

**ASSESSMENT OF AGRICULTURAL INFORMATION NEEDS IN
AFRICAN, CARIBBEAN & PACIFIC (ACP) STATES FOR CTA'S
PRODUCTS AND SERVICES**

Phase II: Caribbean

Country Study: Barbados

Report prepared by:

Stevenson Skeete

on behalf of the

Technical Centre for Agricultural and Rural Cooperation (CTA)

FINAL REPORT

Project: 4-7-41-206-5/c

October 2005

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List of Acronyms

| | |
|----------|--|
| ACP | African, Caribbean and Pacific |
| ADF | Agricultural Development Fund |
| AIS | Agricultural Information Service |
| BADMC | Barbados Agricultural Development and Marketing Corporation |
| BAS | Barbados Agricultural Society |
| CANARI | Caribbean Natural Resources Institute |
| CANROP | Caribbean Network of Rural Women Producers |
| CARDI | Caribbean Research and Development Institute |
| CARIBCAN | Caribbean and Canadian trade agreement |
| CARICOM | Caribbean Community |
| CERMES | Centre for Resource Management and Environmental Studies |
| CHBA | Caribbean Herbal Business Association |
| COADY | Coady International Institute |
| CREP | Caribbean Regional Environmental Program |
| CRFM | Caribbean Regional Fisheries Mechanism |
| CTA | Technical Centre for Rural and Agricultural Cooperation |
| ECLAC | Economic Commission for Latin America and the Caribbean |
| FAO | Food and Agricultural Organization |
| FSRC | Food Security Resource Centre |
| FTAA | Free Trade Area of the Americas |
| GDP | Gross Domestic product |
| GIS | Geographical Information System |
| ICM | Information and Communication Management |
| ICT | Information and Communication Technology |
| IICA | Inter-American Institute for Cooperation on Agriculture |
| ITU | International Telecommunications Union |
| MAR | Ministry of Agriculture and Rural Development |
| NAFTA | North American Free Trade Agreement |
| NCST | National Council of Science and Technology |
| NIHERST | National Institute of Higher Education, Research, Science and Technology |
| OAS | Organization of American States |
| PCs | Personal computers |
| SBA | Small Business Association |
| UNDP | United Nations Development Program |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UWI | University of the West Indies |
| WTO | World Trade Organization |

Exchange rate for Euros to USD - 1.00 EUR = 1.2124USD (October, 08, 2005)

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List of codes for types and roles of institutions

Type of Institution:

| | |
|------|--|
| AS-F | Farmers' association (includes co-ops) |
| AS-W | Women's association |
| AS-Y | Youth association |
| BNK | Bank or credit institution |
| CCI | Chamber of commerce and industry |
| CHU | Church-based group |
| EDU | Educational institution |
| GOV | Government department / ministry |
| NGO | Non-government organization |
| PRV | Private enterprise, company |
| REG | Regional organization or network |
| STA | Statutory body |
| TE | State enterprise |
| OT | Other (define) |

Role of institution:

| | |
|------|--|
| EX | Extension and outreach |
| IN | Information services |
| FS | Financial services |
| PP | Policy and planning |
| PS-E | Exporter (fresh, frozen and dried produce) |
| PS-M | Manufacturer (e.g. tannery, bottler, refiner, roaster) |
| PS-P | Producer (e.g. commercial farm, fishing company) |
| PS-S | Supplier (e.g. chemicals, seeds) |
| RD | Research and development |
| RG | Regulation (compliance, standards) |
| RU | Rural Development |
| TR | Training (tertiary and vocational level) |
| TM | Trade and marketing (include development) |
| OT | Other (define) |

Executive Summary

Introduction

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention and operated since 2000 under the framework of the ACP-EC Cotonou Agreement. CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's current strategic plan distributes activities into three operational programme areas. There are departments responsible for Information Products and Services, Communication Channels and Services and Information Communication Management Skills/ systems. A Planning and Corporate Services Department supports these operational departments and monitors the ACP environment for emerging issues and trends in order to guide future programme and activities.

A previous study of information needs by CTA and the Caribbean Agricultural Research and Development Institute (CARDI), led to the formation of a Caribbean Agricultural Information Service (CAIS). This programme was designed to work at the national level to improve the capacity for information and communications management as well as to develop products and services for the Caribbean. This study seeks to update this process, identifying new trends in information needs and new potential partners/beneficiaries.

