ESTABLISHMENT AND DEVELOPMENT OF A REGIONAL AGRICULTURAL POLICY NETWORK IN THE CARIBBEAN

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**TABLE OF CONTENTS**

| LIST OF TABLES                                      | iv |
| EXECUTIVE SUMMARY                                  | v  |
| Section 1: INTRODUCTION                           |    |
| 1.1 Background                                    | 1  |
| 1.1.1 ACP-EC Technical Centre for Agricultural and Rural Co-operation (CTA) | 1  |
| 1.1.2 Networking: CTA’s focus                     | 1  |
| 1.2 Objective of the study                        | 2  |
| 1.3 Methodology                                   | 2  |
| 1.3.1 Approach                                    | 2  |
| 1.3.2 Research Tools                              | 2  |
| 1.3.3 Limitations                                 | 3  |
| Section 2: CARIBBEAN ECONOMIES: RECENT ECONOMIC PERFORMANCE | 4  |
| 2.1 Introduction                                  | 4  |
| 2.1.1 Small states and regional integration arrangements (RIAs) | 4  |
| 2.2 Caribbean Economies: an overview              | 4  |
| 2.3 Caribbean regional economic integration: recent experiences | 6  |
| 2.4 Caribbean Single Market and Economy (CSME)     | 8  |
| Section 3: AGRICULTURAL POLICY IN THE CARIBBEAN    | 10 |
| 3.1 Agriculture: An introduction                  | 10 |
| 3.2 Review of the agricultural sector in the Caribbean | 11 |
| 3.2.1 Agriculture in the macro-economy            | 11 |
| 3.2.2 Agricultural production                     | 11 |
| 3.2.3 Agricultural trade characteristics           | 12 |
| 3.2.4 Agricultural sector inputs                  | 13 |
| 3.2.5 Agricultural research                       | 13 |
| 3.2.6 The Agricultural sector in the Caribbean: constraints and challenges | 14 |
| 3.3 Regional agricultural policy in the Caribbean | 15 |
| 3.3.1 Regional agricultural policy: definitional issues | 15 |
| 3.3.2 Regional agricultural policy in the Caribbean: an historical overview | 16 |
| 3.3.3 Regional agricultural policy in the Caribbean: the current situation | 17 |
| 3.3.4 Regional agricultural policy in the Caribbean: stakeholders | 22 |
| 3.3.5 Regional agricultural policy: information and communication issues | 26 |
| 3.3.6 Regional agricultural policy in the Caribbean: a summary assessment | 28 |
Section 4: AGRICULTURAL NETWORKING IN THE CARIBBEAN  29
4.1 Agricultural Networking  29
   4.1.1 Definition of Networking  29
   4.1.2 Types of Networks  29
   4.1.3 Benefits of Networking  31
   4.1.4 Elements of Electronic Networking  32
   4.1.5 Networking Participation  32
   4.1.6 Guidelines for Networks  32
4.2 Agricultural Networks: Experiences in Developing Countries  32
4.3 Agricultural Networks in the Caribbean  32
   4.3.1 Introduction  34
   4.3.2 Overview of Regional Networks  35
   4.3.3 Networking at the National Level  37
   4.3.4 Quantitative and Qualitative Information  38
   4.3.5 Public Awareness  42
   4.3.6 Lessons Learned  43

Section 5: AGRICULTURAL POLICY NETWORKING IN THE CARIBBEAN –  45
ISSUES AND RECOMMENDATIONS
5.1 Introduction  45
5.2 Guiding Principles  46
5.3 Network Objectives  48
5.4 Thematic Areas and Priorities  49
5.5 Expected results  49
5.6 Constituent members, their contribution and roles  50
5.7 Type of network  51
5.8 Linkages between network and regional policy making institutions  51
5.9 Linkages between network and other networks in the Caribbean and elsewhere  52
5.10 Information services and products to be delivered by the network  53
5.11 Phased development of the network  54
5.12 Network management and co-ordination  55
5.13 Approach to Implementation  55
5.14 Preliminary Budget  56

BIBLIOGRAPHY  58

APPENDICES  60
Appendix 1: Tables  61
Appendix 2: Revised Treaty, CARICOM Articles 56 and 57  78
Appendix 3: Summary of Existing Agricultural Networks  81
Appendix 4: Terms of Reference  85
Appendix 5: Questionnaires  91
Appendix 6: List of Persons Consulted  100
LIST OF TABLES

Table 1: Profile of Small Caribbean States 62
Table 2: CARIFORUM Countries: Selected Economic Indicators (2000) 63
Table 3: CARIFORUM Countries: GDP Growth Rates (%): 1990 – 2000 64
Table 4(a): CARICOM's Intra-Regional, Extra-Regional and Total Imports: 1995 – 1999 65
Table 4(b): CARICOM's Intra-Regional, Extra-Regional and Total Exports: 1995 – 1999 65
Table 5: Human Development Index Ranking for the CARIFORUM Countries: 1990 - 1999 66
Table 6: Human Development Index Values for the CARIFORUM Countries: 1990 1999 67
Table 7: CARIFORUM Countries: Summary of Social Indicators (1998) 68
Table 8: Percentage distribution of GDP by main sector and CARICOM country, 1990 and 2000 69
Table 9: Contribution of Agriculture to GDP at Factor Costs in Current Prices: Selected years 70
Table 10: CARICOM Member States: Production of Selected Agricultural Commodities: Selected years 71
Table 11: Number of Personal Computers in Selected Caribbean Countries (per 1,000 people) 76
Table 12: Number of Telephone Mainlines (per 1,000 people) in Selected Caribbean Countries 76
Table 13: Number of Internet Users in Selected Caribbean Countries 77
Table 14: Internet Usage as a Percentage of Population in Selected Caribbean Countries 77
Executive Summary

Introduction

1. The main objective of this study is to develop a networking strategy geared towards improving access to relevant information by regional agricultural policy stakeholders in the Caribbean. The study is expected to present, inter alia, the following:

   a) an assessment of the environment in which Caribbean regional agricultural policies are being conducted.
   b) a description of regional agricultural policy processes.
   c) a listing and description of the major stakeholder groups involved in regional agricultural policy development.
   d) an analysis of the information and communication requirements and issues for regional agricultural policies.
   e) a set of recommendations for regional policy networking.

2. For the study, field visits were made to the following countries: Jamaica, Barbados, St. Lucia, Trinidad and Tobago and Guyana. During these visits, meetings were held with agricultural sector policy makers and representatives of existing agricultural networks and various stakeholder groups. Email letters and questionnaires were sent to similar persons and institutions in the other Caribbean countries.

Caribbean Economic Performance

3. Caribbean economies have experienced declining rates of economic growth since the mid-1990s. Other important factors which impact the region’s economic performance include declining commodity export earnings, ongoing protectionist actions in critical sections of developed country markets, reduced levels of foreign official economic assistance and external pressure from developed countries and their agencies to comply with various rules and arrangements.

4. Over the last decade, Caribbean countries have experienced a diversification in their economies, with reducing shares of agriculture and manufacturing in favour of services, particularly tourism. In 2002, agriculture, however, contributed over 10 percent of GDP in five countries; of these, Guyana, Haiti and Belize have agricultural sector/GDP ratios of over 20 percent. Both agriculture and manufacturing are under pressure from imports, mainly due to the liberalisation of trade in the region.

5. As part of a strategy of deepening the regional integration process, a Caribbean Community (CARICOM) Single Market and Economy (CSME) is presently being implemented to facilitate economic development of CARICOM Member States in an increasingly open and competitive global environment. CSME is premised on the free movement of goods, services and factors of production, and includes the adoption of support arrangements, such as the harmonisation of laws and regulations governing economic activities within CARICOM, and effective dispute settlement mechanisms.
Caribbean Agricultural Sector

6. From a regional perspective, the development of the agricultural sector in the Caribbean faces serious constraints with respect to markets (information, common standards), institutional bottlenecks, and common approaches to addressing problems of poor ecological sustainability. In addition, financing challenges and training problems exist. Both the domestic and export markets for agricultural products face increased competition from extra-regional sources. Competition has increased as ACP preferences in EU markets are eroded due to ongoing multilateral and bilateral trade liberalization (especially in the case of bananas, rice, sugar and rum).

7. Agricultural sector actors and stakeholders in Caribbean countries should focus on food security so as to ensure that all the people of the region can access safe, nutritious and culturally appropriate food at fair prices. This implies that regional food producers are able to obtain food-producing resources, including land, water, forests, fishing areas and other necessary productive inputs at reasonable cost. The regional agricultural sector needs to develop into an internationally competitive and environmentally sound sector.

Caribbean Regional Agricultural Policy

8. The most recent articulation of regional agricultural policy in the Caribbean is outlined in the Revised Treaty, which is expected to facilitate the operationalising of the CARICOM Single Market and Economy (CSME). The primary objective of regional agricultural policy is articulated in Article 56 of the Treaty as follows:

“...(T)o effect a fundamental transformation of the agricultural sector of the Community by diversifying agricultural production, intensifying agro-industrial development, expanding agribusiness and generally conducting agricultural production on a market-oriented, internationally competitive and environmentally sound basis”.

9. Institutionally, the CARICOM Secretariat has responsibility for co-coordinating the design of agricultural policy in the region. Agricultural technicians, representing national governments, producer and industry associations, and regional institutions then discuss these policy proposals. Following these discussions, recommendations are presented to the Council for Trade and Economic Development (COTED). COTED consists of Ministers of Trade or Ministers of Agriculture from the respective CARICOM Member countries. Presently, agricultural matters are dealt with at COTED meetings.

10. The Regional Transformation Programme for Agriculture (RTPA) represents the institutional mechanism, through which regional agricultural policy once formulated, is to be implemented. Institutionally, the Regional Planners Forum (RPF) is involved in regional policy formulation, appraisal, monitoring and evaluation, through its inputs into the process. The RPF is also involved in resource mobilization. The RPF comprises national agricultural planning personnel from CARICOM Member States, various technical advisers to regional entities and representatives of both national and regional private agricultural sector interests.

11. The OECS has developed a Draft Plan of Action/Strategic Framework (July 2002) for agriculture in the sub-region. A formal mechanism comprising the OECS Secretariat and...
representatives of OECS Member States has been established to develop regional strategies and design and implement regional agricultural sector plans for the sub-region.

12. In recent times and separate from the Caribbean Community institutional arrangements, CARICOM Ministers of Agriculture (as part of CARIFORUM Ministers of Agriculture), together with representatives of producer/industry organizations as co-partners, have been meeting under the aegis of an ‘Alliance for the Sustainable Development of Agriculture and the Rural Milieu’. The Ministerial meetings of the Alliance are termed the Ministers’ Forum.

Agricultural Stakeholders and Actors

13. The main stakeholders in the typical national agricultural policy process in Caribbean states include various categories of farmers ranging from small subsistence to large commercial farmers (plantation owners), farmers’ organization including co-operatives, private enterprise organizations like regional agri-business and exporters’ associations, and private entrepreneurs engaged in a wide range of agriculture related activities. In some Caribbean countries, agricultural sector stakeholders are active in public policy discussions and ultimately impact national agricultural policy.

14. The influential actors in the regional agricultural policy process are:

- the Ministries of Agriculture and related government agencies in the Caribbean states
- regional bureaucratic institutions including the CARICOM, CARIFORUM and OECS Secretariats
- regional financial institutions (such as the Caribbean Development Bank (CDB))
- technical agricultural institutions (including CARDI and IICA)
- research institutions (like the Caribbean Food and Nutrition Institute (CFNI))
- universities (including UWI and UG)
- international organizations (such as IICA and FAO)

15. Although there exist formal institutional mechanisms for stakeholder involvement in policy making at the national level in some Caribbean states, many of these function only infrequently with the main focus being sector policy and plan preparations, with very little involvement in policy implementation and monitoring. Among the reasons cited for this include a low level of organization of farmers’ groups (especially small farmers); declining interest in rural development resulting in limited involvement of rural development-oriented organizations; few institutions involved in agricultural policy research and advocacy; and marked deficiencies in the information base for agricultural policy related research.

Information and Communication Issues

16. Deficiencies still remain in the information exchange and consultative mechanisms at the regional level, among stakeholders and between stakeholders and actors. Many stakeholders reported limited intra-stakeholder information exchange and consultations, with such activities occurring almost only at scheduled meetings, and with infrequent ad hoc dialogue in-between formal meetings. Links between regional stakeholders and regional actors with respect to agricultural policy and related matters are also similarly deficient. Here again the trend is for information sharing and consultations to be mainly at the level of formal meetings with little else occurring in periods outside of such meetings.
17. There still remain differences in the administrative and geographic levels at which regional decisions are made and the specific stakeholders involved. Because of human resource and financial constraints, some Caribbean countries experience difficulties with respect to participation in the various meetings, which deal with regional agricultural policy making. This sometimes leads to a small number of countries and stakeholders dominating the process. Again, not unexpectedly, there are only a few organizations in the region that can access the technical skills and the financial resources to contribute meaningfully to the regional policy process.

18. Regionally, there are deficiencies in the availability of agricultural data, which reflects many of the limitations associated with data gathering and information sharing at the national levels in CARICOM states. Serious information and communication deficiencies exist in the regional agricultural sector. These constraints limit effective agricultural information management as well as reduce the involvement of critical stakeholders in the regional agricultural policy process. There are also considerable weaknesses in information generation, sharing and usage between policy makers and stakeholders, as well as between stakeholders themselves.

**Agricultural Policy: Constraints**

19. Our recent research has identified specific gaps in national agricultural policy, including:
   - problems with data coverage, quality and timeliness
   - limited networking within government sector
   - limited stakeholder involvement, due mainly to low levels of stakeholder organization and weak national networks
   - insufficient staff trained in agricultural policy oriented areas
   - lack of organizational capacity for policy preparation.

20. Given the constraints at the national level in Caribbean region, regional agricultural policy faces a number of problems. These include a lack of institutional and human resource capacity, which is necessary for successful agricultural policy planning and implementation. In addition, limited information and communication management policies, strategies and supporting arrangements present serious challenges to regional agricultural policy.

21. Regional agricultural policy processes are also constrained by limited interaction between national governments and national as well as regional agricultural stakeholders. Typically, interaction between the CARICOM Secretariat and regional stakeholders is inadequate. At the level of regional agricultural policy implementation, some constraints have been identified. These arise, in part, because regional policy implementation requires that national governments of CARICOM Member States effect these policies in their respective countries. Such policies sometimes require that national priorities be replaced by regional policies, which are not always politically acceptable to implementing governments.

**Specific Proposals for a Regional Agricultural Policy Network**

22. There have been many efforts at networking in the Caribbean centred around organizations and/or subject areas. Some of the organizations that have been involved in establishing agricultural networks include FAO, IICA, OAS, UWI, CARDI and CARICOM.
23. The majority of persons and institutions consulted for this study recognized the need for, and were supportive of a regional agricultural policy network which promotes information sharing and exchange of best practice information and recently acquired knowledge. It is expected that this knowledge can be shared among policy actors and stakeholders in CARICOM/CARIFORUM states.

24. Both the national and regional institutions involved must agree on the objectives of the proposed regional network of which they are expected to be an integral part. In addition, they must clearly indicate a common commitment to its role, functions and long-term sustainability.

25. For regional policies to be successful, these have to be implemented at the national level. Therefore, establishment of national policy networks in member countries is a necessary but not sufficient condition, for a successful regional policy network. Ideally, the creation of national networks should precede the implementation of a regional network.

26. The proposed network should be relevant to regional agricultural policy as it directly impacts national agricultural policies of member countries. This the most likely means of mobilizing support for, and participation, in its activities. Specifically, its relevance to regional policy development and research priorities must be clearly articulated.

27. The emphasis of the policy network should be identifiably regional, with full participation by the majority (if not all) of the CARIFORUM/CARICOM member states. Many national agricultural actors and stakeholders are not always well informed about regional policy changes and how these impact their national commitments. Full participation in a regional agricultural policy network allows, at a minimum, for some level of interaction, especially as this relates to basic information sharing, between the regional actors and stakeholders and their national counterparts.

28. The network should be demand driven in its orientation. Although it should ultimately promote intra-regional linkages and co-operation, participating member countries, institutions and groups should agree on the goals of the policy network. In addition, these should be regularly reviewed to ensure that they are being satisfied.

29. Financial and human resource sustainability should be guaranteed over the long term, especially after external donor funding ceases. As such, even with external resource support, regional/national actors and stakeholders need to commit resources for the long run sustainability of the network.

Objectives

30. The broad objective of the proposed network is as follows:

   to provide a cost effective means of Caribbean regional agricultural policy consultation, monitoring, review, implementation and evaluation.

31. The specific objectives, which are recommended, include:

   1. to strengthen and establish (where necessary) the institutional capacities at the national and regional levels to ensure efficient and cost effective means of
Caribbean regional agricultural policy consultation, monitoring, review and evaluation.

2. to promote and facilitate training in agricultural policy analysis geared towards improving policy planning and evaluation capabilities of both actors and stakeholders at the national and regional levels in agriculture.

3. to engage in collaborative research focusing initially on policies related to regional food security, agricultural trade agreements, increasing competitiveness of the regional agricultural sector and agricultural diversification.

4. to share the results of this collaborative research work, over a short period of time, with actors and stakeholders in agriculture so as to help influence policy decision making and implementation in agriculture in the region.

32. The broad thematic areas, which are proposed as part of the network’s initial activities, are:

- issues related to collaborative efforts in effective implementation of RTPA, specifically programmes which support policy analysis and research related to Phase 1 of RTPA.
- agricultural policy analysis and research support to actors and stakeholders at the national and regional levels, with special reference to agricultural production and trade.

33. Specific priority areas, which are proposed, are:

- identification of policy options and innovations geared towards increasing/sustaining the international competitiveness of the regional agricultural sector
- improving the production and productive capacity of the agricultural sector
- training in agricultural policy analysis for improved policy analysis capabilities
- collaboration between actors and stakeholders at the regional level specifically towards understanding the impact and implications of the various trade agreements which CARICOM has signed
- preparation of technical personnel for agricultural trade negotiations
- increasing the accessibility of agricultural sector actors and stakeholders to available information that can influence policy decision-making.

34. An effective network will promote dialogue and information concerning national and regional agricultural policies, between national and regional actors and stakeholders. The network is expected to increase the levels of awareness of regional agricultural policy issues, especially among stakeholders. It is anticipated that the proposed network will allow for a quick transition from a passive system which only provides information to a very pro-active knowledge system which converts available information into useful, relevant knowledge widely used by all end-users in policy decision making. Actors and stakeholders are expected to be able to utilize the network in all areas of policy making.

35. The hub and spoke and rim-effect topologies are effective for the given objectives of the proposed network. Consideration has to be given to which type is selected based on resource availability. In addition, the type of network that is selected may evolve to a state that more
effectively serves the roles of the network members. This is acceptable as long as the network is active and objectives are being achieved.

36. A regional agricultural policy network will need to liaise with existing networks, and draw on their experiences and knowledge sharing so as to move swiftly towards its objectives and avoid duplication of efforts. Some positive developments have been achieved through existing networks in formal and informal networking, despite the lack of economic and infrastructural support required to make them sustainable.

37. In working to support regional agricultural policy networking, and to overcome the problems of distance, resources and language, a regional agricultural policy network should develop or utilize tools that will allow the network to collect, analyze, distribute and archive information related to regional agricultural policy on a timely basis.

38. The design and establishment of a regional agricultural policy network requires careful planning in the initial stages so as to prioritize and agree on strategies and obtain commitments from actors and stakeholders. Based on a cursory analysis of the networking experiences of the region, the development of an active and sustainable regional agricultural policy network should be implemented on a solid platform.

39. A regional agricultural policy network should have built-in indicators of success, which can be evaluated at any point in time. There should also be regularly scheduled monitoring and evaluation exercises through which the impact of the network is assessed and objectives are tailored to ongoing needs assessments. The sustainability of the network should also be evaluated periodically so as to give actors, stakeholders and donors adequate time to find resources if required.

40. The network management and co-ordination will need to be strong in order to enhance co-operative efforts in the region. A regional coordinating centre should be established with adequate support to allow the network to become successful while working on issues of sustainability. The selection of the location for this regional coordinating centre will be based on technical considerations and support from actors and stakeholders and the host institution. The physical location of the network is a key decision to be made based on several factors. Resources will be required for all aspects of the network.

41. During the preparation of this study, there have been wide-ranging discussions among actors and stakeholders on agriculture in the region, agricultural policy and networking. Following the workshop, there are plans to maintain the momentum among potential members of the proposed network.
Section 1: INTRODUCTION

1.1 Background

1.1.1 ACP-EC Technical Centre for Agricultural and Rural Co-operation (CTA)

Established in 1983, the original mandate of the Africa, Caribbean and Pacific (ACP) – European Union (EU) Technical Centre for Agricultural and Rural Co-operation (CTA) has been modified following the signing of the new ACP-EU framework agreement (Cotonou Agreement) in 2000. CTA’s revised mission is to “strengthen policy and institutional capacity development and information and communication management capacities of ACP agricultural and rural development organizations” (CTA, 2001). More specifically, CTA has been requested to “develop and provide information services and ensure better access to research, training and innovations …[and] develop and reinforce ACP capacities…” (CTA, 2001).

CTA’s main goal is to promote those activities that facilitate its operations as an important intermediary between organizations and professionals in African, Caribbean and Pacific (ACP) and European Union (EU) states. In this context, CTA has listed its two operational objectives as:

a) improving the availability of and access to relevant, adequate, accurate, timely and well-adapted information on priority information topics for ACP agricultural and rural development;

b) improving the information and communication management capacity of ACP agricultural and rural development organizations.

1.1.2 Networking: CTA’s focus

CTA is presently focusing on networking as a cost-effective method of fostering widespread involvement of ACP agricultural sector stakeholders in policy formulation and as a means of consultation, monitoring, review and evaluation1. Its interventions in this area have been operationalized through different programmes and activities at regional and national levels in ACP countries. At the regional level, CTA has established partnership arrangements with various policy networks throughout Africa, covering a wide range of information and communication services and products.

In the Caribbean region, generation and dissemination of agricultural information, including policy oriented as well as market information, is somewhat weak. No regional agricultural policy network exists in the Caribbean, although there are specialized agricultural thematic and commodity networks in operation. Atkins2 has argued the case for a Caribbean regional agricultural policy network, which would facilitate efficient regionally collaborative policy instruments, promote key areas of agricultural research and assist those national governments that have limited technical capacities in agricultural policy areas.

1.2 Objective of the study

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1 For details, see CTA, 2002
The main objective of this study is to develop a networking strategy geared towards improving access to relevant information by regional agricultural policy stakeholders in the Caribbean. The study is expected to provide the following:

a) an assessment of the environment in which Caribbean regional agricultural policies are being conducted.
b) a description of regional agricultural policy processes.
c) a listing and description of the major stakeholder groups involved in regional agricultural policy development.
d) an analysis of the information and communication requirements and issues for regional agricultural policies.
e) a set of recommendations for regional agricultural policy networking.

1.3 Methodology

1.3.1 Approach

Work on this study began with a review of the existing literature on regional agricultural policy networking and related networks, especially in developing countries. Following this, literature searches and reviews were conducted on the Caribbean regional integration process, the regional agricultural sector and regional agricultural policy processes. Simultaneously, an inventory of the current regional agricultural sector stakeholders and regional agricultural and other networks was prepared. These listings were used as the population frame from which the selection of the sample of institutions and persons to be interviewed was taken.

Field visits were made to the following countries: Jamaica, Barbados, St. Lucia, Trinidad and Tobago and Guyana (For details of these visits, see Appendix 6). During these visits, meetings were held with agricultural sector policy makers and representatives of existing agricultural networks and various stakeholder groups. Email letters and questionnaires were sent to similar persons and institutions in the other Caribbean countries (for details, see Appendix 6).

