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Market development study for ECOWAS cereal sectors:

The role of trade in the context of the region's effort to attain food security

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Contents

ABBREVIATIONS

AAACP	All ACP Agricultural Commodities Programme
ACP	African Caribbean Pacific
AoA	Agreement on Agriculture
CAADP	Comprehensive Africa Agriculture Development Programme
CET	Common External Tariff
CFC	Common Fund for Commodities
CILSS	Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel
DPT	Degressive Protection Tax
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
ECOWAP	ECOWAS Agricultural Policy
ECL	ECOWAS Compensatory Levy
EPA	Economic Partnership Agreement
EU	European Union
FAO	Food and Agriculture Organization
FARM	Fondation pour l'agriculture et la ruralite dans le monde
GATT	General Agreement of Tariffs and Trade
GDP	Gross Domestic Product
GIEWS	Global Information and Early Warning System
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
ICBT	Informal cross-border trade
ITC	International Trade Centre
IEPA	Interim EPA
K²M	Kano-Katsina-Maradi
LDC	Least Developed Country
MTS	Multilateral Trading System
NFIDC	Net Food-Importing Developing country
NEPAD	New Partnership for Africa's Development
OECD	Organization for Economic Cooperation and Development
OIE	World organisation for animal health
ROPPA	Reseau des Organisations Paysannes et des Producteurs Agricoles
STI	Safeguard Tax on Imports
SPS	Sanitary and Phytosanitary Measures
SSM	Special Safeguard Mechanism
SP	Special Product
SSR	Self-Sufficiency Ratio
UNCTAD	United Nations Conference on Trade and Development
UEMOA	l'Union économique et monétaire ouest-africaine
UMOA	l'Union monétaire ouest-africaine
WAEMU	West African Economic and Monetary Union
WFP	World Food Programme
WTO	World Trade Organization

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EXECUTIVE SUMMARY

Agriculture in the ECOWAS region has not delivered its full potential in terms of supplying the basic food commodities, in quantity and product range demanded by the fast growing population. Some of the salient features of food security and the cereal sectors in the region include the following:

- Uneven progress in improving food security in the region as well as in achieving a greater diversification of diets;
- Very poor gains in cereal productivity with some 80% of increases in cereal output due to area expansion and less than 20% due to yield increases, the inverse of the experience in other developing countries;
- Rapidly growing imports of wheat and rice, accounting for some 98% and 50% of consumption, respectively, and a declining overall self-sufficiency in cereals to about 80%;
- A large share of food imports in the total merchandize imports, amounting to some 25% on average and for some countries to as much as 40%;
- Rapidly declining importance of food aid in bridging the import gap but essential for emergency response;
- Modest and highly variable surplus position in maize, millet and sorghum, traded intra-regionally, including through large unrecorded informal cross-border trade.

The economic size of the region and the human, physical and economic resources that it possesses could provide the basis of a more prosperous agriculture, capable in affording livelihood security for its large rural population and supplying the food needs of the rapidly growing urban centres.

There is a strong political will by the countries of the ECOWAS region individually and collectively to implement policies and strategies to stem the growing imbalance between supply and demand of basic foodstuffs. The ECOWAS Agricultural Policy (ECOWAP) has become the main institutional vehicle underpinning the determination of policy makers to rethink their food security strategies, including strengthening intra-regional trade on basic foodstuffs. Implementation of the Common External Tariff (CET) is an important step towards collective approaches to strengthen food security.

The scope of this study is to look primarily at the role of trade in the context of the region's effort to attain food security. In this connection, the study highlights several important constraints that would have to be overcome. The study argues about a holistic approach in strengthening intra-regional trade whereby there is a need to addressing the numerous constraints along the whole supply chain from the farm to the final consumer.

Although the wide range of measures that could boost cereal productivity in the ECOWAS region are beyond the scope of this study, it is inconceivable to envision a strong and growing intra-regional trade with cereal yields that are only a fraction of global yields and have remained stagnant for decades. This is a *sine qua non* and a wide range of technical, institutional and agricultural policy measures need to be taken to increase productivity and render domestic production competitive in local and regional markets.

Another reality that has implications for intra-regional trade and import dependency is the recognition of the strong demographic trends in the region and in particular the rapidly growing urban centres with diets that do not exactly match the domestically produced commodity mix. To the extent that the commodities demanded by the urban consumers cannot be fully met by domestic/regional production, partly due to the agro-climatic characteristics of these crops, the countries of the region would continue to depend on imported supplies for a considerable part of their diet.

In view of these realities on the ground, it is essential in the first instance to clarify some important concepts that are part of the regional blueprint of food and agricultural policy under the ECOWAP so that potential disagreement and setbacks are averted. In particular, while some countries of the ECOWAS region place much emphasis on national and regional self-sufficiency in basic food commodities as the main objective of their food security strategy, others favour a more open trading regime based on food self-reliance, where continued dependence on trade forms part of their strategy to attain food security.

However, despite these seemingly conflicting positions, there is solid common ground and convergence within the ECOWAS about the contribution that trade could make to advancing food security. To this end the study calls for concerted action by embracing a two-pronged approach:

- first, addressing issues at the national and regional level which promote better integration between regional cereal markets and strengthen intra-regional trade, and
- second, taking collective action to defend against threats to national and regional food security emanating from the world market and support related instruments and policies to minimize adverse effects when they occur.

Strengthening intra-regional trade

In addition to boosting productivity at the farm level, the competitiveness of locally produced grains would crucially depend on a wide range of interventions aiming at reducing transaction costs along the supply chain to domestic and regional markets as well as minimizing the risks for farmers and traders of doing business. These include, inter alia:

Easing access to credit. This applies to the whole supply chain from the producer to the final retailer and concerns access to finance for value addition and for avoiding risks. The solution is not necessarily in providing credit at subsidized rates and creating a situation of moral hazard but in making financial services available in the first place and clarifying the conditions of accessing these services, in particular as regards collateral requirements and the related issue of land tenure rights.

Reducing transaction costs. This also applies to the whole supply chain and entails a wide range of possible improvements, some of which are easy and some may take much longer to be realized. Immediate progress can be achieved by facilitation of regional transport and transit formalities and cracking down on petty corruption which is highly disruptive to trade.

Building storage capacity and promoting warehouse receipt systems. This should be a priority in the region and should be included in the category of public goods that countries individually and collectively have a major interest in investing.

Promoting quality control, standardization and branding of local cereals. This is also an important consideration for boosting intra-regional trade and for bridging the competition gap with imported supplies. Being a consumer protection concern, this falls in the domain of public goods. Regional institutions and mechanisms are likely to be much more cost effective and enforceable than individual national schemes.

Strengthening cereal value chains with donor support. This involves a reorientation in supporting value chains to include cereals destined for the domestic market in addition to cash crops for export. It calls for involvement of private sector and government stakeholders in addition to donor efforts all of which should move towards more integrated and coherent programmes to better address bottlenecks along the whole supply chain.

Promoting organized commodity exchanges. Given the momentum for regional integration in the ECOWAS region and also taking into account potential volumes that could be traded, a regional commodity exchange could be highly desirable. The benefits are many, including improved market transparency and price formation, better access to market information and improved possibilities of all participants, including farmers, to have greater access to credit.

Removing remaining barriers to intra-regional trade. While the ECOWAS region has moved a long way along the path of regional integration, of particular concern are non-tariff barriers which are often much less transparent than tariffs and highly detrimental to trade. Equally, there is need to liberalize trade in services as well as in the movement of natural persons involved in delivering trade-related services, all of which play an essential complementary role in commodity trading.

Reconciling potentially divisive issues. Beyond the strong political will and the vision of ECOWAP based on the principle of food sovereignty, the mute question is whether this imperative to increase regional self-sufficiency is strong enough to overcome possible resistance from within the region. This issue would need further debate and clarity including consideration of some effective redistribution within the region from countries that stand to gain to those that stand to lose, at least in the short term.

Minimizing threats to food security emanating from the world market

How society deals with market volatility depends to a large degree on coping mechanisms at the national, sub-national and individual household levels. However, the international context under which national actions take place is instrumental in the success or failure of national efforts. The multilateral negotiations under the WTO have been the dominant force shaping the international trade policy environment during the past two decades and continue to remain at central stage in view of the on-going reform process under the Doha Round. The ECOWAS countries are all part of that process and have a strong interest in ensuring that instruments that are put in place cater for their specific concerns. In this connection, the current impasse in the Doha Round negotiations offers an opportunity for the ECOWAS countries to reflect more on certain proposals on the table as well as consider other approaches beyond the WTO. Inter alia, some of them include:

Rationalizing the selection of Special Products (SPs). Under a customs union with a common external tariff regime (the CET) the list of SPs would have to be uniform for all member countries. While some progress has been made in this area in the context of promoting "strategic products for food sovereignty", more product specificity would be needed as regards the eventual list of SPs and this may necessitate additional debates and consultations between the ECOWAS members.

Articulating a position on the Special Safeguard Mechanism (SSM). The potential need of the SSM would be essential for products where the bound tariffs are relatively low. The SSM would apply at the ECOWAS level and hence it is linked to the eventual common bound tariffs that the ECOWAS as a whole would negotiate at the WTO. Some thinking is called for as regards the desired specific modalities of the SSM in relation to what may be the likely ECOWAS bound tariffs profile.

Supporting the strengthening of Article 12 of the AoA. Net food-importing countries would suffer more in the face of higher world prices as a result of unrestrained export prohibitions and restrictions of other WTO members. ECOWAS countries have a clear interest in seeing that the relevant WTO disciplines are strengthened and could join forces with other WTO members in proposing ways of doing so.

Supporting an effective implementation of the Marrakesh Decision. Although this Decision has not been the subject of negotiation under the Doha Round, the ECOWAS countries have an interest in ensuring that it continues to be part of the eventual Doha agreement. Moreover, it is important to focus on those issues under the Decision where there is greater convergence between donor and beneficiary countries and practical solutions may prove possible.

Being pro-active in cases of violations of WTO rules. While individually ECOWAS countries may not be able to afford invoking the general GATT/WTO safeguards they should not lose opportunities of joining, as third parties, other WTO members that resort to the WTO Dispute Settlement process on an issue that is also of concern to the ECOWAS.

Putting in place a trade surveillance system. An effective trade surveillance system would need to be put in place at the regional level to give an early warning of impending threats from the world market. This may also include strengthening analytical capacity within the ECOWAS structure and the creation of mechanisms for technical consultations on possible national and regional policy responses and remedial actions.

Articulating ECOWAS-wide positions on some of the issues discussed above presents an opportunity for better rationalization of longer term regional interests and for creating an effective and potent trading bloc with bargaining power that goes well beyond the interests of the region in agricultural trade alone.

The recommendations made above are not meant to provide precise blueprints for national and regional action, but to draw attention to some important shortcomings in regional arrangements and the international trade regime, vis-à-vis the actual preoccupations of the region. Some of these recommendations can be acted upon without delay and any cost. All in all, the more the countries of the ECOWAS, individually and collectively, are failing in addressing some of these systemic problems impeding intra-regional trade as well as face up realistically their differences as regards the degree of trade openness, the more these problems would amplify in the future.

RÉSUMÉ

L'agriculture dans la région de la CEDEAO n'a pas rendu son plein potentiel. Elle n'a pas fourni la quantité de produits alimentaires de base et la gamme de produits demandés par la population en croissance rapide. Quelques-uns des traits saillants de la sécurité alimentaire et les secteurs des céréales dans la région sont les suivants:

- Des progrès inégaux dans l'amélioration de la sécurité alimentaire dans la région ainsi que dans la réalisation d'une plus grande diversification des régimes alimentaires;
- Très faible croissance de la productivité céréalière, avec environ 80% de l'augmentation de la production céréalière en raison de l'expansion des superficies et de moins de 20% en raison d'augmentation des rendements, l'inverse de l'expérience dans d'autres pays en développement;
- La croissance rapide des importations de blé et de riz, qui représente environ 98% et 50% de la consommation de ces produits, respectivement, et une baisse globale d'autosuffisance en céréales à environ 80%;
- Les importations alimentaires sont élevées à une grande partie des importations de marchandises total, un montant d'environ 25% en moyenne et pour certains pays d'autant que 40%;
- L'importance de l'aide alimentaire, pour combler le déficit d'importation, en déclin rapide, mais indispensable pour l'intervention d'urgence;
- Modeste, et très variable, l'excédent de maïs, de mil et de sorgho, qui sont commercialisés aux niveaux intra-régional, notamment par le biais vierges commerce transfrontalier informel.

La dimension économique de la région et les ressources humaines, matérielles et économiques qu'il possède pourraient fournir la base d'une agriculture plus prospère, capable d'assurer la sécurité des moyens de subsistance pour la population rurale et de fournir les besoins alimentaires des centres urbains en pleine expansion.

Il ya une forte volonté politique par les pays de la région de la CEDEAO, individuellement et collectivement, à mettre en œuvre des politiques et des stratégies pour enrayer le déséquilibre croissant entre l'offre et la demande de produits alimentaires de base. La politique agricole de la CEDEAO (ECOWAP) est devenue le principal moyen institutionnel qui sous-tend la détermination des décideurs à repenser leurs stratégies de sécurité alimentaire, y compris le renforcement du commerce intra-régional sur les denrées alimentaires de base. La mise en œuvre du tarif extérieur commun (TEC) est une étape importante vers des approches collectives afin de renforcer la sécurité alimentaire.

La portée de cette étude est d'examiner en premier lieu le rôle du commerce dans le cadre des efforts de la région pour atteindre la sécurité alimentaire. À cet égard, l'étude met en évidence plusieurs contraintes importantes qui doivent être surmontés. L'étude fait valoir sur une approche holistique dans le renforcement du commerce intra-régional, selon lequel il est nécessaire de répondre aux nombreuses contraintes le long de la chaîne d'approvisionnement, de la ferme au consommateur final.

Bien que le large éventail de mesures qui pourraient améliorer la productivité des céréales dans la région de la CEDEAO sont au-delà de la portée de cette étude, il est inconcevable

d'envisager une croissance du commerce intra-régional avec des rendements de céréales dans la région qui ne sont qu'une fraction des rendements mondiaux, et ont stagné pendant des décennies. C'est une condition sine qua non. Un large éventail de mesures doivent être prises pour accroître la productivité et de rendre la production nationale compétitive sur les marchés locaux et régionaux. Il s'agit notamment de la politique agricole, et les mesures techniques et institutionnelles.

Une autre réalité qui a des implications pour le commerce intra-régional et de la dépendance à l'importation est la reconnaissance de l'évolution démographique forte dans la région et, en particulier, les centres urbains en pleine croissance avec des régimes qui ne correspondent pas exactement aux produits alimentaires nationaux. Dans la mesure où les produits demandés par les consommateurs urbains ne peuvent pas être entièrement satisfaits par la production nationale ou régionale (en partie en raison des caractéristiques agro-climatiques de ces cultures), la région continuera à dépendre des approvisionnements importés pour une grande partie de ses besoins.

Compte tenu de ces réalités sur le terrain, il est indispensable en premier lieu de clarifier certains concepts importants qui font partie du plan régional de la politique alimentaire et agricole dans le cadre de l'ECOWAP alors que le désaccord potentiel et revers sont évités. En particulier, alors que certains pays de la région de la CEDEAO mettre l'accent sur l'autosuffisance nationale et régionale des produits alimentaires de base, comme l'objectif principal de leur stratégie de sécurité alimentaire, d'autres préfèrent un régime commercial plus ouvert, fondé sur l'autonomie de la nourriture, où la dépendance sur le commerce fait partie de leur stratégie visant à atteindre la sécurité alimentaire.

Toutefois, malgré ces positions en apparence contradictoires, il est solide terrain d'entente et de convergence au sein de la CEDEAO sur la contribution que le commerce peut apporter au renforcement de la sécurité alimentaire. À cette fin, l'étude préconise une action concertée en adoptant une approche à deux volets:

- en premier lieu, aborder les questions au niveau national et régional visant à promouvoir une meilleure intégration entre les marchés céréaliers régionaux et de renforcer le commerce intra-régional, et
- d'autre part, de prendre des mesures collectives pour la défense contre les menaces à la sécurité alimentaire nationale et régionale émanant du marché mondial, et le soutien des instruments et des politiques liées à minimiser les effets négatifs quand ils se produisent.

Renforcer le commerce intra-régional

En plus de stimuler la productivité au niveau des exploitations, la compétitivité des céréales produites localement dépend fondamentalement à un large éventail d'interventions visant à réduire les coûts de transaction le long de la chaîne d'approvisionnement sur les marchés intérieurs et régionaux ainsi que de minimiser les risques pour les agriculteurs et les commerçants de faire des affaires. Il s'agit, entre autres:

Faciliter l'accès au crédit. Cela s'applique à la chaîne d'approvisionnement du producteur au détaillant final et qui concerne l'accès au financement pour l'ajout de valeur et pour éviter les risques. La solution n'est pas nécessairement dans l'offre de crédit à des taux bonifiés et de créer une situation d'aléa moral, mais, en premier lieu, la mise à disposition de services

financiers et à clarifier les conditions d'accès à ces services, en particulier en ce qui concerne les exigences de garantie et les droits fonciers.

Réduire les coûts de transaction. Cela vaut également pour la chaîne d'approvisionnement et comprend un large éventail d'améliorations possibles, dont certaines sont faciles, d'autres peuvent prendre beaucoup plus de temps pour être réalisé. Des progrès immédiats peuvent être obtenus par la facilitation du transport régional et les formalités de transit et de sévir contre la petite corruption qui est très perturbateur pour le commerce.

Construire capacité de stockage et promouvoir des systèmes de récépissés d'entrepôt. Ce devrait être une priorité dans la région et devraient être inclus dans la catégorie des biens publics que les pays, individuellement et collectivement, ont un intérêt majeur pour investir.

Promouvoir le contrôle de la qualité, la normalisation et la marque de céréales locales. C'est aussi un facteur important pour stimuler le commerce intra-régional et pour combler le fossé de la concurrence avec les produits importés. Être un souci de protection du consommateur, cela tombe dans le domaine des biens publics. Les institutions régionales et des mécanismes connexes sont susceptibles d'être beaucoup plus rentable et exécutoires que des solutions individuelles nationales.

Renforcement des chaînes de valeur des céréales avec l'appui des donateurs. Cela implique une réorientation dans le soutien des chaînes de valeur afin d'inclure des céréales destinées au marché intérieur, en plus de cultures de rente pour l'exportation. Il exige la participation du secteur privé et les intervenants gouvernementaux, en plus des efforts des donateurs, qui doivent s'orienter vers des programmes plus intégrée et cohérente pour mieux lutter contre les blocages le long de la chaîne d'approvisionnement.

Promouvoir les échanges des produits de base organisé. Compte tenu de la dynamique de l'intégration régionale dans la région de la CEDEAO et en tenant compte également des volumes qui pourraient être échangés, une bourse de produits régionaux pourrait être hautement souhaitable. Les avantages sont nombreux, y compris une plus grande transparence du marché et la formation des prix, d'amélioration de l'accès à l'information sur le marché et de meilleures possibilités de tous les participants, y compris les agriculteurs, d'avoir un meilleur accès au crédit.

Supprimer des obstacles restants au commerce intra-régional. Bien que la région de la CEDEAO a parcouru un long chemin sur la voie de l'intégration régionale, les barrières non tarifaires sont particulièrement préoccupantes, souvent beaucoup moins transparents que les droits de douane et hautement préjudiciable au commerce. De même, il est nécessaire de libéraliser le commerce des services ainsi que la circulation des personnes physiques impliquées dans la prestation de services liés au commerce, qui jouent tous un rôle complémentaire essentiel dans le commerce des produits de base.

Concilier les questions susceptibles de diviser. Au-delà de la forte volonté politique et la vision de l'ECOWAP, qui est basée sur le principe de la souveraineté alimentaire, il ya une interrogation muette, qui est de savoir si l'impératif d'accroître l'autosuffisance régionale est assez fort pour vaincre la résistance possible au sein de la région. Ce serait nécessaire suite du débat et de clarté, y compris l'examen de la question de la redistribution dans la région, des pays qui ont tout à gagner à ceux qui risquent de perdre, au moins dans le court terme.

Minimiser les menaces à la sécurité alimentaire émanant du marché mondial

Comment la société répond à la volatilité du marché dépend dans une large mesure sur les mécanismes d'adaptation aux niveaux national, sous-national et des ménages. Toutefois, le contexte international en vertu duquel les actions nationales ont lieu, est déterminante dans le succès ou l'échec des efforts nationaux. Les négociations multilatérales à l'OMC ont été la force dominante façon ner l'environnement politique commerciale internationale au cours des deux dernières décennies et continuera de rester à l'étape centrale dans la perspective du processus de réforme en cours dans le cadre du Cycle de Doha. Les pays de la CEDEAO font tous partie de ce processus et ils ont un intérêt à s'assurer que les instruments qui sont mis en place répondent à leurs préoccupations spécifiques. À cet égard, l'impasse actuelle dans les négociations du Cycle de Doha offre une opportunité pour les pays de la CEDEAO à réfléchir davantage sur certaines propositions sur la table ainsi que envisager d'autres approches au-delà de l'OMC. Entre autres, certains d'entre eux comprennent:

Rationaliser la sélection des produits spéciaux (PS). En vertu d'une union douanière avec un régime de tarif extérieur commun (TEC), la liste des produits spéciaux devrait être uniforme pour tous les pays de la CEDEAO. Bien que certains progrès ont été accomplis dans ce domaine dans le cadre de la promotion de «produits stratégiques pour la souveraineté alimentaire", en ce qui concerne la liste éventuelle des produits spéciaux, la spécificité des produits plus détaillée serait nécessaire, et cela peut nécessiter des débats et des consultations supplémentaires entre la CEDEAO membres.

Articuler une position sur le mécanisme de sauvegarde spéciale (MSS). Le besoin éventuel de la MSS serait essentiel pour les produits dont les tarifs consolidés sont relativement faibles. Le MSS s'appliquent au niveau de la CEDEAO et par conséquent elle est liée à l'éventuelle tarifs consolidés communes que la CEDEAO (dans son ensemble) serait de négocier à l'OMC. Une réflexion est nécessaire en ce qui concerne les modalités souhaitées de la MSS, par rapport à ce qui peut être le profil probable des tarifs consolidés communes de la CEDEAO dans son ensemble.

Soutenir le renforcement de l'article 12 de l'AsA. Net pays importateurs de produits alimentaires souffriraient davantage face à la hausse des prix mondiaux en raison des interdictions et les restrictions d'exportation effrénée des autres membres de l'OMC. Les pays de la CEDEAO ont un intérêt évident à voir que les disciplines pertinentes de l'OMC sont renforcés, et ils pourraient unir leurs forces avec d'autres membres de l'OMC en proposant des moyens de le faire.

Soutien à une mise en œuvre effective de la Décision de Marrakech. Bien que cette Décision n'a pas été l'objet de négociations dans le cadre du Cycle de Doha, les pays de la CEDEAO ont intérêt à s'assurer qu'elle continue à faire partie de l'éventuel accord de Doha. En outre, il est important de se concentrer sur ces questions en vertu de la Décision où il ya une plus grande convergence entre les pays donateurs et bénéficiaires et des solutions pratiques peut s'avérer possible.

Etre proactif en cas de violation des règles de l'OMC. Alors que chacun des pays de la CEDEAO ne peut pas se permettre d'invoquer les garanties générales du GATT / OMC, ils ne devraient pas perdre des opportunités de l'adhésion (en tant que tiers) d'autres membres de l'OMC, qui ont recours au processus de règlement des différends sur une question qui est également de préoccupation de la CEDEAO.

Mettre en place un système de surveillance du commerce. Un système efficace de surveillance des échanges devrait être mis en place au niveau régional pour donner une alerte précoce des menaces imminentes provenant du marché mondial. Ceci peut également inclure le renforcement des capacités d'analyse au sein de la structure de la CEDEAO et la création de mécanismes de consultations techniques sur les réponses politiques au niveau national et régional, et des mesures correctives possibles.

La formulation de positions de la CEDEAO sur quelques-unes des questions abordées ci-dessus présente une opportunité pour une meilleure rationalisation de plus long terme les intérêts régionaux et de créer un bloc commercial efficace et puissant, avec pouvoir de négociation qui va bien au-delà des intérêts de la région dans le commerce agricole uniquement.

Les recommandations formulées ci-dessus ne sont pas pour but de fournir des plans précis pour l'action nationale et régionale, mais à attirer l'attention sur certaines lacunes importantes dans les accords régionaux et le régime commercial international, vis-à-vis des préoccupations actuelles de la région. Certaines de ces recommandations peuvent être mises en œuvre sans délai et sans frais. Dans l'ensemble, plus les pays de la CEDEAO, individuellement et collectivement, ne parviennent pas à résoudre certains de ces problèmes systémiques qui entravent le commerce intra-régional, et de ne pas confronter leurs différences de façon réaliste, en ce qui concerne le degré d'ouverture commerciale, plus ces problèmes permettraient d'amplifier à l'avenir.

I INTRODUCTION

Background: the study within the All ACP programme

The "All ACP Agricultural Commodities Programme (AAACP)"[1], an initiative of the European Commission and the ACP Secretariat, was launched in September 2007. Its roots can be traced to the EU Action Plan on Agricultural Commodities, Dependence and Poverty[2], the EU-Africa Partnership on Cotton[3] and a number of ACP initiatives linked to agricultural commodities identified during the Cotonou and Doha negotiations. This programme fully acknowledges the link between production, value addition and trade in agricultural commodities and poverty reduction.

The main objective of the programme is to reduce poverty while improving and stabilising the revenues and living conditions of agricultural commodity producers in ACP countries. Developing the capacity of all parties involved in the industry along the supply chain, to design and implement sustainable strategies, is one of the main instruments to achieve this objective. The choice of agricultural commodities as leverage in the fight against poverty is justified by their crucial importance for employment and income of millions of rural households in the ACP countries and the need for mitigating the disastrous effects of declining and unstable commodity prices.

In order to fully appreciate the issues involved and identify the concerns of producers, industrialists, financiers, government representatives and regional organisations, five regional workshops were held during the first half of 2008, with the support of international organisations active in the field of agricultural commodities: the World Bank, the International Trade Centre (ITC), the United Nations Conference on Trade and Development (UNCTAD), the Common Fund for Commodities (CFC), and the Food and Agriculture Organisation (FAO)[4]. Each organization focused in the areas of its respective competence, with ITC being involved in market development issues and in identifying ways of strengthening intra-regional trade[5].

Improving agricultural marketing systems and strengthening intra-regional trade is considered as an important ingredient in ensuring successful implementation of various

1 www.euacpcommodities.eu

2 COM(2004)89 final, *Agricultural Commodity Chains, Dependence and Poverty,* Communication from the Commission to the Council and the European Parliament. http://ec.europa.eu/development/icenter/repository/comm_pdf_com_2004_0089_f_en_action_plan.pdf

3 COM(2004)87 final, *Proposal for an EU-Africa partnership in support of cotton sector*, Communication from the Commission to the Council and the European Parliament. http://ec.europa.eu/development/icenter/repository/comm_pdf_com_2004_0087_f_en_cotton.pdf

4 The AAACP Programme underwent a mid-term review eighteen months after its launch. The review was carried out by a team of independent consultants between January and April 2009 with the goal of *"reflecting on ways to deepen the programme's approach and make its implementation more effective."* The review reconfirmed the relevance of the objectives pursued by the programme and the means chosen to achieve them, namely: a focus on agricultural commodities, a value chain approach, the regional dimension, the participative method, and pooling of the competencies of the five international organisations.

agricultural development initiatives which have been launched to raise agricultural output and productivity in Africa. The Comprehensive Africa Agriculture Development Programme (CAADP) is prominent among such regional initiatives, launched by the New Partnership for Africa's Development (NEPAD)**,** aiming at achieving 6% growth in agriculture in Africa. In particular, the specific objectives of Pillar 2 of CAADP are to[6]:

- Accelerate growth in the agricultural sector by raising the capacities of private entrepreneurs (including commercial and small-holder farmers) to meet the increasingly complex quality and logistic requirements of markets, focusing on selected agricultural commodities that offer the potential to raise rural (on- and off-farm) incomes.
- Create the required regulatory and policy framework that would facilitate the emergence of regional economic spaces that would spur the expansion of regional trade and cross-country investments.

This study was commissioned by ITC to document progress and constraints in the production and trade of cereals in the ECOWAS countries. In line with the objectives of Pillar 2 of CAADP, it responds to the aims of the AAACP programme in reducing poverty and bettering the living conditions of agricultural commodity producers in ACP countries, recognizing the paramount importance of the cereals sector in the economies of the region and the untapped potential in improving food and livelihood security and contributing to sustained economic development. In particular, the study aims at assisting countries in the region in identifying means and plausible options for enhancing intra-regional trade and strengthening the performance of cereal sectors at national and regional levels. This includes also harmonization of regional policies, as well as actions at national and regional level which would contribute to strengthening the organisational capabilities of commodity chain actors. The lessons learnt from this study will be discussed with national and regional policy makers and stakeholders in the cereals sectors, including through ITC-ECOWAS Regional Workshops and at other relevant regional or international fora.

Scope of the study and approach

While the overall objective of the programme is to help the countries in the region to pursue effective and sustainable food security and poverty alleviation strategies, a key ingredient in that process is to promote better economic integration regionally and with world markets. There has been a deep recognition of the imperative of regional integration and the region has been a champion on putting in place institutions and specific instruments that would promote such integration[7].

Within agriculture it is well appreciated that national strategies to revitalize the agricultural sector and compete effectively in regional and world markets would need to address the

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5 See: Rapport sur *Les actes des tables rondes et de l'atelier regional sur : « le role des interprofessions dans le développement des filieres cereales et oleagineux en l'afrique de l'ouest »,* , FAO, 2009 ; *Rapport sur la revue des experiences de récepissés d'entreposage et de warrantage pour le financement de l'agriculture en Afrique de l'Ouest*, UNCTAD, 2010a ; and *Promoting Agricultural Commodity Exchanges in Ghana and Nigeria: A Review Report*, UNCTAD, 2010b.

6 *Implementing the Comprehensive Africa Agriculture Development Programme and Restoring Food Security in Africa: 'The Roadmap',* African Union and NEPAD, the NEPAD Secretariat, 2004.

numerous constraints along the supply chain of agricultural commodities. Many of these constraints have already been identified by stakeholders and policy makers alike and efforts are being made to address some of them, both nationally and regionally[8]. Also, there is a good understanding of the sectoral and economy-wide benefits that would accrue to the countries both in the short and longer term by strengthening the competitiveness of agricultural production domestically and regionally. What is often not fully appreciated is the concerted action that is needed along the whole supply chain (from the farm to the market) not only in terms of cost reduction but also in terms of quality, timeliness, consistency and reliability of supply, for agricultural products to compete in world, regional and even local markets.

In identifying and analyzing these constraints, the starting point is agricultural production at the farm level. The supply chain commences at the farm. Unless the farmer can earn a living, and can generate some surplus beyond self-consumption, there would not be any commodities to trade. The other end of the supply chain is the final consumer, whether that is domestic, regional or further away. Examining the characteristics of the demand side and how it may be affected by demographic and other factors, as well as other forces affecting the supply and demand of cereal commodities in the world market, are also important considerations in assessing the prospects of regional cereal markets. Therefore the constraints discussed in this study are not simply *marketing* and *trade* constraints which start at some point of the supply chain. There are, in addition, *production* constraints as well as constraints related to inability to respond to the dynamics of *consumer demand* and those that come from *exogenous* developments[9]. All these considerations are part of the supply chain problématique and unless they are recognized as such, isolated efforts to address strictly marketing-specific issues will fall at a vacuum.

Thus the notion of supply chain as a framework for analysis is central in this study. It is both a qualitative and quantitative framework, to the extent that data permits. It helps to identify key factors and constraints primarily responsible for problems encountered along the supply chain resulting in weak trade flows and lack of competitiveness in regional or domestic markets. Also, this is important information in deciding which sectors have potential for improvement and should be promoted and where to allocate scarce investment resources. Moreover, considering the strong political commitment for consolidating regional integration, this process may also help in identifying possible ways of better harmonization of national policies and practices, the scope of which goes beyond national boundaries and would need to be addressed at the regional level.

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7 This started with the creation of l'Union monétaire ouest-africaine (UMOA) in 1963, to become l'Union économique et monétaire ouest-africaine (UEMOA) in 1994, a customs and monetary union (CFA franc) of 8 mainly francophone West African countries ; the Economic Community of West African States (ECOWAS), founded in 1975, comprises 15 countries, including all UEMOA members.

8 The ECOWAS Agricultural Policy (ECOWAP) is the overall framework for guiding national agricultural and trade policies in member countries.

9 The energy sector and the extra demand for agricultural commodities for the production of bio-fuels is an important consideration in this area. Also, important are agricultural policies in major cereal producing countries, including the continuing distorting policies that some countries are pursuing.

II THE IMPORTANCE OF AGRICULTURE IN THE ECOWAS ECONOMIES

2.1 Economic importance of agriculture and cereal sector

Agriculture is the pivotal sector of the economies of ECOWAS countries[10]. It contributes close to 35% of the composition of the regional GDP (Fig. 2.1.1). At this level, agriculture's share is marginally less than what it was 4-5 decades ago when it stood at some 42% of the regional GDP, a reduction that is modest compared to other developing country regions, where the transformation of their economies from agrarian to industrial societies have been much more pronounced. What is also important to note is the wide range across countries in the region, with the share of agriculture in the GDP ranging from less than 10% in Cape Verde to over 70% in Liberia (Fig. 2.1.2). In fact, for Liberia and to a lesser degree for Sierra Leone and Guinea-Bissau, the share of agriculture in GDP has increased considerably in the last two decades.