Objectives

The objectives of the study are as follows:

- to identify agricultural information needs of key actors / beneficiaries for CTA products and services;
- to identify needs of potential actors / beneficiaries of CTA activities and services in terms of building capacity for information and communication management;
- to identify potential partners / beneficiaries for CTA activities and services;
- to develop some baseline data to facilitate subsequent monitoring activities.

Methodology

The methodology consisted of a combination of qualitative and quantitative rapid appraisal methods including: a desk review; the conduct of face-to-face interviews with representatives of 15 key institutions selected from a longer list of agricultural institutions (see annex III.2 for names). These institutions were chosen on the basis of the impact on small scale farming (direct or indirect)

Expected results

The study should assist with three operational departments of CTA as well as its local representatives to improve and better target interventions and activities aimed at potential partners and beneficiaries [including women, youth, the private sector and civil society organizations]; to have a more informed picture of their needs an aide in the elaboration of a strategy and framework of action. The study should also highlight where there are specific needs for CTA's products and services thereby enabling improvement in the delivery of the same.

Findings and Conclusions

The findings of the country profile data reflected Barbados as an island with adequate road, electricity and telecommunications infrastructure. Literacy levels and health care are notably good. Information and communication technology is the target of a concerted government effort and with flat rates for telephone calls, affordable costs for access and high density of telephone lines and PCs, Internet usage is very high. Electronic mass media and the print media have the capacity to handle agricultural information even though they are currently underutilized for this purpose.

The agricultural sector, in the face of a changing world trade environment and strong competition from other local sectors still seeks to maintain and hopefully double its contribution to GDP (4% at present). This aim is motivated by the national desire for food security, employment generation, tourism linkages and the preservation of the environment. Food crops have surpassed sugar as contributors to the GDP even though sugar is still important for foreign exchange revenue.

Agricultural entrepreneurs have grouped themselves over time into associations in order to achieve a measure of cooperative effort and strength in lobbying and acquiring resources and knowledge. In the study, most of the associations were seen to depend primarily on locally based institutions such as the Ministry of Agriculture (MAR), the Caribbean Agricultural Research and Development Institute (CARDI) and the Inter-American Institute for Cooperation on Agriculture (IICA) for information and for collaboration.

In the analysis of information needs, agricultural entrepreneurs had a strong interest in “real-time” information on marketing and production data as well as on “product and technology sourcing” events. There seemed also to be a need for technologies that support the “value-added” approach (areas such as packaging, solar drying etc). There was also a trend towards seeking “soft” technologies (sustainable and environmentally friendly technologies). This interest was strong for the organic growers but also filtered over to other Institutions. There were some types of information that were critical to a specific organization or department (e.g Geographical Information System data).

Data handling, information access, and networking were prominent applications for Information and Communication Technologies (ICTs). While the responses reflected an awareness of other uses such as business support and mass communication methods, these areas were very low in the rating of possible uses.

ICT capacity and Information and Communication Management (ICM) skills were at the best in the Ministry of Agriculture (MAR) (Information Unit) and the University of the West Indies (UWI) library, since both departments were set up specifically for ICM activity. Quasi-government departments had ICTs in place but hardly any strategy and “unregulated” skills. The skills developed by the individuals working in ICM depended on the individual rather than being guided by the department. The farmers’ organizations had access to ICTs but skills and capacity to manage information and communication depended on the ability of individual members.

Areas of concern were found in almost all of the key problems identified by CTA. However there were ICT “strongholds” such as the MAR website, the libraries at UWI and MAR and the local television station that can be used to address the problems.

Training, funding, equipment, facilities for housing ICT and increased human resources were expressed as the major interventions needed to support the goals of the institutions in building capacity. ICM strategies and policies were weak throughout the institutions (UWI excluded).

