seemingly reluctant to take responsibility for the funds according to some stakeholders. This resulted in a sharp decrease in the rate of contracting.

6.3.3 *Sector and general budget support*

The experience of countries receiving sector of general budget support has also been mixed. Under MIP I, Mozambique received funding through sector budget support via the Ministry of Agriculture. However, progress was slow and resulted in a change of delivery for MIP II, as discussed above.

Other problems included AMSP funds not reaching their intended use. For example, Guyana requested that it was given sector budget support rather than general budget support. However, even then, not all the AMSP funds went to the sugar industry, with GuySuCo increasing its debts in order to deliver the agreed projects.

Jamaica received general budget support. This method of delivery worked well, with the industry achieving its goal of privatisation (although the financial status of some companies is currently very weak) and the delivery of measures to support the livelihoods of those adversely affected by the process. However, it was reported that the annual tranches led to confusion about the amount of money that would be available in the budget as it was never certain that the variable tranches would be available.

In Mauritius, the experience of general budget support was good, with close cooperation between the Ministry of Finance, Mauritius Sugar Authority and the EU delegation. However, one issue faced was that the Key Performance Indicators (KPIs) that were agreed were not always project specific, meaning that it was possible for the funding to become disconnected from the objectives of the NAS.

Where sector budget support was evaluated on a yearly basis, one concern was that the KPIs were focused too heavily on the short term. This resulted in targeted outcomes being largely out of the control of the implementer. One example was Guyana, where cane output was targeted as an annual KPI. In reality, cane output is determined by plantings in the previous five years as well as by prevailing weather conditions, making it an inappropriate measure of ongoing success. This suggests that longer-term targets with funds being disbursed upon completion could have been more appropriate in some cases.

6.3.4 *Conclusion*

The different ways in which AMSP support has been delivered has resulted in a wide range of experiences among ACP countries. However, the following conclusions can be made:

1. For countries that did not receive budget support, a major issue reported by stakeholders was slow disbursement of funds. This reflected the EC's complex administrative procedures and also capacity constraints, either in the authorising agency through which funds were channelled or in the EU delegations themselves. This experience suggests that, while partial decentralised management increases the level of government involvement, the department or organisation that takes control of the AMSP funds needs to have sufficient capacity otherwise it will become a bottleneck in fund disbursement. Evidence also suggests that having a strong private sector partner was helpful in achieving successful project delivery.

2. For countries receiving budgetary support, slow disbursement was not a major issue. However, there was inevitably less control over how funds were spent, increasing the risk of AMSP funds being disconnected from the objectives of the NAS.

6.4 Strengths and weaknesses of AMSP

There were many strengths and weaknesses of the AMSP, which are discussed in detail in the annexes. Table 10 summarises some of the key points raised by stakeholders. This table highlights some of the key themes that cut across countries; country specific information is provided in the annexes to this report.

Table 10: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General	***General***
Funding complemented government and private sector investments (Mauritius, Swaziland, Mozambique, Zambia, Zimbabwe). High rate of absorption in some countries (Barbados, Mauritius). Good coordination with NGOs (Fiji) and the private sector (southern Africa). AMSP has helped support macro-economic stability and access funds from the EIB (Mauritius). AMSP supported democratic principles and reform (Fiji). AMSP funds helped to make necessary reforms socially acceptable (Mauritius, Jamaica).	Disbursement of funds reported to be slow in countries not receiving budget support. For various reasons, significant funds were uncontracted in Belize, Guyana, Malawi, Mauritius, Swaziland, Zambia. Capacity constraints at both the EU delegations and national implementing bodies (many countries). In countries where the allocation was small, the human resource effort required to access funding was disproportionate and limited the extent to which they could contribute to AMSP goals (Mozambique, Zambia). Objectives were too ambitious in relation to capacity and funding levels (Guyana, Zambia).
Cane area expansion	***Cane area expansion***
Improved living standards for beneficiaries, who were often among the most vulnerable in society. Created opportunities for subsistence farmers to participate in the formal agricultural sector (Swaziland, Mozambique, Malawi, Zambia). Grant funding allowed access to loan finance that would be otherwise unavailable. The most successful projects succeeded in repaying bank loans within a few years (Swaziland, Mozambique). Increased throughput at the mills helped to lower fixed costs (Swaziland, Mozambique). Milling companies supported implementation of the smallholder developments and made investments to accommodate the additional cane.	Focus on horizontal expansion at the expense of existing growers (Swaziland, Malawi). Financial performance of the farmer companies has been highly variable. Question marks over the ability of some farmers to pay back their debts (Swaziland, Mozambique, Malawi). Land tenure remains an issue in many countries (Malawi, Mozambique, Zimbabwe). Disputes within some farmer associations have resulted in problems (Malawi, Mozambique, Swaziland). Higher-than-expected costs reduced the cane area that could be rehabilitated (Zimbabwe). Credit scheme for replanting failed due to high indebtedness of growers (Belize).
Infrastructure	***Infrastructure***
Infrastructure improvements have helped to boost farm revenues and improve local transport links (Swaziland). Better roads have allowed greater mobility of the population in the region (Belize).	Focus was often on new growers entering the sector rather than existing farmers (Swaziland). Funds spent on in-field roads tended to benefit new farmers rather than existing ones (Swaziland). Some roads improvement were of poor quality and were not sustained in the long term (Belize, Malawi)
Capacity building	***Capacity building***
Farmer associations have helped to create economies of scale for their members. Fairtrade accreditation helped promote good governance among farmers (Fiji). Training was delivered to farmers and mill workers, covering a wide range of skills (many countries).	Low take up of training (Mauritius). Post EU funding, it is unclear if the training programmes will be sustained (Malawi, Mozambique).
Diversification away from sugar	***Diversification away from sugar*** Lack of diversification towards other crops (Swaziland, Jamaica). Funds were spent on diversification into areas that would not benefit those living in rural areas (Barbados).
Livelihood support	***Livelihood support***
EU funds complimented social services provided by milling companies (Mozambique). VRS in Mauritius and redundancy payments in Jamaica helped to industries to restructure.	Lack of government involvement led to fears over the sustainability of social services provided (Mozambique).

In the section below, we highlight some of the major issues that were highlighted by stakeholders.

6.4.1 *Strengths*

In general, AMSP measures were received very positively by ACP stakeholders and were viewed as playing an important role in supporting the industry restructuring that has taken place. A few positive examples of this are given below:

- In ***Mauritius*** and ***Jamaica***, AMSP funds allowed the industries to restructure, while ensuring that the necessary reforms remained socially acceptable. In the case of Mauritius, this was done through funding a voluntary retirement scheme (VRS); in Jamaica, funds were used to support the privatisation of the industry[7].

- There are also many examples of AMSP complementing expenditure by the private sector and government. In ***Swaziland***, a key objective was to expand production by increasing the involvement of small-scale growers in the cane industry. AMSP funds helped to develop irrigated land for the new growers and allowed them to access private sector loans, while government investment in dams supported the supply of water to the sector and the milling sector made significant investments to expand their processing capacity to accommodate this additional cane. In Mauritius, AMSP funding ran alongside private sector investment in refining. Experience was also positive in ***Mozambique*** and ***Malawi***. However, AMSP allocations in these countries were much more modest, meaning that the contribution of AMSP activities to the NAS was much more limited.

- AMSP also played a role in encouraging macro-economic stability and, in the case of ***Mauritius***, helped them access funds from the EIB. In ***Fiji***, it supported democratic principles, with funds only being released when a democratic government was established.

6.4.2 *Weaknesses*

The most common problem with AMSP was the slow pace at which projects were delivered. As we have discussed above, this reflected complex EU procedures and capacity constraints in the contracting authority. In some cases, these problems were significant and resulted in funds being uncontracted. However, funds were also not contracted for many other reasons. While not intended to be comprehensive, Table 11 provides some examples of where significant funds have not been contracted and explains the reasons why.

Table 11: Examples of where AMSP funds were not committed/contracted to date

Country	Funds affected	Further details
Belize	€7 million	€7 million was lost as a result of failure to contract a major road project. In addition, more than €4 million of funds from the Credit Scheme for replanting may not be disbursed.
Fiji	~€60 million	Absence of a democratically elected government meant that Fiji did not receive around half of its original AMSP allocation.
Guyana	€21.2 million	Failure to meet variable tranche conditions.
Malawi	€3.6 million	Slow contracting by NAO across MIP II (2011-13) resulted in some funds assigned to smallholder developments being decommitted.
Mauritius	€12.7 million	No decision on ethanol policy framework; no proper procurement for power plant.
Swaziland	~€11 million	Slow disbursement of funds during MIP I.
Zambia	€5.9 million	Under-contracting in MIP I. No agreement on how funds should be spent under MIP II (2011-13).
Zimbabwe	€3.9 million	Lack of government cooperation on the proposed land audit.

[7] It is important to note that, while AMSP were successful in supporting the privatisation of the Jamaican industry in 2009 and 2010, the sector currently faces major financial difficulties and the future viability of some estates is uncertain.

A second weakness of the AMSP related to countries that were granted small allocations, such as Mozambique and Zambia. While this limited the scope of work that could be undertaken, these countries also faced similar administrative costs to those countries with larger allocations. However, the scale of funding meant that they were unable to establish a specific national authority in order to better manage this funding.

Finally, with the exception of Barbados, only a small proportion of AMSP funding was directed towards diversification away from sugar in most countries, and none at all in African ACP countries.

6.5 Current situation and industry prospects

In the following section, we assess the current situation facing each industry, progress towards achieving the goals of the NAS and extent to which the AMSP have helped industries to prepare for EU reform.

6.5.1 *Barbados*

Barbados identified the diversification of its sugar industry and its economy as a whole as the key tenets of its NAS. While progress has been made in moving the economy away from sugar, the cane industry has been unsuccessful in diversifying its revenue stream. The main reason for this is that this would involve building a costly new mill capable of producing sugar, electricity and ethanol. Although this project continues to be debated, no progress towards its development has been made.

Table 12: Progress towards NAS objectives — Barbados

NAS Objective	AMSP Support?	Progress made towards NAS objective
Diversification of the sugar sector into a sugarcane industry	No	Little or no progress was made towards this goal. AMSP funds were not used for this purpose because of concerns about the long-term viability of the project.
Diversification of the economy as a whole	Yes	Sugar production has continued to decline and its share of GDP now accounts for <1%.

6.5.2 *Belize*

The allocation of AMSP funds differed significantly from that envisaged in the NAS. Specifically, the focus shifted towards improving the road network in cane-growing districts, with 61% of AMSP funds being allocated to road projects, compared with 4% envisaged in the NAS. Other areas identified for AMSP funding were “competitiveness” and “diversification”.

Table 13: Progress towards NAS objectives — Belize

NAS Objective	AMSP Support?	Progress made towards NAS objective
Improve the efficiency of cane production, processing and transportation	Yes	Just 20% of AMSP funds were directed to competitiveness issues and, although sugar production has increased, it is not clear that these funds were a major contributing factor.
Increase and diversify the sector’s revenue via value addition, notably electricity cogeneration	No	A large electricity co-generation facility was built by the privately-owned sugar mill, BSIL.
Diversify agricultural production	Yes	Limited funding but some progress was made.
Pursue alternative livelihoods in agriculture	Yes	Limited funding but some progress was made.
Enhance socio-economic development in the northern region	Yes	More than 60% of AMSP funds were allocated to road improvement, which have had some positive impacts in the northern region.

Within the competitiveness category, two projects dominated: (a) establishment of a cane research and extension service, SIRDI, which has been widely welcomed, although delays meant it became operational only in 2014 and (b) a credit scheme for cane replanting that failed because the high level of indebtedness among cane growers meant that most applicants were ineligible to receive funds.

There is room to lower costs in the cane sector, which has three main areas of weakness: (a) low cane yields, (b) an inefficient cane loading and transport coupled with an inefficient cane delivery/scheduling system and (c) a high level of indebtedness. Moreover, the small size of local and regional markets means the industry has limited access to alternative preferential markets outside the EU.

However, the sector recognises these challenges and is in an advanced stage of formulating a Strategic Development Plan (SDP) aimed at aligning the main stakeholders (growers, miller and government) to take steps to improve industry efficiency and lower costs. Reforming the cane delivery scheduling system and SIRDI's information and farmer outreach systems will play important roles in facilitating this. The success of this plan will dictate whether cane production in northern Belize expands. However, it is likely that area will decline as some less efficient farmers and highly indebted farmers leave the cane sector as pressure from lower cane prices grows. Meanwhile, a new privately-owned mill, which currently grows all its own cane, began operations in central Belize in 2016.

6.5.3 *Dominican Republic*

Unlike the other countries featured in this study, the Dominican Republic did not benefit from AMSP funds. While the EU reform is not good news for the sector, the industry may be able to offset a part of decline in the value of the EU preference by selling more sugar in its domestic market.

6.5.4 *Fiji*

Sugar is an important sector in Fiji, since it provides employment to thousands of farmers and mill workers, often in poor areas. The Fiji sugar industry was not well prepared for reform in 2006. However, with the support of the EU, the industry has devised a plan to improve the prospects for the industry. This has included increasing production by raising both cane and sugar yields, upgrading sugar factories, diversification within the sugar sector, reviewing rail logistics to reduce transport costs and training farmers and seasonal employees.

However, AMSP funding was delayed for several years by the absence of a democratically elected government, which also meant that some funds were not committed. As a result, many AMSP activities are still in the implementation phase. Despite an improved performance in recent years, Fiji remains a relatively high cost sugar producer. Moreover, the lack of alternative markets to sell their sugar at a premium over the world price means that Fiji looks set to remain heavily dependent on the EU market.

Table 14: Progress towards NAS objectives — Fiji

NAS Objective	AMSP or EIB support	Progress made towards NAS objective
To restore a sustainable and competitive sugar sector.	Support to research and improvement of access roads	Industry has had to look for other sources of funding to embark on a competition venture.
To promote a diversified market-driven agricultural sector.	AMSP	In the process of implementation, and so far has shown encouraging signs.
To validate an integrated approach to address socio-economic development needs at local level	AMSP	In the process of implementation, and so far has shown encouraging signs.

6.5.5 *Guyana*

The NAS was over-ambitious and focused on expanding and diversifying the industry, envisaging growing sugar output by more than 50% and investment in packaging, refining and electricity cogeneration. Although AMSP funding was substantial (€169 million), it was modest in relation to the total cost of the NAS (€552 million). GuySuCo's weak financial position meant it was unable to fund ongoing maintenance works, let alone the ambitious investments set out in the NAS. This led to subsequent revisions to GuySuCo's plans.

Meanwhile, EU budgetary support was suspended in January 2015 for political reasons and, although this situation has been resolved, AMSP funds for 2014 and 2015 have been frozen pending delivery of a credible development plan from GuySuCo's new management team.

Table 15: Progress towards NAS objectives — Guyana

NAS Objective	AMSP Support?	Progress made towards NAS objective
Promote the expansion, development and diversification of the sugar cane industry	Yes	No progress has been made, with cane sugar output continuing to contract and GuySuCo's financial situation deteriorating and the company now relying on regular government bail-outs.
Promote the growth and development of specific non-traditional agriculture sub-sectors	No	No progress to date,, but feasibility studies currently underway assessing alternative crop potential.
Provide support for infrastructural and human resource development	Yes	Some road developments completed and training provided.

The expected loss of preference in the EU, Guyana's principal market, means the industry will become exposed to world sugar prices for a large part of its current output. Given that none of GuySuCo's estates can produce raw sugar at a cost of less than 25 US cents/lb, radical reform is needed. This is clearly articulated in the October 2015 Commission of Inquiry report, which is being reviewed by the Economic Services Committee at the time of writing in May 2016 and will its finding will be submitted to Parliament.

Meanwhile, the new management of GuySuCo is studying how best to transition the company into a less sugar-focussed and more diversified agricultural business. This will concentrate the company's sugar output into the lowest cost estates and align it more closely with the size of markets in which it can expect to earn preferential prices (domestic, CARICOM and US quota). It will also switch less efficient cane lands into alternative agricultural uses, which have yet to be defined but are the subject of ongoing studies.

6.5.6 *Jamaica*

The objective of the NAS was to achieve to transition to a sustainable, private sector-led sugar cane industry. AMSP funds supported this objective, with funds initially dedicated to supporting privatisation then shifting to strategic infrastructure, such as feeder roads and drainage systems, as well as continuing community developments for those living in sugar areas.

Table 16: Progress towards NAS objectives — Jamaica

NAS Objective	AMSP Support?	Progress made towards NAS objective
Development of a sustainable, private sector-led sugar cane industry	Yes	Government sold all state-owned estates/mills in 2009 and 2010. Sugar output has remained stable, but no diversification into ethanol production or electricity generation. Much of the sector is unprofitable.
Strengthening of economic diversification, social resilience and environmental sustainability on sugar-dependent areas	Yes	Social support in sugar areas is strong. However, diversification failed to occur on a broad scale.
Progress towards macroeconomic goals	Yes	Debt remains high. However, the public deficit has fallen in 2015 to a stable level. However, recent financial problems in the sugar sector raise the prospect of future government intervention.

The sugar industry in Jamaica currently faces major challenges. At their root, these stem from the sector's high cost structure, which mean the industry cannot compete in the export market at world market prices, even with investment in farms and mills. This reflects the conditions in which cane is grown, namely a tropical climate, largely rain-fed farms/estates and limitations to cane transportation that prevent rationalisation of mills into larger units. Industry efficiency has been further weakened by long-term underinvestment in cane growing and milling operations.

With sugar prices in the EU expected to become more closely aligned with world market prices, and the Government of Jamaica's reluctance to inject further funds into the sector, the only possibly source of funds are consumers in Jamaica via high prices for sugar, electricity or ethanol, and from consumers of sugar in the regional market (CARICOM). In the case of sugar, the industry sells brown sugar locally, but cannot access the local or CARICOM markets for refined sugar without investing in refining capacity. Building a refinery would require a sizeable investment, as would investment in ethanol or electricity cogeneration, none of which is likely with private-sector funding. This suggests cane and sugar output will decline further in the future, with only the most efficient estates remaining in operation.

6.5.7 *Malawi*

Malawi's key goal was to increase production, both horizontally and vertically. AMSP funds supported both of these aspects, primarily through smallholder expansions, capacity building for growers to instil best practice and infrastructure projects.

The industry has made some progress towards achieving these goals. Area under cane has expanded since 2006, growing by over 3,400 hectares, primarily from outgrowers. Around 1,200 hectares of this was developed under EU funded schemes. Similarly cane production has risen over the period. However yields have not shown such a positive trend, falling from around 14 tonnes per hectare in 2006 to 12 tonnes on average currently. This is partly due to the lower productivity of outgrowers compared to mill estates.

Nevertheless, the sugar industry in Malawi is among the better placed industries to mitigate the effects of EU reform, owing to it low costs and its access to alternative sugar markets in the region. However, there is a diversity of costs within the grower base and the future viability of some smallholders is uncertain. Any loss of area will have important implications for livelihoods in sugar dependent areas and will raise the industry's cost structure.

Table 17: Progress towards NAS objectives — Malawi

NAS Objective	AMSP Support?	Progress made towards NAS objective
Increase cane production and factory capacity	Yes	Cane production has increased alongside area, and there have been modest expansions in milling capacity to accommodate this.
Increase production through efficiency in both field and factory operations.	Yes	Since 2006, average yields have fallen due to a larger proportion of cane coming from outgrowers. Prior to the drought mill capacity utilisation has increased.

6.5.8 *Mauritius*

The Government of Mauritius (GoM) came up with a timely plan to enable the sector to address the challenges of the EU reforms in 2006 and those envisaged longer term. AMSP, which was delivered via general budget support, dovetailed with support from the EIB to support the objectives of the NAS (Table 18). GoM's high capacity to absorb EU funding allowed it to use all the instruments made available by the EU for its sugar and macro-economic reforms and has allowed the cane sector to continue the process of diversification. The sector now sells all of its sugar as direct consumption sugars and has enhanced the use of its by-products, notably via electricity cogeneration and production of potable and industrial ethanol.

Table 18: Progress towards NAS objectives — Mauritius

NAS Objective	AMSP or EIB support	Progress made towards NAS objective
Cost reduction	AMSP	Voluntary Retirement Schemes have proceeded well, but wage mechanism and receding production increase costs Mechanisation and regrouping have not materialised for small and medium planters
Additional revenue	EIB	100% direct consumption sugars, new difficulties arising on account of EU FTAs
Optimal use of by-products	EIB	No further movement on biomass, ethanol produced but no ethanol framework yet
Pro-poor measures	AMSP	Cash compensation in time, land allocation suffered from administrative delays, training could have been better
Debt alleviation	Not applicable	Still a major problem on account of administrative delays from 2009 to 2014
Adapting regulation	Not applicable	Ongoing exercise, next review of SIE Act soon
Synergies	Not applicable	Strong resistance from planter associations , no synergy as yet between millers and small and medium planters

Unfortunately, these measures have not yet transformed the industry into a competitive producer at world market prices. This is because it has been adversely affected by falling production (due to ongoing loss of smallholder cane lands) and an institutional wage-fixing mechanism that increases wages faster than the rate of inflation. Moreover, further value addition or optimisation of the use of by-products would require investments at a time when the sector is facing severe and increasing competition. With growers and millers currently facing financial losses, and is carrying large debts, these investments are unlikely and, if unaddressed, will lead to underutilisation of millers' assets and may ultimately lead to severe damage to the industry as a whole.

The small scale of the local market and limited regional market access mean that, despite efforts to diversify markets and products, the EU market still appears to be most interesting one for this country. In an attempt to slow the loss of cane lands, GoM has taken measures to boost the income of small-growers by enhancing transfers from local consumers from the local sale of electricity and potable alcohol.

GoM is aware of future challenges and has announced that it will take appropriate measures locally, namely by reviewing the Sugar Industry Efficiency (SIE) Act, with a view to preparing the sugar industry for the challenges of EU sugar quotas in 2017. At an international level,

GoM is looking to supporting the industry by seeking a review of the non-originating sugars (NOS) tolerance level from 15% to 30% (to maintain throughput at the industry's cane mills) and pursuing efforts to boost regional market access via FTAs.

6.5.9 *Mozambique*

The AMSP made a modest contributed to meeting three of the five objectives of the NAS. This is because funds available were too small to have a significant impact on the future viability of the industry. Moreover, while significant investments have been made within the sector, the industry has not succeeded in meeting the objectives of expanding production to 0.5 million tonnes, or reducing production costs to the level envisaged.

Looking ahead, a key challenge will be finding alternative markets where Mozambique can sell its surplus sugar at a premium to world market values. The success of regional trade integration will be an important determinant of this.

Table 19: Progress towards NAS objectives — Mozambique

NAS Objective	AMSP Support?	Progress made towards NAS objective
Increasing the production of sugarcane	Yes	Output has increased but fallen short of the target of 0.5 million tonnes set out in the NAS.
The training of sugar industry staff	Yes	Ex-patriate workforce has been reduced.
Reducing the distribution cost of sugar	No	Ongoing investment in port infrastructure to reduce the costs of exporting sugar.
Increasing the capacity of sugar mills	No	Expansions at two of the industry's four mills.
Enhancing social services	Yes	AMSP funds have complemented

6.5.10 *Swaziland*

The AMSP have contributed to meeting two of the key pillars of the NAS, namely to support the restructuring needs of the sugar industry and to promote the viability of smallholder farming (Table 20). However, one aspect that was not addressed was the heavy reliance of the economy on the sugar sector. The lack of diversification means Swaziland is still heavily sugar dependent.

The major challenge currently facing the sugar industry is drought, which is expected to lower output dramatically in 2016/17. Although there is a great deal of uncertainty, it looks likely that production in 2017/18 will be affected as well, meaning that the industry will face EU reform in a weakened position from where it had hoped to be.

While the industry is fundamentally low cost, it will have to continue to achieve cost savings to ensure its future profitability, and there is a risk that some of the social services that are currently provided by the industry could be affected in the future.

Table 20: Progress towards NAS objectives — Swaziland

NAS Objective	AMSP Support?	Progress made towards NAS objective
To support the restructuring of the sugar industry while ensuring efficiency gains.	Yes	Outgrower schemes helped to expand sugar output, helping the industry to benefit from economies of scale. However, productivity has been undermined by the drought.
To preserve the viability of smallholder farming and to ensure their future viability.	Yes	AMSP supported the expansion of outgrower schemes, but did little to support existing farmers. Future viability was also enhanced by infrastructure and capacity building.
To work towards preserving the value of trade and developing access to preferential markets.	No	Progress hinges critically on the future of trade negotiations towards establishing the Tripartite Free Trade Area (TFTA).

6.5.11 *Zambia*

Overall, the AMSP appear to have had a limited impact in terms of helping Zambia achieve the goals set out in the NAS. In part, this was because of the modest funding allocation that was received by the country and the ambitious goals that were set. The contribution was limited further by the failure to secure funding for the activities under MIP II.

The industry has moved towards meeting the goals set out in the NAS, which has involved a large scale expansion in sugar production and associated investment in cane area and milling capacity. The AMSP has contributed towards developing outgrower schemes. However, diversification into other product areas has been limited. While investment in refining is taking place, ethanol production has not yet begun. Moreover, while the Nakambala mill is self-sufficient in energy, it does not export power to the national grid.

Table 21: Progress towards NAS objectives — Zambia

NAS Objective	AMSP Support?	Progress made towards NAS objective
Increase sugar's contribution to socio-economic development	Yes	Since 2006, sugar production has increased from less than 250,000 tonnes to more than 400,000 tonnes in 2014/15. Part of this expansion has been supplied by small-scale outgrowers.
Increase value added to sugar and its by-products	No	Industry investing to boost refined sugar production to meet industrial demand in the region. Nakambala is self-sufficient in energy (including irrigation systems)
Improve export infrastructure	No	

Nevertheless, the industry looks well placed to cope with reform. The private sector has made significant investments in the sector and has a clear strategy to mitigate the impact of EU reform. Its low cost structure and access to alternative markets means that the industry is better placed than many to cope if the EU market becomes less attractive in the future.

6.5.12 *Zimbabwe*

The sugar industry has been making good progress in recovering from the economic problems of the 2000s, but has been badly affected by the drought that has hit southern Africa in the last couple of years. However, even in the absence of the drought, the industry is unlikely to have reached production in excess of 600,000 tonnes because of the challenging political and economic situation in the country, which means it continued to operate in an uncertain environment.

In light of EU reform, the sugar industry is targeting new markets in the region. Zimbabwe is a member of COMESA, which gives it some advantage when selling into the Kenyan market. It is also looking at opportunities to sell sugar into southern DRC. However, one of the key focus areas remains the ongoing development of sustainable private sugarcane farmers to boost the industry's cane supply.

Table 22: Progress towards NAS objectives — Zimbabwe

NAS Objective	AMSP Support?	Progress made towards NAS objective
Arresting the decline in the production of sugar and sugarcane	Yes	Production has rebounded from a low point in 2009/10, despite the drought that has been experienced in the last couple of years.
Increasing sugar production to >600,000 tonnes.	No	The drought, combined with the continued political uncertainty has meant production has fallen short of these levels. Production reached more than 400,000 tonnes in 2014/15, but is expected to fall back in 2016/17.
Expansion of the sugar industry to produce up to and in excess of 1,000,000 tonnes sugar per year.	No	

7 Responding to the challenges of EU reform

7.1 How can ACP countries respond?

Our analysis has highlighted the diversity of ACP sugar industries. This means EU reform will affect different countries in different ways. It also means that the ways in which ACP countries will be able to respond to EU reform will differ and will include:

- Focusing more heavily on supplying sugar to domestic and regional markets, especially if they can benefit from preferential access in these markets.
- Diversifying revenue streams. This could be achieved principally by adding value to by-products (notably electricity generation from bagasse and ethanol/alcohol production from molasses). There may also be opportunities to add value to sugar but, as we discuss below, these are limited.

In this section, we discuss further some of the potential, as well as the limitations, of these different mitigation options.

7.2 Regional integration

All the countries featured in this study are members of regional trading blocs (Table 23). In theory, preferential access to regional markets should help ensure them to earn premiums over the world price for sugar sold within these trade areas. In practice, this is not possible only or possible on a limited scale. Sugar is frequently treated as a sensitive product and duty-free, quota free trade has not yet been achieved. Moreover, there are specific issues within each bloc. These difficulties will have to be overcome if ACP sugar producers are to exploit the full benefits of regional integration. However, concerns about the effect of free regional trade on domestic industries means governments often grant sugar special treatment within these trading blocs. These issues are discussed further below.

Table 23: Trading bloc membership

CARICOM	SADC	COMESA	Pacific Community	CAFTA-DR
Barbados Belize Guyana Jamaica	Malawi Mauritius Mozambique Swaziland Zambia Zimbabwe	Malawi Mauritius Swaziland Zambia Zimbabwe	Fiji	Dominican Republic

7.2.1 *CARICOM*

CARICOM applies a common external tariff (CET) of 40% on imports of brown sugar; there is no CET on refined sugar because there is no refining capacity in the region. However, the CET is not been applied rigorously by all countries, limiting the prospect for regional market sales for CARICOM producers. Moreover, brown sugar accounts for only 40-45% of demand in the region, and this market faces strong competition from cheap imports of refined sugar. This means that demand for preferentially-priced sugar is around 140,000 tonnes, of which approximately 45,000 tonnes is consumed in Jamaica (and is supplied locally). This compares with production of in excess of 600,000 tonnes within the bloc, allowing for future output in Belize once the new mill is at full capacity.

7.2.2 *Free Trade Agreements in Africa*

Trade in Southern and Eastern Africa is governed by a complex web of trade agreements. Currently, there is only one trade bloc is which sugar can be traded freely, the Southern African Customs Union (SACU), under which Swaziland has duty-free access to the South

African market (and *vice versa*)[8]. Swaziland currently sells some sugar in SACU and its some to the EU. However, as the premium in the EU reduces, producers will be tempted to sell larger quantities into South Africa, potentially depressing prices in that market.

Elsewhere in the region, the members of ***COMESA***, EAC and ***SADC*** have agreed to the COMESA-EAC-SADC tripartite agreement. The goal of the tripartite free trade area (TFTA) is to create a single customs area for the 26 countries in the three trading blocs, with the aim of moving towards an African Economic Community. However, the movement towards free trade is likely to be slow owing to the continuing classification of sugar as a sensitive good. Progress towards this goal will be critical to producers that have limited access to protected markets.

7.2.2.1 Risks over oversupply in southern Africa

While some producers in Africa have the opportunity to sell sugar into regional markets, there is also a risk of oversupply in their domestic markets. This is illustrated by Diagram 38 which shows that the SADC region is surplus sugar. While this surplus will be eroded over time as consumption grows, how quickly this happens will depend on whether new planned projects come on stream or not over the next decade.

At present, surplus production is sold to the EU market, which clears the markets and allows domestic prices to reflect the tariff-inclusive cost of importing sugar from the world market. However, the EU will not always provide an attractive outlet for surplus sugars after 2017. This raises the prospect of the region becoming over-supplied, pushing prices down towards world market levels.

However, some countries in the region are better placed to cope with this than others. Those that are well placed to sell surplus sugar into Congo DR and the Great Lakes region of central Africa are much better positioned to prevent their local prices being depressed by oversupply. This is highlighted by Diagram 39, which shows that the balance in Southern/Central Africa (which comprises Burundi, Rwanda, Uganda, Southern, Central and Eastern DRC, Malawi, Tanzania, Zambia and Zimbabwe) is actually deficit sugar, and is expected to remain that way, even if new projects were to come on stream.

This places Malawi, Zambia and, to a lesser extent, Zimbabwe, in stronger position than coastal producers, notably Mozambique. Swaziland has the potential to sell more sugar in South Africa, but that market is fully supplied with locally-produced sugar.

Diagram 38: Projected supply/demand balance in SADC region

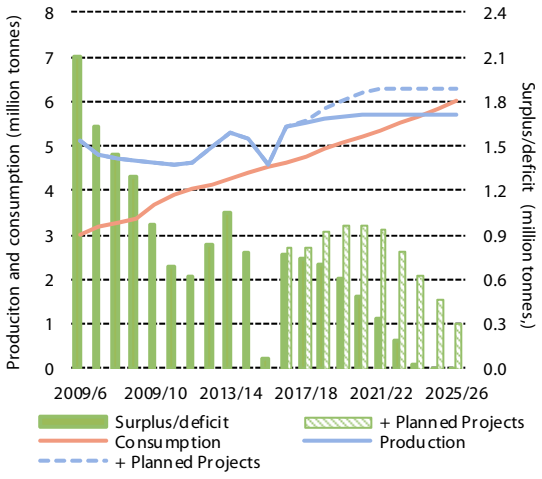
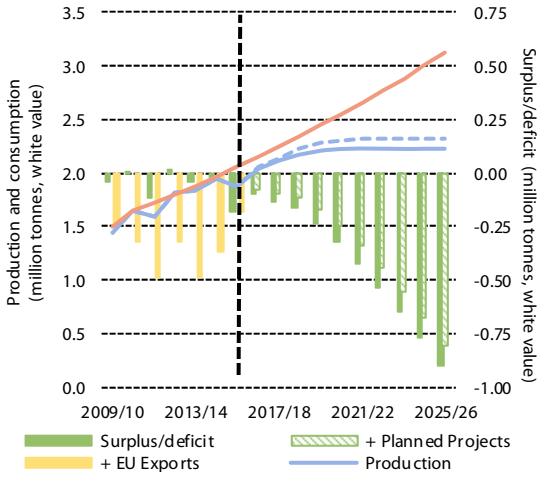


Diagram 39: Projected supply/demand balance in Central/Southern Africa



[8] South Africa is also a surplus producer in most years. However, a single desk selling mechanism ensures that any surplus is removed from the domestic market, ensuring that domestic prices trade above world market levels.

7.3 Diversification of revenue streams

The other strategy that industries can pursue, and some already do, is diversification of revenue streams. Possible forms of diversification include generation of electricity from bagasse for sale to the grid, ethanol or alcohol production from molasses, and value adding to sugar (e.g. packaging of direct consumption raw sugar, refining, manufacture of specials, Fairtrade and organic).

Diversifying revenues in this way is potentially attractive, but requires investment to unlock this potential. If the commercial conditions are right, it can add value to low value by-products and generate income streams that are not correlated with sugar prices. Moreover, by increasing sales in local markets (e.g., direct consumption sugars, electricity and ethanol) and regional markets (e.g., direct consumption sugars), it is possible for governments to generate welfare transfers from consumers to the cane sector to help mitigate the impact of preference erosion in the EU.

However, not only is investment needed to unlock this potential, clear and well formulated regulatory frameworks are required to assure investors. As we discuss below, some of these markets are limited in size and there is therefore a risk of them becoming oversupplied in many producers pursue this course of action.

To summarise the current situation, Table 24 lists the value adding activities in which each ACP industry is currently engaged. This reveals that few ACP sugar industries currently have the capacity to produce these value-added products on a significant scale.

Table 24: Adding value to sugar and sugar by-products

	Electricity Export	Ethanol/ alcohol	Speciality Sugars	Fairtrade Sugar	Organic Sugar
Barbados	✗	✗	✓	✗	✗
Belize	✓	✗	✓	✓	✗
Dominican Republic	✓	✗	✗	✗	✗
Fiji	✗	✗	✗	✓	✗
Guyana	✗	✗	✓	✓	✗
Jamaica	✗[1]	✓	✗	✓	✗
Malawi	✗	✓	✓	✓	✗
Mauritius	✓	✓	✓	✓	✗
Mozambique	✗	✗	✗	✓	✗
Swaziland	✓	✓	✓	✓	✗
Zambia	✗	✗	✓	✓	✗
Zimbabwe	✗	✗	✗	✗	✗

Note: 1. Capacity to produce 15 MW of electricity was installed in 2015 at the Frome and Monymusk Estates in Jamaica. However, no power has been exported to date due to difficulties with Power Purchase Agreement negotiations between the producers and Jamaica Public Service Company Ltd.

7.3.1 *Electricity export*

Electricity cogeneration provides an opportunity to add value to bagasse by producing surplus electricity for sale to the national grid. This has proved to be a successful strategy for producers in many of the world's leading sugar industries, including Brazil, Australia, Thailand and Guatemala. In addition to generating additional revenue, cogeneration has the advantage that the revenue stream is not linked to sugar prices and is often set under long-term contracts that provide certainty over the revenue generated from this source. Moreover, it provides a means for creating welfare transfers from local electricity consumers to the cane sector in the form of a green premium to mitigate the loss of preference in the EU.

Some ACP countries, most notably Mauritius and Belize, have invested heavily in cogeneration capacity. However, most have not and sell little if any surplus electricity to the grid. Moreover, producers will be able to exploit this potential only if remunerative power purchase agreements are put in place. Assuming the investment environment is attractive, the potential to support bagasse-based cogeneration investments exists in all ACP countries, but there are limitations in some industries.

- In southern Africa, cane millers have shown interest in developing cogeneration projects to address rising demand for electricity in the region. However, electricity prices offered to potential investors remain too low for the most part and are hampered by the low cost of hydro-electric power and availability of cheap coal.

- In industries where mills are small and cane supply has been falling, the commercial case for investment cannot be made.

- Low world energy prices currently reduce the avoided cost of fossil-fuel based electricity and support for bagasse-based power therefore requires a firm government commitment to offer premiums for renewable energy.

7.3.2 *Ethanol*

Sugar producers can to add value to molasses through the production of alcohol for industrial and potable uses, as well as ethanol for duel use.

- Molasses is already used to manufacture alcohol in many ACP countries, including rum throughout the Caribbean. In some instances, alcohol is manufactured by cane millers; in others, it is produced by independent companies that source locally-produced molasses. Either way, it increases demand for molasses and may thereby support prices. In Mauritius, the government levies a tax on local sales of potable alcohol and the proceeds are used to support cane prices earned by all planters.

- By contrast, there is limited production of fuel ethanol in ACP sugar-producing countries. This reflects the absence of a supportive policy environment. Today, only Malawi has an effective policy and produces ethanol (albeit at independent distilleries). Jamaica has established an ethanol blending mandate; however, the country is a net importer or molasses for its rum industry and the country imports fuel ethanol in the absence of local production.

Given the finite size, and slow growth, of alcohol markets, ethanol offers greater scope for adding value to molasses in industries where surpluses are produced. However, current low world gasoline prices mean that it is currently difficult for molasses-based ethanol to compete on price. This means that government policy is needed to create a market for ethanol and support prices. This typically requires imposition of a mandate to ensure that ethanol is blended with gasoline and a duty on ethanol imports to protect the local market. Such a policy would involve a transfer from consumers to producers, with local consumers ultimately paying higher prices for fuel than they would in the absence of such as policy. As with electricity cogeneration, this requires a clear commitment by government to a green energy policy that has so far been lacking in most countries.

7.3.3 *Value addition*

Millers can also add value to sugar by producing packaged products or moving up the value chain. Some countries have highlighted speciality sugars, Fairtrade and even organic sugar as a way of mitigating the impact of declining prices in the EU. While these types of sugar could play some role in helping to achieve this, they are all have limited markets and there is a risk that increased supply could undermine current price premiums.

7.3.3.1 Packaging

In order to access local and regional markets for direct consumption sugars, producers must be able to package, store and handle sugar. By unlocking access to these markets, producers have the possibility to secure higher-value revenue streams. Construction of the Enmore packaging plant in Guyana, which was supported by AMSP funding, is an example of this. GuySuCo currently sells more than 50,000 tonnes of direct consumption sugars locally and within CARICOM.

The value of these markets can be enhanced further by government intervention in the form of protection against imports. In this way, governments can establish welfare transfers from consumers to the cane sector. Recent examples of this include Belize, Fiji, Mauritius and Mozambique.

However, there are limitations to the benefits from selling direct consumption sugars. In some cases, this reflects the small size of local markets and limited access to regional markets (as discussed above). In others, absence of local refining capacity means producers cannot access the entire local and regional markets.

7.3.3.2 Speciality sugars

Mauritius was a pioneer in the production of speciality sugars, which it sells in the EU as well as in many other markets around the world. Other ACP countries now also produce these sugars and some are currently looking into developing them, attracted by the large premium they command.

There are many types and qualities of speciality sugars. Some are relatively easy to make; others require know-how that creates a barrier to entry. The EU market for speciality sugars, including direct consumption raw sugar, is estimated at around 250,000-300,000 tonnes.

Concern was raised, notably in Mauritius, that this niche market in the EU, which if a very valuable source of value addition for the industry, has been weakened in recent years. This is because new countries, especially Colombia, have gained access to the EU under recently-signed FTAs and have started supplying large quantities of speciality sugars. In the case of Mauritius, this has resulted in a drop in sales of these sugars.

7.3.3.3 Fairtrade sugar

Sugar sold as Fairtrade attracts a premium of US$60/tonne, which is passed on to growers to be spent on projects that benefit their communities. Many ACP countries have growers that have achieved Fairtrade accreditation, including Belize, Mauritius, Fiji, Swaziland, Malawi and Zambia. Indeed, AMSP funds helped farmers in Fiji to achieve accreditation.

However, some farmers have become disillusioned with Fairtrade sugar because, despite achieving accreditation, they have been unable to sell their sugar as Fairtrade. The reasons for this are twofold. First, supply of Fairtrade accredited sugar far exceeds demand. Second, the decline in sugar prices in the EU since 2013/14 has made it commercially much harder to pay the premium on Fairtrade and remain competitive with beet sugar and cane sugar that does not pay the Fairtrade premium.

These developments mean that a large proportion of Fairtrade accredited sugar is sold as conventional sugar. For examples, sales in the UK, which is by far the largest market for Fairtrade sugar in the EU, have plummeted; in 2014, 142,000 tonnes of Fairtrade sugar was sold in the UK. This fell to 96,000 tonnes in 2015, and sales are expected to fall further in 2016[9]. This indicates that, while some farmers will continue to benefit from the Fairtrade premium, this market will not compensate for the lost value of the EU preference.

[9] Data provided by the Fairtrade Foundation.

7.3.3.4 Organic sugar

In the EU, organic sugar is a niche product with demand estimated at around 110,000-150,000 tonnes per annum. Moreover, many organic sugar users demand organic cane sugar that cannot be produced in the EU other than in France's overseas territories. Organic sugar commands attractive premiums over conventional sugar because the EU is supplied largely by countries must pay the full duty when selling sugar in the EU (e.g. Brazil and Paraguay). This means that, after 2017, prices of organic sugar should hold up better than conventional sugar. However, organic sugar is expected to remain a small part of the market.

Developing organic sugar production is very challenging, especially in a tropical climate, and explains why there is currently no organic sugar production in the countries featured in this study (Table 24). The Mauritian industry did produce organic sugar, but abandoned production due to the challenges it posed. Even if the agricultural hurdles can be cleared, milling of organic cane and the subsequent handling and storage of organic sugar requires careful segregation, making it time-consuming and costly to meet this standard.

7.3.4 *Conclusions*

There is no doubt that diversification of revenue streams through value addition provides a means of for ACP sugar industries to mitigate erosion of preference in the EU. However, it has its limitations.

- In the case of electricity cogeneration and ethanol/alcohol production, governments must create an attractive policy environment and investment climate by supporting the use of renewable electricity or bio-fuel if the private sector is to make significant new investment to produce these products. This is more challenging in the current environment of low world energy prices. It is also more difficult to achieve in industries where the underlying cost of growing cane is high and continuity of future supply is at risk.
- Adding value is limited by (a) the size of local/regional markets for direct consumption sugars as well as by the need for refining capacity and (b) the finite size of markets for special, Fairtrade and organic sugars.

Nevertheless, each of them provides some opportunity to diversify revenue streams, albeit with private-sector investment coupled government policy support.

8 Conclusion

ACP sugar industries are in varying states of readiness for the market changes that are expected following the abolition of quotas in the EU on 1st October 2017. While AMSP funds have helped ACP countries, to varying degrees, to adjust in anticipation of the new market environment, many industries still rely heavily on the preferences they have received from sales to the EU. Moreover, the low prices that were witnessed in the EU market in 2015 mean that producers are already experiencing the challenges that they were expected to face only after 2017.

There are many reasons for the wide range of circumstances among ACP sugar industries.

- Some have fundamentally better agro-climatic conditions that allow them to achieve internationally competitive costs. Many southern African countries fall into this group.
- Others face more challenging agro-climatic and structural conditions that mean they are unlikely ever to be competitive producers of bulk raw sugar at world market prices. This applies to Barbados, Fiji, Guyana, Jamaica, Mauritius and Fiji.

- Some have taken measures to improve efficiency and diversify their products and markets. Mauritius is a good example of this.

- Others are fortunate to have access to remunerative regional markets that will help to mitigate the impact of the erosion of preference in the EU. This includes Malawi, Zambia and, to a lesser extent, Zimbabwe.

However, all of them are likely to experience lower average selling prices of sugar as EU prices become more closely aligned with world prices. This will result in a decline in incomes in sugar-dependent areas in these countries.

- In some industries, the vast majority of cane and sugar production is not under threat, but there may nevertheless be vulnerable stakeholders, notably smallholder producers, and the ability of milling companies to offer social services will be reduced.

- However, there are a few industries that play an important role in their countries or regions that face major challenges, namely Fiji, Guyana and Jamaica. Fiji faces the additional challenge of recovering from the devastation brought about by Cyclone Winston.

While many of the industries in southern Africa are better placed to cope with reform, the structure of these industries differs from many of the world's major exporters which play a key role in setting the level of world prices:

- Many southern African producers provide social services such as education and healthcare that would not otherwise be provided by government, which is not the case in countries such as Brazil and Thailand. This means that these industries incur costs than are not incurred by producers that they have to compete with.