Source: Compiled by the author based data from *World Development Indicators*, World Bank

While there has been a rapid increase of urbanization in the region as in other developing countries over the past 4-5 decades, over half of the ECOWAS population live in rural areas with agriculture providing much of their livelihood. The sector is characterized by millions of small family-run farms[11] of between 2-10 hectares that derive their livelihood from producing primary agricultural commodities for home consumption, domestic markets and export. The share of the rural population in the ECOWAS as a whole stood at some 55% in 2010, ranging from less than 40% to as much as 80% (Fig. 2.1.3). The dominant position of agricultural sectors would continue well into the future with some 43% of the population of the region being rural by 2030 (as much as three-quarters for some countries, such as Niger). These trends put into perspective the paramount importance of the sector for a large part of the population of the region now and for many years to come. This population will continue to depend directly on agriculture for its food and livelihood security but also, given the strong multiplier effects with other sectors, agriculture will continue to have a central role in the overall economic development of the countries of the region.

Based on well-documented experience from other parts of the world, agriculture plays a crucial role on poverty reduction, especially for countries at the same stage of development as the ECOWAS region. Cross-country estimates show that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating in other sectors (Fig. 2.1.4). This has been the case for several countries in Asia and in Latin America where aggregate growth originating in agriculture is estimated to have been about

10 While Mauritania is no longer member of the ECOWAS, having officially withdrawn in December 2000, it is included in the statistics and in the analysis of this study, largely because of its strong trade links with the ECOWAS region. Hence the designation ECOWAS in the statistics presented in this study includes the 15 members of the ECOWAS plus Mauritania.

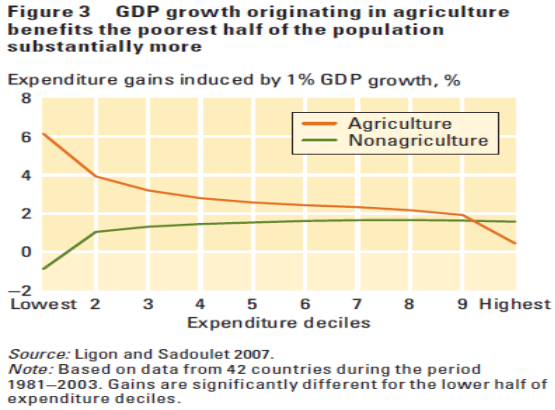
11 Women play a key role in family farming and food security in the region.

three times more effective in reducing poverty than growth outside agriculture. Recent experience from the ECOWAS region points to the same conclusion. For example, the decline in poverty in Ghanaian rural households has taken place at a time that the country witnessed a robust agricultural growth[12].

Source: Compiled by the author based on data from *United Nations Population Division*

Not only is agriculture the driving force behind poverty reduction in predominantly agricultural countries, but also the sector that drives overall growth in these economies. Historically, countries that have been able to develop and achieve a high level of overall economic growth have only done so after they had a well developed agricultural sector. A flourishing agricultural sector predated the industrial transformations in Europe, America and Japan and more recently in China, India, and other Asian and Latin American countries.

Fig. 2.1.4. The poor gain more from agriculture GDP growth



Source: Figure 3 in *World Development Report 2008*.

However, in the ECOWAS, as in most Sub-Saharan Africa (SSA), this dual role of agriculture, first as the principal force in poverty reduction and then as the main driver to overall economic growth, has yet to come about. Agriculture remains unproductive and largely responsible for continuing poverty and food insecurity, which affect 30% and 17% of the ECOWAS population, respectively, and where the heavy and growing dependence on food imports accounts for as much as 40% of all merchandize imports in some countries of the region (Fig. 2.1.5).

Source: Compiled by the author based data from *World Development Indicators*, World Bank

2.2 The importance of regional trade for improving food security

12 *World Development Report 2008*.

There is a consensus in the theoretical literature that trade promotes economic growth and reduces poverty. It provides a channel for countries to sell surplus national production in the commodities that produce efficiently in exchange for other commodities that other countries produce more efficiently. Trade encourages the allocation of resources based on the comparative advantages of countries; economic growth increases and, in the aggregate, all countries are better off with than without trade. However, trading partners, and population groups within, may gain in varying degrees depending on the social and economic characteristics of a country's exportable and importable commodities, its terms of trade and above all the distribution of productive assets[13].

It is debatable whether most African countries, including the ECOWAS region, have been able to reap the benefits from trade that derive from the general theoretical trade model. Partly this is because most countries have been exporting primary commodities in exchange of manufactured goods and the terms of trade of the former have been at a decline for a long time, at an average rate of between 0.5% and 1.3% per annum over the past century[14].

It has long been recognized that Africa must shift from being an exporter of primary commodities and diversify production and expand trade vertically, horizontally and geographically so that to increase value addition and reduce the risks from the ups and downs of world markets. In doing so it is also recognized that this transformation of Africa's export sector would be greatly facilitated by wide-ranging regional integration that spans all aspects of economic activity. Doing it alone is not likely to deliver the expected results, partly because of the small size of domestic markets in most African countries. Attempts by some countries to structurally diversify their economies in the 1970s via the import-substitution approach failed largely because the industrial outfits were designed for small domestic economies. The resulting high-cost ventures made them uncompetitive relative to the imports they were meant to displace.

Perhaps in no other sector is regional integration more important than that of food commodities and cereals, in particular. In quantitative terms (tons or calories), cereals are the most traded food commodity. It is cereals that are primarily imported to make up the difference between aggregate domestic food requirements and domestic food production. This is the case in normal years and more so in years of crop failures when much greater quantities of cereals need to be imported. Especially in countries where ethnic groups spread over national borders and employ a variety of coping mechanisms to face adversity, it is of paramount importance that households have unrestricted access to available supplies in neighbouring countries, before they may access imports from more distant origins.

In this context, the strengthening of regional integration under the ECOWAS is a welcome development. In particular, the objectives of the ECOWAP highlight the importance given to the agricultural sector in the ECOWAS region and the challenges faced to develop the potential of the sector (see Section VI). One of the principal objectives of the ECOWAS is fostering intra-regional trade and unifying regional marketplaces by progressively removing

13 Trade can affect poverty through different channels. See, for example, *Trade Liberalization and Poverty: The Evidence So Far*, L. Alan Winters, Neil Mcculloch, *and* Andrew Mckay, Journal of Economic Literature, Vol. XLII, March 2004.

14 *Assessing Regional Integration in Africa IV: Enhancing Inter-African Trade*, ECA, Addis Ababa, 2010.

artificial barriers to trade. This also generates important spin-off effects associated with the enlarged market, including greater incentives for private cross-border investments, increased food production and greater employment opportunities in the upstream and downstream sectors.

Effective regional integration can go a long way in helping countries in the ECOWAS region to improve their food security. This would require sustained development of transportation and other physical infrastructures, removing commercial obstacles to the free movement of goods, services and productive resources, simplifying border formalities, harmonizing monetary, fiscal and financial policies, sound and coordinated regional economic policy and, in general, creating an environment that provides an incentive for greater production locally, reduces the cost of moving cereals from surplus to deficit areas and ultimately renders households in the region more food secure. These are some of the issues examined in more detail in the rest of the paper.

III FOOD CONSUMPTION PATTERNS AND THE CONTRIBUTION OF CEREALS IN THE DIETS OF ECOWAS COUNTRIES

3.1 Trends in food intake and diversity of diets

Uneven progress in food security in the ECOWAS region

Over the past half century, West African countries made considerable gains in their diet. The average supply of calories increased by some 90 Kcal/person/day in every decade since the 1960s, more than the increase for Africa as a whole which averaged about 75 Kcal/person/day (Fig. 3.1.1). While this represents an absolute improvement, it is well below the increase experienced by developing countries as a whole (some 154 Kcal/person/day) or the increase by developed countries, for example that of Western Europe of 144 Kcal/person/day.

This aggregate picture for the ECOWAS masks also a wide variation among individual countries (Fig. 3.1.2). ECOWAS countries that have experienced gains in their total calorie intake, much larger that the regional average, include Cape Verde, Benin, Ghana, Mali, Mauritania, Nigeria and Burkina Faso. On the other hand, countries that have done much worse (even deterioration in their aggregate calorie intake for some of them) include Côte d'Ivoire, Liberia, Senegal, Sierra Leone and Togo. As would be expected, most of the latter countries have a high proportion of chronically undernourished people in the total population[15].

Source: Compiled by the author based on FAO/FAOSTAT data.

Aside from chronic food insecurity, the African continent has been affected by frequent emergency situations having their origin in natural calamities but also frequently in man-made causes. Since the 1980s Africa has been consistently the region with the largest number of emergencies requiring urgent external assistance (Fig. 3.1.3). Close to 60% of all emergencies in the past three decades concerned countries in Africa. On average, 16 African countries annually experienced an emergency during the 1980s and 1990s and this number jumped to 24 countries during 2001-10. West Africa is most affected by such emergencies necessitating donor assistance to meet food basic needs (see Section IV on donor food aid response). Hardest hit have been Sierra Leone and Liberia which have experienced protracted emergencies in 7 years out of 10 (mostly as a result of man-made conflicts), Mauritania in 6 years out of 10 (natural causes), Niger and Burkina Faso in 3-4 years out of 10 (natural causes), and Guinea and Côte d'Ivoire also in 3-4 years out of 10 as a result of man-made causes. To the extent that these countries are affected by chronic lack of adequate food supplies even in normal years, a much larger proportion of the population, already at risk, faces a serious food insecurity problem when an emergency strikes.

Source: Compiled by the author based on FAO/GIEWS data.

15 *The State of Food Insecurity in the World 2008*, FAO Rome, 2008.

Diversity in the diet has little changed

As is the case in all countries, the majority of calories consumed in the ECOWAS region originate in vegetal products (including cereals, roots and tubers, pulses, fruits and vegetables, etc) with the remaining coming from animal products (meats, fish, eggs, milk, cheeses, etc). A desirable trend in any diet is diversification, including towards animal products which provide essential proteins and micronutrients. What is striking in the ECOWAS region over the past half century is how stable the aggregate diet has been as regards the relative contributions of the broad categories of food products consumed (Fig. 3.2.1). In particular, the contribution of animal products in the diet has remained at about 6% over this period with the remaining 94% coming from vegetal products. This contrasts with the experience of developing countries as a whole which have seen the contribution of animal products to rise from about 7% in the 1960s to about 13% in the 2000s (Fig. 3.2.2)[16].

Again, this aggregate picture for the ECOWAS masks some important differences among individual countries. Thus, countries with a much lower share of animal products than the ECOWAS average include Ghana, Guinea, Côte d'Ivoire, Liberia, Nigeria, Sierra Leone and Togo (in the range of 2-3% of total calories consumed), while some countries with a much higher share include Cape Verde, Mali, Mauritania and Niger (in the 10-20% range), although aside from Cape Verde, the trend is for a reduced share of animal products compared to what they have historically attained over the preceding 50-year period.

Contribution of cereals and major differences between coastal and Sahelian diets

On average in the ECOWAS region, among vegetal products, cereals contribute about 50% of the calories consumed, not substantially different than the African continent as a whole but marginally less than the average of developing countries (Fig. 3.2.1 and 3.2.2). Second in importance among vegetal products are roots and tubers which now account for some 14% of the calories consumed, down from 18% in earlier years.

Source: Compiled by the author based on FAO/FAOSTAT data.

Within the ECOWAS region, the contribution of cereals in the diet varies widely, from some 30% in Ghana to over 70% in Burkina Faso. In countries with a low share of cereals, roots and tubers make up the difference. However, it may be noted that higher shares of cereals in the diet are also associated with high shares of animal products (Fig. 3.3.1). This may be explained by the general prevalence of mixed farming production systems in predominantly cereal producing/consuming countries, where livestock play a role as draught animals as well

16 In the case of the developed countries about one third of total calories consumed originate in animal products (Fig. 3.2.3). While this heavy dependence of calories from animal products may not necessarily be a positive development due to associated health risks, the same can be said about an inadequate intake of such products. Certainly, for the ECOWAS countries present levels of animal products in the diet are well below optimum levels and there is great scope from a nutritional perspective to increase the intake of such products.

as being sustained by crop residues. Another reason could be animal health constraints whereby the cereal-based drier agro-climatic zones are less prone to animal diseases of the types prevailing in the wetter zones[17].

Source: Compiled by the author based on FAO/FAOSTAT data.

While the overall quantity of calories has increased in the region, available data indicates that dietary quality and diversity have not improved. Staple foods (cereals and starchy roots) contribute the lion's share of the total dietary energy, well above the recommended 55 to 60% of carbohydrates from cereals and roots and tubers. Major differences exist within the region as regards the relative contribution of these basic food items in the diet. The coastal countries are predominantly consumers of rice and starchy roots while countries in the Sahel are predominantly consumers of millet and sorghum (Fig. 3.3.2).

Source: Compiled by the author based on FAO/FAOSTAT data.

Cereals are not only the largest source of calories in the ECOWAS but also, by default, an increasingly important source of dietary protein, as other sources of protein and micronutrients, such legumes and animal products, are less abundant in the diet, especially in the coastal countries. The high prevalence of protein inadequacy in the coastal population has been linked to the high share of root crops in their diet[18]. Even in the Sahel, the largest proportion of the protein is derived from cereals, despite the large potential of animal resources in this sub-region.

3.2 Dynamic developments in consumption habits and rural/urban disparities

As in other developing country regions demographic trends, including rapid urbanization, are major drivers in changing food consumption habits. In the last 4-5 decades, West Africa has experienced one of the highest population growth rates in the world, well over 3.0% annually for some countries (Annex 1). The population of the ECOWAS region (at about 290 million in 2010) is nearly 70% larger than it was in 1990 (20 years ago) and is projected to grow by yet another 50% by 2030 (20 years from now). At present an estimated 45% of the population is urban compared to 33% in 1990 (merely 10% in the 1950s) and is projected to reach some 57% by 2030 (Fig. 2.1.3).

The massive rural exodus that has taken place in most of the ECOWAS countries has often lead to chaotic and rampant expansion of urban spaces[19]. It is estimated that rural migrants

17 Tsetse flies in these zones are the primary biological vectors of trypanosomes, which cause human sleeping sickness and animal trypanosomiasis.

18 "Food-consumption patterns in Central West Africa and challenges to combating malnutrition", Hofonga, B.G. and van den Boom, G.J.M., *Food and Nutrition Bulletin*, 24(2), 2003.

19 See *Urbanization and Insecurity in West Africa: Population Movements, Mega Cities and Regional Stability*, UNOWA Issue Papers, October 2007.

make up about two-thirds of urban populations. In addition, there is large intra-regional migration, mostly between neighbouring countries[20]. Côte d'Ivoire and Nigeria have often drawn in immigrants from the Sahel because of the job opportunities they offered at various times. In addition, there is seasonal migration of young men from vulnerable families who migrate to make up for a food deficit of the household.

Migrant populations take their dietary habits along with them, so these migrations are also accompanied by a flow of food products to the large coastal cities (Abidjan, Lagos, Accra, Cotonou, Lomé) to meet the demand of the "non-native" populations originally from Mali, Burkina Faso, Niger and Chad, including for social and religious events such as the Tabaski holiday, the end of Ramadan, weddings and baptisms[21].

Almost half of the population of ECOWAS is concentrated in human settlements located in the southern and coastal belt areas, which make up less than 10% of total surface area[22]. Urbanization creates market potential for industrial processing of agricultural produce including the major staple grains and root crops. However, this potential is yet to be significantly exploited as a result of bottlenecks on the supply side, quality considerations and the efficiency of agricultural value chains in the region, affected also by increased competition from imported commodities.

Rapid urbanization has been associated with a notable change in diets over the last 2-3 decades, namely the shift towards a higher consumption of imported cereals (mainly wheat and rice). This phenomenon is not unique to the ECOWAS region but has been experienced in many parts of the world with similar demographic characteristics. In the ECOWAS region it has been more pronounced in the coastal countries where an increasing consumption of wheat and rice has been met by imports, compared with the Sahelian zone, where traditional grains (sorghum, millet, etc.) still constitute the main staple[23]. Wheat and rice imports include substantial amounts of food aid (see Section 4.5 on the extent of food aid).

Poverty in the region, as is the case in other countries in Sub-Saharan Africa, is predominantly rural, both in absolute population numbers and the relative poverty rate (Fig. 3.4.1). In the ECOWAS region, despite the massive population movements to urban centres, or because of them, disparities are increasing among urban and rural areas. Over half of the population that live in rural areas, often are subjected to conditions of chronic poverty, characterised by subsistence production, limited access to markets and distribution networks, and reduced opportunities for income generation. The incidence of

20 International seminar on migration policy in West Africa, Dakar, December 18-21, 2001

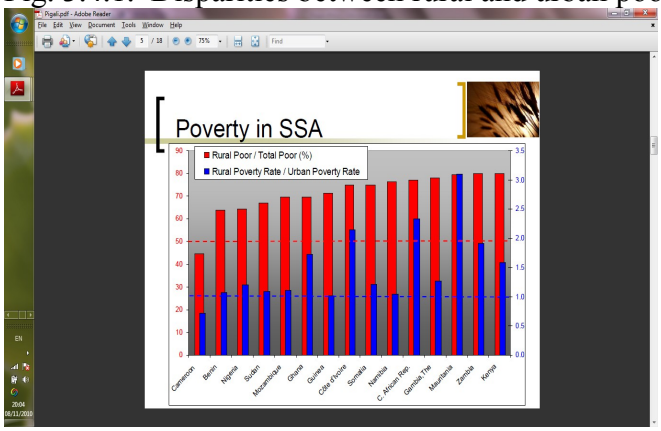
21 *An Assessment of Knowledge about Trade and Markets Related to Food Security in West Africa,* N. Terpend (Consultant), World Food Program, May 2006.

22 This trend is not specific to West Africa; coastal areas show population densities and levels of urbanization that are 20 to 30% higher than in non-coastal areas.

23 Diets in urban areas tend to be based more heavily on processed and pre-prepared foods. Reasons for the shift toward these foods include convenience, availability and price. Two examples are bread and rice. Bread is prepared fresh daily and sold though local shops and on the street in most cities. Refined white rice is both inexpensive and relatively quick and convenient to prepare.

extreme poverty ranges from a low 6% in Burkina Faso to 34% in Niger. Much of the poverty is concentrated in rural areas mostly amongst food crop farmers[24].

Fig. 3.4.1. Disparities between rural and urban poor in sub-Saharan African countries



Source: *Poverty, Hunger, and Agriculture in Sub-Saharan Africa: Opportunities and Challenges*, Pingali P., K. Stamoulis and G. Anríquez, FAO, November 2007.

A cross-country analysis of urban/rural differences in food insecurity in sub-Saharan Africa conducted by IFPRI revealed that although dietary diversity was consistently higher in urban compared to rural areas, in many countries poor urban households in the lowest quintiles of income were as food insecure and undernourished as in rural areas[25]. Also, consumption habits in urban areas have been found to reverse back to traditional diets in times of economic crises[26].

All in all, the growth of the cities has had a notable impact on regional food requirements and a challenge to domestic agriculture to respond to such needs. As the rural population declines and the urban increases, productivity of the land must increase to meet the needs of urban consumers in addition to the needs due to natural population growth. In the absence of productivity increases, the gap would have to be met by increasing imports and this is what has happened in many ECOWAS countries (see below).

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24 *Food Security and Nutrition Trends in West Africa - Challenges and the Way Forward,* C. Lopriore and Muehlhoff E., FAO, Rome, 2004.

25 *Measuring food insecurity using household expenditure surveys: new estimates from Sub-Saharan Africa,* L.C. Smith and Aduayom D., IFPRI, 2003.

26 In urban areas up to 90% of food is purchased, thus economic considerations play an important role in food choice. A survey in Accra, Ghana found that on average families spent 54% of their income on food and up to 60% in the lowest income bracket (*Urban Livelihoods and Food and Nutrition Security in Greater Accra, Ghana.* D. Maxwell, C. Levin, M. Armar-Klemesu, M. Ruel, S. Morris, C. Ahiadeke, Research Report 112, IFPRI, Washington DC. 2000).

IV PERFORMANCE OF CEREAL PRODUCTION AND TRADE

4.1 Profiles of agricultural systems in the ECOWAS region

West Africa is one of the poorest regions of the world, where a large part of the population relies on agriculture for living and where very limited opportunities exist for gainful employment outside this sector. Agriculture remains vulnerable, producing a minimum and often inadequate return to ensure livelihood security. Several factors, domestic and external, have not favoured the development of more sustainable, more productive and remunerative agriculture.

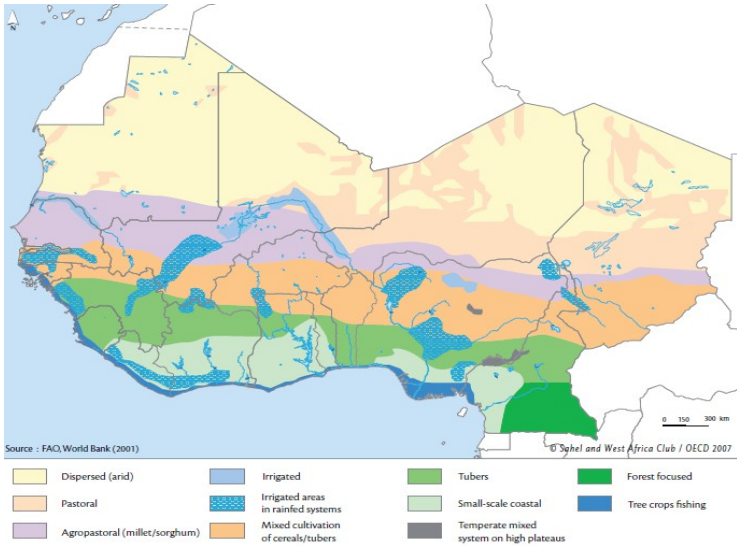
The two main agro-ecological zones of West Africa are the arid and semi-arid zone (the Sahel and the sub-humid Soudanian Savannah), and the humid zone (Guinea Savannah). Perennial plant life (with its high biomass and soil organic matter accumulation potential) is relatively rare in the arid and semi-arid zone[27]. This is due to the extreme aridity of the long dry season.

The agro-ecological diversity in the region has been matched by equally diverse agricultural production systems to exploit the region's resources (Fig. 4.1.1). Traditionally, in the arid and semi-arid zone, in addition to arable farming, "transhumance" pastoral animal husbandry has been the dominant mode of subsistence. However, adverse climatic conditions and demographic trends brought about dramatic changes in farming systems in this region. Following the drought of the 1970s, and with increasing population pressure, arable farming progressively occupied the dry season pastures. Also, faced with increased land shortage and progressively shorter fallow periods, these farmers were obliged to keep livestock to maintain and increase crop production[28]. At the same time, "transhumance" pastoralists settled and were obliged to farm besides maintaining smaller herds. Increasingly, the two formerly distinct systems, the pastoral and the sedentary, converged into mixed livestock-farming systems. To a large extent, in these mixed livestock-farming systems, livestock holdings have become an important asset for the productivity of farming (draught power) as well as a store of wealth and means of trade. Holdings of large animals (cattle) generally distinguishes the better-off farmers (those that may produce in excess of own consumption) from the poorer subsistence farmers whose main livestock assets are often small ruminants.

Fig. 4.1.1. Agro-ecological diversity in West Africa

27 This section is based in part on *West Africa's Subsistence Farming*, H. Bremman, IFDC, Togo, presented to the IFA-FAO Agriculture Conference: "Global Food Security and the Role of Sustainable Fertilization", Rome, Italy, 26-28 March 2003.

28 Bremman, op cit.



In the humid and rain forest zone maintaining livestock has always been difficult and population pressure traditionally has been low. Diseases such as sleeping sickness and river blindness have been the main reason for both. However, there is generally higher potential for farming in humid zones, thanks to more above- and below-ground organic matter. In the past, farming systems were mainly based on perennial export crops, including rubber, coconut palms, cocoa and coffee. Also, root crops like cassava and sweet potatoes were traditionally produced for own consumption. Progressive deforestation (the slash-and-burn farming practice) and overexploitation of agricultural land (due to population pressure, including migration from the sub-humid savannah, as the latter became overpopulated) have reduced soil fertility due to run-off and leaching of soil nutrients. Increasingly, perennial crops gave way to an expansion of annual cereals such as maize and rice, the production of which was also demanded by the fast growing urban centres in the coastal areas. Together with these trends, livestock has also gained importance in this zone, as deforestation decreases the habitats of tsetse flies and strengthens the effect of drugs against sleeping sickness. As a result, a mixed farming livestock system has been developing similar in structure to that prevailing in the arid and semi-arid zone.

4.2 Commodity/country specific production performance

Because of the high contribution of cereals in the diet of all countries in the ECOWAS region, irrespective of the agro-ecological zone, the performance of cereal production is of paramount importance for food security. For the ECOWAS region as a whole, cereal production increased by just over 3.5% annually during the past three decades (1980-2009), marginally above population growth (see Annex 1). For a region which has a large cereal deficit and suffers from chronic and transitory food insecurity, this level of increase has not been adequate to meet growing needs due to natural population increase and desirable improvements in the quality of diets. What is also worrying is that the main source of gains in cereal output has come from extensification of production (Fig. 4.2.1) while gains in yields have been insignificant. Average ECOWAS cereal yields achieved only marginal gains during the past 30 years and remain below the average of SSA and well below the average for developing and developed countries (Fig. 4.2.2).

Source: Compiled by the author based on FAO/FAOSTAT data.

Increases in aggregate cereal output hardly due to productivity gains

Nigeria is by far the largest producer of cereals among the ECOWAS countries, accounting for 53% of all cereals produced in the region. Its share for individual commodities amounts to 43% for rice, 68% for sorghum, 40% for millet and 54% for maize. Overall, only 5 countries of the region account for well over 80% of the total cereal output and this also applies for individual commodities. Thus, in addition to Nigeria, other major producers include: Guinea, Mali, Côte d'Ivoire and Sierra Leone for rice; Burkina Faso, Mali and Niger for sorghum and millet, and Ghana, Benin and Burkina Faso for maize (Fig. 4.2.3 to 4.2.6).

It follows that the bulk of any potential increase of cereal output in the ECOWAS region would come from these top 4-5 countries of which Nigeria is a major player[29]. A better insight in this potential for increase can be gained by looking at the present level of yields in individual cereal commodities and countries, and how dynamic these yields have been in the past (i.e. growth rates achieved).

Source: Compiled by the author based on FAO/FAOSTAT data.

On average for the ECOWAS region, cereal yields increased by barely 1% per annum during the 30-year period (1980-2009). However, this average gain masks considerable differences among individual countries. Several countries registered growth rates well below that modest average and some of them had even a negative growth (Cape Verde, Gambia, Nigeria and Sierra Leone) and any gain in output was the result of area expansion rather than productivity increases (Fig. 4.2.7).

In this connection, it is instructive to decompose the contributions of area and yields in the total increase in cereal production in the ECOWAS region and compare them with those of other regions. In the ECOWAS region (as in SSA as a whole) some 75-80% of the increase in cereal production between 1980-89 and 2000-09 came from an increase in area harvested and less than 20% from increase in yields. Exactly the opposite has been the experience in the developing countries as a whole where over 80% of the increase in production has come from a yield increase and less than 20% from area increase[30] (Fig. 4.2.8). Clearly, technology and the use of modern inputs that have been the driving force in increasing food production in

29 Nigeria has diverse agro-ecological zones which are suitable for producing a range of annual and perennial crops including cash crops such as cocoa, oil palm and rubber, as well as food crops like maize, plantain, cassava and yams. The climate becomes progressively drier, reaching semi-arid savannah towards the north where the production sorghum and millet is concentrated.

30 The production increase between two time periods can be decomposed into effects attributed to area increase, effects attributed to yield increase and the combination of these two factors. The related formula is as follows:

$$Q2-Q1 = A2*Y2 - A1*Y1 = Y1*(A2-A1) + A1*(Y2-Y1) + (Y2-Y1)*(A2-A1)$$
$$= \text{Area effect} + \text{Yield effect} + \text{Combined effect}$$

where :
Q, A and Y are production, area and yield, respectively, and
subscripts 1 and 2 correspond to the periods 1980-89 and 2000-09, respectively.

Asia and other parts of the developing world have hardly been a contributing factor in SSA so far.

Source: Compiled by the author based on FAO/FAOSTAT data.

Productivity of top cereal producers generally poor and highly uneven

In the case of rice the champion of performance among the top producers is Mali where yields have been increasing at a rate of 3.8% per annum during the past 30 years, while the largest producer (Nigeria) has experienced a negative growth rate of -0.7% annually (Fig. 4.2.9). Among the other top rice producers, Guinea and Côte d'Ivoire have also had healthy rates of growth of 2.5% and 1.9%, respectively. The combined output of the top five rice producers amounts to some 84% of the total output of the ECOWAS region, however the output of the best performing rice producers among them (Mali, Guinea and Côte d'Ivoire) to only 36% of the total.

Turning to millet, the best performing country is Burkina Faso with an annual yield growth rate of 2.3% followed by Niger of 1.3%. Among the other countries in the top 5 producers, Mali and Senegal had only modest growth rates of 0.5% and 0.4%, respectively, while the top producer (Nigeria) registered again a large negative yield growth rate of -2.75% (Fig 4.2.10). The combined output of the top five millet producers amounts to about 94% of the total output of the ECOWAS region, however that of the best performing producers among them (Burkina Faso, Niger and Mali) to about 48%. Because of very poor performance of Nigeria in millet production, the aggregate rate of growth of millet production for the ECOWAS as a whole has been zero during the past 30 year period.

In the case of sorghum, the best performing country in terms of yield increase is again Burkina Faso with an annual growth rate of over 3% followed by Ghana and Mali with 2.1% and 1%, respectively. Nigeria, the top producer has had a negative growth rate of -0.4% per annum[31] (Fig. 4.2.11). The combined output of the top five sorghum producers amounts to 94.5% of the total output of the ECOWAS region, however that of the best performing countries among them (Burkina Faso, Ghana and Mali) to only 20% of the total

Finally, as regards maize yields, the situation is much better that the other cereals even for Nigeria, which registered a positive annual yield growth rate of 0.84% during the past 30 years. The best performers are Burkina Faso, Ghana and Benin with annual growth rates of 5%, 3% and 2.6%, respectively (Fig. 4.2.12). The overall annual rate of yield growth for the ECOWAS region as a whole is an impressive 2.5% per annum, much better than any of the other cereals. The combined output of the best performing maize producers (Burkina Faso, Ghana, Benin and Nigeria) amounts to 78% of the total output of the ECOWAS region.

Source: Compiled by the author based on FAO/FAOSTAT data.

31 Nigeria ranks second only to the US in terms of global output of sorghum. As a drought-tolerant crop, it is produced predominantly in relatively drier northern regions of the country, where it accounts for about 70% of the calorie requirements of the population in those regions.

4.3 Challenges to increasing agricultural productivity

By and large the increase in output in the region has been due to expansion of the land under cultivation rather than gains in yields. This is not surprising as the region makes little use of productivity enhancing inputs, including improved seeds, chemical fertilizers, mechanization and irrigation[32].

Use of improved seeds is marginal, especially for food crops. In some isolated cases that there has been systematic use of improved seeds (rice farmers in irrigated areas of the Office de Niger in Mali) has resulted in a significant increase in yields, as seen in the previous section. However, in general this has not been the case in traditional rice production systems in the coastal areas where only marginal gains in yields have been achieved.

Fertiliser use in the ECOWAS region as in the rest of Sub-Sahara Africa has been very low, estimated at an average of 9 kg per hectare of cultivated land compared to an average consumption for developing countries of 101 kg per hectare (Fig. 4.3.1). Other developing country regions that achieved high productivity gains in cereals have increased fertilizer inputs substantially. Burkina Faso, Mali, Nigeria and Côte d'Ivoire consume about three-quarters of the fertiliser used in the region. Ghana and Benin consume 13% and the remaining by the rest of the countries. Nonetheless, it is estimated that most of the fertilizer used in the region (some 80% of the total) is in cotton-growing areas.

Also, the degree of mechanisation in the region is low[33]. Nigeria alone accounts for more than half of ECOWAS's agricultural machinery. This is due to the size of the country as well as recent agricultural policy which favours the establishment of big agro-industrial farms. While the use of mechanization is still limited, there have been some encouraging signs of expansion in this area, with the number of tractors doubling between 1980 and 2003 according to FAO statistics. Mali and Burkina Faso (in addition to Nigeria), have had a rise in their number of tractors from 115 to 2,000 and 900 to 2,600 respectively over this period[34].

Source: Compiled by the author based on data contained in *Fertilizer use in African Agriculture: Lessons Learned and Good Practice Guidelines*, Morris M., V. Kelly, R. Kopicki and D. Beyrlee, World Bank 2007.

The irrigation potential of the region varies widely between agro-ecological zones due to the very unequal distribution of rainfall. The arid-dry zone (Burkina Faso, Cape Verde, Mali, Niger, Senegal) receives less than a quarter of total rainfall for an area accounting for roughly 60% of the whole region. The irrigation potential of this zone is about 16% of the regional potential. Over three-quarters of rainfall (77%) is accounted for by the humid and semi-

32 A review of use of productivity enhancing inputs in the region can be found in *Agriculural Potential of West Africa (ECOWAS),* Blein, R., B. G. Soule, B. F. Dupaigre and B. Yerima, Fondation pour l'agriculture et la ruralite dans le monde (FARM), February 2008. The brief account on input use presented here is based in part on this review.

33 On average, the fleet of ECOWAS tractors is estimated at one tractor per 5,300 hectares.

34 Blein, et al (2008), op cit.

humid areas, and Nigeria and Ghana have the highest irrigation potential, accounting for 26% and 21%, respectively[35] of the region's total. Of the crops grown in the region, cotton and rice require more water compared to maize, sorghum and millet in descending order. In this context, the potential of increasing the production of these crops in some countries with limited irrigation potential would need to be seen in terms of the sustainability of farming systems and the implications for producing other grains which are better adapted to arid ecosystems. However, in the final analysis to the extent that markets are allowed to determine the allocation of scarce resources, the crop production mix would be determined by relative prices.