Recommendations

It is recommended that:

- A marketing program be developed to promote (and guide beneficiaries to) the products and services CTA (and information of external institutions) utilizing electronic mass media.
- The currently planned National network be developed as a Development-Oriented Network (DON) (see page 26) to enhance networking activity (incorporating R&D and extension expertise) and develop a portal to the MAR web site and external institutions
- The constraints to the use of electronic mass media and to further enrichment of the MAR web site and use of regional web sites such as CARICOM be examined.
- Training be held in areas such as use of business software, web page creation, creation of training materials, newly emerging technologies (including post harvest technologies), and specific training for MAR and University of the West Indies staff, accessing funds from international donors, ICM skills, ICM policies/strategy for government departments and farmer organizations
- Libraries of MAR and UWI and offices of Small Business Association (possibly IICA and CARDI) be used as “Internet café” space for entrepreneurs.
- Dialogue be pursued with MAR and other institutions to strengthen ICM policy and strategy.
- The Ministry of Agriculture be considered for partnership. All other key institutions should be made beneficiaries.

1. INTRODUCTION

1. The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

2. CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilize information in this area. CTA's current strategic plan (2001 to 2005) distributed activities among three operational program areas / departments: Information Products and Services, Communication Channels and Services and Information and Communication Management Skills and Systems.

3. These operational departments are supported by Planning Corporate Services (P&CS) which monitors the ACP environment to identify emerging issues and trends and make proposals for their translation into programs and activities.

4. A previous study of information needs by CTA and the Caribbean Agricultural Research and Development Institute (CARDI), over the period 1995-1997, led to the formation of a Caribbean Agricultural Information Service (CAIS). This program was designed to work with institutions at the national level to improve the capacity for information and communications management as well as to develop products and services for the Caribbean. Changes of ability and awareness are already visible. This study focuses on updating the process of targeting and addressing information needs, building capacity for information and communication management, identifying prospective partners and beneficiaries and on the generation of baseline data for subsequent monitoring activities.

2. COUNTRY PROFILE: DESCRIPTIVE OVERVIEW

5. Barbados, an eastern Caribbean island with a population of approximately 270,800 inhabitants, has a slightly higher proportion of women to men (ratio of 1.1 to 1 respectively). The population displays a tendency towards urban drift. However, in Barbados, small scale agricultural production is not restricted to rural areas (Agriculture Planning Unit, MAR, 1989).

6. Real Gross Domestic Product grew in 2004 by 3.1% (Central Bank of Barbados, 2004). Growth of GDP during the period 1994 to 2000 was on average 3.2%. Government has set a targeted real GDP growth rate of 3% as the sustained rate that would meet the needs of the Barbadian society (Ministry of Economic Development, 2004).

7. The island is an important air transport hub for the eastern Caribbean and also enjoys adequate international shipping connections. Road infrastructure is well developed and all parts of the island are in easy reach of the city, schools, hospitals, etc. There is an efficient public transport system covering the entire island. Electricity supply is available throughout the island. The telecommunications infrastructure is also well developed, having a high density of telephones by Caribbean standards.

8. Literacy levels in the population are very high by world standards and equal for both genders. Adult literacy is marginally lower than for the youth (99.7% and 99.8% respectively). There is an emerging trend for more females enrolling at the tertiary level. At this level there are 2.55 females to each male enrolling.

9. There is a strong commitment to education as reflected by public spending (6.5% of GDP), while the Government has embarked on a project, Edutech 2000, to enhance computer based education and to link all primary and secondary schools to the Internet. Two tertiary institutions offer training programs for agriculture at the Certificate level and Associate Degree level.

10. Health indicators for the island suggest that access to health care is very good. The main hospital and a network of strategically located district hospitals offer free treatment to the public. There are also several private clinics operating.

2.1 Agriculture, Fisheries and Forestry

2.1.1 Agriculture

11. The agriculture sector in Barbados contributes about 4% to the Gross Domestic Product. Fisheries contribute about 0.42% to the national GDP. About 4% of the labor force is involved in agricultural production, within which the rate of employment is 23% more for men. Approximately 22,500 hectares (ha) of land is under agricultural production while there are 2,000 ha. of land under forest cover. The shelf fishing area is 277 km² while the exclusive economic zone (EEZ) is 48,800 km².

12. There are agricultural production systems ranging from: large plantations (sugar mainly), open field small farm units (for vegetables, pigs and poultry) to extensive systems for other livestock (sheep and cows). Recently there is an emerging trend towards intensive protected cultivation and also towards sustainable production systems.