- Several industries have actively pursued policies, often with AMSP funding, to bring outgrowers into the sector. Many have taken on debt in the process and there are concerns about their ability to pay this back if the return from sugarcane cultivation declines post EU reform. Similarly whether the size of the plots that have been allocated to growers are large enough to generate a decent income is also being questioned by some stakeholders.

From our discussions with stakeholders and analysis of each industry, which we summarise in this Main Report and which we discuss in more detail in the Country Annexes, we are able to draw a number of conclusions.

8.1 Welfare transfers

There are few industries in the world that can compete at world market prices. This means that, as sugar prices in the EU have come down towards world market levels, the challenges facing all ACP industries have increased and some industries are already struggling to cover their costs. This is having differing impacts in ACP industries, but many face the prospect of a decline in rural incomes and loss of cane area, with the socio-economic and environmental, consequences associated with a crop that often has a deep-rooted presence in many of these countries.

In the absence of private sector investment, the governments of these countries must decide if and how they wish to mitigate these impacts. Their choices are:

- To direct budgetary resources to the sugar sector, diverting resources from other beneficiaries of government expenditure.

- To tax consumer via higher prices for sugar, ethanol or electricity, creating transfers to the sugar sector.

Such transfers already exist and are increasing. In some cases, they are the result of deliberate policies; for example, recent increases in domestic sugar prices in Belize, Fiji, Mauritius and Mozambique. In others, they are involuntary, such as government bailouts of GuySuCo, the loss-making state-owned sugar industry in Guyana.

8.1.1 Unlocking the potential for welfare transfers

No governments in ACP countries appear willing or able to incur ongoing budgetary cost to support their sugar industries. In Guyana, which faces the greatest financial difficulties, there has been a recommendation to privatise GuySuCo. In Jamaica, where at least estates face the prospect of closure, government has stated its reluctance to take ownership of cane farming and milling.

However, if governments wish to support their sugar industries, but not from the budget, the only other possible source of funds are consumers via transfers from the prices they pay for sugar, electricity or ethanol.

8.1.1.1 Sugar

In the case of sugar, transfers can be secured from local consumers, as well as consumers in regional trading blocs if sugar is allowed to trade freely within trade areas. This requires governments to allow local prices to rise with the use of tariffs (which the government Belize, Fiji, Mauritius and Mozambique have already done) and to promote integration in regional trade blocs (which is proving much more difficult as it requires cooperation among member states). An irony of this approach is that ACP countries will be raising prices at a time when they will fall in the EU, raising the prospect that consumers in some African countries will be paying higher prices for their sugar than EU consumers in order to help support their domestic industries. At the same time, EU farmers will benefit from decoupled support, and in ten member states additional coupled support, while cane sugar producers in the French overseas territories benefit from additional assistance.

Moreover, there are limits to the impact that these measures can have because (a) national or regional markets may be small (e.g. Fiji or CARICOM) or (b) the market for refined sugar cannot be accessed without investing in refining capacity. A success story within the ACP group is Mauritius, which build two refineries (with the assistance of EIB funding), allowing the industry to transition successfully to producing all of its sugar as value-added direct consumption sugars (refined sugar and special sugars).

Building a refinery, or developing other value added sugars require investment and this will be forthcoming only if investors feel their markets are secure. In this respect, stakeholders noted that the EU's enhanced access under new FTAs has increased competition for special sugars, placing downward pressure on premiums and their sales volumes. Stakeholders have raised the possibility that the EC could intervene to limit future access for sugars classified as "raw sugar not for refining". Another threat to investors is future loss of cane supply and the industry in Mauritius has taken advantage of the 15% NOS tolerance rule by importing raw sugar, refining it and re-exporting it. This activity has been to the benefit of planters and millers, who share in the proceeds of this activity, and also refiners who earn a fee for refining and who have also benefitted from greater utilisation of their costly fixed assets. The industry would welcome an increase in this tolerance to 30% and the government of Mauritius is lobbying for this.

8.1.1.2 Electricity and ethanol

To date, there has been very limited investment in either of these value adding activities in ACP countries, with only Belize, Mauritius and Swaziland having made major investments in electricity cogeneration for sale to the grid. However, to unlock the value added from these activities, and open up the opportunity to create transfers from consumers, two things are

necessary. First, governments must create an attractive policy environment and investment climate by supporting the use of renewable electricity or bio-fuel and (b) the private sector must invest.

This is more challenging in the current environment of low world energy prices and is more difficult in industries where the underlying cost of growing cane is high and future of future supply is at risk. This highlights the need for clear and robust long-term policies in countries to ensure these renewable energy sources can be exploited.

8.2 Legacies of ACP preferences

The cost structures of some long-standing ACP sugar producers have been inflated by institutions and practices, as governments sought to distribute the past benefits of EU access. The best example of this is in terms of employment in sugar industries, encompassing remuneration and working conditions. In some cases, these have been embodies in separate legislation then applies to employment in other sectors. However, it is impossible to retain these and remain viable as EU preferences are removed. This is still a major challenge in some industries, none more so than Guyana.

Some countries, notably Mauritius and Jamaica, have addressed the challenge of employment (with AMSP funding) by buying out employees' existing contracts. Similar programmes will be almost certainly needed in other industries, in particular, Guyana, if it is to ensure the future viability of the most cost-competitive parts of its sugar industry.

Another area that is under discussion in several countries is the future of single-desk marketing. With producers needing to diversify markets and products, there is growing pressure to reform current marketing channels, granting producers greater autonomy in their pursuit of improved revenues and reconciling market opportunities with product flexibility. However, many independent growers are wary that this may reduce transparency surrounding industry proceeds, which form the basis for determining cane prices in most ACP countries. This is an area where constructive discussion and technical support may be needed in some countries to ensure an orderly transition, if marketing arrangements are changed.

8.3 Diversification out of sugar

Loss of EU preference will result in further contraction of cane area in higher cost countries. Where cane land will be lost, this should be done in a considered and constructive way that allows the country to become more agriculturally diverse and minimise the environmental and aesthetic consequences.

This will require studies into alternative land uses, whether they be for conventional agricultural purposes (as is currently being studied in Guyana) or for production of high-fibre plants for use as biomass for electricity generation (as has been suggested in Mauritius).

8.4 Weather problems mean that several ACP countries will face EU reform below full strength

While many ACP countries have been taking measures to help mitigate the impact of EU reform, in some cases, their efforts have been undermined by events that were outside of their control.

- ***Drought in southern Africa***. Southern Africa is facing its third year of drought and the lack of water is affecting production in many countries, most notably Swaziland, Mozambique and Zimbabwe. For example, Swaziland currently expects sugar output in 2016 to decline by more than 20% as a direct consequence of the dry weather. The severity of the current drought and this has raised concerns about future water availability of the industry. Further investment in water storage and water harvesting may be required to ensure sufficient irrigation water going forward.

- ***Cyclone Winston (Fiji)***. In February 2016, Fiji was hit by a cyclone, which was one of the most severe in the country's history.

These events mean that several ACP countries will be heading towards 2017 below full strength. Moreover, while it is impossible to predict future weather, climate change forecasts suggest that weather events are likely to be more severe than they have been in the past. This puts industries at greater risk going forward. In Fiji, for example, the issue of crop insurance has been raised, while water management has moved strongly up the agenda in southern Africa.

9 Recommendations

While AMSP have undoubtedly helped industries to adjust to the new market environment, their contribution has been varied and most countries were not able to achieve the goals set out in their National Adaptation Strategies. This means that all ACP countries still have work to do. Indeed, some still face considerable challenges and require far-reaching reforms to address the impact of EU reform.

Below, we summarise our recommendation for future action for both the ACP and potential donors, including the EU.

9.1 Market access and competitiveness

ACP

- Pursue regional integration for sugar as a matter of priority.
- Continue to pursue improved industry competitiveness.
- Monitor market distorting policies at a regional and global level.

Potential EU/Donor support

- Technical assistance to support the regional integration process.
- Consider the impact of new trade agreements on historical trading partners including the ACP. This applies to overall access for sugar and for value-added sugars.
- Consider measures to retain ACP presence in value added market segments (e.g. refined and speciality sugars), which could help to the ease the transition to a more competitive market.

While governments are free to support their industries by raising tariffs within their WTO commitments, coordination between countries within FTAs is required if producers are to gain from the benefits of wider regional market access. This would mean agreement on, and effective implementation and monitoring, of common external tariffs. If market access is to include refined sugar, it would be necessary to co-ordinate tariff changes with private sector investments in refining capacity in regions where it is currently lacking. A key challenge will be alignment of current diverse import policies and balancing the interests of sugar producers and consumers, and technical assistance would help facilitate this process.

Measures regarding access to the EU market can have an immediate impact, while greater integration of regional trade could take many years. When considering measures to support value adding activities, the EU should be aware that these markets are limited in size. This means that the expansion of production within the ACP could result in over-supply (even if access for other countries is restricted).

At the same time, industries will need to continue to improve their competitiveness to ensure that they are able to operate profitably in a more liberalised market environment. However, with the AMSP funding period coming to an end, these activities will be increasingly private sector-led unless other funding sources are available. For example, the ACP Sugar

Research Programme, which has been EU funded, is recognised by stakeholders as having played an important contribution to the development of new cane varieties.

It will also be important for ACP governments to monitor the policies that other countries employ. At a global level, policies in countries that export large quantities of sugar can have an impact on the level of world sugar prices. At a regional level, national policies can influence the free movement of sugar within trading blocs.

9.2 Diversification

ACP

- Assess opportunities to diversify away from sugar where industries are unsustainable at their current size.
- Create a policy and investment climate that is supportive to responsible investment to encourage diversification within the sugar sector where cane production can be sustained.

Potential EU/Donor support

- Support studies on alternative land use aimed at supporting livelihoods and limiting environmental impacts.
- Provide technical assistance in the development of appropriate policies and legislation.

For industries facing a decline in sugar output and diversifying away from sugar, technical assistance will be required to identify alternative land uses and to develop strategies to maintain employment opportunities and support livelihoods, as well as minimise the environmental impacts of loss of cane lands.

Diversification within the sugar sector is ultimately a private sector activity. However, ACP government support should be provided, where appropriate, in the form of legislation needed to create an attractive investment environment for new products. Technical assistance should be considered where local capacity constraints are a barrier to effective design and implementation of policy.

9.3 Resolving institutional and legacy issues

ACP

- Address employment legislation that was designed to share the value of EU preferences among the wider population, but is no longer affordable in current commercial circumstances.
- Review the role that the sugar industry plays in the provision of social services.
- Assess the future viability of outgrowers. In some industries, they have become a larger share of supply base since 2006, but are vulnerable to the impacts of the 2017 reform. In others, outgrowers are an important part of industries' supply base but are declining, which is affecting livelihoods and the viability of the milling sector.
- Evaluate the implications of changes to single-desk marketing arrangements that are currently being discussed, as millers seek greater independence in marketing to offset.

Potential EU/Donor support

- EDF funds could support structural adjustment.
- Technical assistance to assess labour reform, social service provision, outgrower viability and marketing arrangements.

In the past, some countries chose to share the value of the EU preference with industry stakeholders through the terms of employment offered to workers in the sector. In some industries, these terms are no longer affordable and are an impediment to ensuring the future viability of the sector. Measures to resolve this situation, while remaining socially acceptable, will be high cost.

Governments should review the role that it plays in the delivery of social service provision in sugar-dependent area, taking into consideration the commercial circumstances of the sugar industry and any welfare transfers that benefit the industry.

While several outgrower schemes have developed since the 2006 EU reforms, and many with AMSP funds, an assessment of their future viability is required to ensure that they are sustainable in the long term.

Liberalisation of single-desk marketing has far-reaching implications, raising issues around ownership of sugar and price transparency for growers. This is a very sensitive area and technical support is critical in helping industries arrive at a consensus and way forward.

9.4 Right-sizing industries and reducing vulnerability

ACP

- In countries where far-reaching reforms are still needed, new and realistic strategies must to be developed to address the social and economic impacts of EU reform.
- Develop strategies to mitigate the threats caused by extreme weather events (e.g. droughts and cyclones).

Potential EU/Donor support

- Technical assistance and support via EDF to implement the strategy.

Where industries are unable to cover their costs, and it is agreed that they cannot be profitable at their current size, they must right-size to match the markets where they can sell sugar profitably. This should allow for socially-acceptable transfers from other segments of society (e.g. consumers or tax payers). This will involve difficult political decisions.

Where cane is irrigated and water availability is limited, support may be needed to improve the efficiency of water management system. One-off events such as cyclones may require consideration of crop insurance schemes.

9.5 The environment and sustainability

ACP

- Consider the wider multi-functional role that ACP sugar industries can play, particularly in countries where diversification is difficult.

Potential EU/Donor support

- Funding could provide support to mitigate the consequences of the changing shape of the sugar industry in some countries.

In some countries, the sugarcane sector plays an important socio-economic and environmental role. It is important that this is recognised by governments. For example, with some ACP countries identifying the environment as a key issue to be addressed under the 11th EDF, there is the potential for funds from this source to play a role in addressing any negative consequences associated with industry restructuring.

9.6 The role of the EU and agency coordination

- Given the wide range of activities that ACP countries still need to undertake, and the capacity constraints within each country, there is still a need for the EU, or other donors, to engage with ACP countries to help them to adjust to the future market environment.

AMSP is coming to an end and the EU should assist beneficiaries to ensure all remaining committed but uncontracted funds are fully used. ACP governments and the EU should then consider support through the other instruments at their disposal, notably the EDF program. However, such assistance will have to be considered in the context of the broader national objectives and priorities of each country. Access to preferential finance through the EIB could also help support relevant private sector investments. For this to work successfully, close coordination between (and within) the EC and these funds/organisations, ACP governments, the private sector and other stakeholders will be required to ensure that reform objectives are fully achieved.

Annex 1: Terms of Reference

FRAMEWORK CONTRACT BENEFICIARIES

TERMS OF REFERENCE FOR A STUDY ON CURRENT AND FORECAST MARKET DEVELOPMENTS FOR ACP SUGAR SUPPLIERS TO THE EU MARKET

Lot: no. 1 Rural Development
Request no. 2015/370301/1

1. BACKGROUND

1.1 Beneficiary Institutions

The Secretariat of the ACP Group, representing the African, Caribbean and Pacific (ACP) Group of States.

1.2 Contracting Authority

The European Commission, on the behalf of the ACP Secretariat.

1.3 Relevant institutional background

1.3.1. The Secretariat of the ACP Group of States

The Secretariat of the ACP Group was created under the Georgetown Agreement signed on 6 June 1975. Key areas of its mandate include monitoring the implementation of the ACP-EC Partnership Agreement and implementation of the decisions of the main organs of the ACP Group, namely the Summit of Heads of State and Government, the Council of Ministers, the Committee of Ambassadors and the ACP Parliamentary Assembly.

In this respect, the Secretariat is entrusted by the Georgetown Agreement to provide good quality technical and administrative support and services to the members and organs of the ACP Group. The Secretariat carries out the tasks assigned to it by the various organs of the Group through the implementation of their decisions and its own initiatives aimed at contributing to the harmonious realisation of the Group's tasks. Moreover, the Secretariat acts as co-Secretariat of the joint institutions, liaising between the two sides and participating in the preparation of joint technical documents and draft proposals.

The ACP Secretariat thus services all of these institutions by, inter alia, servicing meetings of ACP and ACP-EU organs, in, *inter alia*, providing specialized technical advice and policy papers on issues that constitute the main pillars of ACP-EU Partnership and others that contribute to the attainment of the objectives of the Georgetown Agreement.

The ACP Secretariat, including its Geneva Antenna, is the only permanent executive Organ of the ACP Group and its collaboration with the European Commission dates as far back as the creation of the ACP Group in 1975. It has been the technical arm in the negotiations

leading to the conclusion of all ACP-EU Conventions including the current Cotonou Agreement, and to the first phase of the EPA negotiations and has continued to play the coordinating role during the EPA negotiations with the seven regional groups configured for these negotiations.

1.3.2. The other ACP Organs and the EU-ACP Joint Institutions

The ACP Organs
The Georgetown Agreement establishes the Council of ACP Ministers as one of the decision-making bodies of the ACP Group and provides that it "shall define the broad outlines of the work to be undertaken for the attainment of the objectives" of the Group. The Council meets twice a year in regular session and has established a number of Ministerial Committees and Consultative Groups, dealing with specific subjects, i.e.: Development Finance Cooperation, Ministerial Trade Committee, Bananas, Sugar, Cotton, which usually meet in conjunction with the Council.

The Georgetown Agreement provides that the ACP members of the ACP-EU Joint Parliamentary Assembly (JPA) act as an advisory body to the ACP Group. They meet twice a year. The Meeting of ACP members of the Joint Parliamentary Assembly is the organisation of ACP Parliamentarians who are members of the ACP-EU Joint Parliamentary Assembly.

The Georgetown Agreement also established the Committee of Ambassadors as one of the decision-making bodies of the ACP Group. The Agreement specifies that the Committee of Ambassadors "shall assist the Council of Ministers in the performance of its functions and shall carry out any mandate entrusted to it by the Council of Ministers". The Committee of Ambassadors meets, at least, twice a month. It has set up seven Subcommittees, on Trade and Commodity Protocols, Financing and Development, Establishment and Finance, Political, Cultural, Social and Humanitarian matters, Sustainable Development, Private Sector and Investment and Sugar, which on average also meet twice a month as well as Working Groups for cotton, sugar, banana, rice, REACH and countries under sanctions.

Under the Cotonou Agreement, the National and Regional Authorising Officers are responsible, *inter alia*, for the coordination, programming, regular monitoring and annual, mid-term and end-of-term reviews of implementation of ACP-EC development finance cooperation, and for coordination with donors.

Finally, the ACP Heads of State and Government have held regular meetings (5 times) since 1997 when they held their first Summit in Libreville.

The Joint Institutions
The Cotonou Agreement establishes the ACP-EC Council of Ministers as the principal decision-making body of the ACP-EC partnership that meets once a year. The Agreement also creates the ACP-EC Development Finance Cooperation Committee and the Joint ACP-EC Ministerial Trade Committee. They usually meet twice a year and report to the Joint Council. The ACP-EU Joint Parliamentary Assembly acts as a consultative body, under the Cotonou Agreement.

Furthermore, the ACP-EC Conventions (including the Cotonou Partnership Agreement) created the ACP-EC Committee of Ambassadors in order to "assist the Joint ACP-EC Council of Ministers in the fulfilment of its tasks and carry out any mandate entrusted to it by the Joint Council", which usually meets once a year.

1.4 Context of the action

In June 2014, the ACP Ministerial Meeting in Nairobi determined the need for a review of the economic and social consequences for ACP sugar exporting countries of the current and forecast evolution in EU sugar regulations, of the current and expected Free Trade Agreements between the EU and third countries, and of EPA regional integration.

Significant value of preferential market access conditions to ACP economies, specifically for the commodity and other agro industry sectors which are of critical importance to the economic and social development of the ACP states and have major contribution to employment, export earnings and Government revenue.

Continued reliance on its established long term sugar trade partnerships with Europe well beyond 2015 EU market and preferences may have inhibited the countries concerned from seeking out regional and alternative global markets. Africa in particular is a net importer of sugar with a growing domestic market and trading preferences for sugar within Africa under free trade arrangements are of increasing significance.

From 1 January 2008, all agricultural products from the majority of ACP countries (all 79 except 4 countries in Africa and 8 in the Pacific) enter EU markets with either EPA market access unilateral provisions granted in anticipation of EPA ratifications, or continued duty and quota free access for LDCs under the EU's Everything But Arms (EBA) Initiative regime under the GSP.

As from October 2009, the ACP sugar supplying states have been exporting sugar to the EU under new conditions where market access opportunity is offered to all ACP, both LDCs and non-LDCs that had concluded EPAs. Exports from non-LDC ACP suppliers were subject to thresholds limitations until 30 September 2015. After that date, usual multilateral and bilateral safeguards continue to apply. Exports from LDCs continue under EBA.

As regards sugar, the reform of the 2006 EU Sugar Regime has had several major consequences for ACP and LDC suppliers benefiting from preferential access arrangements. The ending of the Sugar protocol by the EU pursuant to a WTO ruling removed the guarantee of purchase, institutional prices were reduced by 36% and the EU domestic quota sugar production was cut. In mitigation of the planned drop in institutional prices, the EU agreed to provide EUR 1.211 billion from 2006 to 2013, to 18 Sugar Protocol countries (Accompanying Measures to Sugar Protocol countries-AMSP). The AMSPs supported a wide variety of projects that range from improving competitiveness, if viable, in the new trading environment to promoting diversification into other agricultural activities and meeting certain social costs resulting from Reform

Regulation 266/06 also emphasised the complexity of the task faced by the SP beneficiaries bearing in mind the socio economic importance of the industry and its significant reliance on the EU market. The Regulation also emphasised the urgency of providing assistance to maximise the chances of success in adaptation.

The sugar reform of 2006 and CAP reform of 2013 have brought changes to the legal and institutional measures affecting the EU sugar market. The sector, both in the EU and suppliers from ACP countries and LDCs suppliers have responded to the changed regulatory environment. Thus the market is in a stage of transformation, which could therefore benefit from analysis from the point of view of ACP suppliers.

Planning and investment decisions for sugar cane have been, and are, being made from a perspective which requires a view of market conditions from now to well beyond 2017. It is therefore of major concern that several imminent intertwined factors could materially influence the prospects for ACP and LDC suppliers.

2. DESCRIPTION OF THE ASSIGNMENT

2.1 Objectives

The **overall objective** of the assignment is to provide policymakers with a comprehensive and structured economic analysis that would facilitate their decision making in considering strategic options in agricultural and sugar policy. This objective is to be reached by a comprehensive review of recent evolutions in the regulatory and market conditions under which EU-ACP sugar trade is conducted, in evaluating the AMPS effectiveness and in assessing ACP states strategies to cope with the new EU trading environment as well as of the likely challenges its sugar industries face

The **purpose (specific objective)** of the action is to acquire specific data and assessment of recent and possible forecast market developments for ACP sugar suppliers to the EU market, in relation to: The evolution of the EU market after the EU sugar regime reforms, The AMSP support mechanisms and Alternative markets for ACP sugar.

2.2 Macro-Economic Modelling:

Starting from 2006, the Consultant will describe the likely impact (on prices and volumes shipped) on ACP sugar exporting countries up to 2024 of the following elements, amongst others he/she may identify as relevant:

- The abolition of EU sugar and isoglucose quotas in 2017.
- The EU's current and known potential FTA arrangements with non-ACP countries, which provide preferential access for imports of sugar into the EU market.
- The existence and administration of the "CXL" TRQs.
- The policies of major sugar producing countries, notably Brazil, Thailand, India and the USA.
- World market developments, notably in Asia and the Middle-East, and including within Africa.
- Currency exchange-rate fluctuations.
- The financial consequences for ACP industries of reform in the EU market.
- The performance of the AMSP support mechanism to the programme achieved relative to the expenditure plans contained in the Adaptation Strategies and Action Plans submitted to the EU in 2006.

The Consultant will undertake the following tasks:

- Review EU – ACP sugar trade patterns (prices and volumes) from 2006 to 2015.
- Evaluate the supply implications of current ACP sugar sector investment plans and assess of the key developments influencing these trends.
- Evaluate the implications of ACP diversification plans.
- Provide the same for LDC suppliers under the EBA initiative.
- Having regard to the assessment of market opportunities and price forecasts to review current investments underway or at an advanced stage of planning in ACP countries and sugar exporting LDCs which will impact on the volume of sugar production available over the coming years and provide an assessment:
  1) of the likely volume of available supplies;
  2) the key factors influencing actual exports of sugar to the EU market from ACP/LDC suppliers.

- Provide a forecast of likely EU market balance and volumes and values of EU imports and exports of sugar from 2015 to 2025 and list the available sources of such EU sugar imports and potential export destinations.
- Provide a forecast on the increasing sugar demand in Africa.
- Suggest potential alternative markets to the EU for ACP sugar.
- Comment on the determinants and behaviour of EU domestic sugar prices after the abolition of quotas.
- Make a reasonable assessment of the overall impact of the reform on ACP industry revenue streams.

For this section, the Consultant will take account of existing market modelling and forecasts. He/she will refer to the EU Commission's most recent sugar market forecasts and, notably but not exclusively, to the latest "Prospects for EU Agricultural Markets and Income".

In particular, the following data will be obtained and evaluated:

- The trend in EU, ACP, and world market prices for sugar since 2006;
- The evolution of income derived by ACP countries from shipments of sugar within ACP regions, to the EU and other markets since 2006;
- The economic potential of the evolution of the proportion of ACP/LDC sugar production exported to the EU versus regional and international markets;
- The evolution of EU sugar imports from non-ACP / non-EBA sources.
- A forecast of domestic EU prices, sugar production and sugar imports to 2024.

2.3 Impact of regulatory changes on the EU market

The Consultant will undertake the following tasks:

- Document the timeline of EU external trade developments and sugar market reforms against the timeline of EPA agreements, EBA access, MAR access, and EPA implementation.
- Identify the likely evolution of EU market management tools in the sugar sector under the impact of the 2006 sugar reform and the 2013 CAP reform, including the market effects of the abolition of production quotas, the change in the significance of the sugar reference price, and measures relating to ethanol.
- Evaluate the supply implications of current EU sugar sector investment plans and assess of the key developments influencing these trends.
- Examine the changing structure of EU sugar industry, its concentration, corporate ownership and alliances formation in the sugar sector, the position of raw sugar refineries and the implications of these elements changes for the functioning of the ACP-EU sugar supply.

2.4 Transition and Support Mechanisms

The Consultant will undertake the following tasks:

- With respect to the ACP:
  1) Evaluate ACP's strategies in relation to the expected trading environment changes within the EU.
  2) Evaluate the validity of the National Strategy for the use of AMSP, the national ownership and national commitment for implementation.
  3) Evaluate the history, status and effectiveness in achieving the stated objectives of the Accompanying Measures of Support for Sugar Protocol countries, in particular

with respect to absorption capacity of the beneficiaries, preparation and approval of programmes, and timing of implementation of the AMSP disbursements.
4) Identify the major factors which have impeded efficient delivery and implementation of the AMSP programme.
5) Assess to variability of experience in contracting and disbursement for the countries receiving budgetary support and those using project approach.
6) Evaluate the absorption capacity of the beneficiaries in using the AMSP funds.

- With respect to the EU sugar industry:
  1) Evaluate the history, status and effectiveness in attaining the stated objectives of the restructuring funds provided to the EU industry for the 2006 reform.
  2) Examine the effects for sugar volumes and prices of Voluntary Coupled Support for EU sugar beet and of support provided to sugarcane production in the EU's outermost regions.
  3) Discuss the implications for the EU and world sugar markets, if any, of decoupled support under the Single Farm Payment system.

- Assess the impact on world sugar prices and list the support mechanisms provided by major sugar-producing countries, notably Brazil, Thailand, India and the USA.

2.5 Constraints facing ACP sugar suppliers

- Document the externalities (the economic, environmental and social impacts) provided by ACP sugar industries in the relevant rural communities.
- Evaluate ACP regional integration progress, in particular with respect to intra-regional sugar trade.

2.6 Countries to be examined

In undertaking the assignment, the Consultant will illustrate the issues investigated through the experiences of the following selected ACP countries: Barbados, Belize (*), Dominican Republic, Fiji (*), Guyana, Jamaica, Malawi, Mauritius (*), Mozambique (*), Swaziland (*), Zambia and Zimbabwe. The consultant will be required to undertake desk studies in these countries and will be required to conduct on-site investigations in those countries indicated by an asterisk (*).

2.7 Conclusions and Recommendations

The consultant will provide overall conclusions and recommendations.

3. ORGANISATION

3.1 Logistics

The Project is based in Brussels.

The three tenderers:
- Will have an office or offices in the EU, such as to have easy access to EU institutions in Europe, to the ACP House in Brussels and to experts throughout the European Union.
- Will be able to travel to ACP countries.

3.2 Consultant Requirements

General professional experience of the three experts

a. a solid and diversified experience in development and cooperation projects/studies management;
b. proven experience in developing countries;
c. ability to work under pressure and to respect deadlines;
d. The ability to work in English or in French. Excellent report-writing skills in English and/or French. Language skills may not be replaced by calling on interpreter/translator.
e. A university degree in agriculture/rural development, Economics or Business;

The Lead Consultant's (Team Leader's) qualifications include:

- Previous knowledge of ACP countries, preferably in the area of agriculture;
- At least 12 years of professional experience, some of it in relation to the sugar industry;
- Expertise/experience in agriculture, trade and development issues;
- Experience as team leader **(at least 3 experiences);** Excellent presentation and facilitation skills.

To the maximum extent possible, Consultants (Team Members) qualifications should cover:

- Previous knowledge of the Common Agricultural Policy including sound understanding of the EU Sugar regime;
- Sound knowledge of agricultural, trade and development economics;
- Sound knowledge of the economics of agricultural commodities;
- Sufficient knowledge of development finance and project finance;
- Trade law knowledge will be an asset.

4. WORK PLAN AND TIMETABLE

The assignment should start by January 2015 and should be carried out over a period of 16 weeks, thus allowing the presentation of the draft report by June 2016. Please note that the 16 weeks correspond to the total duration of the assignment, which include several periods for the provision of comments on the draft reports. The effective period of performance is outlined below.

Regarding the field phase, the team of experts will visit 5 countries in Southern Africa, in the Caribbean and in the Pacific as listed in Section 2.5.

The place of implementation for the desk phase, the synthesis phase and the presentation will be the place of residence of the Experts and Belgium.

The study will require 145 working-days (including travel) shared between three (3) senior experts. A staff input plan should be provided with the offers, indicating how the nominated experts will operate within the overall work plan. The time schedule must reflect a balanced workload[10] between the experts and should include:

[10] An expert cannot work more than 50% of the total foreseen man/day budget.

Study phases	Activities and Outputs	Location	Expert 1 WD	Expert 2 WD	Expert 3 WD	Deadlines*
Desk Phase - Inception	Data search and preliminary analysis. Preparation and submission draft inception report.	Home-based	8	5	5	Week 1
	Coordination meeting	Brussels				Week 1
	Reference group meeting	Brussels				Week 1
	Final inception report	Home-based				Week 2
Desk Phase - Finalisation	Preparation and submission draft desk report	Home-based	9	7	7	Week 3
	Reference group meeting	Brussels				Week 3
	Final desk report	Home-based				Week 4
Field Phase	Field missions	ACP countries	25	21	21	Weeks 5-10
	Transmission of the Missions Aide-Memoires	ACP countries				3 WD after the end of the mission in a given country
	Debriefing meeting	Audio-conference				If needed
Synthesis Phase	Preparation and submission of draft final report	Home-based	13	12	12	Week 11. One week after the end of the field phase
	Revised version of the draft final report	Home-based				Weeks 12-13. One week after the reception of the comments
	Workshop to discuss the report	Brussels				Weeks 14-15
	Reference group meeting	Brussels				Could be before or after the workshop
	Submission of the final report	Home-based				Week 16. One week after the reception of comments
TOTAL:	145		55	45	45	
* Documents are due at the end of the week mentioned. The deadlines may be changed with the agreement of all parties concerned.						

1) **Desk phase (week 1 to 4): 41 working-days** for preparatory meetings with members of the reference group, desk study of existing documents, preparation of the inception and desk reports, preparation of the field phase.

2) **Field phase (week 5 to 10): 67 working-days**, to be divided between the experts as appropriate and in the interest of time and cost efficiency. This phase includes a debriefing from the field.

3) **Synthesis phase (week 11 to 16): 37 working days** for the production of the draft and the final report as well as the preparation and presentation of the workshop.

5. REPORTING REQUIREMENTS

The reports must match quality standards. The text of the report should be illustrated, as appropriate, with maps, graphs and tables; a map of the project's area(s) of intervention is required (to be attached as Annex).

The consultant will submit the following reports in English or French:

(1) Inception report of maximum **12 pages**. In the report, the consultant shall describe:

(i) the first findings of the study (on the basis of the issues listed in section 2.1),

(ii) the foreseen degree of difficulties in collecting data, other encountered and/or foreseen difficulties in addition to his programme of work and staff mobilization and

(iii) the experts team programme of work and staff mobilization.

The inception report shall be submitted after 5 working-days from the start of the consultant services, before discussion with the reference group. Written comments will be provided within 4 working-days after the submission of the draft report. Comments shall be integrated in the report and final inception report shall be provided within 2 working- days (end of week 2).

(2) Desk report of maximum **30 pages** of main text, excluding annexes. The report shall address the issues mentioned in section 2.2, 2.3 and 2.5.

The draft desk report shall be submitted at the end of week 4 and before discussion with the reference group. Written comments will be provided within 4 working-days after the submission of the draft report. Comments shall be integrated in the report within 2 working days.

(3) Missions Aide-Memoires of **2 pages** per country visited. The Aide-Memoires should mention:

(i) purpose of the mission;

(ii) list of persons / organisations met[11];

(iii) main issues discussed and findings.

The draft Aide-Memoire should be presented to the EU Delegation before leaving the country and the final Aide-Memoire should be submitted to the DEVCO Manager 3 working days after the end of the mission in a given country.

[11] Will then be integrated as an Annex in the final report.

(4) Final report of maximum **50 pages** (excluding annexes) should take due account of comments received from the joint steering group. Besides answering joint steering group questions, the final report should also synthesise all findings and conclusions into an overall assessment of the SRP and its potential adjustments.

The first draft final report shall be submitted within 2 weeks from the end of the field phase. Written comments will be provided by joint steering group within 3 weeks. If the joint steering group considers the report of sufficient quality, he will circulate it for comments to the joint steering group, which will convene to discuss it.

The second draft final report, amended on the basis of the comments expressed by the joint steering group, shall be submitted within 1 week from the receipt of the comments. The revised final report will be presented during a workshop.

On the basis of the comments expressed at the workshop and put in written form by the joint steering group, and on the basis of further comments from the joint steering group, the joint steering group will prepare the final report within 1 week after the workshop. The PowerPoint presentation shall also be revised in accordance to the final report.

The inception report, desk report and draft final report shall be distributed in electronic format only. The final report shall be distributed both electronically and with hard copies. A CD-Rom with all documents has to be added to each printed report. Hard copies of the final report shall be sent as follows: 4 copies to the European Commission and 4 copies to the ACP Secretariat.

The Consultant will make a Powerpoint presentation of the final report and its conclusions to the Commission and to the ACP Sugar Sub-Committee.

Annex 2: Country Profiles

Annex 2.1: Barbados

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
BAMC	Barbados Agricultural Management Company
BAS	Barbados Adaptation Strategy
CARICOM	Caribbean Community
CIRP	Cane Industry Restructuring Project
EC	European Commission
EU	European Union
EDF	European Development Fund
GoB	Government of Barbados
GDP	Gross Domestic Product
ICT	Information and Communication Technologies
IT	Information Technology
MIP	Multi-Annual Indicative Programme
TRQ	Tariff-Rate Quota
US	United States

List of persons/organisations met

The project did not include a field mission to Barbados. A questionnaire was distributed via the ACP Secretariat to stakeholders in both the Ministry of Agriculture and the EU Delegation. However only the Delegation responded to our request, where we spoke to Stephen Boyce, Programme Officer for Education and Employment (Stephen.BOYCE@eeas.europa.eu).

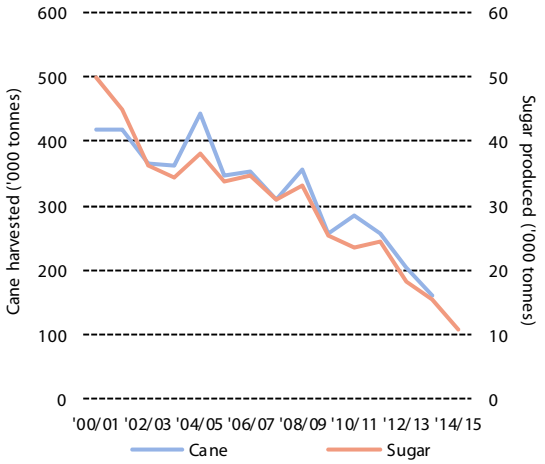
1 Overview of the sugar sector

1.1 Production and sales

Sugar production in Barbados has been on a downward trend for many years, and production is now only half of the output achieved in 2006 (Diagram BAR.1). This is primarily the result of a decline in cane area, although yields have also fallen in recent years (Diagram BAR.2). All cane is supplied by independent farmers, who comprise commercial and smallholder farms.

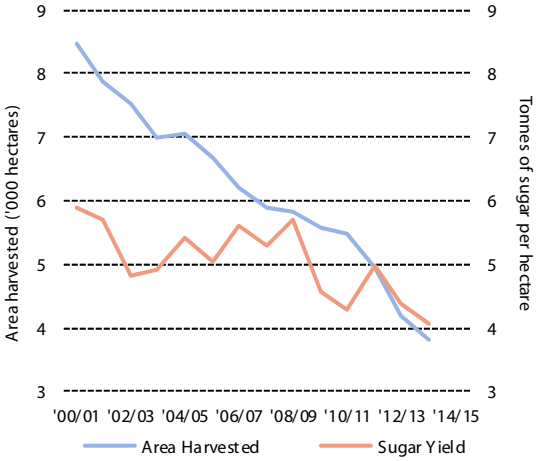
The industry has one operational mill, run by the Barbados Agricultural Management Company (BAMC), which is owned by the Government of Barbados (GoB). Additionally, there is a long-standing plan to refurbish a closed site to develop a sugar, ethanol and cogeneration facility with an investment of US$250 million. However, there is no consensus regarding the plan, which has resulted in repeated delays, and the project has not progressed beyond initial demolition work on the old site.

Diagram BAR.1: Cane and sugar production



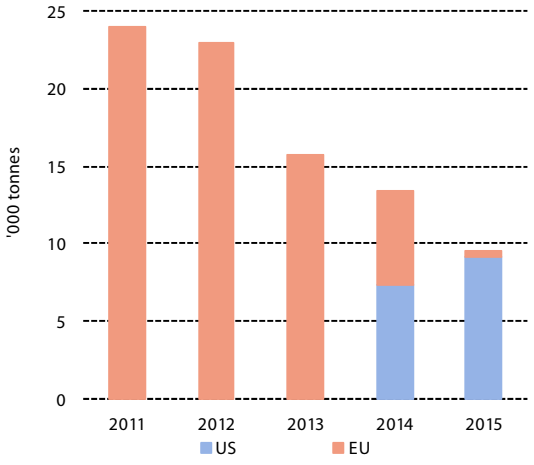
Source: Central Bank of Barbados.

Diagram BAR.2: Evolution of cane area and yields



Source: Central Bank of Barbados.

Diagram BAR.3: Sugar exports by market



Source: LMC estimates based on trade data.

Barbados exports the vast majority of its own output and imports sugar to cover domestic consumption. This is done to maximise the value of its access to preferentially-priced markets. However, the volume of exports has fallen sharply over recent years as a result of declining production.

In most years, Barbados has exported its sugar exclusively to the European Union (EU). However, weak prices in the EU in recent years mean the US market, where Barbados has a duty-free tariff-rate quota (TRQ) of 11,584 tonnes, has offered more attractive returns. The industry has responded to this by diverting sales away from the EU to the United States (US).

1.2 The socio-economic contribution of the sugar sector

In 2014, the sugar industry generated BD$7.1 million[12], 5.8% of the total agricultural Gross Domestic Product (GDP). However, Barbados' overall GDP in 2014 was BD$8.7 billion, making sugar's contribution just 0.08% to the value of the country's total output.

This reflects a broader trend within Barbados. The Central Bank lists only 3% of the workforce being engaged in agriculture, forestry and fishing. Moreover, most labour is now on a seasonal basis and performed by migrant workers, with only a small number of permanent employees.

However, despite the declining economic importance of sugar, several environmental reasons are cited in the Barbados Adaptation Strategy for the maintenance of cane cultivation. These include prevention of soil erosion, a pleasing aesthetic for tourists, the historical importance for the nation, as well as the potential for cane to reduce carbon emissions via the production of electricity and ethanol rather than importing fossil fuels.

2 Barbados Adaptation Strategy (BAS)[13]

The Barbados Adaptation Strategy was approved by the Cabinet of Barbados in April 2006 and was aimed at mitigating the impact of declining EU prices via two means:

- The transformation of sugar production into a sugar cane industry that manufactures electricity and ethanol as well as sugar.
- The diversification of the economy as a whole by means of development of human resources, entrepreneurship, cultural industries and other measures. This was to be targeted at the population in general, rather than with any specific focus on sugar employees.

3 AMSP (Accompanying Measures to Sugar Protocol)[14]

In response to the BAS, the European Commission (EC) decided that the sustainability of the sugar cane industry was not sufficiently demonstrated, and so declined to support the proposed multi-purpose cane mill. However, support for the second target of diversification was accepted, with funds made available for this purpose via budgetary support.

3.1 AMSP project areas

3.1.1 *2006 expenditure[15]*

€2.3 million was allocated to support the BAMC prior to the development of the BAS, and was targeted at the following areas:

- Provision of online access to Public Services to the Division of Trade, Industry and Commerce.

[12] Barbados Economic and Social Report 2014.

[13] Country Strategy Paper and National Indicative Programme for the period 2008-2013.

[14] EC Multi Annual Adaptation Strategy for Malawi, for the Period 2006 - 2013, Under the Accompanying Measures for Sugar Protocol Countries.

[15] Study of the European Commission's co-operation with Sugar Protocol countries: Assessment of the Accompanying Measures for Sugar Protocol Countries (AMSP).

- Provision of Information Technology (IT) supplies to the Division of Trade, Industry and Commerce.
- Technical Assistance for the Development of Accredited and Professional Training in the Financial Services.
- Technical Assistance for the Institutional Review of the Barbados Sugar Cane Industry.

However, disbursement was delayed for many years owing to disagreements over the terms of the funding agreement.

3.1.2 *Projects funded under Multi-annual Indicative Programme (MIP) I*[16]

The first MIP was based around three areas of diversification, shown below:

Table BAR.1: EC funds allocated under MIP 2007-2010 (€)

Year	Area Targeted	Funds Allocated
2007	ICT Capacity Improvements	11,133,000
2008	Private Sector Participation in the Economy	10,134,000
2010	Human Resources Development	14,670,000
	Total	35,937,000

Information and Communication Technologies (ICT) capacity improvements focused on the provision of training, computers and the rationalisation of IT services across the public sector. Private sector participation was based around tax law reform, streamlining business licensing applications and the developing of financial institutions. Human resources development was based around the provision and improvement of training services across a wide range of areas, including knowledge management, hospitality and green agriculture.

3.1.3 *Projects funded under MIP II*[17]

Following the experiences of the MIP 2007-2010, it was decided to focus upon a single sector rather than switching between years. Human resources development was chosen as the best candidate due to its broad cross-cutting nature and existing support at the time of planning.
The following areas of intervention were targeted in the second MIP:

- The creation of an enabling environment for human resource development through institutional strengthening and capacity building.
- Development of a national qualifications framework.
- Development of a demand-driven educational system.
- Rationalization of knowledge management systems and information access.
- Enhancement of research, innovation, and entrepreneurship capacity.

[16] Study of the European Commission's co-operation with Sugar Protocol countries: Assessment of the Accompanying Measures for Sugar Protocol Countries (AMSP).

[17] Multi-annual Indicative Programme (MIP) 2011-2013 under the Accompanying Measures for Sugar Protocol Countries (AMSP).

With these aims in mind, the following funds were provided:

Table BAR.2: EC funds allocated under MIP 2011-2013 (€)

Year	Area Targeted	Funds Allocated
2012	Human Resources Development	11,956,000
2013	Human Resources Development	11,256,000
	Total	23,212,000

It should be noted that, while the above indicates the year the support in each funding agreement started, the 2013 disbursement is not yet complete. Additionally, AMSP spending was supported by the 10th European Development Fund (EDF), which provided €8,330,000 for human resources development.

3.2 Delivery modalities

Funds were allocated primarily via sector budget support, with both fixed and variable tranches conditional upon certain targets being met. Although budget support is ongoing at the time of writing, all variable tranches have had their conditions met so far and have been paid out.

Additionally, small amounts of funding were set aside for auditing and visibility purposes, contracted under the discretion of the EU delegation.

3.3 Strengths and weaknesses

In general, the AMSP funds had a high rate of absorption, despite some delays in funding agreements being signed (such as in the case of the planned 2006 spending). All variable tranche targets were met and, with only one payment outstanding, it is likely that all funds will end up being disbursed.

However, there were some criticisms made of the initial choices of diversification funding, with the initial two targets of developing ICT capacity and private sector participation (primarily international business services) only having a limited cross-over with rural sugar employees facing redundancy.

Additionally, there were concerns raised around the suitability of the EU funding international business services in Barbados, where one of the key services offered is a preferential tax regime for companies, including those based in the EU.[18]

4 Current situation & prospects

4.1 Current situation

The harvested area within Barbados has been declining for years, dropping below 4,000 hectares in 2014. Both smallholder farmers and agricultural companies have been experiencing losses from cane growing, so the downward trend is likely to continue.

Sugar cane in Barbados is high cost and struggles for a number of reasons. It is grown under rain-fed conditions in a tropical climate, limiting both cane yields and sucrose content, as well as exposing the size of the crop to weather fluctuations. At 4-5 tonne per hectare,

[18] Study of the European Commission's co-operation with Sugar Protocol countries: Assessment of the Accompanying Measures for Sugar Protocol Countries (AMSP).

sugar yields are modest by international standards and have fallen since the late 2000s (see Diagram BAR.2 above). This compares with sugar yields of more than 10 tonnes per hectare in Brazil, the world's dominant sugar exporter and world price setter, where the sector achieves higher cane yields and better cane quality.