1.3.2 Research tools

The main research methods included:

a) reviewing published information (official reports, technical studies, brochures, newsletters) on the key areas identified
b) in-depth interviews (face-to-face, email) with well-informed persons in the sector, with special emphasis on policy makers, stakeholders and existing network management.

A specific questionnaire (see Appendix 5) was used as a guide to generate information on the key issues related to regional agricultural policy processes and stakeholder involvement in these processes. A second questionnaire (see Appendix 5) was used to evaluate existing information and communication strategies and arrangements in the region. Special attention was given to examining the experiences, strengths and weaknesses of existing agricultural networks in the Caribbean. In all
of the interviews, specific views on the advantages and disadvantages associated with the establishment of a Caribbean regional agricultural policy network were solicited.

1.3.3 Limitations

Understandably, the study experienced certain limitations. These include:

a. only a small sample of countries was visited, mainly as a result of resource constraints.
b. a limited number of persons and institutions were consulted in the countries visited.
c. accessing responses from persons and institutions in those countries not visited, (via e-mail and telephone contact) proved extremely difficult.
d. accessing information from certain agencies (both public and private sector) also proved difficult.

In terms of accessing responses from persons in those countries that were not visited, there are possible explanations for the fairly high levels of non-response. Firstly, the selected respondents may have been experiencing interview ‘fatigue’ as a result of the numerous interviews and questionnaires which they are required to deal with over a short period of time. Secondly, these interviews tend to be repetitive with fairly similar questions being asked and issues discussed as in previous interviews. Thirdly, negative experiences of failed studies and projects also contribute to an unwillingness to participate in surveys.

It is to be noted, however, that the majority of those persons and institutions who were consulted in person via face-to-face interviews were extremely co-operative and willingly provided most of the information requested.
SECTION 2: CARIBBEAN ECONOMIES: RECENT ECONOMIC PERFORMANCE

2.1 Introduction

2.1.1 Small states and regional integration arrangements (RIAs)

Typically, the characteristic features of small states are different from their larger counterparts. Probably the most critical of these aspects relates to the greater vulnerability of small states to changes in the external environment. Among the recent developments in the international environment that are impacting on small states in the Caribbean include the changing relationships between the European Union (EU) and the Africa, Caribbean and Pacific (ACP) countries, erosion of ACP preferences in EU markets and plans for the Free Trade Area of the Americas (FTAA).

With the rapid growth of globalization generally, and the specific changes in the international environment identified above, small developing states now face critical decisions about their policy orientation as they attempt to minimize the negative costs and maximize the beneficial consequences of these international developments. In general, policy options facing small developing states are severely restricted by their natural, human and financial resource endowments, their historical experiences, and their various bi-lateral and multi-lateral commitments.

In part as a policy response to these developments mentioned above, many of these small states have formed new and strengthened existing South-South regional integration arrangements (RIAs) in Africa, Asia and the Caribbean. These include the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA), the Malenesian Spearhead Group (MSG), the West African Economic and Monetary Union, the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS).

2.2 Caribbean economies: an overview

The politically independent Caribbean states are members of various multilateral institutions, including the World Bank, International Monetary Fund (IMF), and the Commonwealth. All of these states are members of the World Trade Organization (WTO) and are signatories to the ACP-EU Cotonou Agreement. In addition, all of these states are members of CARIFORUM (the Caribbean membership of ACP), while all except Cuba and the Dominican Republic are members of the Caribbean Community (CARICOM). The Windward and Leeward Islands of the Caribbean are members of the Organization of Eastern Caribbean States (OECS), a sub-regional integration arrangement within CARICOM. A detailed profile of Caribbean states is presented in Table 1.

Caribbean countries that comprise CARIFORUM are characterized by their small size in terms of land area, population and output levels. Seven of the fifteen member countries have land areas of less than 1000 km². In terms of population, only six of the countries have more than 300,000 people. Two countries, Dominican Republic (8.5 million) and Haiti (8.4 million), account for 73 percent of the group’s population. GDP per capita varies widely in the region. Antigua, Bahamas, Barbados, St. Kitts and Trinidad/Tobago have levels of over US$5,000, while Guyana and Haiti are below US$1,000 (Table 2).

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For a detailed analysis on policy options facing small developing states in the changing international environment, see Schiff, 2002.

CARIFORUM countries are Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago. In summary, CARIFORUM is comprised of CARICOM countries plus the Dominican Republic. Cuba has observer status in CARIFORUM.
Despite historically determined similarities in their economic structures, the CARIFORUM countries exhibit widely differing economic performances (Table 3). Member countries of the Organization of Eastern Caribbean States (OECS) have recorded consistently positive economic growth for the last five years averaging 2.9 per cent, although growth has varied across these countries. The performances of Jamaica and Haiti have been the poorest, with both experiencing negative economic growth rates. Real GDP growth for the Dominican Republic was particularly robust during the last five years, averaging 7.3 per cent annually.

Member countries of CARIFORUM are typically open economies, with many displaying foreign trade/GDP ratios of over 100 percent. This openness impacts on their vulnerability, especially since there is a concentration on exports of a few goods and services (sugar, bananas, minerals, tourism and financial services), along with a heavy dependence on imports of consumer goods, raw materials, capital goods and a wide range of services. Since these economies place heavy reliance on preferential treatment for their exports, they are especially vulnerable to EU/ACP and other trade preferential arrangements; in addition, they are seriously affected by international price changes in critical imported commodities, like oil.

Over two-thirds of the group’s external trade is with the EU, USA and Canada. During the latter part of the 1990s, extra-regional imports grew by 6.7 percent. Intra-regional imports increased by an annual average of around 9 percent (See Tables 4a and 4b), compared with negligible annual growth for extra-regional exports. Intra-regional imports have averaged about 10 percent of the region’s total imports during the 1990s. Intra-regional exports increased faster, by an annual average of about 9.6 percent. Intra-regional exports now account for 22 percent of total CARICOM exports, rising from 12 percent in 1990.

Based on the UNDP’s Human Development Index (HDI), CARIFORUM member countries have performed fairly well in terms of human development (Tables 5 and 6) with only Haiti falling into the category of low human development. Life expectancy at birth averages over 70 years for member states, except in Guyana (65 years) and Haiti (54 years). Adult literacy rates average over 80 per cent (except for Haiti 48 per cent).

Although characterized by acceptable levels of human development, CARIFORUM member countries still experience a number of social problems, including high levels of poverty and unemployment, significant inequalities in the distribution of income, rising crime, increasing drug use, rising incidence of HIV/AIDS and a persistence of certain curable/preventable diseases (Table 7).

Over the last decade, Caribbean countries have experienced a diversification in their economies, with reducing shares of agriculture and manufacturing in favour of services, particularly tourism (Table 8). In 2000, agriculture, however, contributed over 10 percent of GDP in five countries; of these, Guyana, Haiti and Belize have agricultural sector/GDP ratios of over 20 percent. Tourism arrivals in CARIFORUM countries increased by an average of 4.3 percent in the second half of the 1990s, but there has been a marked reduction in these arrivals since September 11, 2001. Both agriculture and manufacturing are under pressure from imports, mainly due to the liberalisation of trade in the region.

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5 Poverty, levels in the Caribbean range between 8 and 35 per cent of the population.
6 From Europe by 7.8 percent and from the US by 2.1 percent.

Claremont Kirton and Arlene Bailey
In summary, Caribbean economies have experienced declining rates of economic growth since the mid-1990s. Other aspects of the region’s economic performance include declining commodity export earnings, ongoing protectionist actions in critical sections of developed country markets, reduced levels of foreign official economic assistance and external pressure from developed countries and their agencies to comply with various rules and arrangements. Caribbean countries, therefore, must confront major challenges as they seek to generate and sustain economic growth, in the context of a more globalized and increasingly competitive international economy.

2.3 Caribbean regional economic integration: recent experiences

Regional economic integration in the Caribbean began with the establishment, in May 1968, of the Caribbean Free Trade Area (CARIFTA). Twelve Commonwealth Caribbean countries signed the Agreement. At its inception, the CARIFTA Secretariat, located in Guyana, was given the responsibility for monitoring and implementing the regional integration policies and programmes.

The Treaty of Chaguaramas established the Caribbean Community (CARICOM) on August 1, 1973. In 1989, the Heads of Government at the 10th Meeting of the Conference in Grand Anse, Grenada, agreed to deepen the integration process by implementation of a CARICOM Single Market and Economy (CSME). At the sub-regional level, economic integration is implemented in the Eastern Caribbean islands through the Organization of Eastern Caribbean States (OECS), which was established in 1981. At present, the CARICOM Secretariat (in Guyana) has responsibility for implementing Community policies and programmes. The OECS Secretariat, located in St. Lucia is responsible for OECS integration policies and programmes. The CSME Unit of the CARICOM Secretariat, with responsibility for common market matters, is located in Barbados.

Since the establishment of CARICOM in 1973, most intra-CARICOM trade barriers have been removed and a free internal market for most commodities is in operation. This internal liberalization of trade in goods occurred as a result of the application of the strict prohibitions set out in the CARICOM Treaty against the use of trade control measures, including tariffs and quantitative restrictions. Preferential rules of origin are maintained to distinguish between goods that qualify for duty free treatment and those that are imported from non-CARICOM countries. Rules of Origin define CARICOM goods as goods, which are wholly produced in the region or have undergone significant transformation in the region (resulting in change of tariff heading, or having a minimum local value added content). It is estimated that 95 percent of intra-CARICOM trade takes place on a free trade basis.

A special trade regime was introduced for Less Developed Member Countries (LDCs). These countries were permitted to retain import licensing for nine products to allow them time to improve the competitiveness of local industry. Import licensing is applied to imports from CARICOM More Developed Member Countries (MDCs), but is generally also applied to third countries. A programme has been agreed whereby the current import-licensing regime will be phased out and

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7 The twelve countries which signed the CARIFTA Agreement were Antigua and Barbuda, Barbados, Trinidad and Tobago, Guyana, Dominica, Grenada, St. Kitts-Nevis, St. Vincent and the Grenadines, Jamaica, Belize and Montserrat.

8 When establishing CARICOM in 1973, a distinction was made between less developed countries (LDCs, including OECS countries and Belize) and more developed countries (MDCs). LDCs were allowed to operate under a more preferential and protective regime, including continued NTB protection for selected products from other CARICOM countries for a specific period of time and application of less restrictive criteria in determining whether goods are of Common Market Origin.

9 These article 56 products, include: curry powder, pasta products, wheat flour, aerated beverages, beer, candles, soaps, oils and fats, solar water heaters, wooden furniture and oxygen and related products.

10 No estimates are available on the amount of local value added protected by import licensing in the different LDCs.
replaced by import tariffs where commodities are imported from third countries. These tariffs are to reach common external tariff (CET) levels by 2005\textsuperscript{11}. Rules of Origin are more stringent for LDCs, requiring a higher regional value added in order to qualify for duty free treatment by these countries. On the other hand, Rules of Origin for products imported into MDCs from LDCs are less restrictive than for those from other MDCs. Over the last two years there have been certain developments with respect to widening of CARICOM. These are discussed in the paragraphs that follow.

Haiti initiated plans for CARICOM membership in the mid-1990s and became a member in 2001. On accessing membership, Haiti joined the CARICOM free trade area. However, it has negotiated an adjustment period for adopting the full CET, as its present trade regime is more liberal than that of CARICOM\textsuperscript{12}. For some 500 products, Haiti is allowed to delay the CET for a period of at least five years, avoiding import duty increases on a large number of imports, including food. In order to safeguard its customs revenues, Haiti has negotiated waivers with respect to the implementation of the intra-CARICOM free trade policy on a number of important products, including rice, pork and gasoline. Haiti has LDC status within CARICOM, which allows it special treatment in terms of the CET, rules of origin, and access to safeguard mechanisms.

The CARICOM Secretariat has recently opened an office in Haiti, staffed by three professionals, who will assist the Government of Haiti in adjusting its trade regime, implementing the legislative framework of the CSME and in developing a public information programme about CARICOM.

The Dominican Republic negotiated a free trade agreement (FTA) with CARICOM, which provisionally entered into force on December 1, 2001. It involves reciprocal trade liberalization with the five large CARICOM MDCs (Barbados, Guyana, Jamaica, Trinidad and Tobago and Suriname). Haiti and other CARICOM LDCs are not involved in the FTA between CARICOM and the Dominican Republic. In the FTA with CARICOM, free trade became effective immediately for most commodities. Some sensitive goods (45 products including bovines, fish and milk) are excluded from the arrangement. The FTA accords free trade status to imports from CARICOM's LDCs without requiring reciprocal treatment by LDCs for imports from the Dominican Republic until 2005.

There are several overseas countries and territories (OCTs) and French Overseas Departments (DOMs) in the Caribbean region that are in close proximity to CARIFORUM countries\textsuperscript{13}. The OCTs and DOMs in the Caribbean can be classified as medium or high-income territories. They have well-developed physical and social infrastructure, but face similar vulnerabilities as CARIFORUM countries, especially in environmental and ecological areas. Their economic structures are similar to those of CARIFORUM island economies, particularly in terms of their reliance on tourism as a major source of income. To date, economic links between OCTs/DOMs and CARIFORUM countries are limited, although some mainly informal, unrecorded trade exists. Several reasons have been identified for the weak economic links between CARIFORUM countries and OCTs/DOMs; these include cultural differences (language); high costs of transportation and communications; unfamiliarity with various practices in the respective countries; economic obstacles (lack of linkages between the financial sectors of the respective countries, differences in fiscal regimes, difficulties in currency conversion); and administrative barriers, such as visa requirements.

\textsuperscript{11} The first country which converted the import licensing requirements into tariffs is Dominica. The tariffs vary from 70 to 200 percent.

\textsuperscript{12} Haiti liberalised in 1986/87 as part of an IMF supported adjustment programme.

\textsuperscript{13} OCTs include: The Netherlands Antilles, Aruba, the British Virgin Islands, Turks and Caicos and Cayman Islands; DOMs include: Martinique, Guadeloupe and French Guyana.

Claremont Kirton and Arlene Bailey
Caribbean OCTs and DOMs are attempting to increase their involvement in the regional economy. Both groups have observer status at CARIFORUM meetings; this represents a potential institutionalized platform for co-operation. They are associate members of the Association of Caribbean States (ACS), which allows for co-operation in selected functional areas, especially transport, tourism and disaster mitigation. The Netherlands Antilles have observer status at CARICOM meetings. Following a recent change in French legislation, DOMs now have authority to represent France in regional organizations and to conduct negotiations on economic relations with neighbouring countries.

2.4 CARICOM Single Market and Economy (CSME)

Caribbean governments agreed to deepen the integration process by establishing the CSME at the 10th Meeting of the Conference in Grand Anse in 1989. The CSME was conceived as an instrument to facilitate economic development of the Member States in an increasingly open and competitive global environment. Some consensus exists among Member States that with increasing liberalization and competition in international trade in goods and services, the Caribbean region must become more competitive so as to achieve their desired levels of economic development\(^\text{14}\). Through the establishment of the CSME, the Community would be better positioned to develop exports for both intra-regional and extra-regional markets, to attract investment and to negotiate more effective trade and investment arrangements in the global economy. The foundation of the CSME is premised on the free movement of goods, services and factors of production, including the adoption of support arrangements, such as the harmonization of laws and regulations governing economic activities within the Caribbean Community, and effective dispute settlement mechanisms.

To facilitate implementation of the CSME a number of institutional arrangements have been introduced. In 2000, a Prime Ministerial Sub-Committee on the CSME was formed, comprising those Heads of Government whose portfolio responsibilities in the “quasi cabinet” established by the Conference, impact significantly on the achievement of the objectives of the CSME\(^\text{15}\). The Sub-Committee is chaired by the Prime Minister of Barbados and will have access to an advisory council, which is composed of representatives of civil society, labour and the private sector. The recently established CSME Unit has the responsibility for co-coordinating, facilitating and working towards the development and implementation of the CSME, including the identification of studies, elaboration of policies and public education outreach.

To implement the CSME, nine protocols have been drawn up which establish the legal framework for its operation.\(^\text{16}\) These protocols have been incorporated in the Revised Treaty (2002). All Member States have signed this Treaty. The Bahamas, though a full member of CARICOM, has derogation in respect to participation in the CSME. Montserrat, as an overseas Department of the UK, must receive UK authorization to participate in the CSME.

In terms of sectoral policies, special programmes have been formulated with respect to industry, agriculture and transport. The industrial policy focuses on facilitating an investment friendly

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\(^{14}\) This view was confirmed at a Special Consultation on the CSME held in 1996.

\(^{15}\) The core of the Prime Ministerial Sub-Committee is composed of the Head of Government with lead responsibility for: services (Antigua and Barbuda), CSME (Barbados), labour (Dominica), external relations (Jamaica), government and justice (St Lucia), and security (Trinidad and Tobago).

environment, development of small and micro enterprises, avoidance of double taxation, the removal of administrative barriers, harmonization of fiscal incentives, and upgrading of quality control and standardization. Agricultural policies include provisions for natural resources, fisheries, forestry management, marketing, and productive use of technology. The agricultural policy aims at diversification of agricultural production and improving its competitiveness through effective marketing arrangements, access to finance, training, appropriate land tenure systems, promoting rural enterprise development and an effective sanitary and phyto sanitary regime. The transportation policy deals mainly with promoting air and sea transport policies to facilitate the development of internationally competitive community transport services.

The CARICOM Secretariat has the main responsibility for designing and for monitoring the process of the CSME. Its human resource capacity is, however, highly extended by the workload involved in implementing the CSME; this is one of the factors creating delays in CSME programme implementation. It has been noted that the delay in the introduction of programmes for the free movement of services within CARICOM, has had negative implications for CARICOM negotiations in the World Trade Organization (WTO)/General Agreement on Trade in Services (GATS) and the FTAA and in securing benefits under the GATS for integration groupings. Other factors contributing to these delays include the experience that national interests are often more highly prioritized than regional ones by Caribbean national political leaders and that CARICOM institutions have not been fully established in the national environments. Consequently, there has also been some degree of popular disinterest across many CARICOM Member states. However, in recent years, the increasing importance of Caribbean integration into the global economy has tended to reinforce the integration movement in the Caribbean, as well as the commitment of governments to this process.

The CSME has been conceived as an instrument to facilitate economic development of CARICOM Member States in an increasingly open and competitive global environment. Through the establishment of a CSME, the Caribbean is expected to be better positioned to realise sustained economic growth, create employment and reduce poverty by developing exports for both intra-regional and extra-regional markets, attracting investment and negotiating more effective trade and investment arrangements in the global economy. The foundation of the CSME is premised on the free movement of goods, services and factors of production, including the adoption of support arrangements, such as the harmonisation of laws and regulations governing economic activities within CARICOM, and effective dispute settlement mechanisms.

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Claremont Kirton and Arlene Bailey
SECTION 3: AGRICULTURAL POLICY IN THE CARIBBEAN

3.1 Agriculture: An introduction

For purposes of this study, agriculture is broadly defined to include not only land-based production of annual and perennial crops, but also activities related to forestry, livestock, fishing, agro-processing and a wide range of activities which are linked with and supportive of agriculture. However, the main focus of the study will be land-based agricultural productive activity, agribusiness and related activities.

A well-organized agricultural sector can contribute significantly to poverty alleviation, food security and economic growth and development. Agriculture can also contribute positively in areas outside of food production, including foreign trade and payments surpluses, employment creation, inter-sectoral linkages, as well as industrial and rural development. An examination of the economic history of the currently industrialized countries indicates that their agricultural sectors contributed significantly to their economic growth. In contrast, a poorly performing agricultural sector is likely to create conditions for economic, social and political instability. The challenge facing developing countries is not only to produce more food at competitive prices to satisfy the needs of the population, but also to ensure that the food is produced by the people who need to benefit most, for the people who need it most.

In general, policymakers in developing countries are expected to show a clear commitment to the agricultural sector. However, experience indicates where, in most of these countries, both their governments as well as the international community have neglected agriculture, for the most part. Since the 1970s, many governments of developing countries have significantly reduced their expenditure on agriculture. International donor agencies have also reduced their assistance to agriculture in developing countries.

At the World Food Summit (WFS) in 1996, 186 countries approved the Rome Declaration on World Food Security and Plan of Action to “eradicate hunger in all countries” and halve the number of undernourished people in the world by 2015. At that time, around 840 million people were assessed to be chronically hungry. The estimated cost of the programme was US$60 billion or US$4 billion annually in increased expenditure over the period. The Plan of Action listed seven commitments to be met by signatories; of these, the three most relevant ones for purposes of this study are:

- Participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices to ensure adequate and reliable food supplies.
- Ensuring that food, agricultural trade and overall trade policies are conducive to fostering food security for all.
- Promoting optimal allocation and use of public and private resources to foster human resources, sustainable food, agriculture, fisheries and forestry systems and rural development.

Progress in achieving the goals of the 1996 WFS has been limited. The Food and Agriculture Organization (FAO) (2000) indicates that in 2000, some 828 million people remained chronically hungry and that the 2015 targets presently appear to be unachievable. In its latest report, FAO

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20 An interesting discussion on definitional issues related to agriculture is presented by Diana Francis, December, 2002.

Claremont Kirton and Arlene Bailey
reiterates its earlier position, stating that given the current annual rate of reduction of undernourished persons in the world, the 2015 target will not be achieved.

3.2 Review of the agricultural sector in the Caribbean

3.2.1 Agriculture in the macro-economy

Historically, Caribbean economies have evolved as primarily agricultural economies characterized by monoculture, beginning with sugar cane during New World slavery. These economies have been dominated by large-scale plantation agricultural activities, co-existing with peasant agriculture, which emerged in the post-emancipation period. In recent years, while many Caribbean states have attempted to diversify their economies by focusing on tourism, financial services and manufacturing, agriculture still remains important in many of these countries. Agriculture contributes over 20 percent of GDP (2000) in Belize, Guyana and Haiti, and slightly less for Dominica (Table 8). Even in those economies where its contribution to GDP is smaller, the agricultural sector still makes an important contribution in terms of employment creation and social stability. Throughout CARIFORUM countries, the officially recorded agriculture/GDP ratios have declined over the last decade, except for Belize (Tables 8 and 9). Only Guyana, however, has maintained this ratio at over 30 percent throughout the 1990s. 

There are also a number of socio-economic issues, which have historically impacted on the performance of the agricultural sector, in many CARICOM states. These include:

- low levels of remuneration received by both small farmers and agricultural workers.
- role of agricultural workers’ unions in the performance of the sector.
- observed tendencies of the farming community to resist proposed changes.
- worsening inequalities in land ownership patterns.
- ongoing misallocation of land use.

3.2.2 Agricultural production

Most of the land-based agricultural sector activities in the Caribbean are in primary production with the major crops being sugar cane, bananas and rice. Other crops include coffee, citrus, coconuts, cocoa and nutmeg. In addition, a sizeable amount of vegetables and fruits are produced in the region; however, these are characterized by high costs of production and unreliable supply levels and face significant competition from imports. There are limited activities in agro-processing including jams, jellies, hot sauces and wines but these products tend to be uncompetitive regionally and globally.