Aside from their direct food security implications, the poor record of cereal productivity gains in the ECOWAS region raise also concerns about adverse impact on the environment as well as on land pressures and related potential conflicts in rural communities. Already, there have been considerable adjustments in pastoral and farming communities as a result of pressures on land and other resources. On the other hand, the lack of intensification of production in the region implies that there exists considerable untapped potential for productivity gains. Increased investment in agriculture in order to exploit this potential would greatly enhance national and regional self-reliance in food and improve livelihood security especially of rural households where acute poverty and food insecurity affect a large part of the population.

The Economic Report on Africa 2009[36] identified several challenges facing agricultural productivity in Africa, including under-capitalization of agriculture, inadequate funding of agricultural research and technology, insufficient use of yield-enhancing practices and technologies and low land and labour productivity.

The performance of agriculture in the region is seriously compromised by lack of production capital compared with the needs of the agricultural sector[37]. Loans granted to small producers who generate almost 90% of production are often insignificant and difficult to access (most of the time, producers must cultivate cash crops in order to qualify). Banks and lending cooperatives grant loans to producer groups that offer joint guarantees, thereby disallowing individual producers to unilaterally assume the risks. Often, the only choice has been microfinance mechanisms which offer only small loan sizes at high interest rates due to the intermediation and management costs. Overall, only a minority of producers currently have access to credit that is well-adapted to the needs of small-scale farms.

Public spending on agriculture has also been inversely related to the importance of the sector in the economies of countries of the region. This follows the pattern generally observed elsewhere whereby the predominantly agriculture-based developing countries, where the sector still accounts for a large share of total GDP, suffer from an underinvestment in agriculture (Fig. 4.3.1). In the agriculture-based countries public spending in agriculture as a share of their agricultural GDP is very low at 4%, compared with 11% in the successful

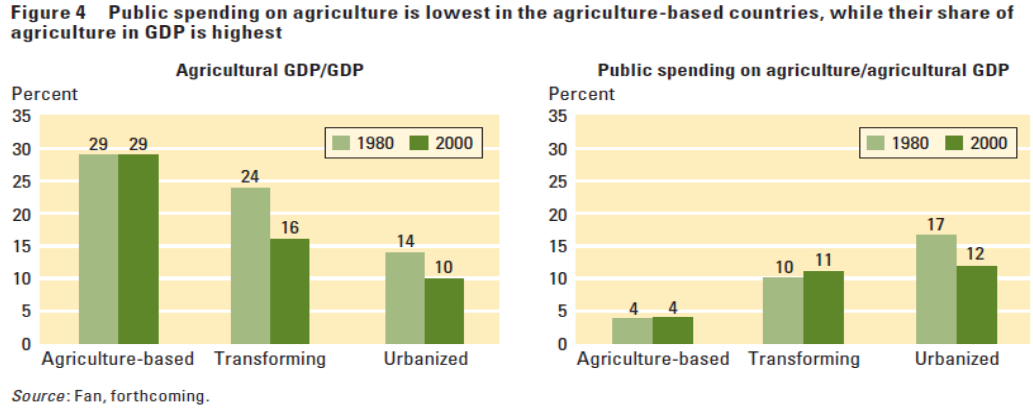
35 Blein, et al (2008), op cit.

36 *Economic Report on Africa 2009: Developing African Agriculture Through Regional Value Chains,* United Nations Economic Commission for Africa, 2009, Addis Abeba, Ethiopia.

37 Blein, et al (2008), op cit.

transforming countries. The same pattern also emerges as regards donor assistance to agricultural development, partly as a result of the imperative in prioritizing donor resources to meeting pressing and recurring humanitarian food assistance needs.

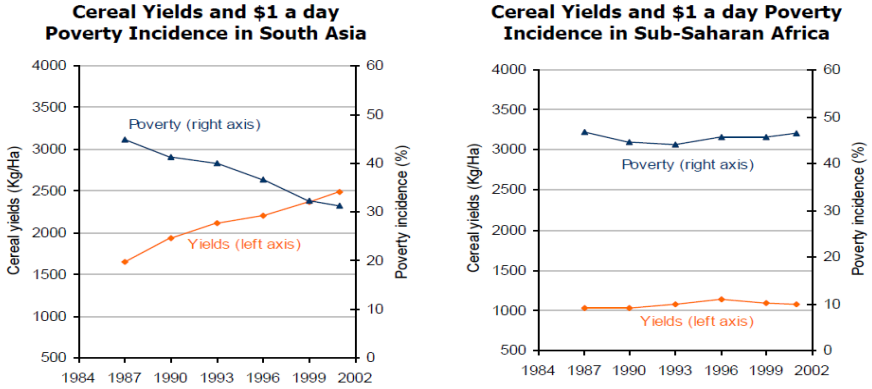
Fig. 4.3.1. Public spending on agriculture inversely related to its importance



Source: Figure 4 in *World Development Report 2008.*

That investment in agriculture has high economic pay-off has been well documented, in particular as regards the Green Revolution that lifted Asia out of food insecurity and import dependence[38]. Investment in agriculture translates in increased productivity and poverty reduction, as shown in Fig. 4.3.2 which compares trends in the incidence of poverty in South Asia (a steady gain in cereal yields) with that of Sub-Saharan Africa (stagnated cereal yields are persistently high poverty levels). In this connection, the generally poor performance of cereal yields in the ECOWAS is worrying.

Fig. 4.3.2. Gains in cereal yields and poverty reduction



Source: Figure 1.1 in *World Development Report 2008.*

38 In addition to bottlenecks in agricultural finance, land tenure has not been conducive to providing incentives for increasing investment in the land. Some ECOWAS countries have made some progress with land tenure, which offer greater security to farmers, thus improving investment in the agricultural sector. Land reforms of varying depth and complexity are under way in several ECOWAS countries, including Côte d'Ivoire, Benin, Mali, Burkina Faso and Niger. In some cases, for example in the main river valleys in Niger, collective use of land by rice farmers is common due to the high cost of developing land, a task formerly carried out by public authorities.

The Asian experience may not be replicable everywhere and, in addition to public investment in agriculture, some of the reasons that favoured the adoption of the Green Revolution in Asia compared to Africa include, inter alia: a positive accompanying investment climate; less government taxation of agriculture; better local governance; better infrastructure; generally more favourable climatic conditions; and finally, a technology focussing on cereal monocultures, especially those suitable for irrigation which was possible in Asia but less so in Africa. On the other hand, Africa, which has not benefited from such technologies in the past, may hold a promise to the extent that R&D increases to develop technologies suitable for the region's agro-climatic conditions and there is parallel progress in easing constraints that may impede its adoption. In this connection, it has also been noted[39] that the situation in Africa has improved in recent years, including more effective government policies; reduction of taxation of agriculture; increasing public expenditure to agriculture; more effective harmonization of donor projects under African management; more intense involvement of African civil society; as well as increased cooperation between African countries (e.g. CAADP, NEPAD and regional initiatives). Also, recent increases in food commodity prices rendered agriculture more profitable and, partly as a response to the food crisis of 2007-08, several countries in the region have initiated prominent production programmes, for rice and other foods, including the development of commodity value chains. Increased subsidies such as for irrigation and fertilizers are part of these initiatives[40].

Overall, agricultural growth, driven by increases in productivity, is a *sine qua non* for the development of the agricultural sector and for strengthening food security in the region. Raising productivity will require not only adoption of improved production technologies and increased use of related yield-increasing inputs but also measures to modernise and improve efficiency of national and regional agricultural markets that facilitate the movement of commodities from surplus to deficit areas. Agricultural markets in the region are constrained by a number of factors that lead to lower margins for producers, higher transaction costs for traders and, ultimately, higher consumer prices that render local grains uncompetitive against imported supplies (more on these issues in Section V).

4.4 Increasing dependency on the world market to meet growing food needs

Widening food import gap

The aggregate picture of cereal trade of the ECOWAS region reveals a large and widening gap between imports and exports (Fig. 4.4.1). From a total of about 4.4 million MT average imports in the 1980s, total imports passed the 10 million MT mark in the beginning of the 2000s and are now hovering about 12 million MT (these are gross imports, i.e. including intra-regional trade). On the other hand, although cereal exports were insignificant up to 2000, since then they are floating around 1.5 million MT per annum (again, including intra-

39 *Contemporary issues of agriculture and rural development in Africa and IFAD's approach*, K. Cleaver, IFAD, November 2007.

40 "Ghana - Articulating Trade-Related Support Policies for Agriculture", R. Sharma, in *Articulating and mainstreaming agricultural trade policy and support measures*, R. Sharma and J. Morrison (editors), FAO, Rome, 2011.

regional trade). In net terms, the present cereal deficit exceeds 10 million MT, representing the quantity bought from the world market, i.e. outside the ECOWAS region.

The ECOWAS region imports heavily wheat and rice and is a marginal exporter of maize, millet and sorghum. Of the 12 million MT gross cereal imports annually in recent years, roughly half is wheat and the other half rice, similar proportions as those observed since the 1980s (Fig. 4.4.2 and Fig. 4.4.3). In global terms, the region is a small importer of wheat, amounting to some 4.3% of total world wheat exports[41]. However, it is a major importer of rice with close to 20% of total world rice exports being imported by ECOWAS countries. While the absolute quantities of imports by the ECOWAS are similar for wheat and rice, the much higher share in rice imports in world trade is due to the much thinner global rice market compared to that of wheat.

For the other three main cereals, i.e. maize, millet and sorghum, while the ECOWAS has been exporting small quantities since the 1980s, it was only about the beginning of the present decade, that gross exports exceeded gross imports, and the region as a whole registered a consistent positive trade balance (Fig. 4.4.4 to Fig. 4.4.6). In global terms, the cereal exports of the ECOWAS region amount to merely 0.5% of total world cereal exports. One notable exception is millet, where the ECOWAS is the world's leading exporter with some 64% of world millet exports originating in the region (including intra-regional trade). However, due to production fluctuations, this recent net export status of the ECOWAS in the latter three cereals is subject to substantial year to year variability. This may compromise the prospect of the region in establishing itself as a predictable source of supplies in these three commodities. On the other hand, when it comes to wheat and rice, one observes a generally smooth growth in the quantities imported, reflecting the steadily evolving demographic trends in these countries which are the main drivers behind the growing imports in these two commodities.

Source: Compiled by the author based on FAO/FAOSTAT data.

Turning to the individual ECOWAS countries, all of them are net importers of cereals in the aggregate. In absolute terms, 4-5 of them account for over ¾ of total cereal imports, with Nigeria absorbing some 44%, followed by Côte d'Ivoire and Senegal with 11% each, and Ghana with 7% (Fig. 4.4.7). The other countries follow with smaller shares. Import dependency (a concept inverse to that of self-sufficiency) is the highest for Cape Verde, where nearly nine out of ten Kg of grain consumed is imported and the lowest for Mali, where less than 2 out of 100 Kg is imported.

The small quantities of cereal exports of the ECOWAS countries are more widely distributed between countries, especially in the case of maize where at least half of the countries have a good share in the region's exports in that commodity (Fig. 4.4.8)

41 These and all the other percentages referred to in this section correspond to the average of 2000-09.

Source: Compiled by the author based on FAO/FAOSTAT data.

Low and declining self-sufficiency in the ECOWAS region

Overall, cereal production in the ECOWAS countries provides about four-fifths of the cereal consumed (2000-09 average), with the rest originating outside the region. The dependence of the region to outside supplies has increased somewhat compared to the decade of the 1980s, when its self-sufficiency ratio (SSR) stood at 82.7%. The SSRs for individual ECOWAS countries vary widely, ranging from as low as 11.5% for Cape Verde to 97.4% for Mali during 2000-09 (Fig. 4.4.9). There are also major differences among countries as regards changes in their SSRs over time. Countries which have improved their reliance on domestic cereal supplies include Mali, Burkina Faso, Togo, Benin and Guinea. However, the majority of ECOWAS countries increased their dependence on imported supplies. These include Niger, Nigeria, Ghana, Sierra Leone, Guinea-Bissau, Senegal, Côte d'Ivoire, Liberia and Mauritania[42].

Source: Compiled by the author based on FAO/FAOSTAT data.

Import dependency is the highest for wheat given the insignificant domestic production in the ECOWAS region (Table 4.1.1). Nearly all of the wheat consumed (98.4%) comes from abroad. For the ECOWAS as a whole, wheat imports grew at an annual rate of 3.3% per annum during the last three decades and for some countries by over 5% (Table 4.1.2). This strong growth in wheat imports is likely to continue, especially for those countries that have already a large dependence on this commodity in their diet (Mauritania, Cape Verde, Senegal, Nigeria, Gambia, Cote d'Ivoire, among others, see Table 4.1.3).

Table 4.1.1. Self-sufficiency ratios (%) of cereals in the ECOWAS (2000-09)

	Wheat	Rice	Maize	Millet	Sorghum	Cereals total
Benin	0.0	19.1	109.4	106.8	107.0	85.7
Burkina Faso	0.0	25.5	111.6	102.2	104.0	95.6
Cape Verde	0.0	0.0	27.2	0.0	0.0	11.2
Côte d'Ivoire	0.0	35.5	97.7	100.0	81.2	48.5
Gambia	0.0	14.0	109.6	108.0	109.4	55.9
Ghana	0.0	28.6	104.8	100.0	98.0	72.4
Guinea	0.0	75.1	101.9	101.4	100.0	80.5
Guinea-Bissau	0.0	45.8	92.0	100.0	103.4	58.0
Liberia	0.0	43.3	0.0	0.0	0.0	34.5
Mali	9.9	89.7	107.9	103.4	105.4	98.1
Mauritania	0.2	33.6	80.9	93.7	94.7	23.9
Niger	15.0	17.8	19.6	100.7	104.7	92.9
Nigeria	2.0	56.5	100.8	102.1	100.9	82.7

42 It may be noted, however, that greater reliance on domestic cereal supplies (higher SSR) does not necessarily imply greater food security than those countries with greater reliance on external supplies. There are countries with low SSR in cereals but with high overall calorie availability, as a result of greater supply of other foodstuffs such as starchy roots (e.g. Benin, Côte d'Ivoire and Ghana) and animal products (e.g. Cape Verde and Mauritania). However, for those countries that have witnessed a sharp decline in their domestic self-reliance in cereals, without compensation by other sources of domestic food stuffs and/or inability to increase imports, their food security has suffered. This includes, for example, Sierra Leone, Guinea-Bissau, Senegal and Liberia.

Senegal	0.0	19.0	94.8	99.7	94.6	51.4
Sierra Leone	0.0	75.9	66.0	100.0	100.0	65.5
Togo	0.0	47.0	110.5	100.0	102.6	91.4
ECOWAS	**1.6**	**49.8**	**102.0**	**101.7**	**101.6**	**80.3**

Source: Compiled by the author based on FAO/FAOSTAT data.

Table 4.1.2. Import growth rates (%/year) of cereals in the ECOWAS (1980-82 to 2008-10)

	Wheat	Rice	Maize	Millet	Sorghum	Cereals total
Benin	-0.3	7.5	-3.5	0.0	-100.0	3.9
Burkina Faso	4.1	7.6	6.6	0.0	-8.9	5.2
Cape Verde	3.8	4.3	-2.0	0.0	-100.0	1.3
Côte d'Ivoire	2.1	3.3	9.9	0.0	2.1	2.9
Gambia	3.6	5.9	0.0	0.0	-6.4	5.0
Ghana	5.3	11.5	-0.5	0.0	-10.7	6.0
Guinea	4.9	5.3	-0.6	0.0	0.0	4.7
Guinea-Bissau	2.6	5.0	-3.6	0.0	0.0	3.5
Liberia	4.0	3.9	10.9	0.0	0.0	4.2
Mali	2.9	0.9	-3.2	-100.0	0.0	1.2
Mauritania	5.1	3.3	-0.4	0.0	-6.5	4.2
Niger	0.8	8.1	2.6	0.0	2.4	5.5
Nigeria	3.4	4.6	-4.5	0.0	8.3	3.3
Senegal	3.7	3.1	2.9	0.0	-5.3	3.0
Sierra Leone	3.0	2.3	15.1	-100.0	-100.0	2.6
Togo	2.4	5.2	8.2	0.0	-100.0	3.6
ECOWAS	**3.3**	**4.3**	**-0.6**	**0.0**	**-2.5**	**3.4**

Source: Compiled by the author based on FAO/FAOSTAT data.

While also for rice all the ECOWAS countries are net importers, the situation is somewhat different than that of wheat, given the substantial production and potential for growth in several countries of the region. Nearly all of the rice produced in the region is consumed in the country of origin (99.9%). Half (50.2%) of the rice consumed is imported (ranging from 100% for Cape Verde to some 10% for Mali) which gives an idea of the competitive pressure exerted on domestic rice producers. In fact, rice imports for the region as a whole have been growing at a rate of 4.3% per annum during the past three decades, more than the rate of growth of wheat[43]. It would be expected that import growth rates would subside somewhat for countries that have made special efforts in recent years to increase rice production. However, this may not be the case for other countries, especially those with a sizable and growing part of their diet being rice-based and which produce insignificant amounts of rice.

Table 4.1.3. Per caput consumption (Kg/cap/year) of cereals in the ECOWAS (2000-09)

	Wheat	Rice	Maize	Millet	Sorghum	Cereals total
Benin	5.6	32.1	91.5	4.7	16.9	150.4
Burkina Faso	4.7	23.7	46.4	73.0	103.1	251.7
Cape Verde	45.7	57.7	73.1	0.0	0.0	176.5
Côte d'Ivoire	17.3	67.9	33.2	2.2	2.4	121.0
Gambia	18.0	102.7	19.0	66.9	15.4	221.6
Ghana	13.1	30.1	53.0	7.7	14.2	117.4
Guinea	18.0	127.5	53.1	14.5	3.8	239.4
Guinea-Bissau	10.5	103.3	16.4	19.1	10.0	160.6
Liberia	17.0	90.3	3.7	0.0	0.0	109.7
Mali	8.8	69.4	43.2	86.5	63.2	273.8

43 The highest growth in rice imports took place during the 1990s for most countries. There has been some slowdown in rice imports during the 2000-09 period, especially for countries that have made considerable efforts to increase rice production (see figures in Annex 2).

Mauritania	104.6	53.1	5.1	1.3	25.0	188.6
Niger	3.6	21.5	4.2	201.1	54.1	284.5
Nigeria	20.1	29.9	44.4	27.0	59.9	180.1
Senegal	23.0	87.4	24.2	46.9	14.9	197.4
Sierra Leone	13.6	86.3	5.6	2.7	3.3	105.2
Togo	10.7	20.3	78.2	8.0	27.7	145.5
ECOWAS	**17.3**	**42.1**	**42.1**	**35.4**	**45.4**	**182.4**

Source: Compiled by the author based on FAO/FAOSTAT data.

4.5 Declining importance of food aid in bridging import gap

Countries in the ECOWAS region continue to receive food aid regularly, although compared to the past food aid is a small proportion of imports. Food aid represented 15-20% of total cereal imports in the early 1990s and that share has declined to 2-3% in recent years (Fig. 4.5.1). Largely, this is the result of the decline of food aid availability since the mid 1990s following the reform process under the WTO and the general strengthening of cereal commodity markets since then[44]. This has affected deliveries of food aid not only for the ECOWAS but all countries.

Source: Compiled by the author based on FAO/FAOSTAT and WFP data.

Another important consideration is the degree of response of food aid to the fluctuations of regional production. However, such an assessment would have required detailed commodity and country specific analysis, including information on the nature of food aid needs, i.e. whether specific population groups were at risk as a result of production shortfalls. This is beyond the scope of this study. Nonetheless, based on aggregate cereal production and aggregate food aid (all commodities and all ECOWAS countries, as depicted in Fig. 4.5.2), the correlation coefficient between them (after correcting for their respective trends), turned out to be -0.30[45]. This would indicate that, in general, food aid was above trend when production was below trend and vice versa.

The decline of food aid deliveries to the ECOWAS has been more pronounced in programme food aid (Fig. 4.5.3). These are supplies of commodities sold in the domestic markets of recipient countries and the funds generated are used to support development activities. This type of food aid has been associated with disincentive effects to the domestic production and its provision is commonly linked to donor availabilities rather than to the recipient needs. Its decline should be seen as a welcome development to the extent that the development activities it supported are financed by other resources.

The distribution of food aid among the ECOWAS countries is shown in Figures 4.5.4 and 4.5.5. Both during the decade of the 1990s and the 2000s, the bulk of food aid has generally gone to countries that experienced protracted food emergencies due to natural or man-made calamities during these periods, as well as countries which required assistance in view of chronic under-nutrition.

44 Historically, food aid has been linked to the disposal of donor surpluses. As a result it has been inversely related to world prices, increasing in years of low prices and declining when world prices are high.

45 The correlation coefficient was calculated between the deviation of food aid from trend for year t and the deviation of cereal production from trend in year t-1. This is because the respective data are on a calendar year basis and the need for food aid in a given calendar year would normally be due to a production shortfall in the previous calendar year.

Looking at the sourcing of food aid, the bulk of it continues to come from donors' own supplies (Fig. 4.5.4). Triangular transactions and local purchases, two modes of procurement with important trade enhancing effects, both regionally and nationally, represent an increasing share of total food aid in recent years; however this is largely because the overall volume of food aid has declined and not because substantially more is sourced regionally and locally[46]. This may signify either that donors have not made enough effort to promote such transactions or that there are difficulties in procuring such supplies in the region on a regular basis.

Source: Compiled by the author based on FAO/FAOSTAT and WFP data.

46 It is also evident that direct transfers account for most of the year to year variation in food aid deliveries.

V CEREAL MARKETS IN THE ECOWAS REGION

5.1 The geography of intra-regional trade and factors affecting it

Intra-regional trade in the ECOWAS, as in other regions of the world, is influenced by several factors, including in the first place differences in resource endowments and climatic conditions, demographic trends, dietary preferences, levels of income as well as the trade openness of the countries of the region.

There are three large trading blocs in West Africa, each one running essentially in a north-south direction, but also linking neighbouring coastal areas (Fig. 5.1.1). The eastern basin (the largest) consists of Nigeria, Benin, Niger, as well as neighbouring non-ECOWAS countries Chad and Cameroon. The central bloc comprises Cote d'Ivoire, Mali and Burkina Faso, and the western basin includes Senegal and its neighbours (Mauritania, Gambia, Guinea-Bissau and Guinea). The most active in terms of intra-regional trade are the eastern and central blocs although the latter was severely disrupted by the events in Côte d'Ivoire in 2003. The western basin operates more with merchandise imported from the international market[47].

Fig. 5.1.1. Main regional trading blocs

The most active cross-border markets are located in the intermediate zone between the north and the south, and serve as relay markets (or transhipment points) [48]. They play an essential role in exchange between the interior and the coastal zones[49]. Generally, with the exception of rice and wheat which are heavily imported, and to some extent maize, agricultural commodity flows converge towards coastal areas, where there is strong growth in demand due to urbanization. This is also the case for other food and livestock products for which, aside from demographic factors, market prospects are much better, in view of higher per caput incomes compared to those in the interior, in the populous coastal countries such as Senegal, Cote d'Ivoire, Ghana and Nigeria (see Box 5.1). Another obvious factor instrumental in influencing this direction of trade is the seaports which are the main trade link of the region with the world market.

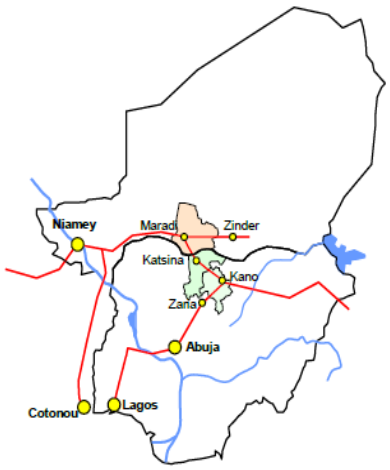
47 Terpend (2006), op cit.

48 Some regional markets are at the crossroads of exchange for several countries. This is the case with the Dawanau market in Kano, Nigeria, which has become the largest cereal market in West Africa. It serves trade among Niger, Chad, Nigeria, and even Cameroon, Benin and Burkina Faso. Another major market is Malanville in Benin, located where the borders of Niger, Benin and Nigeria meet and also close to Burkina Faso. Pouytenga market located near Fada N'Gourma in Burkina Faso supports the cereal trade, in particular maize, among Burkina Faso, Ghana and Niger. In addition, a network of towns has developed close to the borders and sustains cross-border trade in cereals and other commodities, such as Saint Louis in Senegal; Rosso in Mauritania; Kayes, Mopti and Koutiala in Mali; Ouahigouya and Dédougou in Burkina Faso, etc. (L. Brossard, M.Trémolières, P. Heinrigs, *Unité développement local et processus d'intégration régional*, Sahel and West Africa Club, May 2004 (as reported by Terpend (2006), op cit.)

49 Karim Dahou, "Structure du commerce extérieur et intégration régionale," *Frontières et intégrations en Afrique de l'Ouest*, November 2003.

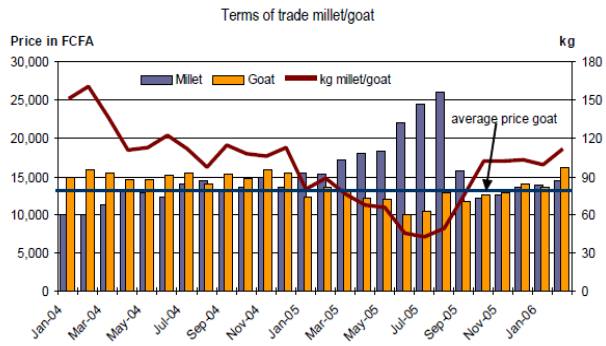
Box 5.1: The Kano-Katsina-Maradi (K²M) trading area[50]

The K²M area covers over 83 000 km2 with more than 50 million inhabitants, between Nigeria and Niger. With more than 200 inhabitants per km², it is one of the most densely populated areas in West Africa. Linked by age-old social and cultural links, and having a compact urban network organised around the urban area of Kano, this area illustrates the strong trade links and food security interdependencies between Nigeria and Niger along the 1500 km common border. Cross-border trade is intense, including agricultural products, especially livestock from Niger in exchange of cereals and manufactured products from Nigeria, as well as products re-exported to Nigeria via Niger coming from Benin and Togo.



The quantity and direction of the cross-border trade in food commodities between Niger and Nigeria depend on several structural and cyclical factors. As regards cereals (millet, maize and to a lesser extent sorghum), Niger in general and the region of Maradi, in particular, regularly import from Nigeria to balance the deficit in domestic supply.

Cross-border trade allows Niger and Nigeria to benefit from their comparative advantages. Nearly all of Niger's livestock production (97%) is exported to Nigeria in exchange for cereals. This contributes to greater food security in both countries but especially in Niger, a country with recurrent cereal deficits and high seasonal variations in food availability. Despite a diversification of Niger's cereal sources, Nigeria remains its major supplier.



However, this cross-border mutual food dependency is not without problems. Accessing cereal supplies across the border for a large part of the Niger population (especially in pastoral and agro-pastoral areas) depends on the terms of trade between livestock and cereals. With the start of the lean season (May) the terms of trade for livestock products deteriorate due to certain structural factors such as often severe inter-annual variations in fodder on offer and lack of supplementary feeding possibilities, reduction of animal weight and other losses along the long trekking networks, where basic infrastructures is lacking.

Price disparity for the same product across borders is a major incentive to trade. Such disparities can be a result of misalignment of agricultural policies among neighbouring countries and/or maintenance of exchange rates that may not reflect the true value of currencies or local market conditions. Fluctuations in the exchange rate between the three main currencies in the ECOWAS region (CFA franc, Naira and Ghanaian cedi) can have important effects on cereal trade (Fig. 5.1.2). This is particularly the case of the naira, in view of the size of the Nigerian economy.

50 This is based on *Food Security and Cross-border Trade,* Workshop under the auspices of ECOWAS and the Niger-Nigeria Joint Commission for Cooperation, 19-21 September 2007, Katsina, Nigeria.

Source: www.exchange-rates.org

While the ECOWAS is a customs union, implying that, in theory, import duties and export taxes should no longer be applied for trade within ECOWAS, in practice this may not be the case (see next section). Also, other border barriers have not totally disappeared. While there may be legitimate reasons for pursuing certain policy measures, their effects are often much wider. For example[51], in 2005 Nigeria applied more stringent monitoring on the illegal importation of food commodities and placed limits on the importation of rice. As rice prices increased demand for less expensive cereals (millet and sorghum). At the same time demand for feed (mainly maize) increased due to an expansion of domestic poultry production due to the closure of the borders to imported frozen chicken from Europe and elsewhere. These measures, in combination, boosted domestic prices for cereals and reduced exports. These policy measures taken by Nigeria had a direct impact on Niger's economy, which depends heavily on Nigerian surpluses to meet its consumption needs.

Finally, political crisis, social and religious events play important roles on how much cross-border trade takes place and how detrimental to regional food security interruptions to such trade can be. Examples of such interruptions are the political crisis in Côte d'Ivoire since 2003, whereby the internal conflict seriously disrupted the flow of commodities between Côte d'Ivoire and Sahelian countries, undermining food security on both sides of the border. Elsewhere, in Nigeria, racial/religious conflicts and subsequent riots slowed down considerably the flow of trade between Niger and Nigeria.

5.2 The prevalence of unrecorded informal cross-border trade

The existence of an informal economy in parallel with the formal one is not unique to West Africa. It is a phenomenon that is encountered in greater or lesser degrees in all countries of the world. The reason why West Africa is more renowned in this matter is because of the sheer size of the informal economy which constitutes 20% to 90% of the national economies[52].

ECA's recent publication on *Assessing Regional Integration in Africa IV* devotes a full chapter on informal cross-border trade (ICBT) and states:

> "Informal trade in Africa has always been the response of the population, women in particular, to the economic crises arising primarily from the failure of political and financial governance, and to the fratricidal wars that often have ensued. Such trade permits the distribution of consumer goods, whether or not they are prohibited. It is an ungoverned continuum of official trade and the major factor driving imports from the rest of the world. Unfortunately, national accounts have problems absorbing this trade in its entirety, jeopardizing the assessment of national wealth."[53]

51 As reported in Terpend (2006), op cit.

52 *Assessing Regional Integration in Africa IV: Enhancing Intra-African Trade*, ECA, May 2010.

53 ECA (2010), op cit., p. 143.

ICBT passes largely unrecorded in the official trade statistics. As a result, often the latter bear little relationship to the actual quantities traded. Estimation of volumes traded involves a great deal of guesswork and as a result reported flows in different databases are rough approximations.

ICBT in West Africa predated by several centuries the establishment of state boundaries. Part of the ICBT is due to what has been referred to as 'natural' factors[54] having to do with convenience, practical and economic necessity, for example due to family links across the border, cultural affinities and mere physical proximity of buyers and sellers. It is also argued that the physical size and levels of development of countries in West Africa also contribute enormously to the incidence of ICBT, as often border communities of one country are closer to a main market and development area of another country across the border, thus facilitating unofficial close trade ties with the latter than the main distant market in the home country.

However, perhaps the largest part of ICBT may be due to misalignment of policies of countries in the region, especially those with a common border. Such trade is carried out to circumvent official channels, in most cases to avoid a direct or indirect cost in doing business, especially a cost perceived to be unjustifiable and unfair. Greater policy harmonization and cooperation at the border as well as effective implementation of the trade liberalization provisions of the ECOWAS could gradually eliminate the need of circumvention of official channels. However, the fact that the magnitude of ICBT seems to be increasing over the years, despite the greater formal harmonization in policies in the region through the ECOWAS process, would seem to indicate that regional integration is not fully effective in practice and unintended trade restrictions may still be present hampering the smooth flow of trade in cereals as well as other commodities.

Informal cross-border trade remains deep-rooted in the region. The benefits are numerous and well documented, including creation of employment, especially for women, whose trading activities often go beyond purely economic considerations by initiating and adopting strategies to ensure household food security and mitigate harmful economic and social effects from trade[55]. The flexibility inherent in informal trade allows it to exploit opportunities for trade stemming from weaknesses and rigidities in official trading channels to the benefit of the population of the region. In basic food commodities, informal trade provides multiple sales points and secondary markets in remote districts, and so it may compensate for weak official distribution channels. In most cases, the informal sector promotes a network of effective trade relations and generally more efficient rules than the formal sector.

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54 *An empirical evaluation of trade potential in the economic community of West African States*, E. Olawale Ogunkola, Department of Economics and Centre for Econometric and Allied Research (CEAR) University of Ibadan, Nigeria, AERC Research Paper 84, African Economic Research Consortium, Nairobi, November 1998.

55 Women control the most efficient and dominant forms of the economy - the informal sector - and in the final analysis they are best-suited to coping with economic crises and making contributions that far exceed their share of the population of sub-Saharan Africa (ECA, 2010, op cit.).

5.3 Supply chains and intra-regional trade flows

Considering that the ECOWAS region as a whole is a substantial net importer of cereals, the supply chain for most cereal commodities starts at the exporting countries where imported cereals are sourced. In comparison, intra-regional trade flows are generally small but at the margin can play an important role in regional food security. Virtually all wheat consumed in the region is imported, about half of the rice consumed is produced in the region and small quantities of that are actually traded within the region. When it comes to the other major cereals (maize, millet and sorghum), there is considerable scope for intra-regional trade between surplus and deficit countries, as well as for exporting to the rest of the world, given that the region as a whole is a net exporter in these commodities (see previous section).

Trade statistics on imports by countries of the ECOWAS region from the world market are generally available; however data on intra-regional trade are fragmented and of uncertain quality, partly because of the unrecorded cross-border flows as discussed above[56]. In general this would tend to underestimate the importance of intra-regional trade vis-à-vis extra-regional trade and this need to be borne in mind when relevant statistics are discussed below.