Additionally, labour is an issue, because high wages and lack of local agricultural workers means that cane cutters must be brought in from other islands each season, inflating costs versus other sugar industries with lower wages.

In 2014, the Barbados Division of Economic Affairs listed the cost of producing a tonne of sugar at around BD$6,900 (€2,600) and the revenue per tonne at BD$1,100 (€415). This compares with a cost of BD$2,500 (€1,000) and revenue of BD$1,380 (€550) in 2006.[19] The decline in cane production is a key factor behind the increase in costs, with low volumes of cane damaging factory capacity utilisation and inflating unit fixed costs.

The 2014/15 season was a record low for production, with only 10,700 tonnes produced and it is likely that the 2015/16 crop will be even lower due recent adverse weather. The size of the only sugar mill (less than 3,000 tonnes of cane per day) and sugar output per factory (10,000 tonnes per year) is extremely small by international standards. In Brazil, the average cane mill crushes 10,000 tonnes per day and produces the equivalent of 250,000 tonnes of sugar per year (in the form of sugar and ethanol).

4.2 Prospects for the sector

Due to its modest yields and small scale, Barbados cannot be a cost competitive producer of sugar to the world market, even at a higher level of capacity utilisation. With its current cost structure, it is not cost competitive in its preferential markets: the EU and the US.

Successive governments have evaluated the potential of the multi-purpose cane mill envisaged under the Barbados' Cane Industry Restructuring Project (CIRP). After many years of discussion, the Project has been decreased in scope from a mill that produces sugar and ethanol and electricity to one that produces only sugar and electricity. This would include speciality sugars, which earn a premium in certain markets. However, this niche market has also been targeted by many other producers in recent years and premiums have declined as a result. Currently, only demolition work has been carried out on the proposed site for the new mill and, with the cost of the project estimated at US$250 million, it is uncertain whether it will receive government backing to go ahead.

An additional part of the CIRP was to restore the area under cane in order to increase output. However, it is hard to see how this can be achieved in the absence of high subsidies to growers.

5 Conclusion

Like other producers in the region, Barbados faces a fundamentally high cost structure for producing sugar, meaning that it can only operate on a commercial basis with access to high-priced markets for sugar, ethanol and electricity. While field and factory efficiency is currently lower than it could be (and has been in the past), the construction of a new multi-purpose mill will not make the industry compete on the world stage, because of the climate, terrain and high-wage labour all inflate costs.

[19] Barbados Economic and Social Report 2014.

In the past, the industry was kept afloat by preferential access to the EU and US markets, which commanded large premiums over world prices, as well by government subsidies. Over time, as premiums in the EU market, in particular, have eroded, the sector's financial position has deteriorated and cane area has declined.

Under current conditions, the industry can only exist with government support for both millers and growers. While expanding the area under cane would help reduce unit costs for milling, it is unlikely whether the country has potential to encourage a recovery in cane area without substantial budgetary support. The limited size of the local and Caribbean Community (CARICOM) markets, a small US TRQ and erosion of the value of the EU preference all suggest that sugar alone will not provide adequate income for profitable cane farming.

Should Barbados wish to keep a cane industry, because of its broader environmental and cultural significance, GoB will have to consider how it could be supported. Construction of a multi-purpose mill would open up a new revenue stream – electricity – which could be set at a high price (effectively providing a transfer from local consumers to the cane sector). However, unlocking this potential income stream would require a huge investment and would need far larger cane production to be viable. GoB, must therefore decide whether the socio-economic benefits of retaining a cane sector outweigh the costs of maintaining the industry (with transfers from consumers and/or directly from the GoB budget), as access to preferential export markets will not provide sufficient support in the future; indeed this access has not sufficient to prevent the contraction of the sector over the past two decades.

Annex 2.2: Belize

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
ASR	American Sugar Refining
BSIL	Belize Sugar Industries Ltd.
CARICOM	Caribbean Community and Common Market
CQIP	Cane Quality Improvement Program
EC	European Commission
EPA	Economic Partnership Agreement
EIB	European Investment Bank
EU	European Union
EUD	EU Delegation
GDP	Gross Domestic Product
MAAS	Multi-Annual Assistance Strategy
MFED	Ministry of Finance and Economic Development
MNRA	Ministry of Natural Resources and Agriculture
MIP	Multi-Annual Indicative Programme
MTE	Mid-Term Evaluation
MWT	Ministry of Works and Transport
NAS	National Adaptation Strategy
NAO	National Authorising Agency
SIMIS	Sugar Industry Management and Information System
SIRDI	Sugar Industry Research and Development Institute
SDP	Strategic Development Plan
TA	Technical Assistance
TCTS	Tonnes Cane to Tonnes Sugar ratio
TRQ	Tariff-Rate Quota

List of persons/organisations met

Meetings in Belize were held with industry stakeholders from 6th to 11th April. The consultant present was Martin Todd (Team Leader). Prior to his visit, the consultant spoke on the phone to Mr Pietro Nardi at EU Technical Support Office in Belize and also met with Mr Mac McLaghlan of American Sugar Refining (ASR) in London.

During his consultation, the consultant met with the following persons:

Organisation	Name	Position	Contact Details
EU Technical Support Office in Belize	Pietro Nardi	Programme Manager	Pietro.NARDI@eeas.europa.eu
MFED/NAO	Kathrine Mendez	Deputy NAO	kathrine.mendez@nao.gov.bz
MNRA, Sugarcane Production Committee (SCPC)	José Novelo	SCPC Chair, SICB Chair	jenovelo@hotmail.com
Sugar Industry Research and Development Institute (SIRDI)	Marcos Osorio	Director	marcos.sirdi@gmail.com
SIRDI	Jessamyn Ramos	Information Officer	jessamyn.sirdi@gmail.com
Sugar Industry Control Board (MNRA, SICB)	Gabriel Martinez	Chairman	martinez_rko@yahoo.com
American Sugar Refining (ASR)	Mac McLachlan	Vice President, International Relations	Mac.McLachlan@asr-group.com
Belize Sugar Industries Limited (BSIL)	Belizario Carballo	Chief Financial Officer	Belizario.carballo@asr-group.com
BSIL	Nolberto Leiva	Production Superintendent	
BSIL	Olivia Aveles	Cane Farmer Relations Officer	
Belize Sugarcane Farmers' Association (BSCFA), Orange Walk	Oscar Alonzo	Chief Executive Officer	bscfacom.management@gmail.com
BSCFA	Leonardo Cano	Chair	bscfacom.management@gmail.com
Corozal Sugarcane Producers' Association (CSPA)	R Bahia	Environmental and Technical Support Officer	
Progressive Sugarcane Producers' Association (PSPA)	Octavio Cowo	Chairman	octaviocowo@msn.com
PSPA	Oscar Hernandez	General Manager	
PSPA	Lucilo Jimenez	Zone 3 Manager	

1 Overview of the sugar sector

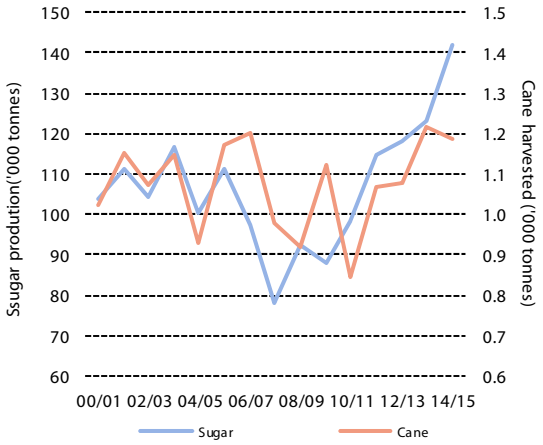
1.1 Production and sales

Until recently, the Belize sugar industry comprised one mill located in the north of the country at Tower Hill in Orange Walk district. The mill is owned by Belize Sugar Industries Ltd. (BSIL) which was acquired by the US sugar company, American Sugar Refining (ASR), in 2012. The mill is supplied overwhelmingly (90%) by small-scale independent growers who farm in Orange Walk and Corozal districts; the balance is supplied to the mill from its own farms.

In 2016, a new mill opened in Cayo district in the centre of the country. The mill is owned by investors from Guatemala but, unlike BSIL, currently is supplied entirely by cane grown on a mill-owned estate. The new mill did not benefit from the Accompanying Measures to Sugar Protocol (AMSP). However, there are plans to expand area in collaboration with local farming communities.

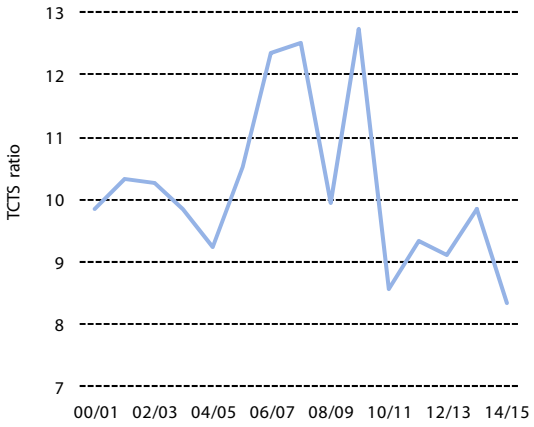
In 2015, BSIL produced record sugar output of 140,000 tonnes and is expected to repeat this in 2016. This improvement in performance reflects a recovery in cane production to levels slightly above those achieved in the mid-2000s (Diagram BEL.1), and a clear improvement in the output of sugar per tonne of cane milled, which is shown by a decline in the tonnes cane to tonnes sugar (TC:TS) ratio from past levels (Diagram BEL.2)[20]. The latter followed the introduction of the Cane Quality Improvement Program (CQIP) in the 2010/11 season after a period of very poor performance in the second half of the 2000s when cane deliveries were chaotic and resulted in huge post-harvest losses.

Diagram BEL.1: Cane and sugar production



Source: BSIL.

Diagram BEL.2: Evolution of the TC:TS ratio

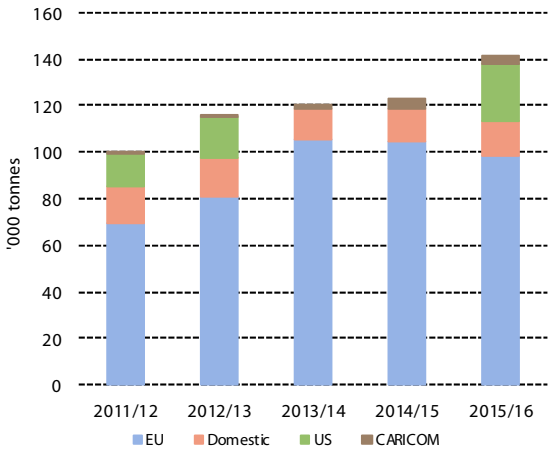


Source: BSIL.

In addition to producing sugar, BSIL produces molasses (which it sells mainly for export). It also generates electricity from bagasse (fibre in cane) at the adjacent Belcogen power plant, which started selling electricity to the national grid at the end of 2009.

[20] A *decline* in the ratio signifies an improvement in sugar output per tonne of cane, as fewer tonnes of cane are needed to produce one tonne of sugar.

Diagram BEL.3: Sugar Sales by market



Source: BSIL.

With a population of just 0.35 million, the local sugar market is small. This means the vast majority of sugar is exported. Diagram BEL.3 charts the recent allocation of BSIL's sugar output by market, highlighting the key role that has been played by the EU.

- Sales in the domestic market are less than 15,000 tonnes per year.
- Exports to the EU have risen from 70,000 tonnes to 100,000 tonnes as output has grown. Sales under the US duty free tariff-rate quota (TRQ) are variable.
- Sales to the regional Caribbean Community (CARICOM) market are very small, at 1,000-5,000 tonnes per year.

1.2 The socio-economic contribution of the sugar sector

The cane sector plays an important role in Belize. In the north of the country, where there 5,400 people hold cane supply quotas, the sector supports (directly and indirectly) the livelihoods of an estimated 40,000 people (40% of the region's population)[21]. Unlike many other sugar industries in the Caribbean, cane farming – from planting through to harvesting, loading and transport – is carried out overwhelmingly from within local communities; it does not rely on labour from other parts of the country or from neighbouring countries. This means that the *value added* within these communities is very high. In addition, BSIL employs close to 500 people in its mill and on its cane farms.

Table BEL.1 summarises the contribution of the cane and sugar sectors to Belize's economy. In addition to its contribution to employment in Orange Walk and Corozal districts, it generates multiplier effects throughout the local economy, especially in rural areas. The sectors also account for significant shares of national Gross Domestic Product (GDP) and export earnings, averaging 4.7% and 16% of their respective totals across the last 5 years.

Table BEL.1: The socio-economic contribution of the sugar sector

% of agricultural GDP	5 year estimate	28%
% of GDP	5 year estimate	4.7%
% of total export earnings	5 year average	16%

Sources: Central Bank of Belize Annual Reports and Sugar Industry Research and Development Institute.
Note: % of Agricultural GDP and % of GDP takes a 5 year estimate based upon cane volumes and prices and then compares it to average GDP figures over the period.

In addition, the sector supplies approximately 15% of the country's electricity supply with the electricity produced at Belcogen. This reduces the need to import electricity from Mexico, which accounts for around 40% of the Belize's power needs.

[21] MTE 2016.

2 National Adaption Strategy (NAS)

The 2006 National Adaptation Strategy (NAS)[22] was designed with two main objectives: (a) to improve the competitiveness of the cane and sugar sectors with a view to increasing future production and (b) support cane farmers who may leave the sector through agricultural diversification and targeted socio-economic programmes. The NAS lists five pillars of intervention.

1. Improve the efficiency of cane production, processing and transportation.
2. Increase and diversify the sector's revenue by through value addition, notably via electricity cogeneration.
3. Diversify agricultural production.
4. Pursue socio-economic interventions targeted at groups affected by the sugar sector reforms that are unable to pursue alternative livelihoods in agriculture.
5. Implement policy interventions and measures to help sustain a competitive industry and enhance socio-economic development in the northern region.

The total cost of implementing the strategy was estimated at BZ$292 (US$146[23]) million, of which:

- 44% (BZ$127 million) was to be funded by internal sources, mostly by BSIL for the construction of the Belcogen electricity cogeneration plant.
- 56% (BZ$165 million) was to come from external sources, BZ$110 million from the EU and BZ$55 million from European Investment Bank (EIB) and others. Of the EU funding, BZ$69 million was earmarked for efficiency improvements and capacity building within the cane sector; BZ$41 was allocated for agricultural diversification and socio-economic programmes.

3 AMSP

Prior to the development of the first of two Multi-Annual Indicative Programmes[24] (MIP) that were to allocate AMSP funds, the Multi-Annual Assistance Strategy 2006-2013 (MAAS) was prepared following discussions between the EU Delegation (EUD) and the Government of Belize (GoB). The stated objective of the MAAS was "*to contribute to poverty reduction and improving the standards of living and well-being of the communities living in Northern Belize*"[25].

The focus of the MAAS, and the resulting allocation of AMSP funds, differed significantly from that envisaged in the NAS. Specifically, the focus shifted towards improving the road network in the cane-growing districts of Orange Walk and Corozal. The result was 61% of AMSP funds being allocated to road projects; the NAS envisaged just 4% of EU funds being used to upgrade the cane transportation system and sugar roads. In addition to "roads", the other areas identified by the MAAS for funding were "competitiveness" and "diversification".

22 Belize National Adaption Strategy for the Sugar Sector, April 2006.
23 The BZ$ is fixed to the US$ at a rate of BZ$2/US$.
24 MIP 2007-2010 and MIP 2011-2013.
25 Project fiche: http://eeas.europa.eu/delegations/jamaica/projects/list_of_projects/19275_en.htm

3.1 AMSP projects

AMSP funds were allocated in two phases, 2007 to 2010 under MIP I (€48.2 million) and 2011-2013 under MIP II (€25.6 million). The focus of the two MIPs was very similar and are summarised as follows in mid-term evaluation (MTE) 2016 (Table BEL.2). Two detailed and comprehensive MTEs of the AMSP have been carried out, in 2010 and 2016[26].

Table BEL.2: Overall and specific objectives of the MIP I 2007-2010 and MIP II 2011-2013

MIP I – 2007-2010 Allocation: €48.2 million	**MIP II – 2011-2013** Allocation €25.6 million
Overall Objective To reduce poverty and improve the standard of living of the rural population in Northern Belize through support to the sugar industry and vulnerable groups.	**Overall Objective** To reduce poverty and improve the standard of living of the rural population in Northern Belize.
Specific Objectives	**Specific Objectives**
1. To improve physical access, communication and transportation through the rehabilitation of the Sugar Belt road network.	1. To improve physical access, communication and transportation through the rehabilitation of the Sugar Belt road network.
2. To strengthen the competitiveness and economic sustainability of the Belize sugar industry.	2. To strengthen the competitiveness and economic sustainability of the Belize sugar industry.
3. To support an enabling environment for rural recovery and economic diversification in sugar-dependent areas of Belize.	3. To support an enabling environment for rural recovery and economic diversification in sugar-dependent areas of Belize.
	4. Socio-economic conditions in Northern Belize improved through an increase in sugar production, additional income-generating activities (through economic diversification) and the provision of quality education opportunities.

Source: Adapted from Table 1, p.13, MTE 2016 Main Report.

The MTE 2016 summarises how AMSP funds were budgeted, contracted and had been paid by October 2015. This information is presented in Table BEL.3, which reveals that only 75% of funds had been contracted by that date. Proposals for a final tranche of €2 million under the competitiveness budget line are currently being prepared; assuming this is successfully contracted, approximately €16 million of funds still had not been contracted.

Table BEL.3: Summary overview of AMSP financial flows 2007-2015 (€)

Main budget lines	Budget	% of Budget	Contracted	% Contracted	Paid	% Paid
Roads	44,500,000	61%	34,357,199	77%	25,047,683	73%
Competitiveness	14,350,000	20%	11,289,179	79%	3,510,822	31%
Diversification	6,803,000	9%	5,158,491	76%	4,000,735	78%
Other (studies, capacity building, etc.)	2,690,000	4%	2,390,000	89%	2,390,000	100%
Audit, Evaluations, Visibility, Contingencies	4,078,000	6%	1,156,505	28%	983,627	85%
Grand Total	**72,421,000**	**100%**	**54,351,374**	**75%**	**35,932,867**	**66%**

Source: Table 4, p.28, MTE 2016 Final Report.

[26] Mid-Term Evaluation of the Belize Accompanying Measures for Sugar Programme (AMS) and Preparation of the MIP 2011-2013 [2010]. Mid-Term Evaluation of the Accompanying Measures for Sugar Protocol Countries (AMS) [2016].

3.1.1 *Projects funded*

Below, we focus on the roads and competitiveness elements of the AMSP; detailed and comprehensive reviews can be found in MTE 2010 and MTE 2016. Together, funds budgeted for these projects made up 81% of the budgeted AMSP funds (€72 million).

3.1.2 *Roads*

The road improvements programme was carried out under both MIPs. However, there was a change of emphasis between the first and second MIP, as it was decided that future projects should be paved using AMSP funds, as opposed to building them unpaved with a view to them being paved by using public funds at a subsequent date. This change reflected concerns were raised in the 2010 MTE that some unpaved roads were already showing worrying signs of deterioration. The higher cost of preparing paved roads meant that the number of kilometres of roads that could be upgraded was greatly reduced.

Contractual difficulties with two major road schemes during the first MIP resulted in them being cancelled.

3.1.3 *Competitiveness*

MTE 2010 reported that there had been almost no progress towards implementing competitiveness measures during the first MIP. During the second funding period, two main projects were pursued.

3.1.4 *Sugar Industry Research and Development Institute (SIRDI)*

The second funding period saw the construction of a research station and recruitment to staff it. SIRDI has since initiated a number of projects built around its extension team aimed at improving farming practices.

In addition, SIRDI initiated the Sugar Industry Management and Information System (SIMIS), which has mapped for the first time the area under cane. This found that the area under cane is actually closer to 75,000 acres (35,000 hectares), much higher than the 60,000 acres (24,000 hectares) that was believed prior to this. This meant that cane yields are lower than had previously been thought.

3.1.5 *Credit Scheme*

A revolving credit scheme for replanting cane fields was introduced in early 2012. The purpose of the scheme was to raise cane yields, as newly or recently planted fields achieve higher yields than older ones. In Belize, fields should be replanted at least once every seven or eight years; however, the replant rate is often much less frequent than this and is a major reason why the sector achieves low yields.

The scheme was designed to provide farmers with access to funds at below commercial rates of interest to finance the cost of this investment[27]. However, uptake has been poor, because most applicants have been refused credit owing to their high level of debt with commercial banks. A total of €6.5 million was available under the scheme, but the MTE 2016 reports that only €2.0 million had been disbursed by the end of 2015. With prices for cane delivered in the current 2015/16 having fallen steeply, there is little prospect of farmers being granted loans before the programme ends.

[27] SIRDI estimates the cost of replanting and maintaining a newly planted field to be approximately three times that of maintaining field than an established cane field.

3.2 Delivery modalities

Belize was allocated a budget of €72 million under the AMSP programme. This was managed by the EUD in Jamaica with the contracting authority in Belize being the National Authorising Agency (NAO) at the Ministry of Finance and Economic Development (MFED). As Belize was not eligible for budgetary support, AMSP funds were disbursed through specific projects. The implementing agencies for the projects were the Ministry of Works and Transport (MWT) for "roads", Ministry of Natural Resources and Agriculture (MNRA) for "competitiveness" and the NAO office (with support from MNRA) for "diversification".

3.3 Strengths and weaknesses

Table BEL.4 summarises the key strengths and weaknesses of the AMSP that were reported by stakeholders. Further detail is provided below.

Table BEL.4: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General 1. Overall seen as beneficial, with SIRDI, in particular, being singled out, along with a few road projects.	**General** 2. Absorption capacity was impeded by weak technical assistance (TA), especially in early years. 3. Slow implementation, especially in early years.
Roads 4. Higher usage rates (more traffic) is a sign that better roads have allowed greater mobility of the population in the region. 5. Decision to pave roads after MTE of MIP I increased sustainability of roads.	**Roads** 6. Loss AMSP funds as a result of contractual problems. 7. Preparation of unpaved roads (that subsequently deteriorated) during MIP I resulted in inefficient use of funds.
Competitiveness 8. SIRDI is helping to address productivity issues in the cane sector. 9. SIRDI's SIMIS programme is helping to establish valuable information on the cane sector.	**Competitiveness** 10. Delays means SIRDI became operational only in 2014. 11. Credit Scheme was largely ineffectual because of high level of grower indebtedness with commercial banks.
Technical Assistance	**Technical Assistance** • Frequent turnover of TA staff and managerial difficulties.

Overall, stakeholders are appreciative of the AMSP funds. However, there is frustration that a significant amount of funds will not have been contracted. While there is acknowledgement that GoB is partly to blame for this, especially regarding failed road projects in the early stages, there is a feeling that project implementation would have been quicker, more effective and overall disbursement greater had the technical assistance provided to GoB been more successful. This highlights a major challenge the country has faced, namely limited capacity to manage AMSP funds and projects.

3.3.1 *Technical assistance*

In recognition of the limited capacity of human resources to initiate and manage the AMSP programme, a TA team was contracted by the NAO. It was also hoped that, with this assistance, GoB would be able to develop sufficient capacity to manage the process itself

within a few years. However, the initial stages of implementation were slow and local capacity did not develop as expected. Stakeholders cite frequent turnover of TA staff and managerial difficulties, especially during the first phase of the AMSP programme, as reasons for this. They also believe that a greater percentage of budgeted funds would have been contracted had technical assistance been more effective.

These issues are addressed in detail in the MTE 2010 and 2016 reports. MTE 2010 rated the efficiency of the programme as low, while MTE 2016 recognised that there was some improvement during the second phase.

3.3.2 *Roads*

Attitudes towards the roads projects are mixed. At a general level, there is recognition in the MTEs that higher usage rates (more traffic) is a sign that better roads have allowed greater mobility of the population in the region. Cane growers also note that improved roads have reduced wear and tear of trucks, made journey times shorter and also lowered fuel costs.

At the same time, there is concern that insufficient road maintenance means that improved roads are deteriorating and that some of the benefits of the AMSP programme will be lost over time. Stakeholders also noted that, while a better road network is unquestionably beneficial to the sector, more funds could have been directed to projects targeted specifically at improving industry competitiveness.

3.3.3 *Competitiveness*

Of the two main programmes, SIRDI and the credit scheme, the former is unanimously seen as a success, whereas stakeholders believe the credit scheme has failed.

3.3.4 *SIRDI*

No criticisms were made regarding the funding of SIRDI. However, given that it became operational only in 2014, there is recognition that it will have very little time to implement programmes aimed at improving performance and lowering costs before the EU's 2017 reforms are implemented. Moreover, it was noted that cane prices will drop significantly in 2016 (i.e., prior to the reforms), because of adverse market developments within the EU.

3.3.5 *Credit Scheme*

The main reason for the poor performance of the scheme – namely the high level of indebtedness of growers – is widely accepted. Comments were made that commercial banks were quick to react when AMSP funds became available, offering existing customers in the growing community easy access to credit (albeit at higher interest rates than under the Credit Scheme) to lock in their customers. The banks are willing to offer easy credit as long as the grower has a delivery quota, because the first instalment of the cane payment is made directly to them. The resulting high levels of debt meant that growers were ineligible to receive funds under the credit scheme. One comment received was that the scheme may have worked better if had included a debt restructuring element to refinance growers' existing debts with commercial banks at the lower rate offered under the scheme.

4 Current situation & prospects

4.1 Current situation

The industry is currently producing record levels of sugar. The reasons for this are disputed, but appear principally to be the result of two developments:

- *A recovery in cane production* (see Diagram BEL.1 above). Although there has been limited uptake of funds under the Credit Scheme for replanting, the recovery in cane production suggests that some farmers have increased the replanting rate in recent years using credit provided by commercial banks. This helps to explain growers' current high level of debt. It appears that this was stimulated by two things (a) a period of record high cane prices (Diagram BEL.4) and (b) the acquisition of BSIL by ASR that helped to secure BSIL's financial future, although BSIL has since been discouraging replanting/ expansion in the face of capacity limits and lower sugar prices.

- *An improvement in the amount of sugar produced per tonne of cane (decline in the TCTS ratio).* This has its roots in two developments.

    - The introduction of the CQIP in the 2010/11 season, which: (a) introduced a relative quality-based cane payment system that rewarded growers (at test group level) who delivered better quality cane and (b) a new delivery schedule that specifies when growers must deliver their cane. These initiatives had a positive impact on cane quality, although the deterioration of performance in the current 2015/16 highlights the fact that favourable weather contributed to the exceptional level of performance in 2014/15[28]. However, while the reformed delivery schedule was an improvement on the chaotic situation that existed before, it has serious limitations and, as we discuss below, is seen as an impediment to the much-needed improvement in the sector's performance.

    - Investments by BSIL in its mill to improve the amount of sucrose it extracts from the cane it receives[29].

The importance of quality improvement is evident from the fact that the industry produced an average of 130,000 tonnes of sugar from 1.2 million tonnes between 2013/14 and 2014/15, compared to just 105,000 tonnes of sugar from the same amount of cane between 2004/05 and 2005/06.

To date, the industry has been shielded by favourable cane and sugar prices in recent years, which have reflected favourable market conditions in the EU. However, the situation will be very different in the current 2015/16 crop year. Moreover, earnings from sales to the EU are likely to be closer to world market levels in most years the future.

The decline in cane and sugar prices in 2015/16 highlights the urgency to address the industry's lack of profitability, which is attributable mainly to: (a) inefficiencies in the field sector (and the high level of grower debt) and (b) the high cost of bringing sugar from the mill to market.

4.1.1 *Inefficiencies in the field sector*

The cane sector has two main areas of weakness: (a) very low cane yields and (b) an inefficient system of cane loading and transport. These make it difficult to repay their high debts, and so farmers delay investments such as replanting.

[28] Not only did they result in an increase in the amount of sucrose in delivered cane, they also lead to an improvement in the purity of cane juice, which increases the amount of sucrose the mill can recover in the form of sugar. These positive developments can be gauged from the improvement in two reported performance measures: (a) *pol % cane*, which increased from a five-year average of 11.2% (2006 to 2010) to 12.8% (2011 to 2015) and (b) *purity of first expressed juice* (82.5% (2006 to 2010) to 86.9% (2011 to 2015).

[29] This can be gauged from the improvement in the reported performance measure: *pol extraction* (92.1% (2006 to 2010) to 94.4% (2011 to 2015).

4.1.2 *Very low cane yields*

Cane is grown in soils that have the potential to generate much higher yields that the current industry average of 40-45 tonnes per hectare. Yields are depressed by several factors, ranging from poor field drainage to sub-optimal field practices and a very low replanting rate. So far, the contribution of AMSP funding towards addressing these issues has been very limited.

- SIRDI, which became operational only in 2014, has implemented programmes to improve field practices through Farmer Field Schools. These are led by its team of extension staff and are designed to encourage best practice. In its current application for remaining AMSP funds, SIRDI has included a project to improve field drainage.

- Limited uptake of funds under the Credit Scheme for replanting. Moreover, it is unlikely that growers will borrow further funds in the near future, because of lower cane prices and high debts with commercial banks.

4.1.3 *Inefficient system of cane loading and transport*

Cane farmers are allocated quotas based on the area they have under cane. There are around 5,400 registered quota holders; however, the number of active farming units is much less than this and has recently been estimated by SIRDI to be closer to 2,500.

Growers are organised into 19 regional "test" groups, which are sub-divided into a total of 274 "reaper" groups. Cane delivery schedules are allocated to the test groups by the Sugar Cane Production Committee (SCPC). Under the current *Delivery by Appointment* system, each test group receives a delivery slot within each 24 hours. The large number of test groups means that deliveries are very fragmented and scheduling is not efficient. When combined with the need to deliver specified amounts of cane within narrowly-defined time slots *every* day, growers often cut cane at a time that is inappropriate in terms of the maturity of the plant. This has a detrimental effect on the quality of delivered cane and there is recognition that the current scheduling arrangements are impeding efforts to improve industry performance. Discussions are currently taking place to address this issue by aggregating test groups into larger units to improve the efficiency of scheduling.

A second area of inefficiency stems from the huge over-supply of cane loaders and trucks[30]. Many growers own loaders and trucks, and the services they offer to reaper groups form an important source of income for them[31]. There is therefore little incentive for them to give up their machinery. This structure inflates the cost of these services, because this equipment is poorly utilised; for example, many trucks undertake only one trip per day to the mill because of the current *Delivery by Appointment* system. Today, the cost of harvesting, loading and transport is BZ$28-32 per tonne of cane, with the variations explained mainly by the distance from farm to mill. This cost is made up approximately as follows:

- Harvesting: BZ$8 per tonne

- Loading: BZ$6 per tonne

- Transport: BZ$14-18 per tonne (depending on distance to the mill)

As 70-75% of costs are attributable to loading and transport, there are considerable savings that could be made if there were to be a major rationalisation of loaders and trucks. Pressure to carry out this rationalisation has been limited in recent years, because of the *Delivery by Appointment* system and because high cane prices have enabled growers to absorb these inflated costs.

[30] In Belize, all cane grown by independent farmers is cut by hand and loaded by machine. It is then transported to the mill by truck.

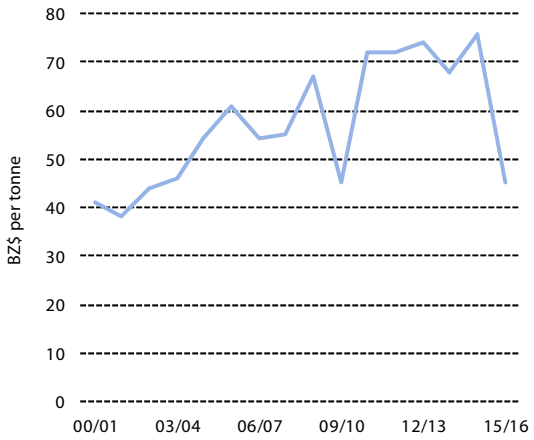
[31] Many farmers who do not have a loader or a truck offer services as cane cutters during the harvest period.

However, as Diagram BEL.4 reveals, the cane price will fall sharply in the current 2015/16 crop year. BSIL has advised growers that the final price will be just over BZ$45 per tonne.

With growers paying BZ$1 per tonne for membership of their association and estimated to make annual loan repayments of BZ$10-15 per tonne, most will earn little or nothing towards the production of their crop this season (Table BEL.5).

This is in marked contrast to recent seasons when the cane price has averaged around BZ$70 per tonne.

Diagram BEL.4: Cane prices



Source: BSIL.

Table BEL.5: Growers' costs versus cane price

	BZ$70 Av. 2011-2015	BZ$45 2016 est.
Harvesting	8	8
Loading	6	6
Transport	12-18	12-18
Total	**28-32**	**28-32**
Association contribution	1	1
Debt servicing	10-15	10-15
Costs before contribution to growing costs	**39-48**	**39-48**
Cane price	70	45
Contribution to growing costs (per tonne cane)	**22-31**	**-3-6**
Contribution to growing costs (@ 17 tonnes per hectare)	**374-527**	**-51-102**

Sources: Discussions with stakeholders, MTE 2016.

An immediate impact of this financial squeeze will be to discourage replanting, which is a costly investment for farmers. This will be a drag on cane yields. If cane prices remain unprofitable in the future pressure to cut costs will mount quickly.

Two areas where it is possible to achieve significant savings without investment are: (a) boosting field performance by improving farming practices; and (b) cutting the cost of post-harvest logistics by changing the cane delivery scheduling arrangements and rationalisation of loaders and trucks. SIRDI will play an important role in achieving the first of these improvements. Changing the cane delivery system and a period of low prices may be the catalysts needed to bring about the second change; however, many growers generate income from providing services from cane loading and transport, so it remains to be seen how quickly this process will develop.

4.2 The high cost of bringing sugar from the mill to market

BSIL sells the vast majority of its sugar for export in bulk. The cost of exporting sugar is deducted from gross industry proceeds, along with the Sugar Development Fund (SDF) levy (which is used to fund industry institutions). The cane price is derived from the resulting net proceeds, with growers receiving 65% and BSIL 35%. This means that the cost of sugar logistics (and the SDF levy) is shared between growers and BSIL.

The cost of exporting bulk raw sugar from Belize is high. This is because the barrier reef that stretches the length of Belize's north coast limits access to its coast for ocean-going vessels. Moreover, draft at ports in the northern part of the country is shallow. To combat these challenges, BSIL transports sugar by barge down the New River (which is adjacent to the mill) and then along the cost to Belize City. There, sugar is loaded onto ocean-going vessels anchored off the coast. Not only is this costly, it also limits the rate at which vessels can be loaded, which inflates the cost of ocean freight.

Although bulk sugar export logistics are an industry charge, they are owned and operated by BSIL. Given the revenue sharing split, there is little incentive for BSIL to invest to improve the efficiency of the system if its return on investment is restricted to its 35% share of industry proceeds.

4.3 Limited access to preferential markets outside the EU

Belize sells the overwhelming majority of its sugar in three markets: the EU (approximately 100,000 tonnes), the small domestic market (15,000 tonnes) and the US, where is has a small tariff rate quota of 12,000 tonnes. Sales within the Caribbean market are very small, despite the 40% common external tariff (CET) applied to imports of direct consumption brown into CARICOM. BSIL does not produce any refined sugar, because there is no CET on imports of white sugar into CARICOM.

4.4 Prospects for the sector

Growers have been able to live with their current debt structure in recent years because cane prices have been at record high levels. However, the cane price has fallen sharply in the current 2015/16 crop year and stakeholders are concerned about the hardship this will cause to the grower community in which many cane farmers carry large debts with commercial banks.

In response to this challenge, the industry is currently formulating a Strategic Development Plan (SDP) aimed at aligning the main stakeholders (growers, miller and government) to take steps to improve efficiency to ensure the industry has a sustainable long-term future. Discussions are now at an advanced stage, with the parties having put aside past differences[32] to address the challenges that lie ahead.

Longer term, there is uncertainty over the future size of the cane sector in northern Belize. If growers are able improve field productivity, cane production will increase unless there is a proportional reduction in cane area. The industry will be able to sustain a level of cane production above 1.3 million tonnes only if BSIL is willing to expand capacity. This, in turn, will depend on the commercial outlook for sugar and electricity production, as well as the long-term viability of the majority of cane farmers. Any significant increase in milling capacity will require significant investments, as the mill will need to upgrade capacity at all the major stages of production, from milling to sugar production, power generation, sugar storage and transport.

If this investment is not forthcoming and cane yields do not improve, there will be a contraction of cane area, with more productive areas remaining in production and operating with improved yields. This will result in a leaner, lower cost industry and any increase in sugar output will result only from further improvement in the TCTS ratio. From a social perspective, this will mean some farmers leaving the cane sector, with less productive land switching to alternative uses. Some land may possibly exit agriculture altogether if no viable alternatives are available, with owners having to find alternative sources of income.

[32] Differences have existed between growers and miller, as well as among growers, with the latter resulting in the single grower association breaking up into three bodies in late 2015.

5 Conclusion

The sugar industry in Belize plays an important role in the national economy and especially in the north of the country. However, it is at an important juncture. Grower debts remain high, while the cost of exporting sugar is also high. Meanwhile, cane prices will fall significantly this year, after a period of record-high prices that have insulated the industry from the challenges that lie ahead. To address this challenge, farmers will have to improve cane yields, lower the cost of post-harvest cane logistics and upgrade the system for exporting bulk raw sugar.

Sugar output is currently at record levels. There appear to be two main reasons for this. First, cane production has recovered as a result of accelerated replanting of cane area in response to recent high cane prices and a more positive outlook for the industry that followed ASR's acquisition of BSIL. Second, introduction of the CQIP and investments by BSIL to improve sucrose extraction rates at the mill have boosted the conversion rate from cane to sugar.

The role that AMSP funds have played in this improvement is disputed. Nevertheless, there is a general feeling that these funds have made a positive contribution to the region as a whole, despite concerns that more of the funds could have been devoted to sector-specific developments and that more effective technical assistance could have improved the efficiency of the programme. The majority of AMSP funds were not directed specifically at improving performance or reducing costs in the sector. Their most direct contribution to the sector was to develop SIRDI, whose objective is to improve performance in the cane sector. This has received unanimous support from industry stakeholders, but SIRDI became operational only in 2014.

Looking ahead, the industry has a viable future, but this will be possible only if costs are contained and debts are managed, especially in the cane sector (though improved cane yields and a reduction in the cost of post-harvest cane logistics). However, the future size of the industry is uncertain. Unless BSIL is willing to make major investments to increase the capacity of its mill at Tower Hill, it is unlikely that sugar output will increase greatly from its current level. Under his outcome, any improvement in cane yields will have to be matched by a proportional reduction in cane area. From a social perspective, this will mean some farmers leaving the cane sector. If some land exits agriculture altogether, because no viable alternatives uses are available, some farmers will have to find alternative sources of income outside agriculture.

The alternative outcome is that BSIL expands significantly to increase the capacity of the mill. This will require agreement and successful implementation of the SDP, which aims to aligning the main stakeholders (growers, miller and government) to improve industry efficiency, lower costs and ensure an attractive regulatory and commercial environment for sugar and power generation to ensure the industry has a sustainable long-term future.

Annex 2.3: Dominican Republic

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
CAFTA	Central America Free Trade Agreement
CARIFORUM	Caribbean Forum of African, Caribbean and Pacific States
CEA	State Sugar Council (Consejo Estatal del Azucar)
EC	European Commission
EU	European Union
EPA	Economic Partnership Agreement
FTA	Free Trade Agreement
GDP	Gross Domestic Product
MIP	Multi-Annual Indicative Programme
NAFTA	North American Free Trade Agreement
TRQ	Tariff-Rate Quota
TC:TS	Tonnes of Cane to Tonnes of Sugar ratio
US	United States

1 Overview of the sugar sector

1.1 Production and sales

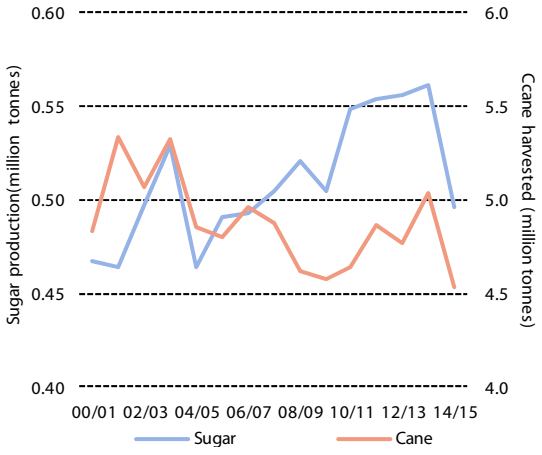
The Dominican Republic is the largest sugar-producing country in the Caribbean after Cuba. Among the African, Caribbean and Pacific (ACP) sugar-producing countries in region, it and Jamaica are the only industries with large domestic sugar markets. Unlike Jamaica, it has refining capacity, so can supply local demand for brown and white sugar. It is also the only ACP industry in the Caribbean with a large tariff-rate quota (TRQ) to supply the United States (US) market. The Dominican Republic was granted duty-free access to the European Union (EU) sugar market when the EU signed its Economic Partnership Agreement (EPA) with the Caribbean Forum of African, Caribbean and Pacific States (CARIFORUM) in 2008. Because it did not have access to the EU market prior to 2008, Dominican Republic did not benefit from funds under the Accompanying Measures programme.

These characteristics — a large domestic sugar market and large-scale access to the US sugar market — differentiate the Dominican Republic sugar industry from the other ACP producers in the Caribbean.

The industry produces 500,000-550,000 tonnes of sugar in most years (Diagram DOM.1), two-thirds of which is grown on mill-owned estates; the balance in supplied by small and medium sized independent growers (*colonos*). This is an improvement on the early 2000s, but much less than in the late 1970s, when the country produced over 1.2 million tonnes of sugar. The recovery of output followed the privatisation and rationalisation of struggling state-owned mills, previously controlled by the State Sugar Council (Consejo Estatal del Azucar, or CEA). Today, just four mills operate, two of which — Central Romana and Cristobal Colon — were privately owned previously.

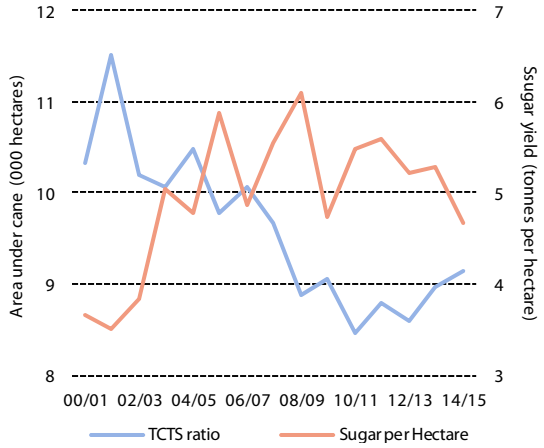
Cane is grown predominately on mill-owned estates, with the largest producer Central Romana accounting for over 60% of production in 2014/15. However, some cane is grown by independent farmers. Cane is grown under rain-fed conditions, which limits cane yields. The country's tropical location also limits the sucrose content of cane. Nevertheless, at around 5.0-5.5 tonnes per hectare, the industry achieves the highest sugar yields among the ACP sugar industries in the Caribbean, and has improved its yields and lowered the tonnes of cane to tonnes of sugar (TC:TS) ratio[33] since the early 2000s.

Diagram DOM.1: Cane and sugar production



Source: Inazucar.

Diagram DOM.2: Evolution of cane area and yields



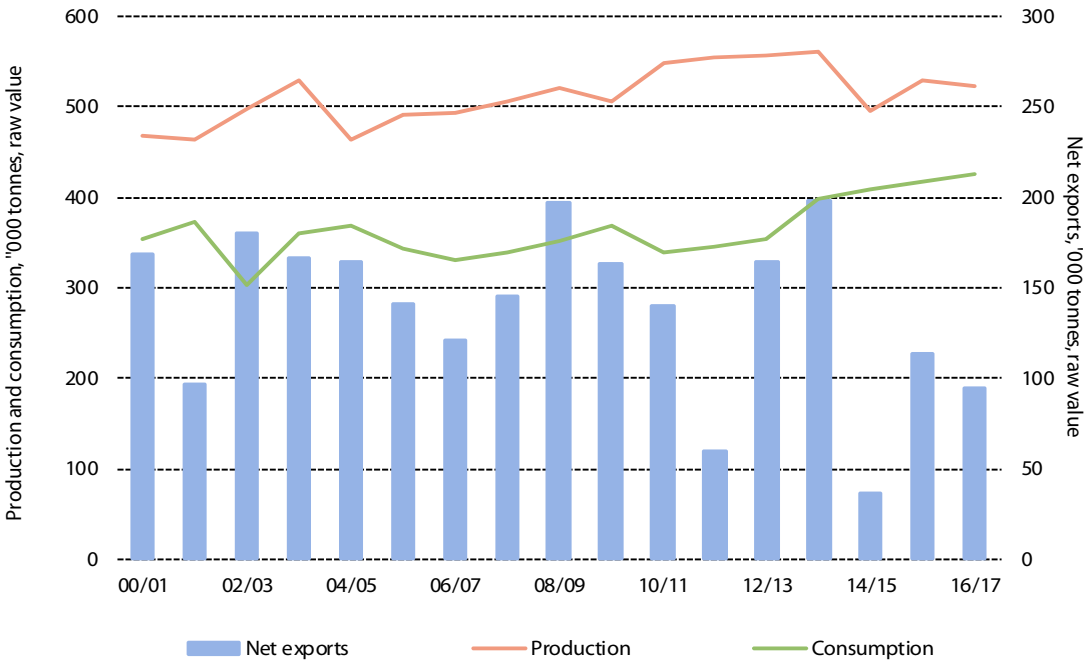
Source: Inazucar.