Agricultural production statistics, especially for non-export commodities, are not readily available or current for many Caribbean countries. In some instances, data are not available due in part to the minimal level of agricultural output, as well as the low priority allocated to the sector. In Table 10, data on agricultural production for selected commodities is presented. Of all commodities produced, sugar cane remains the most important representing almost 30 per cent of total agricultural crop output. Apart from Cuba, the countries with large sugar industries are Dominican Republic, Guyana, Jamaica, Belize, Haiti and Trinidad/Tobago. An important feature of Caribbean agriculture is the relative specialization in one or two major agricultural commodities. Sugar is dominant in four countries, while bananas represent the dominant crop in seven countries, and rice in three (for details, see Table 10).
Historically, preferential access to export markets has influenced continued crop specialization. Sugar and banana producers have preferential access to EU markets at higher than world-market prices. However, these arrangements are now being threatened by the trade policies and related decisions of the World Trade Organization (WTO). In this context, one of the conclusions of Kendall and Guidici (2002) is worth quoting as follows:

“The declining performance of the sector is leading to increasing impoverishment of rural communities in many countries, a situation that is likely to worsen with the elimination of preferences for major commodities towards the end of the decade. The implications for social and political stability in some countries of the Region can be quite severe.”

In several CARICOM countries, the fisheries sector has been increasing in importance. This sector has a strong export orientation. The fishing industry in CARIFORUM countries is predominantly artisanal. A small but vibrant fish processing industry exists in a few states. A notable characteristic of the fishing industry is the large percentage of female workers who are involved in critical areas of seafood operations including processing, distribution and retailing in local markets. Regionally, the standards of fish handling practices are not uniform across countries. In some countries, quality control systems are such that fish products typically satisfy acceptable international standards. In other states, however, there is considerable room for upgrading systems and standards to satisfy international health and food safety requirements. In addition, existing legislative, institutional and laboratory infrastructure also varies widely across Caribbean countries, with a few satisfying international standards, while in others, some infrastructural upgrading is necessary. In 1997, fish exports from CARIFORUM countries amounted to some EUR 150 million. The main fish exporting countries in the region are Bahamas, Guyana, Belize, Jamaica, Suriname, Haiti, St Vincent and Antigua and Barbuda.

A few countries - Guyana, Suriname, Belize and Trinidad and Tobago – are currently involved in commercial forestry activities, supplying timber products to both domestic and export markets. Forest resources management is critical in all Caribbean countries, especially since this seriously impacts watershed protection, catchment area management and control of soil erosion.

In poultry production, a few countries have well-organized, large scale business co-existing with small-scale activities. Sheep, goat and cattle tend to be predominantly small-scale activities. The poultry industry is among the largest and is characterized by both formal business activity as well as large informal and subsistence farming. Goat and sheep production, mainly for domestic consumption, is fairly significant in the OECS and Jamaica. Intra-regional trade in live animals is minimal. Cattle production is important in Belize, Guyana, Jamaica and Trinidad and Tobago.

### 3.2.3 Agricultural trade characteristics

For almost all of the Caribbean countries in the 1990s, the ratio of imports of agricultural and food commodities as a percentage of GDP has been higher than that for agricultural exports/GDP (Kendall and Guidici, 2002). The available data show that only Belize and Guyana had agricultural exports/GDP ratios consistently higher than their agricultural imports/GDP ratios for the period 1970 to 2000. For Dominica, St. Kitts/Nevis, St. Lucia, and St. Vincent and the Grenadines, there were a few years when the agricultural export ratios exceeded those of imports.

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Claremont Kirton and Arlene Bailey
Not unexpectedly, the ratio of agricultural sector foreign exchange earnings as a percentage of total exports of goods and non-factor services has showed a declining trend in almost all of the regional economies. For Barbados, this ratio fell from 22.2 percent in 1970 to 6 percent in 1998. Dominica experienced a decline in the contribution of agricultural exports to total exports from 70 percent in 1976 to 24 percent in 1999. Haiti also experienced a significant decline in the ratio from 41 per cent in 1971 to 9 percent in 1998. The ratio also declined for Guyana from 39 per cent in 1971 to 26 percent in 1999. Suriname was the only Caribbean country experiencing an increase in this ratio from 4 per cent in 1977 to 8 percent in 1997\[22\].

There are considerable disparities in the structure and pattern of agricultural trade across Caribbean countries (Barbados, St Kitts and Jamaica: sugar; Trinidad: non-alcoholic beverages; Dominica, St Lucia, St Vincent: bananas; Grenada: nutmeg; Guyana and Suriname: rice). In real terms, exports of agricultural products have increased only marginally over the past decade\[23\]. Within the region, there has been an increase in the vegetable product trade, while CARICOM’s share of the trade in prepared foodstuffs and beverages has declined in favour of imports from NAFTA countries. The average age of farmers is over 50 years in many countries in the region, with the implication that the return to labour is low in agriculture\[24\].

3.2.4 Agricultural sector inputs

Critical agricultural sector inputs include seeds, fertilizers, agro-chemicals, animal feed and agricultural machinery. Local production of these inputs in the Caribbean is limited given the relatively small market size; as such, a significant percentage of these commodities are imported from extra-regional sources. Some regional production of fertilizers and animal feed is taking place in the Dominican Republic and Trinidad/Tobago. Plant breeding programmes in the region are operational for sugar cane, rice and cocoa. For almost all other agricultural production, seeds are imported.

3.2.5 Agricultural research

British, French, Spanish and Dutch colonialism have influenced the development of the Caribbean region. As a result of British colonial rule in the English speaking Caribbean, the British agricultural research influence is dominant. Formal agricultural research in the British Caribbean colonies began in 1898 with the establishment of the Imperial Department of Agriculture for the West Indies (IDA)\[25\]. In 1921-22, the IDA was moved to Trinidad/Tobago and was transformed into the Imperial College of Tropical Agriculture (ICTA). ICTA’s assets were transferred to the University College of the West Indies (UCWI) in 1962. The Caribbean Agricultural Research and Development Institute (CARDI) was established in 1975 as an autonomous institute, with a research mandate and funded by the Member States of CARICOM.

Following political independence, many Caribbean governments initiated national approaches to agricultural research with their respective Ministries of Agriculture assuming this responsibility.

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22 For further details, see Kendall and Guidici (2002)
24 It has been suggested that many of the younger farmers plant marijuana because, although risky, the returns to both their labour and capital investment are high.
25 For a discussion on the history of agricultural research in the Caribbean, see Roseboom et al. (2001)
These Ministries typically contract much of their major research activities out to CARDI and private foreign as well as local consultants. The majority of the Ministries of Agriculture in the region have small research departments in which agricultural research is only a part of their activities; these departments are usually staffed by non-specialist agricultural researchers, and focus on short term, ad hoc research projects.

Alongside the public research activities of the Ministries of Agriculture, CARDI and the University of the West Indies (UWI), there exist commodity boards, producer associations and private companies that engage in research mainly on export agricultural crops. The Sugar Association of the Caribbean (SAC) finances research on various aspects of the regional sugar industry, while sugar companies in the main Caribbean sugar producing countries have their own research facilities which deal with agronomic and technical problems faced by the national producers.

The West Indies Rum and Spirits Producers Association Inc. (WIRSPA Inc.) is engaged in research related specifically to rum and spirits production in the Caribbean. Banana producing countries in the Windward Islands have also had research facilities operating through the Windward Islands Banana Association (WINBAN); more recently, banana research in the Windward Islands has been significantly reduced. In Jamaica, the local Banana Board has its own research facilities.

With respect to rice, the Caribbean Rice Association is engaged in various aspects of research on rice production in the region. There also exist research activities on other agricultural commodities including citrus, cocoa, coffee, nutmeg and tobacco. These activities are usually funded and conducted through national and regional producer organizations and commodity boards. The Caribbean Poultry Association (CPA) is involved in various areas of research, such as marketing standards for broiler meat and eggs, broiler and egg farm food safety and food borne disease surveillance.

Agricultural research activities in the non-English speaking Caribbean are somewhat different from those of the former British colonies. With respect to the Haitian experience, very little agricultural research infrastructure currently exists. However, in the French territories (French Guiana, Martinique and Guadeloupe), fairly significant levels of agricultural research activities have been funded by French public and private sector institutions. Concerning the Dutch territories, only Suriname has developed an agricultural sector of any significance. The University of Suriname, in conjunction with Wageningen Agricultural University in the Netherlands, has conducted a fair amount of agricultural research. Agricultural activities have been of limited significance in the economies of the Netherlands Antilles, and as such, agricultural research has been virtually non-existent.

Cuba has given high priority to developing its agricultural research capacity, with between 100 and 150 agricultural researchers per million of population. This represents the largest pool of agricultural researchers in the Caribbean.

3.2.6 The Agricultural sector in the Caribbean: constraints and challenges

From a regional perspective, the development of the agricultural sector in the Caribbean faces serious constraints in markets (information, common standards), institutional bottlenecks, and common approaches to addressing problems of poor ecological sustainability. In addition,

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26 Ecological sustainability refers to the application of agricultural practices which do not result in the deterioration of agricultural

Claremont Kirton and Arlene Bailey
financing challenges and training problems exist. Both the domestic and export markets for agricultural products face increased competition from extra-regional sources. Competition has increased as ACP preferences in EU markets are eroded due to ongoing multilateral and bilateral trade liberalization (especially in the case of bananas, rice, sugar and rum). In a recent discussion on regional agriculture, CDB identified some of the constraints listed above as well as:

- declining investment and development partner inflows
- increasing concerns for food security and poverty reduction
- reducing institutional capacity to service the sector.

Agricultural sector actors and stakeholders in Caribbean countries need to focus on food security so as to ensure that all the people of the region can access safe, nutritious and culturally appropriate food at fair prices. In addition, this implies that regional food producers are able to obtain food-producing resources, including land, water, forests, fishing areas and other necessary productive inputs at reasonable cost. The regional agricultural sector will also need to develop into an internationally competitive and environmentally sound sector. This transformation involves planned responses to increased competition from abroad and the erosion of preferential treatment in overseas markets. Major challenges include implementation of the necessary restructuring measures to improve competitiveness and achieve diversification, especially with respect to the development of non-traditional products and increased agro-processing. Regionally, improvements in competitiveness can be supported by training and research, satisfying health standards in major markets based on sanitary and phyto-sanitary requirements, improved information on markets and dealing effectively with diseases. This not only applies to crop production, but also to livestock and fisheries.

To address some of the challenges faced by the agricultural sector, CARICOM countries embarked on a regional transformation programme for agriculture (RTPA), fisheries and forestry in 1996. This programme is geared, inter alia, towards developing modern technologies to improve productivity and to promote sustainable production systems. The RTPA addresses crop production, livestock, fisheries and forestry and targets improvements in farm organization, R&D, processing and marketing.

3.3 Regional agricultural policy in the Caribbean

3.3.1 Regional agricultural policy: definitional issues

In the published literature, there are many wide and varying definitions of the concept of a policy. In his analysis, Hart (1995) identifies a policy as a “purposive course(s) of action based on currently accepted social values, which is followed in dealing with a problem or matter of concern; (it) predicts the state of affairs which would prevail when the purpose has been achieved.” Minde (2000) defines policy, in some detail, as “a statement of intent, a prescription of what needs to be done to achieve a particular purpose and goal…made at all government and corporate levels. …made at programme level, sectoral/ministerial level and at government/cabinet level.” At the CTA workshop on agricultural policy networking (2000), participants agreed on a definition of policy as a:

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27 In the case of sugar Caribbean countries also have preferential access at the USA market based on a quota system. These quotas have declined sharply over time. New quotas for 2001, however, have stabilised, as they are based on historical performance.


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Claremont Kirton and Arlene Bailey
“… statement of intent, action or inaction by the public authority in response to the need to achieve a pre-determined purpose, which may or may not be formally declared.”

This study uses the CTA workshop’s definition. Here, policy is interpreted as an intervention by the state or related agencies. It implies that the anticipated output would not have materialized without the specific policy being implemented. It is also to be noted that the objective or purpose underlying the policy action or inaction is critical, regardless of whether the objective is explicit or implicit.

Public policy is expected to provide an overall framework within which a government’s goals and related activities are implemented. Government’s plans, programmes and projects arising from this framework represent the methods through which public policies are implemented to achieve specific objectives. Public policy usually has constitutional, legal backing as it is prepared and effected by the state.

Agricultural policy deals specifically with issues related to the agricultural sector. These may be divided into two broad groups: macro-economic policies and sectoral policies. Macro-economic policies impact all economic sectors and include exchange rate policies, which influence export and import policies, monetary policies that may impact interest rates, and various fiscal policies such as tax regimes and incentives. Sectoral policies are agriculture specific and would include those policies related to land tenure, rural infrastructure including roads and water, and acquisition of agricultural inputs.

In this study, the focus is on regional agricultural policy. This refers to policies that relate to the regional integration arrangement (RIA) in the Caribbean. The RIA that is considered in this analysis is the Caribbean Community (CARICOM), but references will be made to CARIFORUM member countries. Although regional policies cut across national boundaries and are expected to be regional in orientation, specific national interests significantly influence them. Any analysis of regional agricultural policy networking has to carefully consider the importance of national interests in regional policy formulation.

3.3.2 Regional agricultural policy in the Caribbean: an historical overview

Historically, colonial relationships shaped agricultural policy in the Caribbean. The British directed policy in the British colonies, as did the French, Dutch and Spanish in their respective colonial possessions in the region. Following political independence, the former colonies established their respective government Ministries of Agriculture that had responsibility for agricultural policy preparation and implementation.

In 1975, following the formation of CARICOM, the former British colonies in the Caribbean developed the first regional agricultural policy - the Regional Food Plan (RFP). The main goal of the RFP was to increase domestic food production in the Caribbean region as a means of reducing dependence on foreign food sources, especially for meat, dairy products, animal feed, fish and fish products, cereal and grain legumes. Since these food items utilized significant amounts of foreign exchange, it was anticipated that foreign exchange savings could accrue to the region if the RFP was successfully implemented. The expectations concerning the outcomes of the RFP never materialized. Among the explanations identified for this policy failure were a lack of commitment to
the RFP by CARICOM Member states, and a shortage of the required expertise to ensure successful Plan implementation.

In 1983, another attempt at a regional agricultural policy for CARICOM was initiated. The Regional Food and Nutrition Strategy (RFNS) replaced the RFP as the guiding policy for agriculture in the Caribbean. This policy also met with limited success owing to similar constraints as those that faced the RFP. In 1989, the Caribbean Community Programme for Agricultural Development (CCPAD) and an associated Regional Action Plan replaced the RFNS. The Regional Action Plan, which was an integral part of CCPAD’s policy, was defined as a “compendium of priority programmes and projects as well as a framework for their implementation.”

It was anticipated that the Regional Action Plan would support national and sub-regional agricultural sector plans in CARICOM countries. The Standing Committee of Ministries responsible for Agriculture (SCMA) was identified as the major policy making body responsible, inter alia, for ensuring the expeditious implementation of the Plan. Additional responsibilities for implementation of the Regional Action Plan were allocated to both regional and national public and private sector agencies. These included the Caribbean Association of Industry and Commerce (CAIC), the Caribbean Agricultural Research and Development Institute (CARDI), the Caribbean Development Bank (CDB), the Caribbean Banana Exporters Association (CBEA), the Sugar Association of the Caribbean (SAC), the Ministries of Agriculture in respective countries, and the Universities of the West Indies and Guyana. 29

In 1989, OECS member states approved the Agricultural Diversification Programme, which included commodity-specific and supportive projects, specific sector policies and various activities geared towards facilitating joint OECS marketing of various commodities. The Agricultural Diversification Coordination Unit (ADCU) was created to implement the Programme. It was anticipated that regional institutions and agencies operating in the sector would support the Programme.

An evaluation of CCPAD 30, which was conducted in 1995, identified numerous weaknesses in its operations. A few of these are directly relevant to a study of this nature. These include:

- Low levels of awareness by both public and private sector participants about the goals and objectives of CCPAD.
- Lack of commitment to and interest in CCPAD by CARICOM Member States.
- Lack of coordination and information sharing mechanisms among national and regional agencies involved in CCPAD programmes and projects.
- Absence of linkages between regional and national programmes which severely constrained strong national participation in the formulation, implementation and monitoring of regional programmes and projects.

Following this evaluation, CCPAD’s operations were redesigned with the region’s Standing Committee of Ministers responsible for Agriculture (SCMA) being allocated full responsibility for promotion of regional agricultural development programmes and related activities in the individual Member States. Formulation, implementation and monitoring of the revised programmes were to be implemented by two bodies. At the regional level, a Regional Planners Forum (RPF) was organized,

30 James O. Nurse, 1995
while National Planning Committees (NPCs) were to be established in each CARICOM Member Country.

An informed assessment\(^{31}\) of the main weaknesses of RFP, RFNS and CCPAD indicates that each of these initiatives attempted to influence the levels of agricultural output in CARICOM countries without initially establishing close working relationships with the producers in the national economies of the regional integration arrangement. It is further assessed that regional policy makers failed to explicitly recognize that the output decisions of producers are conditioned by the policy environment which they perceive, and that this policy environment is determined by individual national governments.

In 1996, a variant of the redesigned CCPAD was introduced. This formed the basis of the Regional Transformation Programme for Agriculture (RTPA), which currently handles implementation of regional agricultural policy. As one of its objectives, the RTPA attempted to correct some of the limitations of earlier policy initiatives by explicitly recognizing and clearly indicating that the activities of RTPA were to be supportive of and complementary to national priorities and initiatives.

### 3.3.3 Regional agricultural policy in the Caribbean: the current situation

The most recent articulation of regional agricultural policy in the Caribbean is outlined in the Revised Treaty, which is expected to facilitate the operationalising of the CARICOM Single Market and Economy (CSME). The primary objective of regional agricultural policy is articulated in Article 56 of the Treaty as follows:

“…(T)o effect a fundamental transformation of the agricultural sector of the Community by diversifying agricultural production, intensifying agro-industrial development, expanding agri-business and generally conducting agricultural production on a market-oriented, internationally competitive and environmentally sound basis”.

The specific goals of regional agricultural policy identified in the Treaty (Article 56) are listed as:

i) transforming the agricultural sector towards market-oriented, internationally competitive and environmentally sound production of agricultural output.

ii) improving income and employment opportunities, promoting food and nutrition security and poverty alleviation.

iii) enhancing efficiency in the production of both traditional and non-traditional primary agricultural products.

iv) increasing output levels and diversification of processed agricultural products.

v) increasing world market share of Caribbean primary and processed agricultural exports.

vi) efficient management and sustainable exploitation of the region’s natural resources, including forests and fisheries.\(^{32}\)

To meet these goals, regional agricultural policy is expected to support a wide range of activities including agricultural production and marketing, finance and insurance, inter-sectoral linkages and

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\(^{31}\) Personal correspondence (November 2002) reflecting his personal views, with Ronald M Gordon, Deputy Programme Manager, Agricultural Development, CARICOM Secretariat, Guyana.

\(^{32}\) For details of regional agricultural policy in the Revised Treaty, see Appendix 2.
appropriate land tenure systems. In terms of communication and information management in the regional agricultural policy process, the Treaty (Article 57) prioritizes effective information and market intelligence services, dissemination of information on appropriate technology, public education, and dissemination of knowledge in agriculture.

Two sections of Article 57 are worth highlighting. In Article 57, Section 2, there is a commitment to strengthening the institutional framework in regional agricultural policy by:

“…improving the capability of the Member States to undertake policy analysis, formulation, planning, execution and resource mobilization for the development of the sector.”

In Article 57, Section 3, there is a further commitment to:

“…promote collaboration among Member States and competent regional organizations in the areas of policy formulation and implementation of regional agricultural policies.”

Institutionally, the CARICOM Secretariat has responsibility for co-coordinating the design of agricultural policy in the region. Agricultural technicians, representing national governments, producer and industry associations, and regional institutions then discuss these policy proposals. Following these discussions, recommendations are presented to the Council for Trade and Economic Development (COTED). COTED consists of Ministers of Trade or Ministers of Agriculture from the respective CARICOM Member countries. Presently, agricultural matters are dealt with at COTED meetings, since SCMA is no longer functioning.

The Regional Transformation Programme for Agriculture (RTPA) represents the institutional mechanism, through which regional agricultural policy once formulated, is to be implemented. Institutionally, the Regional Planners Forum (RPF) is involved in regional policy formulation, appraisal, monitoring and evaluation, through its inputs into the process. The RPF is also involved in resource mobilization. The RPF comprises national agricultural planning personnel from CARICOM Member States, various technical advisers to regional entities and representatives of both national and regional private agricultural sector interests. The RPF is scheduled to meet annually prior to the mid-year meeting of COTED Ministers. COTED Ministerial meetings now handle the entire portfolio of issues that were formerly dealt with by SCMA.

National Committees (NCs) of CARICOM Member States are expected to form the basis for the development of regional agricultural programmes within the framework of the RTPA. These NCs are mandated to develop, monitor and review national agricultural development programmes and identify regional programmes for consideration by RPF. Regional agricultural programmes are expected to support the national ones. NCs comprise representatives from the national public and private sectors, as well as representatives of civil society. Typically, the person selected to represent the specific Member State on the RPF chairs the country’s NPC. To date, not all CARICOM Member States have organized their NCs.

Three categories of institutions are responsible for implementation of these programmes at regional level:

- regional implementing agencies or Lead Agencies, with responsibility for implementing designated regional programmes;
- national implementing agencies with responsibility for the national elements of regional programmes;
support agencies that refer to those co-opted to help facilitate programme implementation.

The Lead Agencies operate within the framework of specific rules of procedure which identify their objectives to include:

- providing leadership in design, planning, implementation, monitoring and evaluation of the RTPA;
- providing information and advice to COTED on achievement of international competitiveness in agricultural production;
- promoting RTPA, its programmes and projects in CARICOM Member States.

The Member Lead Agencies are:

- Caribbean Agricultural Research and Development Institute (CARDI)
- Caribbean Community (CARICOM) Secretariat
- Caribbean Development Bank (CDB)
- CARICOM Fisheries Resource Assessment and Management Project (CFRAMP)
- University of Guyana (UG)
- University of the West Indies (UWI).

Observers are the Food and Agriculture Organization of the United Nations (FAO), the Inter-American Institute for Cooperation in Agriculture (IICA) and the Organization of Eastern Caribbean States (OECS) Secretariat.

Since mid-2002, the CARICOM Secretariat has initiated national consultations in Member States geared towards effecting linkages between national and regional agricultural sector policies within the framework of the RTPA, with a focus on specific commodities or industries. Following RFP discussions, six products have been identified in Phase 1 of the RTPA as being internationally competitive and marketable. These products are coconuts and oils and fats, small ruminants (sheep and goats), poultry, sweet potato, hot pepper and papaya. This approach is seen, in part, as a conscious attempt to bridge the policy gap that exists between regional and national policies and programmes.

These formal consultations on the RTPA involve CARICOM Secretariat representatives convening meetings and workshops in Member States with government officials, industry representatives from the private sector and civil society groups in agriculture. To date, consultations have been held in Barbados, St. Vincent and the Grenadines, Trinidad and Tobago, St. Lucia, Jamaica, Belize and Guyana. The general policies of RTPA are discussed and strategic plans articulated at the national level for the selected commodities. It is anticipated that these national plans will be integrated into a regional plan under the aegis of the RTPA. The plans are to be implemented nationally with support from the Lead Agencies. In addition, regional commodity associations representing key sector stakeholders are expected to be directly involved in both the planning and implementation processes.

The OECS has developed a Draft Plan of Action/Strategic Framework (July 2002) for agriculture in the sub-region. A formal mechanism comprising the OECS Secretariat and representatives of OECS Member States has been established to develop regional strategies and design and implement
regional agricultural sector plans for the sub-region. Among the recommendations of the OECS Draft Plan of Action are:

- reinstitution of a market intelligence unit to provide accurate, timely information to facilitate market activities of the sector;
- promote participation and partnerships between Government and OECS private agricultural sector interests;
- enhance the capacity of the OECS Ministries of Agriculture to deal with agricultural production, competitiveness and trade issues;
- strengthen planning and coordinating capacities of Ministries of Agriculture.