Rice. The main sources of rice imports by the ECOWAS region are Asian countries with Thailand supplying the bulk of it (56% of total rice imports in value terms), followed by India (12%), China (8%), Viet Nam (7%) and Pakistan (6%) (Fig. 5.3.1). The dependence on Asian suppliers reflects largely preferences for certain types of rice which represent also value for money compared to other qualities of rice. This is particularly the case for Senegal, Gambia, Mauritania and Mali, which import principally Thai 100% broken. Nigeria and Liberia are importers of parboiled rice, while Côte d'Ivoire and Ghana are the most diverse importers, buying various qualities of white rice - both high and low quality, aromatic rice and aromatic broken varieties[57]. In contrast to rice imports, which are nearly exclusively from Asia, the largest part of wheat imports (70%) are sourced in North America (USA and Canada) and the rest largely from France (23%).

Almost all the rice produced in the ECOWAS countries is consumed domestically in the producing country and the small amount of intra-regional trade in rice (less than 2% on average during 2001-09) actually represent imported rice. As such, the largest intra-regional rice trade flows originate in the coastal countries, although as shown in Fig. 5.3.1a, rice flows throughout the region.

Source: Compiled by the author from *ITC Trade Map* data

56 Information on intra-regional trade is available from the *ITC Trade Map* (based on COMTRADE database).

57 *Global Food Security Response: West Africa Rice Value Chain Analysis*, microReport #161, USAID, October 2009.

Maize. Turning to maize, the main supplier to the region is Argentina (54% of total maize imports in value terms), followed by the USA and South Africa with 14% and 13%, respectively (Fig. 5.3.2). As the ECOWAS region is gradually becoming a net exporter of maize, some of that finds its way in regional markets. Thus, on average some 9% of all maize imports of ECOWAS countries originated in other ECOWAS countries during the 2001-09 period. The prevailing direction of intra-regional maize flows are from coastal to inland countries, which is understandable as some coastal countries have small surpluses in that commodity. However it is not clear to what extent those flows represented locally produced maize or transhipments of imported maize.

Source: Compiled by the author from *ITC Trade Map* data

Millet and Sorghum. The situation for millet is much better with some 55% of total millet imports in value terms during 2001-09 being sourced in other ECOWAS countries and the remaining largely from India (Fig. 5.3.3). In 5 years out of 9, the share of intra-regional trade was over 90%. Finally, while on average during 2001-09 some 16% of total sorghum imports in value terms were sourced in other ECOWAS countries (Fig. 5.3.4), in 1/3 of the time nearly 100% of such imports were actually intra-regional. The other main suppliers of sorghum to the ECOWAS region have been the USA (34% of total sorghum imports in value terms) and Argentina (25%). For both millet and sorghum the prevailing direction of trade flows are from inland to coastal countries, reflecting the predominant source of surpluses in these commodities in the region.

Source: Compiled by the author from *ITC Trade Map* data

Source: Compiled by the author from *ITC Trade Map* data

5.4 Market integration

Market integration is generally understood as a situation where there exists 'communication' between spatially separated markets and along the supply chain[58]. In practical terms this implies that price changes in one market are transmitted to the other market. The extent of price transmission may provide important information on whether markets function efficiently[59]. In addition to the degree of price transmission, the speed of transmission of price shocks between markets or stages of the supply

58 In the context of international trade, market integration is generally understood as a situation where a commodity flows between countries on the same terms and conditions as within countries.

59 *Spatial and Vertical price transmission in food staples market chains in Eastern and Southern Africa: What is the evidence***?** A. Abdulai, Paper presented at the FAO Trade and Markets Division Workshop on Staple Food Trade and Market Policy Options for Promoting Development in Eastern and Southern Africa, Rome, March 1-2, 2007.

chain is also an important measure of market integration[60]. Another consideration is also the symmetry or otherwise of the transmission of price shocks.

Analysis of price transmission provides valuable information to policy makers especially on issues of food security. For example, this includes the extent to which price signals are timely and strong enough for supplies to move from a surplus part of a country to other areas which may experience chronic or temporary food deficits, or how domestic markets adjust to international price changes. Similarly, the extent and speed of transmission along the supply chain, from the cereal producer to the wholesale and retail markets is a significant factor reflecting how each one may react to shocks in the market. High degree of transmission between markets would imply that commodities would flow as markets dictate and that producers and consumers would make the necessary adjustments based on market signals beyond the local market environment.

The importance of assessing market integration for policy analysis is reflected by the volume of empirical studies on this subject in recent years [61]. These vary in analytical sophistication depending on data availability and the complexity of the markers examined. The simplest approach that has been used to assess market integration is to calculate correlation coefficients of price series in different markets to capture co-movements of such prices, as would intuitively be expected if markets are integrated.

It is recognized that this simple measure may give spurious results in view of the presence of other synchronous factors, such as general price inflation, seasonality, population growth, procurement policy, etc. and as such it is not full proof. More sophisticated approaches based on co-integration techniques[62] have been employed, which while of interest methodologically, they may not add significantly in practical terms, inter alia, considering known data limitations. Thus, while not conclusive, a low correlation coefficient would imply that markets are not integrated, i.e. that prices in one market are determined independently from those in the other. Conversely, a high correlation coefficient would imply that the two markets are possibly integrated. It follows that a degree of caution in called for in interpreting the results below. However, this is a general caveat in all empirical work, where at best the aim is often to confirm certain tendencies rather than establishing precise relationships.

The correlation coefficients reported here have been computed from monthly price data for cereal commodities traded in West Africa compiled by FAO and based, in turn, on Afrique Verte[63]. Because

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60 Balcombe, K. and J. Morrison, *Commodity price transmission: A critical review of techniques and an application to selected export commodities,* Food and Agriculture Organization of the United Nations, Rome, Italy, 2002.

61 A very comprehensive summary of empirical analyses on spatial and vertical price transmission in food staples market chains can be found in A. Abdulai "Spatial Integration and price transmission in agricultural commodity markets in Sub-Saharan Africa", and Rapsomanikis, G., Hallam, D. and P. Conforti, "Market integration and price transmission in selected food and cash crop markets of developing countries: Review and applications", both in *Agricultural Commodity Markets and Trade: New Approaches to Analyzing Market Structure and Instability*, A. Sarris and D. Hallam (eds.), Edward Elgar Publishing Ltd. 2006.

62 Engle, R. F., and Granger, C. W. J. "Co-integration and Error Correction: Representation, Estimation, and Testing," *Econometrica*, Vol. 55, No. 2 (March 1987).

63 http://www.afriqueverte.org.

of data limitations and the methodological issues mentioned above the results given below are only indicative of certain tendencies and not to be taken as a basis for policy making.

In the case of rice, correlation coefficients have been computed between Thai 100% broken (a variety imported widely in West Africa) and prices in the domestic markets of several ECOWAS countries, for which data were available (Fig. 5.4.1). Correlation coefficients between local prices and the Thai price are generally high for all six countries except Mauritania. The same is the case for correlation coefficients among the importing countries themselves, except again for Mauritania. Another observation from the available price data is that as world rice price surged during the 2007-08 high price period, the margins between world price and domestic prices narrowed considerably. This may suggest either that margins in normal times are large (excessive profits for traders) or that during the crisis years governments stepped in with a variety of policies to protect domestic consumers from the large surge in world prices.

Source: Compiled by the author on the basis of FAO/GIEWS data

Table 5.4.1. Correlation coefficients between monthly rice prices (2006-10)

	Thai 100% Broken	Burkina Faso, Ouagadougou, Wholesale	Ghana, Accra, Wholesale	Mali, Bamako, Wholesale	Mauritania, Nouakchott, Retail	Niger, Niamey, Wholesale	Senegal, Dakar, Retail
Burkina Faso, Ouagadougou, Wholesale	0.88	1					
Ghana, Accra, Wholesale	0.83	0.78	1				
Mali, Bamako, Wholesale	0.86	0.89	0.76	1			
Mauritania, Nouakchott, Retail	0.35	0.38	0.50	0.18	1		
Niger, Niamey, Wholesale	0.78	0.89	0.71	0.86	0.21	1	
Senegal, Dakar, Retail	0.75	0.85	0.60	0.72	0.44	0.83	1

Turning to maize, the leading exporter to the ECOWAS region is Argentina and therefore the correlation analysis was carried between Argentinean export prices and domestic prices in those ECOWAS countries for which data were available (Fig. 5.4.2). Correlation coefficients are much lower than in the case of rice and this is particularly the case for Nigeria. Domestic maize prices in Ghana, a net exporter of maize, are fairly well correlated with Argentinean prices as well as with other countries for which price data are available. Similarly, domestic prices in Niger, a net maize importer are well correlated with world prices and regional prices.

Source: Compiled by the author on the basis of FAO/GIEWS data

Table 5.4.2. Correlation coefficients between monthly maize prices (2000-10)

	Argentina: Up River	Ghana, Accra, Wholesale	Niger, Niamey, Retail	Nigeria, Kano, Wholesale
Ghana, Accra, Wholesale	0.64	1		
Niger, Niamey, Retail	0.71	0.80	1	
Nigeria, Kano, Wholesale	0.25	0.67	0.70	1

In the case of millet, unfortunately, the FAO price database does not include world monthly prices and the correlations computed for that commodity are only between domestic prices of countries in the region. Taking the case of two countries, one net exporter (Mali) and the other net importer (Senegal), the correlation of millet prices between Tambacounda and Kayes, two markets on the two sides of the Senegalese/Malian border, turned out to be close to zero (0.07). This would indicate that the two markets are not integrated, despite the a priori conditions for being so (Fig. 5.4.3). This would be an interesting case to examine further.

Finally, the case of sorghum presents an interesting situation. For all the net exporting countries for which price data were available, computed correlations between domestic prices and the world market price turned out to be low (Fig. 5.4.4). Only for Senegal (a net sorghum importer) is the price correlation strong and significant.

Source: Compiled by the author on the basis of FAO/GIEWS data

Source: Compiled by the author on the basis of FAO/GIEWS data

Table 5.4.3. Correlation coefficients between monthly sorghum prices (2003-10)

	USA: Gulf, US No. 2, Yellow	Nigeria, Kano, Wholesale	Burkina Faso, Dori, Wholesale	Niger, Niamey, Wholesale	Senegal, Dakar, Retail
Nigeria, Kano, Wholesale	0.19	1			
Burkina Faso, Dori, Wholesale	0.32	0.72	1		
Niger, Niamey, Wholesale	0.40	0.75	0.89	1	
Senegal, Dakar, Retail	0.70	0.59	0.48	0.47	1

As already mentioned, the above results are only indicative, as simple correlation coefficients are barely a satisfactory measure to assess market integration[64]. Markets are complex institutions and their performance as well as their integration is the result of numerous factors, including marketing infrastructure related to transportation and communication, government cereal policy and extent of discretionary intervention in the market, and the degree of dissimilarity in production between different countries[65]. Under such a framework, marketing infrastructure would have a positive effect on integration; government intervention in the market, especially when unpredictable, would affect integration negatively; and the more dissimilar the production is between countries the better the chances for greater market integration. While this framework is appealing, it is beyond the scope of this study.

64 Although, they are used as a basis for screening possible market integration (see, for example: *PDPE Market Analysis Tool: Market Integration,* WFP/PDPE, World Food Program, 2007. http://home.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp187901.pdf

65See *Structural Determinants of Market Integration: The Case of Rice Markets in Bangladesh*, F. Goletti, R. Ahmed and N. Farid, The Developing Economies, XXXIII-2, June 1995. http://www.ide.go.jp/English/Publish/Periodicals/De/pdf/95_02_03.pdf

5.5 Common constraints impeding trade in the ECOWAS region

While some intra-regional trade in cereals takes place in the ECOWAS region, a substantial share of imports come from outside the region even for grains for which the region has attained a surplus position (maize, millet and sorghum). Statistics are incomplete and in particular the alleged large unrecorded informal trade between neighbouring ECOWAS countries hides the true picture of intra-regional commodity flows. Supply side constraints and problems of quality and regularity of supplies are common in many countries, in addition to the increasing competition from imported commodities (see Box 5.2). However, the volumes sourced outside the region of such basic products as cereals are large enough to suggest that there should be substantial potential for increasing intra-regional trade. The question is why this potential is not already realized.

This question has been raised in different contexts in Sub-Saharan Africa and a certain pattern of factors always comes up having to do, inter alia, with the excessive cost of doing business and numerous uncertainties and risks faced by traders along the supply chain. Some of these are discussed below.

Box 5.2: Constraints of the Food Processing Industry in Senegal[66]

The food-processing industry in Senegal is the second most developed among West African countries, after Côte d'Ivoire. It accounted for 7% of GDP (2002-05), employed about half the people working in Senegalese industries and two-thirds of seasonal workers in 2002. Eighty per cent of total agro-industrial firms in the formal sector are located in the Dakar area, benefiting from proximity to the port of Dakar, rapid transportation and access to credit. Most of them are linked to a foreign firm which provides them with access to foreign capital and technology.

Two broadly defined sectors dominate the food-processing industry in Senegal. One is export-oriented (groundnut oils and canned fish), and the other serves the domestic market (tomato concentrates, sugar refining, flour milling, soda water, beer and other beverages, milk powder).

Senegal's food-processing industry depends highly on imported inputs (some 72%), varying from wheat for flour milling to industrial packages. There are also examples of industrial use of domestic agricultural products, such as tomatoes for tomato concentrates by SOCAS and sugar refining by CSS. However, importation of cheaper tomatoes from far away countries such as China and Iran in order to cut production costs has adversely affected domestic tomato producers in the Senegal River Valley.

Besides large food-processing industries, local small and medium-sized enterprises (SMEs) engage in processing domestic agricultural products, such as local cereals, fruit and vegetables, fish and milk. Their production technology is usually very primitive and production output remains small. Several characteristics associated with domestic agricultural production — such as products that are difficult to conserve without adequate facilities, or fragile to transport, or that producers are unable to supply in a stipulated quantity and time, and the lack of quality control — present major constraints to industrial and commercial use.

Limited access to credit

One issue that has often been noted on the structure of cereal markets in Sub-Saharan Africa is the oligopolies prevailing in those commodity sectors that have strong links to the world market. In the ECOWAS region, this is particularly the case for wheat and rice. For example, in all the countries of the Western Basin, concentration ratios in rice imports (measured in terms of the share of the top 5 importers in each market) are well above the 60% threshold mark which is indicative of an oligopolistic situation[67]. Reported concentration ratios vary between 81% (Senegal) and 95% (Guinea-Bissau and Mauritania). This oligopolistic behaviour is indicative, inter alia, of high entry costs, in

66 Adapted from *Senegal: Making Better Use of Agribusiness Potential*, Business for Development, Y. Matsumoto-Izadifar, OECD Development Centre, 2008.

particular access to international finance. Obtaining letters of credit in US dollars to do business involves additional layers in the trading chain and increases transaction costs. Consequently, only large players in the market in West Africa can command the financial strength necessary to be engaged in the business of importing grains.

In traditional food markets, although concentration is not as extreme as in the case of the imported wheat and rice sector, trader finance is equally a major constraint. Traders have devised coping mechanisms to get around this problem. For example, it is reported that one characteristic of cereal markets in the Western Basin is that wholesalers are organized in commercial networks and traders' associations. These associations, whose members often share religious or family ties, can determine access to finance, tax payments, storage and market stalls. Membership in such trading networks provides also a channel for the acquisition and sale of commodities[68].

Usually marketing chains for cereals are long and involve several intermediaries and multiple handling. The considerable time and related cost in assembling small volumes of produce from widely-dispersed smallholder farmers, uncertainty about available supplies and poor contract enforcement increases the need for more liquidity on the part of traders.

Also, farmers often demand from traders cash advances as a means of assuring supplies. At the same time assembly traders have to extend credit to their downstream counterparts in the urban wholesale markets. Their inability to access formal finance reduces their capacity to absorb all the supplies on offer at harvest time. As a result there is often a depressing effect on farm-gate prices post harvest.

At the other end of the supply chain, sales on credit to consumers are widespread in the cereals market, with some 70% of volumes transacted on credit terms, in some regions[69]. The close financial link noted above between wholesalers and retailers also extends to customers. Credit is extended for a period of between a week and a month before reimbursement is due and it is estimated that 30% of customers do not reimburse the retailers by the deadline. Such deferring payments entail a risk for the trader in addition to requiring more liquidity to do business. Although household access to credit represents an important food security coping strategy in West Africa, from the point of view of cereal traders it constitutes a constraint to the trading activity, in the absence of supporting financing institutions and mechanisms, which could afford traders needed liquidity and thus allow the trading system to play its role in better evening out intra-seasonal and inter-year fluctuations in cereal supply.

High transaction costs

In addition to the credit constraints mentioned above, the poor state of infrastructure in the ECOWAS region represents another major limitation to intra-regional trade (see Annex 1). The logistics of assembling grain are complex. Search methods rely principally on personal visits by the trader, and

67 One important study that attempts to explore some of these issues is *Cross-border Trade and Food Security in West Africa: The Western Basin*, CILSS, 2010.

68 The lower concentration for local grains does not necessarily translate into competitive outcomes. This is because wholesalers operate within tacitly compartmentalized markets whereby a single trader will have tacit 'rights' to collection in a given area, for transactions of a specific commodity, or to supply a given market (Western Basin study, 2010, op cit.).

69 Western Basin study, 2010, op cit.

quality control requires the presence of the trader at the time of purchase. This increases costs, as the trader has to travel extensively. As a consequence of the dispersed supply among a large number of farmers, the collection operation implies a large number of transactions, takes time and entails extra costs[70]. This cumbersome and expensive assembling activity adds a substantial disadvantage and logistic difficulty in trading local cereals, as opposed to the imported cereal sector, whose market chain has a centralized and dependable source and does not include time-consuming and expensive collection. Also, compared to imported grains, trading enterprises for local grains are very small, quantities are hardly pooled for transport and storage and so the trading activity does not enjoy the benefits of returns to scale (see Box 5.3 on the role of governments in this area).

Box 5.3: The role of public sector in agro-industries and value chain development[71]

During recent years, many countries have launched programmes to support the development of specific agro-industries and value chains. Particular attention has been given to strengthening business linkages, reducing transactions costs, increasing alignment of farm and firm capacities and requirements, ensuring fair governance within chains, improving market intelligence, improving management practices, strengthening producer organizations, and upgrading technologies.

One reason the public sector intervenes in this area is to help ensure that progress being made in one part of the value chain is not negated by poor performance in other parts of the chain. This can be the case, for example, when farm productivity is increased but complementary attention is not given to the agro-enterprises responsible for post-production product handling, processing and distribution.

Collaboration between firms is increasingly important and the public sector can absorb some of the high transaction and information costs and risks that may discourage potential lead firms from developing value chains. In particular, governments can provide support to improve the performance of value chains targeted to domestic markets that might not alone attract private investment. Of special importance is reinforcing value chains for products based on local and traditional crops, where small-farmers may lack specialized knowledge.

Specific attention is needed to business services to small farmers and processors. Business services that help firms improve quality and efficiency of processes, reduce costs, and expand operations are important to all firms, but are especially critical to smallholder farmers, small firms and new start-ups, whose transaction costs are large relative to the size of their output.

Value chain programmes should facilitate and support farmer organizations and producer alliances. By consolidating their interests, small producers can achieve economies of scale in buying inputs and selling products. Producer associations and cooperatives can provide a platform for small farmers to do business with larger scale input suppliers, traders, agro-processors and retailers. Such associations need to be profitable in order to be sustainable in the long run and business management capacities and governance issues are, therefore, important.
Governments can also help ensure fair governance in value chains. There is concern that if agribusiness and agro-industry development is left entirely to the private sector, the larger scale and more powerful participants in the chain will capture most of the benefits leaving disproportionately small gains for the farmers and smaller agro-enterprise participants. Governments can, for example, provide advisory support to producer organizations on contracts negotiation as well as ancillary financial support and services to agribusiness undertakings that can help to level negotiating positions and equities among chain participants.

70 *Agricultural markets in Benin and Malawi* , Fafchamps, M. and E. Gabre-Madhin, African Journal of Agricultural and Resource Economics, Vol. 01, No. 1, December 2006. See also *Imperfect competition in agricultural markets: evidence from Ethiopia*, by T. Osborne, Journal of Development Economics, Volume 76, Issue 2, April 2005.

71 Based in part on *Challenges of Agribusiness and Agro-industries Development*, Committee on Agriculture, 20th Session, FAO, April 2007.

All in all, support for specific agro-industries and value chains can help reduce the cost of food, increase employment opportunities, and provide incentives for sound environmental management practices.

The limited availability of navigable waterways as well as inadequate railroad network implies that the bulk of trade is carried out by the more expensive trucking mode. However, the poor state of roads and other basic infrastructure in the region adds considerably to the cost of the commodity in the final destination and the price ultimately paid by consumers. This is the case particularly during the rainy season when journeys are longer and delays are frequent, leading to an increase in cost by about one-third. For example, the Conakry- Nzérékoré journey that takes 24 hours in the dry season increases to 32 hours in the rainy season[72]. What is also damaging from the food security perspective is that the rainy season coincides with the lean season when the already high price of grain becomes even higher in view of the increased transport charges.

Another important constraint frustrating traders in moving supplies from surplus to deficit areas is roadblocks and associated petty corruption. For example, it is reported that transportation on the Dakar-Bamako route is often subject to illicit payments and delays[73]. There exist some 26 road checkpoints, including gendarmerie, police and customs on the Senegalese portion of the route, and 11 on the Malian segment. It is estimated that there are between 2 and 4 checkpoints every 100km on this route. Illegal payments amount to some 45,000 CFA francs per truck. These are major obstacles to the development of trade and may explain, for example, the lack of market integration in millet trading between Senegal and Mali, noted above under section 5.5.

High transportation costs, petty corruption and longer transit times translate into lost opportunities for producers, as well as more expensive supplies and limited choices for the final consumers. Under the circumstances, it is not surprising that informal cross-border trade is increasing as discussed in Section 5.2.

Inadequate storage capacity and access to warehouse receipts

The importance of sufficient storage capacity cannot be overemphasized, especially in environments where there is considerable variability in production. Lack of efficient storage facilities in the region is one of the factors which limit temporal arbitrage and contribute to high seasonal price variability. During the pre-liberalisation period, when the state played a major role in food marketing, especially of staple grains, considerable investment in storage infrastructure was made by donors and African governments. With liberalization of markets and the gradual withdrawal of governments from cereal trading, storage quantity and its quality and spatial distribution have not kept up with requirements.

Because of lack of organized quality storage facilities accessible to farmers, storage in food surplus-producing areas is largely undertaken by ill-equipped smallholder farmers, resulting in very high post-harvest losses. This also compels farmers to sell the bulk of their output immediately after harvest, receiving the generally low prices prevailing at that time.

Private sector investment in storage infrastructure is often concentrated in urban areas and tends to support import/export trade rather than domestic trade in the food sector. Storage management capacity is also highly variable in many countries. Lenders tend to be reluctant to provide inventory finance partly because of lack of institutions and instruments for managing price risk. In addition, lack of formal grading standards (see below) make it

72 As reported in Western Basin study, 2010, op cit.

73 *Observatory of Abnormal Practices (OPA)* in its report published in December 2009.

difficult to assure storability of the produce as well as credible valuation, thereby making collateralisation of commodities very difficult.

This latter constraint is due to the general absence of warehouse receipt facilities in the region. Warehouse receipt systems are the key instrument in facilitating commodity trade and trade finance elsewhere[74]. They guarantee the existence and availability of a commodity of a particular quantity, type and quality at a specific storage facility, owned by a named depositor. Depositors may be a producer, a farmer group, a trader, an exporter, a processor or indeed any individual or corporate body. Inability to collateralize commodity assets limits the capacity of all actors along the supply chain to do business and invest in cost-reducing options. It also forces farmers and traders to dispose of their commodity assets prematurely in order to meet their cash needs.

Sub-standard quality control

Lack of uniform formal grading procedures and standards across the ECOWAS region creates uncertainty about the quality and quantity attributes of local grains being traded[75], hence the need for physical sampling, which raises the cost of transacting, as already mentioned above. This makes it difficult for impersonal trade to occur, thereby limiting farmers' marketing options to few traders and thus weakening their bargaining position. Also, lack of reliable market information, not only on commodity prices but also on available volumes and estimates of demand, tend to increase information asymmetry between trade counterparties.

Also at the consumer level, lack of recognizable brands of standardized quantity and quality characteristics puts local grains at a competitive disadvantage against imported grains, especially in urban centres, although local grains may be superior to imported ones in taste and nutritional value.

Structure of value chains and market organization

Another constrain to cereal trade in the ECOWAS region is that most agricultural chains are still structured like cash crops, organised around the exportation of so-called industrial production, a legacy dating back to the colonial period. The value chains for well financed export products like cotton, coffee, cacao and groundnuts have benefited and continue to benefit from technical support, advisory services, research and dissemination, improved seeds and commercialisation efforts by public authorities. Although advances have also been made by national and international agricultural research institutions on products destined for regional markets, these have not been effectively communicated and disseminated, partly because of the weak organisation of regional and national value chains in these products[76], although some efforts are being made in this area, including with donor support (Box 5.4).

74 For example, although the importance of warehouse receipt systems has been recognized by many countries in Africa (see, for example *Rapport sur la revue des experiences de récepissés d'entreposage et de warrantage pour le financement de l'agriculture en Afrique de l'Ouest*, UNCTAD, 2010a), so far attempts to develop these and other innovative sources of trader finance in cereal assembly and wholesaling markets have floundered due to various reasons, including direct government operations in markets that have been incompatible with the development of these mechanisms.

75 For instance, in Ghana, the average weight of a "maxi-bag" of maize differs from location to location. Also, often grain sampling is done by sight and is highly subjective. This increases the risk of cheating on weights and quality, and makes physical sampling imperative.

76 Blein, R., et al., 2008.

As elsewhere in the Sub-Saharan Africa there has been limited progress in the ECOWAS region in conducting cereal trading in organized commodity exchanges[77]. As a result, farmers, traders and processors are exposed fully to price risks with little or no hedging opportunities. This uncertainty acts as a disincentive to traders and processors in undertaking investments likely to lead to reduced transaction costs and improved efficiency. Inter-seasonal and inter-regional arbitrage is outside the purview of most traders, who prefer to operate in a limited territory on a day-to-day basis. This implies that the stabilizing function that traders play in other markets through temporal and spatial arbitrage is severely limited in African cereal markets.

Box 5.4: Bringing the Value Chain Approach to Northern Ghana[78]

With domestic production lagging far behind demand, Ghana continues to face food security problems, despite being endowed with natural conditions which are generally advantageous for agricultural production. Currently donor and the Government's efforts seem to be biased towards the export sector, particularly its horticultural sector. While this support is very helpful in promoting export-oriented agriculture, it is concentrated on the southern coastal areas whereas much of poverty and food crop production are concentrated in the north of Ghana. This reinforces the existing north-south divide of Ghana's economy.

Among the donors who have been active in northern Ghana during the past 20 years has been IFAD. Ghana has been the largest recipient of IFAD funds in West Africa with $155 million, more than half of which have been used to fight rural poverty in the North, including building domestic markets for traditional food crops. In its new project, the Northern Rural Growth Programme (NRGP), IFAD will adopt a value chain approach with a special focus on how to link producers with the market. This implies that NRGP will work not only with the rural poor but also with traders, wholesalers and exporters, who may not be poor but are important intermediaries. The aim of the programme is to encourage food-crop farmers to produce for the market in southern Ghana and abroad and not only for their own consumption. One of the lessons learnt from donor interventions in the past has been that too much focus was put on production, while too little attention was placed on market linkages and institutional capacity building.

Under the NRGP, the three northern regions will receive support to develop the value chain of 11 commodities (five rain-fed and six irrigated). The NRGP also envisages investments in rural infrastructure such as small dams and transport links, and improved access to rural financial services. The NRGP will show whether the value chain approach is useful in promoting the commercial production of food crops. With its substantial requirement of GoG co-financing, it will also test the GoG's willingness to invest in the North.

Trade barriers and national policies

While under the ECOWAS barriers in agricultural products between Member countries are supposed to have been eliminated, in practice this is not the case everywhere. This is particularly true during periods of short supply in the world market, regionally or at the individual national level. Especially for sensitive basic food stuffs such as cereals and when there is a hint of a short crop, political pressure is often too strong for governments to ignore and they, in turn, opt for securing "national supplies". Border protection and measures that impede the free movement of cereals are put into effect[79] (see, for example the case of

77 See *Promoting Agricultural Commodity Exchanges in Ghana and Nigeria: A Review Report*, UNCTAD, 2010b.

78 Adapted from *Ghana: Agriculture is Becoming a Business*, by D. Wolter, OECD Development Centre, 2008.

79 Beyond the need for certainty in trade and domestic food policy, harmonization among the ECOWAS countries has to extend to other aspects as well, including commodity standards.

Nigeria in Box 5.5). These may include, for example, export prohibitions or even total banning of exports, ad hoc waiver of duties on imported cereals, selling imported supplies at subsidised prices in local markets, etc.[80]

While these border and behind-the-border policies may restrain price increases in domestic cereal markets in the short term, thus providing some temporary relief to consumers, they add to the uncertainty traders face in making economic decisions about temporal and spatial arbitrage.

Specifically, such ambiguity as regards how government policy may react in response to a perceived shock discourages traders from holding significant stocks and it also makes creditors even more risk averse. To the extent that the trading activity is marginalized, market variability may be aggravated in future periods.

Box 5.5: Import Prohibitions in Nigeria[81]

Import prohibitions in Nigeria are not a new phenomenon. This policy can be traced back to 1959, predating Nigeria's independence, became popular in the 1970s and continued through the 1980s and 1990s, at times covering as much as 29% of agricultural products and 20% of industrial products (see Table). The policy abated somewhat in the late 1990s and early 2000s (only 4% in 2003).

With the ECOWAS CET coming into effect in 2005, a two-year tariff regime (2005-06) was introduced with the primary aim of aligning the tariffs in Nigeria with the CET. This was only partially achieved as the maximum tariff recommended by ECOWAS CET was 20% and some tariffs in the Nigerian tariff schedule were 50%. The new regime also marked again the beginning of a long list of import prohibitions. Thus by 2008 some 600 tariff lines (of which 134 agricultural products) were under import prohibitions (nearly 12% of the total).

Trends in Items under Import Prohibitions in Nigeria

	Agric.	Non-agric.	Total	% of tariff lines
1994	72.0	844.0	916.0	17.8
1995	72.0	845.0	917.0	17.8
1996	72.0	845.0	917.0	17.8
1997	48.0	83.0	131.0	2.5
1998	13.0	62.0	75.0	1.5
1999	8.0	62.0	70.0	1.4
2000	8.0	58.0	66.0	1.3
2001	8.0	60.0	68.0	1.3
2002	99.0	64.0	163.0	3.2
2003	103.0	70.0	173.0	3.4
2004	175.0	908.0	1083.0	21.0
2005	173.0	838.0	1011.0	19.6
2006	173.0	681.0	854.0	16.6
2007	173.0	681.0	854.0	16.6
2008	134.0	466.0	600.0	11.7

Import prohibition policy in Nigeria has been justified on many grounds including balance-of-payments (BOP) difficulties, protection of infant industries, as a trade contingency measure against temporary import threats, safeguarding plant, animal and human health, as well as protecting the environment from degradation and pollution.

The BOP justification is a long-standing one originating in the early 1970s when the country was experiencing BOP difficulties, but no longer tenable and other reasons have been evoked, such as the infant industry arguement. Specifically on agricultural products, food security considerations (identified with achieving food self-sufficiency) have become a compelling argument for the imposition of

80 Such state interventions in the cereal markets are modest compared to what was the case in the past (before the early 1980s) when typical policies included pan-territorial and pan-seasonal pricing regardless of the cost of assembling produce from particular regions; use of parastatals for marketing commodities and for the provision of subsidized inputs; as well as the promotion of cooperatives as intermediaries in the marketing chain. While the rationale of such intervention was to address some of the constraints discussed here, and despite their good intentions, they were deemed largely ineffective in achieving their stated objectives and became an unsustainable fiscal burden leading to their demise. (see an excellent analysis on these issues in *Commodity Market Reforms: Lessons of Two Decades*, Takamasa Akiyamasa, John Baffes, Donald Larson, and P. Varangis, (eds.), Washington, DC: World Bank.)

81 Adapted from *Import Prohibition as a Trade Policy Instrument for Promoting Economic Development in Nigeria: Scoring an own-goal?* by E. Olawale Ogunkola, University of Ibadan, February, 2009

import prohibitions and at times also export prohibitions[82]. Health and safety reasons have also been adduced for prohibiting the importation of some goods[83]. Lack of adequate capacity to monitor importation of goods on health, safety and environmental protection makes the use of import prohibition a handy tool. Finally, import prohibition as an anti-dumping and safeguard measure have been used against unwholesome practices by some trading partners as well as against import surges and/or price declines which usually coincide with trade liberalization, immediately after the reduction of import tariffs.

It has been often pointed out that other policies and instruments could have been much more effective in dealing with the above objectives than the blunt application of import and export prohibitions. For example, focusing on prohibitions on agricultural products, the effectiveness of a self-sufficiency policy has been questioned as it did not address the basic constraints to agricultural development and it failed to provide the right incentives to farmers.[84] Food security concerns could be better addressed by more sector-specific policies, including investing in productivity increasing infrastructure, modernization of agricultural practices, exploiting economies of scale in production, supporting distribution and marketing systems for food products, and placing greater reliance on trade, especially regional trade.

Also, there are alternatives that are more efficient as regards safeguarding health and safety standards and environmental protection such as strengthening relevant national institutions charged with such issues. Import prohibition on the basis of safety and health should be limited to short periods and only to address emergencies such as the outbreak of a disease. Related sanitary and phytosanitary provisions for such emergency measures are legitimate under the relevant multilateral agreements, including the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). It is necessary for the country to strengthen the relevant national institutions and develop sufficient capacity to deal with such threats when and if they arise. At the same time, building such capacity also serves to ensure that SPS measures imposed on Nigerian products do not serve as trade barriers. Inter alia, this is best addressed through effective participation in international standard setting bodies such as Codex Alimentarius and OIE.