[33] A *decline* in the ratio signifies an improvement in sugar output per tonne of cane, as fewer tonnes of cane are needed to produce one tonne of sugar.

The recovery in sugar production over the past 15 years has ensured the country has remained a net exporter of sugar despite rising consumption (Diagram DOM.3). Net exports vary from year to year, but have decreased and over this period. This variability reflects swings in sugar production as well as in consumption, owing partly to informal flows of sugar across the border with Haiti, which are captured in local consumption statistics.

Diagram DOM.3 conceals an important feature of the industry, which is that it imports sugar to free up sugar for sale to the US and EU. Imports are split between raw and refined sugar, with the largest origins being Brazil, Guatemala, Colombia and Honduras in recent years.

Diagram DOM.3: Supply/demand balance — Dominican Republic



Sources: Inazucar, International Sugar Organisation.

The Dominican Republic currently exports all its sugar to the US and EU. However, the distribution of its exports between these markets varies according to the relative prices in each (Diagrams DOM.4 and DOM.5). In some years, it has taken advantage of its preferential access to the EU market, but even then the majority of its shipments have been to the US within its TRQ allocation[34]. Diagram DOM.5, which charts the price of raw sugar delivered to the EU and US, illustrate that the industry has exported sugar to the EU at times when the EU price has exceeded the US price, namely in 2008/09, 2012/13 and 2013/14. When the US price has been the more attractive option, exports have focused on supplying its full TRQ allocation.

1.2 The socio-economic contribution of the sugar sector

The sugar industry forms an important part of the agricultural sector, accounting for around 9% of agricultural Gross Domestic Product (GDP[35]). However, it is relatively small in national terms, contributing less than 1% to national GDP in 2014[36].

[34] The Dominican Republic has the largest TRQ of all suppliers to the US, at around 185,000 tonnes. It also has access to the US market under the CAFTA-DR FTA. Its allocation is based on the lesser of its trade surplus or its TRQ allocation for that year.

[35] Sources: World Bank, LMC estimate.

[36] Source: LMC estimate.

Sugar accounted for 1.4% of total foreign exchange earnings in 2013, although this figure has been gradually declining over time. Coffee, cocoa and tobacco are the other main agricultural exports.

Diagram DOM.4: Exports by destination

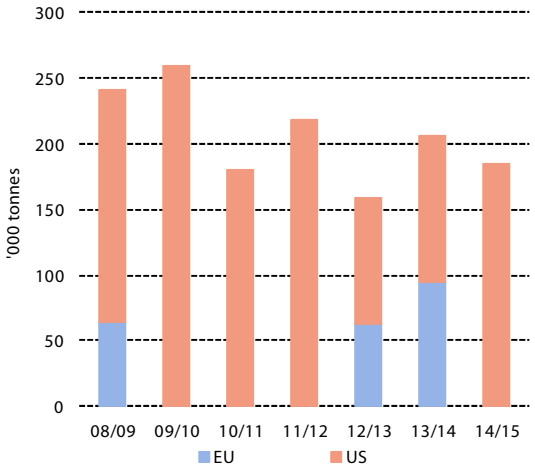
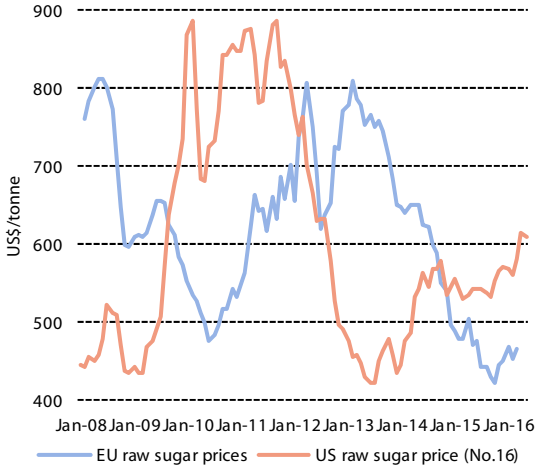


Diagram DOM.5: EU vs. US raw sugar prices



Source: Eurostat, USDA Foreign Agricultural Service.

2 Current situation & prospects

2.1 Current situation

The two largest private producers, Central Romana and the INICIA group (formerly the VICINI group), which owns the Cristobal Colon mill, currently account for around 75% of total production. The four mills vary greatly in size, with Central Romana being by far the largest (Table DOM.1). It is also the only mill that can produce refined sugar.

Table DOM.1: Capacity by mill, 2015/16 estimates

	Tonnes cane per day
Central Romana	20,000
Cristobal Colon	8,000
Consorcio Azucarero Central	5,000
Ingenio Porvenir	3,600

Sources: Inazucar, F.O. Licht.

2.2 Prospects for the sector

The Dominican Republic has been plagued by persistent droughts in recent years and the cane crop has suffered as a result. However, the three largest mills were all expected to increase their area planted to cane going into the 2015/16 season. In addition, new varieties of cane have been planted with a view to boosting yields.

2.2.1 *Market access*

The industry is fortunate in that it has access to a large domestic market that can absorb approximately 70% of its production. Moreover, local demand is growing, with annual growth averaging around 2% over the past decade. Prices in the domestic market are also supported above world market levels thanks to import duties for raw and refined sugar of 14% and 20%, respectively.

While the outlook is for prices in the EU to become more closely aligned to those on the world market, prices in the US are likely to retain a significant premium over world market values. This is because supply of sugar in the US continues to be managed and, this control

of supply was recently extended to include Mexican sugar, which can enter the US duty-free under the North American Free Trade Agreement (NAFTA). A key provision of the current arrangements with Mexico is the imposition of minimum *ex-factory* sales prices for Mexican sugar shipped to the US of 22.23 and 26.00 cents/lb for raw and refined sugar, respectively. In effect, this establishes a price floor for sugar in the US and is likely to make the US more attractive than the EU is most future years.

Diagrams 6 and 7 compare average raw and refined sugar prices in the domestic market with prices in the US and world markets. Both diagrams illustrate that domestic prices are maintained above world prices. Although world prices are expressed on an FOB basis, the price difference is much greater than the logistics costs associated with making imports.

Diagram DOM.6: Raw sugar prices, January 2014

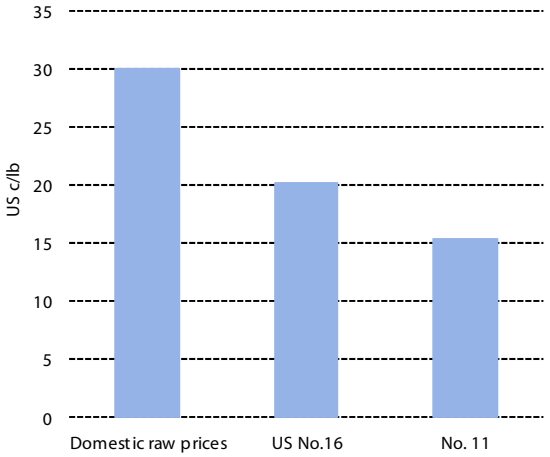
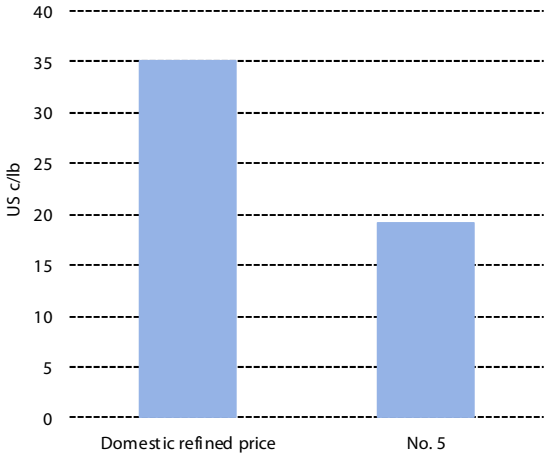


Diagram DOM.7: Refined sugar prices, January 2014



2.2.2 *Electricity cogeneration*

All of the larger mills are either currently or will shortly be self-sufficient in producing energy, and are looking to increase cogeneration capacity through burning bagasse. The Cristobal Colon mill has invested in expanding its cogeneration facility, which now enables it to produce 30 megawatts of electricity, both for its own needs and to sell to the national grid.

2.2.3 *Ethanol*

The government has continued to promote the development and use of an ethanol and gasoline blend, with Law No. 57-07 in the 2005 legislation encouraging the development of renewable energy. However, plans to create a mandate for an ethanol and gasoline blend have stalled. A provisional start date has been delayed on a number of occasions, resulting in uncertain conditions for investors[37]. As a result, none of the mills are at present planning to install ethanol production facilities, nor are any promoting the implementation of the blending mandate.

3 Conclusion

Unlike other ACP sugar-producing countries in the Caribbean, the Dominican Republic is in a strong position. It achieves the highest sugar yields in the region, has large domestic demand for sugar (into which it can sell both brown and refined sugars), one mill has invested to cogenerate electricity for sale to the grid and has large-scale preferential access to two markets, the EU and US. Moreover, although the value of the EU market is expected to decline, sugar prices in the US are likely to remain supported well above world market levels as a result of domestic policy. This will underpin industry revenues and means that exports are likely to focus on the US market in most future years.

[37] Source: USDA

Annex 2.4: Fiji

List of abbreviations

AAP	Annual Action Programme
AMSP	Accompanying Measures to the Sugar Protocol
EDCU	EU Delegation and Coordination Unit
EDF	European Development Fund
EEC	European Economic Community
EIB	European Investment Bank
EP	Empower Pacific
EU	European Union
FSC	Fiji Sugar Corporation
FSGWU	Fiji Sugar and General Workers Union
GDP	Gross Domestic Product
HFHF	Habitat for Humanity Fiji
kWh	Kilowatt Hour
MIP	Multi-Annual Indicative Programme
MoF	Ministry of Finance
MoS	Ministry of Sugar
NAS	National Adaptation Strategy
NGO	Non-Government Organisation
NOS	Non Originating Sugar
RKM	Ramakrishna Mission
ROO	Rules of Origin
SCGC	Sugar Cane Growers Council
SIDS	Small Island Developing States
SRIF	Sugar Research Institute of Fiji
SSC	Special Safeguard Clause
UK	United Kingdom
US	United States
VHP	Very High Polarisation

List of persons/organisations met

Meetings in Fiji were held with industry stakeholders. The consultant present was Dr. Rajpati. During his visit, Dr. Rajpati met with the following persons:

Organisation	Name	Position	Contact Details
Ministry of Sugar (MoS)	Mr Jitendra Singh	Permanent Secretary Ministry of Sugar and Ministry of Agriculture	
MoS	Mr. Viliame Gucake	Director Sugar	vgucake@govnet.gov.fj
MoS	Mrs Venina Bukatea	Senior research officer	venina.bukatea@govnet.gov.fj
MoS	Mr Napolioni Boseiwaga	Economic Planning Officer	napolioni.baseiwaga@govnet.gov.fj
EU Delegation and Coordination Unit (EDCU)	Mr Christoph Wagner	Head of Cooperation	christoph.wagner@eeas.europa.eu
EDCU	Mr Albert Cerelala	Programme Manager	albert.cerelala@eeas.europa.eu
EDCU	Mr Michael Parker	Programme Management Advisor/Team Leader, EU Coordination Unit: Accompanying measures for the Sugar Protocol programme	mparker.cu@gmail.com
EDCU	Mr Mohammed Habib	Technical Manager , EU Coordination Unit: Accompanying measures for the Sugar Protocol programme	pmu.sugar@gmail.com
Ministry of Finance (MoF)	Mrs Makareta Konnote	Acting Permanent Secretary	
MoF	Mr. Martin Nabola	Senior Economic Planning Officer	martin.nabola@planning.gov.fj
MoF	Mr Sandip Kumar	Economic Planning Officer	sandip.kumar@govnet.gov.fj
MoF	Mr Ledna Vakelolama	Ministry of Finance	ledna.vakelolama@finance.gov.fj
Sugar Research Institute Fiji (SRIF)	Mr Sanjay Prakash	Acting CEO	sanjayn@srif.org.fj
Sugar Cane Growers Council (SCGC)	Mr Sundresh Chetty	CEO	sundresh@fsc.com.fj
Fiji Sugar Corporation (FSC)	Mr. Abdul Khan	Executive Chairman	chairman@fsc.com.fj
FSC	Mr. Mikaele Binkoto	GM Sugar Operations	binkotom@fsc.com.fj
Fiji Sugar and General Workers Union (FSGWU)	Mr. Felix Anthony	General Secretary	fsgwu@connect.com.fj
FSGWU	Mr. Soubrail Goundar	Industrial Officer	soubrailg@gmail.com

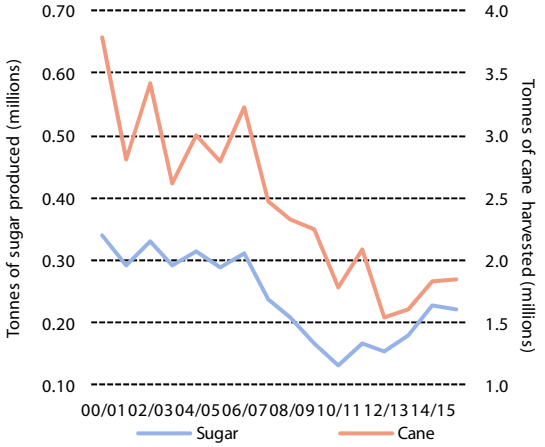
1 Overview of the sugar sector

1.1 Production and sales

The Fiji sugar industry consists of four mills, which are government owned and are supplied with cane by around 12,000 independent farmers. Sugar production has followed a declining trend over the last twenty years (Diagram FIJ.1). In 1995, the cane crop totalled around four million tonnes. This figure fell to 3.2 million tonnes in 2006 and to 1.8 million tonnes in 2015. Moreover, since 2006, the number of active farmers fell by 17%. There have been many factors behind the decline in production, including lack of security of land tenure, political instability, notably the military coup in 2006, as well reforms that have reduced prices in the European Union (EU) market. However, there are signs that production has started to recover from the lows reached in 2010/11, with higher EU market prices and increased security of land tenure for some farmers helping to reverse the falling trend.

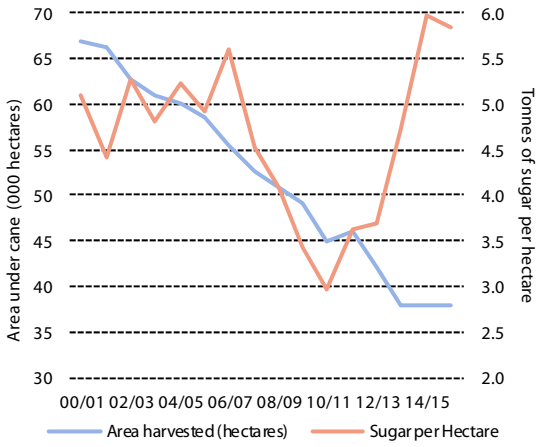
Performance in the field is modest by international standards, with cane yields averaging less than 50 tonnes/hectare over the last three years and sugar yields averaging around 5-6 tonnes/hectare over the same period. While yields improved markedly in the last two seasons, they still compare unfavourably with countries in the southern African region where sugar yields are more than 12 tonnes/hectare. Moreover, the sugar factories in Fiji are old and need a major overhaul. While there is a plan to do so, it has yet to be implemented.

Diagram FIJ.1: Cane and sugar production



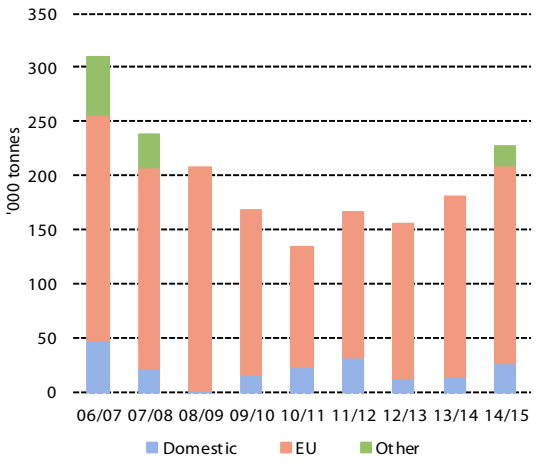
Sources: Fiji Sugar Corporation, Fiji Bureau of Statistics, F.O.Licht.

Diagram FIJ.2: Evolution of cane area and yields



Sources: Fiji Sugar Corporation, Fiji Bureau of Statistics.

Diagram FIJ.3: Distribution of sales



Source: Fiji Sugar Corporation.

Since 2008, sales have been largely limited to the domestic and EU markets (Diagram FIJ.3). The only exception was 2015, when around 17,000 tonnes were sold to the United States (US) under the US quota and to the region.

The diagram shows that Fiji is heavily reliant on the EU market, having access to only small domestic and regional market opportunities. At present, all EU exports are sold as bulk raw sugar for refining to Tate & Lyle PLC.

1.1.1 *Cyclone Winston*

In February 2016, Fiji was hit by cyclone Winston, which caused severe damage to the country. The cyclone damaged all four sugar factories and reduced the sugar crop by an estimated 40%. Of the 42,000 hectares of canes cultivated, 18,800 hectares were affected by Winston and 3,500 hectares were destroyed completely. The Penang mill will not be repaired in time for the 2016 crop. Consequently, its cane will be milled elsewhere with transport costs met by Government funds.

There is a fear that Fiji will encounter more cyclones over time as a consequence of climate change. In response, the EU, under the Development Cooperation Instrument, has earmarked €10 million for post-Winston support.

1.2 The socio-economic contribution of the sugar sector

As in the case of most Small Island Developing States (SIDS) where agriculture, in particular sugar cane, thrives alongside tourism, the sugar industry plays a multifunctional role that is considered vital by governments and stakeholders. In Fiji, it is worthwhile noting that the Minister for sugar is the Prime Minister, underscoring the importance attached to this crop by the government.

Sugar growing and milling account for around 2% of the GDP of Fiji and 10% of gross export earnings. They also make an important contribution to livelihoods in rural areas where incomes are relatively low. While the industry does not export power to the national grid, or produce ethanol for use in fuel, although there are plans for this to happen in the future. Sugar activities through their positive role in protecting and preserving the environment underpin the thriving and essential tourism sector, which has significant multiplier effects and cross-linkages with many other areas.

1.2.1 *Stakeholders*

The sugar industry comprises four categories of stakeholders.

***Milling sector*.** The Fiji Sugar Corporation (FSC) which owns the four sugar mills with a potential capacity of 4.2 million tonnes in a year but is currently operating at some 50% or less of capacity and 33% of capacity in 2016. The mills produce bulk raw sugar only. Three factories (Lautoka, Rarawai and Penang) are located on Viti Levu. Labasa, which accounts for 35% of total current production, is located on Vanua Levu. The FSC is also engaged in planting operations, but this is activity is mainly undertaken by farmers on freehold or leased land. Since 2010, the FSC has absorbed the functions of the Sugar Commission and marketing. The government owns 68% of the equity of the FSC.

***Farm sector*.** 80% of farmers operate on leased land. Currently, according to the Sugar Cane Growers Council (SCGC), there are around 16,000 registered planters, of whom 12,000 are active. The average cultivated holding of an active farmer has fallen from 4.0 hectares in 2006 to 3.3 hectares in 2015. Government officials and the SCGC have pointed out that the Fijian farming community is facing the problem of ageing, with 60% of farmers aged 55 years or over, with the younger generation showing less interest in cane farming. They also encounter labour availability problems and have to resort to seasonal employees coming from other islands. Major migration of Fijians overseas has resulted in remittances becoming an important source of revenue in the farming communities.

***Employees*.** Permanent employees account for around 30% of the total workforce and are employed by the FSC, mainly in the factory and transport sectors. Seasonal workers, who represent 70% of the total, are mainly engaged in field activities. Employees, in particular seasonal workers, have been hit hard by the drastic drop in production that has taken place

over the last 20 years. Smaller cane crops mean that less cane needs to be cut and work is available for a shorter period in the year. Additionally, a low skill level often puts them in an unfavourable position to find alternative employment. In addition to training and seasonality issues, the Fiji Sugar and General Workers Union (FSGWU) also voiced its concerns on enforcement of health and safety measures and occupational diseases linked to bagasse and in particular, bagacillo. Mention was also made that labour rights were only restored in 2016.

Institutions. Table FIJ.1 refers to the role of the various institutions.

Table FIJ.1: Institutions and their role and importance

Institution	Role
Sugar Ministry	Falling under the Prime Minister's Office, it is responsible for sugar policy and the monitoring of projects and policies, liaises with all the other institutions.
Ministry of Finance	National Authorising Officer for all grants/loans coming from overseas, including AMSP and EDF. Supports industry: 1) Research: 1/3 of costs 2) Fertiliser: 20% of cost subsidised 3) Administrative costs of FSC 4) Guarantor for loans taken by the FSC 5) Funds for improving sugar cane access roads
Sugar Research Institute Fiji	Detached in 2006 from the FSC. Equal funding provided from Government, growers and millers. Vice Chancellor of University as Chairperson, two international specialists, Executive Chairman of FSC , Director sugar, one division chief and one businessman as board members. Issued a Strategic Plan on 1 March 2015: 1) Aligning Fiji sugar to international standards 2) Economics of sugar production 3) Grower services in collaboration with the FSC International relations with Australia, Barbados and Mauritius in particular. Budget F$3 million in comparison to total sales of F$82 million in 2015.
Sugar Tribunal	Adjudicates on cases brought to it by farmers or millers. Registers all farmers, with not all being active. Some farmers may be dormant in a one year and become active in another.
Sugar Cane Growers Council	Represents all registered planters.
Fiji Sugar and General Workers Union	Represents all employees of the sector except staff, clerks and some tradesmen.
Sugar Cane Growers Fund	Successor as from 1984 to the Cane Price Support Fund and the Stabilisation Fund. Its functions are generally to provide financial assistance to growers to improve cane farming efficiency and living standards and to assist farmers in times of disasters.

2 National Adaptation Strategy

A National Adaptation Strategy (NAS) was adopted by the Fiji Government on 26th September 2006. The NAS identifies three pillars of support:

- Support to the sugar sector, focusing on the farming sector.
- Economic diversification, focusing on agriculture.
- Social impact mitigation measures.

However, there was a great deal of uncertainty surrounding the NAS at the time of its approval. There was a lack of specific targets and a number of policy reforms were required in order for it to succeed, most notably on land reform. Moreover, the military coup in 2006 meant put its implementation into doubt.

3 AMSP and EU support

3.1 General

Table FIJ.2 shows how Fiji has availed itself of support from the EU.

Table FIJ.2: EU support and Fiji

Form of support	Performance of Fiji
AMSP	Tranche linked to first MIP not committed on account of 2006 military coup and the instauration of a non-democratic regime. Tranche linked to second MIP made available as soon as indications were there that the country was transiting to democratic rule, with the funds channelled through Non-Governmental Organisations (NGOs).
Concessionary finance of around €100 million from the European Investment Bank (EIB) for the same group of countries pursuant to a Joint ACP/EU Ministerial Decision taken in 2006 at Port Moresby, Papua New Guinea.	Opportunity not taken.
EDF support.	Being made available to Fiji.

3.2 AMSP Projects

AMSP disbursements to ACP beneficiaries began in 2006. However, in that same year, Fiji experienced a military coup which led the EU to withhold payments to Fiji. As a result, the AMSP was suspended and it was only in the early 2010s when democracy was restored that resources were made available to the country.

In 2010, €8 million was committed to a Special Social Mitigation Annual Action Programme (AAP) which commenced in 2011. These funds were made available under the 2010-2012 Multi-Annual Indicative Programme (MIP).

Funds were disbursed via Non-Government Organisations (NGOs) in conjunction with the EU Coordination Unit for Accompanying Measures. The funds were devoted to the following organisations and objectives:

a) ***FRIEND***: The promotion of income generating activities through the provision of vocational training.

b) ***Ramakrishna Mission (RKM)***: The promotion of income generating activities through the provision of vocational training.

c) ***Empower Pacific (EP)***: The facilitation of access to rural credit, supporting on farm and off farm alternative economic activities.

d) ***Habitat for Humanity Fiji (HFHF)***: To improve rural livelihoods through the implementation of micro projects.

The Annual Fiche referring to the 2011 AAP indicates that the funds to be used were to improve key services to agriculture, with the EU committing €8 million and Fijian stakeholders contributing €4.94 million in kind. The project approach for implementation was centralised direct and joint management with the Secretariat of the Pacific Community and International Trade Centre. The 2011 AAP came under the 2011-2013 MIP which is scheduled to be implemented by 2018. The projects to be implemented are as follows:

a) *Component 1*: Supporting the horticulture/food crop value chain and enhancing supply capacities, strengthening of the horticulture/food crop farmers and supporting the collection centres in Ba and Sigatoka (€2.6 million) plus enhancing seed & seedling production capacities for horticulture/food crops, support for small enterprises and the enhancing of horticulture/food crops (€2.7 million).

b) *Component 2*: Strengthening cane variety research to ensure good quality seed cane is available to farmers, Grant to SRIF (€1.0 million).

c) *Component 3*: Support for the replication of Fairtrade associations and strengthening their operations (€1.0 million).

d) Monitoring and evaluation, audits, communication (€0.2 million).

e) Contingencies (€0.5 million).

In addition to these projects, the EU representation in Fiji supported farmers to comply with the requirements of the Fairtrade Initiative. This was highly successful and, as a result, they were able to certify around 220,000 tonnes as Fairtrade sugar. Of this amount some 70,000 tonnes have been marketed as such to the UK via Tate & Lyle. For this sugar, growers received an additional payment of US$60/tonne, which is ring-fenced to spend on community projects.

Over time, it became clearer that democracy would be restored and this led to AMSP funds being released. As a result, €48 million is being committed under MIP II for 11 contracts to be implemented by five agencies. The SRIF features among those agencies for three contracts destined to improve research, varietal improvement and information dissemination to farmers. Other projects channelled through the Secretariat of the Pacific Community include:

a) A road project, €13 million, destined to improve cane access road, a major constraint for the farmers as well as a contributor to high costs of production;

b) A reforestation programme, €9 million, focusing on the plantation of trees in the sugar belt; hill plantation for the protection thereof, on farm plantation and commercial forestry;

c) Skills development for workers and farmers under the aegis of the Australian Pacific Technical College.

All projects are reported to be on track.

The advent of democracy has changed the landscape. Henceforth, funds from the EDF would be disbursed to Government as budget support measures and the steering committee would be co-chaired by the EU and the Minister of Finance in his capacity as National Authorising Officer.

3.3 Delivery modalities

Given the particular circumstances that prevailed in Fiji, projects funded were on the basis of centralised disbursements that were jointly managed by the EU and the Secretariat of the Pacific Community and the International Trade Centre.

Now under the EDF, and after the restoration of democratic rule, disbursements are in the form of budget support and are jointly managed by a steering committee co-chaired by the EU and the Minister of Finance in his capacity as National Authorising Officer.

3.4 Strengths and weaknesses

Table FIJ.3 summarises the strengths and weaknesses of the AMSP as reported by stakeholders.

In terms of strengths, the NGO/Coordination Unit venture has been supportive in providing elements such as training in Fairtrade standards, vocational training; and helping farmers to move up the value chain.

The major weakness was the limited availability of funds, which have fallen short of what was required by the industry. It is important to point out, of course, that funds were not committed because of the absence of a democratic government, which prevented funds from being released. Nevertheless, this resulted in Fiji losing around €60 million in potential funding towards achieving the goals of the NAS.

Table FIJ.3: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
12. Succeeded in getting all farmers' sugar certified Fairtrade. 13. Instilled the principles of good governance in the farming community. 14. Addressed the support services of sugar. 15. Reforestation programmes are essential in Fiji for environment and scenery as well as providing commercial forestry.	16. Some fears about absorption capacity. 17. Funds provided fall short of needs of Fiji for the sugar sector, more so after Cyclone Winston. 18. Reforestation and alternative livelihood projects, while being welcome, may divert resources away from sugar. 19. Climate change not factored in as a sector, which will require resources and safety nets. 20. EIB funds, which could have been very useful in upgrading industrial capacity, have not been accessed.

4 Current situation and prospects

4.1 The current situation

With AMSP funding being delayed because of the political situation in Fiji, it is too early to gauge the extent to which the support has been successful in helping the country reach the goals set out in the NAS. With EU reform looming, this is a challenge for the country.

Putting the adverse effects of Cyclone Winston to one side, there are signs that the industry has managed to stabilise production in years of 'normal weather'. This has been supported by long land leases being granted to farmers, which has made them more willing to invest in the land they are farming in terms of replanting and the application of inputs.

However, the Fijian sugar industry still faces a number of challenges. Firstly, the industry only produces bulk raw sugar, which is sold almost entirely to the EU. Secondly, its geographical location means that access to alternative markets is limited. Thirdly, it does not add value to sugar by-products (bagasse or molasses), meaning that the industry is entirely reliant on sugar sales as its revenue source. In the field, the industry continues to suffer from relatively low yields, high levels of weed infestation and high harvesting and transportation costs. Finally, the farming community is aging and the seasonal nature of employment is creating difficulties for those reliant on the sector.

4.2 Prospects for the sector

Both the government and stakeholders are committed to the maintenance of the industry. Numerous projects are envisioned for the future. The main ones designed to enhance the viability of the sugar industry are explained below.

Key stakeholders indicated that in contrast to 2006 when Fiji did not comprehend the reforms occurring in the EU, there is now a clear recognition of the need to change in the face of reform. There are signs of this happening, with the Sugarcane Growers Council dramatically reducing its board membership and the FSC taking on the responsibilities of the Sugar Commission, including marketing. Some stakeholders felt there would also be merit in contemplating the injection of new blood and capital through strategic/equity partners in FSC.

Domestic/regional opportunities. One focus is to increase the revenue generated from domestic and regional market sales. This would be done through the production of around 18,000 tonnes of Very High Polarisation (VHP) sugar to displace some of the sugar that is imported into the country. This output would be branded and packed by the FSC. To provide protection to what would be an "*infant industry*", the government plans to introduce a 32% tariff on imported sugar. The intention is for this sugar to also be sold to nearby micro-states.

Increased productivity. According to the Ministry of Sugar, the FSC has been able to halt crop reduction, in normal weather conditions. The next step is to enhance it through a series of measures which would involve the Sugar Research Institute of Fiji, namely:

a) Target a yield increase from 45 to 60 tonnes of cane/hectare or 4.5 to 6.5 tonnes of sugar/hectare.

b) Introducing a cane quality payment system to encourage farmers to focus on sugar yields rather than cane tonnage.

c) Emulate the example of Reunion Island, visited by a Fijian delegation in 2012, including a profiling of farms, an exit and a migration plan as well as a diversification plan.

d) An aggressive research/extension policy which would require trained personnel currently not available.

e) Better co-operation with other sugar countries in terms of cane varieties.

Adding value to sugar by-products. The production of **ethanol** from molasses to allow a mandatory E10 ethanol/gasoline blend is a measure that has been proposed. This would involve the use of some 45,000 tonnes of molasses out of the 60,000 tonnes produced in a

normal year (assuming sugar output of 220,000 tonnes). Such a volume would result in the production of around 10 million litres of equivalent anhydrous ethanol. The better use of molasses into ethanol production would mean that revenue of both millers and farmers would increase, as they own 30% and 70%, respectively of the molasses produced.

Co-generation There is an intention to produce electricity for export to the national grid. This would use bagasse as well as wood chips to provide a year round supply of energy. The investment cost is estimated at €50 million with gross yearly revenue estimated at €13.6 million. The developments in electricity generation have to be viewed against the following backdrop:

a) 20% of the population still does not have access to electricity.

b) Fiji's remote island location means that is cannot buy in electricity from other countries.

c) Hydro and biomass are supportive to maintaining a low carbon footprint.

While all of these measures would help to put the sugar industry on a better footing, the investment required to do so would be significant. Moreover, with EU reform around 18 months away, they would not be in place before reform takes place. The investments discussed would include:

a) A 20 MW power plant.

b) A 10 million litre distillery.

c) Upgrading of the sugar factories.

d) Facilities to produce VHP and European Economic Community (EEC) Grade II sugars and their conditioning and packing.

e) Upgrading the rail system to reverse the rail/road transport ratio.

Other measures that are being discussed to boost the sustainability of the industry include:

***Enhancing sales of Fairtrade sugar*.** If all of Fijian sugar were to fetch the Fairtrade premium, an additional €7.8 million would accrue to the farming community. However, stepping up the sales would be a tough task given that the supply of Fairtrade sugar exceeds the current demand (further discussion of this is included in the main report).

Climatic safety net. While acknowledging that the country has limited financial resources, stakeholders nonetheless consider that the establishment of a sugar insurance scheme is imperative. In a context where the industry would face greater market uncertainty, the predictability of a safety net would be useful in instilling trust and confidence of stakeholders in the industry. Several suggestions were put forward, such as seed capital to be made available to Fiji by foreign sources and thereafter producers be called upon to contribute to a fund. It was also mentioned that funds resting in the Sugar Cane Growers Fund could be used to provide part of the seed capital. It is understood that this question has been looked into by the World Bank and the EU is targeting €10 million for post Winston support.

Vocational training to the seasonal employees of the sugar industry. This is an area which has been developed by the EU Coordination Unit in the context of MIP II and that would need continued efforts.

***Alternative markets and options*.** Fiji remote location means that alternative markets for its sugar are limited. This suggests that it will continue to rely on the EU market for a large proportion of its sugar sales.

5 Conclusion

Many factors have combined to mean that Fiji is behind some other countries in terms of preparing for EU reform. The 2006 military coup meant that AMSP funding was delayed. Moreover, in 2006, some stakeholders were not convinced that the EU would reform so radically.

With democracy restored, Fiji is now working towards developing a more sustainable sugar industry. In the last couple of years, there were signs that the industry was arresting the decline in sugar production, with more positive political signals being sent to growers. However, this has been damaged once again by the impact that cyclone Winston looks to have had on the industry.

Sugar is still very important to the rural economy in Fiji and the industry remains heavily reliant on bulk raw sugar sales to the EU market. Moreover, the lack of alternative markets means that the industry is likely to remain dependent on the EU market in the future. With EU reform looming, the industry is developing responses to diversify its industry to include both electricity and ethanol production, add value to sugar as well as address its cost structure. However, time and a significant investment in the sector are required to achieve this. Some stakeholders believe that an injection of new blood and capital through strategic/equity partners is required. However, it is currently unclear where this would come from.

Annex 2.5: Guyana

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
CARICOM	Caribbean Community
CET	Common External Tariff
EC	European Commission
EU	European Union
GoG	Government of Guyana
GDP	Gross Domestic Product
GNAP	Guyana National Action Plan
GuySuCo	Guyana Sugar Corporation
MIP	Multi-Annual Indicative Programme
NAS	National Adaption Strategy
TRQ	Tariff-Rate Quota
TCH	Tonnes of Cane per Hour
US	United States

List of persons/organisations met

The project did not include a field mission to Guyana. A questionnaire was distributed to stakeholders via the ACP Secretariat, and we spoke to the following persons:

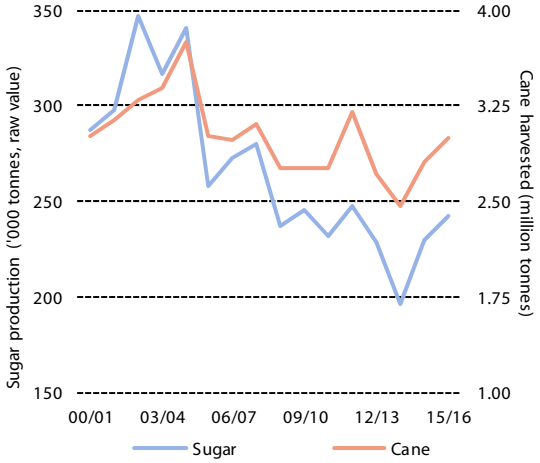
Organisation	Name	Position	Contact Details
EU Delegation	Albert Losseau	Agriculture Programme Officer	Albert.LOSSEAU@eeas.europa.eu
GuySuCo	Errol Hanoman	CEO	ErrolH@guysuco.com
GuySuCo	Paul Bhim	Finance Director	PaulB@Guysuco.com

1 Overview of the sugar sector

1.1 Production and sales

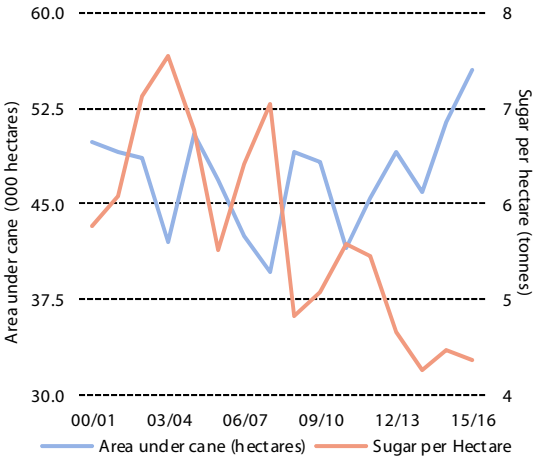
Guyana currently produces 200,000-250,000 tonnes of sugar per year, down from 300,000-350,000 tonnes in the early 2000s (Diagram GUY.1). The decline in output reflects the serious challenges facing the industry, which are attributable to many factors, ranging from poor management, increasing labour and skill shortages and rising costs. The last of these influences means the state-owned sugar company, Guyana Sugar Corporation (GuySuCo), which grows 90% of the country's cane on its estates and operates all seven mills, is loss-making and has been unable to make adequate capital investments needed to sustain efficient cane growing and milling operations. This has led to deteriorating cane yields (Diagram GUY.2) and cane quality, as well as mill efficiencies.

Diagram GUY.1: Cane and sugar production



Source: Guyana Bureau of Statistics.

Diagram GUY.2: Cane area and sugar yields



Source: Guyana Bureau of Statistics.

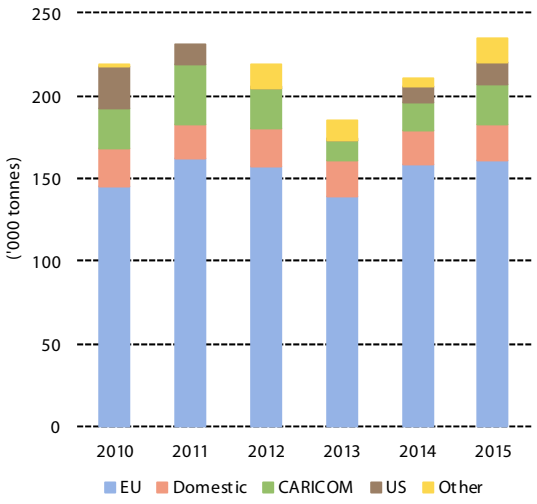
The cumulative effect of these developments means that GuySuCo has run up high debts and is now financially insolvent. It continues to operate only because of direct budgetary payments from the Government of Guyana (GoG) that enable it to meet its recurrent expenses. In recognition of the burden this places on national finances, the government has recently carried out a Commission of Inquiry to determine the future options for the sector with a view to developing "a plan to bring the industry back to profitability, and assure its long term environmental and economic sustainability"[38].

The challenges facing the sector are formidable and have been amplified considerably by GuySuCo's deteriorating financial situation and its knock-on consequences for performance in cane faming and milling operations. However, the agro-climate and topography of Guyana's cane sector are fundamentally challenging. Cane is grown along Guyana's low-lying coastal regions of Demerara and Berbice, which lie either below sea level or high tide level. Cane cultivation is therefore reliant on an extensive drainage and an irrigation network that is expensive to maintain and means that most cane is transported to mills on canals. These conditions, combined with the tropical climate, means that cane quality is naturally low by international standards.

Moreover, the layout of cane fields makes it difficult to mechanise efficiently and the industry relies heavily on manual operations, which requires a large and high-cost workforce. The sector also suffers from poor labour relations that have resulted in frequent strikes and considerable lost worktime, which have inflated costs further.

[38] Guyana Sugar Corporation Commission of Inquiry, 2015, volume 1, p5.

Diagram GUY.3: Sales by market



Source: GuySuCo.

Guyana's small population (less than 0.8 million people) means local consumption of sugar is just 30,000-35,000 tonnes. Roughly two thirds of this is supplied with locally-produced brown sugars with the rest imported, as the country does not have a refinery to produce white sugar.

Limited local market sales means Guyana exports most of its sugar output. The European Union (EU) is by far its largest destination, taking around 150,000 tonnes per year. The country also sells sugar to the United States (US) market in some years, where it has duty-free access via a tariff-rate quota (TRQ) of 12,636 tonnes.

Sales of brown sugar to within Caribbean Community and Common Market (CARICOM) are currently around 20,000 tonnes.

1.2 The socio-economic contribution of the sugar sector

The sugar sector has declined as a proportion of Guyana's overall Gross Domestic Product (GDP) over recent years. However, it remains a very important employer, as well as service provider, within rural communities, giving it a high level of political importance within the country[39].

The economic significance of the sector is highlighted in Table GUY.1. This demonstrates that, despite the decline in cane and sugar output, it still makes up 15% of the agricultural GDP and 3% of national GDP, and brings in close to 10% of the country's export earnings.

In addition to employing around 16,000 people, GuySuCo provides a range of social services include schooling, clinics, clean water and sanitation as well as sports facilities within local areas. However, as GuySuCo is state owned, the recent Commission of Inquiry proposed transferring these obligations to the government to rationalise their provision.

Table GUY.1: The socio-economic contribution of the sugar sector, 2014

% of Agricultural GDP	15%
% of Total GDP	3%
% of Total Exports	8%
Sugar Employment	16,000

Source: Commission of Inquiry report, 2015.

2 National Adaption Strategy (NAS)

In 2006, Guyana prepared a National Action Plan (GNAP) in response to the forthcoming EU reform, noting that they were at the time the most dependent upon sugar of all the African, Caribbean and Pacific Group of States (ACP)[40]. The GNAP listed three pillars of intervention to mitigate the impact of the reform:

[39] Submission to the Guyana Sugar Corporation Commission of Inquiry (2015) by Prof. Clive Y. Thomas.
[40] National Action Plan on Accompanying Measures for Sugar Protocol Countries Affected by the Reform of the EU Sugar Regime, 2006.

a) To promote the expansion, development and diversification of the sugar cane industry in Guyana, including packaging, refining and cogeneration capacity (investment budget: €499 million).

b) To promote the growth and development of specific non-traditional agriculture sub-sectors (budget: €29 million).

c) To provide infrastructural and human resource development support to achieve: (a) and (b) above, thereby ensuring the success of the economic regeneration programmes that are to be executed in the sugarcane and non-traditional agriculture sub-sectors (budget: €24 million).

Together these were hoped to reduce the exposure Guyana had to the EU raw sugar market, and bring their unit costs to a competitive level.

Expected outcomes included raising sugar production to 460,000 tonnes at a competitive price level, stable export earnings in diversified markets, continued social support in rural areas and an increase in agricultural employment.

3 AMSP (Accompanying Measures to Sugar Protocol)

The European Commission (EC) broadly accepted the recommendations of the NAS and the AMSP funding was targeted at three priorities:

- To support the GoG's policy to ensure that the sugar sector in Guyana will be viable and competitive even after the downward adjustments of the preferential prices earned in the EU market.
- To support implementation of the National Competitiveness Strategy, in particular the agricultural diversification components thereof.
- To take measures to alleviate the social impact of the adaptation strategy for the sugar sector.

The majority of funds were provided under sector budget support for sugar, making GoG the primary driver of funding choices. EC oversight and control was applied via the setting of yearly targets, which needed to be met before funds within the variable tranches could be disbursed. These variable tranches made up 50% of the funding provided in most years.

3.1.1 *2006 funding*

The initial round of 2006 funding was focused largely around government policy, with variable targets set around achieving macroeconomic stability and undertaking public finance management reforms.

Additionally, some of the funds were made conditional upon achieving progress on the GNAP, in particular securing investment for a packing facility at the Enmore mill and agreeing targets with the EC for future rounds of funding.

All of these targets were achieved and the full amount of variable funding was paid out.

Table GUY.2: 2006 EC funds allocated and disbursed (€)

	Assigned	Disbursed
Fixed	3,270,000	3,270,000
Variable	1,630,000	1,630,000
Technical Assistance	763,000	328,670
Total	**5,663,000**	**5,228,670**

3.1.2 *Projects funded under Multi-Annual Indicative Programme (MIP) 2007-2010*[41]

Following the targets agreed under the 2006 negotiations, the MIP 2007-2010 focused on the competitiveness and productivity of the cane and sugar sector, and on the possible social impact of the reforms. Funds were once again delivered under sector budget support, with EC guidance being based around the choice of yearly targets for the variable tranches.

Table GUY.3: Budgeted and disbursed funds under MIP I (€)

		Assigned	Disbursed
2007	Fixed	13,212,500	13,212,500
	Variable	13,212,500	6,606,250
	Technical Assistance	640,000	180,029
2008	Fixed	12,086,500	12,086,500
	Variable	12,086,500	7,251,900
	Technical Assistance	200,000	18,639
2009	Fixed	8,900,000	8,900,000
	Variable	8,900,000	6,230,000
	Technical Assistance	327,000	70,116
2010	Fixed	9,300,000	9,300,000
	Variable	9,300,000	3,255,000
	Technical Assistance	205,000	54,055
	Total	**88,370,000**	**67,164,989**

Over the course of the MIP, GuySuCo achieved many of its milestones set for the variable funding, including partial mechanisation of cane harvesting, expansion of private cane farming, completion of the Skeldon mill with its cogeneration capacity as well as starting construction of a packing plant at Enmore mill.