The Draft Plan of Action was discussed at a special meeting of the OECS Authority on the Economy (October 2002). In the communiqué issued at the end of the meeting, OECS Heads of Government stated that “the focus of the strategies for the agriculture sector will be on intensifying the diversification of the sector and increasing production and trade to both traditional and non-traditional markets”. Specifically, OECS agricultural sector activities are to be geared, inter alia, towards:

- Enhancing production and marketing levels through diversification, improved competitiveness, research and development, investments, joint marketing and market information systems.
- Continuously improving production and competitiveness of the banana industry to cope more effectively with the removal of trade preferences attached to this commodity in 2005.
- Improving the institutional structures and arrangements, including the capacity of the Ministries of Agriculture to address on-farm and farmer issues more effectively. Specifically, attention is to be given to reviewing legislation, enhancing networking and communicating among government agencies and other stakeholders.

In general, establishing policy objectives and targets, and monitoring and evaluating the implementation strategies will be the responsibility of both national and sub-regional institutions. At the national levels in OECS countries, the three principal bodies will be: Cabinet Committees which are to have primary responsibility for national economic management; National Economic Councils which are to advise Governments on issues of economic policy; and Tri-Partite Committees which are responsible for monitoring the industrial relations environment and wage levels to ensure increasing levels of productivity. In the case of agriculture, with the focus on national medium and long-term strategies for sustainable improvement of agriculture and rural life in OECS, National Technical Cooperation Agendas are to be developed based on recommendations from all stakeholders and with technical support from IICA. These are expected to formalise the specific national strategies.

In recent times and separate from the Caribbean Community institutional arrangements, CARICOM Ministers of Agriculture (as part of CARIFORUM Ministers of Agriculture), together with representatives of producer/industry organizations as co-partners, have been meeting under the aegis of an ‘Alliance for the Sustainable Development of Agriculture and the Rural Milieu’. The Ministerial meetings of the Alliance are termed the Ministers’ Forum.

The stated objectives of the Alliance are summarized as follows:
• to provide an opportunity for dialogue on emerging issues impacting agriculture and securing consensus and commitment on actions to develop national and regional agriculture in the medium and long term.
• to identify areas for collective action and recommend policies, strategies and mechanisms to facilitate the implementation of feasible programmes at the regional level.
• to encourage implementation of national policies, strategies and activities which harmonize with regional policies.
• to promote policies which facilitate agriculture’s integration in the wider national, regional and international levels, while minimizing any negative effects.
• to explore options for reorganization of agriculture in the region.
• to strengthen bargaining position of Caribbean Ministers of Agriculture at national, regional and international levels.

The Alliance is an IICA sponsored activity, for which IICA and the CARICOM Secretariat jointly co-ordinate meetings and activities. While these ‘Alliance’ meetings have attempted to perform some of the functions of the defunct SCMA, decisions made at these meetings are not binding within the Caribbean Community system, although these are usually forwarded to COTED as recommendations for approval.

3.3.4 Regional agricultural policy in the Caribbean: stakeholders

Stakeholders are usually distinguished from actors in the policy process, with actors defined as those persons and institutions involved in the policy process but not directly benefiting from it. In the Caribbean agricultural sector context, actors refer to government decision makers in the Ministries of Agriculture, other state agencies, policy analysts and advisers, academics, donor organizations and civil society groups. Agricultural sector stakeholders are those formally intended beneficiaries of agricultural policies at whom the policy benefits are officially targeted.

The main stakeholders in the typical national agricultural policy process in Caribbean states include various categories of farmers ranging from small subsistence to large commercial farmers (plantation owners), farmers’ organization including co-operatives, private enterprise organizations like exporters associations, and private entrepreneurs engaged in a wide range of agriculture related activities.

In some Caribbean countries, agricultural sector stakeholders are active in public policy discussions and ultimately impact national agricultural policy. In Jamaica, there is fairly widespread involvement of various stakeholders in the policy discussions. Representatives of farmers organizations from the Jamaica Agricultural Society (JAS) supporting the farming community, various commodity boards (like the Banana, Coffee Industry and Coconut Industry Boards), producer organizations (like the Sugar Industry Authority, Jamaica Livestock Association), and agro-processors (represented by the local Agri-Business Council) participate regularly in policy discussions with the key policy makers in the Ministry of Agriculture. In some instances, as with the Sugar Industry Authority (SIA) and the Coconut Industry Board, these specific stakeholder organizations prepare the policy of the sub-sector, which is usually integrated into the national sector policy.

In Barbados, the Barbados Agricultural Society (BAS), as well as other special interest stakeholder associations like the Barbados Sheep Farmers Association and the Barbados Egg and Poultry
Producers Association, are involved in providing policy advice and recommendations which help influence the country’s agricultural policies. Stakeholders are involved in various agricultural subsector committees, which also comprise policy makers, policy analysts, and civil society representatives. At these meetings, stakeholders make policy recommendations to the leading sector policy makers. The BAS usually has scheduled monthly meetings with the policy makers in the Ministry of Agriculture. During the preparation of the country’s agricultural sector plan, there are usually national consultations involving both sector actors and stakeholders. The BAS also represents the country’s agricultural sector stakeholders at regional COTED meetings that deal with agriculture.

In St. Lucia, agricultural sector stakeholders are part of that country’s National Agricultural Advisory Council, which comprises both actors and stakeholders. The Council has full responsibility for preparing the country’s national agricultural policy. However, the Council has been recently re-instituted, having not met for an extended period. Other stakeholder groups, which are fairly active in St. Lucia, include the Coconut Growers Association and the Agriculturalists Association. In some of the other OECS member states including Antigua, St. Kitts-Nevis and St. Vincent and the Grenadines, stakeholder organizations include farmers’ associations and co-operatives, exporters associations, chambers of commerce, input suppliers and private business interests in the hospitality, packaging and transport sectors. These organizations tend to be involved in their respective national agricultural policies at varying levels.

In Trinidad and Tobago, there are various national policy committees which focus on specific areas of agriculture. This is a formal process with meetings scheduled between farmers’ organizations and other stakeholders to discuss various policy issues with representatives of the Ministry of Agriculture. For example, the rice producers and distributors are actively involved in policy discussions with national agricultural sector policy makers in preparing sub-sectoral policies for rice; they are also involved in related rice policy implementation.

The influential actors in the regional agricultural policy process are:

- the Ministries of Agriculture and related government agencies in Caribbean states
- regional bureaucratic institutions including the CARICOM, CARIFORUM and OECS Secretariats
- regional financial institutions (like the Caribbean Development Bank (CDB))
- technical agricultural institutions (including CARDI and IICA)
- research institutions (like the Caribbean Food and Nutrition Institute (CFNI))
- universities (including UWI and UG)
- international organizations (like IICA and FAO)

The Ministries of Agriculture of CARICOM Member states, through COTED Ministers Meetings are responsible for regional agricultural policy making. OECS Ministers of Agriculture have not had a Ministerial Meeting for many years; however, there was a recent Ministerial meeting (December 10 - 11, 2002), which made important decisions about the future of agriculture in the OECS. Regional agricultural sector policy makers meet as the RPF annually, immediately before the COTED meetings.

The Caribbean Development Bank (CDB) is the regional financial institution mandated to assist in the harmonious growth and development of its Caribbean member countries. Between 1970 and 2001, CDB approved US$ 2 billion in financing for member states. About US$ 230 million in loans,
equity and grants, has been approved for agriculture during the period. This represents some 13.4 per cent of CDB’s total lending. Nearly two-thirds of CDB lending to agriculture is allocated via financial intermediaries for on-lending to agricultural entrepreneurs.

One of the most active regional farmers organizations is the Windward Islands Farmers Association (WINFA). WINFA began as a loose association of small farmer groups in 1982. By 1987, it became the formal umbrella association of farmer associations in the Windward Islands, dealing mainly with banana farmers.

Among the oldest regional agricultural commodity producing and trading organizations in the Caribbean is the Sugar Association of the Caribbean (SAC). Established originally as West Indies Sugar Producers in 1938, its primary objective was to promote and protect the regional sugar industry. Reconfigured as SAC in 1975, its broad objectives remain the same. Member countries of SAC are Jamaica, Guyana, Belize, Barbados, St.Kitts/Nevis and Trinidad/Tobago. Over the last decade, SAC has been involved in providing policy recommendations towards the development and is represented at regional COTED meetings.

The West Indies Rum and Spirits Producers Association (WIRSPA), recently transformed into to WIRSPA Inc., is a regional organization whose objective is “to protect the interests of Caribbean rum producers.” WIRSPA Inc. is an amalgam of Caribbean country associations involved with rum and spirits production. Formed in 1968, its original members were Jamaica, Guyana, Trinidad and Tobago, Barbados, Bahamas, St. Lucia, Antigua, and Suriname. The Dominican Republic has recently joined the organization. WIRSPA Inc. has been involved in developing CARICOM standards for rum production and is presently articulating a regional marketing strategy for rum and spirits. As a regional group, member countries of WIRSPA Inc. assist each other with modernization of productive activities and usually share their ‘best practices’ among themselves. WIRSPA Inc. representatives are usually represented at regional COTED meetings.

In 1998, representatives of the regional private agri-business enterprises, with support from IICA, established the Caribbean Agri-Business Association (CABA). CABA’s membership includes representatives from regional commodity interests in various agricultural sub-sectors. Currently, there are representatives from the regional sugar, rice, dairy/livestock, poultry, citrus/cocoa/coffee, floriculture, feed manufacturing and input supplier groups who are members of CABA’s Board of Directors. CABA has represented agri-business policy views at COTED meetings. CABA has also assisted in the establishment of specialized regional agri-business organizations like the Caribbean Poultry Association (CPA).

Among CABA’s main stated objectives are:

- assist in forming and promoting national and regional agricultural policies
- coordinate agri-business efforts in the region through collective action
- provide relevant trade and market information to assist the region’s agri-business in trade, marketing and negotiation.

CABA’s most important strategic priority is identified as information exchange. In its strategic plan, CABA recognizes the critical nature of information access and exchange for regional agri-business development. As such, CABA plans to develop “a structured electronic telecommunication programme to facilitate regular on-line dialogue among its members, other private sector institutions
and Government officials, particularly with respect to policy matters, and regional/international trade negotiations that affect agribusiness at the micro and macro levels.”

The Caribbean Poultry Association (CPA) is among the more dynamic regional private sector organizations involved in the agricultural sector. Established in 1999, CPA’s member institutions are national poultry and egg associations and private businesses engaged in poultry and egg production in the region. The national associations that comprise CPA’s membership are the Belize Poultry Association, Suriname Poultry Association, Barbados Egg and Poultry Producers Association and the Jamaica Egg Farmers Association. Among the private firms involved in CPA are Jamaica Broilers Group, Caribbean Broilers Group (Jamaica), East Caribbean Group of Companies and Caribbean Agro-Industries (OECS countries), Guyana Stock Feeds (Guyana), Gladstone Farms (Bahamas), Chickmont Foods (Barbados) and Supermix/Trinity Group, WGM Group and National Flour Mills (Trinidad and Tobago).

CPA’s main aim is “to promote development, growth and expansion of the CARICOM poultry industry.” As part of its regional programme, CPA has been involved with the development of industry protocols, assisting with national poultry development programmes throughout the CARICOM region and facilitating training in marketing, labeling standards, food safety and animal health. CPA has also assisted in the preparation of regional policy positions related to poultry and egg production. CPA is also represented at COTED meetings. Given its success, the ‘CPA model’ is presently being reviewed for implementation by a few embryonic regional producer organizations in agriculture.

Among the two most widely known regional civil society organizations in agriculture are the Caribbean Network for Integrated Rural Development (CNIRD) and Caribbean Policy Development Committee (CPDC). CNIRD is a civil society group whose main goal is to improve the quality of life of people living in rural areas in the Caribbean. It networks with national and other regional groups that support integrated rural development. CPDC focuses broadly on developing partnerships with other civil society organizations and governments to develop and implement policies and programmes to benefit Caribbean people. Both CNIRD and CPDC have direct links with national agricultural and rural development institutions.

Although there exist formal institutional mechanisms for stakeholder involvement in policy making at the national level in some Caribbean states, many of these function only infrequently with the main focus being sector policy and plan preparations, with very little involvement in policy implementation and monitoring. Among the reasons cited for this include a low level of organization of farmers’ groups (especially small farmers); declining interest in rural development resulting in limited involvement of rural development-oriented organizations; few institutions involved in agricultural policy research and advocacy; and marked deficiencies in the information base for agricultural policy related research.

In evaluating stakeholder involvement at the regional level, much of Atkins’ (2000) analysis still remains applicable, although conscious efforts are being made to overcome some of the existing constraints. Atkins (2000) listed the following factors, which limit stakeholder activities in the regional policy process:

a) weaknesses of producer and related organizations.

b) deficiencies in the information exchange/consultative mechanisms.

c) differences in the administrative and geographic levels at which decisions are made and the stakeholders involved
d) limited number of national institutions and regional organizations which have the technical capacities to contribute meaningfully to the regional policy processes.

Some Caribbean stakeholders have recognized some of these weaknesses. With the establishment of CABA, the regional private sector interests are attempting to deal with some of the organizational weaknesses, which affect the agricultural and agri-business sectors. For example, as part of its strategic plan, CABA is assisting in the organization of national agri-business associations in the Caribbean, with such groups already functional in Jamaica, Guyana, St. Lucia, Trinidad and Tobago and Dominican Republic. Existing regional producer organizations like CPA have benefited from CABA’s organizational skills and experience; CABA has provided assistance to CPA and is also assisting in the establishment of regional groups in pork production along lines similar to CPA.

Deficiencies still remain in the information exchange and consultative mechanisms at the regional level, among stakeholders and between stakeholders and actors. Many stakeholders reported limited intra-stakeholder information exchange and consultations, with such activities occurring almost only at scheduled meetings, and with infrequent ad hoc dialogue in-between formal meetings. Links between regional stakeholders and regional actors with respect to agricultural policy and related matters are also similarly deficient. Here again the trend is for information sharing and consultations to be mainly at the level of formal meetings with little else occurring in periods outside of such meetings.

There still remain differences in the administrative and geographic levels at which regional decisions are made and the specific stakeholders involved. Because of human resource and financial constraints, some Caribbean countries experience difficulties with respect to participation in the various meetings, which deal with regional agricultural policy making. This sometimes leads to a small number of countries and stakeholders dominating the process. Not unexpectedly, there are only a few organizations in the region that can access the technical skills and the financial resources to contribute meaningfully to the regional policy process.

3.3.5 Regional agricultural policy: information and communication issues

The biases of Caribbean agricultural information providers have historically been towards farm management and market data. For the majority of Caribbean countries, the readily available basic agricultural data relates to commodity output, acreage harvested and costs of production. Prices and market data include mainly commodity output prices, while data on volumes and values marketed relate mainly to extra-regional export commodities. In some Caribbean countries, population distribution (by geographic location) and labour force data exist, as well as land use, rainfall, soil type and fertility, and water resource information. In those countries that have experienced fiscal revenue problems, reduced availability of financing has impacted negatively on statistical data collection, including agricultural data, which usually require extensive fieldwork. In summary, most of the data collected relates to extra-regional export commodities like sugar and bananas, with only limited data available on domestic crops traded intra-regionally.

Data collection from private enterprises tends to be more difficult relative to the public sector and civil society. In providing information, private enterprises are particularly sensitive to the likely consequences for their tax assessments and payments, profitability and competition experienced. In
general, large enterprises have the capability in-house to provide most of the information required
by public policy makers. However, this is not the case for small-scale entrepreneurs who typically
do not operate within a ‘culture of record-keeping’.

For effective policy making and implementation, different types of information are required to be
shared among different entities. In terms of agricultural information flows at the national level in the
Caribbean, different media are used to deliver both ‘top down’ and ‘bottom up’ information. Top
down or downstream policy information is usually delivered via meetings between policy makers and
stakeholders as well as government agricultural information sources, and various media. Policy
information can be transmitted via both the scheduled and ad hoc meetings, which are held between
policy makers and stakeholders.

In the Caribbean, governments have typically used specialized agricultural information service
networks to share information with stakeholders. In some countries, information is shared via
agricultural extension services, national and community radio stations, and national and community
newspapers. Agricultural extension officers share information via demonstration plots and related
activities, printed documentation and films. Where literacy levels are fairly low and access to
newspapers is limited, Caribbean governments rely on radio and more recently, television
programmes. There is very little use of electronic links with the majority of agricultural sector
stakeholders. In many Caribbean countries experiencing fiscal budgetary deficits, there is reduced
funding for agricultural information sharing, which is manifested by reduced allocations for
extension services and related services.

In terms of bottom up or upstream information flows, there is usually an inability and in some
instances, reluctance on the part of stakeholders to share critical information required for successful
policy making with actors in the policy process. It has been suggested that this approach to
information sharing reflects, in a significant way, the dominant cultural tendency in the Caribbean.
Some stakeholders, especially small farmers and informal business operators, do not maintain
adequate levels of record keeping and usually cannot provide any useful written information to assist
in policy making; they may, however, provide useful verbal policy suggestions based on their
experiences. The more organized, formal economy stakeholders usually maintain fairly good records
of their operations but are reluctant to provide such information because of their sensitivity to the
possible implications of information sharing.

Regionally, there are deficiencies in the availability of agricultural data, which reflects many of the
limitations associated with data gathering and information sharing at the national levels in
CARICOM states. Serious information and communication deficiencies exist in the regional
agricultural sector. These constraints limit effective agricultural information management as well as
reduce the involvement of critical stakeholders in the regional agricultural policy process. There are
also considerable weaknesses in information generation, sharing and usage between policy makers
and stakeholders, as well as between stakeholders themselves. In general, stakeholders especially
farmers, are usually willing to share crisis generated information with policy makers; for example,
when problems related to the pink mealy bug emerged in many Caribbean countries, those farmers
who were affected, provided all of the information required by the policy makers to deal
expeditiously with the problems.

However, it is recognized that developments in agriculture internationally and the requirements for
successful regional agricultural policy processes necessitate much more detailed and specialized

Claremont Kirton and Arlene Bailey
information than traditionally supplied. As such, there exists a growing demand for information on a wider range of areas including agricultural ‘best practices’, agri-business, marketing and technology.

3.3.6 Regional agricultural policy in the Caribbean: a summary assessment

The capacity of agricultural policy making at the regional level typically reflects the strength of the national member countries of the regional grouping. Our position is similar to that of Minde (2000) who has argued that “policies are, first and foremost, national”. In the Caribbean context, for regional policies to be effective in enhancing agricultural sector productivity and promoting agricultural sector growth and development, it is to be recognized that:

- the national policy environment dominates with respect to its influence on the output and related decisions of national agricultural producers.
- for regional policies to be successful, these must complement national initiatives.
- regional policies must have the full support of national member governments, the private sector and civil society in the CARICOM member states.
- those agencies given the responsibility for regional policy implementation should have access to the necessary human and financial resources to effectively implement those policies.

At the national level in CARICOM countries, there are many constraints which impact negatively on national policy processes. The analysis by Kentish (2000) probably typifies most of the OECS, and possibly the entire Caribbean. In examining the situation in Antigua-Barbuda, she cites certain weaknesses in that country’s agricultural policy process which include:

- limited capacity for effective policy formulation
- inadequate information base
- human resource constraints
- no Ministerial networking
- limited involvement of sector stakeholders in policy formulation

At the national level in some CARICOM member states, our recent research has identified specific gaps in national agricultural policy, including:

- problems with data coverage, quality and timeliness
- limited networking within government sector
- limited stakeholder involvement, due mainly to low levels of stakeholder organization and weak national networks
- insufficient staff trained in agricultural policy oriented areas
- lack of organizational capacity for policy preparation.

Given the constraints at the national level in Caribbean region, regional agricultural policy faces a number of constraints. These include a lack of institutional and human resource capacity, which is necessary for successful agricultural policy planning and implementation. In addition, limited information and communication management policies, strategies and supporting arrangements characterize the regional agricultural policy processes.

Regional agricultural policy processes are also constrained by limited interaction between national governments and national as well as regional agricultural stakeholders. Typically, interaction
between the CARICOM Secretariat and regional and international institutions is inadequate. At the level of regional agricultural policy implementation, some constraints have been identified. These arise, in part, because regional policy implementation requires that national governments of CARICOM Member States effect these policies in their respective countries. Such policies sometimes require that national priorities be replaced by regional policies, which are not always politically acceptable to implementing governments.
Section 4: AGRICULTURAL NETWORKING IN THE CARIBBEAN

4.1 Agricultural Networking

4.1.1 Definition of Networking

In assessing the feasibility of the establishment and development of a regional agricultural policy network, an examination of networks and networking as well as the current networking situation in the Caribbean is necessary.

A network may be defined as “any group of individuals or organizations, who on a voluntary basis exchange information or undertake joint activities” (Starkey, 1997). Networks range from small groups of individuals to larger structures requiring co-ordination. Most people are part of informal networks that have always existed in their business and social environments. Formal networks have now become prevalent in promoting collaboration, knowledge sharing and improving efficiency.

Formal ‘networking’ has been in existence over the last three decades and has increased significantly with the emergence and implementation of new technologies. Information exchange networking has been defined as ‘a collaborative process of information exchange, around a central theme, carried out by actively interested parties’ (Nelson and Farrington, 1994). Network members are united by a shared purpose or goal and contribute resources to ensure the successful attainment of network objectives.

In the agricultural sector, networks have gained popularity and several networks exist internationally and regionally focusing on various issues related to the sector. Networking is seen as “the interactive process to support, reinforce and maintain the relations in a network” (CTA Networking Training Manual, 2002). This includes the sharing and exchange of information and ideas, and working with a common vision towards goals.

A common theme of information sharing and collaboration runs through all of these definitions cited. For the purposes of this study, the Nelson and Farrington definition will be used as it is used in much of the literature on agricultural networking and highlights active participation.

4.1.2 Types of Networks

Networks vary in their objectives, content and physical structure. Some types of networks identified by the Consultative Group on International Agricultural Research (CGIAR, 1990) include information exchange, material exchange, scientific consultation and collaborative research networks.

There are several types of network models which can be used as a platform for implementation of information exchange networking. The topology or layout of a network determines how the nodes in a network are connected to each other and how they communicate. Each type has advantages, disadvantages and features which may suit particular types of networking. Relevant networking models discussed here are the ‘hub and spoke model’, ‘rim-effect model’, ‘decentralised model’ (Nelson and Farrington, 1994), in addition to the tree topology.

With the ‘hub and spoke model’, all nodes are connected to a central hub and nodes communicate across the network by passing information through the hub. Information is transferred through the
central node and relayed by the central node to external nodes. This topology is also called the ‘star topology’ and is illustrated in Figure 1 below.

![Hub and spoke or star topology](image1)

*Fig. 1  Hub and spoke or star topology*

In the rim-effect model, illustrated in Figure 2, information is exchanged through the central node as well as among external nodes. This facilitates greater interaction among the nodes, and reduces some of the pressure on the hub, thereby allowing the hub to facilitate other forms of interaction and to focus on coordination.

![Rim-effect model](image2)

*Fig. 2  Rim-effect model*

With the decentralized model or mesh topology, there is multi-directional, free exchange of information, with very little central coordination. In some cases, every node has a connection to every other node as illustrated in Figure 3.

![Mesh topology](image3)

*Fig. 3  Mesh topology*

In the tree topology, there is a backbone running through the network which links groups of networks. This is illustrated in Figure 4.