5.6 Issues of import dependency and reliability of the world cereal market

Global trends affecting medium-term world cereal availability and prices

Developments affecting the world cereal market are of paramount importance for the ECOWAS region, considering its growing dependence on the world market of cereals. What happens to this market has direct consequences on the food security of the ECOWAS.

Beginning in about 2003, world agricultural commodity markets have entered a period characterized by tight supplies, higher prices and short-term volatility. Between 2003 and 2008 agricultural prices more than doubled, reaching a peak in mid-2008, perhaps marking a departure from the past when agricultural commodity markets were generally depressed and in real terms prices had fallen steadily for over a quarter of a century (Fig. 5.6.1).

Short-term sharp price increases in world agricultural and food prices have been experienced on several occasions in the past but such periods of high prices were relatively short-lived.

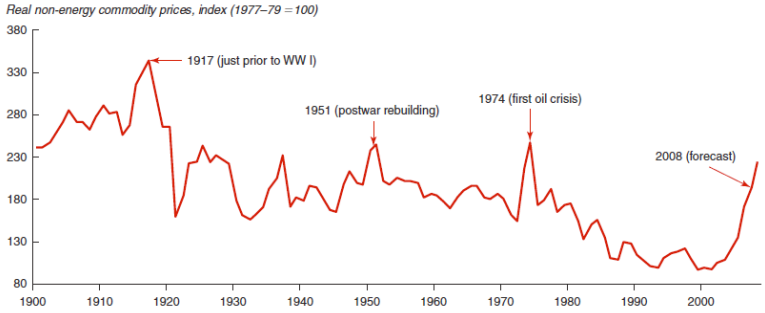
82 Cassava, maize, millet, rice and sorghum have been the subject of import and export prohibitions over time.

83 Products targeted included among others live birds, animals and food products.

84 The increase in cassava production after it has been removed from the export prohibition list is an example of farmers' response to incentives.

The recent commodity boom was the largest and longest of any boom since 1900[85], and most analysts are of the view that the price hike of 2006-08 had its origins in more fundamental changes in supply and demand with long-lasting effects. Many are talking about a paradigm shift in agricultural commodity markets and calling for reconsideration of assumptions made and parameters used in the past in national planning for future resource allocation.

Fig. 5.6.1. Agricultural commodity prices over a century



Source: *Global Economic Prospects: Commodities at the Crossroads*, World Bank, 2009.

To the extent that there is a substantial departure from past trends in agricultural commodity markets, this can have important implications for all countries, whether exporters or importers of these commodities. In the case of the import-dependent ECOWAS the repercussions are much more important also at a time when several countries in the region are rethinking the future direction of their agricultural and food policy and are in the process of integrating into the global economy. Key questions in this regard concern both the likely level of cereal and other food commodity prices and whether the price volatility that has been experienced in the recent past is also a phenomenon to be dealt with in the future. Better appreciation of these trends requires an examination of the fundamentals of both the supply and demand of the agricultural and food system [86].

Traditionally, the main factors that have been considered as determinants of aggregate demand for agricultural commodities were population growth, income growth and changes in consumption patterns, in particular related to urbanization trends[87]. Projections of aggregate global food demand for human consumption by FAO and others[88] point to much slower growth rates than in the past, in parallel with the projected slowdown in population growth rates. FAO projects growth in cereal consumption of 0.9% per year during 2000-30, down from 1.9% annually in 1969-99 while growth in meat consumption is also projected to slow down from 2.9 % to 1.4% per year, respectively. Three-quarters of the additional global demand for food between now and 2030 will emanate from developing countries.

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85 *Global Economic Prospects: Commodities at the Crossroads*, World Bank 2009.

86 See *World Development Report 2008: Agriculture for Development*, World Bank, Washington, DC., 2007; and *Agricultural Outlook 2008–2017*, OECD and FAO, Paris and Rome 2008.

87 Urbanization has a strong influence on demand in all regions, more so qualitatively than quantitatively with diets shifting away from basic foodstuffs toward animal products, vegetable oils, fruits and vegetables, and also processed products and convenience foods.

88 *World agriculture: towards 2015/30*, FAO, Rome 2002.

The growth in food demand for human consumption has been gradual and will continue to be so in the future. However, what is new and represents a quantum jump in the system is the additional demand for biofuel production. Already, nearly 100 million tons of cereals have been siphoned-off the food markets and diverted away for biofuel production[89]. This demand of food commodities for biofuel production has changed drastically the traditional links between agriculture and the energy sector. Hitherto, these links were only on the supply side with energy being an input to agriculture and food production (fertilizer and fuel for machinery, for example). Now the links are both on the input and the output side of agricultural production.

By and large, biofuel production is presently policy driven. Although several feedstocks used in biofuel production have been competitive for some time under prevailing energy prices (sugarcane one of them[90]), others (especially cereals) have not. Their diversion into biofuel production has been largely driven by massive and often highly distorting subsidies as well as policy directives and incentives[91]. This is hardly justifiable not only from an economic perspective, but also from the additional net energy gained, or even from the alleged contribution to reducing green-house gases[92].
The critical parameter, however, as regards the future of biofuels and their continuing pressure on agricultural and food prices is the price of fossil fuels. With higher oil prices, increasing quantities of sugar, cereals and oilseeds would be demanded for biofuel production and agricultural prices will likely be increasingly linked to oil prices, including being affected by the volatility characterizing oil prices[93].

In addition to the energy connection, concerns about agricultural sustainability and climatic change have been a major preoccupation of the international community in recent years. There is now greater awareness about the state of global agricultural resources, the rate and manner at which they are used, how the global agro-ecological system is interconnected and where its weakest links are. The broad consensus by experts in this area is that global supplies of food and agricultural commodities are likely to be tighter in the future on account

89 Among all major food and feed commodities, the additional demand for maize (a feedstock for the production of ethanol) and rapeseed (a feedstock for the production of biodiesel) has had the potential for the strongest impacts on prices. For example, out of the near 40 million tons increase in global maize utilization in 2007, almost 30 million tons were absorbed by ethanol plants alone, mostly in the United States, the world's largest producer and exporter of maize. Over thirty percent of the country's maize harvest in 2008 is forecast to be diverted to ethanol distilleries, which amounts to over 12 percent at the global level. In the EU, the biodiesel sector is estimated to have absorbed about 60% of member states' rapeseed oil output in 2007, which amounts to about 25% of global production and 70% of global trade in the commodity in 2007.

90 Brazil is the world's largest and most efficient producer of ethanol, based on its low-cost production of sugarcane.

91 US processors and growers received support worth about US$6-7 billion in 2006, and those in the EU about US$4.7 billion.

92 See, for example, *Global Biofuel Production Trends and Possible Implications for Swaziland,* P. Konandreas and J. Schmidhuber, July 2007.

93 World Bank (2009), op cit.

of several factors[94], including scarcity of land and water resources, climate change[95], higher energy prices[96], and decreasing returns from existing productivity increasing technologies.

The OECD and FAO Secretariats carry out periodic assessments of the major forces affecting world agricultural supply and demand and in this context make medium term projections of production, consumption, trade and prices of key agricultural commodities. Their latest assessment in 2010 projects global food commodity developments ten years forward to 2019[97].

Considering the dynamics in supply and demand, the OECD/FAO Outlook projects that most crop prices will remain firm during the 2010-19 projection period. Prices will continue to exceed, in nominal and real terms (once adjusted for inflation), the average price levels in the decade 1997-06, immediately preceding the recent price hikes of 2007/08. Average wheat and coarse grain prices are projected to be nearly 15-40% higher in real terms in 2010-19 relative to 1997-06, while for vegetable oils real prices are expected to be more than 40% higher. For livestock products, average meat prices in real terms are expected to be higher due to lower supplies, higher feed costs and rising demand. Also, dairy prices in real terms are expected to be 16-45% higher in 2010-19 relative to 1997-06.

Among the factors driving the price increase is the demand for biofuels. Thus, it is projected that the global growth rate of ethanol production would average 6.3% while that of biodiesel 7.3% over the 2010-19 period. This growth in biofuel production includes strong expansion in output in several developing countries in addition to the continued output increase in major developed countries.

The OECD/FAO projections underscore the importance of developing countries, especially the food-deficit among them such as the ECOWAS, to re-consider priorities and policies as regards their domestic production options. The projected strengthening of cereal prices would put under pressure the capacity of countries to maintain increasing levels of cereal imports. At the same time the profitability of domestic cereal production would be enhanced and this

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94 See in particular *World agriculture: towards 2030/2050*, FAO, Rome 2006; *Environment and agriculture*, FAO Committee on Agriculture, 20th Session, Rome, 25 - 28 April 2007; and *Awakening Africa's Sleeping Giant: Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond*, World Bank, 2009.

95 Climate change is also associated with greater variability in precipitation and temperatures, increasing the frequency and intensity of droughts and floods that will significantly magnify the impacts of climate shocks on agriculture. Developing country regions including Africa will be negatively affected by these developments. (*Global Warming and Agriculture: Impacts Estimates by Country* by William R. Cline, Center for Global Development and the Peterson Institute for International Economics, Washington, DC, June 2007).

96 While oil prices have come down considerably from their peak witnessed in 2008, there is broad agreement that over the longer term, prices of fossil fuels will be higher than the average prices experienced in the past. This will lead to higher agricultural production costs than in the past (through pressure on the cost of machinery, fuel and other energy dependent inputs such as fertilizer). Beyond the farm gate, costs of inputs and long-distance food distribution will also be affected by higher transport and refrigeration costs.

97 *OECD-FAO Agricultural Outlook 2010-2019,* Paris/Rome, 2010.

raises the prospects of both public and private investments in food production and related physical infrastructure.

Volatility in world cereal prices

While the longer-term trend is for strengthening of cereal prices, this is not likely to be a smooth run. Price volatility in cereal markets is a fact of life and many factors play a contributing role in that. Shocks on the supply side due to weather and other calamities, and overreaction of governments to the threat of short-term shortages, are responsible for price spikes in world food markets, such as those experienced during 2007-08. Continuing subsidization of production and related protectionist policies pursued by governments in several countries, are responsible for tilting the balance in the other direction, resulting in depressed cereal prices in the world market. Import surges, as a result of such depressed world prices and unfair practices by exporters undermine otherwise competitive import-competing sectors and could pose a serious threat to the viability of domestic food production.

In situations of depressed world prices and import surges, the options available to poor developing countries are generally cumbersome, expensive and generally ineffective. Most of them lack the resources to react to this problem as many developed countries are able to do. The latter, aside from generally having at their disposal the legal and administrative capacity to invoke the general GATT safeguards (such as antidumping and countervailing duties) as well as the Special Safeguard Clause of the Agreement on Agriculture, also have the financial means to provide additional direct assistance to their farmers. Both of these instruments are generally beyond the means of poor developing countries and individual ECOWAS countries are generally in that category[98].

Individually, the countries in the region have limited options in defending against external threats to their domestic food sectors, and past experience of import surges is a testament to that[99]. Moreover, given the regional integration under the ECOWAS, the option of responding to such threats alone is no longer available. Under the CET, it is now the ECOWAS safeguards that will be effective for all Members (see Section VI). This could be a positive development, however, given that the ECOWAS safeguards are much more explicit and more powerful than individual countries' safeguards, and that acting together as a region offers greater chances of success than individual countries acting alone, and the cotton issue at the WTO is a case in point.

Turning to situations of price spikes in the world market, this poses also a serious food security concern for the ECOWAS region, considering the large share of imported supplies in

98 An FAO project on import surges considered some of the difficulties that developing countries may face in the use of the WTO Agreement on Safeguards. In the first place it proved to be very difficult to reach the required conclusion that an injury was primarily due to the surge and not to other reasons (the so-called "non-attribution" test in the Safeguards investigation) and so a claim that a surge of imports caused the injury is always subject to counter arguments. (*FAO Briefs on Import Surges – Injury: Issues and identification,* No. 6, FAO, November 2006)

99 *Overview of reported cases of import surges from the standpoint of analytical content*, R. Sharma, FAO, May 2005.

the diet. Existing disciplines of the GATT and the WTO offer very little in this area as they are largely based on the premise of cheap food in the world market as a result of overproduction and structural surpluses in some countries, which was the case in the past necessitating the need for those countries to dispose them in the world market (through export subsidies and other mechanisms) to the detriment of others. Given this general background, the focus of the Uruguay Round Agreement on Agriculture (AoA) was on limiting the policy space that countries had to over-produce by disciplining protection at the border and domestic and export subsidies[100].

Thus, by design, the AoA and its built-in agenda for the continuation of the reform process, is geared towards addressing problems of overproduction, typically originating in developed countries. Developing countries agreed to the same production restraining objectives of the AoA, although in practice the majority of them suffer from the opposite problem, i.e. underproduction, partly as a result of very little support to their agriculture[101]. Although depressed prices have been the predominant state of world markets over the last 40 years, this has not always been the case and certainly not as it is seen by all participants in the world food market.

In fact, since 1970, i.e. over a period of about 40 years, there have been six episodes of high food prices, i.e. spikes in world food prices and soaring food import bills. These were in 1974-76, 1980-82, 1988-90, 1995-97, 2007-08 and now (2010-?), each crisis lasting for about two years for a total of 12 years, or about 30% of the time. For the remaining 70% of the time, world food prices and food import bills could be said to be on trend or depressed[102].

Under this characterization, it would be right to say that the focus of the AoA rules on agriculture, and its continuation under the Doha Round, has been on addressing the problems of an era of cheap food – i.e. addressing the problems in the world food markets that apply 70% of the time. As a result, existing provisions of the AoA are rather ineffective when it comes to situations of high prices. In particular, Article 12 of the AoA on export prohibitions and restrictions is rather weak and of limited effect in practice as demonstrated by the fact that several countries raised export taxes and put in place export prohibitions on basic food stuffs during the 2007-08 price spike, as well as during this year when some major exporting countries experienced production shortfalls.

Overall, comparing the two extreme cases of food price swings, the WTO rules and disciplines are much less effective in situations of high world market price years than they are in cases of depressed prices. The asymmetry in the system is largely a consequence of the original objective of the multilateral trading system (MTS) which was to discipline situations

100 See, for example, Konandreas, P., "WTO negotiations on agriculture and the stake of food-insecure developing countries", in *The evolving structure of world agricultural trade: Implications for trade policy and trade agreements*, FAO 2009.

101 In fact, in most cases, agriculture was taxed directly and indirectly, as documented in *Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies*, by A. Krueger, M. Schiff and A. Valdes, World Bank Economic Review, 2 (3): 255–71, 1988.

102 *WTO provisions in the context of responding to soaring food prices*, by Sharma, R. and P. Konandreas, FAO Commodity and Trade Policy Research Working Paper No. 25, FAO, 2008.

leading to depressed prices in world markets adversely affecting exports. Thus, policies that lead to such situations, such as production subsidies and import barriers, have been the target for reform, while policies that have to opposite effect, such as export taxes and prohibitions as well as consumption subsidies, have been largely tolerated.

VI FACTORS DRIVING REGIONAL TRADE POLICY IN CEREALS

6.1 Global policy developments under the WTO

All ECOWAS countries with the exception of Liberia and Cape Verde were members of the WTO from its inception in 1995 or immediately after coming into being. Cape Verde joined in 2008 and Liberia is also in the process of accession since December 2007. The ECOWAS countries entered the WTO as individual entities and in agriculture they negotiated their own schedule of commitments under the Uruguay Round Agreement on Agriculture. All countries negotiated under the modalities applicable for developing countries which gave the option to offer bound ceiling tariffs. In most cases the bound tariffs committed were uniform across all agricultural commodities and did not bear much relationship to actually applied tariffs (the alternative was to use the 'tariffication' formula which was mandatory for developed countries bur optional for developing).

Their bound tariff commitments vary considerably between countries (Fig. 6.1.1). At one extreme there are countries with very low bound tariffs, whether by ECOWAS standards or in comparison to other developing countries. These include Côte d'Ivoire (15%), Senegal (25%) and even Guinea, Guinea Bissau and Sierra Leone at 40% each across all cereal commodities. At the other end of the spectrum are countries with high bound tariffs, such as Mauritania (75%), Togo (80%), Ghana and Burkina Faso with 100% each, Gambia (110%) and finally Nigeria with 150% across all commodities. Of course these levels of bound tariffs do not correspond to the actual MFN tariffs applied by the countries of the region, the majority of which are in the 5-10% range and reaching as much as 20% for a few countries and commodities (Fig. 6.1.2). However, this diversity in the initial bound tariff commitments of the countries in the region is indicative of differences among them as regards their openness to trade and their perceptions on the capacity of their respective agricultural sectors to meet the food needs of their people. These differences were more explicitly expressed during the process of agreeing on a Common External Tariff (CET) for the ECOWAS (see below).

Source: Compiled by the author based on data from Consolidated Tariff Schedules, WTO

The ECOWAS countries have been active during the Doha negotiations not as a regional block but as members of different issue-specific groups that coordinate their positions on issues of common concern. All ECOWAS countries are members of the African Group which pursues issues of general concern for Africa overall. All of them are also members of the ACP group which gives priority to preference issues, especially in relation to the EU and on issues having to do with negotiations of EPAs (see below). Those in the least developed countries (LDCs) category (all except Cape Verde, Cote d'Ivoire, Ghana and Nigeria), are also members of the LDC group which focuses on special exemptions in the WTO rules that apply exclusively to LDCs.

Beyond these quasi-mandatory alliances, several ECOWAS countries are members of issue-specific negotiating groups. Prominent among them is the G-33 group of developing countries, also called "Friends of Special Products" in agriculture. Benin, Côte d'Ivoire, Nigeria and Senegal form part of the G-33 coalition pressing for flexibility for developing countries to undertake limited market opening in designated agricultural commodities. Another prominent group is the Cotton-4, comprised of 3 ECOWAS countries (Benin, Burkina Faso and Mali) plus Chad. This coalition of countries, which enjoys support also from countries from other regions including from several developed countries, seeks substantial cuts in cotton subsidies in some highly subsidising countries and also better access conditions in import markets through deeper tariff cuts for cotton.

What is perhaps noteworthy is that despite the fact that the ECOWAS countries were negotiating their CET in parallel with the negotiations under the Doha Round, there has not been an ECOWAS position

at the latter, at least not formally as a group. Again, this may be an indication of the divergent views among the ECOWAS countries as to the degree of further openness to trade several of them were prepared to negotiate.

Of particular interest for some of the ECOWAS countries are the two new provisions being negotiated under the Doha Round, on Special Products and on the Special Safeguard Mechanism (SSM). Under the Special Products provision developing countries could designate a limited number of tariff lines as special, subject to reduced or no tariff cuts compared to those applicable to other agricultural products. Under the SSM, developing countries would have the possibility to raise their tariffs above the bound levels in cases of depressed import prices or import surges. The specifics of these two provisions are still not fully clear but potentially of great importance to the ECOWAS region in view of its adoption of region-wide common external tariffs and a likely harmonization and consolidation of bound tariffs across the region (see below).

6.2 ECOWAS, WAEMU and adoption of a Common External Tariff (CET)

The ECOWAS was founded on May 28, 1975, with the mission to promote economic integration[103] and to achieve "collective self-sufficiency" for the member states by means of economic and monetary union under a single trading bloc. Among the instruments towards economic integration was the adoption of a Common External Tariff (CET)[104]. This remained an issue of controversy for many years, but an agreement was considered essential since the inception of Economic Partnership Agreements (EPAs) negotiations with the EU, as the CET was seen as an instrument for increasing regional trade and strengthening economic integration in the region, one of the main objectives of the EPAs.

Given the overlapping membership of the ECOWAS with the West African Economic and Monetary Union (WAEMU), the ECOWAS made a commitment in January 2006 to base its CET on the WAEMU CET. The WAEMU CET features four tariff categories ("bands") with rates of 0% for essential social goods, 5% for essential/ basic raw materials, capital goods and specific inputs, 10% for intermediary products, and a peak tariff rate of 20% for final consumer goods. While this tariff structure of the WAEMU was adopted in the ECOWAS, intense debates and negotiations ensued on the effective protection that this may afford the region. After much discussion and deliberation within the ECOWAS and major stakeholders, it was finally decided in June 2009 that an additional 5th tariff band of 35% be included in the ECOWAS CET structure.

This 5th band of 35% was meant to protect the ECOWAS agriculture against competition from imports[105]. It is to apply to a list of "sensitive" goods consisting basically of agrifood products. Each member country is responsible for drawing up its own list, which is

103 For a general analysis of integration in Africa, with specific reference to agriculture under specific regional initiatives, see *Towards an African common market for agricultural products*, S. Koroma, V. Mosoti, H. Mutai, A. Coulibaly and M. Iafrate, FAO, Rome 2008.

104 It should be noted that the process of establishing a free trade area in the ECOWAS remains incomplete. Although all agricultural products are technically free across the border, this is not the case for industrial products, most of which are still outside the ECOWAS Trade Liberalisation Scheme (ETLS).

105 It is understood that both the of 35% and the list of products to which it would apply are still on the negotiations table.

subsequently to be harmonized with the lists of the other WAEMU countries and then with those of the ECOWAS members in order to arrive at a single common list.[106] One of the reasons given for introducing the 5th tariff band was to protect a number of essential sectors against competition from subsidized imports from certain WTO Members and the ensuing world market distortions (see also below, on additional safeguard measures).

A higher rate, 50%, was also considered and supported by some key stakeholders, especially following the 2007-08 food crisis. ROPPA in particular, which had an important role in the negotiation of the ECOWAS agricultural policy (the ECOWAP), argued forcefully that any rate under 50% will mean the region will fail to achieve its strategic development objectives, especially those set out under ECOWAP[107]. Alternative positions were also expressed that the CET tariffs were on the higher side and argue that reduction of tariffs could improve competitiveness of agricultural export commodities that compete for the same resources as used to produce protected imports, enhance the efficiency of economy-wide resource allocation, and reduce the food expenditures of consumers. Also a determining factor in resisting a much higher 5th band was the relatively low tariff base that the WAEMU CET was operating for many years. The simple average WAEMU CET rate in 2009, unchanged since 2003, was 12.1%, of which 14.6% on agricultural products (WTO definition) and 11.7% on non-agricultural products (excluding petroleum products). Specifically for cereals, rates applied in the WAEMU in 2009 average 6.1% with a range of 5-10%[108].

Together with the ECOWAS CET, three additional trade remedy measures (safeguards) were also negotiated concerning the "adoption of the external trade regime according to the specific circumstances of the agricultural sector" and the need for "differentiated protection" of the agricultural sector, as follows:[109]

- Degressive Protection Tax (DPT). The DPT is meant for a limited duration during which to restructure and improve the competitiveness of the production sectors for which the level of protection available under the common tariffs may not be high enough to cushion local production from undue competition from imports.
- Safeguard Tax on Imports (STI). This is an additional tax on imports of agricultural, livestock, fishing and forestry products to protect local production against import surges and depressed import prices. It is similar in design to the WTO Special Safeguard Mechanism (SSM).
- ECOWAS Compensatory Levy (ECL) is similar to the WTO countervailing duty and is meant for offsetting "unfair" competition. The ECL will be imposed if it is found out that

106 *Sixth meeting of the Joint ECOWAS/WAEMU Committee for the Management of the ECOWAS Common External Tariff - Final report*, February 2009. http://www.uemoa.int/CentreOMC/douanes/rapport%206e%20reunion%20comite%20conjoint.pdf

107 *Memorandum from Farmers' Organisations on the ECOWAS Common External Tariff Negotiations*, ROPPA, Ouagadougou, 9th February 2009.

108 *Trade Policy Review: Niger and Senegal*, Report of the Secretariat, WTO, October 2009.

109 See Sharma (2010), op cit. for additional discussion on these instruments.

subsidies of third countries are causing injuries or threats of injuries to ECOWAS producers involved in agriculture, livestock, fishing or forestry processing industries.

There is uncertainty on the exact modalities of these safeguards, especially on trigger measures but it is likely that similar approaches to those employed elsewhere may prevail. Nonetheless, the importance of these safeguards and how they may operate effectively in practice has been a concern, considering the volatility in world market prices of basic food stuffs and the perceived low level of the CET agreed. For example, ROPPA proposed an adjustment period of more than 10 years for the DPT. For the STI, it suggested to extend application duration from six months to one year (as in the WTO SSM), reduce trigger threshold from 50% to 10% for volume and from 20% to 15% for price, take account of currency appreciation in price safeguard, and plan for the trigger threshold to be set at regional rather than country level. Finally, for the ECL, it recommended that ECOWAS conducts studies to identify levels of subsidies granted by exporters with a view to determining the level of the ECL[110].

6.3 ECOWAP and ECOWAP/CAADP Regional Compact[111]

The ECOWAS Agricultural Policy (ECOWAP) was adopted in 2005 with objectives much the same as those of the Union Agricultural Policy (PAU) of the WAEMU[112]. The ECOWAP is considered to be the overall framework for guiding national agricultural and trade policies in member countries. More recently, an ECOWAP/CAADP regional compact has been formulated that further prioritises policy and investment measures[113].

The vision of the ECOWAP is of "a modern and sustainable agriculture, based on the effectiveness and efficiency of family farms and the promotion of agricultural enterprises through the involvement of the private sector. Productive and competitive in the intra-community and international markets, it must ensure food security and remunerative incomes to its workers". Based on this vision, the general objective pursued is to*:* "contribute in a sustainable manner to satisfying the food needs of the population, to economic and social

110
Beyond these substantive suggestions as regards the complementary remedy measures to the CET, there have also been proposals for a variable CET, put forward by the Farmers' Confederation of Burkina Faso (CPF), whereby for a list of identified sensitive products ECOWAS would reserve the right to apply variable import duties to ensure a level of effective protection that provides decent incomes for agricultural workers, this being one of the goals of the ECOWAP and its commitment on food sovereignty.

111
This section draws heavily on Sharma (2010), op cit. See also *Food sovereignty in West Africa: From Principles to Reality,* Study by the Sahel and West Africa Club (SWAC), Paris, March 2007.

112
Cadre de politique agricole pour l'afrique de l'ouest ECOWAP, document de référence, CEDEAO, Juillet 2004 < http://www.comm.ecowas.int/dept/d/d1/fr/documents/1-Politiques %20_agricoles/ECOWAP/ECOWAP_Document_reference07-04.pdf>

113
Regional Partnership Compact for the Implementation of ECOWAP/CAADP, ECOWAS, Abuja, 12th November 2009.

development and to poverty reduction in Member States as well as to address inequalities between territories, areas, and countries"[114].

The specific objectives of the ECOWAP include, inter alia: guaranteeing food sovereignty for the rural and urban populations; reducing food import dependency; integration of producers into markets; sustainable intensification of production systems; and reducing vulnerability, regional instability and insecurity. It is important to note the emphasis placed in the ECOWAP agricultural policy framework on "food sovereignty", stating that: "The principle of food sovereignty affirmed in the policy involves a strong regional integration and an appropriate level of protection at the borders, varying according to specific issues facing each value chain"[115].

Prompted by the 2007-08 food crisis, the Heads of States adopted a Regional Initiative for Food Production and the Fight Against Hunger in June 2008, which revised priorities for the implementation of ECOWAP/CAADP, around three "mobilizing programmes": i) promotion of strategic food value chains for food sovereignty; ii) promotion of an overall environment favourable to regional agricultural development; and iii) reduction of vulnerability to food crises and promotion of stable and sustainable access to food. Inter alia, under these mobilizing programmes, a number of food products "that contribute to food sovereignty" will be promoted, including millet/sorghum, maize and rice, roots and tubers, fruit and vegetables, and meat and dairy products. The second mobilizing programme includes some very pertinent issues for promotion of regional trade in food products, in particular: development of trade infrastructures suitable for agricultural food products, and adaptation and implementation of new trade provisions at the borders of the ECOWAS sub-region.

6.4 EPA negotiations and interim agreements

Another concurrent negotiating front for the ECOWAS countries, as for all ACP countries, has been the EPA agreements with the EU[116]. Negotiations on EPAs, which started in September 2002, had to be concluded by 31 December 2007 at the latest[117]. ACPs were encouraged to enter into the EPAs in regional groupings, and ECOWAS was one of them. While reciprocity has been one of the aims of the EPAs, in practice concluded EPAs so far are far from being so, with the ACP countries maintaining a degree of protection of their most vital products. The extent to which trade must be liberalised under the new EPAs is still a widely debated issue and for many countries this is linked to

114 ECOWAP/CAADP, op cit., paras 11 and 12.

115 ECOWAP/CAADP, op cit., para 13.

116 See agriculture specific issues in the EPA negotiations in *The agricultural dimension of the ACP-EU Economic Partnership Agreements*, edited by Koroma, S. and J.R. Deep Ford, FAO, Rome, 2006.

117 The imperative for the EU's search for new trading arrangements with the ACPs was the need to ensure compatibility with the WTO. Non-reciprocal trade preferences granted under the Lomé Convention required an exemption from WTO rules, because they were neither available to all developing countries nor restricted to just least-developed countries (LDCs). In 2001, the EU was granted the last waiver under the Lomé Convention, which was set to lapse at the end of 2007.

the multilateral commitments they are called to make under the Doha Round. For many ACPs the two negotiating fronts (WTO and EPAs) are closely linked.

Although the conclusion of the negotiations of various EPAs was set for December 2008, this has proven an illusion. Several issues emerged in all regional groupings some having to do with the underlying principles of the EPAs themselves as well as the heterogeneity of countries within regional grouping necessitating differentiated approaches.

In view of the difficulties in reconciling different positions within regional ACP groupings, some countries opted for signing interim EPAs (IEPAs) with the EU even though their respective regional grouping was not in a position to do so. Within ECOWAS, Ghana and Côte d'Ivoire signed their IEPAs with the EU in December 2007. The urgency for doing so was to prevent a disruption of their agricultural exports to the EU after the trade provisions of the Cotonou Agreement were set to expire at the end of 2008[118]. Without the market access preferences in the EU market it was likely that their exports to the EU would have suffered (such as horticultural products, cocoa, etc)[119]. There are several flexibilities in these IEPAs meant to ease the transition of the countries concerned. For example, in Ghana's IEPA there is a standstill period of five years (starting in January 2008) when Ghana is not required to reduce any import duty. Following that period, Ghana will need to eliminate duties on 80% of its imports from the EU over a period of 15 years, with 72.8% of imports being liberalised after 10 years[120]. According to a CTA analysis[121], about 28% of the items to be excluded from liberalisation (20% of total) are agricultural and 62% of these belong to the highest tariff band[122].

The slow progress in the negotiation of EPAs relates to several factors, which are a common concern of most ACPs[123]. One important issue is the request of the EU for an MFN provision in the EPA that would grant the EU the same treatment that ECOWAS countries provide to "major trading partners" in other FTAs that ECOWAS or its members may enter into an agreement. Another contentious issue is drawing up a list of "sensitive" products, at the

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118 Within the ECOWAS, these two countries plus Nigeria are non-LDCs and as such they do not benefit from duty-free quota-free access to the EU market under the Everything But Arms (EBA) scheme. In the mean time, Nigeria, without an IEPA, will continue to trade with the EU under the GSP+ provisions.

119 It is understood, however, that these two individual country IEPAs are interim, implying that they would last only until a full EPA, covering the entire ECOWAS region, is concluded.

120 Côte d'Ivoire will liberalise 80.8% of EU imports also over 15 years.

121 *EU-West Africa EPA Negotiations Executive Brief*, CTA, March 2009, CTA.

122 Several issues were raised as regards these two interim agreements. An ECOWAS Extra-ordinary session of the Ministerial Monitoring Committee in February 2008, the document *Accompanying and monitoring the Interim Agreements of Côte d'Ivoire and Ghana* was rather critical about these IEPAs, stating, inter alia, that they: "impose unbalanced obligations regarding the application of the agreement", "impinge on several areas of government regulatory space", "extend beyond what would be strictly required for compliance with the WTO."

123 See Sharma (2010), op cit. See also *EPA negotiation issues between West Africa and the EU*, Executive brief: Update, Agritrade/CTA, February 2010. http://agritrade.cta.int/en/content/view/full/1790

regional ECOWAS level, that will not be liberalised in the full EPA (individual ECOWAS members are said to have their own lists but a regional list has not been compiled). Finally, at a more general level, the issue of how an EPA will impact on the ACP countries remains the subject of extensive debate. Quantification of the impact is a difficult task and the source of diverging views spanning the whole range from very negative impacts on agriculture and the poor to highly positive. An excellent study on this issue sums up this dilemma as follows[124]:

> "To wind up, ECOWAS countries are facing an enormous challenge when assessing an EPA with the EU and considering alternative policy options. A final decision has to be taken under a high degree of uncertainty. This is mainly due to severe analytical restrictions in balancing economic and non-economic costs and benefits. It appears that the commitment to structural adjustment of each country, as well of the regional grouping as a whole, plays a decisive role in decision making. There are less challenging alternatives to an EPA, like taking further advantage of unilaterally granted EU preferences. This would sustain full autonomy as to the size and depth of trade liberalisation and related structural adjustment measures. On the other hand, an EPA could be considered as an historic chance to lock in economic reforms, which are required anyway if integration into the word economy is part of the development strategy. Thus, an EPA would provide an impetus to implement such a policy effectively. However, lessons from other regional integration projects including the European case illustrate the need for a gradual and country-specific approach in trade liberalisation and a proper sequencing of complementary, compensatory and institutional measures to counter possible negative repercussions of integration. Trade liberalisation is not necessarily the first step, but should be well prepared and perceived as a part of an overall package of reforms."

6.5 Potential conflicts between regional and national objectives

As we have seen in sections IV and V, there is a great diversity between the ECOWAS countries as regards their cereal production performance and their dependence on the world market to meet their food needs. The degree of trade openness varies considerably among them and this is not a recent phenomenon. Historically, a possible categorization of the countries in the region in terms of the dependence on trade for meeting their food needs may be as follows[125]:

- Food deficit coastal countries (including Senegal, Mauritania, Sierra Leone and Liberia) that have based their food strategies on large wheat and rice imports from the world market, combined with imports of millet, maize and sorghum from neighbouring countries, while exporting cash crops and/or mineral resources;

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124 *The Impact of ACP/EU Economic Partnership Agreements on ECOWAS Countries: An Empirical Analysis of the Trade and Budget Effects*, Final Report, Matthias Busse, Axel Borrmann and Harald Großmann, HWWA - Hamburg Institute of International Economics, Department World Economy, Hamburg, July 2004.