However, GuySuCo was reliant upon its own capacity to generate resources for the majority of these projects, with government investment limited and provided on an *ad hoc* basis[42]. One notable source of funding was the purchase of abandoned cane land by the government for US$35 million. However, this was not sufficient to cover the scale of necessary investments, forcing GuySuCo to take on debt in the absence of internal profits for reinvestment (these loans were guaranteed by the government, in another form of support).

[41] Multiannual Indicative Programme, 2007-2010.

[42] Multiannual Indicative Programme, 2011-2013.

3.1.3 *Projects funded under MIP 2011-2013*[43]

In the initial GNAP, there were a large number of proposed investments to improve the sugar industry. However, the MIP 2011-2013 noted that they were overambitious in scope. In total, the cost of projects summed over US$600 million, without any concrete idea of the source of the funding.

Following this experience, MIP 2011-2013 noted the need for the number of future investments to be limited and put into a realistic timeframe, and proposed the following objectives:

- Improving the performance of the sugar sector by continuing to support Guyana's efforts to modernise the sugar industry within the general framework of the GNAP.
- Strengthening agricultural diversification by creating a framework that supports ongoing programmes and facilitates exports and investments in this field.

€74.8 million was allocated under the initial MIP to cover this, to be disbursed once again via sector budget support.

The first objective was to be achieved via completion of the critical minimum investments listed in the GuySuCo Turnaround Plan:

- *Finalisation of land conversion/expansion* – working towards a machine friendly cane layout, including purchasing mechanised equipment, and expanding cane area in Blairmount by 1,500 hectares.
- *Upgrading the Enmore factory and estate* – expanding the production capacity at Enmore to 70,000 tonnes of sugar per year, enabling consolidation of the LBI factory and integration of the new packaging plant.
- *Blairmount mill expansion* – from 105 tonnes of cane per hour (TCH) to 130 TCH.

The estimated capital costs of these measures, based on the Turnaround Plan and GuySuCo's 2010 Business Plan, were as follows:

Table GUY.4: Critical minimum investments (US$ millions)

Category	2010	2011	2012	2013	2014	Total
Land conversion and mechanisation	3.5	6.1	5.7	4.3	8.0	**27.6**
Enmore agricultural upgrade	5.2					**5.2**
Enmore factory upgrade		14.0				**14.0**
Blairmont expansion	2.7	1.1	2.0	0.9		**6.7**
Blairmont factory upgrade		2.5	2.6			**5.1**
Total	**11.4**	**23.7**	**10.3**	**5.2**	**8.0**	**58.6**

The second objective, that of diversification, was to be achieved via training in production, the creation of a clear and transparent investment climate and lastly streamlining the quality and export certification process. The MIP 2011-2013 estimated that at least €10 million would be needed to support these activities.

Table GUY.5 summarises the level of capital investments undertaken by GuySuCo versus the levels contained within their business plan[44]. In total, funding fell short by US$15.6 million over the period, additionally refitting the new Skeldon mill required just over US$3

[43] Multiannual Indicative Programme, 2011-2013.
[44] Submission to the Guyana Sugar Corporation Commission of Inquiry, Prof. Clive Y. Thomas.

million of the total above, not budgeted in the initial plan. However, many of the variable targets were met, with some expansion of mechanisation and irrigation achieved, as well as the integration of the new packaging plant at Enmore.

Table GUY.5: Critical minimum investments versus actual investments by GuySuCo, 2010 to 2014 (US$ millions)

	2010	2011	2012	2013	2014	Total
Critical minimum investments	11.4	23.7	10.3	5.2	8	**58.6**
Actual investments	10.8	10.0	9.4	6.2	6.6	**43.0**
Difference	-0.6	-13.7	-0.9	1.0	-1.4	**-15.6**

Note: Conversions to US dollars have been calculated at the average annual rate for each respective year.

3.2 Delivery modalities

As previously discussed, the majority of the funds were issued under sector budget support for the sugar industry, with both fixed and variable tranches conditional upon meeting certain benchmarks included. Initially some of the funding was offered under general budgetary support (support without variable tranche targets attached), but this was rejected by GoG. Additionally, a small amount of funding was contracted via projects for technical assistance and audits/evaluations.

Owing to an ongoing prorogation of the Guyanese parliament in January 2015, EU budgetary support was suspended, as the Guyanese government was deemed to be in breach of the general criteria necessary for any funds to be released. Subsequently elections have been held and parliament restored.

The EU delegation to Guyana is currently in the process of assessing GuySuCo's new development plan. Should it be deemed to be credible, the frozen funds for 2014 and 2015 will be released.

3.3 Strengths and weaknesses

Many of the variable targets within Guyana were achieved, with some notable successes, such as the completion of the Enmore packaging plant, which has allowed GuySuCo to target markets in CARICOM. This has reduced their exposure to the EU.

However, there was little progress towards the goals contained within the NAS and AMSP surrounding industry competitiveness and output. Both yields and output have deteriorated over the period, and GuySuCo's yearly losses have risen year after year.

Part of the problem was the severe capital constraints of GuySuCo, with investment falling far below the planned level across the entire period. A part of this was due to disbursal occurring via budget support, meaning not all AMSP funding reached GuySuCo. However the capital plan set out was also wildly optimistic, and far beyond the level of funding provided by the AMSP.

The targets for the disbursement of the variable tranches were also criticised by some stakeholders. Most targets were annual in nature, meaning they did not target longer-term challenges. Others were out of the control of the corporation. For example, cane output of the following year which was influenced by weather conditions, as well as planting decisions of the previous five years[45].

[45] Design of the Performance Indicators for the Release of the Variable Tranche 2010 of the Annual Action Plan 2010 and Analysis of the Impact of the Sugar Sector Adaptation Strategy on the Human Resources of GUYSUCO, Felix Ah-Kee, 12 March 2010.

4 Current situation & prospects

Sugar yields in Guyana are modest by international standards, at around 4.5 tonnes per hectare. Moreover, yields have been falling for many years, reflecting declining performance in field and factory operations. During the 1960s, the industry achieved sugar yields of 7.0-8.5 tonnes per hectare. While this level of performance is far better than today's, it is nevertheless below that achieved in Brazil, the world's dominant sugar exporter and world price setter, where higher cane yields and cane quality results in sugar yields of more than 10 tonnes per hectare. This reflects the challenging conditions in which the Guyanese industry operates, as well as the tropical climate that limits sucrose development in cane even with best practice field operations.

Additionally, the scale of Guyana's mills limits the industry's ability to contain its unit fixed costs. In Guyana, seven mills crush the national cane crop, which has dropped to just three million tonnes, with each mill producing an average of 30,000 tonnes of sugar. In Brazil, the average cane mill produces the equivalent of 250,000 tonnes of sugar per year (in the form of sugar and ethanol), which is more than Guyana's current national output.

4.1 Current situation

Table GUY.7: GuySuCo's Losses, 2012-2014 (GY$ Billion)

Year	Losses
2012	-7.1
2013	-11.7
2014	-17.4

Source: Submission to the Guyana Sugar Corporation Commission of Inquiry.

The current financial state of GuySuCo is extremely poor. Professor Clive Y. Thomas' submission to the Commission of Inquiry notes that the corporation is "insolvent, and illiquid, making huge losses, and surviving only because of government bailouts". The debt-to-equity ratio stood at 6.8 as of the 2014 audit, and the corporation's net profit margin was minus 90%[46]. This level of insolvency means that GuySuCo currently struggles to meet even routine maintenance costs.

Sizeable investment in the sugar sector occurred before the start of the GNAP with the construction of a raw sugar factory at Skeldon, which required a final investment of US$187 million. The Commission of Inquiry states that this investment caused a rapid decline in GuySuCo's liquidity. As a consequence, the corporation became heavily dependent upon bank overdrafts[47]. This lack of liquidity in turn starved GuySuCo of capital investments and led to a marked decrease in cane and sugar production.

The Skeldon factory has suffered from a continuous array of problems that are still unresolved, with the factory still operating at high cost and low efficiency. In 2014, the cost of producing sugar at Skeldon was around 50 US c/lb, almost twice the cost of the lowest cost estate, Albion, at 26 US c/lb. Even the lowest cost mills in Guyana are uncompetitive at world market prices.

In addition to poor technical performance in field and factory operations, GuySuCo's costs are inflated by its very high labour complement, skills shortages, rising wages and lost time attributed to disputes and absenteeism. Declining sugar prices means these costs are not affordable without injections of government funds. Addressing this situation will be extremely challenging but is necessary if GuySuCo's finances are to become self-sustaining.

[46] Submission to the Guyana Sugar Corporation Commission of Inquiry (2015) by Prof. Clive Y. Thomas, page 9.
[47] Guyana Sugar Corporation Commission of Inquiry, 2015, volume 1.

In his submission to the Commission of Inquiry, Professor Thomas notes that renegotiation of existing customs and practices would be impossible and that the GuySuCo should instead negotiate with unions to "buy-out of the existing accumulated customs and practices". This would have to be accompanied by an increase in appropriate mechanisation of labour-intensive tasks.

This is the process that took place in Mauritius under its Voluntary Retirement Schemes for field workers and Blue Print for factory workers, with partial funding from the AMSP. Employees participating in these schemes would, in effect, exchange current contractual labour terms for new, less costly terms plus an amount that reflects the discounted future value of the additional benefits associated with their current contracts. In Mauritius, workers received payments in cash as well as in the form of land. Now, cane harvesting and even planting is being undertaken by machine where conditions make this possible.

4.2 Prospects for the sector

Guyana has limited access to premium sugar markets outside the EU. It has access to the US under its TRQ quota (12,636 tonnes) and to the brown sugar market within CARICOM, where it benefits from a 40% common external tariff (CET). Today, Guyana is currently the main supplier of brown sugar from within CARICOM, other than the Jamaican industry's sales to its local market. Total demand for this quality of sugar is estimated at 140,000 tonnes, of which approximately 45,000 tonnes is consumed in Jamaica. GuySuCo currently exports approximately 20,000 tonnes of brown sugar.

Owing to ongoing (and rising) losses being made by GuySuCo, and the burden this is placing on GoG's budget, the 2015 Commission of Inquiry recommended that the process of privatising the industry should start as soon as practicable and aim to be completed within three years. It also recommended that GuySuCo's new management team should carry out essential rehabilitation of fields, factories and infrastructure, but that no estates should be closed during this period. The Commission of Inquiry report is being reviewed by the Economic Services Committee, which had not submitted its findings to Parliament at the time of writing in May 2016.

Meanwhile, in view of urgent financial issues, GuySuCo has decided to close the Wales estate (cane farms and mill), a high cost unit that is in need of substantial, but commercially unjustifiable, capital investments in its farms and in the factory. Its objective is to transition the estate out of sugar as part of a longer-term strategy to change the company into a less sugar-focussed and more diversified agricultural business. The new management of GuySuCo has commissioned studies to identify alternative uses of cane land on estates that do not have a commercially viable future.

This strategy is in line with a recommendation put forward in the Commission of Inquiry report by Professor Thomas to diversify out of sugar production in low yielding areas, should field trials currently underway demonstrate the viability of alternate crops[48].

Given the high cost structure of many of GuySuCo's estates, a policy of diversification out of sugar and concentrating sugar production in only the most efficient estates would result in a further drop in sugar output. This would bring sugar output more closely into line with potential outlets where the company could earn premiums for its sugar, namely the domestic, CARICOM and US markets.

[48] Submission to the Guyana Sugar Corporation Commission of Inquiry (2015) by Prof. Clive Y. Thomas, page 27.

5 Conclusion

The conditions under which cane is grown in Guyana are challenging and, when combined with its current operating performance (namely poor yields and small, under-utilised mills), mean it cannot compete at world market prices in its current form. GuySuCo's plight is compounded by its huge debts and the high operating costs at most of its estates, which reflects poor field and factory performance and very high labour costs.

The expected loss of preference in the EU, Guyana's principal market, means the industry will become exposed to world sugar prices for a large part of its current output. Given that none of GuySuCo's estates can currently produce raw sugar at a cost of less than 25 US cents/lb, radical reform is needed. This is clearly articulated in the October 2015 Commission of Inquiry report, which recognises the urgency of the situation.

Meanwhile, the new management of GuySuCo is studying how best to transition the company into a less sugar-focussed and more diversified agricultural business. This will concentrate the company's sugar output into the lowest cost estates and align it more closely with the size of markets in which it can expect to earn preferential prices (domestic, CARICOM and US). This would require taking full advantage of the Enmore packaging plant, which was a target of AMSP support. It will also mean that less efficient cane lands will switch to alternative agricultural uses, which have yet to be defined but are the subject of ongoing studies.

Addressing the issue of over-staffing and poor labour relations is another major challenge, whether or not GuySuCo's business becomes more diversified. This is likely to require negotiations with unions to buy out existing accumulated customs and practices in exchange for new employment terms plus a compensatory package.

Annex 2.6: Jamaica

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
CARICOM	Caribbean Community
CEF	Cane Expansion Fund
EC	European Commission
EU	European Union
GBS	General Budgetary Support
GDP	Gross Domestic Product
GoJ	Government of Jamaica
JCPS	Jamaica Cane Products Sales Ltd
JCS I	Jamaican Country Strategy I
JCS II	Jamaican Country Strategy I
MIP	Multi-Annual Indicative Programme
MTBE	Methyl Tertiary Butyl Ether
NAS	National Adaptation Strategy
PCSC	Pan Caribbean Sugar Company
SBS	Sector Budget Support
SDAs	Sugar Dependant Areas
SIA	Sugar Industry Authority
STU	Sugar Transformation Unit
US	United States

List of Persons/Organisation met

The project did not include a field mission to Jamaica. A questionnaire was distributed to stakeholders, and we spoke to the following persons:

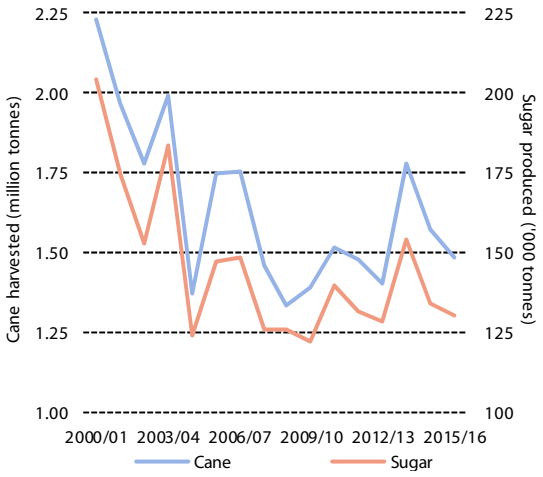
Organisation	Name	Position	Contact Details
Ministry of Industry, Commerce, Agriculture & Fisheries	Keleen D. Young-Grandison	Sugar Transformation Unit Project Manager	kdyoung@moa.gov.jm
EU Delegation	Stefano Cilli	Programme Manager	Stefano.CILLI@eeas.europa.eu

1 Overview of the sugar sector

1.1 Production and sales

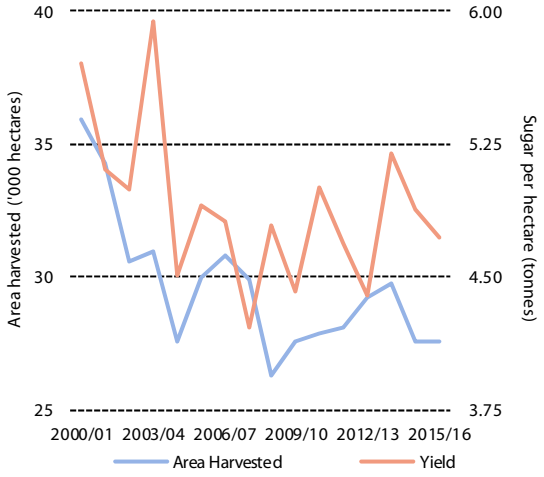
Sugar cane is grown and processed across Jamaica. Just over half of all cane is grown on estates that are owned and operated by the country's six cane mills (all of which are privately owned); the balance is farmed by independent growers. The size of the cane crop has recovered somewhat in recent years from its low point at the start of this decade, but it still remains well below the 2-3 million tonnes that were harvested annually throughout the 1980s and 1990s (Diagram JAM.1). However, the sector is currently facing huge challenges, with many mills facing severe financial difficulties that have resulted in underinvestment in field and factory operations and, most recently, the closure of one mill and the prospect of further estate and mill closures.

Diagram JAM.1: Cane and sugar production



Source: Jamaican Sugar Industry Research Institute.

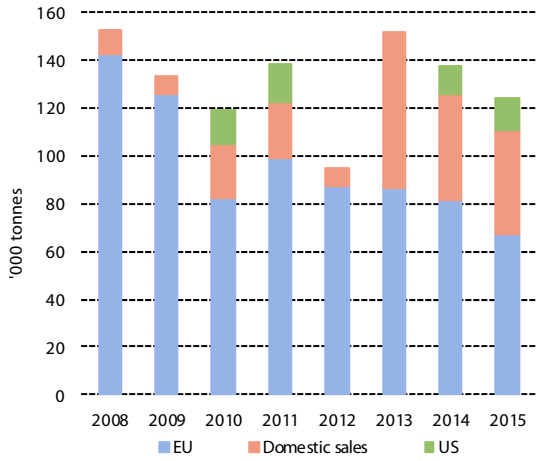
Diagram JAM.2: Evolution of cane area and yields



Source: Jamaican Sugar Industry Research Institute.

Until 2012, the island's entire sugar output was sold by Jamaica Cane Products Sales Ltd (JCPS), a private company owned by the country's growers and millers. Since then two companies – Pan Caribbean Sugar Company (PCSC) and, more recently, Seprod, which produce half the country's sugar – have been granted licences to market their sugar independently of JCPS.

Diagram JAM.3: Sugar sales by market



Source: LMC estimates based on trade data.

There has also been a major shift in the distribution of Jamaica's sugar sales in recent years (Diagram JAM.3). Until the start of this decade, high prices in the United States (US) and US markets, where Jamaica has duty-free access, meant it pursued a policy of exporting all its sugar and importing sugar to supply its local market.

However, the decline in the European Union (EU) and US premiums means that the industry now supplies the local market with locally-produced brown sugar, which makes up roughly 40% of local sugar consumption. The absence of domestic refining capacity means the country imports refined sugar.

1.2 The socio-economic contribution of the sugar sector

The sugar industry is one of the largest single employers in Jamaica, offering around 28,000 permanent and 10,000 seasonal jobs in 2010, alongside supporting many more in the Sugar Dependant Areas (SDAs). This impact on labour is disproportionately large for sugar's percentage of total Gross Domestic Product (GDP), and is mainly a result of the labour intensive nature of the way Jamaica's industry operates.

It is hard to estimate exactly how many people rely upon sugar; however, the Sugar Industry Authority (SIA) estimates that 200,000 people derive their income directly or indirectly from it.[49]

Table JAM.1: The socio-economic contribution of the sugar sector

% of Agricultural GDP	2014	11.7%
% of GDP	2014	0.7%
% of Agricultural Employment	2010	18%
% of Total Employment	2010	4%

Source: Sugar Industry Authority/Bank of Jamaica.

2 National Adaptation Strategy (NAS)[50]

The stated overall objective of the Jamaican NAS was to achieve an effective transition to a sustainable sugarcane industry over the period 2006-2015. In order for this to be successful, three specific objectives were set out in the Jamaican Country Strategy I (JCS I):

- Development of a sustainable private sector-led sugar cane industry.
- Strengthening of economic diversification, social resilience and environmental sustainability on sugar-dependent areas.
- Progress towards macroeconomic goals.

Development of the sugar industry was to be based around a programme of mill closures in the case of the least effective sites, privatisation of the rest alongside an investment in capital and product diversification (cogeneration, ethanol and other derivative products).

Social programmes were also highlighted, with the need to ensure continuity after mills closed (who traditionally provided social services to their workers) alongside redundancy payments, support for other crops in areas forced to switch away from sugarcane as well as the strengthening of infrastructure and environmental protection laws.

The last target of "progress towards macroeconomic goals" was part of the broader plan of returning Jamaica's precarious fiscal situation to surplus, in this case via the removal of the burden of sugar subsidies incurred as a result of state ownership of part of the industry.

The total implementation cost of the JCS I was estimated at €555.7 million.

However, the JCS (now called JCS II)[51] was adjusted in September 2009, noting that progress towards privatisation had been slow. The revised strategy presented an updated three-stage timetable for developing the industry:

[49] The State of the Jamaican Sugar Industry, Sugar Industry Authority November 2010.

[50] Study of the European Commission's co-operation with Sugar Protocol countries: Assessment of the Accompanying Measures for Sugar Protocol Countries (AMSP).

- Phase I: Transition (2006/7-2009/10), covering the transition to a fully privatised sugar cane sector and from the EU Protocol regime, and the process of redundancy and downsizing of the labour force.

- Phase II: Transformation (2010/11-2014/15), covering the transformation of the competitiveness of the fully privately-owned sector through efficiency and productivity improvement, product and market diversification, and the generation of new economic activity for redundant workers and small farmers in the SDAs.

- Phase III: Consolidation (2015/16-2019/20), covering the deepening of productive and market improvements, the generation of sustainable profits, and the broadening of economic strength of the SDAs (including through expanding demand for cane from new market opportunities).

2.1 Timeline of policy development and industry divestment/ privatisation

To provide perspective to key developments over the Accompanying Measures to Sugar Protocol (AMSP) period, Table JAM.2 summarises a timeline of key policy developments and highlights the evolution of industry divestment/ privatisation. It illustrates that Government of Jamaica (GoJ) owned six out of eight estates/ mills in 2006 but sold these in 2009 and 2010. It also shows that, although the sector remains entirely in private hands, the severe financial challenges facing the sector has resulted in the recent closure on one mill (Long Pond owned by Everglades) and announcement of the closure of another mill, Monymusk, at the end of the current harvest in mid-2016.

Table JAM.2: Timeline of policy and industry divestment/privatisation

Date	Policy	Ownership/Structure
2006	NAS released, named JCS I	**industry ownership:** Government (6): Everglades, Golden Grove, Bernard Lodge, Frome and Monymusk Private (2): Appleton, Worthy Park
2007		
2008	Establishment of a minimum ethanol blend	
2009	NAS revised to JCS II	Privatisation of Everglades and Golden Grove sugar estates
2010	Commission of Inquiry publishes report	Privatisation of Bernard Lodge, Frome and Monymusk
2011-2014		
2015		Everglades announced they would not operate Long Pond mill in 2016
2016		Appleton mill closed for environmental infringement Pan Caribbean announce closure of Monymusk in June 2016 **Industry ownership:** Government (0) Private (7)

[51] Government of Jamaica. The Jamaica Country Strategy for the Adaptation of the Sugar Cane Industry 2006-2020.

3 AMSP

3.1 AMSP project areas[52]

With funds provided mostly via budgetary support, the primary driver of spending choices was the GoJ. Spending was split across two phases, corresponding broadly to JCS I and JCS II:

3.1.1 *JCS I spending (2006 funds plus Multi-Annual Indicative Programme (MIP) 2007-2010)*

JCS I was based primarily around the divestment and privatisation of the state-owned sugar estates, which were hoped to provide much needed investment and modernisation to the industry. €84,714,000 was allocated over this phase, with €54,700,000 for Sector Budget Support (SBS) for sugar, €29.9 million under General Budgetary Support (GBS) and the remainder for audits and evaluations.

To make this possible, Jamaica's policy framework was reformed, funds were provided for independent cane growers to replant fields and redundancy payments were made to the existing workforce, many of whom were partly re-employed in the industry post privatisation.

As part of this policy framework reform, legislation was passed mandating a minimum of 10% ethanol blend in standard grades of gasoline. This created a 70 million litre a year market for ethanol.

€4 million was used to set up a Cane Expansion Fund (CEF) to help independent farmers. The CEF provided credit for field expansions and replanting where access to formal lending was unavailable. The scheme was argued to be a success, with 2,544 hectares having been replanted under the scheme as of 2010.

Additionally the state took over the provision of social services in the SDAs, previously provided by the mills, and undertook housing projects for those living in sugar barracks.

3.1.2 *JCS II spending (MIP 2011-2013)*

JCS II saw an expansion in the scope of the programme. For the first time, this included strategic infrastructure, such as feeder roads and drainage systems, as well as continuing community developments for those living in sugar areas.

The variable tranche targets set by the EU focused on these targets, incentivising the building of roads, continuation of the CEF and support for training and agricultural research. In total €60,523,000 was allocated in the second package, split over GBS and SBS.

JCS II also aimed to establish a domestic ethanol industry. While JCS I had established a local ethanol market, this had not resulted in the expected private sector development of distilling capacity, with ethanol instead being imported from the US. This was also linked with the government's stated target of developing a framework for encouraging cogeneration using bagasse.

3.2 Delivery modalities

The AMSP funds were provided to Jamaica almost exclusively via budgetary support, with small sums being set aside for audit and evaluation to be disbursed on a project-based system. The funds are managed by the Ministries of Finance and Agriculture through the Sugar Transformation Unit that it established.

[52] Accompanying Measures 2011 for Sugar Protocol Countries – Jamaica – Sector Budget Support (CRIS 2010/022-906).

Budgetary support was split into two areas:

- GBS, which sought to reduce the burden of Jamaican government debt.
- SBS to assist with the sugar industry's transition.

GBS was given out as a fixed yearly tranche, while SBS had both fixed and variable tranches, the variable tranches being conditional on targets for sugar reform being met.

3.3 Strengths and weaknesses

Table JAM.3: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
21. High capacity and involvement of the Jamaican government throughout supported implementation. 22. Establishment of the CEF allowed replanting of crops where previously famers were credit constrained. 23. AMSP funding helped to ensure that privatisation went smoothly with minimal disruption to employees.	24. Limited progress on diversification, both to other cane based products and to other crops.

The AMSP funding within Jamaica had many successes, and received a great deal of support from the GoJ via the Sugar Transformation Unit (STU). This allowed allocated funds to be absorbed effectively and for a wide range of projects to be ultimately delivered.

The CEF was widely praised, which permitted farmers who previously had only limited access to credit to receive concessionary loans to invest on their land. As of 2014 the fund had provided loans to plant/replant 11,826 hectares of cane, as well as for the purchase of tractors, boom sprayers and mechanised harvesters.[53]

Additionally AMSP funds were used to ensure that privatisation had a minimal impact upon the workforce, despite the loss of jobs and social provision from mills. Funds were provided for all workers to receive a redundancy payment to ease the transition, with around half rehired post privatisation. Additionally the social services traditionally provided by mills were transferred to the government and houses built for those who previously lived in communal barracks.

However, not all of the goals of the JCS were achieved, with diversification being an area where little progress was made. Despite legislation requiring an ethanol blend of 10% in standard grades of gasoline being passed, the expected ethanol industry has failed to materialise. All ethanol demand is currently satisfied by imports from the US, with domestic production judged not to be competitive by the private sector.

It is a similar story with cogeneration of electricity from bagasse. 15 MW of electricity cogeneration capacity was installed in 2015 at the Frome and Monymusk Estates. However, no power has been exported to date, due to difficulties with Power Purchase Agreement negotiations between the producers and Jamaica Public Service Company Ltd.

[53] Ministry Paper 59 /2014, Report on the Achievements of the STU, Ministry of Agriculture and Fisheries.

4 Current situation & prospects

4.1 Current situation

Cane is grown in Jamaica under challenging conditions. More than 75% of cane is rain-fed, which limits cane yields and means that that the size of the crop is exposed to variations in the weather. Moreover, the tropical climate limits sucrose development, so the conversion rate from cane to sugar is low. The result is that sugar yields per hectare are modest by international standards and have fallen since the early 2000s to 4.5-5.0 tonne per hectare in most years (see Diagram JAM.2 above). In Brazil, the world's dominant sugar exporter and world price setter, higher cane yields and cane quality results in sugar yields of more than 10 tonnes per hectare.

The decline in cane and sugar output over this period has been accentuated by a fall in cane area, which has followed mill closures. This is explained by the island's topography, which makes it difficult, and therefore expensive, to transport cane from one mill area to another, resulting in cane areas being lost when mills close. It also explains why the size and throughput of mills has not increased as a result of mill rationalisation. Even though the number of mills has fallen from eight in 2000 to five today, the average size (3,500 tonnes of cane per day) and sugar output per factory (20-25,000 tonnes per year) is very small by international standards. In Brazil, the average cane mill crushes 10,000 tonnes per day, producing the equivalent of 250,000 tonnes of sugar per year (in the form of sugar and ethanol).

These limitations in field and factory productivity, coupled with largely manual farming operations, combine to inflate production costs, which were estimated to be on average 44 cents/lb of raw sugar in 2010 for the government owned mills[54]. This lies at the root of the industry's problems and means that current operators in the sector have been struggling to cover their cost and also fund the necessary investments in field and factory operations to establish efficient and viable businesses in the long run. The resulting under-investment in the sector has contributed to its poor performance and explains the financial difficulties within the sector.

- Everglades Farm, owner of Long Pond mill in Trelawny, announced in late 2015 that it would not be able to operate the mill in the 2016 season. The government has since intervened with a view to operating the mill to ensure cane grown in the region is crushed.
- In March 2016, PCSC announced that it would close its Monymusk mill at the end of the 2016 harvest, citing continued financial losses. The government is currently in discussions with PCSC looking for solutions and clarifying whether Monymusk is the only mill PCSC intends to close.

4.2 Prospects for the sector

At the time Jamaica developed JCS I and II, the majority of sugar production was under GoJ ownership. One of GoJ's strategic objectives, and a requirement for AMSP funding, was that government divest of these assets. It did this in 2009 and 2010, selling five estates/mills to three companies (see Table JAM.2 above). The prices raised were very small – in total only US$11 million plus long term land leases – reflecting their low level of profitability and the large capital injections that were needed in the estates and mills as a result of underinvestment in past years.

[54] The Report of the Sugar Industry Enquiry Commission in 2010 lists a variety of figures for the cost of production, the 44 cents/pound average value was given by Mr. Aubyn Hill who presented to the Commission on behalf of the Government-owned factories, and includes the full costs of both farms and fields. While we are not aware of any more recent studies on industry costs, the fundamental performance of the industry has not improved over recent years in terms of yields and economies of scale.

In line with JCS I and JCS II, one of the government objectives was to diversify the product base of the cane sector by developing ethanol production and electricity cogeneration. This formed part of the plan with the sale of Frome, Monymusk and Bernard Lodge to PCSC (then known as COMPLANT). At the time of the sale, it was envisaged that PCSC would invest US$221 million to develop and diversify the business, built on production of cane-based ethanol, electricity generation and sugar refining, subject to the findings of a feasibility study and GoJ commitment to extend the mandatory ethanol blend to 25%.

However, there has been no progress in developing capacity either for domestic ethanol production and the generation of bagasse-based electricity, despite the investments that have been made. This is despite:

- The establishment of a minimum 10% ethanol blending requirement in 2008 and the phasing out of the gasoline oxygenate, methyl tertiary butyl ether (MTBE), from 2009.
- The recommendation in the Commission of Inquiry report[55] that an electricity tariff for bagasse-based electricity be set that reflects the avoided cost of electricity generated from imported fossil fuel plus a renewable energy premium.

The fact that the sector has been unable to diversify its product base means that it still relies overwhelmingly on sugar for its income. However, the industry has diversified its markets by selling brown sugar locally.

5 Conclusion

The sugar industry in Jamaica faces major challenges. At their root, these challenges stem from the sector's high cost structure. This reflects the conditions in which cane is grown, namely a tropical climate, largely rain-fed farms/estates and limitations to the transport of cane that would allow rationalisation of mills into larger units. Industry efficiency has been further weakened by long-term underinvestment in cane growing and milling operations.

The conditions under which cane is grown in Jamaica mean the industry cannot be a competitive exporter of sugar at world market prices, even with investment in farms and mills. This is because world prices are set by producers who achieve much higher levels of performance that translate into lower costs. The industry's survival to date has been possible because of: (a) its preferential access to the EU market where prices have commanded large premiums over world price in most years and (b) injections of government funds during periods when GoJ owned parts of the industry.

However, sugar prices in the EU have become more closely aligned with world market prices and are expected to remain so in the future. Moreover, GoJ has stated that it does not wish to inject further funds into the sector. If neither consumers in the EU nor the GoJ are to be sources of welfare transfers to the sugar sector, the only remaining possibly source of funds are consumers in Jamaica, via high prices for sugar, electricity or ethanol, and Caribbean Community (CARICOM) via high sugar prices. In the case of sugar, the industry sells brown sugar locally, but cannot access the local or CARICOM market for refined sugar without investing in refining capacity. Building a refinery would require a sizeable investment, as would any investment in ethanol or additional electricity cogeneration, none of which is likely with private-sector funding. This suggests cane and sugar output will decline further in the future, with only the most efficient estates remaining in operation and with sales of sugar focused on markets where the industry earns premiums over the world sugar price.

[55] Report of the Sugar Industry Enquiry Commission, Ministry of Agriculture and Fisheries, Jamaica (September 2010).

Annex 2.7: Malawi

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
COMESA	Common Market for Eastern and Southern Africa
CSP	Country Strategy Paper
EC	European Commission
EU	European Union
EDF	European Development Fund
GDP	Gross Domestic Product
MIP	Multi-Annual Indicative Programme
NAS	National Adaptation Strategy
NAO	National Authorising Office
SADC	Southern African Development Community
SUGAM	Sugarcane Growers Association of Malawi
TFTA	Tripartite Free Trade Agreement
US	United States

List of Persons/Organisation met

The project did not include a field mission to Malawi. A questionnaire was distributed to stakeholders via the ACP Secretariat, which was returned by Diamond Chikhasu, Principal Trade Officer in the Government of Malawi. We spoke to the following persons:

Organisation	Name	Position	Contact Details
EU Delegation	Jenny Brown	Programme Manager	Jenny.BROWN@eeas.europa.eu
Government of Malawi	Diamond Chikhasu	Principal Trade Officer (in Foreign Trade Section)	dchikhasu@yahoo.com
Government of Malawi	Dan Ghambi	Sugar Coordinator	danghambi@gmail.com
Concern Universal	Humphrey Nxumalo	Programme Manager	Humphrey.Nxumalo@concern-universal.org
Illovo Sugar Ltd.	Johann van der Merwe	External Affairs Manager	jvdmerwe@illovo.co.za

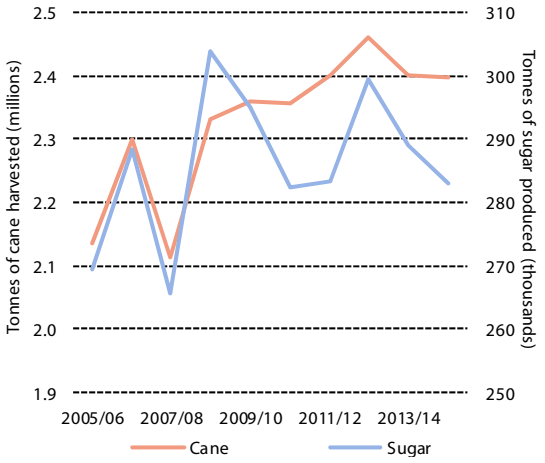
1 Overview of the sugar sector

1.1 Production and sales

Sugar production in Malawi has varied between 260-300,000 tonnes over the last decade. While area has increased by more than 15% since 2005/06, sugar output has failed to keep pace (Diagrams MAL.1 and MAL.2). This is because most of the expansion has been undertaken by smallholders who achieve lower yields than the mill-owned estates, partly because 30% of their lands are rain-fed[56] rather than irrigated.

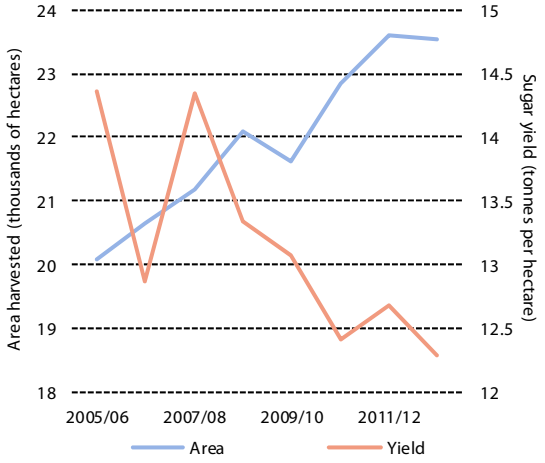
There are two mills in operation in Malawi, which are both are owned by Illovo Sugar Ltd. A third mill has recently been constructed. However, it is not currently in operation due to a lack of cane supply. The majority of cane is grown on mill-owned estates. However, outgrowers accounted for just under 20% of total cane supply in 2014/15.

Diagram MAL.1: Cane and sugar production



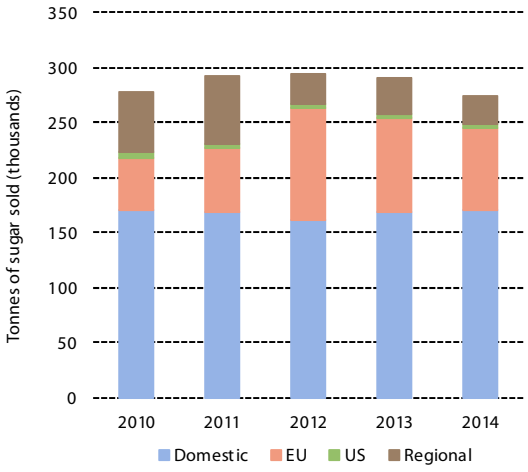
Source: Illovo Sugar Ltd.

Diagram MAL.2: Evolution of cane area and yields



Source: Illovo Sugar Ltd.

Diagram MAL.3: Sales by market



Source: LMC estimates based on trade data.

- Malawi sold approximately 60% of their output in its domestic market over the period 2010 to 2014 (Diagram MAL.3).
- The EU accounts for around 25% of sales during the same period. Exports to the EU market have averaged around 75,000-100,000 tonnes in recent years.
- Regional markets, account for 15% of sales, primarily Tanzania, Kenya and Zimbabwe.
- The remaining sugar was sold to the United States (US), where Malawi receives a small quota of 10,530 tonnes.

[56] Capacity Building of Smallholder Growers – Empowering For Better Results, Presented by Mr. Humphrey Nxumalo, Concern Universal

1.2 The socio-economic contribution of the sugar sector

Agriculture is a key sector in the Malawian economy, accounting for an estimated 29% of Gross Domestic Product (GDP) and 80% of employment in 2013. In 2014, sugar contributed around 5% of national GDP and 15% of agricultural GDP.

Sugar exports totalled around €41 million in value, making it the second largest earner of foreign exchange within the country (around 9.5% of the total), second only to tobacco[57]. Tobacco has long been Malawi's largest export crop and remains a key part of their economy. However, due to doubts over its future on the back of its health concerns, there is a rising desire within the country to find alternate crops for export. Sugar, alongside other cash crops, such as tea, is a key part of this move.

On top of this, sugar provides the second largest source of formal employment within Malawi, after the government, employing 11,000 people (including both permanent and seasonal workers). The industry also creates jobs indirectly via services that support the sugar industry, such as transportation and trading.

The sugar mills also play an important role in supporting local communities surrounding the two mills through the provision of schools, hospitals, and other social services.

2 National Adaptation Strategy (NAS)[58]

The NAS was developed by the government and key industry stakeholders, and listed two specific objectives which focused on both horizontal and vertical expansion:

- The Malawi sugar sector should aim to increase cane production and factory capacity;
- The Malawi sugar sector should also aim to increase production through efficiency in both field and factory operations.

At the time of writing the NAS, production was projected to reach 295,000 tonnes in 2010, and then 350,000 tonnes in 2015 via an expansion of milling capacity. Diversification was also planned by adding value to industry through electricity cogeneration and the production of ethanol.

Support for sugar industry outgrowers was identified as one of the most crucial areas to target to achieve higher output. This included the development and rehabilitation of feeder roads, irrigation projects, the development of the management capacity of service providers and loan schemes/lending programmes as well as expanding the area under cane.

The predicted cost of the NAS was €170.2 million, with €30.3 million to come from donor funding and the balance from Illovo.

3 AMSP (Accompanying Measures to Sugar Protocol)[59]

The AMSP was given the objective of supporting the NAS by focusing on two main areas:

- Strengthening and development of outgrower schemes in the cane sector.
- Support for rural infrastructure and development.

[57] National Statistics Office, Malawi 2015.

[58] EC Multi Annual Adaption Strategy For Malawi, for the period 2006 - 2013, Under the Accompanying Measures for Sugar Protocol Countries.

[59] EC Multi Annual Adaption Strategy For Malawi, for the period 2006 - 2013, Under the Accompanying Measures for Sugar Protocol Countries.

In parallel with its support of the NAS, the European Commission (EC) also looked to engage in dialogue with the Government of Malawi on the policy environment needed for investments to prosper.

The EU support strategy is consistent with and complementary to the Malawi-EU Country Strategy Paper (CSP) under the 10th European Development Fund in which both agriculture and infrastructure are identified as key development areas.

3.1 AMSP projects

3.1.1 *2006 funding*

The initial 2006 allocation was set at €667,000. These funds were used to fund a study of Malawi's regulatory framework and for capacity building and training for both farmers and outgrower management schemes. Table MAL.1 details how the funds were allocated, along with the final sums spent.

Table MAL.1: 2006 EC funds allocated and spent (€)

Component	Amount Budgeted	Amount Spent
Studies of the sugar regulatory framework	267,000	244,506
Capacity building for outgrowers	200,000	200,000
Capacity building for outgrower management schemes	200,000	200,000
Total	**667,000**	**644,506**

3.1.2 *Projects funded under Multi-annual Indicative Programme (MIP) I60*

The MIP 2007-2010 identified four specific objectives:

- To increase outgrowers' agricultural capacity and efficiency, leading to increased cane production and higher incomes for farmers (a continuation of 2006 funding).
- To improve outgrowers' management capacities leading to better decision making and higher incomes for farmers (also a continuation of 2006 funding).
- To increase the hectarage of sugarcane grown by outgrowers.
- To improve access and reduce transportation costs by improving the road network, particularly feeder roads.

To achieve this, €9.91 million was allocated. Table MAL.2 presents a breakdown of this expenditure. Specific projects to be targeted included a further expansion at an existing outgrower scheme located in Kasinthula, as well as feeder roads at Dwangwa, another existing site. In total, over 990 hectares of new smallholder-owned irrigated sugarcane land were developed.

On top of this, funds were planned to be used to support the establishment of new schemes and infrastructure projects as needed. However, the additional infrastructure funds were used for outgrower schemes exclusively.

[60] Malawi Multi-annual Indicative Programme (MIP) for the Accompanying Measures for Sugar in Malawi (2007-2010).

Table MAL.2: EC funds allocated and spent under MIP 2007-2010 (€)

Component	Amount Budgeted	Amount Spent
Capacity building for outgrowers	1,000,000	852,781
Capacity building for outgrower management schemes	1,000,000	1,000,000
Kasinthula phase 3 expansion	2,550,000	2,549,490
Development of new schemes for outgrowers	3,911,000	4,800,000
Dwangwa feeder roads	450,000	346,089
Further infrastructure improvements	1,000,000	0
Audit	0	17,276.85
Total	**9,911,000**	**9,548,360**

3.1.3 *Projects funded under MIP II61*

The overall objective of the MIP 2011-2013 was to reduce poverty and increase industry efficiency and competitiveness.

The specific objective was to improve the environmental, social and economic sustainability of the sugar industry through focused support to smallholders and through promoting industry development, diversification and regulation. €11.6 million was split across the following areas in order to achieve this:

Table MAL.3: EC funds allocated and contracted under MIP 2011-2013 (€)

Component	Amount Budgeted	Amount Contracted
Outgrower schemes and infrastructure	8,000,000	2,269,261
Improved industry sustainability	2,626,000	5,250,062
Monitoring, external evaluation	290,000	290,000
Audit	40,000	40,000
Contingencies	630,000	100,000
Total	**11,586,000**	**7,949,323**

The funding for outgrower schemes and infrastructure was similar to previous years, with expansions planned at existing schemes and calls for proposals at new sites. However the second item, improved industry sustainability, was largely new. It was divided into three types of support[62]:

- The provision of technical support for industry development.
- Support to industry regulation and diversification.
- Support to outgrower sustainability and market intervention.

This included developing and expanding existing outgrower organisations, addressing land disputes and trying to reduce social problems from cane development.

Initially the budget for smallholder schemes was planned to be far greater than the sum assigned to industry sustainability. However, only one viable smallholder grant proposal was received. Therefore, to safeguard funding, a transfer of €3,000,000 was made to improving industry sustainability, and was used to pay for dedicated technical assistant to the sugar sector and for further capacity building to support outgrowers.

[61] Malawi Multi-annual Indicative Programme (MIP) for the Accompanying Measures for Sugar in Malawi (2011-2013).

[62] Malawi – 2011 Annual Action Programme for the "Accompanying Measures for Sugar Protocol Countries".

3.2 Delivery modalities

Initially funds were placed under direct centralised management, with the whole process managed by the European delegation. Smallholder schemes were primarily funded via grants, while infrastructure and capacity building schemes were operated under contracts.

Under the MIP 2011-2013, funding shifted to partially decentralised management, where the National Authorising Office (NAO) at the Ministry of Agriculture took over responsibility for the contracting of funds. Additionally, there was a move away from providing funds via grants to smallholder schemes. Instead, a series of supplies and works contracts were used.