![Tree topology](image4)

*Figure 4  Tree topology*
4.1.3 Benefits of Networking

Networking facilitates the dynamic sharing of information in a timely, reliable way. There is enhanced efficiency in the use of resources, and involvement by many stakeholders is possible. The number of networks that have been established is an indicator of the recognition of the benefits of networking.

Traditional networking mechanisms include face-to-face meetings, print and electronic media such as newspapers, radio and television, and the fax and telephone. The benefits of networking increase with the application of information and communication technologies (ICTs). ICTs can include the Internet, e-mail, PCs, PDAs, mobile phones, digital cameras, networks, databases, portals and software. ICTs facilitate the interaction of members of the network, but are only a means of enabling networking, and not a substitute for other aspects of networking. Connectivity is a tool that can help find concrete solutions to people's problems and needs. The way connectivity is used is important, it should not mean that we continue doing things as before with no gains in efficiency, and are now connected in a network while we do them.

Benefits of networking also include enhanced co-operation, support for decision-making, and capacity building. In terms of enhancing co-operation among participants in a network, collective skills can be pooled in different subject areas and information can be shared very quickly via email, at any time once Internet access is available. Once documents are posted on the Internet, they are more readily available and the search time associated with hard copies is reduced.

Networking facilitates the coordination of interaction of individuals who may be in different physical spaces. The geography of the Caribbean region (Figure 5) lends itself to a situation where the benefits of networking can be maximized. Resources – financial and time – are not always available to facilitate regular face-to-face meetings. Although face-to-face meetings are critical in building networks, electronic networking can be used to sustain the interaction that is developed at face-to-face meetings. As the Internet becomes accessible in many forums, the participation in a network can be ongoing, less expensive and more efficient. Several stakeholders previously unable to be involved in the interchange, can now participate in the various forums.

**Fig. 5 Map of the Caribbean region**

Source: Caribbean Tourism Organization
4.1.4 Elements of Electronic networking

In order to support networking with electronic means, Internet access is critical for participants. This will enable communication and participation. In addition, training in computer usage is important.

IDRC (2000) has pointed out that ‘while electronic networking may increase the effectiveness of a research network by more than 100%, it is also likely to increase the workload of researchers.’. Administrative support and coordination is critical to ensure the sustained interaction of participants and the follow-up to decisions and recommendations of the network.

In networking, information is an important component. Several guidelines for networks centre around the collection, dissemination and use of information. Quality and relevance of information, timeliness and language considerations are important.

4.1.5 Networking Participation

A critical element of networking is participation. A predictor of the success of a network is ‘an assured community of users’. The World Bank argues that ‘some of the most successful networks have been characterized by a cadre of potential users anxious to be able to connect for a serious purpose and needing to be linked in an ever-widening circle.’ (World Bank Internet Toolkit, 1996).

Stakeholders from all relevant areas with respect to the network’s objectives need to commit to participating in network activities, contributing time, knowledge and opinions. In turn, the network should make the medium for participation as user-friendly and efficient as possible. Training is necessary for enhanced networking participation, both in the focus area of the network as well as in the tools used to facilitate networking.

4.1.6 Guidelines for Networks

For networks to be on the path to successful networking, clear objectives need to be established. Network management should be dynamic and proactive and be provided with adequate resources. Participants should be committed and a willingness to share information must exist. The benefits of network participation should be visible to all participants. Monitoring and evaluation should be built in to the networking mechanism.

4.2 Agricultural Networks: Experiences in Developing Countries

Agricultural networks have been established in developing countries, and their experiences provide useful information in evaluating the advantages and disadvantages of establishing a regional agricultural policy network in the Caribbean.

The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) was established in 1993 as a result of ongoing interaction by researchers from the 1980s. ASARECA aims at ‘increasing the efficiency of agricultural research in the region so as to facilitate
economic growth, food security and export competitiveness through productive and sustainable agriculture.’

ASARECA (http://www.asareca.org) has become an umbrella for several commodity networks which are outlined below.

First generation Commodity Networks- established in the 1980s and brought under the umbrella of ASARECA in 1994

<table>
<thead>
<tr>
<th>Network Acronym</th>
<th>Area of Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRENA-ECA (now TOFNET)</td>
<td>Agro-forestry</td>
</tr>
<tr>
<td>PRAPACE</td>
<td>Potato and Sweet Potato</td>
</tr>
<tr>
<td>EARRNET</td>
<td>Root crops</td>
</tr>
<tr>
<td>ECABREN</td>
<td>Beans</td>
</tr>
</tbody>
</table>

Second generation Commodity Networks- established in the 1990s

<table>
<thead>
<tr>
<th>Network Acronym</th>
<th>Area of Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARNESA</td>
<td>Bananas</td>
</tr>
<tr>
<td>A-AARNET</td>
<td>Livestock</td>
</tr>
<tr>
<td>ECAMAW</td>
<td>Maize and Wheat</td>
</tr>
</tbody>
</table>

Cross cutting Networks

<table>
<thead>
<tr>
<th>Network Acronym</th>
<th>Area of Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>AfricaLink</td>
<td>Electronic Communication</td>
</tr>
<tr>
<td>ECAPAPA</td>
<td>Agricultural Policy Analysis</td>
</tr>
<tr>
<td>FOODNET</td>
<td>Marketing and Postharvest Research</td>
</tr>
</tbody>
</table>

New Networks / Programmes

<table>
<thead>
<tr>
<th>Network Acronym</th>
<th>Area of Specialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORNET</td>
<td>Coffee Research</td>
</tr>
<tr>
<td>EAPGREN</td>
<td>Plant Genetic Research</td>
</tr>
<tr>
<td>ECARSAM</td>
<td>Sorghum and Millet</td>
</tr>
<tr>
<td>ECSARRN</td>
<td>Rice Research</td>
</tr>
<tr>
<td>SWMnet</td>
<td>Soil and Water Management</td>
</tr>
<tr>
<td>RAIN</td>
<td>Information and Communication</td>
</tr>
</tbody>
</table>

Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA)

The Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA) is a network that is part of ASARECA which covers ten countries with the aim of:
1. ‘Strengthening the ability of the National Agricultural Research Systems (NARS) to adapt and contribute to the evolving agricultural policy environment in the region
2. Increasing the analytical capability within that policy environment’.
In October 2002, ECAPAPA held its Regional Steering Committee meeting at which a consolidated progress report covering activities from September 2000-October 2002 was presented. It is felt that ECAPAPA occupies an important place in strengthening agricultural policy analysis in the region.

Activities undertaken by ECAPAPA include a directory of stakeholders, weekly newsletters, training workshops, consultative meetings on harmonizing agricultural policies in the region and regional studies. The ECAPAPA website (http://www.w1.co.ug/asareca/htdocs/ecapapa/index.php) is regularly updated.

**Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN)**

The Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN) was established following the first Conference of Ministers in Agriculture of Eastern and Southern Africa which was held in April 1994. At the meeting, the Ministers agreed to support the establishment of a regional agricultural policy network to "enhance the capacity for policy formulation and analysis in the region".

FANRPAN’s mission is to co-ordinate, influence and facilitate policy research, analysis and dialogue at the national, regional and global levels in order to develop the Food, Agriculture and Natural Resources sector through networking, capacity building and generation of information for the benefit of all stakeholders in the region.

**West and Central Africa Policy Research Network (REPA)**

REPA aims to improve the quality and increase the efficiency of agricultural policies in West and Central Africa. Components of REPA’s activities are applied policy analysis, capacity building and networking which will enable interaction between individuals and organizations interested in the analysis, formulation, implementation and evaluation of agricultural policies.

4.3 **Agricultural Networks in the Caribbean**

4.3.1 **Introduction**

The Caribbean region has established several networks with an electronic component to facilitate information sharing and exchange of ideas among stakeholders in the agricultural sector. An outline of some of the existing networks is provided in Appendix 3. Some of these networks have objectives that are general and reflect all aspects of the agricultural sector, whereas others are very specific. There are also some umbrella networks that provide a coordinating hub for some of the networks.

There have been many efforts at networking in the Caribbean centred around organizations and/or subject areas. Some of the organizations that have been involved in establishing agricultural networks include FAO, IICA, OAS, UWI, CARDI and CARICOM. Existing networks and/or current networking efforts are included in this study in order to assess their goals and objectives, successes and problems, and approaches that have been used in developing and promoting the networks. Concern has been expressed that additional networks have been established in some cases without taking into account the evaluations of existing networks. The awareness of stakeholders of the available information and their participation is also analyzed.
These existing networks are the platform on which a comprehensive agricultural policy information network might be established to become the most flexible and reliable means of gaining access to information influencing agricultural policy, keeping national coordinators informed of all activities concerned with regional policy, and increased participation by the countries of the region.

4.3.2 Overview of Regional Networks

Caribbean regional networks with an emphasis on agriculture include:

- CNRWP – Caribbean Network of Rural Women’s Producers
- PROCICARIBE - Caribbean Agricultural Science and Technology Networking System. PROCICARIBE is an umbrella network comprising several thematic and commodity networks. These are listed below:

<table>
<thead>
<tr>
<th>Network Name</th>
<th>Theme / Commodity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAIS</td>
<td>Agricultural Information Service</td>
</tr>
<tr>
<td>CAMID</td>
<td>Marketing Intelligence</td>
</tr>
<tr>
<td>CAPGERNET</td>
<td>Plant Genetic Resources</td>
</tr>
<tr>
<td>CAPHNET</td>
<td>Post Harvest Technology</td>
</tr>
<tr>
<td>CARIFRUIT</td>
<td>Fruit</td>
</tr>
<tr>
<td>CARIUNET</td>
<td>Biosystematics</td>
</tr>
<tr>
<td>CARIVEG</td>
<td>Vegetables</td>
</tr>
<tr>
<td>CAROT</td>
<td>Root Crops</td>
</tr>
<tr>
<td>CASRUNET</td>
<td>Small Ruminants</td>
</tr>
<tr>
<td>CIPMNET</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>CLAWRENET</td>
<td>Land and Water Resources</td>
</tr>
<tr>
<td>CRIDNET</td>
<td>Rice</td>
</tr>
</tbody>
</table>

Networks in the Caribbean sub-region with an emphasis on agriculture include:

- IABIN – Inter American Biodiversity Information Network
- SIDALC – Agricultural Information and Documentation System for the Americas
- FORAGRO – Forum for the Americas on Agricultural Research and Technology Development
- REDCAPA - La Red de Instituciones Vinculadas a la Capacitación en Economía y Políticas Agrícolas en América Latina y el Caribe

The objectives of these above-mentioned networks focus on enhancing various aspects of agriculture in the region – agricultural research, information sharing, and promotion and development of agribusiness.

Other regional networks where the primary focus is not agriculture, but where a strong interest in agriculture is maintained are:

- CNIRD – Caribbean Network for Integrated Rural Development
- SIDSNET – Small Island Developing States Network
- FUNREDES – Networks and Development Foundation
- SDNP – Sustainable Development Networking Programme

Caribbean Network of Rural Women’s Producers (CNRWP)
CNRWP was formed “in recognition of the special needs of small-scale female agricultural producers to support the empowerment of rural women towards improving their socio-economic status. The overall goal is to equip women to become self-reliant thereby empowering them to take the leading role in decision making, leadership, communication, participation and product development.”

**PROCICARIBE**
PROCICARIBE aims to “provide an institutional framework by which the region can design and implement strategies for the integration and coordination of agricultural research at the national and regional levels with linkages to international organizations” (PROCICARIBE website – http://www.procicaribe.org).

**CAIS**
The Caribbean Agricultural Information Service (CAIS) aims to support the development of networks at the national level by developing capacity for:
- Collection, organization, repackaging and dissemination of information;
- Communication of information to target groups.

**CAMID**
CAMID is comprised of national, regional and international public and private sector agribusiness entities that are willing to actively collaborate in the provision of sustainable market intelligence and trade facilitation services to the agribusiness sector in the region. The network arose from out of the planned activities of the RTPA.

**Thematic and Commodity Networks**
The focus of thematic and commodity networks is on the generation, validation and transfer of technology and information, nationally and regionally with links to regional and international strategic alliance partners. The aim of the networks is to improve the productivity and marketability of the agricultural sector so as to increase the competitiveness of the region's priority commodities while sustaining the natural resource base.

**IABIN** *(Inter American Biodiversity Information Network)*
IABIN is an initiative of the Summit of the Americas on Sustainable Development (Santa Cruz, Bolívia, 1996) which states that Governments (of the Americas) will seek to establish an Inter-American Biodiversity Information Network primarily through the Internet, that will promote compatible means of collection, communication, and exchange of information relevant to decision-making and education on biodiversity conservation. It was also determined that IABIN will build upon relevant initiatives such as the Clearing-House Mechanism to the Convention on Biological Diversity.

**SIDALC** *(Agricultural Information and Documentation System for the Americas)*
The Agricultural Information and Documentation System for the Americas (SIDALC) integrates libraries and documentation centers, connected via national networks throughout the region. These networks provide information services designed to supply the information needs of different actors in the agricultural and related sectors.

**FORAGRO** *(Forum for the Americas on Agricultural Research and Technology Development)*
FORAGRO is a mechanism established to facilitate and foster dialogue and cooperation among the countries of the Latin American and Caribbean region, and to promote integration in this field. Its work is aimed at achieving the type of agricultural development that will be competitive and sustainable, in keeping with the growing demands of an expanded and changing agricultural sector. A key role of the Forum is to exert influence in the formulation of policies that will promote agricultural development from a technological perspective. The Forum is an open and participatory mechanism; it promotes research and innovation networks; and it is inclusive, in terms of the public and private actors that comprise the agricultural research institutions and facilitates dialogue and consultation among these actors.

4.3.3 Networking at the National Level

The operating structure of the regional networks has been in the form of the hub and spoke networking model with a regional coordinating secretariat, and national networks. Some of the national networks have been functioning well, and at times some are as strong as their parent regional networks. However, there are several national networks which were expected to be created which have not yet been established due to various constraints. Some national networks have impacted significantly on national agricultural policies in their respective countries. Based on information through discussions with actors and stakeholders, it is noted that active networks typically have heavy private sector involvement. If the private sector is itself organized as a producer association, this involvement is even more structured.

Active national networks share information with each other through face-to-face meetings, newsletters and via electronic means. In addition, some national networks share information with national networks in other countries through their regional coordinator, regional network website or secretariat.

Within the region, successful national producer associations / societies have been assisting other countries in the techniques of forming national associations. In general, there is little documentation on the process, but the information is shared informally. Active national networks have also established informal linkages with national networks of other regional networks, but this is ad hoc and sometimes due to an individual’s membership in both networks.

Members of national networks which are successful attribute much of the success to the keen leadership of the regional and national coordinators, as well as to the commitment of their members. Networks which have experienced problems have identified some of the major ones as:

- resource constraints
- lack of commitment and
- overlapping objectives with other networks

In national networking, some of the necessary information does not exist or exists in an incompatible form that needs to be converted; conversion is an exercise which can be costly. Some of this information is critical for general policy or other decisions.

Extension service mechanisms are generally required in national networking and take a longer time to develop than the electronic component of networks. There has been a decrease in the numbers
of extension officers provided by governments in the region, but private sector interests have been attempting to fill existing gaps in their specific areas of agricultural sector activity.

4.3.4 Quantitative and Qualitative Information

Agricultural Information

Actors and stakeholders in the agricultural sector in the Caribbean have outlined some of the information on which they rely for decision-making or supply in order to assist decision-makers. In both cases, networks in which they participate benefit from this exchange of information. A close examination of agricultural information in the region is undertaken, since it is critical in the networking process.

Agricultural information provided to the sector by actors and stakeholders include technical papers and training material. The format for delivery of these range from conference presentations to electronic mailing lists, training sessions and field demonstrations. Periodicals and scientific journals are some of the documents, in hard format, that are regularly consulted.

Current information problems experienced by persons within the agricultural sector include difficulties in procurement of recent technical / scientific publications, lack of wide dissemination of information to target groups, lack of resources by which to disseminate information, and lack of availability of detailed information. Existing mechanisms to capture primary data generated by the agriculture sector, are limited in the region.

The means of information sharing selected depends heavily on the target group. A high percentage of the actors and stakeholders interviewed for this study were of the view that the Internet was a good supporting tool, and that other media should also be utilized. For example, it was opined that in order to exchange information with farmers, who are key stakeholders in the agricultural sector, radio and face-to-face modes represented the best options. In some countries of the region, there are regular radio and television programmes aired to inform the public and increase awareness of developments in the agriculture sector.

The charts below show the increasing levels of information and communication technologies in the Caribbean. Charts 1 to 3 show the increase in personal computers, telephone mainlines and Internet users over the period 1998 – 2000. The data corresponding to the charts can be found in Tables 11, 12 and 13 in Appendix 1.
For most countries, existing agricultural information nodes at the national and regional levels are the Ministries of Agriculture, national Agricultural Information Services, extension offices, commodity boards, agricultural societies, academic, statistical and research institutions, existing networks and international agencies.

With this wealth of agricultural information, there are still gaps, either due to lack of willingness to share existing information, or difficulties in synthesizing information in order that it can become useful knowledge by the actor or stakeholder.

Existing networks in the Caribbean have used websites to disseminate, exchange and distill information; these websites are discussed in the following section. Only persons with access to the
Internet are able to consult these websites online. Chart 3 below gives an overview of Internet users in the Caribbean.

![Chart 3: Internet Users in the Caribbean 1998 - 2000](image)

Source: World Development Indicators, 2002

**Website content**

Each of the existing agricultural networks listed earlier have a web presence, whether under their own domain name, or as part of another website. This reflects the trend internationally as well as regionally, which shows an increasing number of websites and persons with internet access.

The increasing number of websites, while positive, also makes it necessary for websites to ensure that their information is accurate, up-to-date and easily accessible. The website content, functionality and layout need to be examined critically by the information providers.

Information on some of the web pages of existing agriculture networks is static, and not regularly updated. This is expected for information that does not change on a regular basis such as objectives and mission statements, but for other types of information, actors and stakeholders with time constraints need to be assured of timely, reliable, regularly updated information when they visit agriculture network websites. The amount of information also needs to be assessed – there may be cases where there is too much or too little information. Throughout the content development process, quality of information must be a key deliverable.

Network websites need regular maintenance, where contact information is changed to reflect relevant movements in the sector, and links to related websites are checked to ensure that there are no broken links on the networks' site. Network websites provide a good medium for sharing newsletters and information on recently-held or upcoming events. In reviewing the existing agriculture network websites, it was difficult to find information on some of the activities that had occurred recently.
Website usage

The usage of the existing agriculture network websites provides an indication of the usability of the information on the site in its current format. The number of hits and a geographic analysis of the origin of the hits to the website is information that should be collected by the network websites. In some cases, this information is not available.

In discussion with actors and stakeholders in the agricultural sector, there were varying views presented of network website usage. In some networks, website usage was very high, with dynamic interaction via the website and the website providing a means of efficient information exchange. In other networks, there were network members who were either unaware of the website’s existence or who had not visited the website for an extended period.

Email usage

Within the region, the most popular electronic methods of communication are via telephone and fax. Email has recently become another popular means of facilitating communication via electronic networking. Several actors and stakeholders have the necessary access to email; however, communication via this medium within the existing networks varies considerably. Some persons used email heavily for business or social purposes, but were not part of a structured, dedicated email list within the network. There were also concerns that some stakeholders did not have access to this form of communication. There are regional and national projects aimed at providing Internet access in rural communities. One network had a comprehensive training infrastructure which had portable components and facilitated workshops among their stakeholders.

In some networks, a strong secretariat provides the catalyst for information exchange, while in others, network members are expected to generate information sharing activities / discussions within the network. One indicator that should be evaluated is the response time to queries via email to the coordinating secretariat or to network participants. Some persons view the success of information exchange via email as based on whether the participants already know each other.

Databases

Databases are useful in capturing, storing and analyzing information. For example, Caribbean Seed and Germplasm Resources Information Network (CSEGRIN) is an information, documentation and early warning system for plant genetic resources with regional importance. It is seen as a mechanism for the support of implementation of policies on plant genetic resources at the national level and harmonization of policies at the regional level.

Agri2000 is one of the services offered by the SIDALC network. It is a metabase of agricultural data from Latin America and the Caribbean and provides a gateway to over 50 bibliographic databases developed by national and international research and / or educational institutions.

To be useful to the network, the databases need to be maintained. This is labour intensive activity and requires resources which should be included in the plans. The design of the databases should also take into account all users, so that it does not contain only highly specialized information and becomes difficult to navigate. The issue of copyright and sale of information is a concern in networking, and it is best to try to enable free access to information as much as possible.

Geographic Information Systems (GIS)
Geographic information systems can help with visual representation of data so that it can be easily understood. It can be used to enhance the sharing of data and the use of the information. In the Caribbean, it can be used to facilitate the management of resources in the agricultural sector. A proposal has been made for a ‘GIS-based Caribbean Land and Water Resources Information System’ by the University of the West Indies, to meet the need for current and accurate information on the state of land and water resources in the region.

**Decision Support Systems**

Globally, there has been an increasing demand by policy makers to assess the economic, environmental and social impact of policy change in the agricultural sector. An example of such a system is the ELPEN livestock policy decision support system, used in Europe, which integrates biogeographical data with statistical data on livestock in order to appraise the impact of potential policy changes.

**Stakeholder participation**

Stakeholder participation is one of the key factors in the success of a network. Some of the existing networks in the region do not place enough emphasis on NGO and policymaker participation. It was also noted that ownership of some networks still presents a problem. Some of the views expressed indicated that once an organization established a network, participants felt that the network would always be the responsibility of that organization. Others expressed the opinion that for participation to be vibrant, a network should not be imposed on participants, but be formed from the ground up, based on need and demand. Another view is that the Caribbean region is not ready for networking due to the amount of cynicism and lack of trust displayed by some persons, who usually have the necessary information. The network should not be an additional task, but should provide direct benefit to the participant. Government and private sector concerns about information flows have to be overcome, especially in cases where access to information is limited.

In this study, certain factors were observed among active network participants. Vested interest is a motivating factor for active, results-oriented networking. Access to resources for advocacy and information exchange are also factors that determine the ability of network members to effectively participate in the network. Institutional support for network participation as well as dedication and commitment to the network and its objectives reinforce active networking. In addition to resources available and the network coordinating structure, the number of network members appeared to be a factor in cases of decision-making. Compact groups arrived at decisions faster, whereas larger groups had better stakeholder representation. The mechanism for allowing all stakeholders to contribute to the networking process was important.

4.3.5 **Public Awareness**

The public awareness of the existing networks has to be increased, particularly among the actors and stakeholders. Although they may not be able to participate actively in all the existing networks, the public needs to be more aware of what networks offer, so as to be able to readily access resources when required.
Actors and stakeholders also need to promote a commitment to networking, as networking provides an essential forum to enhance agriculture at the regional level. In some cases, actors and stakeholders are unaware that they have been selected as participants in existing networks.

The proposed network focuses on agricultural policy, but could also influence ICT policy in the region. Several government institutions in the region and the CARICOM secretariat now have ICT strategic plans. Successful networks can help to strengthen and promote the implementation of these plans.

Networking mechanisms, both traditional and electronic, can help to sensitize people to the potential of information sharing, and encourage participation. Decision-making may be seen as more inclusive and not just the privilege of those in power. Public awareness should be raised initially using a combination of the more traditional means of communication – radio and television, workshops, newsletters.