13. The agricultural sector is operating in an environment characterized by trade liberalization and deregulation. Many of the newly evolving international trade agreements have reduced the preferential trade status and opened the sector to greater international competition. The agricultural sector also competes with tourism and other service oriented sectors for factors of production.

14. Government is determined to double the relative contribution of the sector to GDP during the medium term (2004 – 2007). The aim will be to pursue: support for private sector investment, greater self sufficiency, enhanced productivity and competitiveness, stronger inter-sectoral linkages, the promotion of value-added production and niche marketing, exploiting of intellectual property rights, capitalizing on opportunities of Caribbean Single Market and Economy (CSME), diversification within the sugar industry, strengthening of institutions such as laboratories that safeguard the health of the nation and facilitation of optimal fisheries production. The Ministry of Agriculture is facilitating a number of initiatives to this extent to the benefit of all the sub-sectors.

15. Sugar continues to be the main foreign exchange earner although cotton and hot pepper are exported. The GDP contribution of food crops is, however, greater than that of sugar. Food imports are over twice the value of exports (US\$ 176.3 million and US\$ 73.4 million respectively). Efforts are being made to intensify the measures to reduce the islands dependence on imports and to generate foreign exchange earnings. Non-sugar agriculture is seen as having a strategic role to play with respect to food security, employment generation, tourism linkages, and the maintenance of the aesthetics of the countryside.

16. The Ministry of Agriculture and Rural Development is the main facilitator for the agricultural sector. There are a number of State departments and enterprises which support aspects such as credit, marketing, Science and Technology (S&T) and agribusiness. There are a number of farmer organizations emerging and aiming to satisfy the needs of the members in the changing economic environment.

2.1.2 Fisheries

17. Fisheries in Barbados contributed 0.42% to the national GDP in 2003 (Ministry of Agriculture Economic planning unit, 2005). The shelf fishing area is given as 277 km², while the exclusive economic zone (EEZ) is 48,800 km². (CRFM website, 2005). The Ministry of Agriculture's Fisheries Department is the main facilitator for fishing activity. Most of the fisherfolk associations have come together under an "umbrella" organization

2.1.3 Forestry

18. The economic importance of forest cover is in terms of maintaining the integrity of a protected landscape (Scotland District). Other areas are spread throughout the country in the many gullies that characterize the countryside. The value of this cover is environmental as well as adding to the aesthetic appeal of the countryside.

19. There are 2,000 hectares of land under forest (4.6% of total land area) (FAO, 2004). Most of the forest cover is in an area of the country called the Scotland District, which is prone to land slippage (Country profile, FAO web site).

2.2 Information and Communication Management Capacity

20. The vision of the Government of Barbados is to make Barbados a center of excellence for information technology with world class telecommunications (Ministry of Economic Development, 2000). There are active programs in place locally to achieve this vision.

21. Barbados has a very high ratio of Internet users per PC and per 100 inhabitants. Because of the geographical spread of “rural” Barbados, most of the persons involved in agricultural enterprises are likely to have access to Internet either directly or through relatives who have access from PCs at home or at work. Public libraries and specially provided computer resource centers in the rural community also allow for access to computers and the Internet. The cost of access to the Internet is affordable (as low as Euro 6.18 per month for 10 hours).

22 The local television station is available to the Government Information Service for airing of agricultural programs. There is provision for at least 25 minutes per week at nights at a time just after the news when a large audience is viewing. The government operated radio station also has a 5 minute airtime slot for dissemination of agricultural information and further allocations for interactive call in programs. The print media cover a large segment of the population and are open to submissions of information in relation to agriculture, especially those linked to good health and enhancement of the environment.

23. The Ministry of Agriculture and the UWI library are fairly well equipped with ICTs. The university library is computerized and networked with access to the Internet (includes high speed connection). The MAR is about 70% computerized and networked (WAN and LAN) and with access to the Internet. MAR also has facilities for photography, videography and mass printing of color documents. Its Agricultural Information Services department maintains a library which is perhaps the largest repository of agricultural books and other information (local and international) on the island. The department staff includes personnel trained in mass communication, graphic arts and videography.