125 Adapted from: *Agricultural Globalization in Reverse: The Impact of the Food Crisis in West Africa*, by Staatz, J. M., N. N. Dembélé, V. Kelly, and R. Adjao, Department of Agricultural, Food and Resource Economics, Michigan State University, Background paper for the Geneva Trade and Development Forum Crans-Montana, Switzerland, September 17-20, 2008

- Countries also in the coastal area (including Côte d'Ivoire, Ghana and Guinea) that also import significant quantities of rice and wheat from overseas but which have a developed food processing industry that allows them to export processed products to neighbouring countries as well surplus quantities of maize in exchange of millet and sorghum;
- Countries such as Mali, Burkina Faso and Benin that have historically been largely food self-sufficient, exporting traditional staples (millet sorghum and maize) in normal years and importing smaller quantities of wheat and rice to augment their diet; and
- Nigeria, a case apart in many respects, including its size. A net food-exporting country up to the mid 1970s it has become a major importer of food products, especially rice and wheat and at times of coarse grains. With the oil-boom in the 1970s the economy became heavily dependent on oil[126]. While the boom afforded the government much needed revenue, it also created serious structural problems in the economy and affected the agricultural sector adversely. Rural urban migration increased, as people attempted to reap or benefit from the windfall from oil. Production of agricultural commodities declined drastically and starting from 1974, the economy became a net importer of basic foods. Huge foreign exchange earnings were utilised in importing food.

In general terms it may be argued that in the case of the first two groups of countries, their overall economic and trade policies may be characterized by a relatively open and non-interventionist regime, while the latter two groups of countries may be characterized as more interventionist. However, such differentiation is less valid when seen from the perspective of the ECOWAS as a customs union and the related regional agricultural policy, the ECOWAP. Specifically, as discussed above, the ECOWAP presents a very strong policy orientation being based on the concepts of food sovereignty and differentiated additional protection. While these concepts are not precisely defined, their political significance may become a divisive issue in the region, considering past trade orientation and related policies and practices of individual countries. It will all depend on how these concepts are interpreted and how ECOWAP policy prescriptions are applied in practice.

In this context, among the cereal commodities, rice is perhaps the most relevant, considering the assumed potential of countries in the region to increase their rice production and reduce the large dependence on imports. However, rice is also the most controversial, considering the diverse net trade positions of different countries. For some countries, rice is a major food item in the diet but there is relatively little production, such as Gambia, for example, which allows duty free imports of broken rice. At the other extreme, Nigeria taxes rice imports at 35% to protect domestic rice production. Import duties in the other countries are either 15% or 20%. There is a clear recognition in West Africa that rice is a very sensitive commodity over which extensive negotiations may ensue[127].

126
In 1971, the share of agriculture to GDP stood at 48% but by 1977 it had declined to 21%. Agricultural exports, as a percentage of total exports, which was 20.7% in 1971, reduced to 5.7% in 1977. By this time, oil revenue represented almost 90% of foreign exchange earnings and about 85% of total exports.

127
Stryker, D., *ECOWAS Common External Tariff (ECOTrade): Recommendations Regarding Changes in Tariff Rates*, AIRD, April 2005

In a recent e-consultation on rice[128], it was argued that in general self-sufficiency was not the best use of resources. However, in the case of rice, several factors would support significant investments to increase production, including: the risk to food security due to export restrictions by leading rice exporters; the growing disparity between production and consumption in West Africa; the declining rates of growth in rice production in Asia; and the expected higher level of world price in the coming years, compared with the past (see above on this latter point).

The degree to which the above overall orientation of the ECOWAP is supported by individual countries of the region, and specific stakeholders within, varies between countries, generally in relation to their historical trade openness as discussed above. Some are proponents of the concepts and direction of the ECOWAP while others are less enthusiastic. In this sense, the specific features of regional agricultural and trade policy might be a source of tension among countries and different stakeholders within countries.

128
West Africa Rice Value Chain e-Consultation, August 25-27, 2009 <www.microlinks.org/riceconsultation>, reviewed by Sharma (2010), op cit.

VII CONCLUSIONS AND RECOMMENDATIONS

Agriculture in the ECOWAS region has not delivered its full potential in terms of producing the basic food commodities, in quantity and product range demanded by the fast growing population. Yet the economic size of the region and the human, physical and economic resources that it possesses could provide the basis of a more prosperous agriculture, capable in affording livelihood security for its large rural population and supplying the food needs of the rapidly growing urban centres.

There is a strong political will by the countries of the ECOWAS region individually and collectively to implement policies and strategies to stem the growing imbalance between supply and demand of basic foodstuffs. Several developments in the past few years, in particular the strengthening of cereal prices and the volatility in world cereal markets have underpinned the determination of policy makers to rethink their food security strategies by placing greater emphasis on national and regional initiatives. In particular, the main institutional vehicle for that is the implementation of the ECOWAS Agricultural Policy (ECOWAP) which aims at contributing in a sustainable manner to "satisfying the food needs of the population … and to address inequalities between territories, areas and countries."

The scope of the ECOWAP and of other regional initiatives covers the whole range of interventions and delineates the role of different stakeholders in this process. The focus of this study was much more limited, primarily to look at the role of trade in the context of the region's effort to attain food security. In this context, the study highlighted several important constraints that would have to be overcome.

In the first instance there is a need to clarify some important concepts that are part of the regional blueprint of food and agricultural policy under the ECOWAP so that potential disagreement and setbacks are averted. In particular, while some countries of the ECOWAS region place much emphasis on national and regional self-sufficiency in basic food commodities as the main objective of their food security strategy, others favour a more open trading regime based on food self-reliance, where continued dependence on trade forms part of their strategy to attain food security.

However, despite these potentially conflicting positions, there is solid common ground and convergence within the ECOWAS about the contribution that trade could make to advancing food security. To this end the study calls for concerted action by embracing a two-pronged approach:

- first, addressing issues at the national and regional levels that promote better integration between regional cereal markets and strengthen intra-regional trade, and
- second, taking collective action to defend against threats to national and regional food security emanating from the world market and support related instruments and policies to minimize adverse effects when they occur.

7.1 Strengthening intra-regional trade

The study argued about a holistic approach in strengthening intra-regional trade whereby there is a need to addressing the numerous constraints along the whole supply chain from the

farm to the final consumer. In the first place efforts need to focus on increasing agricultural productivity at the farm level. It is inconceivable to envision a strong and growing intra-regional trade with cereal yields in the ECOWAS region that are only a fraction of global yields and have remained stagnant for decades.
The wide range of interventions that could boost cereal productivity and render domestic production competitive in local and regional markets are beyond the scope of this study. However, it is clear that this is a *sine qua non* and a wide range of technical, institutional and agricultural policy measures need to be taken to increase productivity so that farmers can earn a living and are in a position to generate surplus output beyond self-consumption.

Another reality that has implications for intra-regional trade and import dependency is the recognition of the strong demographic trends in the region and in particular the rapidly growing urban centres with diets that do not exactly match the domestically produced commodity mix. To the extent that the commodities demanded by the urban consumers cannot be fully met by domestic/regional production, partly due to the agro-climatic characteristics of these crops, the countries of the region would continue to depend on imported supplies for a considerable part of their diet.

Beyond these constraints at the two ends of the supply chain, the study identified several issues that would need to be addressed to strengthen intra-regional trade. In addition to boosting productivity at the farm level, promoting intra-regional trade of locally produced commodities would crucially depend on a wide range of measures. In the first place there is a need to address issues of market failures aiming at reducing transaction costs along the supply chain to domestic and regional markets as well as minimizing the risks for traders of doing business. Some of these are elaborated below.

Easing access to credit. This applies to the whole supply chain from the producer to the final retailer and concerns access to finance for value addition and for avoiding risks. The producer is in need of liquidity at critical times of the year to get through the lean season and to purchase necessary inputs during planting. Traders are in need of liquidity in view of the high transaction costs of doing business as a result of disperse supplies and poor infrastructure, as well as risks associated with the nature of the business in an environment of greater trade openness and increased competition. Trading local grains is clearly a much riskier business than trading imported grains. This disparity has to be corrected. The solution is not necessarily in providing credit at subsidized rates and creating a situation of moral hazard but in making financial services available in the first place and clarifying the conditions of accessing these services, in particular as regards collateral requirements and the related issue of land tenure rights.

Reducing transaction costs. This also applies to the whole supply chain and entails a wide range of possible improvements, some of which are easy and some may take much longer to be realized. That road transportation is expensive is a fact of life and progress in this area will be gradual, not because the value of better road network is not recognized but because of the high investment required to do so. However, other interventions are much easier to implement and some of them are costless, such as facilitation of regional transport and transit formalities, including simplification and harmonization of cross-border regulations and related documentation. In addition, cracking down on petty corruption should be high in the hit list. The numerous roadblocks, charges and delays in moving supplies, even within a country's own borders but much more so for cross-border trade, are highly disruptive to trade and are also associated with other undesirable developments. Allegedly, there is ignorance in the population at large about rights and benefits conferred to them by the customs union and a broad campaign by the ECOWAS on this issue could be highly desirable.

Building storage capacity and promoting warehouse receipt systems. Investment in storage capacity should be a priority in the region and should be included in the category of public goods such as other basic infrastructure that countries individually and collectively have a major interest in investing. Wide fluctuations in annual harvests create a peak load problem in the provision of grain storage capacity. Although extra storage capacity may not be justified on purely economic terms, broader food security considerations should prevail given the high variability of production and the need to effectively manage the large volumes of imported grains. In addition to extra storage capacity of high quality, it is imperative that mechanisms are put in place for instituting regionally managed credible systems of warehouse receipts which would provide the needed inventory credit to farmers and traders in the region[129]. This is also a prerequisite for developing regional commodity exchanges (see below).

Promoting quality control, standardization and branding of local cereals. This is also an important consideration for boosting intra-regional trade and for bridging the competition gap with imported supplies. Quality control is essential in all stages of the supply chain, while standardization and branding is crucial in gaining consumer confidence and trust. Aside from greatly facilitating trade nationally and regionally, quality control and standardization are also a consumer protection issue and as such they should fall in the domain of public goods. This is also an area where regional institutions and mechanisms are likely to be much more cost effective and enforceable than individual national schemes.

Strengthening cereal value chains with donor support. While in the past efforts supporting value chains were largely aimed at cash crops destined for the export market, there has been increased interest, including by the donor community, to support the development of value chains for basic food stuffs through producers' organisations with the involvement of private sector and government stakeholders. Also, donor support to the agricultural sector is increasingly much broader than a stand-alone project-based approach. Donors are moving towards more integrated and coherent programmes, adopting a value chain approach to programme design and seeking to exploit synergies between their own projects and also with the projects of other donors. The aim is to better address bottlenecks along the whole supply chain by providing a critical mass of resources needed on all fronts to effect a lasting change.

Promoting organized commodity exchanges. Successfully operating commodity exchanges are an important ingredient in national and regional efforts to modernise and improve the performance of agricultural commodity markets. By implication, they are seen essential in ensuring successful implementation of agricultural development initiatives in Africa and elsewhere. However, the experience in developing well functioning commodity exchanges has not been very positive. Nonetheless, given the momentum for regional integration in the ECOWAS region and also taking into account potential volumes that could be traded, a regional commodity exchange could be highly desirable. The benefits are many, as this would necessitate also the creation of a warehouse receipt system as discussed above. The upshot of all that would be improved market transparency and price formation, better access to market information and improved possibilities of all participants, including farmers, to have greater access to credit.

Removing remaining barriers to intra-regional trade. While the ECOWAS region has moved a long way along the path of regional integration, it is recognized that this is only the beginning of a process. The customs union agreement among the ECOWAS members addresses only one barrier to intra-

129
See UNCTAD (2010a), op cit.

regional trade and that is the import tariff[130]. However important this development may be, and considering also the time it took member states to get to this level, removal of tariffs is perhaps the lesser barrier to trade compared to what remains[131]. Of particular concern are non-tariff barriers which are often much less transparent than tariffs and highly detrimental to trade. Equally there is need to liberalize trade in services as well as in the movement of natural persons involved in delivering trade-related services, all of which play an essential complementary role in commodity trading.

Reconciling potentially divisive issues. Beyond 'border measures' the development of a healthy intra-regional trade would require also a wide range of 'behind the border' policy harmonization especially of sectoral policies affecting agriculture, including defining strategic commodities for the region and the extent of import substitution. An important question that needs further debate is whether national efforts to increase cereal production would necessitate increased protection at the regional level. To the extent that they do[132], then the question is whether this policy of more expensive cereals, at least in the short term, would be supported by all countries, even those that do not have a comparative advantage in cereal production and would prefer to import cheaper supplies from the world market as they have done all along. In this connection, it would seem that the ECOWAP concept of "differentiated additional protection" could not be attained in practice as all countries are subject to the same agreed Common External Tariff (CET).

The vision of ECOWAP on this issue is that while ECOWAS as a whole will strive for highest possible food self-sufficiency based on the principle of food sovereignty, it will also promote regional trade on the basis of comparative advantage within the region. The mute question is whether this imperative to increase regional self-sufficiency is strong enough to overcome possible resistance from countries and stakeholders within the region that would have to pay a price for attaining this regional objective. It is a viable objective to the extent that there is some effective redistribution within the region from countries that stand to gain to those that stand to lose from paying higher prices, at least in the short term. It is clear that there is a need of further debate and clarity on these issues of critical importance in advancing national and regional food security in a sustainable way.

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130 In this connection, it may be noted that at present there are no repercussions from the ECOWAS against non-complying members. The ECOWAS has little leverage not only over border measures (tariffs and non-tariff barriers) but also on domestic policies impacting on production and indirectly on trade.

131 See an excellent discussion on these issues in "Reconsidering Regional Integration in Sub-Saharan Africa", C. MacCarthy, in *Supporting Regional Integration ion East and Southern Africa – Review of Select Issues*, @tralac, Danida, 2010

132 This is not to pass a judgement about import protection per se, as tariff and non-tariff measures continue to be a policy of choice in many countries developed and developing alike, especially on food commodities. There is also a wide recognition that border and other measures do create distortions to a more efficient resource allocation;, however, policy makers seem to see these as by-products that need to be tolerated for meeting certain social goals like price stability, food security and smoother transformation of economies as agriculture shrinks and services and industries expand. Thus, for example, interventions on rice in Asia are seen as providing macroeconomic stability with substantial invisible benefits that might more than offset the cost of static economic distortion (see Sharma, R. and J. Morrison, *Trade Policy for Agricultural Development and Food Security: Reflections from Asia*, Paper presented at Asia-Pacific Trade Economists' Conference on Trade-Led Growth in Times of Crisis, Bangkok, November 2-3, 2009).

7.2 Minimizing threats to food security emanating from the world market

How society deals with market volatility depends to a large degree on coping mechanisms at the national, sub-national and individual household levels. However, the international context under which national actions take place is instrumental in the success or failure of national efforts. The multilateral negotiations under the WTO have been the dominant force shaping the international trade policy environment during the past two decades and continue to remain at central stage in view of the on-going reform process under the Doha Round. The ECOWAS countries are all part of that process and have a strong interest in ensuring that instruments that are put in place cater for their specific concerns. In this connection, the current impasse in the Doha negotiations offers an opportunity for the ECOWAS countries to reflect more on certain proposals on the table as well as consider other approaches beyond the WTO. Some of them are discussed below.

Rationalizing the selection of Special Products (SPs). Under the new AoA rules negotiated under the Doha Round, developing countries would have the option of designating a limited number of food commodities as special products, which would not be subject to the general tariff cut formula applicable to other products. The broad criteria to be used in the designation of SPs are food security, livelihood security and rural development. It is clear that for a customs union with a common external tariff regime (the CET) the list of SPs would have to be uniform for all member countries. It would appear that the ECOWAS region is well ahead in this process in the context of promoting "strategic products for food sovereignty". The latter include all main cereals (millet, sorghum, maize and rice) as well as roots and tubers, fruit and vegetables, and animal products. However, it would appear that more product specificity would be needed as regards the eventual list of SPs than the above general product categories and this may necessitate additional debates and consultations between the ECOWAS members.

Articulating a position on the Special Safeguard Mechanism (SSM). This is yet another instrument under the new AoA rules of particular importance to many developing countries and partially responsible for the collapse of the Doha Round talks in July 2008. The SSM would allow extra tariffs for certain products above the bound levels in cases of depressed import prices or import surges. The specifics of the triggering mechanisms as well as the remedy to be applied in the form of extra tariff are yet to be finalized and again this offers an opportunity for fresh thinking in this area reflecting the interests of the ECOWAS region. Clearly, the potential need of the SSM would be essential for products where the bound tariffs are relatively low. The SSM would apply at the ECOWAS level and hence it is linked to the eventual common bound tariffs that the ECOWAS as a whole would also have to negotiate at the WTO. Some thinking is called for as regards the desired specific modalities of the SSM in relation to what may be the likely ECOWAS bound tariffs profile.

Supporting the strengthening of Article 12 of the AoA. Article 12 of the AoA on export prohibitions and restrictions is rather weak and of limited effect. Member of the WTO are effectively not restrained in putting in place measures to limit the export of foods stuffs, including through bans and taxation, in situations they consider their own food security is threatened. The effect of such measures is that other countries would have to make greater adjustments in their consumption in the face of higher prices. Net food-importing countries have a clear interest in correcting this asymmetry in the WTO rules (i.e. disciplining export prohibitions as is the case on import disciplines) and ECOWAS countries could join forces

with other WTO members that have proposed ways of introducing more symmetry in the rules by strengthening Article 12.

Supporting an effective implementation of the Marrakesh Decision. Besides the weak general disciplines on export prohibitions and restrictions under the WTO, other mechanisms contained in the AoA to help net food-importing developing countries (NFIDCs) facing difficulties in importing basic foodstuffs, notably food aid, export credits and compensatory financing, represent merely best endeavour clauses. In particular there has been little enthusiasm in effectively implementing the Marrakesh Decision[133] which was meant to address difficulties that LDCs and NFIDCs may face in the process of opening up to trade. Although the Decision has not been the subject of negotiation under the Doha Round, the ECOWAS countries have an interest in ensuring that it continues to be part of the eventual Doha agreement. Moreover, it is important to be pragmatic in this area by focusing on those issues under the Decision where there is greater convergence between donor and beneficiary countries and practical solutions may prove possible.

Being pro-active in cases of violations of WTO rules. While individually ECOWAS countries may not be able to afford invoking the general GATT/ WTO safeguards (such as antidumping and countervailing duties), perhaps collectively they could do so by counting on the weight of the ECOWAS as a whole. At the minimum ECOWAS countries should not lose opportunities of joining, as third parties, other WTO members that resorted to the WTO Dispute Settlement process on an issue that is also of concern to the ECOWAS.

Putting in place a trade surveillance system. For the ECOWAS to be successful against the threats of import surges in periods of depressed world prices and for timely scheduling of cereal imports in situations of increasing prices, an effective trade surveillance system would need to be put in place at the regional level to give an early warning of impending problems. In addition, there would be need for analytical capacity to consider possible response options and assess credibly possible regional and country-specific impacts. Also needed is the creation of mechanisms within the ECOWAS structure for technical consultations on possible national and regional policy responses and remedial actions in cases of external threats to food security, as well as for advocating a strong political will to act regionally and not nationally.

Overall, comparing the two extreme cases of food price swings, the WTO rules and disciplines are much less effective in situations of high world market price years than they are in cases of depressed prices. This asymmetry in the WTO rules as regards treatment of low and high world prices is not good for the multilateral trading system and for promoting further trade reform to the benefit of all. It raises doubts about the world market being a reliable source of food supplies and puts into question the credibility and impartiality of efforts to reform world agricultural trade and strengthens the case of protectionist forces around the world.

The ECOWAS has an important stake on how the new rules under the Doha Round are being shaped, both in disciplining exports and imports. Articulating ECOWAS-wide positions on some of the issues discussed above presents an opportunity for better rationalization of longer term regional interests and

133 Marrakesh Decision on *Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.*

for creating an effective and potent trading bloc with bargaining power that goes well beyond the interests of the region in agricultural trade alone.

The recommendations made above are not meant to provide precise blueprints for national and regional action, but to draw attention to some important shortcomings in regional arrangements and the international trade regime, vis-à-vis the actual preoccupations of the region. Some of these recommendations would require additional reflection and analysis. However, others can be acted upon without delay and any cost.

All in all, the more the countries of the ECOWAS, individually and collectively, are failing in addressing some of these systemic problems impeding intra-regional trade as well as face up realistically their differences as regards the degree of trade openness, the more these problems would amplify in the future. Also the more the multilateral trading system fails in putting in place mechanisms and rules that would offer effective defence against the extreme episodes of instability in the world food markets, the lesser the commitment of its members, especially those most vulnerable within the ECOWAS region, to engage in greater openness and desirable domestic reform.

ANNEXES

Annex 1: Selected indicators of the ECOWAS countries

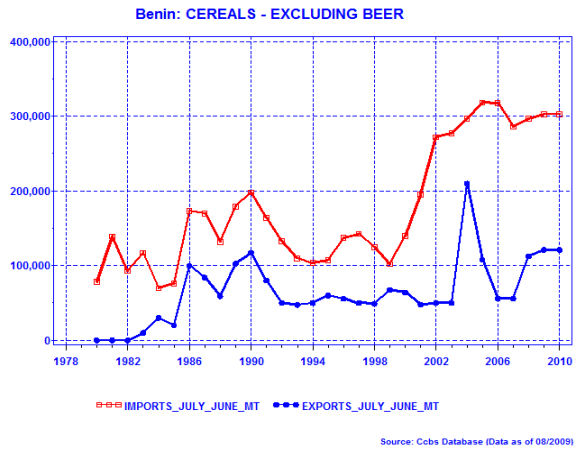
	Population		Surface area		Income per caput		Transport infrastructure				Trade	
	Number of people (1000)	Growth rate (%)	Total area (Km2)	Arable land (%)	GNI ($US)	GNI purchasing power parity ($US)	Airports with paved runway (number)	Ports and terminals (number)	Rail density (Km per 100Km2)	Road density (Km per 100Km2)	Total trade as share of GDP (%)	Share of trade with neighbouring countries (%)
	2010	2000-07	2007	2007	2007	2007	2007	2007	2000-06	2000-06	2005-06	2000-05
Benin	8068	3.2	112620	24.0	570	1310	1	1	0.7	17.2	39.6	20.4
Burkina Faso	16018	3.1	274000	17.7	430	1120	2	0	0.2	5.6	35.8	40.7
Cape Verde	529	2.3	4030	11.4	2430	2940	7	3	..	33.5	74.6	1.1
Côte d'Ivoire	18526	1.7	322460	10.4	910	1590	7	4	0.2	25.2	92.3	20.2
Gambia	1680	3.0	11300	31.5	320	1140	1	1	..	37.4	110.2	4.1
Ghana	24117	2.2	238540	18.4	590	1330	7	2	0.4	21.0	103.0	10.7
Guinea	9990	1.9	245860	4.5	400	1120	5	1	0.3	18.0	67.4	10.1
GuineaBissau	1827	3.0	36120	10.7	200	470	3	4	..	12.3	95.4	..
Liberia	4130	2.9	111370	4.0	150	290	2	2	0.5	..	99.6	..
Mali	16208	3.0	1240190	3.9	500	1040	9	0	0.1	1.5	72.3	25.1
Mauritania	3520	2.9	1030700	0.5	840	2010	8	2	0.1	..	113.7	2.1
Niger	15388	3.5	1267000	11.4	280	630	9	0	..	1.1	38.9	20.7
Nigeria	145922	2.4	923770	33.5	930	1770	36	3	0.4	21.1	91.1	4.4
Senegal	11869	2.6	196720	12.8	820	1640	9	1	0.5	7.1	69.8	9.1
Sierra	5859	3.7	71740	8.0	260	660	1	3	..	15.8	59.4	2.3

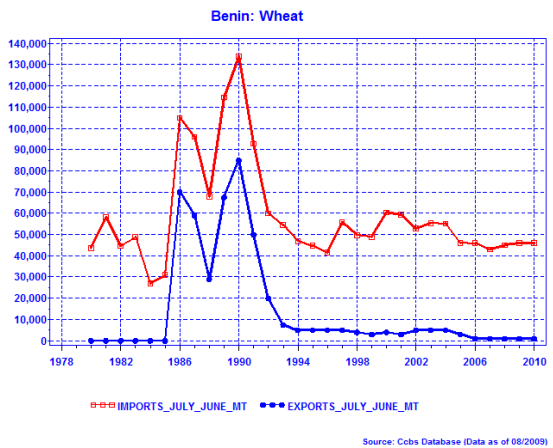
Leone												
Togo	5730	2.8	56790	46.1	360	800	2	2	1.0	..	83.9	28.1
Memo items												
Mozambique	23406	2.3	799380	5.5	320	690	22	3	0.4	..	88.9	43.7
India	1214464	1.4	3287260	53.7	950	2740	243	8	2.1	113.8	48.8	9.9
Switzerland	7595	0.7	41280	10.3	59880	43080	42	0	12.1	178.0	89.0	61.4

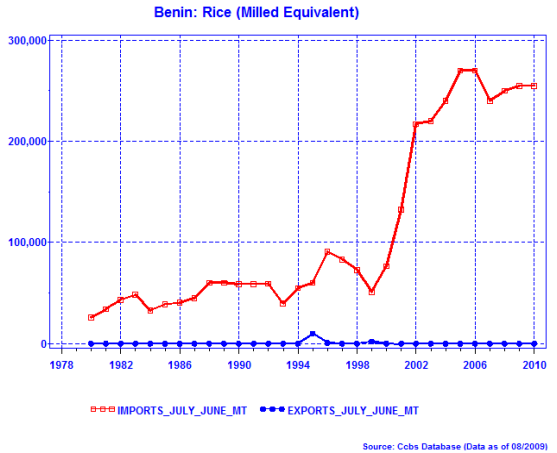
Source: *World Development Report 2009*.

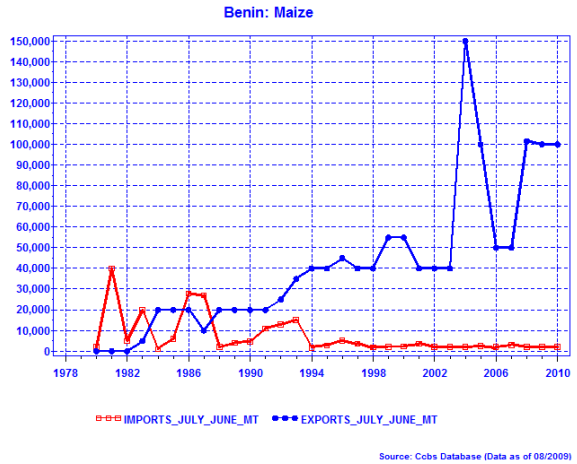
Annex 2: Cereal imports and exports of the ECOWAS countries (1980-2010)