4.3.6 Lessons Learned

In reviewing the existing networks in the Caribbean, useful knowledge was obtained concerning the elements necessary for a successful agricultural network in the region. Further evaluations of these networks would be beneficial. The following are some of the important lessons on networks and networking:

- Face-to-face communication is still important and network members emphasize the need for meetings to be scheduled in advance, so that financing can be sourced and made available to facilitate participation.
- Resources are critical, particularly financial and human resources. External funding is provided initially, then the network is faced with financial constraints and possible failure due to lack of sustained funding from the actors, stakeholders and external funding agencies. In this regard, linkages are needed between networks and projects. National coordinators or focal points have other responsibilities, in addition to network responsibility Network coordinators who sometimes utilize up to 30% of their time on the network, have to be dedicated and / or compensated.
- Given the history of networking in the region (a plethora of existing networks, some of which are working well and others which are barely functioning), establishing a network is an extremely ambitious project which requires careful planning and recognition that certain factors are necessary for its success. Monitoring and evaluation processes for the network also need to be established at the beginning.
- Commitment is critical. Actors and stakeholders must see the benefits of networking and create a demand-driven process which in turn will improve the success derived from networking.
- Access to technology is necessary for efficient, ongoing networking and to ensure the involvement of all actors and stakeholders. Stakeholder participation is limited in some networks due to the lack of access to appropriate technologies.
- Public awareness of networks is important.
- In a multi-lingual region, as is the Caribbean, networks have to facilitate communication among all participants despite the use of different languages.
There are not many national networks in existence; national networks provide the platform for a strong regional network. National networks need to be rationalized and strengthened.

Private sector participation is critical and linkages among all stakeholders need to be enhanced.

Consideration should be given to an overall institution / network to support the activities of the existing networks. It is essential to maximize the capabilities of existing networks and foster co-operation among them.
Section 5: AGRICULTURAL POLICY NETWORKING IN THE CARIBBEAN – ISSUES AND RECOMMENDATIONS

5.1 Introduction

Typically, agricultural policy networks focus on policy research and analysis, training and capacity building and information sharing. If properly organized, these policy networks can provide a forum in which policy issues are discussed and policy conflicts are resolved, thus facilitating significant savings in human and financial resources as well as time. In this context, Greenidge (2000) is worth quoting at some length, where he notes that:

“… a policy network should be more than an amalgam of material, equipment and people, but rather an inter-connected system which, whether or not fed with inputs from outside, can define objectives, analyze data, diagnose problems, facilitate feedback, resolve conflicts and fashion programmes to achieve agreed objectives for the agricultural sector.”

Agricultural sector networking in the region is not new. As indicated earlier in the study, there are numerous regional networks in the Caribbean, which on focus on various aspects of agriculture. There are, however, no formal networks that deal specifically with regional agricultural policy. Whatever networking exists is restricted to annual meetings of Ministers of Agriculture and their advisers, ad-hoc crisis led meetings and, more recently, regional private sector association meetings. Typically, there is very little formal networking between meetings. Private sector associations tend to be more involved in informal networking than the public sector.

Over the last two years, there have been discussions on the likely benefits of an agricultural policy network in the Caribbean. Atkins (2000) identified specific benefits that could accrue to the Caribbean if such a network is implemented. These include:

- providing a means for agricultural policy consultation, monitoring, review and evaluation.
- providing for these activities in a cost-effective manner.
- facilitating widespread involvement in the policy formulation process.
- supporting different methods of information exchange.
- utilizing different means of communication (electronic consultation, newsletters, journals, magazines, workshops and seminars).

In a proposal to the RPF (2001), the CARICOM Secretariat documented some of the advantages of a Caribbean regional agricultural policy network. Among these are listed the sharing of best practices, avoidance of duplication of efforts, regional harmonization and rationalization of practices, regulations and other measures and sharing of policy based knowledge across Member States. Given the ongoing international trade negotiations, policy information networking was cited as an important vehicle through which critical ideas and information related to international trade agreements may be shared among policy makers.

A COTED meeting (May 2001) supported the idea of a regional agricultural policy network and recommended that the operations of existing information exchange networks in the region be reviewed and rationalized, so as to avoid any duplication of activities and resource misallocation. To

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34 See Atkins (2000)
35 Caribbean Community Secretariat, Towards Agricultural Policy Information Exchange Networking in CARICOM. Fifth Meeting of Regional Planners Forum, May 2001
date, although the proposal has been supported, there are no reports as to any action with respect to its implementation.

The majority of persons and institutions consulted for this study recognized the need for, and were supportive of a regional agricultural policy network which promotes information sharing and exchange of best practice information and recently acquired knowledge. It is expected that this knowledge can be shared among policy actors and stakeholders in CARICOM/CARIFORUM states, with special emphasis on those directly responsible for RTPA and the Regional Special Program For Food Security (RSPFS). Existing institutional arrangements that may be utilized are RPF and the Alliance/Forum.

5.2 Guiding principles

Certain fundamental principles should guide the establishment of a regional agricultural policy network in the Caribbean. These are discussed in the paragraphs that follow.

Firstly, and most importantly, both the national and regional institutions involved must agree on the objectives of the proposed regional network of which they are expected to be an integral part. In addition, they must clearly indicate a common commitment to its role, functions and long-term sustainability. If the majority of national actors and stakeholders responsible for national and related regional policy preparation and implementation cannot be mobilized to support the proposed network, then it should not be initiated. In our view, without such support, the proposed network can hardly be effective.

Although many persons interviewed for this study supported the proposed network, various concerns were expressed about CARICOM/CARIFORUM member countries’ commitment to regional policies and programmes. One interviewee raised an important issue using the ‘chicken and egg’ analogy, by asking whether the regional agricultural policy should lead and the policy network follow or the network should precede and facilitate regional policy. Another interviewee pointed out that the ‘bottom up’ approach is an important prerequisite for the success of the proposed network, arguing the case for extensive involvement of both national and regional stakeholders in any discussions related to the network, beginning at the stage of the conceptual framework.

Secondly, even in a regional context, policies are ultimately national in that member countries comprise an RIA. For regional policies to be successful, these have to be implemented at the national level. Therefore, establishment of national policy networks in member countries is a necessary but not sufficient condition for a successful regional policy network. Ideally, the creation of national networks should precede the implementation of a regional network. National focal points need to be established and work closely with a regional coordinating body. This allows for development of actor-stakeholder relationships within a country initially, following which regional linkages can be more easily realized across member countries of the RIA. Some variant of a national focal point that may be considered is the National Committee of the RTPA; such a Committee is to be established in each Member State and will have responsibility for national RTPA implementation.

With respect to the RTPA, implementation of initial tasks related to the regional agricultural policy process has begun at the national level, with national consultations involving actors and stakeholders on various matters related to the production of six specific commodities. Procedurally, the objective here is to prepare national strategies and plans in specific countries for the commodities selected;
out of these national plans, regional strategies and plans for each commodity are then to be organized. The CARICOM Secretariat has recommended that each participating country appoint a National Coordinator for the RTPA and sub-sector lead coordinators for the specific commodities. Ultimately, these plans will be implemented at the national level, with support from regional Lead Agencies like the CARICOM Secretariat and the Caribbean Development Bank (CDB), as well as regional private sector associations in agriculture and agri-business.

There exists a basis for utilizing the existing institutional framework of the National Coordinators of the RTPA in an embryonic regional agricultural policy network. Alternatively, consideration may be given to utilizing the institutional framework of the RPF. In addition, the Alliance/Forum framework can be examined as a possible framework. The RNM was also suggested by some respondents.

Thirdly, the network should be relevant to regional agricultural policy as it directly impacts national agricultural policies of member countries. This the most likely means of mobilizing support for, and participation, in its activities. Specifically, its relevance to regional policy development and research priorities must be clearly articulated. There must be agreement that regional agricultural and related national agricultural policies need to be informed by in-depth analysis. In addition, areas for policy development must be approved by all participating Caribbean states and prioritized accordingly.

As indicated earlier in the study, the RTPA is the stated policy framework that is guiding regional agricultural policy. If the national Member States of CARICOM have already given their political support to RTPA, then the usefulness of a network to support the activities of RTPA, through a Committee of National Coordinators or the RPF or some variant thereof, is likely to gain their backing. In this context, the resource implications of the network will have to be made explicit.

Fourthly, the emphasis of the policy network should be identifiably regional, with full participation by the majority (if not all) of the CARIFORUM/CARICOM member states. Many national agricultural actors and stakeholders are not always well informed about regional policy changes and how these impact their national commitments. Full participation in a regional agricultural policy network allows, at a minimum, for some level of interaction, especially as this relates to basic information sharing, between the regional actors and stakeholders and their national counterparts. A key issue here is that this allows for more widespread involvement of stakeholders and actors in the regional agricultural policy process.

Many of the persons interviewed for this report pointed to the existing weaknesses, which characterize regional policy consultations citing minimal interaction outside of scheduled annual meetings and ad hoc meetings mainly in response to crises. In the OECS, Ministers of Agriculture and agriculture officials had not met for four years preceding December 2002. At the CARICOM level, with the dismantling of SCMA meetings, Ministers of Agriculture and officials have met only as part of COTED and more recently, as the IICA sponsored Alliance/Forum of Agriculture Ministers. A regional policy network would facilitate active policy consultation, review and evaluation on an ongoing basis, based on shared information and knowledge, thus assisting a more efficient and effective means of policymaking and implementation.

Fifthly, the network should be demand driven in its orientation. Although it should ultimately promote intra-regional linkages and co-operation, participating member countries, institutions and groups should agree on the goals of the policy network. In addition, these should be regularly reviewed to ensure that they are being satisfied. As such, the demand side of the network will always lead the supply side.
The experience of the Caribbean Agri-Business Association (CABA) provides an example of demand driven activities that can both benefit from as well as influence network functions. The model and experience of the Caribbean Poultry Association (CPA) as an effective private sector regional organization has been shared via networking (meetings newsletters, website) with other regional agricultural sub-sector interests. Recently, CPA expertise and experience have been requested by other regional producer groups to provide assistance in establishing similar organizations. This sharing of best practices and knowledge is an identifiable example of the benefits of networking.

Sixthly, the benefits of the policy network should be fully understood and supported by all of those involved; these benefits are expected to include:

- strengthening national and regional institutional capacity in relevant areas of agricultural policy research, which are identified by actors and stakeholders.
- increasing efficiency of research output by facilitating exchange of knowledge and information.
- facilitating human resource development by providing a means through which actors and stakeholders, at both the national and regional levels, can upgrade their professional training and intensify such training to meet specific, targeted needs.
- ensuring cost-effectiveness by effectively utilizing mainly electronic media to maximize the transfer and delivery of information and knowledge, without incurring the expense of bringing actors and stakeholders physically, on a frequent basis.

Finally, financial and human resource sustainability should be guaranteed over the long term, especially after external donor funding ceases. As such, even with external resource support, regional/national actors and stakeholders need to commit resources for the long run sustainability of the network. Many of the persons interviewed for this study expressed serious concerns about the sustainability of a policy network, especially as this relates to Caribbean counterpart human and financial resources. They identified various regional projects that faced severe constraints with respect to their sustainability after external resources were reduced or terminated.

5.3 Network objectives

Although it has improved in recent years, there is an identifiable need for increased levels of regional collaboration and cooperation among the various actors and stakeholders in agriculture, especially with respect to regional policies on production of and trade in key agricultural commodities.

For these agricultural policies to be successful, they need to be guided by ongoing in-depth research and analysis. Simultaneously, national and regional policy actors and stakeholders should be able to access information, which is critical for policy decision-making and implementation. Some attempts are being made, within the context of RTPA, to develop regional policy processes, objectives, instruments and actions for selected commodities, for extra-regional exports as well as intra-regional consumption. Discussions have been held in some CARICOM states with policy actors and stakeholders. Increased levels of networking at both national and regional levels are likely to enhance these existing attempts.

The broad objective of the proposed network is as follows:

Claremont Kirton and Arlene Bailey
to provide a cost effective means of Caribbean regional agricultural policy consultation, monitoring, review, implementation and evaluation.

The specific objectives, which are recommended, include:

1. to strengthen and establish (where necessary) the institutional capacities at the national and regional levels to ensure efficient and cost effective means of Caribbean regional agricultural policy consultation, monitoring, review and evaluation.
2. to promote and facilitate training in agricultural policy analysis geared towards improving policy planning and evaluation capabilities of both actors and stakeholders at the national and regional levels in agriculture.
3. to engage in collaborative research focusing initially on policies related to regional food security, agricultural trade agreements, increasing competitiveness of the regional agricultural sector and agricultural diversification.
4. to share the results of this collaborative research work, over a short period of time, with actors and stakeholders in agriculture so as to help influence policy decision making and implementation in agriculture in the region.

5.4 Thematic areas and priorities

The broad thematic areas, which are proposed as part of the network’s initial activities, are:

- issues related to collaborative efforts in effective implementation of RTPA, specifically programmes which support policy analysis and research related to Phase 1 of RTPA.
- agricultural policy analysis and research support to actors and stakeholders at the national and regional levels, with specific reference to agricultural production and trade in agricultural products.

Specific priority areas, which are proposed, are:

- identification of policy options and innovations geared towards increasing/sustaining the international competitiveness of the regional agricultural sector
- increasing the accessibility of agricultural sector actors and stakeholders to available information that can influence policy decision-making.
- improving the production levels and the productive capacity of the agricultural sector
- training in agricultural policy analysis for improved policy analysis capabilities
- collaboration between actors and stakeholders at the regional level specifically towards understanding the impact and implications of the various trade agreements which CARICOM has signed
- preparation of technical personnel for agricultural trade negotiations
5.5 Expected results

Although there have been marked improvements in recent years, there are still some concerns among the regional agricultural sector stakeholders that particularly the micro-economic perspectives related to regional agricultural sector policies are not sufficiently researched and discussed, especially prior to implementation. There are also concerns that the intended beneficiaries are not typically involved in policy consultations from the earliest stages of the process. Both actors and stakeholders observe that there exist limited policy dialogue, research and very little information sharing with respect to regional agricultural policy. Policy networking cannot be seen as a panacea, but may assist in overcoming some of the constraints that are currently affecting the regional agricultural sector.

One of the most important results expected from the proposed policy network is increased levels of collaboration between agricultural sector policy makers (or actors) in between the regional meetings which they usually attend (RPF, COTED and Alliance/Forum); at a minimum, this is expected to enhance preparations for these meetings and increase their effectiveness.

An effective network will promote dialogue and information concerning national and regional agricultural policies, between national and regional actors and stakeholders. Relatedly, the network is expected to increase the levels awareness of regional agricultural policy issues, especially among stakeholders.

It is anticipated that the proposed network will allow for a quick transition from a passive system which only provides information to a very pro-active knowledge system which converts available information into useful, relevant knowledge widely used by all end-users in policy decision making. Actors and stakeholders are expected to be able to utilize the network in all areas of policy making.

Another critical result anticipated from the establishment of the network is collaboration on joint research projects on agricultural policy at the regional, sub-regional and national levels. This can facilitate economies of scale and scope in research, as well as comparative studies and sharing of best practices in critical technical policy areas. As such, a network as proposed is expected to add value that exceeds the existing capacity of the national Member States and assist in capacity building.

5.6 Constituent members, their contribution and roles

Members of the network should include all actors and stakeholders in the area of policy making and implementation. These include Ministry of Agriculture decision-makers and technicians, researchers, private sector and international organizations. Some members of this group currently network informally and attend meetings of the RPF or Alliance/Forum.

These groups of participants are both suppliers and providers of information. Different perspectives would be presented and synthesized. The willingness and commitment to share information should play an important role. The population will benefit as a result of the information shared and as they become the direct beneficiaries of activities and policies implemented by government. The network must be actively used by the representatives of the different core groups involved in agricultural policy, but must also be accessible to members of the public. The network will have to ensure that its recommendations are discussed and ratified at the appropriate level and that it takes an active role in implementation of approved policies.
5.7 Type of network

The type of network selected as the platform for a regional agricultural policy network in the Caribbean should facilitate the high levels of interaction needed in regional policy consultation, formulation, analysis, implementation and monitoring.

Existing networks in the Caribbean and Africa have adopted primarily hub and spoke models, where a regional coordinating unit facilitates all interaction among network members via annual meetings, workshops, discussion groups, and mailing lists. There are some networks that have been initially established or evolved as rim-effect models, with increasing interaction among network members. Most of the networks have established or plan to establish national chapters of the regional network.

The strengths of a hub and spoke model include a central repository of information and a central coordinating unit for all activities. This can work well if adequate resources are available, for both the hub and external nodes. However, the hub and spoke model is resource intensive and may lead to service degradation due to pressure from the nodes. If nodes become dependent on the hub, there may be little activity within the network unless the hub is initiating and maintaining it.

The rim-effect model can resolve some of these issues. Some stakeholders are of the opinion that the agricultural policy network should be demand-driven, and interaction among the nodes is as helpful and important as interaction between the nodes and the central coordinating unit. In addition, national networks must be formed and actively participate in the network. The formation of these national networks should not lag behind the establishment of a regional network. In some countries, a national network is needed to develop a consensus, which can then be shared at the regional level.

The hub and spoke and rim-effect topologies are effective for the given objectives of the proposed network. Consideration has to be given to which type is selected based on resource availability. In addition, the type of network that is selected may evolve to a state that more effectively serves the roles of the network members. This is acceptable as long as the network is active and objectives are being achieved. For example, with the planned linkages with existing networks, a tree topology may evolve based on the interactions with various agricultural networks in the region. This could facilitate the exchange of information among different networks active in the agricultural sector in the region, and facilitate collaboration in capacity building, planning, and research.

While appearing cosmetic, the name of the network is also significant, as it will partially determine the ease with which the network is publicized. Network names that bring the objectives of the network to mind, as well as being easily remembered, may help to increase the possibility of success.

5.8 Linkages between network and regional policy making institutions

A regional agricultural policy network would need to ensure that key stakeholders participate in the network, and that strong linkages are established with relevant institutions. Personnel in the Ministries of Agriculture (policy actors) are necessarily involved in the agricultural policy process, and should be members of the proposed network. Linkages will facilitate greater information sharing as well as policy consultation. One option for maintaining a link between the network and
the Ministry of Agriculture is via information on the websites of the various Agriculture Ministries’ in the region.

Another group, from which active network involvement is anticipated, is the regional private sector. In addition to a few regional associations, there are some national producer associations which are involved with existing networks, and greater linkages are envisaged. Links to their websites and stakeholder information will be important.

Regional organizations that will supply and require information through a regional agricultural policy network are the CARICOM Secretariat, OECS Secretariat, CDB and the University of the West Indies. These organizations should have participating representatives in the network, and the network should establish links so as to benefit from the exchange of information with these organizations. Links with professional organizations in specific fields would also be useful.

There are several international agencies operating regionally which contribute significantly to agricultural sector development. The Inter-American Institute for Cooperation on Agriculture (IICA) has provided support for networking the Caribbean through various mechanisms, one of which is the Alliance/Forum of Ministers of Agriculture. A regional policy network will benefit from links with IICA and its related projects.

International technical assistance agencies such as the CTA, International Food Policy Research Institute (IFPRI), International Service for National Agricultural Research (ISNAR), International Development Research Centre (IDRC) are key to the development of the regional agricultural policy network. For example, CTA provides significant assistance in the use of information and communication technologies for agricultural development. ISNAR currently has a project to implement a ‘worldwide knowledge delivery network of policy and research management specialists’. Additionally, the Institute for Agriculture and Trade Policy (IATP) assists organizations in influencing domestic and international policies through:

- Monitoring, analysis and research
- Education and outreach
- Training and technical assistance

The network should also establish links with international agencies that are not operating regionally, in order to benefit from experiences and best practices in the area of agricultural policy. Currently, these experiences are transferred on an ad hoc basis through journals, newsletters and conferences.

5.9 Linkages between network and other networks in the Caribbean and elsewhere

A regional agricultural policy network will need to liaise with existing networks, and draw on their experiences and knowledge sharing so as to move swiftly towards its objectives and avoid duplication of efforts. Some positive developments have been achieved through existing networks in formal and informal networking despite the lack of economic and infrastructural support required to make them sustainable. Each of the existing networks has an area of specialization which will provide necessary inputs for the preparation and implementation of agricultural policy. Existing networks have been outlined in Section 4 and symbiotic relationships can be established with many of them including PROCICARIBE, SIDALC, CNIRD and IABIN.
Other networks in Latin America and the Caribbean which would provide useful linkages include SDNP and REDCAPA. The first agricultural policy networks have been established in Africa – ECAPAPA, FANRPAN and REPA; these could provide helpful advice and guidance based on lessons learned from their inception to their present operations. Linkages should be made either directly or indirectly with networks established elsewhere. CGIAR networks such as ILRI, ILFRI along with international networks on specific commodities such as INIBAP can be linked directly or through regional commodity networks under PROCICARIBE.

5.10 Information services and products to be delivered by network

In working to support regional agricultural policy networking, and to overcome the problems of distance, resources and language, a regional agricultural policy network should develop or utilize tools that will allow the network to collect, analyze, distribute and archive information related to regional agricultural policy on a timely basis.

In supporting the objectives of the network, various mechanisms are available, and selection would be based on appropriateness to the users, tasks and resources available. For capacity building, the use of CD-ROMs and DVD-ROMs would facilitate repackaging and distribution of information tailored to agricultural policy needs to members of the network. Video would also be a useful tool to assist with training in policy, information and communication technologies and effective communication practices.

For communications with the media, there should be a mechanism to facilitate highlighting policy-related features, `question and answer’ and provision of content. This can be done via the Internet, phone or newsletter. Newsletters and brochures as well as reports provide ways through which documents can be circulated in hard format.

To enable members to gain knowledge from global policy-related conferences, the network should be able to facilitate audio and video broadcasts from selected conferences. This would enable wider participation by persons who are unable to attend such conferences, due to limited time or financial resources. However, this would require coordination and establishment of working relationships with the conference organizers.

Information constraints facing regional agricultural policy making and analysis has been summarized in Section 3.3.5. The creation of a database of statistical and other information necessary for actors and stakeholders and also provided by them is an important initial step. Standardization and consistency in access to the database are important in terms of usability. There are other databases maintained by existing networks and compatibility should be addressed in the development of a database for the regional agricultural policy network. Dissemination of output from the database is a factor that will be addressed in the design of the database. Users will need to be able to effectively and easily query the database and be able to obtain reports in a form that is easily utilized.

The network will need to organize its information in a convenient, easily accessible format. Spatial representation of the data can assist network members in utilizing the database for policy planning and analysis purposes. The transfer/conversion of existing information will also have to be examined. Collaboration with other active networks is important in this regard.
A website is an important information tool for the network. It is useful both to network members as well as to other interested parties. Content, usability and frequency of updates will be key issues. A static website will not motivate network members or others to visit the website. Resources will have to be made available for the design, development and maintenance of the website.

Discussion groups should be established for regular interaction among network participants. E-conferencing should be provided as a support to large meetings, workshops or training sessions, with the forum continued to enhance implementation of follow-up activities. Depending on the structure of the coordinating unit, these web-enabled activities should be promoted and encouraged by network management.

The languages utilized in networking are important, particularly in the Caribbean region. All information services provided by the network should be available in the main languages of the region. This has been a flaw in some of the existing networks where only part of the information is available in a particular language, leaving some participants at a disadvantage. As with the other information services, translation would have cost implications as outlined in the preliminary budget in Section 5.14, but this service is necessary particularly with the promotion of a regional approach.

The information services developed should encourage participation in the network and should also motivate international organizations to provide funding. Promotion and marketing of the network to relevant persons will be necessary.

**5.11 Phased development of network**

The design and establishment of a regional agricultural policy network requires careful planning in the initial stages so as to prioritize and agree on strategies, as well as obtain commitments from actors and stakeholders. Based on a cursory analysis of the networking experiences of the region, the development of an active and sustainable regional agricultural policy network should be implemented on a solid platform.