3.3 Strengths and weaknesses

Table MAL.4: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General 25. Initial rounds of funding had a high rate of absorption and disbursement. 26. The requirement to report regularly helped ensure projects where implemented properly.	**General** 27. Following the move to funds being partially decentralised, the rate of contracting fell sharply. 28. The periods between the signing of Financing Agreements and the end of programmes were short. 29. The AMSP were not viewed as making a significant contribution to improving competitiveness, which was a key objective of the NAS.
Smallholder developments 30. Expansion of area under cane has occurred, reducing Malawi's reliance on tobacco revenues and increasing smallholder incomes.	**Smallholder developments** 31. Disputes over land have blighted certain schemes. 32. Some schemes are struggling with high debts, or have fragmented over time, raising concerns over their sustainability. 33. Large grant to debt ratio reduced how far funds could be stretched. 34. Funding was not available to redevelop existing rain-fed cane fields, which struggle to make a profit.
Capacity building 35. Concern Universal was widely praised in developing the capacity of smallholder schemes, and establishing a Sugar Association.	**Capacity building** 36. The Sugar Association's funding remains precarious, making its long term viability uncertain.
Infrastructure	**Infrastructure** **37.** Dwangwa feeder roads were reported to be impassable one year on.

3.3.1 *General*

The disbursement rate was high in the initial rounds of funding driven by the EU delegation. However, the shift to partially decentralised management resulted in significant delays in contracting and disbursing funds. Stakeholders reported this to be the result of both government and EU bureaucratic processes.

The shift to decentralised management was undertaken in order to increase the engagement of the government within the process. However, this did not occur, with the NAO seemingly reluctant to take responsibility for the funds according to some stakeholders. This was

despite their role in contracting for European Development Fund (EDF), indicating that the NAO had the capacity to process the scale of funds. In addition, there were cases of political interference in the assignment of contracts, forcing certain bidding processes to be restarted.

Another aspect of the shift was a move away from providing smallholder schemes with grants, instead issuing a series of grant and works contracts. This provided a higher level of oversight on how the funds were being spent. However, it also increased the administrative burden on the NAO and EU delegation.

These problems combined to result in a lower rate of disbursement of the 2011-2013 funds, even with the transfer away from smallholder schemes to industry support to safeguard funding.

3.3.2 *Smallholder developments*

Smallholder developments have risen in importance in recent years, moving from 10% of production in 2008 to 19% in 2014[63], with a total area of 6,884 hectares under cane in the 2014/15 season[64]. AMSP funds have made an important contribution to achieving this.

EU grants supported the development of over 990 hectares of this under MIP 2007-2010 funding[65], with a further 228 hectares of cane planned to be planted with MIP 2011-2013 funds for the production of ethanol under the Phata cooperative phase II extension scheme.

Despite these achievements some concerns were raised about the state of smallholder sugarcane cultivation across Malawi. A key concern surrounded land rights, which on customary land are at the discretion of traditional leadership such as local chiefs. This has led to a range of problems, the most extreme case being in Dwangwa where locals allege they were thrown off their farms with little compensation in favour of "outsiders"[66].

While the scheme was not supported by AMSP funds, the experience blighted the perception of sugar among some in rural areas, while other problems manifested themselves at the EU funded Kasinthula Phase III. These included claims of insufficient payment for lands surrendered to the scheme and outside shareholders being added without the knowledge or permission of the local members.

These problems were not universal, with stakeholders noting that the Phata Phase II supported under the MIP 2011-2013 was an example of best practice. Within this scheme, a two-year sensitization period was undertaken to build capacity within members before starting. Additionally, only those who contributed land could become shareholders and the project was careful not to exclude anyone who was eligible based upon their location.

Additional problems have been experienced within the Dwangwa and Kasinthula schemes surrounding their management. Mounting debts mean that these projects are functionally bankrupt (a problem that existed even before EU funding was made available). Moreover, opaque fees for shareholders fuelled suspicions that the finances have been mismanaged. In some cases, this has resulted in members breaking away from the schemes.

[63] Capacity Building of Smallholder Growers – Empowering for Better Results, Presented by Mr. Humphrey Nxumalo, Concern Universal.

[64] Technical Assistance to the Sugar Sector in Malawi Final Inception Report, November 2015

[65] Interim Sugar Facilitator for the Implementation of EC-funded Activities in the Sugar Sector in Malawi - Final Report - 21 June 2013.

[66] Study into land allocation and dispute resolution within the sugar sector and other EU irrigation development programmes in Malawi, 2012/284154.

Another issue raised was the high grant to debt ratio (up to 90% grant financing for some of the schemes). This meant the EU funding did not finance as many hectares as could have been achieved, had a lower ratio has been put in place. This choice was partly due to concerns over heavy existing debts, which persist even in the face of the high provision of grants.

Stakeholders also raised the issue that by only supporting smallholder expansions, existing rain-fed plots were not eligible for funding to install irrigation equipment. These fields are currently struggling due to the lack of rainfall and their future sustainability is in doubt.

Finally, it was noted that the capacity of smallholder farmers to absorb financial and technical assistance is low. This meant that the stringent financial reporting requirements of the EU posed a challenge. In particular, it was difficult to understand EU rules and regulations, particularly works contracts.

3.3.3 *Capacity building*

Capacity building was considered broadly to be a success, with the organization Concern Universal, who led the effort, widely praised for their contribution. Positive outcomes from the intervention include better farming and business practices, shareholders within schemes being better able to hold management to account alongside the establishment of the Sugarcane Growers Association of Malawi (SUGAM) to provide ongoing grower representation.

However, concerns were raised by stakeholders (including SUGAM itself) about the continuity of the organisation once the EU funding finishes in 2017[67]. The association is supposed to be funded by contributions from all sugarcane growers, however while many have praised SUGAM for its work, some contributors are currently in arrears.

3.3.4 *Infrastructure*

Infrastructure schemes only made up a small part of spending, meaning that in-depth reviews were not carried out. However, one report did highlight problems experienced with the Dwangwa feeder road scheme[68]. The scheme aimed to improve the road network linking smallholder fields to the mils, but following the completion of the work, it was reported as being impassable within a year. It is important to note that other stakeholders had not heard of problems surrounding the scheme, it is difficult to establish what occurred as the area was not involved in broader AMSP funding and so received few visits.

4 Current situation & prospects

4.1 Current situation

The AMSP is viewed as having made a mixed contribution towards industry goals set out in the NAS. The AMSP made a positive contribution to the expansion of the industry. Cane supply has gradually risen and this has supported the expansion of both the mills at Nchalo and Dwangwa since 2006. However, the AMSP is not viewed to have made a positive contribution towards improving the overall efficiency of the industry. Many of the outgrowers achieve a lower level of performance than the mill-owned estates.

Nevertheless, the Malawi sugar sector is widely recognised as being a low cost sugar producer. It also benefits from having access to large protected domestic and regional markets where prices trade well above world market levels thanks to government policy and their geographical location (land-locked central/southern Africa). In 2015 financial year, its

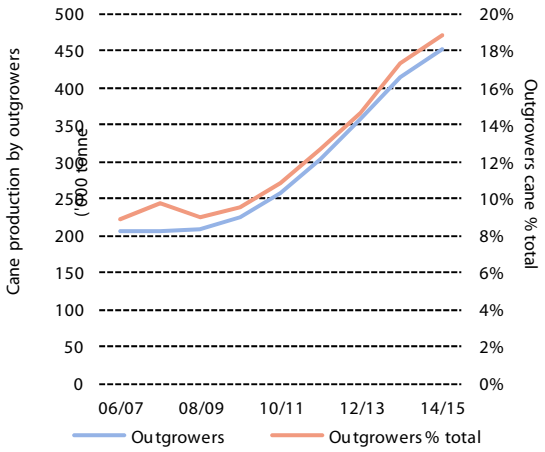
[67] SUGAM Strategic Plan (2015-2020 FY)

[68] Interim Sugar Facilitator for the Implementation of EC-funded Activities in the Sugar Sector in Malawi - Final Report - 21 June 2013

operations in Malawi accounted for around 38% of Illovo's operating profit[69] while accounting for around 24% of sugar output, indicating that it is one of the more profitable industries owed by the company.

However, the industry is undergoing a significant change with a sharp increase in the number of outgrowers supplying cane to the milling sector. There are now around 3,000 outgrowers producing cane in Malawi, accounting for close to 20% of the supply. Malawi is also in a process of establishing another sugar mill in the Central region in Salima. This has plans to develop 5,000 hectares of cane land and create more opportunities for small and medium scale farmers, though is yet to occur.

Diagram MAL.4:Outgrower cane production



Source: Illovo Sugar (Malawi) Ltd. annual reports.

This means that, going forward, a key issue will be continuing to build capacity among outgrower groups to help ensure that they are well placed to maintain profitability in the face of falling prices in the EU.

One issue facing the outgrowers is the future potential to sell Fairtrade sugar in the EU market. As we discuss in the main report, the increasing availability of beet sugar in the EU market has the potential to reduce the demand for Fairtrade sugar. This will mean that it may be more difficult for outgrowers to benefit from the US$60/tonne premium that applies to sugar produced with Fairtrade accreditation.

In the near term, the industry also faces the challenge posed by the drought that has hit southern Africa. While production has not been affected as badly as in other countries, it has nonetheless had an effect.

4.2 Prospects for the sector

The low cost status of the industry means the industry is in a stronger position than many other African, Caribbean and Pacific Group of States (ACP) industries to confront the future erosion of preference in the EU. In response to the EU reform, the sugar industry has identified a number of objectives for its marketing going forward:

- Reduce bulk exports to EU.
- Grow domestic market sales by increasing penetration and consumption levels. This includes a focus on tackling illegal imports.
- Focus on regional market opportunities.
- Target higher margin segments focusing on quality and packaging that distinguishes Illovo from competitors. This includes increasing the production of refined quality sugar for sale to industrial end users. The industry also produces a range of premium speciality sugars, aided by the recent investment into Nchalo's packing station and warehouse. Most of this sugar is exported to the EU and US, but the focus is now shifting towards regional markets. Total sales of speciality sugars in 2015 reached 34,000 tonnes, marginally lower than the 39,000 tonnes sold the previous year.

[69] Illovo Sugar (Malawi) Ltd Annual Report 2015.

However, it is important to recognise that the success of this strategy will depend on market circumstances that are beyond the control of the local industry.

1. Regional market integration will be of critical importance. Malawi is a member of both Common Market for Eastern and Southern Africa (COMESA) and SADC (Southern African Development Community) and the government is committed to trade integration via the Tripartite Free Trade Agreement (TFTA). However, progress towards free trade in these trading blocs has been slow and preferential access is currently limited. Moreover, there is recognition that regional integration could make it more difficult to protect Malawi's domestic market, which is very important to the industry, because it increases the risk of world market sugar entering the country via neighbours who do not have secure borders.

2. Although regional demand is growing, its size is limited and Malawi is not the only country looking to divert current sales to the EU into the region. There is therefore a risk that the regional markets will become oversupplied and prices will fall.

3. Many governments in region levy lower tariffs on imports of white sugar than raw sugar, which reduces the value of refined sugar sales in the region. This preferential treatment of refined sugar exists because there is currently insufficient refining capacity in the region to meet end-users needs. If local producers are to access regional markets for refined sugar, they will have to invest in additional refining capacity but will do so only if the tariff structures are changed.

4. The market for speciality sugars is of limited size and several other industries are also looking to increase production of these sugars. There is therefore a high risk that premiums in this market segment will be eroded in the future.

The other challenge that the industry could face is the availability of water, particularly from the Shire river, which supplies the Nchalo estate. Concerns about climate change mean that water availability for irrigation could be more problematic in the future.

5 Conclusion

The sugar industry in Malawi is among the better placed industries to mitigate the effects of EU reform. However, its growing reliance on outgrowers means that the viability of these producers post reform will be very important. Some of these groups face challenges in terms of their management and productivity. Ensuring that these growers have the capacity to improve their performance and maintain profitability will therefore be critical. A key part of this will be access to regional markets. While Malawi is well placed to sell sugar into deficit markets in central Africa, regional integration should enhance access. However, so far, progress towards this goal has been slow and it is far from clear if or when free trade for sugar within the region could be achieved.

Annex 2.8: Mauritius

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
CEB	Central Electricity Board
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
EC	European Commission
EIB	European Investment Bank
EU	European Union
FORIP	Field Operations Regrouping and Irrigation Project
FOB	Free-On-Board
FTA	Free Trade Area
GoM	Government of Mauritius
IC	Implementation Committee
kWh	Kilowatt Hours
KPI	Key Performance Indicators
MAAS	Multi-Annual Adaptation Strategy
MCIA	Mauritius Cane Industry Authority
MIP	Multi-Annual Indicative Programme
MSA	Mauritius Sugar Authority
MSS	Mauritius Sugar Syndicate
MW	Megawatt
NOS	Non-Originating Sugars
ROO	Rules of Origin
SADC	South African Development Community
SIDS	Small Island Developing states
SIE	Sugar Industry Efficiency
SIF	Sugar Insurance Fund
SIFB	Sugar Insurance Fund Board
SME	Small and Medium Enterprises
VRS	Voluntary Retirement Schemes

List of persons/organisations met

Meetings were held with industry stakeholders from 21st to 24th March 2016. The consultants present were Martin Todd (Team Leader) and Dr Gowreeshankursing Rajpati (Expert). The project team recognises that Dr Rajpati has held senior positions in the sector, notably as Executive Directive of the Mauritius Sugar Authority until 2009. During their consultations, the consultants met with the following persons:

Organisation	Name	Position	Contact Details
Ministry of Agro Industry & Food Security (MOAIFS)	Hon MK Seeruttun	Minister of Agro-Industry and ACP Ministerial Spokesperson for Sugar	
MOAIFS	Mr. V. Gondeea	Permanent Secretary and chairperson Mauritius Cane Industry Authority	vgondeea@govmu.org
MOAIFS	Mr. V. Boodhna	Deputy Permanent Secretary	vboodhna@govmu.org
MOAIFS	Mr. H. Dahal	Agricultural Executive Assistant	
Ministry of Finance & Economic Development (MOFED)	Mr G.Bussier	Ag Director, Social Sector Budget Management Directorate	gbussier@govmu.org
MOFED	Mr. D. Bundhoo	Lead Analyst	dbundhoo@govmu.org
MOFED	Mrs R.Ramsurn		
Ministry of Foreign Affairs &International Trade (MOFAIT)	Mrs U.Canabady	Secretary for Foreign Affairs	ucanabady@govmu.org
MOFAIT	Mr. Boodhoo	Deputy Director, Trade Policy	sunil.boodhoo@govmu.org
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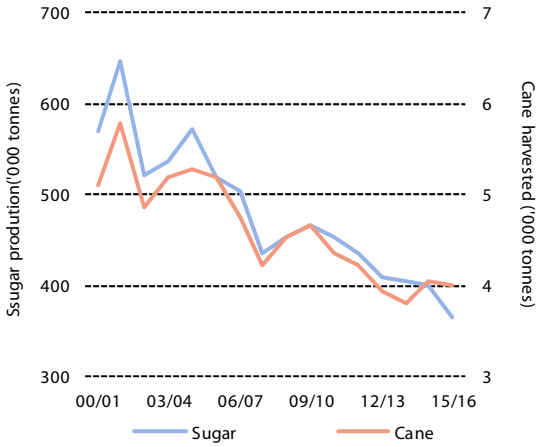
1 Overview of the sugar sector

1.1 Production and sales

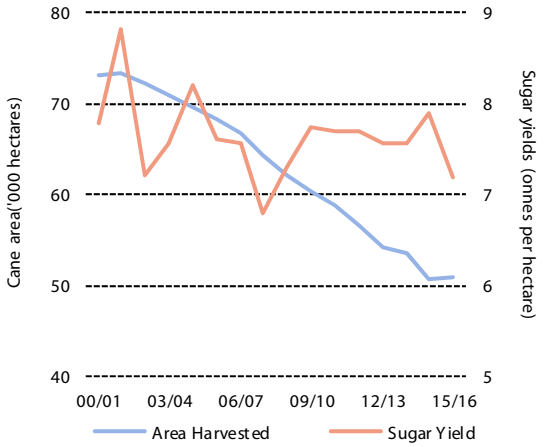
15 years ago, 75,000 hectares were under cane within Mauritius and sugar production was 600,000 tonnes (Diagrams 1 and 2). Today, the corresponding figures are 50,000 hectares and 400,000 tonnes. The decline in output is attributable to conversion and abandonment of cane land and is explained by many factors but mainly concerns small planters. Sugar yields per hectare are good for the agro-climatic conditions in which the sector operates, as is mill performance.

Diagram MAU.1: Cane and sugar production



Source: MSIRI.

Diagram MAU.2: Evolution of cane area and yields



Source: MSIRI.

The country's four mills are supplied with cane grown on commercial farms (some of which are mill owned), medium and small farms. 25% of area is farmed by so-called small planters, who are defined as farming less than 10 hectares.

The industry, which exports the vast majority of its sugar to the European Union (EU), has taken extensive measures over the past decade to adapt to the change in market conditions resulting from EU policy reform. It has done this by diversifying and adding value through the production of special and refined sugars, electricity cogeneration from bagasse and ethanol production from molasses. The industrial set-up now comprises:

1. Four sugar factories, two of which produce refined sugar, two manufacture special sugars (of which one is specialised in the production of these sugars) and one produces plantation white sugar that is upgraded at the refineries.

2. 210 megawatts (MW) of capacity for year-round production of electricity from bagasse and coal.

3. One ethanol cluster located at a cane mill.

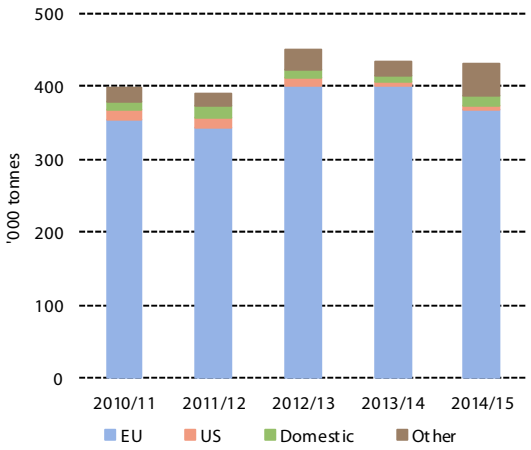
4. Two independent potable alcohol distilleries using molasses produced at cane mills.

Although the cane is milled for only seven months of the year, from June to December, the sugar refineries, bagasse/coal plants, ethanol and potable alcohol distilleries run for 340 days a year. However, the continued decline in cane supply poses a real threat to the viability of the industrial set-up, which has a large fixed cost asset base that underpins the country's agro-energy base. To adapt to this situation, the number of mills has been reduced to four; any further closures will raise major challenges regarding movement of cane around the densely populated island.

With a population of just 1.3 million, local demand for sugar is small. As a result, the sector exports most of its output, with the EU being its largest destination, accounting for 90% of sales (Diagram MAU.3). Mauritius no longer exports any raw sugar; all exports are either as refined sugar (which is shipped to the EU in bulk containers) or as special sugars. The decision no longer to export raw sugar was taken following the 2006 reforms in the EU, when the industry decided that adding value via refining was one was essential to mitigate the impact of declining prices in an industry where sugar output was contracting.

A more detailed breakdown of Mauritius' exports is shown in Table MAU.1; the "Other" category includes sales to regional markets (South African Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA)) and other destinations.

Diagram MAU.3: Production allocation by market



Source: MSS.

The industry's exports now exceed output of sugar from cane grown on the island. This is because it makes use of the 15% tolerance level for non-originating sugars (NOS), which is a provision of the Economic partnership Agreement (EPA) and applies to all products exported by African, Caribbean and Pacific (ACP) Group of States. This rule allows it to incorporate up to 15% (by value) NOS sugars in its shipments to the EU.

The industry has been eager to use this facility in the face of declining cane production, as it allows it to utilise more fully its installed refining capacity. The NOS tolerance rule has been instrumental in enabling the sector to maintain its sales to the EU at close to 400,000 tonnes.

Table MAU.1: Exports of Mauritius ('000 tonnes)

	EU refined	EU specials	Total EU	US specials	Other EEC Grade II	Other specials	Local sales	Total sales
2010/11	278	76	354	14	0	20	10	398
2011/12	255	89	344	13	0	17	16	390
2012/13	321	81	402	10	0	28	11	451
2013/14	329	73	402	4	0	18	10	434
2014/15	292	77	369	5	30	14	13	431

Source: MSS. 2010/11 sales to the EU included 81,000 tonnes of raw sugar for refining.

Another important feature of the table is the notable decline is sales of special sugars to the EU. This has resulted from greater competition in this market niche, especially since the EU granted access to countries in Central and South America under recent Free Trade Areas (FTAs). Annual reports of the Mauritius Sugar Syndicate (MSS) shows that over the 2011 to 2014 period the free-on-board (FOB) value of specials were Rs 10,000 per tonne (€ 250) over the value of refined sugar sales in the EU.

Mauritius also now sells sugar in the EU as Fair Trade; in 2015, volumes increased to 37,000 tonnes from 22,000 tonnes previously.

1.2 The socio-economic contribution of the sugar sector

At the time of the inception of the Sugar Protocol 40 years ago, the cane sector accounted for 20% of national employment and 30% of the GDP. Today, the comparable figures are 2.0% and 2.5% respectively. Despite this, the cane sector plays an important multifunctional role in the country.

The sector is also a huge net earner of foreign exchange, with cost of imports for sugar production representing just 20% of export earnings, generating valuable foreign exchange for food procurement.

Cane covers 80% of the arable land of the country and the plant's root structure preserves land, preventing erosion that would muddy pristine lagoons. Moreover, cane fields provide a pleasant landscape. As such, it has important environmental benefits and its aesthetics play an important role for the tourism industry.

15% of the country's electricity production, some 350 gigawatt hours (GWh), comes from bagasse; this avoids the import of approximately 200,000 tonnes of coal or 80,000 tonnes of high sulphur heavy fuel oil. Bagasse and coal burnt at power plants located at cane mills account for 57% of the electricity on the national grid.

1.2.1 *Stakeholders*

The sugar industry comprises five categories of stakeholders:

1. Millers also own and cultivate sugar cane land (so-called miller-planters), who produce just over 50% of national sugar output.

2. Large planters, including former miller-planters, who make up 30% of sugar produced in Mauritius.

3. Small and medium planters, cultivating less than 10 hectares of land (just under 20% of the sugar produced in Mauritius).

4. Employees made up of permanent and contractual employees and which are spread in various sub-categories.

5. Institutions: The Mauritius Cane Industry Authority (MCIA), the Mauritius Sugar Syndicate (MSS) and the Sugar Insurance Fund Board (SIFB). Table MAU.2 lists the institutions and their functions.

Table MAU.2: Institutional set-up in Mauritius

Institution	Function	Administrative costs
MCIA	Set up in 2012 after the merger of six institutions 1) Policy and overall monitoring of sugar reform 2) Control of sugar manufacture from sugar cane grown in Mauritius and arbitration as and when needed 3) Apportionment of products arising from the milling of canes to planters and millers 4) Implementation of schemes in favour of small planters 5) Implementation of schemes related to the Voluntary Retirement Schemes 6) Research: varieties, pest and disease control, cultural practices	A cess raised on sugar proceeds amounting to 4% thereof. Came down from 7% prior to 2012 to 4% thereafter
MSS	1) Principal role is the sale and marketing of sugars produced within Mauritius with the view to maximise revenue of sugar producers. 2) Pooling of all resources and payment of an ex0MSS price after deduction of all costs and expenditures. 3) Contracts with refiners and suppliers of special sugars who supply agreed quantities of sugar of a specified quality and are paid manufacturing premia in return. 4) Contracts with foreign buyers, Sudzucker , 2009 to 2015, British Sugar and Cristal Co 2015 to 2019. 5) Responsible for Fairtrade. 6) Import of Non Originating Sugars (NOS) for processing either for local consumption or for export as per specified tolerance levels. 7) Sales of sugar on export markets and sales of sugar on local market, 50% of domestic market. 8) Payment of proceeds relating to bagasse and molasses. 9) Collection of premium and payment of compensation relating to the SIFB.	Raising funds from sugar proceeds
SIFB	1) Insures against cyclones, drought and excessive rainfall (general) and fire (subsidiary) 2) Computes the potential of a given producer, planter or miller, termed insurable sugar 3) Records the claim performance of producers 4) Calculates premium based on ex MSS price, past claim performance and insurable sugar; premium equivalent to some 4% of sugar proceeds 5) Pays compensation as and when loss due to events exceed a certain threshold 6) Invests all excess funds and over time has constituted a reserve which allowed it to provide price support for 2014 and 2015 crops	A % of general premium collected, has now reached a high figure of 60%.

2 National Adaption Strategy (NAS)

Recognising upcoming pressures for reform of the EU sugar regime, Government of Mauritius (GoM) requested the Mauritius Sugar Authority (MSA) to come up with a plan to cope with the new challenges. This led to the Sugar Sector Strategic Plan 2001-2005. In

2004, the EU came up with its first proposals on the reduction of the EU institutional prices. Government commissioned a review the industry, which was used in close collaboration with the EU Delegation to prepare the Multi-Annual Adaptation Strategy (MAAS) 2006-2015. This formed the basis of the Multi-Annual Indicative Programmes[70] (MIP) that allocated Accompanying Measures to Sugar Protocol (AMSP) funds.

The objectives of the MAAS were as follows:

- Cost reduction, including closure of seven out of the existing eleven factories, rightsizing of the labour force, facilitation of recourse to seasonal labour, substantial reduction of overhead costs at operational, administrative and institutional levels, reduction of the level of indebtedness.
- Additional revenue via sales of a higher proportion of value added direct consumption sugars, eliminating the loss incurred by producers on sugar sold on the domestic market, higher sugar output through the cultivation of high sucrose cane varieties.
- Revenue diversification, including raising electricity production from bagasse, producing ethanol from molasses.
- Mitigating social impact of reform by providing of attractive cash and in kind compensation for employees accepting the voluntary termination of their contract of employment, re-skilling of employees leaving the sector, incentives and assistance to small planters to enable them to regroup into larger units and provision of support to planters operating in economically and environmentally difficult areas.

3 AMSP

Support by the EU to ACP countries has taken two forms:

1. The AMSP in the form of budget support based on the entitlements worked out for Mauritius.
2. Concessionary finance of some €100 million from the European Investment Bank (EIB)[71].

The country secured entitlements for grants from under the EU Accompanying Measures to the tune of €250 million and actual receipts would amount to at least some €230 million. Only two sugar-specific projects were funded, part of the Voluntary Retirement Schemes (VRS) for field and factory employees (€94 million) and the Field Operations Regrouping and Irrigation Project (FORIP) (€80 million).

3.1 Delivery modalities

The AMSP took the form of budget support in the case of Mauritius. The Ministry of Finance was responsible for the overall implementation of the AMSP, while the MCIA implemented and coordination of sugar-specific projects.

[70] MIP 2007-2010 and MIP 2011-2013.

[71] EIB finance has been instrumental in the establishment of two refineries currently totalling an output capacity of some 400,000 tonne of refined sugar that meets with the EU's stringent standards, as well as a 20 million litres industrial ethanol/blending ethanol cluster comprising a distillery, a small power plant using biomass, a Concentrated Molasses Stillage (CMS) plant concentrating the vinasse into a potassic fertiliser, and a carbon dioxide (CO2) capture plant that generates food grade CO2 for the beverages industry. These investments, including EIB, equity and local finance totalled nearly € 100 million.

The disbursement was in two tranches, a fixed one that related to macro-economic parameters and a variable one that was based on the attainment of Key Performance Indicators (KPI). The KPIs did not cover sugar aspects only but also other issues, the objective of GoM being to impose KPIs on itself so as to ensure that all agencies and operators worked together to attain these indicators. Some KPIs that were included in respect of grants under the AMSP are given in Table MAU.3.

Table MAU.3: KPI and performance

KPI	Performance
Implementing the major VRS for field and factory	All met
Education of children in Zone Etudes Prioritaires Schools	Not met
Sugar refining targets	All met
Land preparation and regrouping	All met
Limitation of cane burning	All met
Ethanol framework	Not met
Coal power plant procurement	Not met
Reform of casinos	In process

3.2 Strengths and weaknesses

The Ministry of Finance indicated that Mauritius was expecting to receive disbursements in excess of 90% of the amounts earmarked for it. This reflects a good working relationship between the EUD and the GoM, as well as the high capacity of the GoM to absorb the AMSP funds.

Table MAU.4: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General 38. Excellent absorption capacity 39. Instrumental in ensuring macro-economic reform and stability 40. Facilitated social acceptability of reform in particular the issue of redundancy 41. Strength of sugar reform and compliance with KPIs instrumental is facilitating access of funds with EIB	**General** 42. Greater flexibility in dealing with KPIs relating to difficult issues would have been welcome 43. FORIP and its impact regarding regrouping and mechanisation should have been followed more closely 44. Administrative delays affecting both employees and sugar companies recouping costs not addressed

Stakeholders made the following comments regarding the strengths and weaknesses of the AMSP funding:

1. It has been a very useful tool in facilitating the social acceptability of the 2006-2025 reform, owing to its contribution to the VRS and FORIP programmes.

2. It has instilled the culture of attaining key performance indicators in many sectors, and more particularly in the sugar industry.

3. It has facilitated inter-institutional collaboration within the sugar industry and has in no small measure facilitated the merger of six institutions to form the MCIA.

4. Lost funding was due to an absence of political will or absence of decision: ethanol framework and power plant procurement. Other losses will be due to real difficulties in undertaking reform in sensitive areas, namely casinos.

5. Overall, the co-operation of the EU is appreciated and working relations between EU and Mauritian institutions are excellent. However, the Ministry of Finance is frustrated at having lost some funding and would have welcomed more flexibility on the part of the EUD.

6. It has allowed a certain degree of re-skilling but has unfortunately concerned only 15-20% of the employees made redundant under the VRS programme. This is because the redundancy programme was implemented very quickly, with all layoffs having to be finished in three weeks, and many employees taking the VRS wanted to be reemployed as seasonal workers.

7. The FORIP, in spite of its defects, has enabled a massive de-rocking programme and road mending programme to take shape.

4 Current situation & prospects

4.1 Current situation

Reform has meant a sea change in three respects:

1. A complete shift from production 85% raw sugar and 15% special sugars to one where 80% are now refined white sugar and 20% special sugars.

2. Redundancy of 40% of the labour force.

3. A centralisation of institutions.

The reform, which took 10 years, has plus and minus points, which are highlighted below. While indicating how reform proceeded, these points also highlight the current state of the industry.

4.2 Gains

- 100% of exports are in the form of value added sugars: specials and refined.

- The country has developed a market strategy that has: (a) allowed the transition from raw sugar for refining in the EU to white sugar produced in Mauritius for direct consumption in the EU, (b) brought Mauritius it closer to the market and (c) paved the way for a deeper penetration of the EU market in the future.

- The industrial set-up that has been established could allow further value addition through a *filière* approach, which was not possible as recently as 2009, when the industry still exported mainly raw sugar.

- The cost of running service-providing institutions has been reduced by nearly 50%.

- The Fairtrade Initiative has helped certified small cooperative planters to continue growing cane and, by supporting cane supply, has been helped to support mill throughput. Moreover, some larger planters have also been successfully integrated into certified co-operatives.

- The liberalisation of the import of sugar for the local market has eliminated losses incurred by producers subsidising the domestic market. However, liberalisation has allowed any distributor or end-user to import sugar, resulting in a loss of market share for local producers.

- Some small and medium enterprises (SMEs) not coming from a planter background have emerged to produce, for instance, sugar cubes and spice-scented sugars.

From the investment perspective, gains came at a total cost of approximately €500 million, which included the following:

- The cost of the various voluntary retirement schemes for field and factory employees has totalled €195 million including the last factory closure, of which €94 million came from Accompanying Measures. €101 had to come from loans taken by producers, which has increased their debt exposure.

- The grant of land with full infrastructure has been delayed due to delays beyond the control of the MCIA and Ministry of Finance and has created problems between the MCIA and the VRS employees.

- Value addition, namely two refineries and special sugar facilities, and an ethanol cluster, cost €140 million.

- €80 million has been spent on the FORIP, all met from Accompanying Measures via the GoM budget.

- The 2 x 45 MW bagasse/coal plant at La Baraque cost approximately €95 million.

4.3 Shortcomings

- Cost of production has come down but not to the extent required to face future challenges. The main reason for this is that labour costs have continued to increase and the rigidities and uncertainties of the labour market remain.

- Administrative delays have resulted in employees receiving their land entitlements at a late stage; this has negatively impacted the recouping of sugar reform costs by entities having incurred such costs.

- In 2004, there were approximately 27,500 small and medium planters. The number had fallen below 15,000 by 2015, a drop of 45%. This has occurred despite the fact that small and medium planters benefit from a high level of sugar and by-product entitlements, favourable tax regimes and concessionary finance. Moreover, €80 million has been injected into this community via the FORIP.

- Initiated in 2006/07, the FORIP had the twin objective of: (a) regrouping planters to enable them to benefit from economies of scale and (b) preparing the regrouped land for full mechanisation of cultural operations. The project was on target up to 2009 and thereafter it has deviated from these objectives, with lands not being regrouped nor prepared for full mechanisation. Although, FORIP did continue to de-rock lands, failure to achieve the other objectives limits the ability of participating growers to reduce their future operating costs.

- The reduction of the cost of service-providing institutions was delayed and occurred only in 2012. Despite the savings, the overall cost of these institutions remains high in comparison to sugar prices.

- The price hikes that occurred in the EU for crops 2011 to 2013 resulted in welcome additional revenue in those very years, facilitating investments and reforms. However, the subsequent collapse of prices in the EU has occurred well before the expected date of 2017. This has lowered the prices earned by growers and millers (the co-called ex-syndicate price) to below producers' viability price, which is estimated to be around Rs15,000 per tonne of sugar. After an actuarial report, a decision was taken to use the finite reserves of the Sugar Insurance Fund (SIF), a producer-funded institution, to make good the difference between the Ex-Syndicate Price in those years and the viability price. An Actuarial Review will take place to establish whether further disbursements can be made for the 2016 crop and beyond. Table MAU.5 maps the evolution of the ex-syndicate price.

Table MAU.5: Evolution of Ex-Syndicate Prices, 2010 to 2015 crops

Crop year	Ex-Syndicate Price Rs/tonne	Remarks
2010	13,536	Refineries not fully operational.
2011	16,020	100 % sales as refined and special sugars.
2012	17,573	100 % sales as refined and special sugars.
2013	15,830	100 % sales as refined and special sugars.
2014	12,694	General price depression in the EU and displacement of specials by FTA sugar. The industry turned to SIF funds to supplement payments.
2015(estimates)	13,000	Sales effected before the price rise in EU. The industry again turned to SIF funds to supplement payments.

4.4 Environmental issues

Many environment-friendly measures recommended in the MAAS have either not been implemented or undertaken with considerable delay.

- The loss of cane lands represents a drop in the carbon sink.
- Electricity production from bagasse is 350 GWh compared to projections of 600 GWh in the MAAS.
- Loss of cane means lower output of electricity from bagasse and required additional burning of coal or high sulphur heavy fuel oil.
- No new bagasse/coal plant project emerged during the lifetime of the MAAS; the Power Purchase Agreement for the 91MW plant at La Baraque was signed in 2004.
- There has been persistent controversy regarding Independent Power Plants, no release of high biomass canes, no policy on the use of abandoned land for higher biomass use.
- This is no ethanol used in the transport sector.
- The recommendation of the MAAS in respect of difficult areas has not been implemented and no measure has been put in place to avoid abandoned land becoming an environmental hazard.

5 The threats to the sugar industry

5.1 Reduction in acreage under cane

Cane abandonment is due to a host of reasons:

- An ageing population and succession problems.
- Difficulties in managing plantations at time of harvest caused by labour shortages. Small growers are at a disadvantage vis-à-vis large-scale planters with regard to accessing agricultural workers and lorry drivers.
- The possibility to convert land to non-agricultural use, as planters of less than two hectares (which represent 98% of the planter population) do not need authority to convert land and are not liable to pay the land conversion tax of Rs 3.5 million per hectare.

The drop in production poses a serious threat to the industrial set-up and, if unresolved, may ultimately lead to it becoming unviable.

5.2 Labour issues

The labour sector is characterised by three elements: an ageing labour force; a mechanism whereby yearly increases in remuneration exceed the inflation rate against a backdrop of lower sugar prices; and no recourse to foreign labour, in particular for small planters.

5.3 Impact of Free Trade Areas

The FTA between the EU and Central and Latin American countries has let in raw sugar for direct consumption. Although they are not of the same quality, they are close substitutes with special sugars and compete with Mauritius and other ACP suppliers, resulting in a loss of market share for ACP producers.

5.4 Debt burden

The Mauritian sugar industry has invested massively to prepare for the reforms of the EU sugar regime. While AMSP funds have helped with some of this, the sector still carries large debts and debt servicing takes a significant toll on their resources. The debts would have been absorbed if the sugar companies had been able in time to sell land and recoup costs. This did not occur as many administrative delays took place from 2009 to 2014. Moreover, the recent reduction in prices in the EU, and the prospect of a sustained period of lower prices in the future, has the potential of worsening the financial predicament of the industry.

6 Preparing the future

In recognition of the risks posed by the abolition of EU sugar quotas 2014, GoM commissioned a comprehensive study in 2014. This was designed to advise it on reform in the sugar sector as a follow-up of the 2006-2015 MAAS. The study had to consider bold and innovative measures for small planters, deeply affected by cane abandonment, and *a financing plan that would justify the recourse to Accompanying Measures Support Program (AMSP) for Sugar Protocol Countries type measures and the tapping of global concessionary finance/grants dedicated to environment protection and preservation.*

Government established an Implementation Committee (IC) chaired by the Permanent Secretary of the Ministry of Agro Industry to analyse the report's recommendations and advise Government on the way forward.

- In December 2015, a series of measures (described below) were taken to provide revenue relied to the sugar industry in the face of falling prices.
- In March 2016, GoM decided to review the Sugar Industry Efficiency (SIE) Act, the comprehensive enabling piece of legislation governing the sugar industry. The Act is being drafted at the time of writing this report (key elements are described below).

In parallel, the Ministry of Utilities has is preparing a plan for renewable energy to 2030. This Ministry has indicated the contribution of renewables would be at least 35% of the total electricity sold to the grid and that biomass would play a determining role by that date.

6.1 Measures of December 2015: increasing revenue of planters

The measures taken in December 2015 were guided by three principles:

1. Sugar cane is a public good, which performs a multifunctional role, and as such requires transfers from the consumers at large.
2. The transfers would be payable on bagasse used for electricity and molasses used for potable alcohol for domestic consumption.
3. An element of differentiation may exist between small and medium producers, with sugar output up to 60 tonnes, and the others.

The concept of transfers from local consumers to the sugar sector first emerged in 1984 with the introduction of a €3 per tonne of sugar for bagasse used for purposes other than the manufacture of sugar. In 2010, payment of €7 per tonne of sugar was introduced for molasses used for the production of potable alcohol for domestic consumption. Support on a large scale commenced in 2014, with a payment of €50 per tonne of sugar from the SIFB, and the same amount was paid in 2015. The contribution of consumers became more important in 2015, with an additional €35 per tonne of sugar for small and medium planters and €15 per tonne of sugar for other planters. Other measures were taken as shown in Table MAU.6.

Table MAU.6: Impact of December 2015 measures

Measure	Impact
Sugar Cane Sustainability Fund Rs1,100 per tonne sugar for 1st 60 tonnes accrued Rs300 per tonne sugar for any amount above 60 tonnes	Small and medium planters receive €27.5 per tonne sugar and this mitigates the impact of the price decrease Other planters get €7.5 per tonne
Additional distiller-bottlers contribution	€7 per tonne for all producers
Special assistance for all producers €50 per tonne sugar accrued	Major incidence on viability of all planters
15% tax on imported white sugar	Support the local industry (planters and millers) in the face of preference erosion in the EU, and also boosting throughput of refineries, whose viability is key to the shift from raw to white refined cane sugar
New standards of sugar quality	Support to refiners , already exporting sugar that complies with the stringent food standards of the EU
Transferring the Research Institute to producers	Research would be more focused and high sugar and high biomass cane varieties would become the norm as from the medium term

These supplementary measures are structured the assist small and medium growers most, with medium and large growers receiving more modest add-ons:

- Small and medium planters additional income:

    a) Fairtrade: €52 per tonne for eligible tonnages (these currently stand at 38,000 tonnes [some 30% of planter production] and, while MSS is hopeful that this can be increased, the market for Fairtrade sugar in the EU has contracted sharply and represents a major risk). It should also be noted that Fairtrade premiums do not go directly to planters (but to the co-operatives of which they are members). Moreover, the Fairtrade premium has also benefitted larger planters who have joined certified co-operatives.

    b) Cane Sustainability Fund plus bagasse transfer price: €30 per tonne.

    c) Molasses sale and two bottlers' contributions: €32.5 per tonne.

    d) Total: € 114.5 per tonne.

- Medium and large planters:

    a) Cane Sustainability Fund plus bagasse transfer price: €9 per tonne.

    b) Molasses sale and two bottlers' contributions: €32.5 per tonne.

    c) Total: €41.5 per tonne.

6.2 Amendments to SIE Act

The review is expected to take place shortly and would address fundamental aspects of the sugar industry and translate certain of the December 2015 initiatives into legislation. The objects of the review as announced by Government with a view to:

1. Preparing the sugar industry well ahead of the abolition of EU sugar quotas in 2017.
2. Implementing measures destined to ensure the long term viability of the sugar industry.
3. Laying the foundations for the transit to a low carbon economy.
4. Establishing an ethanol framework to allow the mandatory blending of ethanol and motor gasoline.

6.3 Industrial set-up

Government has initiated four measures to support the industrial set-up:

1. It has implemented a 15% ad valorem tax on imported white sugar.
2. It is lobbying for the 15% NOS tolerance to apply on a mass balance basis and not on a per consignment basis.
3. It will lobby for an increase in the NOS tolerance level from 15% to 30% in order to maintain capacity ultilisation.
4. It is making amendments to SIE Act as described above.

6.4 Marketing and alternative markets

The industry recognises the need to continue the process towards greater value addition while, at the same time, developing regional export markets where Mauritius has preferential access. However, changing the focus of the country's exports poses several challenges:

1. COMESA countries represent potential preferential markets, but member states are reluctant to embrace free trade because of their desire to protect the local sugar industry. As result, Mauritius faces limits to how much sugar it can sell in deficit markets within the region. Moreover, regional demand for high-quality refined sugar and special sugars is limited, as lower-quality brown makes up a large part of household consumption in the region. Preferential access for member states is further eroded because many countries within COMESA have porous borders.

2. The world market offers opportunities, but only for small quantities of niche products, such as special sugars.

This suggests that Mauritius will continue to rely on the EU market, albeit to a lesser extent than now. Moreover, the EU market has large demand for special sugars, as well as for Fairtrade sugar. The difficulty of diverting trade flows away from the EU mean earnings by the Mauritius cane sector will reflect market prices developments in the EU after 2017.

In response, GoM and stakeholders are taking the following measures:

1. Reviewing conditions of entry for Mauritian sugar in COMESA, SADC and East African Community (EAC) countries in the context of Tripartite Agreement negotiations.

2. Requesting an increase in NOS tolerance for 30% from its current level of 15% and for it to apply on a mass balance basis and not a per consignment.

3. Requesting that access granted under future FTAs severely restricts imports of raw sugar not for refining to protect the niche market for special sugars that Mauritius, in particular, has invested so heavily develop and which will represent an important premium even after 2017.

4. Moving up the *filière* to capture as much value addition as possible. This includes embarking on sugar based agro-industry to supply neighbouring markets as demand for sugar-containing food products increases with rising per capita GDP.

5. Reviewing the current system of single-desk marketing via the Mauritius Sugar Syndicate in response to the desire of some members to have greater scope and flexibility to innovate and market sugar products.

6.5 Small and medium planters

Cane area, especially among small and medium planters, continues to decline despite €80 million of AMSP funds to support the FORIP. This suggests that the nature of support and institutional intervention needs to be changes if loss of area is to be slowed. However, there is no legal and operational framework for millers, along with the MCIA, to engage in a small planter rehabilitation programme. As if is in their direct interest to maintain cane throughput, millers have indicated engagement with small and medium growers would be more effectively managed it there were to engage directly with growers, with minimal institutional and political intervention.

6.6 Biomass to electricity

The productivity of electricity production currently stands at 90 kilowatt hours (kWh) per tonne cane, but there is scope to move to 140 kWh with cane or higher values with other forms of biomass. However, to achieve this would require:

1. Further energy saving at factory level.
2. Upgrading of power generation capacity at the Alteo cane mill.
3. Use of cane trash, as may be agronomically possible.
4. Use of cane varieties with higher biomass content.

There are two constraints regarding the greater use of biomass. First, there is no pricing for biomass other than bagasse. Second, there needs to be development of appropriate cane varieties. The first constraint can be addressed in the short term, but the second one requires long-term planning.

6.7 Ethanol blending

Ethanol production may be able to enhance producer revenue. However, the context differs between landlocked countries and Small Island Developing states (SIDS). In the former, the cost of overland transport inflates local gasoline prices and favours the economics of blending locally-produced ethanol. This is not the case for SIDS, where consumers would have to bear the additional cost of ethanol blends, whether this occurs via a mandate or by inflating gasoline prices through taxes and/or subsidising ethanol through tax exemptions or subsidies.

7 Conclusion

The Mauritian sugar industry has continues to make sugar strides towards reducing costs and increasing revenues. It now has a well-developed industry that sells all its sugar as direct consumption sugars and adds value to both its by-products, molasses and bagasse (which now provides for 15% of domestic electricity sales). AMSP funds, as well as EIB loans, have been instrumental in this.