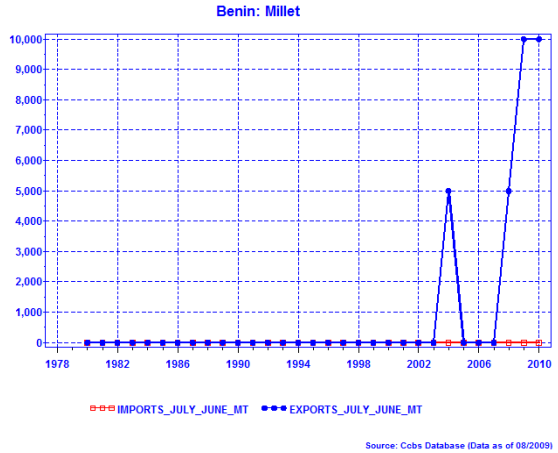
Benin – Trade in Cereals

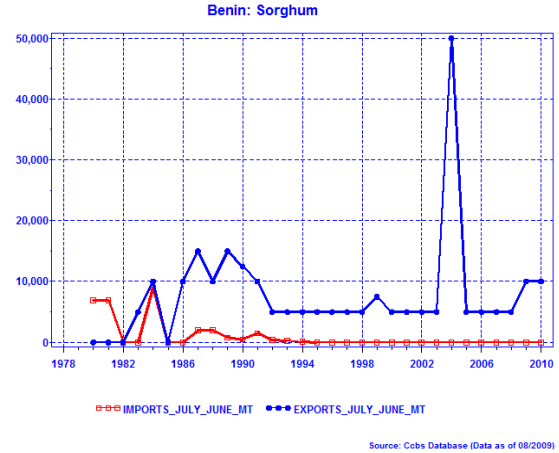




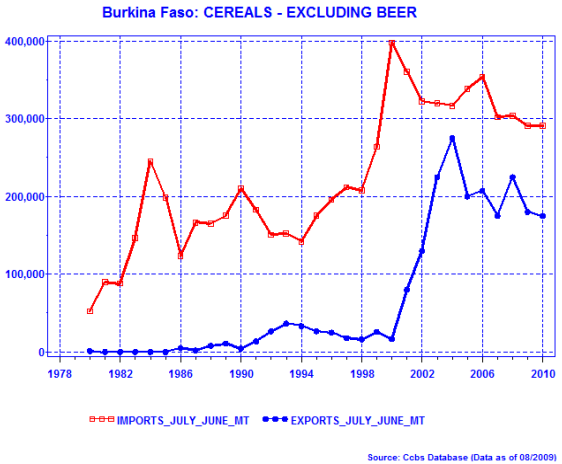


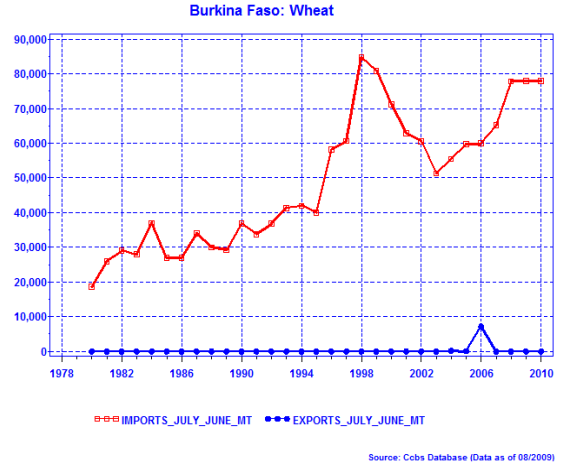


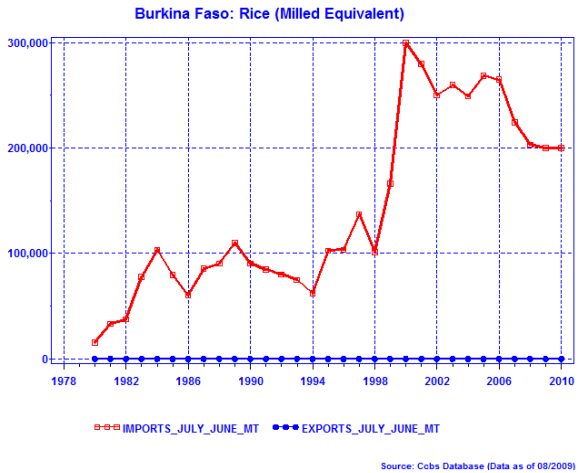


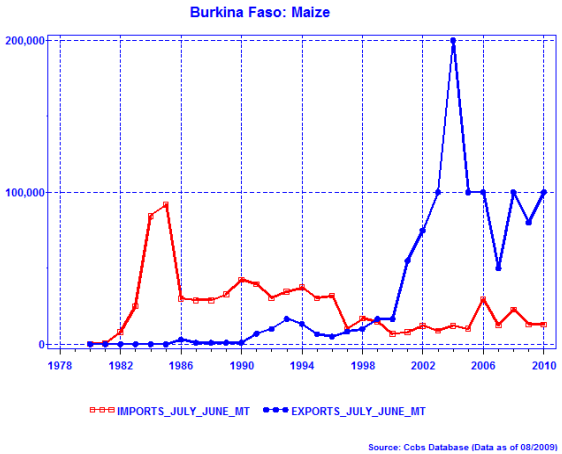


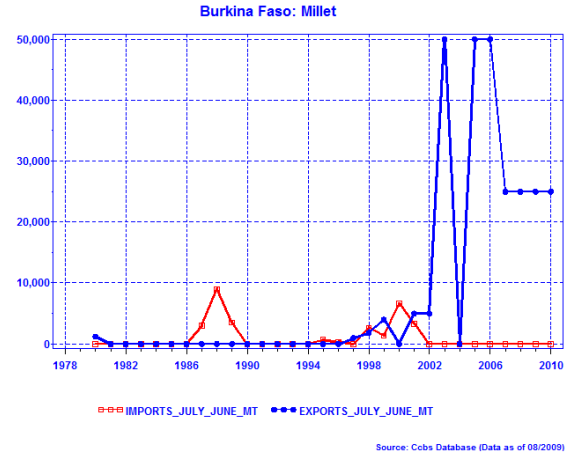
Burkina Faso – Trade in Cereals

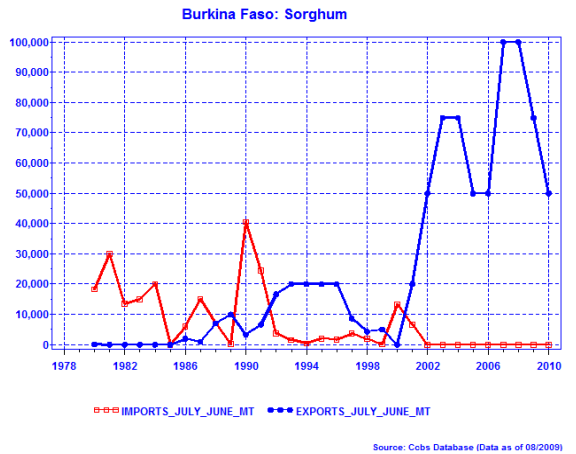




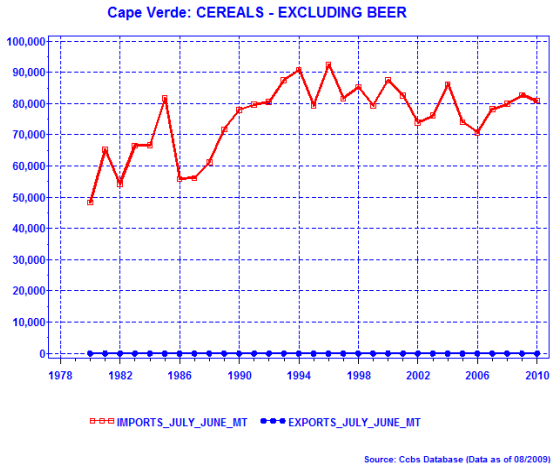


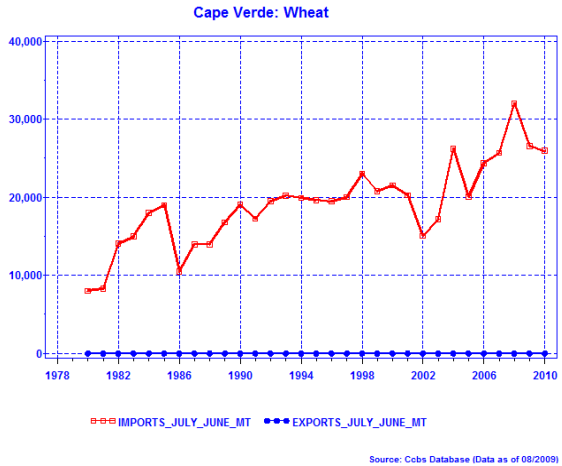


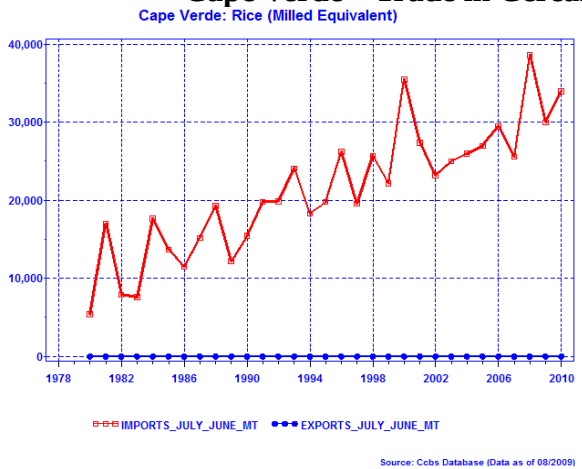


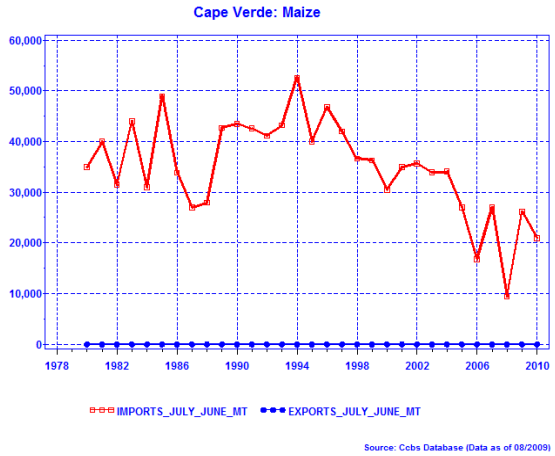


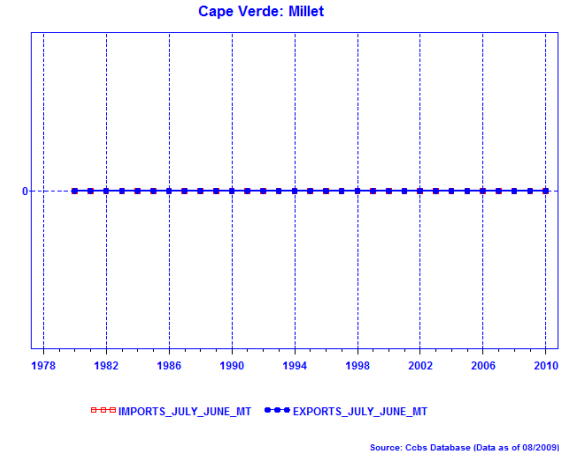
Cape Verde – Trade in Cereals

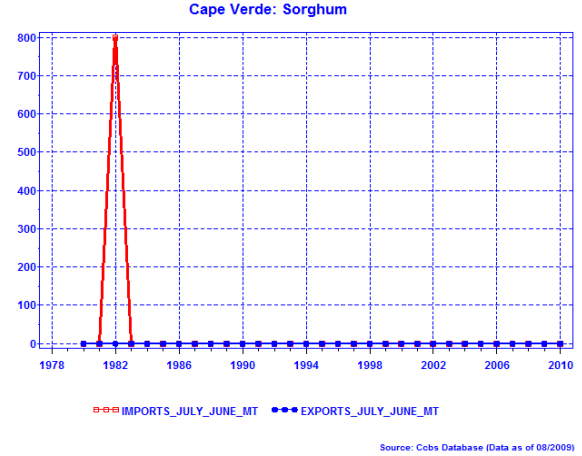




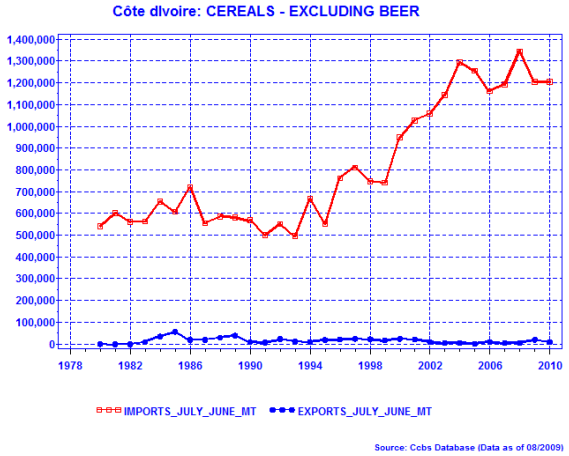


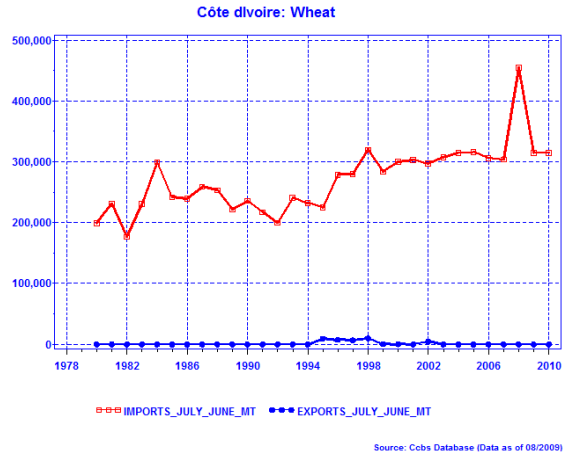


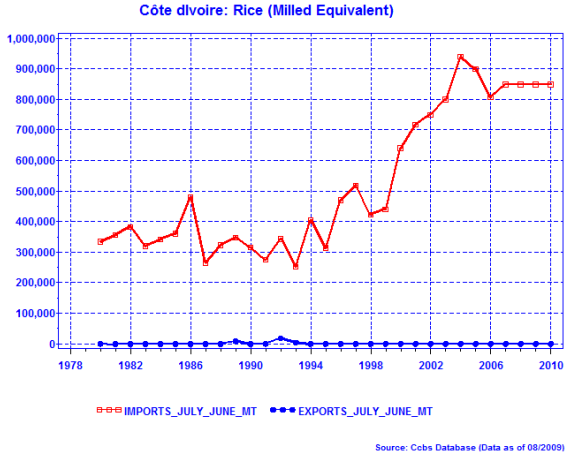


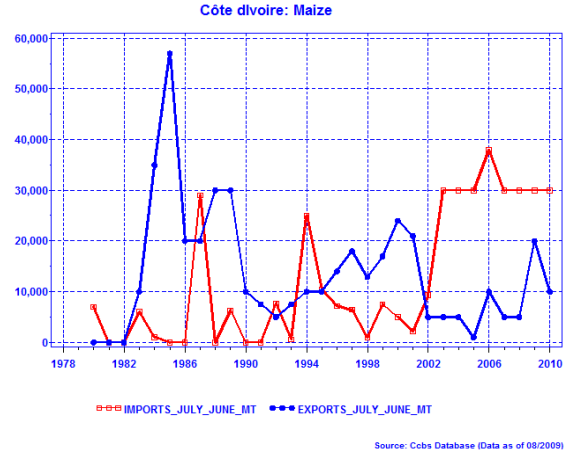


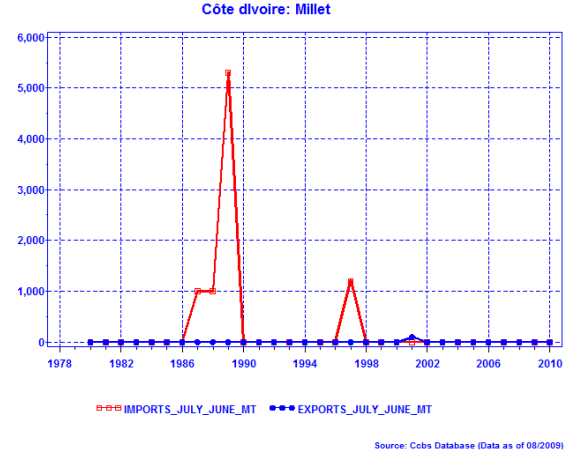
Côte d'Ivoire – Trade in Cereals

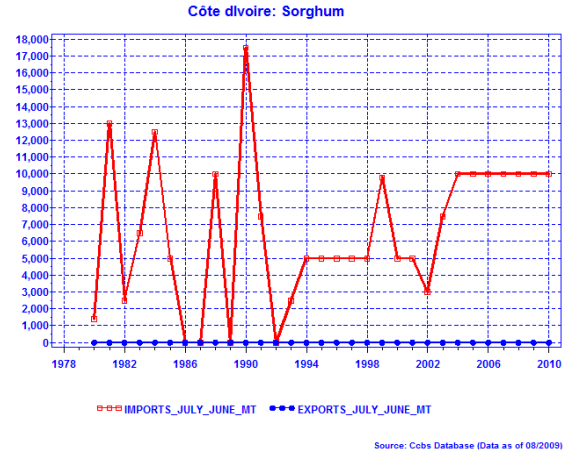




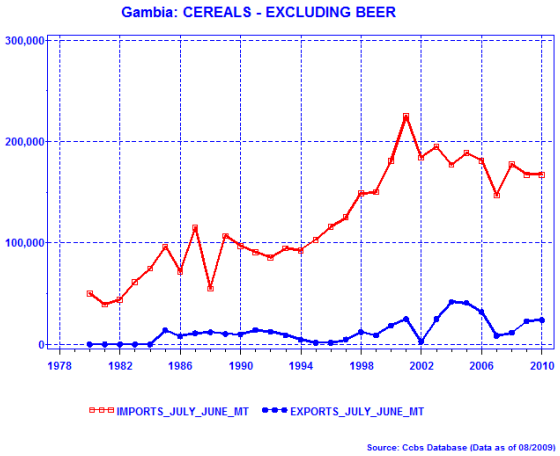


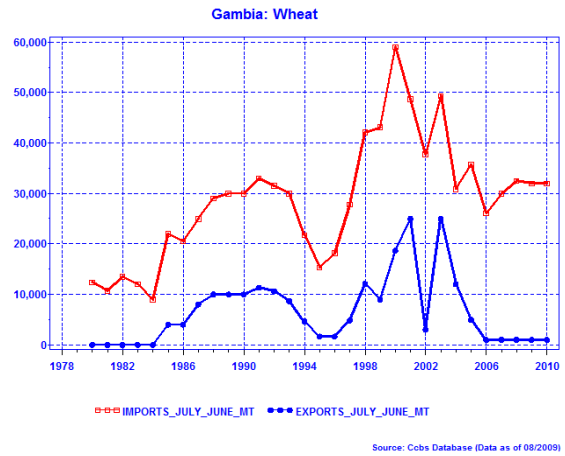


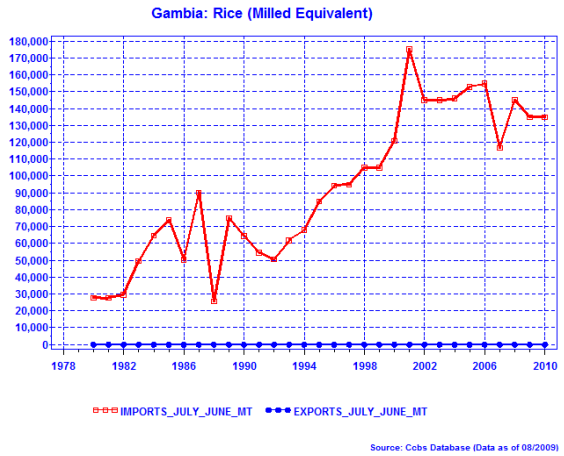


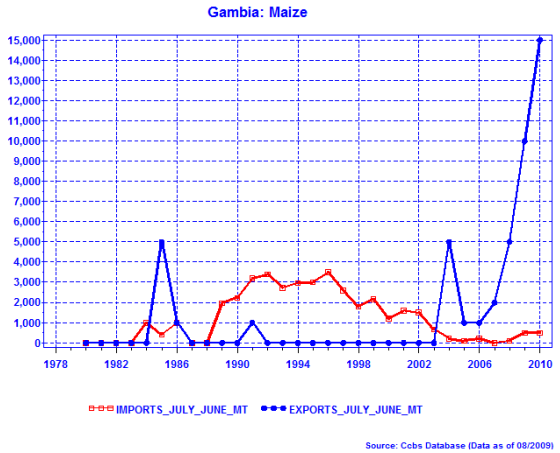


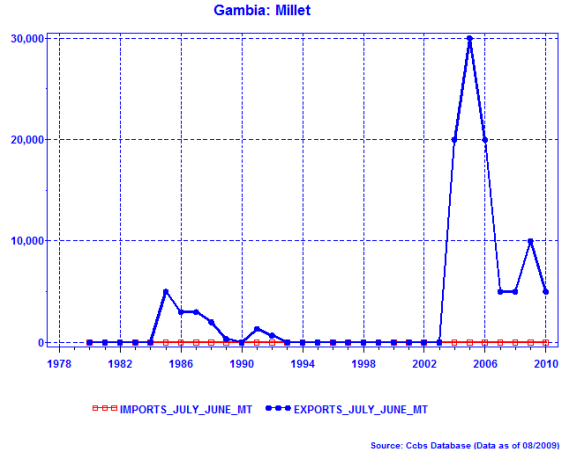
Gambia – Trade in Cereals

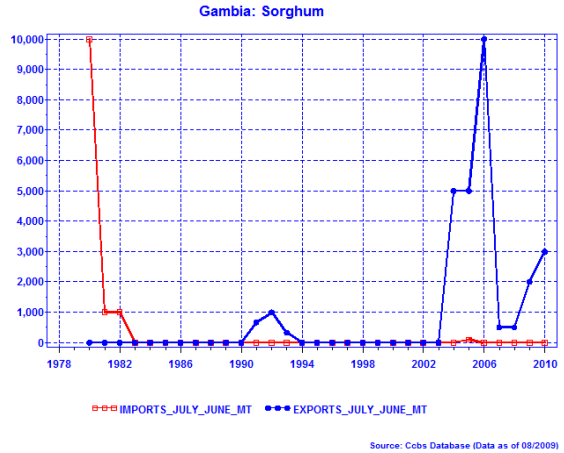




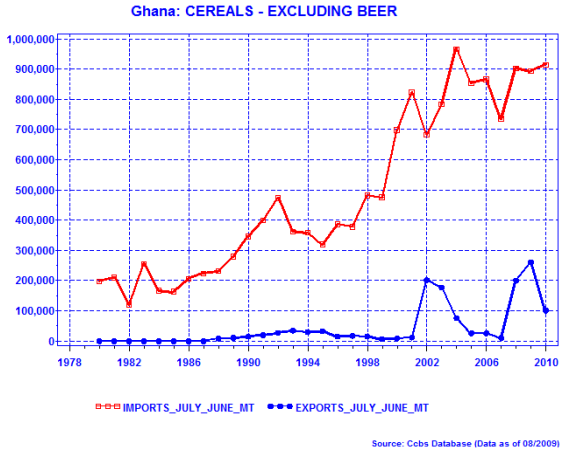


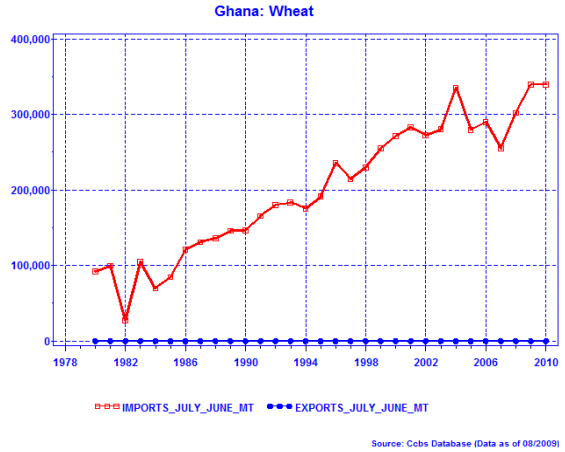


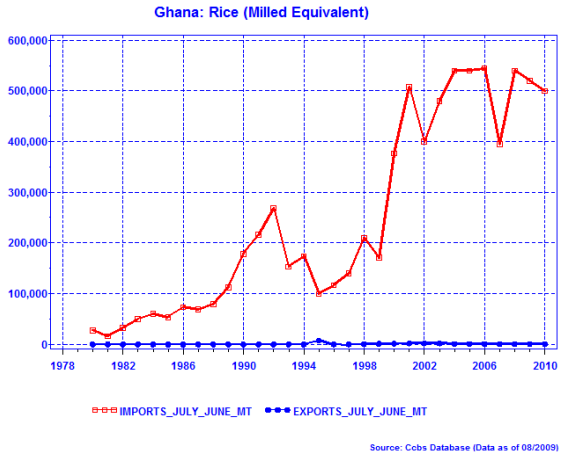


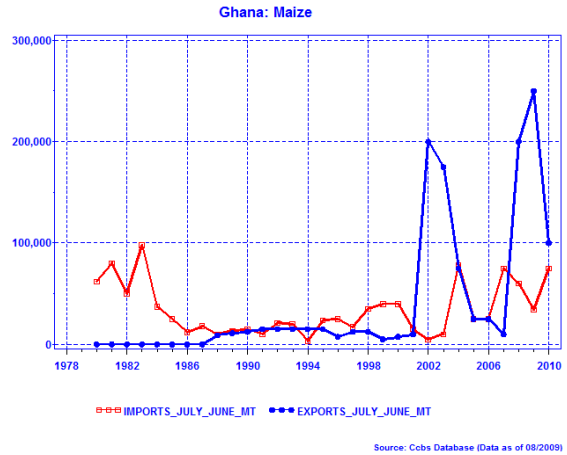


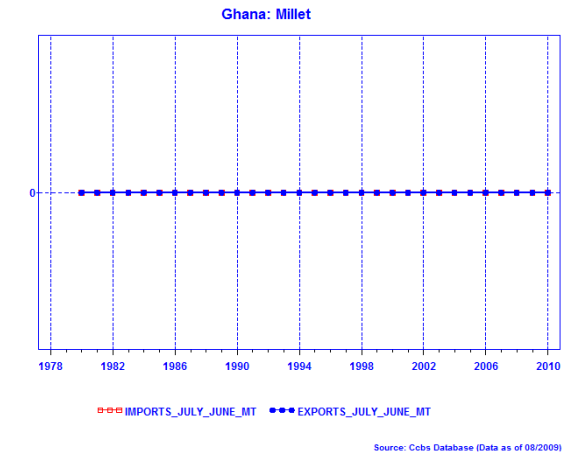
Ghana – Trade in Cereals

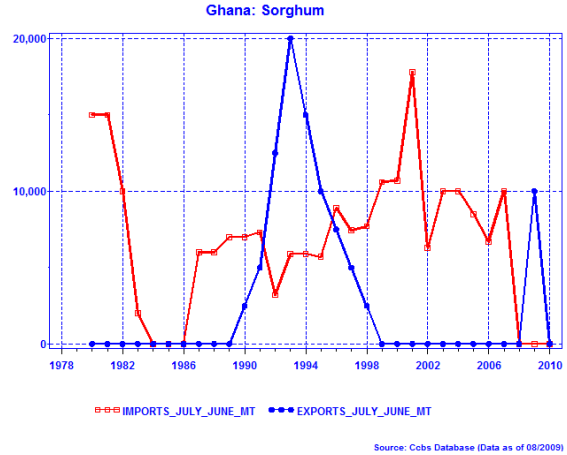




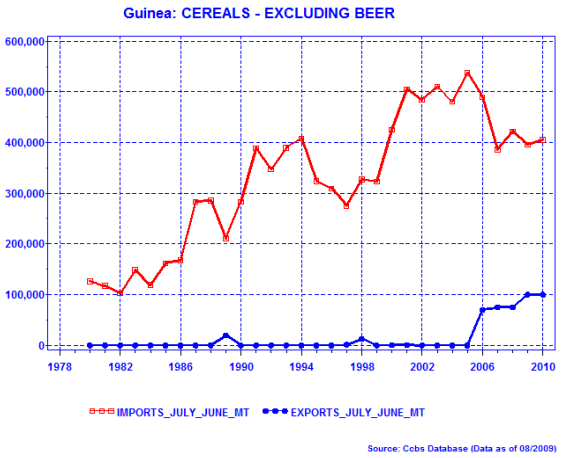


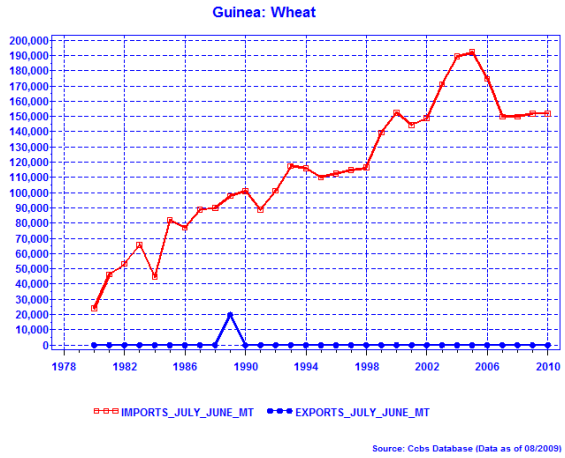


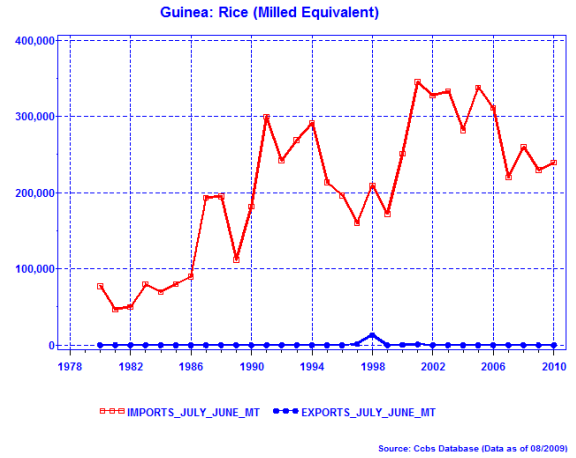


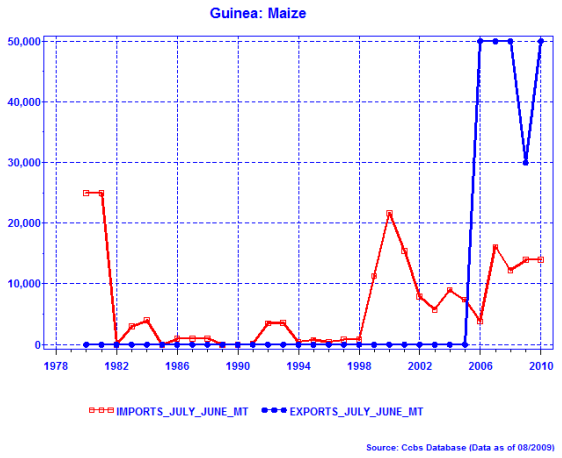


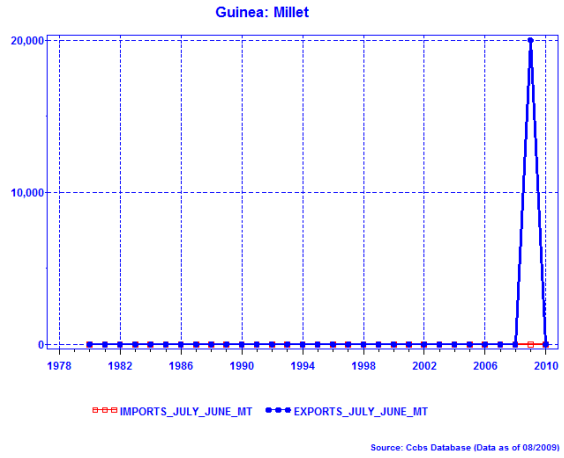
Guinea – Trade in Cereals

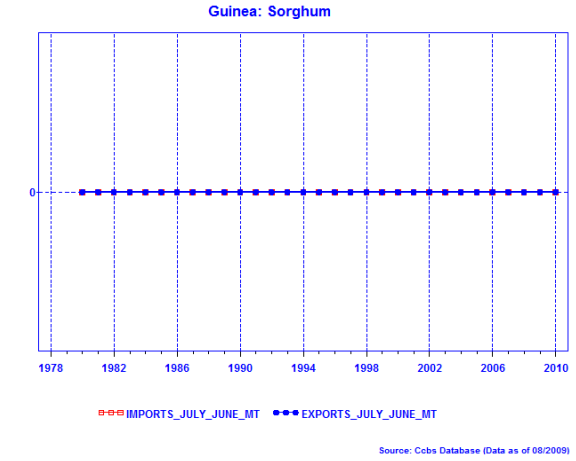




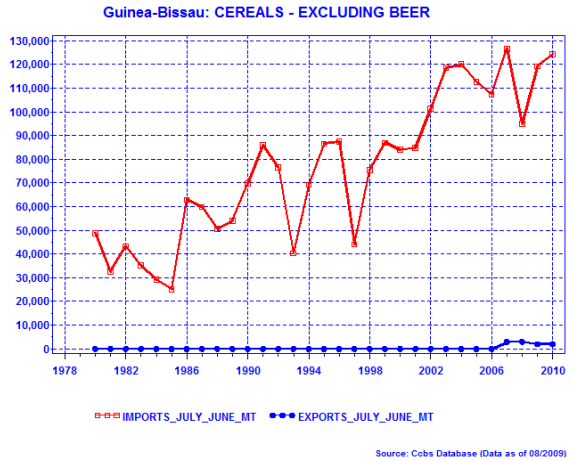


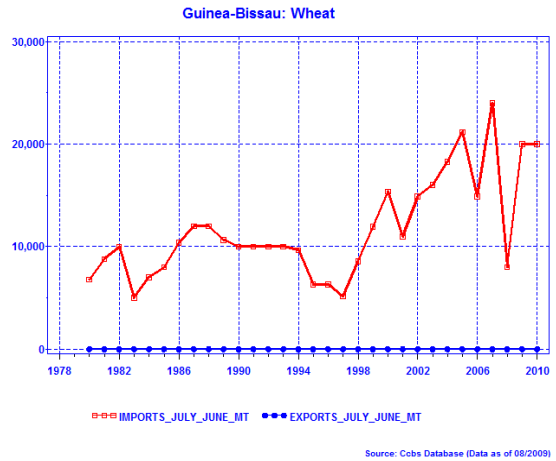


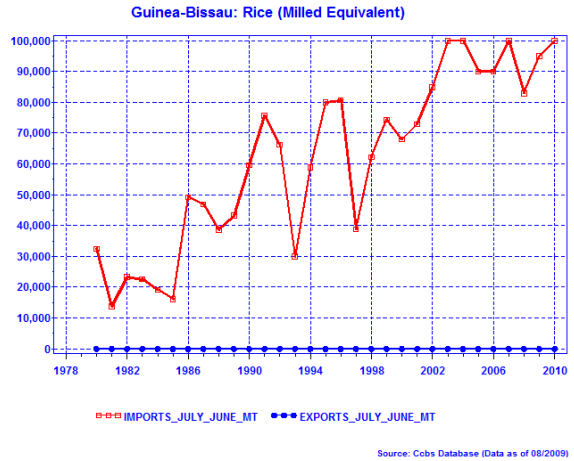


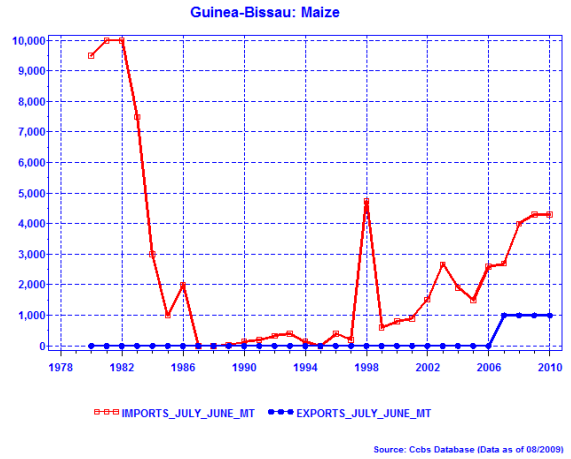


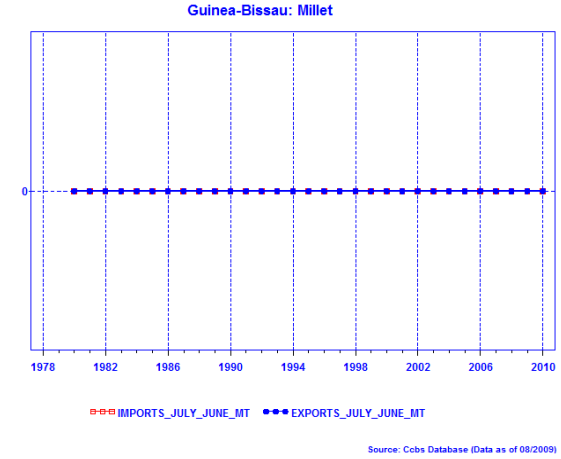
Guinea Bissau – Trade in Cereals