Once consensus is reached on the establishment and development of a regional agricultural policy network in the Caribbean, a work plan should be prepared to include activities during the planning phase, the launch of the network and the activities over various cycles of the network.

A regional agricultural policy network should have built-in indicators of success, which can be evaluated at any point in time. There should also be regularly scheduled monitoring and evaluation exercises through which the impact of the network is assessed and objectives are tailored to ongoing needs assessments. The sustainability of the network should also be evaluated periodically so as to give actors, stakeholders and donors adequate time to find resources if required.

The United Nations Development Programme’s (UNDP’s) Sustainable Development Networking Programme (SDNP) has devised some indicators that can be used in network monitoring and evaluation. Some performance indicators are:

- Number and types of users / organizations using network
- Number of participants in network fora – meetings, newsletter contributions, online discussions
- Number of emails, searches, electronic forums, discussion groups among network participants

Claremont Kirton and Arlene Bailey
• Level of satisfaction of actors, stakeholders and network coordinators

Indicators of effectiveness include:
• Utilization of information obtained through the network
• Number of accessible databases
• Availability of regional and country-related information

Cost-benefit indicators would be based on the following:
• Value of information obtained through network versus real cost of obtaining information
• Gains in efficiency by communicating through network and savings in related costs

Impact indicators are related very specifically to the objectives of the network. Some of these are:
• Impact of network on decision making and policies
• Network's role in enhancing regional views of agriculture
• Strength of linkages between network and other regional networks

5.12 Network management and co-ordination

The network management and co-ordination will need to be strong in order to enhance co-operative efforts in the region. A regional coordinating centre should be established with adequate support to allow the network to become successful while working on issues of sustainability. The selection of the location for this regional coordinating centre will be based on technical considerations and support from actors and stakeholders and the host institution. The physical location of the network is a key decision to be made based on several factors. Physical location options may include the CARICOM secretariat, or any of the secretariats affiliated with the Alliance or Regional Planners Forum.

Resources will be required for all aspects of the network. Human resource needs for the coordinating centre will be, at minimum, a regional coordinator and an assistant. The proposed budget for the network as outlined in Section 5.14, reflects the need for funding for at least three years. The expected outcomes of regional agricultural policy networking will have to be evaluated through this period. The question will arise as to whether the network is needed for the short term to address a particular problem such as the lack of a regional agricultural policy, or for the long term as a mechanism to facilitate ongoing interaction among actors and stakeholders. In our view, a regional agricultural policy network will be useful for the long-term.

Depending on the model selected, national nodes for the network may already exist or may need to be created. This will require further funding for additional human resources. There will need to be advanced commitment for sustainable counterpart funding, after external funding is reduced or terminated.

All members of the network should be responsible for increasing the public awareness of network’s activities. The network coordinator will have the responsibility to regularly inform participants of ongoing activities.
5.13 Approach to Implementation

During the course of this study, there has been much discussion among actors and stakeholders on agriculture in the region, agricultural policy and networking. During and after the workshop it would be advantageous to maintain the momentum among potential members of the proposed network. An approach to implementation is outlined below.

The workshop should provide the opportunity for:

- Discussion of options presented in the preliminary study
- Consensus and decision on whether a network should be established.

Based on the decision made regarding the establishment of the network, a course of action will need to be embarked on including:

- Agreement on selected strategy and endorsement of network
- Expressions of commitment to network
- Agreement on the way forward, priorities and timeline

Following the workshop, some of the scheduled activities that will need to be undertaken in a timely manner are:

- Consultations with those actors and stakeholders unable to attend workshop (e-conferencing, email discussion group, national consultations)
- Interim discussion of any immediately pending policy proposals – mechanism to have continued tangible interaction among potential network participants
- Selection of ‘point person’ in host institution; recruitment process for Regional Coordinator
- Establishment of secretariat; creation of 3-year work plan (ongoing following conference)
- Selection and contracting IT development services

5.14 Preliminary Budget

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BIBLIOGRAPHY


CABA, The New Vision, IICA, Trinidad and Tobago, 2002


Caribbean Development Bank, Report on Meeting on Regional Agriculture, August 2002

Caribbean Food Crop Society Report 2001


CTA Networking Training Manual, 2002

ECLAC 1999 CARSTIN Network review


Francis, Diana Re-Thinking and Re-Shaping OECS Agriculture. An IICA Perspective, paper presented to OECS Meeting to Consolidate Actons Towards the Sustainable Development of Agriculture, St. Lucia, December, 2002.

Gómez, Ricardo and Casadiego, Benjamín, Letter to Aunt Ofelia: Seven Proposals for Human Development Using New Information and Communication Technologies; based on the results of a collective workshop, April 2002

Graham, Michael, Use of Information and Communication Technologies in IDRC Projects – IDRC, April 1997


MIM Publication Series Volume 2. Information Networking: The development of national or regional scientific information exchange, IOC Manuals and Guides No. 30, Vol. 2


Nurse, James O. Review and Redesign of Caribbean Community Programme for Agricultural Development (CCPAD), Barbados, 1995

OECS Secretariat, Special Meeting of the OECS Authority on the Economy, Eastern Caribbean Central Bank St. Kitts/Nevis10th October 2002

Plucknett, Donald L., International Agricultural Research, A Database of Networks, CGIAR Study Paper Number 26, 1990


United Nations Development Programme, SDN Information Series, First Release, March 1994

World Bank, Information and communication technologies A world bank group strategy, April 2002


World Bank, 2002 World Development Indicators
APPENDICES
APPENDIX I: TABLES
### TABLE 1. PROFILE OF SMALL CARIBBEAN STATES

<table>
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**x** - full membership  
**xa** - member of IBRD only, not member of IDA  
**xb** - IDA eligible borrower  
**xb** - eligible for blend funds based on small islands exceptions  
**o** - observer status  
CF – CARIFORUM  
CC – CARICOM  
OECs - Organisation of Eastern Caribbean States  
Com. Sec. – Commonwealth Secretariat  
RIA – Regional Integration Arrangement
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NOTES: * represents 1999 statistics
** represents 1998 statistics
Sources: (1) Caribbean Development Bank (CDB) database
(2) Caribbean Trade and Investment Report (CTIR) 2000
(3) Association of Caribbean States (ACS) Statistical Data
(4) Dominican Republic Diagnostic Report 2000
(5) World Development Indicators database, April 2001
(6) CARICOM Secretariat
Table 3. CARIFORUM Countries: GDP Growth Rates (%): 1990-2000

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Notes:
... not available
negative numbers denote economic contraction

Source: CDB database
Table 4(a): CARICOM's Intra-Regional, Extra-Regional and Total Imports: 1995-1999

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Source: Caribbean Trade and Investment Report 2000

Table 4(b): CARICOM's Intra-Regional, Extra-Regional and Total Exports: 1995-1999

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Sources: (1) Caribbean Trade and Investment Report (CTIR) 2000
(2) Human Development Report (various years)
### Table 6. Human Development Index Values for the CARIFORUM Countries: 1990-1999

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| Pop. in Poverty (%) | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 25* | ... 
| Unemployment Rate (%) | 7.0 | 7.8* | 9.3 | 11.5 | ... | 13.8* | 11.5 | ... | 70* | 15.7* | ... | 18.1* | ... | 20** | 12.8 |
| Gini Coefficient | .525 | ... | .460 | .510 | .488 | ... | .504 | .423 | .372 | .445 | .468 | .448 | .660 | .420 |
| Urban Pop (% of total) | 36.6* | 88.1* | 49.5* | 53.4* | 70.7* | 64.4* | 37.5* | 37.6* | 35.1* | 55.6* | 34.1* | 37.7* | 53.5* | 73.4* | 73.6* |

Notes: * represents 1999 statistics  
** represents 1997 statistics

Sources:  
(1) Caribbean Development Bank  
(2) Human Development Report 2000  
(3) World development Indicators database, April 2001

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NOTES: * indicates not available.
Table 9. Contribution of Agriculture to GDP at Factor Costs in Current Prices: Selected years

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1 Data for Suriname is included prior to 1995 even though Suriname became a member of CARICOM in 1995.
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NOTES: 0 MEANS LESS THAN HALF UNIT OF QUANTITY PRODUCED
- MEANS NO PRODUCTION
... MEANS DATA NOT AVAILABLE
TOTALS REPRESENT SUM OF AVAILABLE DATA

SOURCE: CARICOM SECRETARIAT
### Table 11: Number of Personal Computers in Selected Caribbean Countries (per 1,000 people)

<table>
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<th>Country Name</th>
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<th>1999</th>
<th>2000</th>
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### Table 12: Number of Telephone Main Lines (per 1,000 people)

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### Table 13: Number of Internet Users in Selected Caribbean Countries

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### Table 14: Internet Usage as a Percentage of Population in selected Caribbean countries

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Source: NUA Internet Survey of Latin America and Caribbean Online Users
Appendix 2
AGRICULTURAL POLICY

ARTICLE 56

The Community Agricultural Policy
1. The goal of the Community Agricultural Policy shall be:
   a. the fundamental transformation of the agricultural sector towards market-oriented, internationally competitive and environmentally sound production of agricultural products;
   b. improved income and employment opportunities, food and nutrition security, and poverty alleviation in the Community;
   c. the efficient cultivation and production of traditional and non-traditional primary agricultural products;
   d. increased production and diversification of processed agricultural products;
   e. an enlarged share of world markets for primary and processed agricultural products; and
   f. the efficient management and sustainable exploitation of the Region’s natural resources, including its forests and the living resources of the exclusive economic zone, bearing in mind the differences in resource endowment and economic development of the Member States.

ARTICLE 57

Implementation of the Community Agricultural Policy
1. For the achievement of the goal set out in Article 56, the Community shall, through competent Community Organs and Bodies, promote and support:
   (a) the production, diversification, processing and marketing of agricultural products;
   (b) the establishment of effective agricultural financing systems, including insurance, bearing in mind the special needs of artisanal fishers, small farmers, foresters and agro-processors;
   (c) the establishment of linkages among the Member States with complementary natural resources, industries, agricultural skills and technical abilities;
   (d) the development of human resources and delivery systems responsive to the requirements of the agricultural sector;
   (e) the development of appropriate policies for the use of land and marine space with a view to increased agricultural production;
   (f) appropriate land tenure systems to provide the farmer with security of tenure;
   (g) the establishment of effective information and market intelligence services;
   (h) research and development with a view to the adaptation, dissemination and application of appropriate technologies at all levels of the sector and all stages of production;
   (i) the adoption of effective measures for rural enterprise development;
   (j) public education to enhance the economic and social profiles of agriculture, particularly among the youth;
   (k) the establishment of an effective regime of sanitary and phytosanitary measures;
   (l) the establishment of a policy environment designed to attract investment to the agricultural sector; and
   (m) technical co-operation and the dissemination of knowledge in agriculture.

2. For the purpose of assisting the Member States to implement the agricultural policy set out in paragraph 1, COTED shall establish effective support measures including:
(a) strengthening the relevant administrative and institutional framework to modernise and enhance the competitiveness of agriculture by:

(i) improving the capability of the Member States to undertake policy analysis, formulation, planning, execution and resource mobilization for the development of the sector;
(ii) investigating and analysing developments in the agri-food sector; and
(iii) improvement of the collection, analysis and dissemination of empirical data and other relevant information;

(b) upgrading of national and regional capabilities in the areas of sustainable natural resources management;

(c) enhancement of the capabilities of the Member States in the areas of agricultural trade analysis and negotiations; and

(d) promotion of a mechanism for the collaboration of farmers, fishers, foresters and the social partners in agricultural development.

3. The Community shall:

(a) promote collaboration among the Member States and competent regional organisations in the areas of policy formulation and implementation of regional agricultural policies; and

(b) establish an effective regime to protect regional agricultural production from dumping, subsidisation and other unfair trading practices.

4. The Community shall, as a matter of priority, and in collaboration with national, regional and international agencies and organisations, promote and adopt measures relating, inter alia, to:

(a) the provision of appropriate inputs; and

(b) the development of infrastructure, such as port facilities, drainage, irrigation, access roads, post-harvest handling and marketing facilities.
Appendix 3
# APPENDIX III: SUMMARY OF EXISTING AGRICULTURAL NETWORKS IN THE CARIBBEAN

<table>
<thead>
<tr>
<th>Name of Network</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROCICARIBE</strong></td>
<td>PROCICARIBE is the Caribbean Agricultural Science and Technology Networking System. It is designed to provide an institutional framework by which the region can design and implement strategies for the integration and coordination of agricultural research at the national and regional levels with linkages to international organizations.</td>
</tr>
</tbody>
</table>
| **Caribbean Agricultural Information Service (CAIS)** | To develop capacity at the national level for:  
- Collection, organization, repackaging and dissemination of information;  
- Communication of information to target groups.  
To strengthen the Regional Information Centre at CARDI to:  
- assist in the development of national agricultural information networks  
- facilitate and maintain linkages with regional and extra-regional stakeholders and partners for improvement in the delivery of agricultural information to regional clientele. |
<p>| <strong>The Caribbean Agribusiness Marketing Intelligence and Development (CAMID)</strong> | To increase the competitiveness and growth of the Caribbean agribusiness sector through the provision of marketing and intelligence and trade facilitation services that are timely, accurate and affordable utilizing collaborative strategies and state of the art information, quality assurance and trading technologies. |
| <strong>Caribbean Biosystematics Network (CARINET)</strong> | To contribute to the sustainable development of the region's agriculture and genetic resources, habitat conservation and the information needs for bioprospecting through the provision of efficient biosystematic services. It uses existing taxonomic resources of the region whilst attracting Technical Co-operation partnerships to augment these resources to the level of realistic self-reliance. |
| <strong>Caribbean Plant Genetic Resources Network (CAPGERNET)</strong> | To ensure that there is improvement in the levels of efficiencies and higher levels of co-ordination in the utilization and management of plant genetic resources in the Caribbean region. |
| <strong>Caribbean Post Harvest Technology Network (CAPHNET)</strong> | To develop post harvest technology systems among public and private agricultural entities and NGOs, in the development of sustainable quality assurance systems for perishable, durable and processed products in commercial enterprises while ensuring food security, poverty alleviation and environmental sustainability. |
| <strong>Caribbean Integrated Pest Management Network (CIPMNET)</strong> | To promote support and collaboration among Caribbean states with linkages to international organizations in delivering more effective IPM as a key component of sustainable agriculture in the region. |
| <strong>Caribbean Land and Water Resources Network (CLAWRENET)</strong> | To develop science and technology in Land and Water Resources among public, private agricultural entities and NGOs to support agriculturally based industries in attaining international competitiveness and the sustainable development of the Caribbean region. |
| <strong>Caribbean Fruit Network (CARIFRUIT)</strong> | To contribute to improvements in the economic viability and sustainability of the fruit industry in the Caribbean by fostering an inter-sectoral and multi-disciplinary approach. |
| <strong>Caribbean Rice Industry Development Network (CRIDNET)</strong> | To increase productivity in the cultivation and marketing of regionally produced rice so that Caribbean rice can improve its competitive position in international markets while optimizing regional self-sufficiency. |</p>
<table>
<thead>
<tr>
<th>Name of Network</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean Small Ruminants Network (CASRUNET)</td>
<td>To develop science and technology in small ruminants among public and private agricultural entities and NGOs to support agriculturally based industries in attaining international competitiveness and sustainable development of the Caribbean region.</td>
</tr>
<tr>
<td>Regional Market Information System (RMIS)</td>
<td>The aim of RMIS is to develop a coordinated data collection and processing network that will provide reliable agricultural market information to the agribusiness sector in the CARIFORUM member countries. The end result is expected to be a sustainable information system that will contribute to increasing the level and efficiency of national production and trade, intra-regional trade among CARIFORUM members and extra-regional export trade by CARIFORUM members.</td>
</tr>
<tr>
<td>Caribbean Biotechnology Network Project (CBNP)</td>
<td>To identify strategies for cooperation, information exchange and knowledge transfer concerning biotechnology in the Caribbean agricultural food sector, including post-harvest activities.</td>
</tr>
<tr>
<td>CARICOM Fisheries Unit (CFU)</td>
<td>To strengthen the planning and management capacity of national fisheries departments in order to manage CARICOM's coastal and marine fisheries resources in the most efficient and sustainable way possible.</td>
</tr>
<tr>
<td>Caribbean Network for Integrated Rural Development (CNIRD)</td>
<td>CNIRD was established as a result of a concern expressed by community development practitioners in the Caribbean that the governments of the region and existing NGOs were not sufficiently combining their resources to respond to the socio-economic problems of the rural sector. CNIRD is expected to help promote and advance the process of rural transformation in the Caribbean, paying special attention to youth and women.</td>
</tr>
<tr>
<td>Sustainable Development Networking Programme (SDNP)</td>
<td>The Sustainable Development Networking Programme (SDNP) is a catalytic initiative to kick-start networking in developing countries and help people share information and expertise relevant to sustainable development so as to better their lives. Launched in 12 pilot countries in 1992 as one outgrowth of the Earth Summit, SDNP currently offers assistance in establishing connectivity to national networks and the Internet, content aggregation and user training. SIDSNet collaborates with small island developing states to facilitate access to information on sustainable development issues.</td>
</tr>
<tr>
<td>Small Island Developing States Network (SIDSnet)</td>
<td>To balance the potential of the countries of the Region in advanced biotechnology for its application to the solution of specific plant production problems.</td>
</tr>
<tr>
<td>REDBIO</td>
<td></td>
</tr>
<tr>
<td>SIDALC</td>
<td>The Agricultural Information and Documentation System for the Americas (SIDALC) integrates libraries and documentation centers, connected via national networks throughout the region. These networks provide information services designed to supply the information needs of different actors in the agricultural and related sectors.</td>
</tr>
<tr>
<td>Forum for the Americas on Agricultural Research and Technology Development (FORAGRO)</td>
<td>FORAGRO is a mechanism to facilitate and foster dialogue and cooperation among the countries of the Region, and to promote integration in this field. Its work is aimed at achieving a type of agricultural development that will be competitive and sustainable, in keeping with the scientific and technological challenges of the new century, and with the growing demands of an expanded and changing agricultural sector. A key role of the Forum will be to exert influence in the formulation of policies that will promote agricultural development from a technological perspective.</td>
</tr>
<tr>
<td>Name of Network</td>
<td>Objective</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>AGROINFO Americas</td>
<td>A framework of integrated database systems, information technology and training enables Western Hemisphere organizations to access and distribute agricultural information in a common format across regions, products, and time.</td>
</tr>
<tr>
<td>La Red de Instituciones Vinculadas a la Capacitación en Economía y Políticas Agrícolas en América Latina y el Caribe (REDCAPA)</td>
<td>An association of universities and research institutions dedicated to the study of agriculture and related themes in rural Latin America and the Caribbean.</td>
</tr>
<tr>
<td>Caribbean Network of Rural Women's Producers (CNRWP)</td>
<td>CNRWP was formed in recognition of the special needs of small-scale female agricultural producers to support the empowerment of rural women towards improving their socio-economic status. The overall goal is to equip women to become self-reliant thereby empowering them to take the leading role in decision making, leadership, communication, participation and product development.</td>
</tr>
<tr>
<td>Inter-American Biodiversity Information Network (IABIN)</td>
<td>To promote compatible means of collection, communication, and exchange of information relevant to decision-making and education on biodiversity conservation.</td>
</tr>
</tbody>
</table>
Appendix 4
Terms of Reference

for a

Consultancy on the Establishment and Development of a Regional Agricultural Policy Network in the Caribbean

1. Problem

Although a considerable amount of data on Caribbean agricultural regional policies is available from different sources, such data are not adequately integrated into a regional system. Similarly, stakeholders have limited access to policy related information due to, among other factors, insufficient exchange of information among and between the various stakeholder groups. Consequently, existing information does not cater to the specific needs of the various regional policy stakeholder groups. These deficiencies have limited the effectiveness of the formulation and implementation of regional agricultural policies in the Caribbean.

2. Background

CTA’s roles in information and communication management for agricultural policy purposes in ACP countries have been reinforced under the Centre’s Strategic Plan and Framework for Action 2001–2005 (SP). Amongst others, three major elements have informed CTA’s roles in the policy area: a) regional integration of ACP countries; b) capacity development needs of the ACP countries and regions in information and communication management; c) new information and communication approaches and technologies.

By taking into account the new political environment in ACP countries, networking is cost-effective way of fostering widespread involvement [of stakeholders] in the policy formulation and a means for consultation, monitoring, review and evaluation. In this context, another significant advantage of the network approach is that it focus on formal and informal contacts and relationships which shape policy agendas and decision-making as opposed to the interplay within and between the formal policy-making organisations and institutions.

CTA’s interventions in the policy area have been operationalized through different programmes and activities at regional and national levels of the ACP countries, including: support to ACP regional policy networks, publications and articles in CTA bulletin Spore, web-based communication (e.g. AGRITRADE), seminars and workshops on policy related topics, training in information and communication management (ICM).

At regional level, CTA has established partnership arrangements with the following regional policy networks:

- Policy Analysis Network (REPA, West and Central Africa)
- Eastern and Central Africa Programme for Agricultural Policy Analysis (ECAPAPA)
- Food, Agricultural and Natural Resources Policy Analysis Network (FANRPAN, Southern Africa)


The above arrangements cover a wide range of information and communication services and products e.g. ICT based dissemination of information including networking, stakeholder meetings, print and electronic newsletters, other publications, training courses and workshops, participations in events organised by CTA.

The Caribbean countries have been striving for a regional approach to agricultural and rural development. This can be achieved through amongst other things, regular exchange of relevant information between policy stakeholders in the region.

In November 2000 CTA organised a workshop in Entebbe (Uganda) on Agricultural Policy Networking: The Way Forward. To this end, the establishment of a policy network was identified at a CTA Workshop on Agricultural Policy Network held in Entebbe (Uganda) in November 2000. The workshop was attended by Caribbean participants representing national and regional agricultural bodies who endorsed the above recommendation.

3. **Objective of the consultancy**

The overall objective of the consultancy is to develop a networking strategy aimed at improving access to relevant information by regional agricultural policy stakeholders in the Caribbean.

4. **Expected outputs from the consultancy**

- Environment of regional agricultural policies in the Caribbean assessed
- Major regional agricultural policy processes described
- Major stakeholder groups in regional agricultural policy development described
- Information and communication requirements and issues for regional agricultural policies analyzed
- Recommendations on regional policy networking made

5. **Issues to be studied**

5.1. **Regarding the environment of regional agricultural policy networking in the Caribbean**

- What are the main regional political, economic and institutional factors that influence regional agricultural policies?
- What are the main features of existing regional development integration policies, plans and initiatives which might have an effect on regional agricultural policies?
- What are the main institutions and organisations which influence how regional agricultural policies are made?
- What are the main international and regional conventions and agreements signed by Caribbean regional bodies? How do these conventions and agreements influence the regional agricultural integration policies?

5.2. **Regarding regional agricultural policy processes in the Caribbean**

- Through what mechanisms are regional agricultural policy problems and issues identified? How are regional policy objectives, strategies and plans defined?
- Through what mechanisms are regional policy strategies and plans implemented? What is the regional approach to policy monitoring and evaluation?
• What are the existing institutional mechanisms to manage competing demands, and prevent and solve conflicts in regional agricultural policies?
• What are the linkages between the national and regional levels in regional agricultural policy-making in the Caribbean?
• What mechanisms have been put in place to undertake the review and reformulation of regional agricultural policies?