Moreover, in recognition of the reduction in the value of the EU preference, GoM has taken measures to create welfare transfers form local consumers to the cane sector. These derive from levies on sugar (import tariff), alcohol (duty of local sales of potable alcohol) and electricity (transfer from the Central Electricity Board [CEB]). Moreover, these transfers are targeted at small and medium growers, with a view to supporting livelihoods and slowing the loss of cane lands. The industry has sought to minimise the impact of recent low prices in the EU by drawing down the accumulated funds of the SIF.

Despite these developments, and the huge investments they have required, the industry remains in a perilous position: mills carry large debts and land area continues to decline. GoM and stakeholders recognise these challenges and measures are being taken to address them. At a local level, this includes revising of the SIE Act and reviewing domestic marketing arrangements; at an international level, GoM is requesting the NOS tolerance level be raised from 15% to 30%, is defending the EU market for special sugars by limiting future access of raw sugar not for refining, and is promoting greater regional access for Mauritian sugar.

The cane sector in Mauritius now contributes less than 3% of GDP reflecting growth in the economy and contraction of the cane sector. Nevertheless, it plays an integral part in its energy matrix and provides major environmental and aesthetics benefits. At the same time, the country faces major challenges to contain its costs. Although the industry has an efficient producer in the context of its agro-climate, Mauritius is a middle-income country and faces challenges with labour availability and wages. This challenge is compounded by historical legacies, which mean, for example, that it retains a different (and more costly) regulations regarding remuneration within the sugar sector. Some further contraction of the industry, and loss of cane land, is inevitable, but the pace of this will be influenced by the extent to which the sector is able to replace the benefits that once accrued from EU access with the benefits of further value addition and from welfare transfers from local and regional consumers.

Annex 2.9: Mozambique

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AIDS	Acquired Immune Deficiency Syndrome
AMSP	Accompanying Measures to Sugar Protocol
APAMO	Mozambican Sugar Producers' Association
BAGC	Beira Agricultural Growth Corridor
CEPAGRI	Centre for the Promotion of Agriculture
DNA	The Single Desk Marketing Body
DUAT	Direito de Uso e Aproveitamento da Terra
EC	European Commission
EU	European Union
FTA	Free Trade Area
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
MINAG	Ministry of Agriculture of Mozambique
MIP	Multi-Annual Indicative Programme
NAS	National Adaptation Strategy
SACU	Southern African customs Union
SADC	South African Development Community
SINTIA	Sindicato Nacional dos Trabalhadores da Industria do Acucar, Alcool e Afins
TFTA	Tripartite Free Trade Agreement
UGEA	Procurement Unit
US	United States
VAT	Value Added Tax

List of persons/organisations met

During the period 28th March to 1st April, the consultants met with the following persons. Assistance was provided by Jorge Manjate, Sugar Sector Technician at the Centre for the Promotion of Agriculture in the Ministry of Agriculture (CEPAGRI).

Organisation	Name	Position	Contact Details
European Union – Delegation to the Republic of Mozambique[1]	Ana Margarida Mariguêsa	n.a.	Margarida.MARIGUESA@eeas.europa.eu
CEPAGRI	Jorge Manjate	Sugar Sector Technician	jorgmmanjate@gmail.com
DNA	Philipe Raposo	Director General	fraposo@dna.co.mz
APAMO	Joao Jeque	Executive Director	jjeque@gmail.com
National Authorising Office for Mozambique-EU Cooperation	Victor Velho	Project Coordinator	velho.gon@tvcabo.co.mz
	Rosario Mwajema Makavaka	Administrative Officer	makavaka@hotmail.com
	Feliciano Chamo	Project Coordinator	fchamoagro@gmail.com
Illovo Sugar Ltd.	Andrew Cochrane	Project Manager	acochrane@illovo.co.za
Illovo Sugar Ltd.	Johann van der Merwe	External Affairs Manager	jvdmerwe@illovo.co.za
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SINTIA	Edna Zandamela	Legal Advisor	n.a.
Tongaat Hulett	Sancho Cumbi	Agricultural Operations, Training and Small-Scale Grower Development Manager	Sancho.Cumbi@tongaat.com

Note: 1. The consultants spoke to Ana Margardia Mariguesa by phone prior to the field visit because she was not available during the dates of the visit.

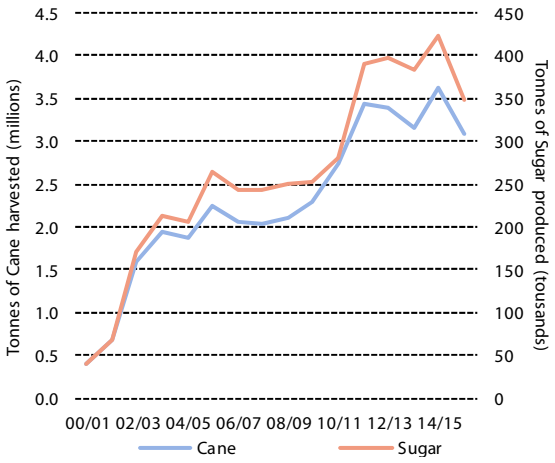
1 Overview of the sugar sector

1.1 Production and sales

The Mozambique sugar industry has produced around 400-420,000 tonnes of sugar per annum in recent years. Approximately 50-60% of this is exported. Diagram MOZ.1 shows the trend in sugar production over the last fifteen years and shows that output has gradually been rising, although it has stabilised in the last few years, and declined in 2015/16 as a result of the drought that has affected the whole of southern Africa. Diagram MOZ.2 shows that the expansion was achieved principally through an increase in the area under cane rather than an increase in productivity.

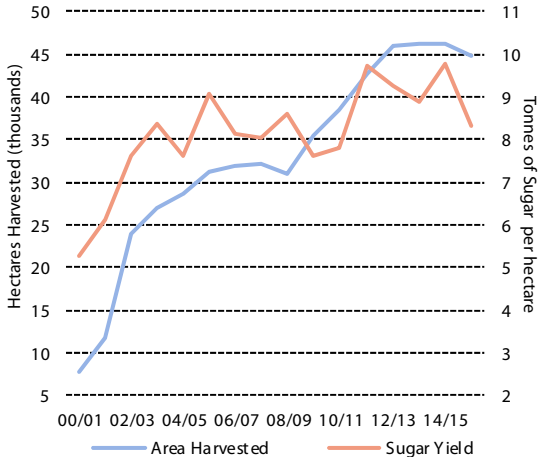
The industry consists of four sugar mills owned by three companies. The majority of the cane area is farmed by these companies. The rest is farmed by independent growers, a growing proportion of which are small-scale producers.

Diagram MOZ.1: Cane and sugar production



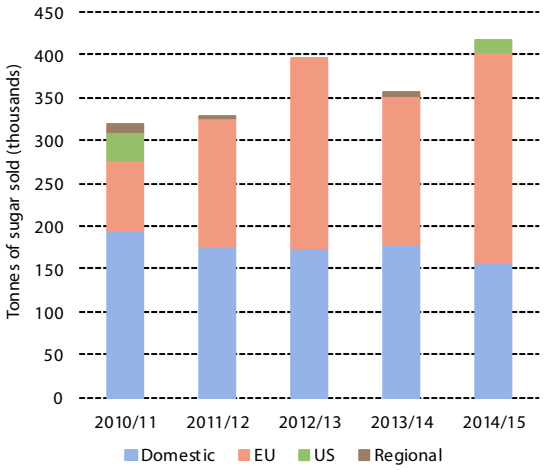
Source: Centre for the Promotion of Agriculture (CEPAGRI).

Diagram MOZ.2: Evolution of cane area and yields



Source: CEPAGRI.

Diagram MOZ.3: Sales by market



Source: LMC estimates; industry data.

Diagram MOZ.3 summarises where this sugar has been sold over the last five years. The vast majority of the sugar produced in Mozambique is either sold to the domestic or EU markets.

- Domestic sales have totalled around 175,000 tonnes in recent years. Sales in 2013/14 fell because large amounts of imports entered the market.
- EU exports have averaged around 220,000 tonnes per year since 2011/12, which is just over 50% of total sales.
- Mozambique also benefits from preferential access to the Southern African customs Union (SACU) and United States (US) markets, although the quantities are small and are limited by quotas.

1.2 The socio-economic contribution of the sugar sector

While the sector's contribution to Gross Domestic Product (GDP) is not insignificant, it is particularly important in terms of export earnings and employment. Indeed, the sector is the second largest employer in the country, after the cement industry. In 2014, sugar accounted for 3% of Mozambique's total export earnings, and 24% of agricultural exports.

The industry has created jobs for more than 35,000 workers. Crucially, these jobs are created in rural areas, where opportunities for alternative employment are often very limited. The families of sugar sector workers also benefit from social services, which are provided by the sugar mills, often in collaboration with local governments. In some cases, such services include health, education, housing and water and sanitation.

The rehabilitation of the sugar industry has also had a positive effect on the wider economy, particularly in the areas surrounding the sugar mills. The sugar companies are major purchasers of goods and services to support their operations. Moreover, the creation of wealth in areas where the sugar mills are located has led to the establishment of shops and banks to meet the needs of the workers and their families.

2 National Adaptation Strategy (NAS)[72]

The stated aims of the 2006 Mozambique National Adaptation Strategy were to develop the sugar industry and to improve its competitiveness. It identified five key objectives:

- Increasing the production of sugarcane. The sugarcane cultivated area was planned to be expanded by 15,300 hectares, of which around 7,500 hectares was to be cultivated by independent outgrowers.
- The training of sugar industry staff.
- Reducing the distribution cost of sugar through improved transport infrastructure and storage capacity.
- Increasing the capacity of sugar mills, improving their productivity and expanding the value added to sugarcane through the production of ethanol and cogeneration of electricity.
- Enhancing social services (health, education, housing etc.) provided to the communities surrounding the sugar mills.

Through these objectives, the NAS aimed to increase production to 0.5 million tonnes.

In 2006, the cost of implementing this programme was estimated at €185 million. The NAS suggested that donor grants finance the development costs involved in the expansion of sugarcane cultivation by smallholders, the training programme and the provision of social services, at an estimated cost of €43.5 million.

[72] Multi-Annual Indicative Programme (MIP) for Mozambique under the Accompanying Measures for Sugar Protocol countries (AMSP) 2011-2013.

3 Accompanying Measures to Sugar Protocol (AMSP)[73]

Based upon the NAS, the European Commission (EC) endorsed the three objectives and in total committed around €12 million of funds for this purpose.

3.1 AMSP project areas

The AMSP funding for Mozambique was split into three phases, listed below.

3.1.1 *Phase I (2006-07)*[74]

Phase I funding was set at €562,000, which was disbursed via budgetary support through the Ministry of Agriculture (more specifically, CEPAGRI). Table MOZ.1 details how these funds were allocated and the final expenditure for each activity. More funds were spent on cane expansion and training than envisaged in the initial budget, with the money being transferred from social services spending. However the sums involved were small.

Of the money, €510,929 was allocated to the milling companies, which used the money to cover a portion of the cost of expanding the cane area for smallholders, training and the provision of social service commitments. The remaining €56,071 was kept back to provide for programme monitoring and co-ordination (€12,000 for the EC delegation, €44,071 for CEPAGRI).

This support was originally planned for the 2007 financial year, however it was only in May 2008 that the funds entered the CEPAGRI account. The first activities did not start until November 2008, once procurement had been finished.

Table MOZ.1: EC funds allocated and spent under Phase I (€)

Component	Amount Budgeted	Amount Spent
Cane expansion under outgrower schemes	133,000	198,581
Social services	273,000	211,257
Training & skills development	100,000	101,091
Programme monitoring and coordination	56,000	56,071
Total	**562,000**	**562,000**

Note: €12,000 was retained by the EC from the total programme monitoring and coordination for their own monitoring purposes, resulting in a final transfer to CEPAGRI of €550,000.

3.1.2 *Projects funded under Phase II, Multi-annual Indicative Programme (MIP) I, 2007-2010*[75]

Phase II had two objectives to expand upon existing efforts to support the sugar sector:

- Enhancing the competitiveness of the sector by increasing production and productivity both at farming and processing levels;
- Enhancing the contribution from the sugar sector to the socio-economic development of the sugar production areas.

To achieve this, funding of €6 million was budgeted, split across the following areas:

[73] Multi-Annual Indicative Programme (MIP) for Mozambique under the Accompanying Measures for Sugar Protocol countries (AMSP) 2011-2013.
[74] EU Report, dated 16/12/09 (title to be confirmed)
[75] Multi-Annual Indicative Programme (MIP) for Mozambique under the Accompanying Measures for Sugar Protocol countries (AMSP) 2007-2010.

Table MOZ.2: EC funds allocated and disbursed under Phase II (€)

Component	Amount Budgeted	Amount Disbursed
Fixed Tranches	4,400,000	4,400,000
Variable Tranches	1,400,000	1,000,000
Complimentary Support	200,000	200,000
Total	**6,000,000**	**5,600,000**

Note: "Complementary Support" was placed under the control of the EC and used for technical assistance (including studies), evaluations, audits and actions to promote the visibility of the AMSP programme.

This funding was split into fixed and variable tranches, with the variable tranches being conditional upon set targets being met (e.g. field expansions, social services provided and number of employees trained) in the preceding years.

3.1.3 *Projects funded under Phase III (MIP II, 2011-2013)*[76]

Following the experiences of Phase II, the 2011-2013 MIP set out just one objective: "To increase sugarcane production and productivity by promoting the participation of small/medium Mozambican farmers in the sugar production chain". Funds were assigned across the following areas to realise this objective:

Table MOZ.3: EC funds allocated under Phase III (€)

Component	Amount Budgeted
Development of communities' sugarcane fields	3,945,496
Promotion of farmer associations	343,728
Technical assistance	280,000
Communication and visibility	15,000
Evaluation and audits	150,000
Contingencies (approx. 3.5%)	182,776
Total	**4,917,000**

3.2 Delivery modalities

EU funding was disbursed in two different ways:

Budgetary support. Under Phase I and II, AMSP funds where channelled through the Ministry of Agriculture. However, in some cases, significant delays in the disbursement of EC funds were encountered. This included the purchase of an ambulance for Mafambisse, computers for schools, and the financing of outgrower activities in Maragra[77]. In some cases, the problem was overcome by milling companies using their own funds to ensure that project activities continued in the absence of funding.

The EU review cited three major problems with fund disbursement:

- For disbursements made by the EC to the government, there was a delay of 5-7 months between the formal request by government and the deposit of funds in the government account. Normally this process is expected to take four months.

[76] Multi-Annual Indicative Programme (MIP) for Mozambique under the Accompanying Measures for Sugar Protocol countries (AMSP) 2011-2013.
[77] EU Report, dated 16/12/09 (title to be confirmed)

- Once deposited in the government account, there were further delays between the Ministry of Agriculture of Mozambique (MINAG) and CEPAGRI. For example, in the case of the Phase I funds, the EC deposited funds on January 23, 2008 and funds were received by CEPAGRI on May 16, 2008.

- Furthermore, the complexity of the procedure process resulted in further delays for the application of funds.

Partial decentralised management. Because of the problems encountered in Phase I and II, a different approach was adopted for Phase III. The decision was taken to decentralise the procurement process, putting it directly into the hands of the sugar companies, with monitoring by the procurement unit (UGEA) and the sugar specialist in CEPAGRI. A 'call for proposal' system was used in order to invite the milling companies to bid for funds, which has been organised through the National Authorising Office for Mozambique-EU Cooperation and European Union. It is widely agreed that this approach has been successful in streamlining the funding process. However, there were still significant delays. There was a long period between the original call for proposal and the award of the contract. Moreover, one of the milling companies experienced delays with implementation.

3.3 Strengths and weaknesses

Table MOZ.4 summarises the key strengths and weaknesses of the AMSP that were reported by stakeholders. Further details are provided below.

Table MOZ.4: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General 1. Funding complemented private sector investments. 2. AMSP contributed to three of the five key objectives of the NAS.	**General** 3. Slow implementation in Phases I and II 4. Long delay between the call for proposal and award of contract in Phase III. 5. Amount allocated to Mozambique was small in relation to the effort required to access funding.
Smallholder developments 6. Created opportunities for subsistence farmers to participate in the formal agricultural sector. 7. Schemes boosted income relative to subsistence agriculture. 8. Increased throughput at the mills helped to lower fixed costs. 9. The milling companies supported the implementation of smallholder developments. 10. Schemes included area for subsistence crops. 11. Grant funding allowed access to loan finance that would be otherwise unavailable.	**Smallholder developments** 12. Limited availability of funds meant a greater debt burden for outgrowers. 13. Lack of transparency about cane prices and costs have led to complaints concerning cane payments by outgrowers. 14. Land tenure remains an issue.
Capacity building 15. Farmer associations have been established to create economies of scale for their members. 16. Grower associations are planned to be developed to improve grower representation at industry level. 17. Training was delivered to both farmers and mill workers, covering a wide range of skills. 18. Some replacement of expatriate labour with local workers.	**Capacity building** 19. Millers remain heavily involved in sugarcane agriculture 20. Low numbers trained led to concerns over sustainability
Social service provision 21. EU funds complimented services provided by milling companies.	**Social service provision** **22.** Lack of government involvement led to fears over project legacies.

3.3.1 *General*

The funding of the AMSP complimented the NAS well by contributing to three of the five priorities, covering smallholder development, capacity building within sugar organisations and the provision of social services.

However there were problems with the funding. On top of the previously mentioned problems with the speed of disbursements, the level of EU funding allocated only made up a small fraction of the estimated €185 million NAS requirement for Mozambique. This meant that the impact of EU funds was limited but, in the view of some stakeholders, the administration costs were high relative to the support provided.

3.3.2 *Smallholder developments*

The NAS policy of developing outgrowers has resulted in a dramatic change in the quantity of cane they produce. This has resulted in a shift from subsistence to commercial farming and allowed members to participate in the formal agricultural economy. However provisions were also made for subsistence crops in some smallholder developments to provide for their own immediate needs.[78]

Mills have been closely involved in the smallholder development process, providing much needed farming experience and project management. In turn the increase in cane supply has allowed them to achieve higher output and economies of scale, which has helped to support industry competitiveness.

However, some stakeholders are concerned about the debt burden of some smallholders, with the grant-to-debt ratio set at around 40:60 for the schemes funded under Phase III. While this increased the level of participation, it has also meant that growers are more exposed to shocks such as drought and falling cane prices. For example at one mill, due to operating costs and debt payments there were cases where farming associations failed to make money in their first year, something not expected by the smallholders.[79]

There are also growing concerns among growers about the lack of price transparency. The reason for this is that, unlike many other industries that have similar arrangements, there is no grower representative on the Mozambican Sugar Producers' Association (APAMO) or DNA (the single desk marketing body, which markets all the industry's sugar). As a result, growers rely on the milling companies to provide information about the price at which their sugar is sold. This is important because the cane price they receive is based on a revenue sharing formula where they receive a percentage of the revenues from sugar sales.

This problem is exacerbated by the fact that there is reportedly a lack of communication between millers and growers about the cost of the various operations that millers carry out on behalf of the growers. This results in dissatisfaction when these costs are deducted from the cane price. This also raises the issue of the future organisation of the industry. CEPAGRI are currently mediating between growers and millers and, in the long term, want to establish a national cane growers association, which would have a seat on the APAMO board.

Land tenure also is a potential problem. All land is owned by the Mozambique state, however it is possible to get the right to a plot via possession of a DUAT (Direito de Uso e Aproveitamento da Terra). These cannot be brought or sold, but can be passed down within a family or can be acquired after 10 or more years of farming. Alternatively, they can be acquired by receiving an approval from the relevant authority for the area, however this is a long process and many lack the resources to devote to this.

[78] EU Report, dated 16/12/09 (title to be confirmed)
[79] National Authorising Office for Mozambique-EU Cooperation

A technical assistance report commissioned by the EC recommended that all farmers acquire a DUAT for the land within their plots[80], however due to the difficulties listed above many have failed to do so. As cane fields have a greater value than the surrounding land this lack of clear ownership has the potential to result in disputes in the future.

3.3.3 *Capacity building*

As a complement to the smallholder development scheme, the EU funded the establishment of farmer associations. These have helped to provide economies of scale in representing smallholders and training was provided in both farming and business pursuits. CEPAGRI is also working towards the establishment of regional and national cane growers associations, with representation on the APAMO board.

Alongside this, funds were provided to complement spending by mills on developing their workforce and to allow the substitution of expatriate labour with domestic workers. However, the numbers who underwent training were smaller than initially hoped for, and there are concerns that not enough people went through schemes to ensure that skills get passed down and spread among the associations and mills. While there are associations that have taken responsibility for their own operations, others remain reliant upon the mills for their day to day affairs. This lack of knowledge has partly led to the complaints about cane payments, as members lose track of the costs of running their farms.

3.3.4 *Social services*

Social services spending under Phases I and II supported many measures already targeted by milling companies, for example via collaboration on the HIVAIDS programmes, anti-malaria campaigns, health infrastructure upgrades and the purchase of an ambulance to name a few.

While these measures were universally viewed as having a positive impact, there were concerns that the lack of government involvement meant that there were not sufficient resources to ensure the projects would be sustainable, now that EU funding is finished.

4 Current situation & prospects

4.1 Current situation

Since 2006, the industry has expanded production, with two of the four mills expanding capacity in order to allow them to benefit from greater economies of scale. However, production has fallen short of the 0.5 million tonne target set out in the NAS. Moreover, two of the industry's mills are still struggling to boost production and are operating well below full capacity. This has created a dichotomy within the industry between the two mills in the south (Xinavane and Maragra) which are performing well, and the two in the north (Mafambisse and Marromeu), which still face significant challenges.

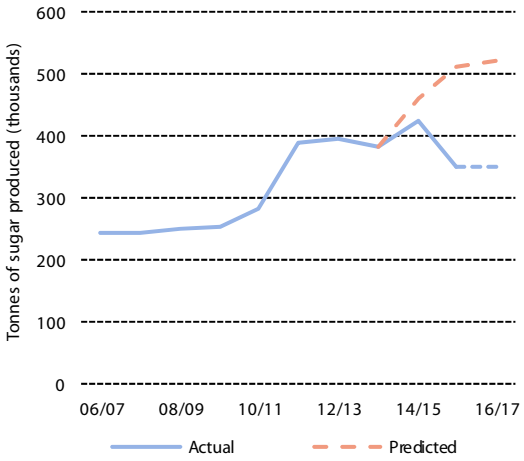
EU reform means that the industry will rely more heavily on its domestic market than it has in the past. Until recently, the domestic market has presented a problem for the industry, with large amounts of imports entering the market. A new pricing policy has improved this situation, however, although it has also resulted in higher domestic sugar prices for local consumers.

[80] Technical Assistance and Monitoring Report, December 2015.

4.1.1 *Production shortfalls*

The industry has not managed to expand to the extent that was originally planned. This is demonstrated by Diagram MOZ.4, which compares actual production with that forecast a few years ago. There a number of reasons behind the shortfall.

Diagram MOZ.4: Actual production vs. forecast in 2014



Source: APAMO/DNA.

- ***Drought***. The most recent challenge facing the sector is the current drought, which is affecting agriculture across southern Africa. As a result, production fell to less than 350,000 tonnes in 2015/16, and, as of March 2016, is expected to remain around that level in the 2016/17 season as well.
- ***Production issues***. Marromeu and Mafambisse are still operating below full potential. Additionally the Maragra expansion has been slower than expected.
- ***Lack of new projects***. There have been many new projects under consideration in Mozambique that would have added to production. However, difficulties getting funding and less favourable market conditions have meant that none of these have gone ahead. A good example of this is the Massingir project, which would have involved the construction of a large mill capable of producing 450,000 tonnes, with the potential to expand further. However, it has recently been announced that this will not go ahead.

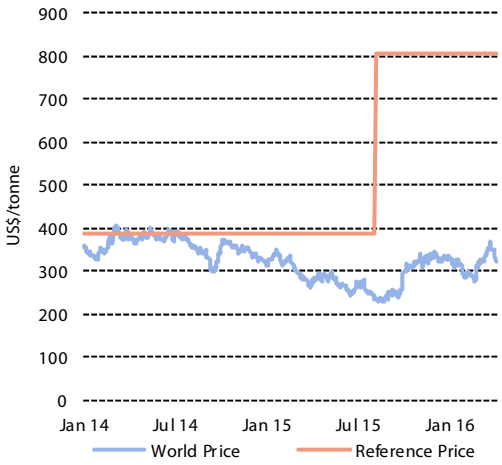
4.1.2 *The domestic market*

Despite being a surplus producer, Mozambique sugar prices are maintained at levels above the world market equivalent by a sugar pricing policy. This policy provides support to the investments made to rehabilitate the Mozambican sugar sector, and is designed to protect producers from the low level and volatile nature of the world sugar price. Prices are supported by the application of two duties on sugar imports:

- *Basic tariff:* A duty of 7.5% is applied to the c.i.f. price of imports.
- *Variable duty:* An additional variable surcharge is also applied. As world prices fall, the variable duty rises, thereby raising and stabilising the price of imported sugar on the domestic market. In principle, the variable duty makes up the difference between the tariff-inclusive c.i.f. price and the reference price.

Between 2001 and 2015, the basic tariff and variable duty are applied to bring domestic prices in line with the institutional reference price, which is set at US$385 per tonne for raw sugar, and US$450 per tonne for white sugar. In addition, sugar is exempt from value added tax (VAT). However, low prices in 2015 resulted in a sharp inflow of sugar into the country from a wide range of origins including Thailand, India as well as neighbouring Swaziland. In response, the government acted, raising the reference price to US$806/tonne for raw sugar and US$932/tonne for white sugar. The level of the reference price in relation to world market prices is demonstrated in Diagram MOZ.5. The sharp increase in reference prices was justified on two grounds:

Diagram MOZ.5: white sugar reference price vs. world white sugar price



Source: Inter Continental Exchange.

- 'Unfair' competition from major exporting countries that offer support to their own industries, such as India, Thailand and Brazil.
- The high level of social services provided by the industry to their surrounding communities.

4.2 Prospects for the sector

Going forward, the industry is looking at different ways to continue to adapt to the changes in the EU sugar market. These are (a) improved regional market access and (b) value adding to sugar or sugar by-products.

4.2.1 *Challenges – market access*

Given Mozambique's heavy exposure to the EU market, having access to alternative markets where they can achieve a premium over the world price is critical to the future profitability of the sector, including smallholders. While Mozambique will continue to have preferential access to the US market, the quantity is limited to just 13,690 tonnes. To achieve this, regional integration will play an important role giving them access to markets under a tariff preference.

Mozambique is a member of the South African Development Community (SADC). However, SADC's status as a surplus sugar producing region means that the number of markets where it can achieve a premium over the world price is limited.

SACU. As a SADC member, Mozambique does benefit from preferential access to the SACU market. However, the tonnages are limited by quotas and the quantities are small. In 2015/16, Mozambique was allocated access totalling 8,275 tonnes.

SADC is a surplus sugar producing region. Therefore, while Mozambique has duty-free access to Zambia and Malawi, neither country issue import licences to allow sugar to come in because they already produce more than their domestic requirements.

Tripartite Free Trade Agreement (TFTA). Looking ahead, a move towards free trade (including the removal of non-tariff barriers) in the region would benefit Mozambique. However, this is now being pursued via the TFTA which involves a huge number of countries and progress so far has been slow. The region is also pursuing the Continental Free Trade Area (FTA). However, again, the achievement of this goal is likely to be a long way off.

4.2.2 *Potential opportunities*

One option that the industry is actively considering is to diversify within the sugar sector, by adding value to sugar and sugar by-products.

Cogeneration. There is legislation providing preferential prices for renewable energy. However, the tariff for electricity produced from cane is not attractive. While some mills are exporting some power to the national grid, the quantities are currently small and not making a significant difference to the profitability of the sector.

Adding value to sugar. In addition to electricity, the industry is exploring ways to add value to sugar. These include the production of speciality (e.g. Demerara), organic and Fairtrade sugars. However, the industry is conscious that many other industries are also looking at these opportunities. Given that all industries are capable, in theory, of producing these types of sugar, it is questionable whether they will offer attractive opportunities in the future.

Ethanol. Opportunities to produce ethanol currently look limited. In 2010, the government approached the industry, asking it to produce fuel ethanol to produce an E-12 blend. However, this was not backed up with the necessary legislation to give the industry some certainty about the returns it would get from such an investment. Currently, there is no policy towards the fuel ethanol sector and no protection from Brazilian imports. As a result, no one has invested and is unlikely to do so until a clear supportive policy is in place. This highlights a problem with fuel ethanol. With oil prices at low levels, the government would have to support ethanol prices at artificial levels and result in consumers paying higher prices for their fuel.

5 Conclusion

The AMSP made a contribution to meeting three of the five objectives of the NAS. However, the level of funds available was too small to have a significant impact on the future viability of the industry. Moreover, while significant investments have been made within the sector, the industry has not succeeded in meeting the objectives of expanding production to 0.5 million tonnes, or reducing production costs to the level envisaged.

The major challenge facing the industry is accessing markets where it can achieve a premium over the world price to sell its surplus sugar. This hinges critically on the success of TFTA. However, TFTA negotiations have only just started, there is a long way to go before an agreement is reached, and the Mozambique government has yet to commit this this process. It therefore seems certain that, in the first few years after reform, Mozambique will be more exposed to the world price. In this situation, the higher level of price support in the domestic market will act as a boon to the industry, although it will be the Mozambique consumer, rather than the consumer in the EU, who will be paying a higher price for their sugar to support the local industry.

Moreover, post 2017/18, the industry will face a more competitive market place and will need to be able to compete with other global producers in Brazil and Thailand, who, generally speaking, do not provide social services for their employees. The future provision of these services could also be an area of concern going forward.

Annex 2.10: Swaziland

List of abbreviations

AAP	Annual Action Programmes
ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol
COMESA	Common Market for Eastern and Southern Africa
EU	European Union
GDP	Gross Domestic Product
FTA	Free Trade Area
LUSIP I	Lower Usuthu Smallholder Irrigation Project
MEPD	Ministry of Economic Planning and Development
MIP	Multi-Annual Indicative Programme
NAS	National Adaptation Strategy
RDMU	Restructuring and Diversification Management Unit
RSSC	Royal Swaziland Sugar Corporation
SACU	Southern African Customs Union
SADC	South African Development Community
SWADE	Swaziland Water and Agricultural Enterprise
SCGA	Swaziland Cane Growers Association
SEC	Swaziland Electricity Company
SSA	Swaziland Sugar Association
TFTA	Tripartite Free Trade Agreement

List of persons/organisations met

During the period 21st to 25th March, the consultants met with the following persons:

Organisation	Name	Position	Contact Details
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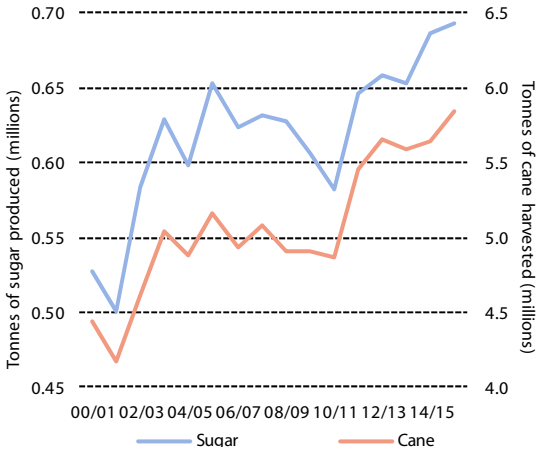
1 Overview of the sugar sector

1.1 Production and sales

The Swazi sugar industry is recognised as being a low cost sugar producer. The sector produces around 600-700,000 tonnes of sugar each year. With a population of around 1.3 million people, the domestic sugar market is small, meaning that the vast majority of sugar is exported. Diagram SWA.1 shows the trend in sugar production over the last twenty years and shows that output has gradually been rising. Diagram SWA.2 shows that this has been achieved principally through an increase in the area under cane, while productivity has been maintained at around 12-13 tonnes sugar/hectare, which is high by international standards.

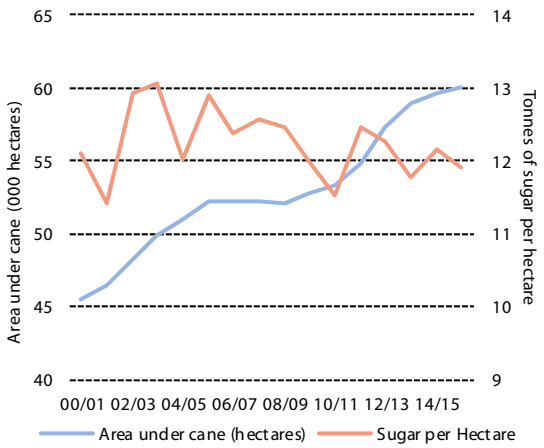
The industry consists of three sugar mills owned by two companies. Around half of the cane area is farmed by these companies. The other half is farmed by around 450 independent growers. Approximately 350 are small-scale growers, holding lands of less than 50 hectares, with the remainder being held by medium and large-scale farmers.

Diagram SWA.1: Cane and sugar production



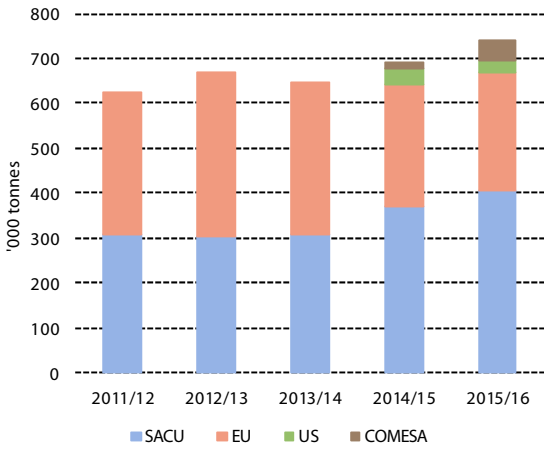
Source: Swaziland Sugar Association (SSA) website.

Diagram SWA.2: Evolution of cane area and yields



Source: SSA website.

Diagram SWA.3: Sales by market



Source: SSA website.

Diagram SWA.3 summarises where this sugar has been sold over the last five years. The Southern African Customs Union (SACU) and the EU represent its most important markets.

- Swaziland sells between 300-400,000 tonnes into SACU each year. Most of this sugar is sold in the domestic market and South Africa.
- EU sales have totalled between 260-360,000 tonnes per annum, averaging 45% of output over the last five years.
- In the last couple of years, Swaziland has also sold some sugar to the US market, where it has a small allocation.

1.2 The socio-economic contribution of the sugar sector

The sugar industry plays a critical role in Swaziland's economy (Table SWA.1). In addition to its contribution to Gross Domestic Product (GDP), export earnings and employment, it also creates opportunities for small-scale growers to take part in a formal sector and generates multiplier effects in the economy as a whole, particularly in rural areas. Furthermore, the sugar milling companies play an important role in the provision of key social services such as education and healthcare in the communities where they are based.

Data suggests that there has not been a significant change in the sectors contribution to GDP over the last decade, with the sector contributing 14% of national income in 2006.

While the contribution of the sector is largely positive, the sugar sector is also recognised as a heavy water user, which diverts resources away from other uses during times of water scarcity.

Table SWA.1: The socio-economic contribution of the sugar sector, 2013

% of Agricultural GDP	73%
% of GDP	13%
% of Agricultural Employment	35%
% of Industrial Employment	18%
% of Total exports	16%

Source: Swaziland Sugar Association, Central Bank of Swaziland.

2 National Adaption Strategy (NAS)

The 2006 National Adaptation Strategy (NAS)[81] lists three pillars:

- To support the restructuring needs of the sugar industry while ensuring a continuous programme of productivity and efficiency improvements.
- To preserve the viability of smallholder farming and to ensure they remain viable going into the future.
- To work towards preserving the value of trade and developing access to preferential markets.

In addition, the strategy highlighted the need to minimise the impact of the declining value of sugar exports, both by supporting diversification and by ensuring the provision of social services to those who were dependent upon the sugar industry for their provision. A first round impact evaluation of the NAS was conducted in 2014[82], with a final report planned for 2017.

3 AMSP

The AMSP was designed to support the NAS with coping with the EU sugar market transition, and had a particular focus on poverty reduction. In total, the EU provided €120 million out of the estimated €300 million that was required over the lifetime of the NAS.

[81] Source: National Adaption Strategy, 2006.
[82] National Adaptation Strategy First Round Impact Evaluation Report, 2014.

3.1 AMSP projects

The AMSP funded a variety of projects over its duration, summarised below.

3.1.1 *2006 expenditure*

Initially the AMSP support was based around providing institutional capacity development for the NAS, with the creation of a Restructuring and Diversification Management Unit (RDMU). This was tasked with supervising and developing the priorities of the NAS alongside the government and undertaking feasibility studies for the next stages. €4.70 million was provided in the 2006 funding agreement to achieve this aim, although €4.56 million was actually contracted and spent.

3.1.2 *Projects funded under Multi-annual Indicative Programme (MIP) I*[83]

MIP I had four specific objectives:

- To help improve sugar production and its viability by providing assistance to small - scale sugarcane growers.
- To identify and make operational an alternative model for providing social services that was previously provided by the sugar industry.
- To improve transport infrastructure from the production areas to the mills.
- To support economic diversification in the sugarcane growing areas through crop diversification (research, trials and pilot projects) and the development of Economic Activities.

An allowance of €69.9 million was provided by the EU to fund these objectives. However, due to low contracting rates in the 2006 and 2007 Annual Action Programmes (AAP), the funding allocations for 2009 and 2010 were reduced by a total of €11.1 million. However, an increase in the rate of contracting allowed the country to benefit from a €2.6 million increase in 2010.

Table SWA.2 summarises the funds that were allocated to each project area in the initial budget as well as what was spent as of 25/01/2016. MIP I included no allowance for the technical assistance within its allocated funds, as this was provided by the RDMU under the 2006 funding.

However this allocation was adjusted over time. The removal of EU quotas for Swazi sugar allowed exports and revenues to increase sharply, raising confidence within the country about the future of the sugar industry. This confidence led largely to the abandonment of diversification plans, and the focus on social services was shifted to ensuring the future viability of the sugar industry so that mills could continue to afford their provision.

Table SWA.2: Budgeted and spent funds under MIP I (€ million)

	Budgeted	Spent
Smallholder development	25.0	26.2
Social services support and restructuring	11.0	0.0
Transport infrastructure projects	21.9	23.0
Diversification research and support	5.0	0.0
Supporting retrenched workers	6.0	0.0
Coordination of the AMSP	1.0	0.3
Total	**69.9**	**49.5**

Note: Spending was based upon data current as of 25/01/2016, however a few items were yet to finish and so final spending may rise.

[83] Multi-Annual Indicative Programme (MIP) for Swaziland under the AMSP (2007-2010).

3.1.3 *Projects funded under MIP II*[84]

Following the experiences of MIP I the priorities were adjusted, leading to the MIP II having three priorities:

- Institutional support for implementation of the NAS.
- Improving the productivity and efficiency of smallholder sugarcane growers.
- Improving infrastructure in production centres, sugar estates and transport chain.

An allowance of €54.3 million was provided to cover these objectives. Table SWA.3 summarises the funds initially budgeted to different project areas under MIP II, as well as how much has been contracted as of 25/01/2016.

Table SWA.3: Budgeted and contracted funds under MIP II (€ million)

	Budgeted	Contracted
Smallholder development	19.5	23.9
Transport infrastructure projects	26	21.0
Technical Assistance	5.5	5.8
Audit, evaluation, visibility and contingencies	3.3	0.9
Total	**54.3**	**51.5**

3.2 Delivery modalities

Swaziland is not eligible for budgetary support so project funding was the modality through which the AMSP funds were released. This was done in two different ways:

- ***Centralised funding***. In the early years of the AMSP, the contracting authority was the EU delegation. However, stakeholders reported that this resulted in the slow release of funds. While this was partly due to EU contracting procedures, it also reflected the limited capacity within the EU delegation and the difficulties dealing with the delegation located in Lesotho during the early years of the AMSP. Moreover, the AMSP approximately doubled the EU budget for expenditure in Swaziland, but was not accompanied by a significant change in the number of staff employed at the delegation.
- ***Decentralised funding***. The problems highlighted above resulted in funding being decentralised to the Ministry of Economic Planning and Development (MEPD), which became the contracting authority. However, most stakeholders did not think that this resulted in a dramatic change in the speed of implementation because EU approval was still needed to release funds in discreet tranches for different project activities. More recently, a 'call for proposal' system has been employed, with AMSP funds being made available upfront and bank guarantees being supplied by the contracted parties. The consensus view is that this has made a significant difference to the speed of implementation. However, one negative aspect is that only those with access to capital to supply bank guarantees have been able to apply for funding. In practice, this has meant that only the milling companies have been able to bid for projects.

3.3 Strengths and weaknesses

Table SWA.4 summarises the key strengths and weaknesses of the AMSP that were reported by stakeholders. Further detail is provided below.

[84] Multi-Annual Indicative Programme (MIP) for Swaziland (2011-2013). Accompanying Measures for Sugar Protocol Countries (AMSP).

In general, the AMSP are perceived as a success by the key stakeholders in Swaziland. One particular strength was that the AMSP was only one source of funds being used to develop the sector, with the industry and government also contributing. For example, to develop the Lower Usuthu Smallholder Irrigation Project (LUSIP I), the government invested around €1.5 billion in dam construction while the Ubombo mill invested €1.3 billion in order to expand its capacity to accommodate the additional cane. AMSP funds where then used to develop smallholder projects to increase cane supply.

On the negative side, initially slow procedures associated with the release of AMSP funds was perceived to hinder progress towards project goals and contributed towards a reduction in Swaziland's allocation by around €11.1 million. For example, the supply of cane from LUSIP was much slower than originally expected, leaving Ubombo with under-utilised capacity in some years. Moreover, the absorption capacity in both the EU delegation and the MEPD was low.

Table SWA.4: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General • Funding complemented government expenditure on dams and private sector investments.	**General** • Capacity constraints at both the EU delegation and MEPD when implementing the projects. • Slow implementation.
Smallholder developments • Improved living standards of those who received funding, and had a multiplier effect on the surrounding area. • The most successful projects succeeded in repaying bank loans within a few years. • Increased throughput at the mills helped to lower fixed costs. • The Swaziland Water and Agricultural Enterprise (SWADE) and the milling companies supported implementation of the smallholder developments. • Cost sharing ensured project ownership and improved success rate.	**Smallholder developments** • Focus on horizontal expansion at the expense of existing growers. • Financial performance of the farmer companies has been highly variable with some disagreement within companies. • Lack of diversification towards other crops. • Difficulties using South African inputs/contractors. • Projects undermined by government taxation rules. • Not enough to get members out of poverty alone in many cases.
Infrastructure • Infrastructure improvements have helped to boost farm revenues and improve local transport links.	**Infrastructure** • Focus was on the areas with new growers. • Funds often spent on large scale infrastructure projects, rather than those benefitting farmers themselves.
Technical Assistance • Technical assistance has helped boost capacity at MEPD, the Swaziland Cane Growers Association (SCGA) and other local institutions.	**Technical Assistance**

3.3.1 *Smallholder developments*

It is estimated that the AMSP has helped support the development of around 4,473 hectares of smallholder cane land[85]. This accounts for around 7.5% of the total area under cane. The expansion of cane area has increased the throughput of the three sugar mills, improving the

[85] Estimate of cane area developed under MIP I and MIP II provided by SSA.

competitiveness and helping to lower unit costs in the industry, which was a key objective of the NAS.

The farms were developed on Swazi Nation Land, which would not have been possible without grant finance because of the lack of land tenure making it difficult to get private loans. Furthermore, an evaluation report has shown that smallholder schemes have had a clear positive impact on living standards. These included incomes, quality of accommodation, child malnutrition and incidences of poverty[86]. Additionally the developments had a multiplier effect on the surrounding area, with shops, banks and other services opening based upon the new demand in two new towns (Siphofaneni and Phumulamcashi). However, while the benefits of the project were important for its members they did not eliminate poverty or food insecurity entirely. Many smallholders currently undertake additional employment or invest in other sources of revenue to provide for their families.

From an individual farm perspective, most have been successful. The planned payback period for loans was six years, however the best performing farm companies managed to clear their debts in a few years and have started building reserves. Most stakeholders believed that cost sharing under the adopted 70% grant 30% loan ratio ensured that projects were owned by the beneficiaries and helped ensure that only the viable projects went ahead. However, the experience of farming companies has been variable, many have succeeded but a small number have amassed heavy debts or been blighted by disagreements and infighting.

Finally, in terms of implementation, SWADE has played a key role, working closely with the EU, millers and local chiefs to support the smallholder developments.

However the smallholder projects have faced some problems and challenges.

- Some stakeholders felt that there was too much focus on expanding smallholder schemes while those in operation were not supported. Moreover, some of the new land developed was far from the mills and on more marginal lands.
- Another issue was the lack of diversification into other crops. During the period of implementation, cane offered the best return to farmers and this resulted in very little interest in growing other crops. Moreover, the lack of a developed value chain for other crops may also have acted as a disincentive. However, one suggestion was that a portion of the funds in each project could have been assigned to providing a small plot to grow crops for personal consumption rather than all funds being available for either cane or alternative crop development.
- In terms of implementation, during the project the accession of South Africa to the G20 prevented issuing contracts to the country under EU aid regulations. This was a serious problem for Swaziland where other bids were much more expensive, and resulted in payments to South African contractors not being reimbursed. However a waiver was later granted.
- An ongoing problem facing the projects is the current tax policy. Smallholder farms are grouped together into companies to allow them to benefit from economies of scale. However, under tax law this means they are treated as companies and have to pay business tax at 27.5%, plus an extra 10% on dividends. This is widely viewed as inequitable since dividends to growers are far below the individual tax threshold of E41,000/year. This significant tax burden has reduced the extent to which the projects have boosted the income of the beneficiaries.