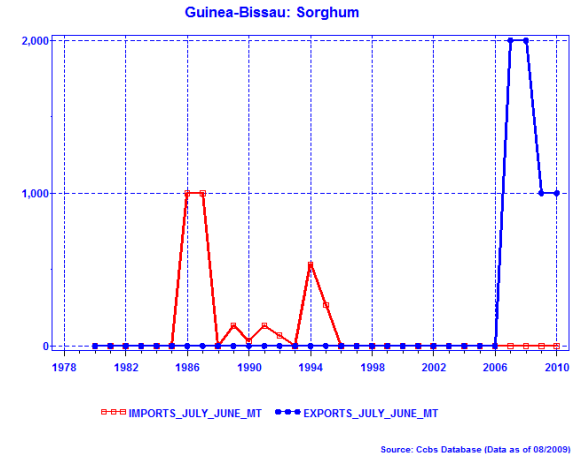




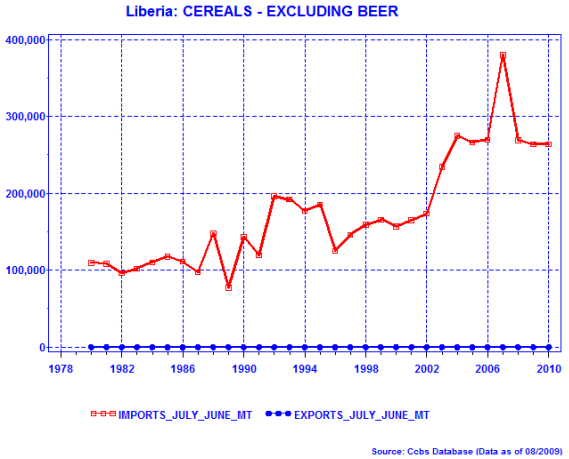


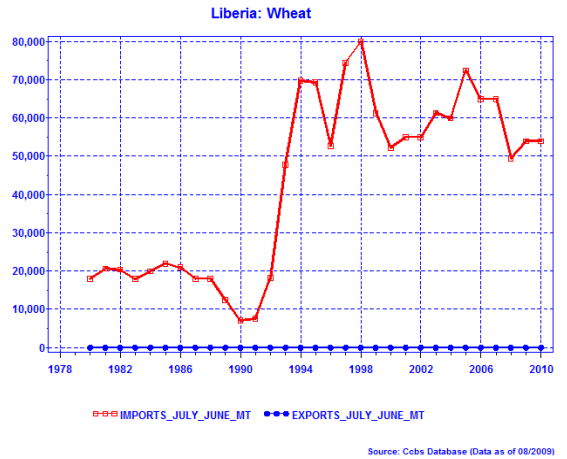


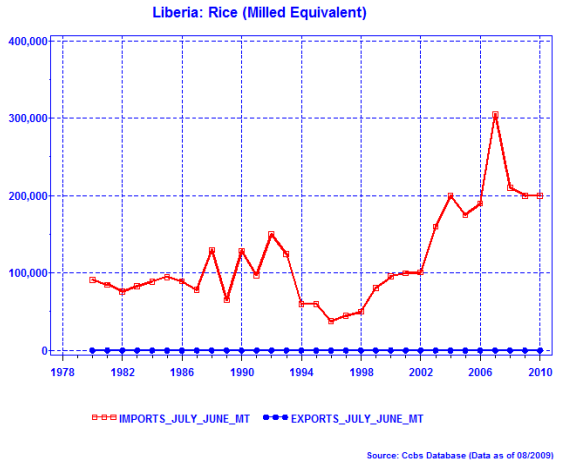


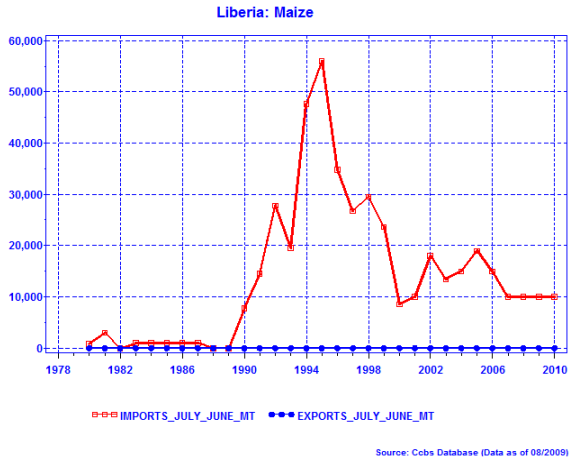


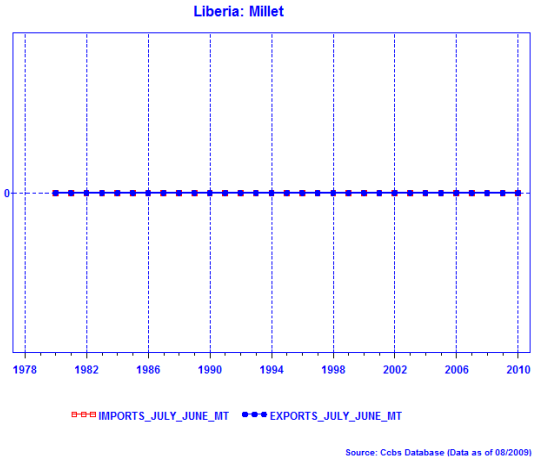
Liberia – Trade in Cereals

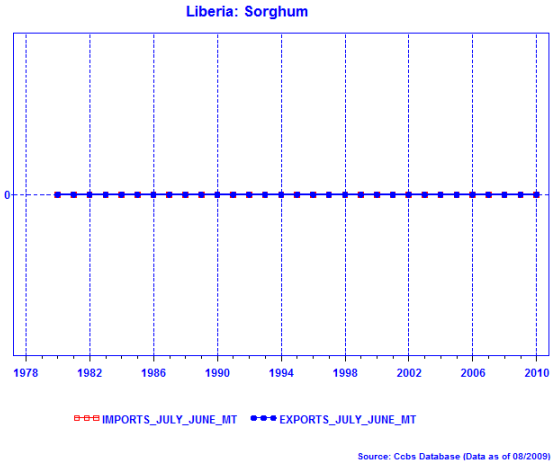




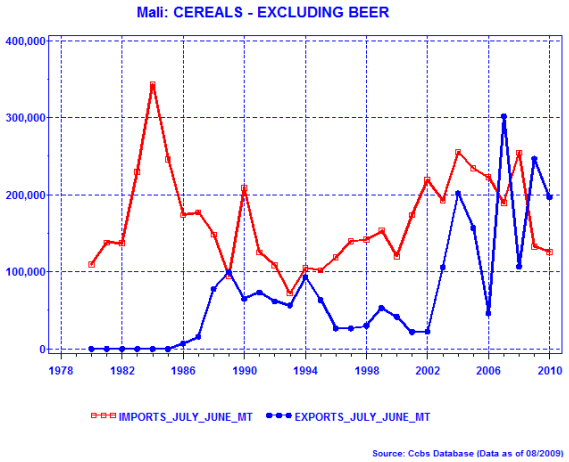


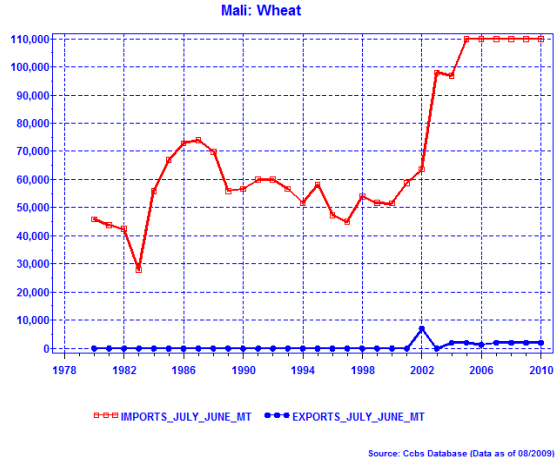


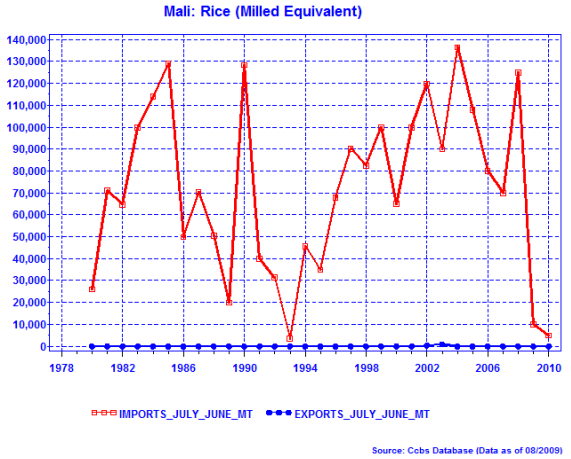


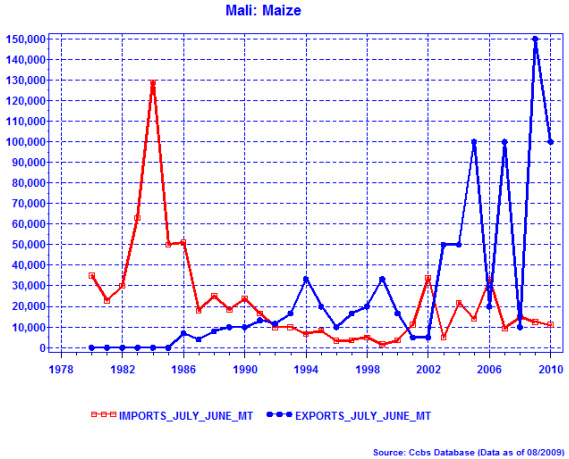


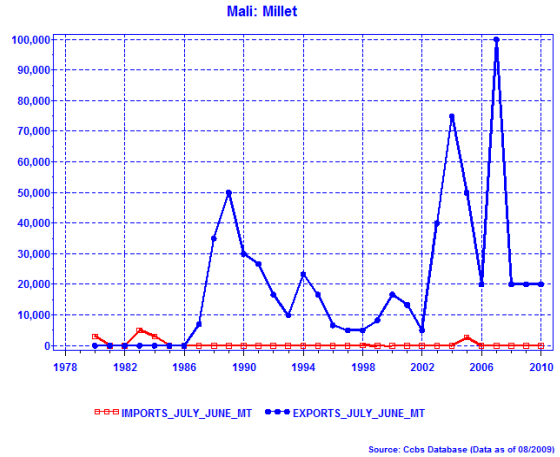
Mali – Trade in Cereals

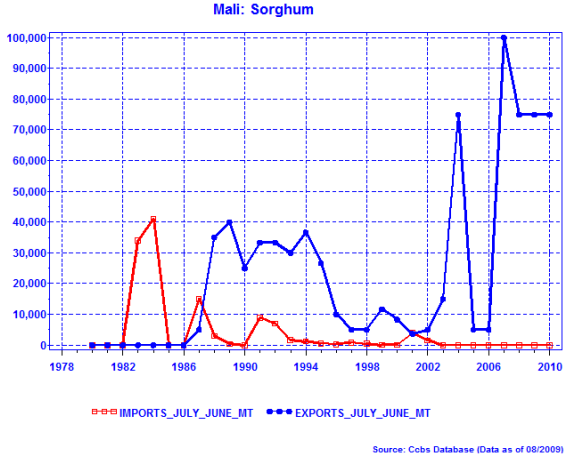




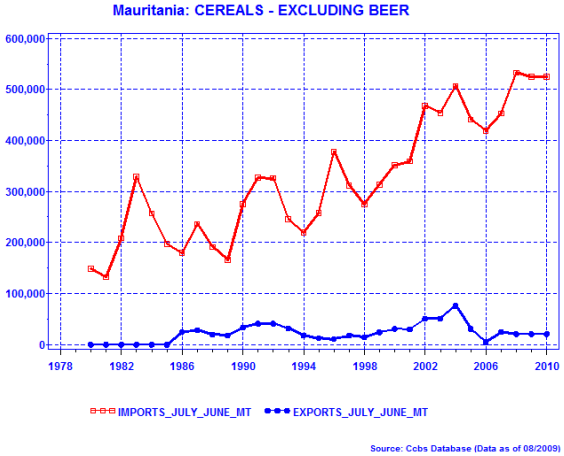


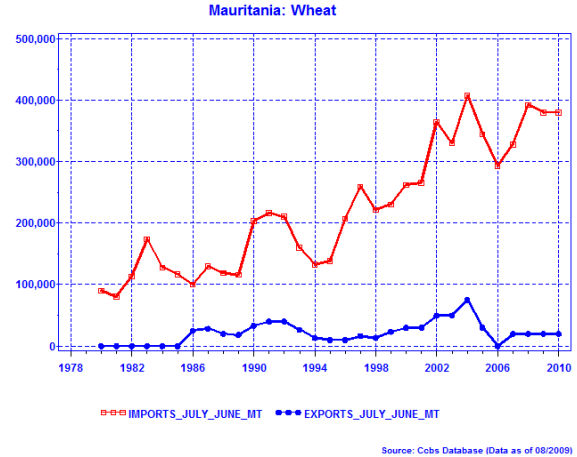


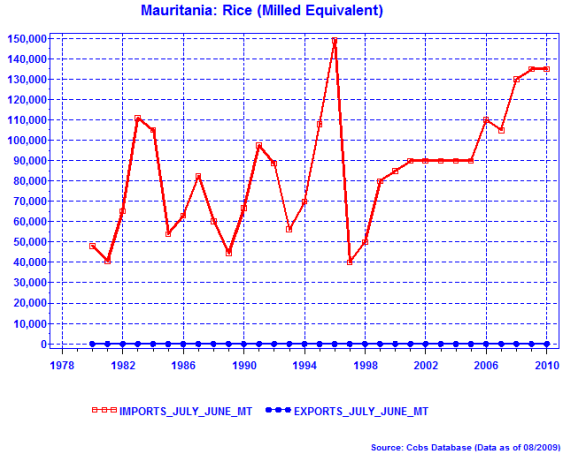


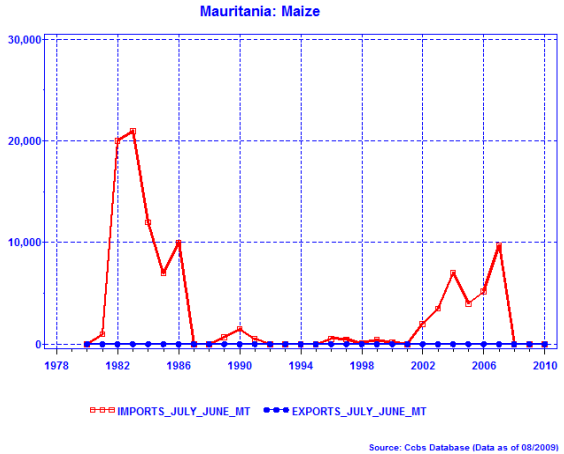


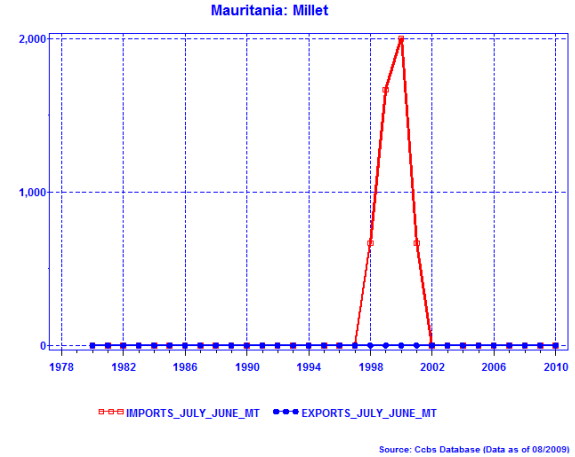
Mauritania – Trade in Cereals

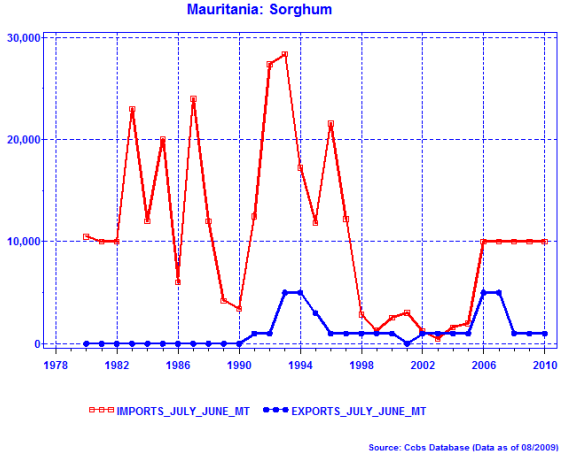




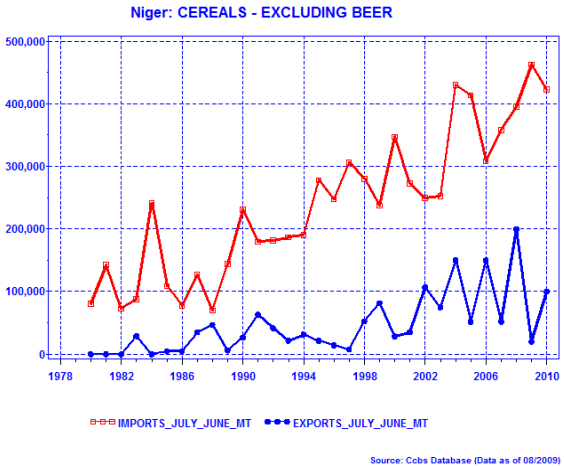


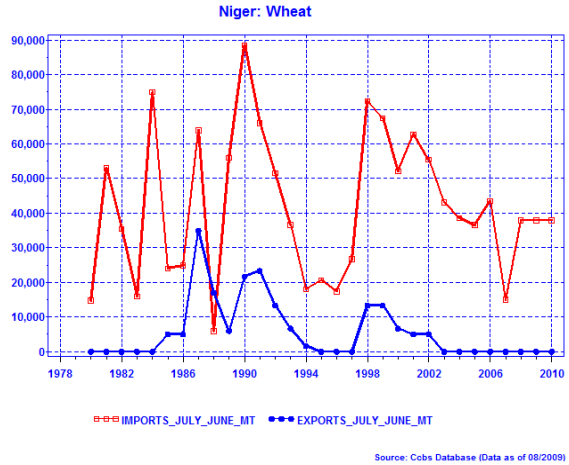


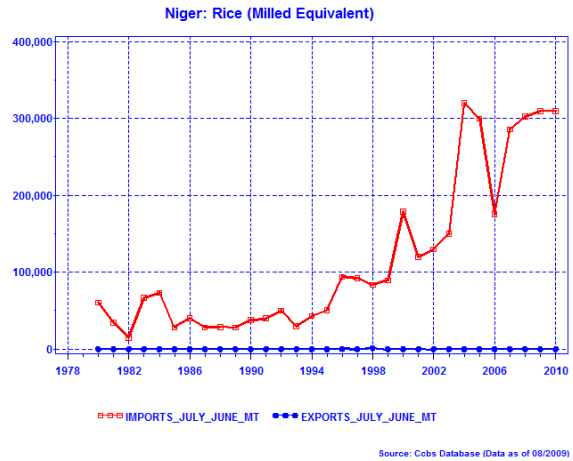


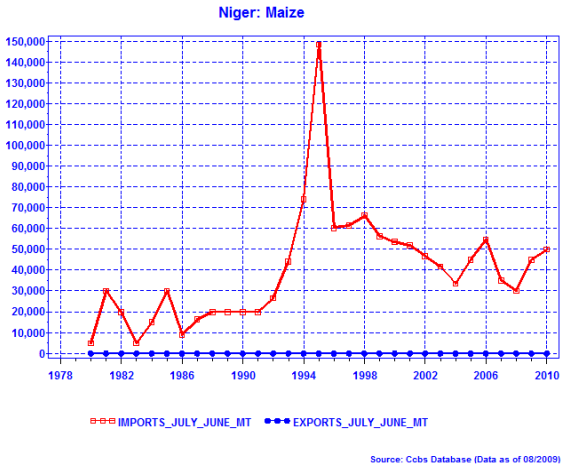


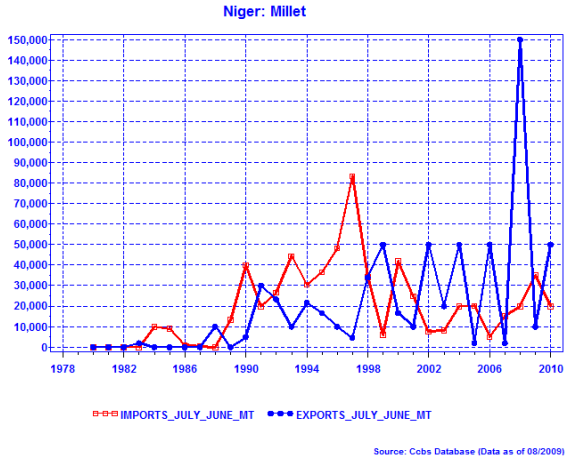
Niger – Trade in Cereals

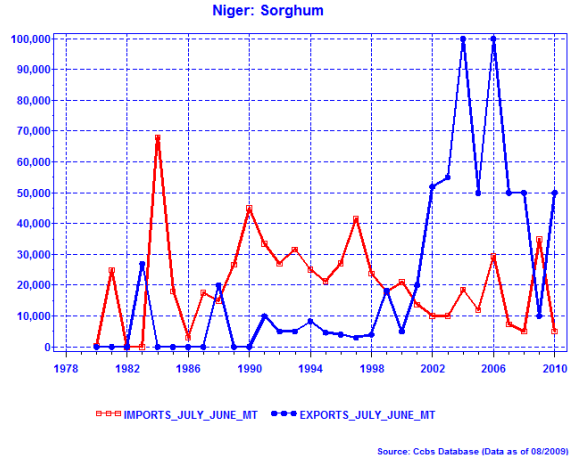




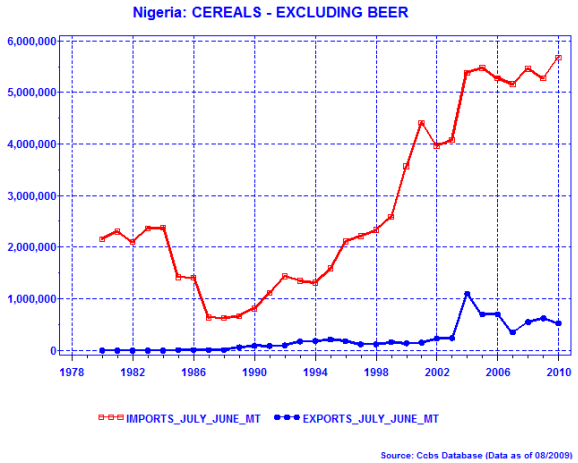


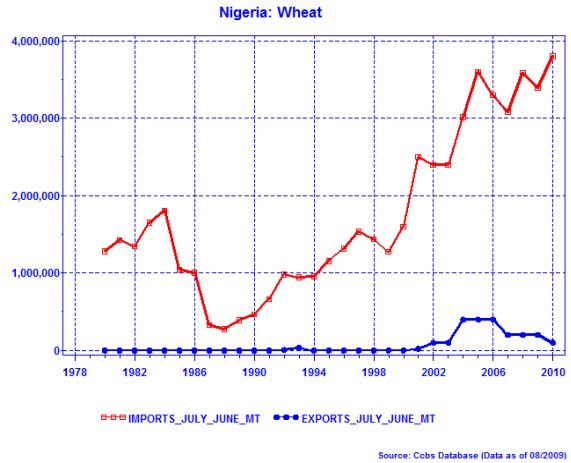


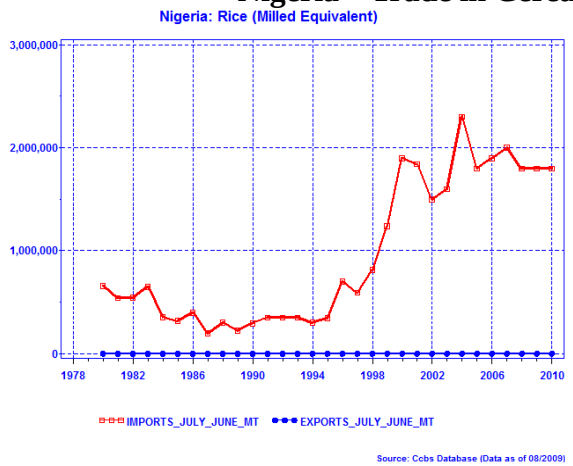


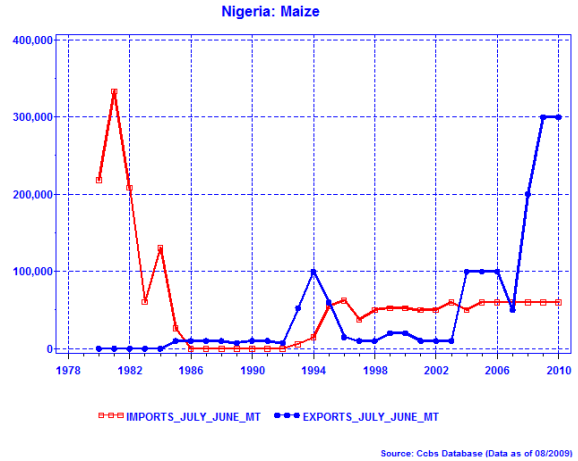


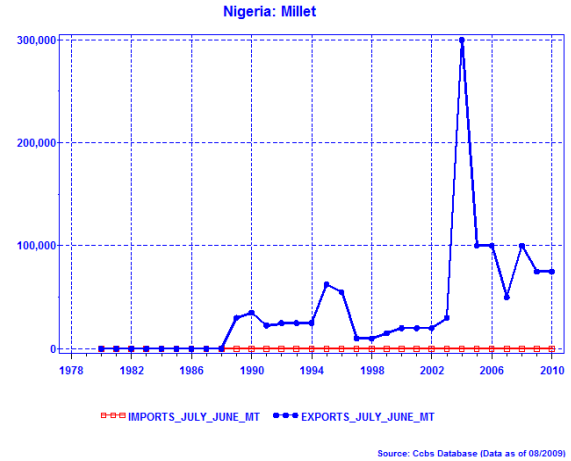
Nigeria – Trade in Cereals

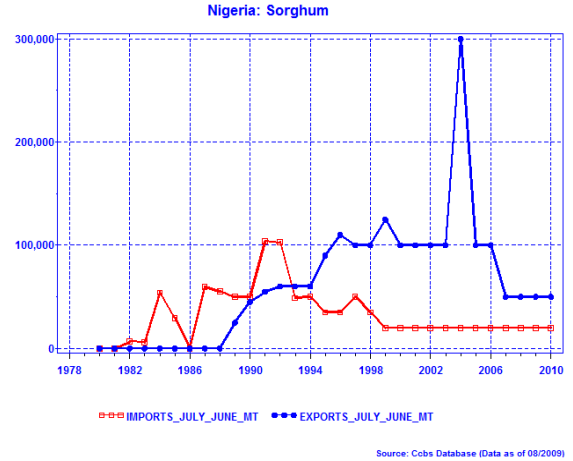




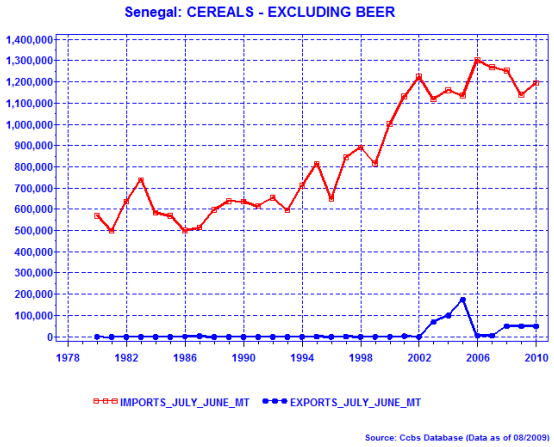


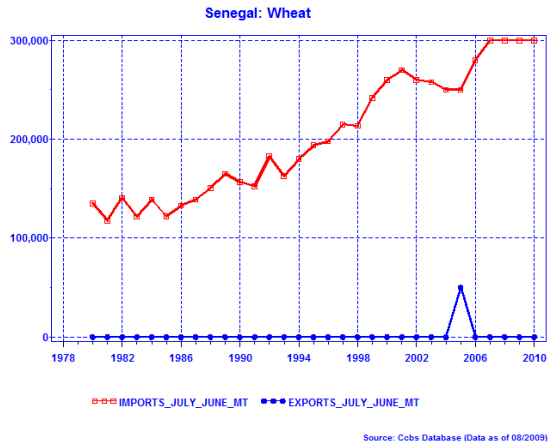


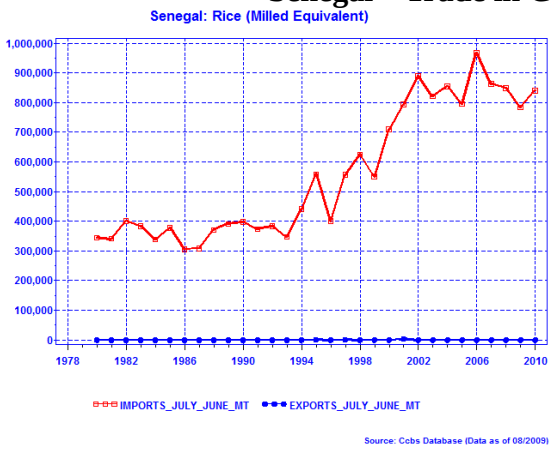


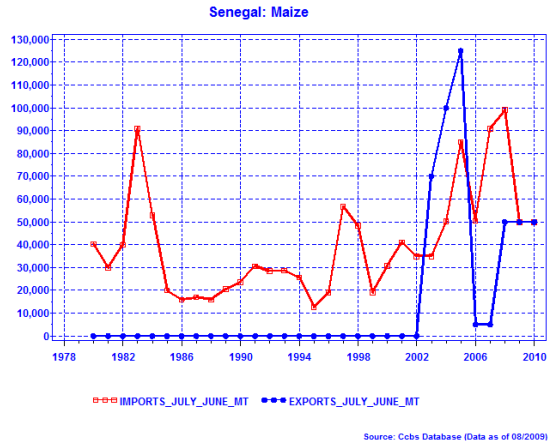


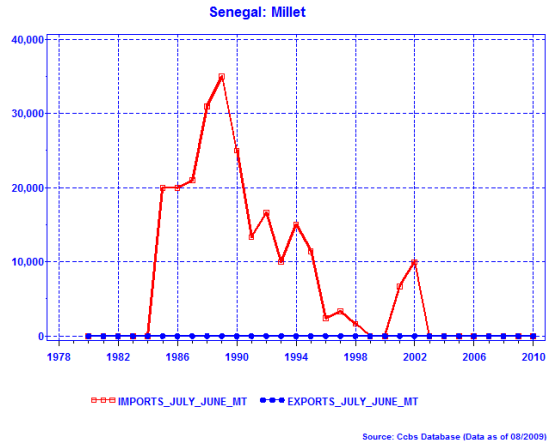
Senegal – Trade in Cereals

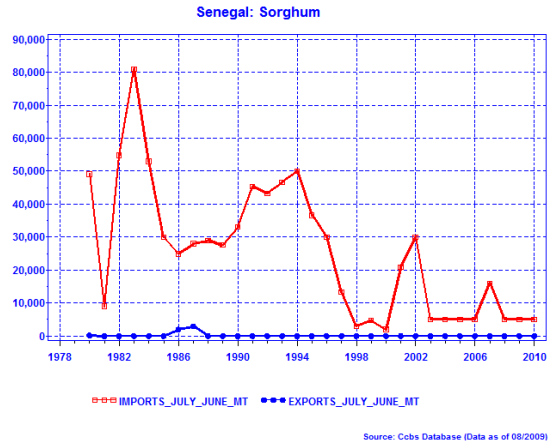




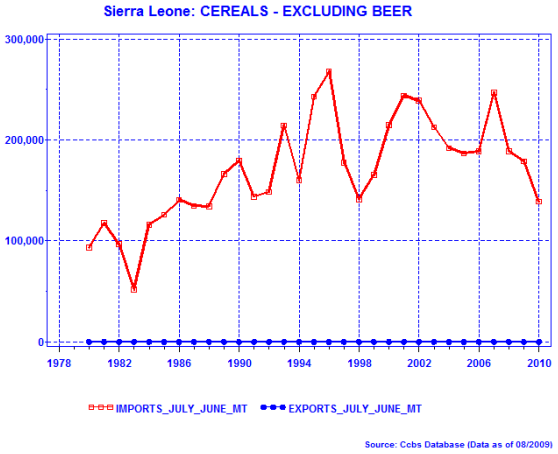


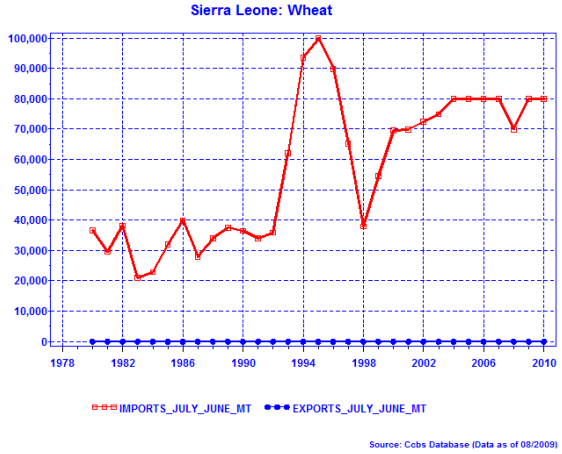


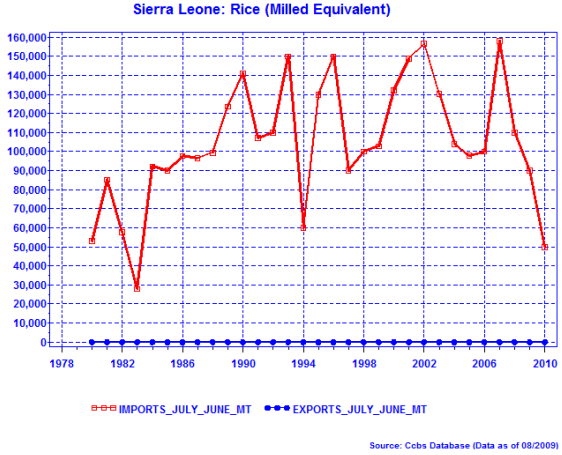


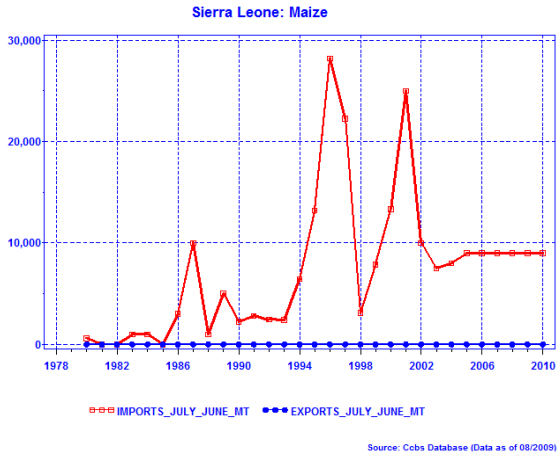


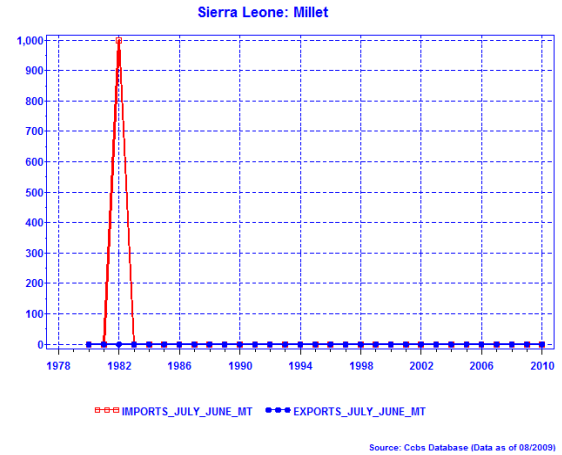
Sierra Leone – Trade in Cereals

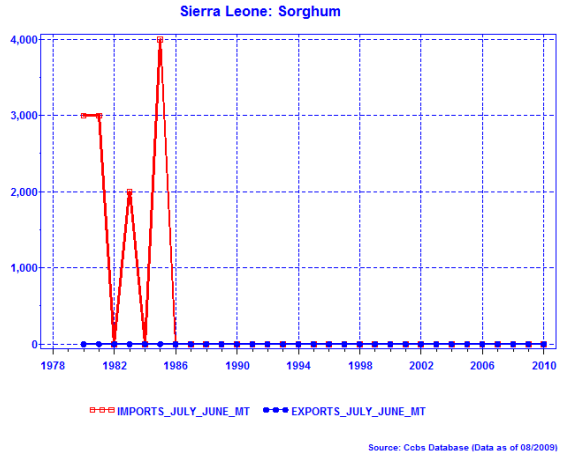












Togo – Trade in Cereals