24. It was seen in the study that the quasi-government departments also had computer systems in the offices, networked and with access to the Internet. These other government and quasi government institutions tended to have an individual who is responsible for information management. The individual was in most cases involved in compiling or managing a specific set of information such as marketing intelligence data but also looked after other computer-related chores (see table 4). The skills developed by the individuals working in ICM depended on their own personal training and/or aspirations rather than by the guidance of the department. The absence of an individual specifically for information management was noticeable at the Small Business Association. The farmers groups utilized the computer equipment of the individual members of the secretariat and other members. Two of the groups (Caribbean Herbal Business Association and National Union of Farmers) utilized the equipment and facilities of private offices.

25. Farmers’ organizations did not have a specific person for information management. This activity was done mainly by the secretariat sometimes with the use of committees or individual members. The Barbados Agricultural Society was the only farmers’ organization that had an

individual assigned to information management. This association has been established for many more years than the others and has benefited until recently from government subventions and the secretariat members are paid.

26. Database compilation/handling and information access, correspondence and networking were prominent uses for ICTs (see table 1). Responses of those interviewed reflected a good appreciation for the usefulness of ICT for these purposes. It is suspected that even those institutions that did not state information access as a use actually do use ICT frequently for the purpose. Many of the offices in the more established institutions had computers networked and with access to the Internet. Similarly the organizations run by a secretariat all had individual members accessing the Internet. This type of usage was probably understated in the interviews since all of the associations provided an actively used email address. The farmers' groups, particularly those in organic farming, were very keen on the utility of ICT for networking. There has been sporadic production of newsletters by the National Union of Farmers, The organic Growers Association and the Barbados Agricultural Society.

27. Few institutions used ICTs for the operation of websites. The Ministry of Agriculture's website is the most established one so far. From observation, it has been adding information since its launch and has tremendous potential. Advertising and training of institution members to a limited extent were also noted uses for ICTs. There was little reference to the use of mass publications/electronic media. MAR, however, has a critical need for the use of such media even though at present the use is minimal.

28. With the exception of the UWI and MAR, the institutions interviewed did not have a budget and or work plan specifically for ICM. Individuals who did ICM activity were handling specific information or data within existing work programs. In the current programs there was no indication of plans to set up ICM programs, restructure staff or any such activity that would enhance the capacity of the institutions for ICM. At the decision making level, the impression was that strategic planning specifically for ICM activity was nonexistent.

Table 1. The frequency of uses for ICTs when used by key institutions

| Purpose for using ICT | No. of Respondents |
|---|---------------------------|
| Data compilation and handling | 9 |
| Accessing information | 9 |
| Correspondence | 5 |
| Dissemination of information | 5 |
| Networking | 3 |
| Production of Newsletter | 3 |
| Training | 3 |
| Advertising | 3 |
| Web site | 3 |
| Other: Certification of organic farms, Record keeping, research, world catalogue on line, accessing geographical information system, WAN, LAN, registry function, lab information system, library information system, teaching aids. | 1 |

2.3 Agricultural Information Services

29. There was a tendency for institutions to look to existing locally and regionally based institutions for information although there are specific situations where information is sought from international sources (see table 2). A heavy (almost exclusive) reliance was seen on the locally based institutions such as Ministry of Agriculture (MAR), CARDI and (Inter-American Institute for Cooperation in Agriculture) IICA as sources of information. There was also a trend towards the use of the Internet, networking and personal collections for obtaining information especially for areas such as organic farming where information may sometimes be scarce.

30. The MAR and IICA were prominent local sources of information. MAR continued to be a frequently sought source of information by all institutions. It seems as if IICA has emerged as a prominent source of information (and collaborator) for those persons/institutions who are seeking sustainable technologies. The status of IICA as a frequently sought source has increased significantly since 1997 (CARDI/CTA, 1998).

Table 2. Frequency of use of sources of information by key institutions

| Source institution | No. of Respondents |
|--|--------------------|
| Inter-American Institute for Cooperation on Agriculture | 15 |
| Ministry of Agriculture and Rural Development | 12 |
| Technical Centre for Agricultural and Rural Cooperation | 7 |
| Internet | 6 |
| Caribbean Agricultural Research and Development Institute | 5 |
| Colleagues and personal collection | 5 |
| University of The West Indies | 3 |
| Barbados Agricultural Development and Marketing Corporation | 3 |
| Food and Agricultural Organization | 3 |
| CARICOM Secretariat | 1 |
| Other: Barbados Industrial Development Corporation, Barbados Manufacturers Association, Blackwell's Book Service, Caribbean Natural Resource Institute, CANROP, Caribbean Poultry Association, CARICOM, Center for Resource Management and Environmental Studies, Caribbean Fisheries Union, Economic Commission for Latin America and the Caribbean, Embassies, Farmers associations, individuals and companies, other ministries, NCST, newspaper, Organization of American States, Poultry International, radio call-in programs, Third World Academy of Sciences, Trade Watch, World Bank | 1 |