[86] National Adaptation Strategy First Round Impact Evaluation Report, 2014

3.3.2 *Infrastructure developments*

Infrastructure developments were widely praised, allowing both the new farmers and others in their community to make use of good quality roads even during heavy rains. While the new roads have not reduced haulage costs, since hauliers base their rates principally on distance, the new roads have been successful in reducing the time between cane burning and delivery to the mill (the so-called burn-to-crush time) for the smallholders. This means that farmers are delivering higher quality cane to the mill, which increases the cane price they receive.

However, it was observed that the focus upon infrastructure for new farmers meant that existing farms closer to the mills did not benefit. Additionally the funds were often spent upon larger infrastructure schemes such as main roads and bridges rather than rural feeder roads. These had a lower administrative burden from a project funding perspective and benefitted general traffic. However, they also resulted in a more limited direct cost saving for smallholders when transporting their cane.

3.3.3 *Technical assistance*

Under MIP II, funding was made available to build capacity both within the MEPD and other local institutions. For example, the SCGA received an additional member paid for by the EU to support their small staff and strengthen their ability to lobby on behalf of the growers. The RDMU was dissolved and its members attached to the MEPD for the duration of the AMSP as part of this new approach.

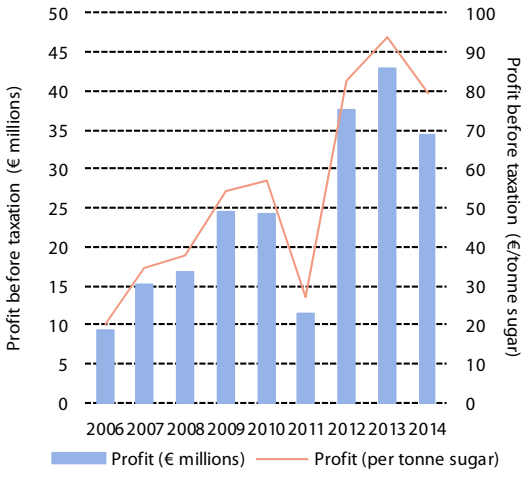
This support was praised. However, some stakeholders were concerned about the reliance of the EU on external consultants instead of making full use of the expertise already present within the milling companies and SWADE.

4 Current situation & prospects

4.1 Current situation

It is clear that the AMSP has played an important role in helping the sugar sector to improve its competitiveness. The investments made by the industry, government and the EU have increased cane supply has boosted throughput at the industry's mills, helping them to lower their fixed costs. Moreover, one milling company has plans to expand further, allowing it to benefit from additional economies of scale, which are an important source of competitiveness in sugar milling.

Diagram SWA.4: Royal Swaziland Sugar Corporation (RSSC) profit before taxation



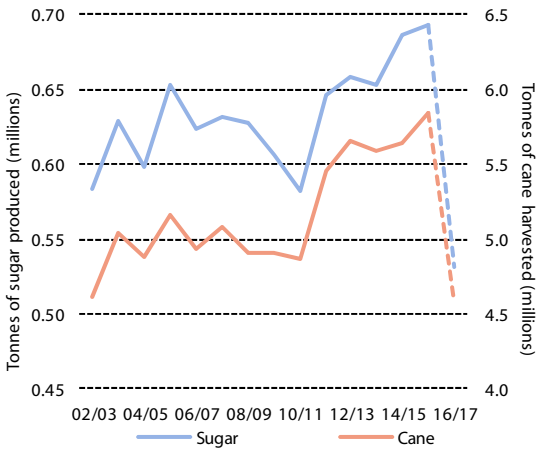
Source: RSSC Annual Reports (converted to euros using prevailing average annual exchange rates).

The milling sector has also been making efforts to reduce unit cost to ensure their long term competitiveness. One milling company has used retrenchment programs to reduce labour costs which involved 3,000 workers losing their jobs, and is currently running a voluntary retrenchment scheme.

Financial reports posted by the RSSC show that profits before taxation have been increasing up to March 2014 (Diagram SWA.4) although they are likely to have fallen in 2015 due to lower prices in the EU market.

Nevertheless, the current situation facing the sugar sector is particularly challenging. The industry is facing a third year of drought, which is expected to have a significant impact on production in 2016/17. Around 3,000 hectares of land has been killed by the dry conditions. This, together with lower yields for the industry as a whole, is currently expected to reduce sugar output significantly (Diagram SWA.5). This cane land that was lost was not owned by smallgrowers, but the income of many growers will still be negatively affected by lower-than-normal yields this year. Moreover, depending on rains, the drought could impact on output in 2017/18 as well. This means that the industry could face the challenge of EU reform at a time when both growers and millers will be experiencing difficult conditions.

Diagram SWA.5: Production outlook



Source: SSA website, industry estimates (March 2016).

(a) If irrigation water is still limited in 2017/18, some growers will not be achieving normal yield levels. This would exacerbate the impact of lower prices in the EU on income they derive from their cane land.

(b) The mills could still be operating below full capacity, which will inflate their fixed costs, lowering profitability at a time when prices could be falling.

4.2 Prospects for the sector

Going forward, the industry is looking at several ways to continue to adapt to the changes in the EU sugar market. These are (a) improved regional market access (b) industry reorganisation and (c) value adding to sugar or sugar by-products.

4.2.1 *Market access*

Given Swaziland's heavy exposure to the EU market, having access to alternative markets where they can achieve a premium over the world price is critical to the future profitability of the sector, including smallholders. While Swaziland will continue to have preferential access to the US market, the quantity is limited to just 17,000 tonnes. To achieve this, regional integration will play an important role giving them access to markets under a tariff preference.

Swaziland is a member of SACU, the South African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA). However, with the exception of SACU, the number of markets where it can achieve a significant premium over the world price is limited.

SACU. Swaziland has unlimited duty-free access to the SACU market. In the last few years, it has sold around 300-400,000 tonnes of sugar into this market each year. The market is protected by a duty which is set in accordance with a reference price set at US$566/tonne, which supports domestic prices. However, in normal times, SACU is a sugar surplus region. This means there is a limit to how much sugar can be sold into the market without depressing prices.

SADC is a surplus sugar producing region. Therefore, while Swaziland has duty-free access to Zambia and Malawi, neither country issue import licences to allow sugar to come in because they already produce more than their domestic requirements. Mozambique has recently introduced a duty based on a reference price, which applies to all sugar, including that produced within SADC, and effectively prevents imports. One deficit country in SADC is Tanzania. However, Tanzania currently applies a 25% duty on imports from other SADC members, which is the same as the tariff applied on sugar from world market origins.

COMESA. Because Swaziland is also a member of SADC, it has a special derogation to be part of COMESA, benefiting from non-reciprocal access to COMESA markets. This gives it preferential access to the Kenyan market, which is deficit. However, because of its non-reciprocal status, it must pay a 10% duty on COMESA imports compared to 0% for other COMESA members. Moreover, non-tariff barriers often make it difficult for Swaziland to take advantage of the opportunities in this market.

Looking ahead, a move towards free trade (including the removal of non-tariff barriers) in the region would benefit Swaziland. However, this is now being pursued via the Tripartite Free Trade Agreement (TFTA) which involves a huge number of countries and progress so far has been slow. The region is also pursuing the Continental Free Trade Area (FTA). However, again, the achievement of this goal is likely to be a long way off.

4.2.2 *Diversification within sugar*

One option that the industry is actively considering is to diversify within the sugar sector, by adding value to sugar and sugar by-products.

Cogeneration. Both milling companies have invested in electricity generation capacity. RSSC is broadly self-sufficient in energy use (including its irrigation systems) and Ubombo exports power to the national grid under a 15 year purchase power agreement with Swaziland Electricity Company (SEC). The quantity is equivalent to around 10% of Swaziland's internal generation capacity. Moreover, the prospects for further investment look promising; while the electricity prices offered by SEC are currently not sufficiently attractive to justify further investment, most of Swaziland's electricity comes from South Africa. The South African electricity provider, Eskom, has limited capacity and has recently served notice to Namibia. Swaziland's contract runs until 2025, but there is some concern about future supply. This is likely to create a more attractive environment for further investment in electricity generation in the sugar sector.

However, one issue facing the industry is that growers do not participate in the revenue generated from electricity. It is not part of the revenue sharing formula, and millers have taken the view that since they have invested large sums to produce electricity, they need to recoup their investment, so do not currently share the revenue with the growers. This issue is linked to the future organisation of the industry and is discussed further below.

Ethanol. Some stakeholders raised the question of ethanol, which could be used to help fuel Swaziland's car fleet. However, it is not clear that this represents a viable opportunity. All of the industry's molasses is already used to produce potable ethanol. This means that additional output would have to be produced from cane juice. With oil prices at low levels, for this to be viable, the government would have to introduce policy to support ethanol prices at artificial levels. While this could help reduce the export exposure to the industry, it could also result in consumers paying higher prices for their fuel.

Pre-pack. One milling company is considering investing in pre-pack sugar in order to capture a larger portion of the household sugar market in South Africa. This will allow them to capture greater value than selling bulk sugar to existing pre-packers. However, as we discuss below, these developments are influenced by the organisation of the industry, which the milling companies would like to change.

4.2.3 *Industry reorganisation*

The sugar industry is currently bound by the Sugar Act (1967) and the Sugar Industry Agreement (1968). Under these agreements, all sugar is marketed through the SSA on behalf of millers and growers, who are both represented on the board. The Association ensures price transparency, which is important because the cane price received by growers is determined by a revenue sharing formula, under which they receive 68.1% of the sugar and molasses revenue.

In light of the EU reforms, the milling companies are aware that they will operate in a commercial environment where prices are determined by market forces, rather than policy. In light of this, both milling companies would like to market their own sugar rather than it being done on their behalf. As part of this move, growers could benefit from value adding activities as the price they receive would be linked to the activities of the company they deliver to rather than the industry average. However, at this stage, growers are not willing to enter into such an arrangement meaning that that status quo has prevailed.

4.2.4 *Water availability*

The severity of the current drought has raised concerns about future water availability of the industry. Further investment in water storage and water harvesting may be required to ensure sufficient irrigation water going forward.

5 Conclusion

The AMSP have contributed to meeting two of the key pillars of the NAS; namely to support the restructuring needs of the sugar industry in terms of productivity and efficiency improvements, and to promote the viability of smallholder farming.

The improvement in the efficiency of the sugar industry has increased the average mill size, supporting greater economies of scale, but capacity utilisation has kept up (albeit lagged) thanks to the expansion of the cane area, which was supported by AMSP funded smallholder projects.

The viability of smallholder farming has also been enhanced by the investment in road infrastructure and capacity building funded by the projects. The NAS review also points to the contribution of the smallholder projects to the reduction of poverty.

However, one aspect that was not addressed was the heavy reliance of the economy on the sugar sector. The lack of diversification means Swaziland is still heavily sugar dependent. While this was originally stated as an objective under MIP I, it was not achieved. While the sugar sector has worked hard to secure its long term viability, from a national perspective, the risk of relying heavily on one sector is highlighted by the current drought and the impact that it looks set to have on sugar production in the next two years. This means that the industry will head towards 2017/18 in a weakened position from where it had hoped to be.

While the industry will continue to achieve cost savings to ensure its continued profitability, there is a risk that some of the social services that are currently provided by the industry could be affected in the future. Originally, one objective under the AMSP was to take these services out of industry hands. However, the inability of the government to fund these services has meant that they have remained with the industry, with AMSP funds used to provide its future viability. Post 2017/18, the industry will face a more competitive market place and will need to be able to compete with other global producers in Brazil and Thailand, who, generally speaking, do not provide these services. The future provision of these services is an area of concern going forward.

The third pillar of the NAS was to preserve the value of trade and to develop access to preferential markets. While the AMSP did not explicitly target this objective, market access will be critical to mitigating the impact of EU market reform. However, this will hinge upon the successful negotiation of the TFTA, which involves a huge number of countries, and Swaziland is only a small player at the negotiating table.

Annex 2.11: Zambia

List of abbreviations

ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol countries
COMESA	Common Market for Eastern and Southern Africa
EC	European Commission
EU	European Union
EDF	European Development Fund
GDP	Gross Domestic Product
MCGT	Magobbo Cane Growers Trust
MIP	Multi-annual Indicative Programme
NAS	National Adaptation Strategy
NGO	Non-Governmental-Organisation
SEA	Strategic Environmental Assessment
SADC	South African Development Community
TFTA	Tripartite Free Trade Agreement
ZNSS	Zambian National Sugar Strategy

List of Persons/Organisation met

The project did not include a field mission to Zambia. A questionnaire was distributed to stakeholders via the ACP Secretariat. The questionnaire has not yet been returned by government, but it is expected that it will be returned shortly and any additional information will be incorporated into the final version of the report. We spoke to the following persons:

Organisation	Name	Position	Contact Details
EU Delegation	Matteo Sirtori	Head of Section "Rural Development, Economics and Regional Integration"	Matteo.SIRTORI@eeas.europa.eu
Zambia Sugar	Chembe Kabandama	Marketing Director	CKabandama@zamsugar.zm
Illovo Sugar Ltd.	Johann van der Merwe	External Affairs Manager	jvdmerwe@illovo.co.za

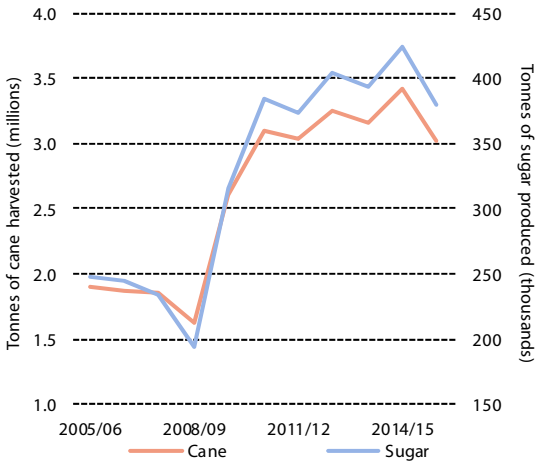
1 Overview of the sugar sector

1.1 Production and sales

Sugar production in Zambia is dominated by the Nakambala mill, owned by Zambia Sugar PLC, which accounts for over 90% of the country's production. Following its recent expansion, the mill has a capacity to produce around 450,000 tonnes of sugar, although current output is below this level. Over 40% of the mill's cane is supplied by independent farmers, some of which are small-scale growers. The current expansion of refining capacity at the mill will mean that it will be able to produce 100,000 tonnes of refined sugar in order to better serve the local market. The new refinery is expected to come on line this year.

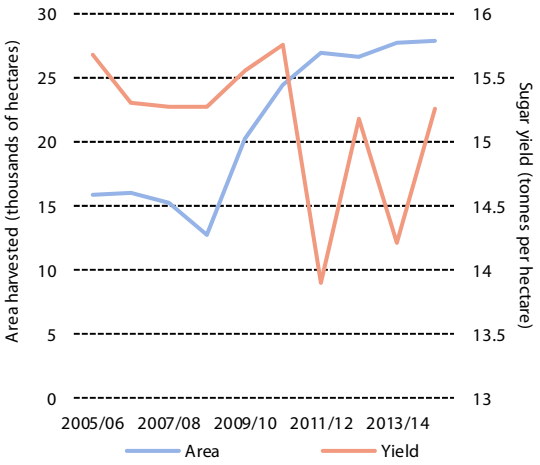
The remainder of Zambia's production comes from two small mills that produce around 35,000 tonnes between them. Due to their small size, detailed data on their production is not available and they have not been included in the diagrams shown below.

Diagram ZAM.1: Cane and sugar production



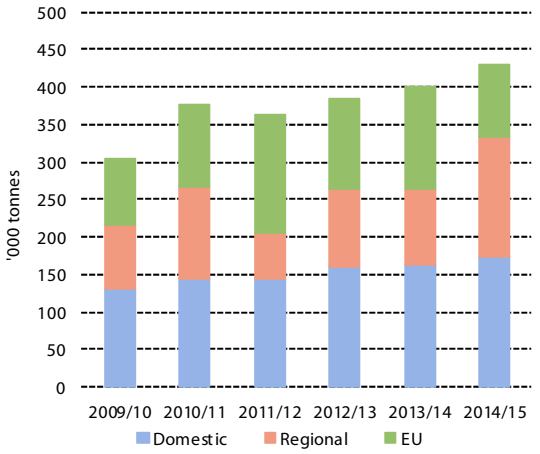
Source: Zambia Sugar PLC.

Diagram ZAM.2: Evolution of cane area and yields



Source: Zambia Sugar PLC.

Diagram ZAM.3: Sales by market



Source: Zambia Sugar PLC.

Domestic sales accounted for approximately 40% of Zambia Sugar's total sales between 2010/11 and 2014/15.

Over the same period, EU sales accounted for 32% of sales, which is the equivalent to around 120,000 tonnes.

However, in recent years the proportion of sugar being sold to the EU has been reduced, with more exports having flowed to regional markets such as Congo DR and Western Tanzania. In 2014/15, EU exports accounted for 23% of total sales, while regional sales increased to 37%.

1.2 The socio-economic contribution of the sugar sector

The sugar sector contributed around 2% to Zambia's Gross Domestic Product (GDP) in 2014[87]. While this figure is low compared to some other African, Caribbean and Pacific (ACP) countries, sugar nonetheless plays an important role in the country.

- Sugar accounts for 11% of agricultural GDP.
- Sugar provides a key source of employment in rural areas, where approximately 11,000 are employed[88]. All sugar sector employees are paid more than the national minimum wage and the World Bank's poverty line of US$2 per day.
- Employees are also entitled to benefits including housing, healthcare and education allowances which are also provided for family members[89]. The company also contributes to the provision of social services to the wider community including water supplies to the Mazabuka District[3].

2 National Adaptation Strategy (NAS)

The 2006 Zambian National Sugar Strategy (ZNSS) listed three key objectives and six priorities. The key objectives were to:

- Increase the contribution of the sugar sector to Zambia's socio-economic development.
- Increase the valued added to sugar and its by-products within the country and therefore the overall competitiveness of the industry.
- Improve the export infrastructure supporting the sugar and other export oriented sectors.

In order to achieve these objectives, six priorities were identified: (a) the expansion of sugar production through outgrower schemes (b) diversification into ethanol production for fuel blending (c) diversification into ethanol production for gel fuel (d) the improvement of the transport network and services (e) the development of a National Sugar Trade Policy and (f) private sector diversification for co-generation of electricity and the production of refined sugar products.

3 Accompanying Measures to Sugar Protocol countries (AMSP)

The European Commission (EC) response strategy sought to support the ZNSS across all six of its priorities listed above, in collaboration with both the public and private sector. However the EC opted for a stronger focus on how sugar expansion could help to alleviate poverty, particularly in rural areas, alongside improving the competitiveness of the industry and diversifying sugar production. It was initially expected to run across two concurrent Multi-annual Indicative Programmes (MIPs). However, in the end, only the 2007-2010 MIP was approved, with €6 million budgeted and €4.9 million spent overall (Table ZAM.1).

[87] Sources: Illovo Sugar, Zambia Socio-Economic Impact Assessment Internal Management Report, April 2014
[88] Source: Final Evaluation of the Accompanying Measures for the Sugar Protocol countries - Zambia
[89] Source: Zambia Socio-Economic Impact Assessment Internal Management Report

Table ZAM.1: EC funds allocated and spent under MIP I (€)

Accompanying measures 2006	434,127
Accompanying measures 2007-2010	4,478,891
Total	4,913,018

3.1 AMSP project areas

3.1.1 *2006 expenditure*[90]

An initial round of support was provided under the 2006 AMSP funding for the purpose of preparing for future spending and removing bottlenecks within the industry. The areas targeted were:

- Feasibility studies and co-funding of implementation measures for sugar cane outgrower schemes.
- Technical assistance and policy advice to the government (in particular the Ministry of Commerce, Trade and Industry and the Ministry of Energy and Water Development), to develop or adapt the national regulatory framework on issues related to diversification and energy and to trade policy.
- Feasibility studies and the design, review and preparation of tender documents in the transport sector for a subsequent funding of the works projects by 10th European Development Fund (EDF) resources.

However, due to delays in the signing of funding agreements, it was not until 2007 that funds were finally contracted and released. In total €434,127 was spent over the lifetime of the funding agreement.

3.1.2 *Projects funded under Multi-annual Indicative Programme (MIP) I4*

Following on from the targets of the 2006 funding, the MIP 2007-2010 initially aimed to focus on the following areas:

- Expansion of sugar production through the development of outgrower schemes.
- Improvement of the transport network and services.
- Diversification of production by initiatives on biofuel and the cogeneration of electricity.
- Development of a national sugar trade policy.

However, of these, only the first two were supported, with diversification and altering sugar trade policy left unfunded.

The primary areas of spending were €3,020,000 spent on a smallholder expansion under the Magobbo Cane Growers Trust, resulting in the planting of 434 hectares under irrigated cane. A loan was taken out to fund the remaining €1.5 million. A further sum of approximately €1,000,000 was spent on studies for the Luena road and the Chipata dryport[91], both of which aimed to reduce freight costs and improve the competitiveness of Zambia's sugar sector.

[90] Adaptation Strategy for Sugar Protocol Countries – Zambia, Multi Annual Indicative Programme for the Period 2007-2010
[91] Final Evaluation of the Accompanying Measures for the Sugar Protocol countries – Zambia, FWC1-201

Finally around EUR 400,000 was used for two feasibility studies and a strategic environmental assessment.

In total €4,478,891 was contracted and spent under the MIP 2007-2010 spending. When combined with the sum from 2006, this gives a final total of €4,913,018 spent out of the total allocation of €6 million, implying a loss of just over €1 million due to under contracting/spending of funds.

3.1.3 *Projects funded under MIP 2011-2013*[92]

In the run up to the MIP 2011-2013, the following three areas were proposed for funding at a cost of €4,752,000:

- An expansion of the Kaleya Outgrower scheme.
- A social education programme in three outgrower schemes in the Mazabuka area.
- A social and civic education pilot programme at Kalungwishi Estates.

However, after analysing the proposal, the EU Delegation concluded that the outgrower expansion should be taken up by the private sector because it had a rate of return that made a grant unnecessary. Moreover, the civic and social interventions could not be supported without a broader national programme. In addition, the impact on poverty reduction was questioned as well as the cost effectiveness of the schemes.

Because of this, the initial proposal was rejected, and the Government of Zambia asked to submit a new plan for the funding by March 2012. In the end no plan was submitted, and the 2011-2013 allocation for Zambia was reallocated to another country.[5]

3.2 Delivery modalities

Funding of AMSP activities was centrally managed by the EU delegation. The outgrower scheme was implemented under contract on the basis of a Grant Application proposed by the Magobbo Cane Growers Trust (MCGT). The project took two years to complete, commencing in October 2009 and was finished in September 2011.

3.3 Strengths and weaknesses

Table ZAM.2 summarises the strengths and weaknesses of the AMSP. Further detail is provided below.

[92] Programme Formulation of the Sugar Accompanying Measures 2011-2013 in Zambia

Table ZAM.2: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
General • The project was largely pro-poor as more than 70% of those people who benefitted were subsistence farmers.	**General** • Slow implementation of MIP 2007-2010 resulted in the loss of €1.1m • All MIP 2011-2013 funding was not committed due to the absence of a credible funding plan. • The AMSP was overly-ambitious given the small budget provided
Smallholder developments • Funding resulted in 434 hectares being developed under cane. • The Magobbo project has strong potential to sustainable.	**Smallholder developments** • Only 80 outgrowers benefitted from the project.
	Capacity building • Training and awareness programmes for HIV/AIDS and gender mainstreaming projects for outgrowers failed to occur.
Social service provision • The Magobbo Cane Growers Trust aim to help fund social projects including schooling, clean drinking water, and access to medical centres.	

3.3.1 *General*

Overall the projects funded by AMSP were largely viewed as successful. More than 70% of those people who directly benefitted from the Magobbo project were maize and cotton subsistence farmers earning US$600 per year. In this way, the scheme has improved living conditions for low income groups, which was a key objective within the AMSP.[93]

However the scale of the achievements in the overall context of Zambian production was small, owing to the small allocation received. Once at full capacity, the Magabbo project should produce approximately 6,500 tonnes of sugar. This is the equivalent to less than 2% of Zambian sugar output.

Additionally, during 2008-2011, the project was hindered by operational inefficiencies at the technical and institutional levels. This led to a decommitment of €1.1 million from the budget in May 2011, which reduced the project's budget to €4.9 million. Furthermore, MIP II did not receive any funding. There were significant inefficiencies and bureaucracy caused by having a number of different agencies brought in under the Ministry of Commerce, Trade and Industry, and this may have been a contributing factor to the slow delivery of the project.[7]

3.3.2 *Smallholder developments*

The Magobbo project is generally considered to be effectively designed and implemented. If there are no future irrigation problems and the project is managed well, reports indicate that there is potential for it to continue to be sustainable, both technically and economically.[7]

[93] Source: Final Evaluation of the Accompanying Measures for the Sugar Protocol countries – Zambia.

However, criticisms have been made that only a limited number of people were able to participate in this scheme, with the 80 people who benefitted being selected for possessing land titles. It was deemed that including outgrowers who did not have titles on land would not be possible. This meant that each outgrower was allocated approximately 5.4 hectares of land, which is larger than similar projects in nearby countries.

However, it should be noted that the outgrowers are personally responsible for repaying the €1.5 million loan that was taken out to fund the project from their earnings. It was estimated that these repayments could be in the region of €350 per hectare, per year. In addition, each outgrower is responsible for an average of 10 family members, with the new income from the project also benefitting extended families.[7]

3.3.3 *Capacity building*

Financial and operational management training and awareness programmes on HIV, AIDS, and gender mainstreaming as part of the Magobbo outgrower project failed to materialise. This training scheme is therefore planned to be undertaken using their own funds, or with assistance from other sources such as NGOs and existing government programmes.[7]

3.3.4 *Social service provision*

The MCGT plan to use revenue from 23 hectares of the outgrower scheme to provide funding for social infrastructure. This includes projects such as local health clinics, schools and clean drinking water.

4 Current situation & prospects

4.1 Current situation

The industry has moved towards meeting the goals set out in the NAS, which has involved a large scale expansion in sugar production and associated investment in cane area and milling capacity. The AMSP has contributed towards developing outgrower schemes, albeit a modest one. However, progress towards other objectives has been slower. Diversification into other product areas has been limited. Ethanol production has not yet begun because of a lack of a clear policy from government. Moreover, while the Nakambala mill is self-sufficient in energy, it does not export power to the national grid.

Nevertheless, Illovo Sugar Ltd., which is the largest shareholder of Zambia Sugar, has a clear strategy designed to maintain global cost competitiveness, diversifying profits and move away from bulk exports to the EU[94]. To achieve this last objective, the company will look to:

- Focus on regional market opportunities.
- Grow domestic market sales by increasing penetration and consumption levels. This includes a focus on tackling illegal imports.
- Target higher margin segments focusing on quality and packaging that distinguishes Illovo from the competition. This includes increasing the production of refined quality sugar for sale to industrial end users.

The objective is to allow Zambia to take advantage of the potential to capture the price differential between EU bulk and domestic/regional market pricing.

[94] Zambia Sugar Site Visit, October 2015.

As part of this strategy, the Illovo is investing in refined sugar production to improve its ability to meet demand from industrial end users. The refinery, which will be completed in 2016, will double the mill's refinery capacity to around 100,000 tonnes.

4.2 Prospects for the sector

Like Malawi, the Zambian sugar industry is better placed than many to offset the impact of EU reform. This is because it is a low cost sugar producer and has good access to geographically protected markets. Nevertheless, the industry currently sells 30% of its output to the EU and will have to find alternative outlets for this sugar. Although it is well-located to supply deficit markets in Central and East Africa, these are of limited size and will be targeted by other countries currently supplying the EU.

If the industry is unable to divert all its current sales to the EU to regional markets, it will have to incur high costs on exporting sugar to the coast for export. Moreover, as we discuss in the main report, opportunities to sell value added products such as Fairtrade sugar are also limited. This would be to the detriment of outgrowers, who would otherwise benefit from the Fairtrade premium of US$60/tonne of sugar.

4.2.1 *Regional integration*

As we have discussed, Zambia is well placed to supply geographically protected markets such as southern Congo DR and the Great Lakes region, where prices trade well above world market levels. However, its access to these markets would be enhanced by regional integration. Zambia is a member of both the South African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA) and is pursuing further integration under the Tripartite Free Trade Agreement (TFTA).

5 Conclusion

Overall, the AMSP appear to have had a limited impact in terms of helping Zambia achieve the goals set out in the NAS. In part, this was because of the modest funding allocation that was received by the country and the ambitious goals that were set. The contribution was limited further by the failure to secure funding for the activities under MIP II.

Nevertheless, the industry looks well placed to cope with reform. The private sector has made significant investments in the sector and has a clear strategy to mitigate the impact of EU reform. Its low cost structure and access to alternative markets means that the industry is better placed than many to cope if the EU market becomes less attractive in the future.

Annex 2.12: Zimbabwe

List of abbreviations

AAP	Annual Action Plan
ACP	African, Caribbean and Pacific Group of States
AMSP	Accompanying Measures to Sugar Protocol countries
COMESA	Common Market for Eastern and Southern Africa
DRC	Democratic Republic of the Congo
EC	European Commission
EU	European Union
GDP	Gross Domestic Product
MLRR	Ministry of Land and Rural Resettlement
MIP	Multi-Annual Indicative Programme
NAS	National Adaptation Strategy
TRQ	Tariff-Rate Quota
US	United States

List of Persons/Organisation met

The project did not include a field mission to Zimbabwe. A questionnaire was distributed to stakeholders via the ACP Secretariat, which was returned by Ushe Chinhuru at the Canelands Trust. We also liaised with Michele Schivo, Task Manager (Economic and Food Security Section at the EU Delegation in Zimbabwe.

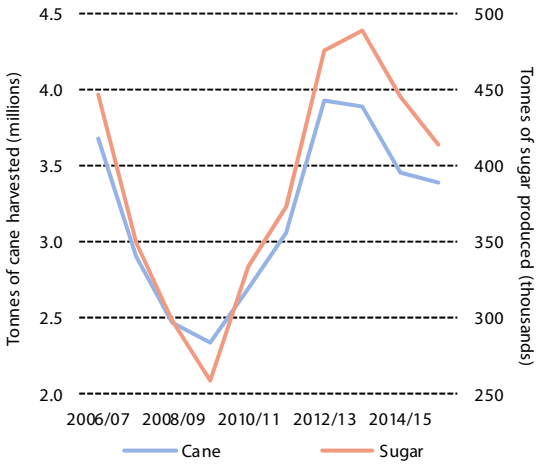
1 Overview of the sugar sector

1.1 Production and sales

The Zimbabwe sugar industry consists of two mills, which are both majority owned by Tongaat Hulett Ltd. In 2014/15, the cane area totalled around 44,000 hectares with around 15,000 hectares being farmed by independent growers and the remainder farmed by the milling company itself. Cane production in Zimbabwe was hit hard by the country's land reform programme and subsequent economic turmoil, with sugar output falling from 583,000 tonnes in 1999/00 to a low of 259,000 tonnes in 2009/10. Many cane farms fell out of use during this period, and it is only with recent investment (including that provided by the AMSP) that they have returned to productive output (Diagrams ZIM.1 and ZIM.2).

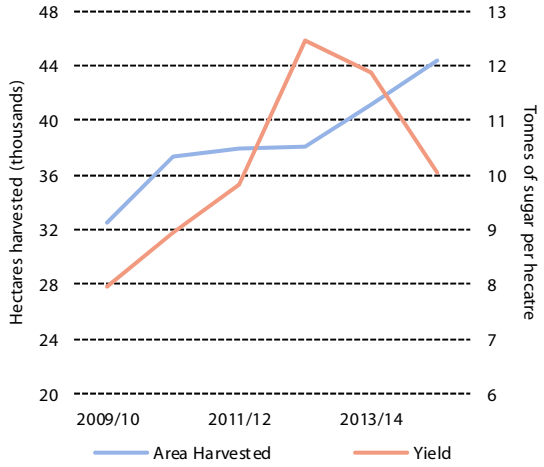
Despite the post 2010 recovery in harvested area, yields have fallen in in 2014/15 due to the drought that has affected most of southern Africa. This is one of the reasons why output is yet to fully recover.

Diagram ZIM1: Cane and sugar production



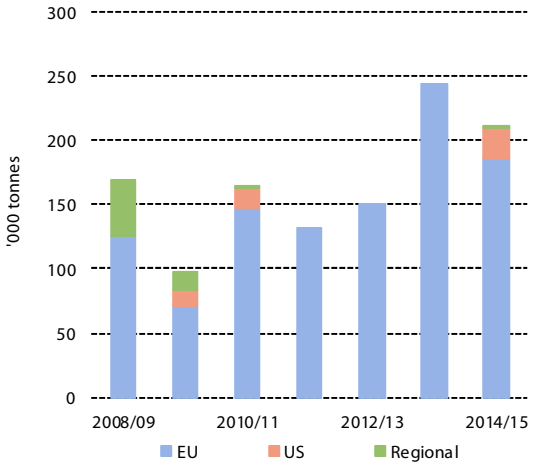
Source: Tongaat Hulett Ltd.

Diagram ZIM2: Evolution of cane area and yields



Source: Tongaat Hulett Ltd.

Diagram ZIM.3: Exports by market



Source: LMC estimates based on trade data.

Zimbabwe sold around one third of its total output to the EU over the last 5 years (Diagram ZIM.3). Small quantities are also sold to regional markets and to the US via their tariff-rate quota (TRQ) allocation of 12,636 tonnes. This allocation has been used in years when US prices have been attractive relative to the EU.

In recent years the flow of cheap smuggled sugar into the country has increased the country's exportable surplus and resulted in more sugar being sold to the EU. In response, Zimbabwe has taken steps to protect its domestic market, including imposing tariffs, quotas and on occasion import bans (most recently in December 2015).

1.2 The socio-economic contribution of the sugar sector

Sugar and sugar-related activities play an important role in the Zimbabwean economy. Overall, sugar makes up just 1.4% of Zimbabwe's total Gross Domestic Product (GDP). However, it accounts for 95% of the Masvingo province's GDP and creates in excess of US$65 million in foreign currency earnings.

The sugar sector is the largest private sector employer in the country. During the peak milling season, it employs more than 24,000 people and there are an estimated 149,000 indirect beneficiaries[95]. It also provides a wide range of social services such as housing, health care, education and recreational facilities to staff, workers and extended families. Downstream industries that depend on the sugar industry also provide employment to the surrounding rural communities.

2 National Adaptation Strategy (NAS)[96]

In order to respond to the reforms of the EU sugar protocol, the Government of Zimbabwe approved a national strategy (Zimbabwe Sugar Adaptation Strategy) in 2006/2007, which outlined its approach to adapt to the new EU sugar market environment. In response, the European Commission established a Multi-Annual Indicative Programme (MIP) for the period 2007-2013 which provided details of how the national strategy would be supported. The first release of funds commenced in December 2008, under the Annual Action Plan 2007 (AAP) 2007.

The Zimbabwe Sugar Adaptation Strategy aimed to mitigate the effects of the EU reforms through implementing measures aimed at stabilizing the industry, and then increasing cane and sugar production, both vertically and horizontally. In particular, the strategy identified the following priority areas for support:

- Arresting the decline in the production of sugar and sugarcane.
- A re-establishment or rehabilitation phase necessary to return the industry to its former levels of production (>600,000 tonnes of sugar per year) through the rejuvenation of the existing cane production areas.
- Expansion of the sugar industry to produce up to and in excess of 1,000,000 tonnes sugar per year.

3 Accompanying Measures to Sugar Protocol countries (AMSP)[97]

The AMSP targeted the rehabilitation of the sugar sector as the best means of mitigating the impact of sugar reform, and accepted that both horizontal and vertical improvements were necessary.

The rehabilitation of the sugar sector was deemed to be of great economic importance for the Zimbabwean economy but also for the development of the Lowveld, which is an economically and socially deprived area with a very high level of dependence on the sugar industry.

[95] Tongaat Hulett Investor Pack, November 2015.
[96] Mid Term Evaluation of the EU Support to the National Sugar Adaptation Strategy, Zimbabwe, Final Evaluation Report, December 2011.
[97] Multi-annual Indicative Programme (MIP) for Zimbabwe under the AMSP (2007-2010).

3.1 AMSP project areas

3.1.1 *Projects funded under MIP 2007-2010*[98]

The MIP 2007-2010 sought to first arrest the decline in production, and then to rehabilitate existing capacity and undertake expansion as a longer term priority. At that time, governance problems meant that the Government of Zimbabwe was ineligible to receive funding under Article 96 of the Cotonou agreement. As a result, the support was instead channelled through the Canelands Trust. This was set up jointly between the milling company, Tongaat Hulett, and the two grower organisations within Zimbabwe (the Commercial Sugarcane Farmers Association and the Zimbabwe Cane Farmers Association).

Initial funding was provided to the Canelands Trust and two grower organisations. This was used to support their operations until production could be expanded sufficiently for them to be financed via a levy on sugar production.

Later funding was provided for a number of different activities including training to farmers, feasibility studies, rehabilitation of irrigation infrastructure and the replanting of fields. However, the planned area for rehabilitation had to be repeatedly revised downwards, with a final total of 1,273 hectares being rehabilitated in Chipiwa[99]. The downward revisions reflected unfavourable exchange rate movements in the dollar and the rand versus the euro as well as cost increases resulting from the unstable economic situation in Zimbabwe at the time.[100]

Table ZIM.1: EC funds allocated and spent under MIP 2007-2010 (€)

	Allocated	Contracted	Paid
2007 AAP	2,700,000	2,378,273	2,378,273
2009 AAP	6,365,627	6,304,743	6,304,743
2010 AAP	13,779,000	13,652,122	9,769,966
Total	**22,844,627**	**22,335,138**	**18,452,982**

It was originally planned to include a land audit within the 2010 AAP. However, a lack of cooperation from the government meant that this was never completed, leading to an under-spend of nearly €4 million.

3.1.2 *Projects funded under MIP 2011-2013*

The MIP 2011-2013 consisted of one AAP approved in 2012, which targeted the following areas. In total €8,199,000 was allocated to achieve these goals:

- The rehabilitation of the Nandi-Mkwasine railway line.
- The development of new cane lands.
- The construction of a training auditorium at the Zimbabwe Sugar Association Experiment Station.
- The repair and raising of the Siya and Manjirenji dam walls.

[98] Multi-annual Indicative Programme (MIP) for Zimbabwe under the AMSP (2007-2010).
[99] Canelands Trust NSAS Steering Committee Report: May 2015.
[100] Mid Term Evaluation of the EU Support to the National Sugar Adaptation Strategy, Zimbabwe, Final Evaluation Report, December 2011.

In the end, all 34.5 km of the Nandi-Mkwasine railway line were finished, along with 203 out of the proposed 300 hectares of new cane lands (again, the area was reduced due to cost overruns)[101].

Table ZIM.2: EC funds allocated and contracted under MIP 2011-2013 (€)

	Allocated	Contracted	Paid (to date)
2012 AAP	8,199,000	8,199,000	7,245,875
Total	**8,199,000**	**8,199,000**	**7,245,875**

Note: 1. Funds paid as of April 2016

3.2 Delivery modalities

The majority of projects were carried out under partially decentralised management, with the Canelands Trust driving most of the contracting and reporting process. This was because the Zimbabwe government was ineligible for funding over much of the period under Article 96 of the Cotonou agreement. This approach was also requested by stakeholders.

On the whole the Trust was viewed positively, being the only credible organisation for delivery of funds and support in country. The Trust also achieved a high level of fund disbursement. However, stakeholders felt that the operational and financial capacity of the Trust should have been better assessed prior to start of the AMSP. The Trust only had a small number of employees and was assigned the vast majority of funds.

3.3 Strengths and weaknesses

Table ZIM.3 summarises the strengths and weaknesses of the AMSP as reported by stakeholders.

Overall, the AMSP measures were viewed in a positive light, helping the industry to recover after the economic crisis.

Table ZIM.3: Strengths and weaknesses of the AMSP

Strengths	Weaknesses
• Helped restore confidence in the sugar industry after the collapse of the Zimbabwe dollar. • Delivery modality resulted in a high level of fund disbursement. • Targeted small scale growers, who are one of the most vulnerable groups in society. • Monitoring of results and continuous assessment resulted in successful implementation of the projects.	• Delays in the disbursement of funding. • Limited capacity in key organisations, e.g. Canelands Trust. • Higher-than-expected costs reduced the cane area that could be rehabilitated. • Lack of government engagement contributed to land audit not occurring. • Delays in the Ministry of Land and Rural Resettlement (MLRR) to allocate land to be developed for sugar production.

The AMSP in Zimbabwe had several successes. Fund disbursement levels were high and the development of grower organisations and infrastructure repairs helped to restore confidence in the sugar industry. Additionally, while the total area rehabilitated fell below expectations, the small scale growers that did benefit received valuable support.

[101] Canelands Trust NSAS Steering Committee Report: May 2015.

One problem that was faced was the delays in the allocation of land for development by the MLRR. Stakeholders suggested that this could have been overcome by improved inclusiveness of the ministry within the project process.

Delays in the disbursement of funds were also experienced, resulting in some temporary funding gaps. This was addressed by borrowing from other sources, which resulted in ineligibility for certain costs such as interest charges. This was exacerbated by the Canelands Trust being unable to issue a bank guarantee in excess of €1million, limiting the size of tranches that could be issued.

Stakeholders also highlighted problems with reporting, contributing to the delays in paying out tranches. This was partly due to ignorance over the EU process for disbursements and necessary paperwork required[102].

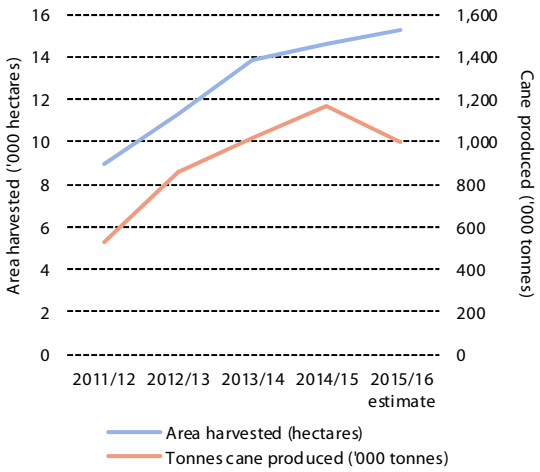
4 Current situation & prospects

4.1 Current situation

The sugar industry has been making good progress recovering from the economic problems of the 2000s. However, it has been badly affected by the drought that has hit southern Africa in the last couple of years. This is one of the reasons why production has not reached the levels set out in the NAS, which targeted a return to production in excess of 600,000 tonnes. The drought also looks set to affect production in 2016/17 as well, with the industry currently expecting production to reach 385,000 tonnes in 2016/17, even less than 2015/16[103].

Nevertheless, the industry has remained profitable in recent years. In the 2014/15 financial year, the operating profit from Tongaat Hulett's Zimbabwe operations was around R386 million, which represented around 48% of the total operating profit from the company's sugar operations. In terms of revenue, Zimbabwe accounted for around 30% of the total, implying that it is among the more profitable parts of its operation[104].

Diagram ZIM.4: Outgrower cane area and production



Source: Tongaat Hulett Investor Pack, November 2015.

One of the key focus areas remains the ongoing development of sustainable private sugarcane farmers. At the end of the 2014/15 season, there were 857 active indigenous private farmers, farming some 15,880 hectares, employing more than 7,300 people and generating US$70 million in annual revenue. Current initiatives should increase this to 1,023 private farmers supplying more than 1.9 million tonnes of cane[105]. A key issue for the sugar industry is to help increase the yields achieved by these outgrowers once water availability has increased following the drought.

[102] Mid Term Evaluation of the EU Support to the National Sugar Adaptation Strategy, Zimbabwe, Final Evaluation Report, December 2011.
[103] Production estimate in March 2016.
[104] Tongaat Hulett Annual Report, 2015.
[105] Tongaat Hulett Investor Pack, November 2015.

4.2 Prospects for the sector

In light of EU reform, the sugar industry is targeting new markets in the region. Zimbabwe is a member of the Common Market for Eastern and Southern Africa (COMESA), which gives the industry some advantage when selling sugar into the Kenyan market. It is also looking at opportunities to sell sugar into southern Democratic Republic of the Congo (DRC).

As we discuss in the main report, the outlook for the supply/demand balance in southern/central Africa should allow the Zimbabwe industry to sell the majority of its sugar in markets where it can achieve a premium over world market values. The industry has also been helped by a recent increase in the level of protection afforded to the domestic market. In order to import sugar into Zimbabwe, an import permit is required and all sugar entering the country must pay a 10% import duty plus US$100 per tonne.

Going forward, a key issue facing the industry, as well as other producers in the region, will be water availability. The completion of the Tokwe-Mukosi dam should mean that more water is available to expand area in 2018/19. However, further investment in more efficient irrigation systems may also be required if water is to be managed properly in the future.

5 Conclusion

The Zimbabwe industry continues to operate in an uncertain political environment. Nevertheless, the industry has been successful in recovering, to some extent, from the economic crisis in the 2000s. The AMSP assisted in this process. However, production has been hit again by the drought which is also likely to still be having an impact on production in 2017/18. This means that the sector will face EU reform at a time when production remains below processing capacity, which will inflate the industry's fixed costs when measured per tonne of sugar produced.

Annex 3: Timeline of EU's external trade arrangements and internal market reforms for sugar