5.3. Regarding stakeholders in regional agricultural policies
• What role do public institutions, NGOs, professional groups and the private sector play in shaping and implementing policy agenda?
• What are the main stakeholder groups in regional agricultural policies? Please describe briefly their main characteristics
• Are there marked contrasts in perception between different stakeholder groups as to what constitutes the main priorities with regard to regional agricultural policies? If yes, please describe the differences.
• What factors, including those related to information and communication do have an influence on stakeholder involvement and participation in regional agricultural policies? Through what formal and informal mechanisms do the different categories of stakeholders participate in the policy-making process?
• What are the capacity constraints to the active participation of the different stakeholder groups and institutions in the policy-making process?

5.4. Regarding information and communication for regional agricultural policies

On the basis of the analysis of issues under 5.1 – 5.3 above the consultant is expected to assess existing information and communication systems aimed at supporting decision-making in regional agricultural policies in the Caribbean. The issues to be covered include:

• What types of information have been used in formulating, implementing and monitoring regional agricultural policies?
• What information and communication approaches (including networking and strategies have been used to:
  - build awareness about regional agricultural policies
  - get different stakeholders involved in the different stages of the policy-making processes
  - manage changes from regional agricultural processes and the wider environment of those processes
  - manage different and conflicting views and interests?
• What are the strengths and weaknesses to the existing information and communication strategies? What measures are envisaged to overcome the constraints identified?
• What sources of information are available to help formulate and implement regional agricultural policies? How is the access to information sources? What are the constraints to access public and private information sources?
• What methods and technologies have been used to collect data? How is the compatibility between methods and technologies used by different stakeholders and institutions?
• How has information been shared between stakeholders, public and non-public alike? What have been specific constraints to information sharing between stakeholders?
• What channels have been used to disseminate information to regional policy decision-makers? What are the constraints to reach the various decision-makers? What measures are envisaged to overcome these constraints?
To what extent have policy decision-makers used the information provided to them? What factors including those related to the information itself, that hinder decision-makers from using the information provided? What measures are envisaged to overcome the identified constraints?

5.5. **Regarding recommendations**

On the basis of the findings and analysis of regional agricultural policy processes in the Caribbean, and their information and communication requirements the consultant is expected to make recommendations for a regional agricultural policy network in the Caribbean. This should include:

- **Type of network**
- **Objectives of the network**
- **Thematic areas and priorities**
- **Expected results of the network**
- **Constituent members, their contribution and roles**
- **Linkages between the network and regional policy-making institutions elsewhere**
- **Linkages between the network and other networks in the Caribbean and elsewhere**
- **Information products and services to be delivered by the network, taking into account the specific needs, and characteristics of different stakeholder groups**
- **Communication channels and media**
- **Database creation and management**
- **Specific roles of ICTs**
- **Regional, national level linkages**
- **Capacity development**
- **Establishment and phased development of the network**
- **Network management and coordination**

The consultant should be free to make any other recommendation he/she feels is pertinent.

6. **Methodology**

The consultancy will be carried out in three phases:

**Phase I**

Review of relevant documentation.
At the end of this phase the consultant is expected to submit a progress report, up to 10 pages, to CTA for approval.

**Phase II**

This phase will consist of interviews with representatives of relevant organisations, and reporting. On approval of the progress report, the consultant is expected to carry out interviews with representatives of stakeholder groups, and prepare a study report. The consult will prepare and submit a draft study report to CTA for comments and observations. The consultant’s report will be submitted to CTA in print and electronic format.

The structure of the study report will be as follows:

Executive summary
Background
Study approach and methods
Analysis of main findings
Conclusions and recommendations
Annexes: ToR, findings (presentation of factual information), list of persons/organisations consulted, documentation consulted.

The number of pages of the report should not exceed 40 pages excluding annexes.

**Phase III**

The consultant will act as a resource person at a 3-day regional workshop to be co-organised by CTA in the Caribbean with support of IICA. The workshop will be attended by representatives of major stakeholders in regional agricultural policies in the Caribbean. The consultant is expected to present the study report at the workshop and prepare the workshop report.

On the basis of the discussions at the workshop participants the consultant will finalise the consultancy report and send it to CTA in print and electronic format.

### 7. Timeframe

<table>
<thead>
<tr>
<th>Activity</th>
<th>Output</th>
<th>Deadline for completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefing meeting at CTA</td>
<td>Minutes</td>
<td>8 August 2002</td>
</tr>
<tr>
<td>Phase I: review of relevant documentation</td>
<td>Study progress report</td>
<td>13 September 2002</td>
</tr>
<tr>
<td>Phase II: interviews with relevant organisations, and reporting on study</td>
<td>Draft study final report</td>
<td>13 November 2002</td>
</tr>
<tr>
<td></td>
<td>Consultancy final report</td>
<td>15 February 2003</td>
</tr>
</tbody>
</table>
Appendix 5
Research project on the Establishment and Development of a Regional Agricultural Policy Network in the Caribbean

*Issues to be discussed with national/regional policy-makers in the Caribbean*

1. Please identify the institution/department/person (by job title) in your country that has overall responsibility for:
   i) National agricultural policy and
   ii) Caribbean regional agricultural policy.

2. Describe briefly the agricultural policy process in your country.

3. What are the existing linkages between your national and Caribbean regional levels in regional agricultural policy-making?

4. From your institution’s experience, describe how the following phases of Caribbean regional agricultural policy are conducted:
   a) problem recognition, identification     b) policy formulation, design, articulation
   c) policy appraisal, verification      d) policy adoption, implementation
   e) policy evaluation, impact assessment.

5. Who are the key stakeholders involved in the regional agricultural policy process? What are the formal and informal mechanisms through which they participate in regional agricultural policymaking? What are the constraints affecting this participation?

6. What are the main sources of information available to help formulate and implement regional agricultural policies? Evaluate policy-makers’ access to these information sources. What are the constraints that exist to accessing public and private information sources in the region? Are these being dealt with?
7. List the various **channels** that have been used to **disseminate information** to regional policy decision-makers. Identify the **constraints** involved in reaching the various decision-makers. What **measures** are being planned to overcome these constraints?

8. Outline the **methods and technologies used to collect data** for regional agricultural policy-making. Evaluate the **levels of compatibility** between methods and technologies used by different stakeholders and institutions.

9. Identify and describe the **information and communication approaches** (including networking) and strategies that have been used to:
   a. **build awareness** about regional agricultural policies
   b. **involve different stakeholders** in the regional policy-making processes
   c. **manage changes** emanating from regional agricultural processes and the wider environment
   d. manage different and **conflicting views and interests**.

10. Please identify the **organizations that you liaise with** in terms of information sharing on agricultural policy, and indicate the frequency and method of communication.

11. Please state whether you/your institution has **access to the Internet** and give a brief outline of this access – **name of provider, cost, frequency of access**.

12. In your view, what are the **advantages and disadvantages** of establishing a **regional agricultural policy network** in the Caribbean?

13. What **type** of agricultural policy network would you like to see established?

14. What would you like to see as the **priority issues** addressed by the network?

15. Who do you think should be **part of the network** (organizations and/or individuals) and what communication means should be used within the network?

16. How do you think the network should be **coordinated**?

17. Please identify any **problems** that you think the network would experience.

*Thank you for your participation.*
Research Project on the Establishment and Development of a Regional Agricultural Policy Network in the Caribbean

Issues to be discussed with networks

The CTA is undertaking an assessment of the feasibility of an Agricultural Policy Network in the Caribbean. The network is expected to involve the use of information and communication technologies (ICTs) – email, the Internet, electronic and print media and related services. This survey focuses on your involvement with agriculture and with influencing agricultural policy, your interaction with others on agricultural policy and the method of communication utilized in this process. We are also interested in your experiences with national and regional agricultural networks as well as your views on the specific proposal for a Caribbean regional agricultural policy network. We are very grateful to you for participating in this survey.

1. Please provide name and contact information outlined below.
   Network Name: __________________________________________
   Name: _________________________________________________
   Position: _______________________________________________
   Address: _______________________________________________
   Phone: _________________________________________________
   Fax: ___________________________________________________
   Email: _________________________________________________
   Website: _______________________________________________

2. Please state the overall goals and objectives of the network.

3. What area(s) of agriculture is the network involved in?
   - Crop production, horticulture, organic farming
   - Meat animals, poultry
   - Fish
   - Dairy
   - Food processing
   - Feed production
   - Forestry
   - Lobbying
   - Agricultural policy
   - Biosystematics
   - Agricultural education / training
   - Plant breeding
   - Ecotourism
   - Water and irrigation
   - Fertilizer production
   - Integrated pest management
   - Post harvest management
   - Agricultural finance
   - Agricultural management
   - Marketing
   - Agricultural research
   - Other, specify __________

4. What are the main products / services offered by the network in the areas of service delivery, administration, decision making and agricultural policy development?

5. Please list the network members at the national and regional levels. What is the network’s geographical coverage? Please list the target groups covered by the network.
6. Please specify **all languages** used in the operations of your work.

7. Please specify the **types of information generated** by the network, the main format in which the information is generated and the **institutions / organizations** which use this information.

8. Please specify the **types of information requested** by the network, the source of the information and the format in which it is received.

9. Please identify the **organizations that you liaise with** in terms of information sharing on agricultural policy, and indicate the **frequency** and **methods** of communication.

10. Is your organization involved in the **formulation/implementation** of agricultural policy? If so, at what level is your involvement (eg. local, national, regional)?

11. a) What specific area(s) of national agricultural policy have you been / are you involved in **formulating** and / or **implementing**?

    b) What specific area(s) of Caribbean regional agricultural policies have you been / are you involved in **formulating** and / or **implementing**?

12. What are the possibilities for **cooperation and coordination** with similar organizations having an interest in agricultural policy?

13. Please state whether you have **access to the internet** and give a brief outline of this access – **name of provider, cost, frequency of access**.

14. Please describe the **strengths and weaknesses** of your network. How can its performance be improved?

15. In your opinion, what are the **advantages and disadvantages of establishing a regional agricultural policy network in the Caribbean**?

16. What would you suggest as the **priority issues** to be addressed by such a network?

17. Who do you think should be **part of such a network** (organizations and/or individuals) and what communication means should be used within the network?

18. How do you think the **network should be coordinated**?

19. Please identify **any problems** that you think such a network is likely to experience.

*Thank you for your participation in this survey!*
Research project on the Establishment and Development of a Regional Agricultural Policy Network in the Caribbean

Issues to be discussed with national/regional stakeholders in the regional agricultural policy process in the Caribbean

Interview guide

1. Background information related to organization
   
   Name
   Contact person(s)
   Position
   Address (postal)
   Email
   Telephone number      Fax number

2. State the department/person (by job title) that has overall responsibility for matters related to:
   i) national agricultural policy and
   ii) Caribbean regional agricultural policy
   in your organization.

3. State the mandate/goals/objectives of your organization.

4. List the main activities (by highest to lowest priority) of your organization.

5. List the main products/services provided by your organization.

6. Are your main activities predominantly in?
   a) your home country
   b) OECS
   c) CARICOM
   d) wider Caribbean (including CARICOM)
   e) Caribbean and Latin America
   f) International markets

Information sources and uses

7. What types of agricultural information does your organization typically demand/use?
8. What are the main sources/suppliers of this information?

9. List the main forms/methods in which this information is provided.

10. List the main constraints faced in accessing the information required.

11. What measures are planned to overcome these constraints?

12. What types of agricultural information does your organization typically supply/provide?

13. Who are the main recipients/beneficiaries of this information?

14. List the main forms/methods in which this information is provided.

15. List the major constraints faced in disseminating this information to recipients.

16. What measures are planned to overcome these constraints?

III. Involvement in agricultural policy processes

17. With respect to national agricultural policy, describe how and through what mechanisms (formal and informal) is your organization involved in the following areas:
   b) problem recognition, identification.
   c) policy formulation, design, articulation.
   d) policy appraisal, verification.
   e) policy adoption, implementation.
   e) policy evaluation, impact assessment.

18. List the main types of information utilized/disseminated by your organization in the specific areas of national agricultural policy in which your organization participates.

19. Outline the methods and technologies used by your organization to collect data for national agricultural policy-making. Evaluate the levels of compatibility between methods and technologies used by your organization and the different public sector and private sector stakeholders and institutions with whom you relate.
20. Explain how information on national agricultural policy making is shared between stakeholders, both public and non-public. Identify the specific constraints to information sharing between stakeholders.

21. With respect to Caribbean regional agricultural policy, describe how and through what mechanisms (formal and informal) is your organization involved in the following areas:
   f) problem recognition, identification.
   g) policy formulation, design, articulation.
   h) policy appraisal, verification.
   i) policy adoption, implementation.
   e) policy evaluation, impact assessment.

22. List the main types of information utilized/disseminated by your organization in the specific areas of Caribbean regional agricultural policy in which your organization participates.

23. Outline the methods and technologies used by your organization to collect data for Caribbean regional agricultural policy-making. Evaluate the levels of compatibility between methods and technologies used by your organization and the different public sector and private sector stakeholders and institutions with whom you relate.

24. Explain how information on Caribbean regional agricultural policy making is shared between stakeholders, both public and non-public. Identify the specific constraints to information sharing between stakeholders. What policies are being implemented to deal with these constraints?

25. What are the linkages between the national and Caribbean regional levels in regional agricultural policy-making in the Caribbean?

26. Was your organization involved (directly or indirectly) in the process by which CSME Protocol V on Agricultural Policy (especially Article III on The Community Agricultural Policy and Article IV on Implementation of the Community Agricultural Policy) was prepared?

27. List the main institutions and organizations that influence how regional agricultural policies are prepared and implemented.
28. Identify the key stakeholders involved the regional agricultural policy process. Discuss the formal and informal mechanisms through which they participate in regional agricultural policymaking.

29. From your organization’s perspective, identify and describe the information and communication approaches (including networking) and strategies that have been used to:
   - build awareness about regional agricultural policies
   - involve different stakeholders in the regional policy-making processes
   - manage changes emanating from regional agricultural processes and the wider environment
   - manage different and conflicting views and interests.

30. Identify the sources of information available to help formulate and implement regional agricultural policies. Evaluate stakeholders’ access to these information sources. Describe the constraints that exist to accessing public and private information sources in the Caribbean region. What measures are being implemented to overcome the constraints identified?

31. Explain how information on Caribbean regional agricultural policy making is shared between stakeholders, both public and non-public. Identify the specific constraints to information sharing between stakeholders.

32. Outline the methods and technologies used to collect data for regional agricultural policy-making. Evaluate the levels of compatibility between methods and technologies used by different stakeholders and institutions.

33. To what extent has your organization used the information provided to it by regional agricultural policy sources? What are the factors, including those related to the information itself, that limit your organization’s use of the information provided? What measures are envisaged to overcome these constraints?
Appendix 6
List of Persons Consulted
Barbados
October 21 – 22, 2002

Mr. Herman Adams
Country Team Leader
CARDI

Mr. Michael James
Focal Point
CAPHNET

Mr. Braithwaite
Barbados Egg and Poultry Producers Association (BEPPA)

Mr. Glenn Marshall
National Coordinator
CLAWRNET

Mr. Mark Byer
Officer in Charge
Agricultural Information Services Unit
Ministry of Agriculture and Rural Development

Mr. James Paul
Chief Executive Officer
Barbados Agricultural Society

Mr. Ralph Farnham
Deputy Chief Agricultural Officer (Crops)
Ministry of Agriculture and Rural Development

Mr. Michael Phillips
National Coordinator
CARINET

Dr. Griffith
President
Barbados Sheep Farmers Inc.

Mr. Gregg Rawlins
Chief Economist / Head
Agricultural Planning Unit
Ministry of Agriculture and Rural Development

Mr. Michael Hunte
Deputy Chief Agricultural Officer (Livestock)
Ministry of Agriculture and Rural Development

Mr. Carl Simpson
Director, Sugar Desk
Ministry of Agriculture and Rural Development

Mr. Lionel James
Programme Advisor
Caribbean Development Bank

Mr. Adrian Yard
National Coordinator (former)
CASRUNET
List of Persons Consulted
Guyana
October 29 – 30, 2002

Ms. Patricia Bender
Chief Planner
Ministry of Agriculture

Dr. Oudhu Homenaugh
National Coordinator
CARINET

Mr. Byron Blake
Asst. Secretary General
CARICOM

Mr. Azim Hosein
Regional Coordinator
CRIDNET

Mr. Mohammad Faroze
National Coordinator
CAPHNET / CARIFRUIT

Mr. Sam Lawrence
Agricultural Adviser
CARICOM

Ms. Brenda Forde
National Coordinator
CAPGERNET

Mr. Peter Ramsara
Programme and Projects Manager
CRIDNET
## List of Persons Consulted
### Jamaica
### October – December 2002

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Keith Amiel</td>
<td>Managing Director, Newport Mills</td>
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<tr>
<td>Dr. Francis Asiedu</td>
<td>Country Team Leader, CARDI</td>
</tr>
<tr>
<td>Mr. Basil Been</td>
<td>Director of Research, Coconut Industry Board</td>
</tr>
<tr>
<td>Mrs. Fiona Black</td>
<td>Consultant / Supplier, Dairy Industry</td>
</tr>
<tr>
<td>Mrs. Zuleikha Budhan</td>
<td>Director, Economic Planning Unit, Ministry of Agriculture</td>
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<tr>
<td>Ms. Mavis Campbell</td>
<td>International Trade Specialist, Ministry of Agriculture</td>
</tr>
<tr>
<td>Mr. Philip Chung</td>
<td>Regional Coordinator, CIPMNET, RADA</td>
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<tr>
<td>Ms. Hannah Clarendon</td>
<td>Representative in Jamaica, Bahamas and Belize, FAO</td>
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<tr>
<td>Ms. Janet Conie</td>
<td>Director of Research, Banana Board</td>
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<tr>
<td>Mr. Amir Constanza</td>
<td>Farmer, Belize</td>
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<tr>
<td>Ms. Kathryn Duncan</td>
<td>Information Specialist, IICA</td>
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<tr>
<td>Dr. Hopeton Dunn</td>
<td>Senior Lecturer / Communications Policy Analyst, CARIMAC, UWI</td>
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<tr>
<td>Prof. Fay Durrant</td>
<td>Head, Department of Library Studies, UWI Mona</td>
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<tr>
<td>Mr. Lloyd Forbes</td>
<td>Chairman, Technical Committee, WIRSPA</td>
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<tr>
<td>Ms. Una May Gordon</td>
<td>Regional Trade Specialist, IICA</td>
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<tr>
<td>Mrs. Valerie Gordon</td>
<td>National Coordinator, Jamaica Sustainable Development Networking Programme</td>
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<tr>
<td>Dr. Richard Harrison</td>
<td>Permanent Secretary (former), Ministry of Agriculture</td>
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<tr>
<td>Mr. D. G. Hutton</td>
<td>Head, Agriculture Unit, UWI Mona</td>
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<tr>
<td>Mr. Sammy Indalmanie</td>
<td>Director of Research, Sugar Industry Authority</td>
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<tr>
<td>Mr. Karl James</td>
<td>Chairman, Sugar Association of the Caribbean</td>
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<tr>
<td>Ms. Lashley</td>
<td>Caribbean Disaster Information Network, UWI Mona</td>
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<tr>
<td>Dr. Joseph Lindsay</td>
<td>National Coordinator, CLAWRNET</td>
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<tr>
<td>Mrs. Margaret Mais</td>
<td>National Coordinator, CAPHNET</td>
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<tr>
<td>Mr. Don McGlashan</td>
<td>Aetg. Chief Technical Director, Ministry of Agriculture</td>
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</tbody>
</table>
Dr. Lyndon McLaren  
Retired (IICA)

Mr. Patrick Sibblies  
President  
CABA

Mr. David Miller  
National Coordinator  
CASRUNET

Ms. Marie Strachan  
Senior Director, Economic Planning  
Ministry of Agriculture

Mr. Roy Russell  
Lecturer  
UWI Mona

Dr. Florence Young  
Project Coordinator, Citrus Replanting Project  
Ministry of Agriculture

Mr. Albert Shand  
Head  
RADA
List of Persons Interviewed  
St. Lucia  
October 23 – 24, 2002

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Mr. George Alcee</td>
<td>Programme Officer</td>
<td>OECS</td>
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<tr>
<td>Mr. Guy Mathurin</td>
<td>National Coordinator</td>
<td>CRIDNET</td>
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<tr>
<td>Mr. Christopher Cox</td>
<td>Chief Agricultural Planning Officer</td>
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<tr>
<td>Ms. Joan Norville</td>
<td>National Coordinator</td>
<td>CAPGERNET</td>
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<tr>
<td>Dr. James Fletcher</td>
<td>Permanent Secretary</td>
<td>Ministry of Agriculture, Forestry and Fisheries</td>
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<tr>
<td>Mr. Julius Polius</td>
<td>National Coordinator</td>
<td>CARINET</td>
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<tr>
<td>Senator Calixte George</td>
<td>Minister of Agriculture</td>
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<tr>
<td>Ms. Florence Sergile</td>
<td>Caribbean Coordinator</td>
<td>IABIN</td>
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<tr>
<td>Mr. Frederick Jones</td>
<td>Head</td>
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<tr>
<td>Ms. Naula Williams</td>
<td>Head, Information Services</td>
<td>OECS</td>
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<tr>
<td>Mr. Michael Lamontagne</td>
<td>National Coordinator</td>
<td>CAPHNET</td>
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</tbody>
</table>
List of Persons Interviewed  
Trinidad  
October 25 – 28, 2002

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Organization</th>
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<tr>
<td>Mr. Vincent Atkins</td>
<td>Regional Negotiating Machinery</td>
<td>Trinidad</td>
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<tr>
<td>Mr. Don Fletcher</td>
<td>Director</td>
<td>CAMID</td>
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<tr>
<td>Mr. Nadir Baksh</td>
<td>National Coordinator</td>
<td>CARIFRUIT</td>
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<tr>
<td>Mr. Norman Gibson</td>
<td>National Coordinator</td>
<td>CASRUNET</td>
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<tr>
<td>Dr. George Bala</td>
<td>National Coordinator</td>
<td>CARINET / CAROT</td>
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<td>Ms. Judith Francis</td>
<td>Regional Coordinator</td>
<td>CARIFRUIT</td>
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<tr>
<td>Dr. Ronald Barrow</td>
<td>Regional Coordinator</td>
<td>CARINET</td>
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<tr>
<td>Ms. Audine Mootoo</td>
<td>National Coordinator</td>
<td>CAPHNET</td>
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<tr>
<td>Ms. Albada Becam</td>
<td>Ministry of Agriculture</td>
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<tr>
<td>Mr. Aaron Parke</td>
<td>Representative</td>
<td>IICA</td>
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<tr>
<td>Mr. Simon Bedassie</td>
<td>National Coordinator</td>
<td>CARIVEG</td>
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<tr>
<td>Ms. Wilma Primus</td>
<td>Retired (ECLAC)</td>
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<tr>
<td>Mr. Robert Best</td>
<td>Executive Director</td>
<td>Caribbean Poultry Association</td>
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<tr>
<td>Dr. Lloyd Rankine</td>
<td>Director</td>
<td>CNIRD</td>
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<td>Mr. Ronald Bryce</td>
<td>National Coordinator</td>
<td>CLAWRNET</td>
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<tr>
<td>Mr. Samuel Rivers</td>
<td>Director of Research</td>
<td>Ministry of Agriculture</td>
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<tr>
<td>Mr. Quintin Cabralis</td>
<td>National Coordinator</td>
<td>CRIDNET</td>
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<tr>
<td>Ms. Jaiwante Samsoondar</td>
<td>Research Assistant</td>
<td>PROCICARIBE</td>
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<tr>
<td>Ms. Claudette de Freitas</td>
<td>Coordinator – CAIS / CTA RBOC</td>
<td>CARDI</td>
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<td>Mr. Chanderbahn Shrepath</td>
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