31. The Caribbean Agricultural Research and Development Institute was also a notable source of information. The Technical Centre for Agricultural and Rural Cooperation (CTA) was an important source of literature. The importance of CARDI as a source of literature seems to have decreased since 1997 (CARDI/CTA, 1998).

32. Discussions with institutions involved in organic farming suggested that informal sources such as colleagues, personal collections and individuals involved in the business were important sources of information.

33. The Barbados Agricultural Development and Marketing Corporation (BADMC), University of The West Indies (UWI) Food and the Agricultural Organization (FAO) were less frequently noted as sources of information.

34. Sources such as input suppliers and the electronic media did not rate highly as frequent sources. The electronic and other media in particular seemed to be relatively unused despite the wide coverage that they offer. Television is not utilized at present for technical agricultural programming and the radio program "Farmers' Corner" is often compiled by the program presenter from MAR fact sheets and other existing (old) literature. Television in Barbados is a very strong medium for communication. A large audience is captive at certain times such as the first half hour after the news (8.00-8.30 p.m). This is the time when the Ministry's program, "Agroscope", was aired in the past. Similarly the morning program "Farmers Corner" has a large audience.

3. NEEDS ANALYSIS

3.1 Information Needs

35. An analysis of the types of information required suggested that institutions were very interested in material that relates to managing information within the institution. Information on editing of reports was also required (see table 3).

Table 3. The frequency of types of information required by key institutions.

| Type of information | No. of Respondents |
|---|--------------------|
| Management of information within the organization | 9 |
| Trade Fairs | 9 |
| Conferences and meetings | 8 |
| Market Data | 8 |
| Post harvest technology | 8 |
| Packaging | 8 |
| Application of communication technologies in extension (and rural development) services | 7 |
| Government and international regulations | 7 |
| Programs executed by agricultural networks | 5 |
| Waste utilization | 5 |
| Editing of reports | 5 |
| Equipment sourcing | 5 |
| Farm problems | 5 |
| Grading systems | 4 |
| Commodity profiles | 4 |
| Crop insurance | 4 |
| Crop varieties | 4 |
| Integrated pest management | 4 |
| New technology, e.g mulching and alternative energy | 4 |
| Transport (for export) | 4 |
| Other: Cost information for organic farming, development of audio visual packages, disease monitoring, government documents, industrial profiles, collective farming, patents, water management, maturity indices, organic farm management, practical experiences of other organic farmers in the region, refrigeration, weed management | 1 |

35. There was also an interest in the types of information that allow for exposure to new markets, trade opportunities and product demand. Information on trade fairs, commodity profiles, conferences and meetings and market data rated relatively high on the list. Three farmers' organizations noted information on trade fairs and such activity as difficult to acquire. Some institutions have been seeking this information through the Internet. Information on government

and international regulations was also frequently sought by respondents. These types of information may be of particular interest now on account of the general response of producers towards globalization.

36. There was a trend towards a demand for “real-time” information such as market and production data. It is in some cases unclear if the information is unpublished or if the problem is locating the information. Where the information has been published it often seems hard to locate or obtain. This has been true in the personal experience of the consultant for information such as Geographical Information Systems, which often may be partly confidential, and Government generated information such as the agricultural census and other surveys or studies for the agricultural sector. In preparation of the country profile there was a noticeable sparseness of such information for the 90’s and up to present.

37. There was also a strong interest in information on post harvest technology, packaging, transport (for export) and to a lesser extent equipment sourcing. From the discussions, most of this interest was to satisfy the goal of exploring the benefits of “value added” products. Responses revealed a distinct intention to shift away from the primary product especially in the production of herbs/botanicals. Most of this production activity is towards export or local tourism market.

38. Respondents have also expressed an interest in waste utilization, crop varieties, integrated pest management, and new technology (including alternative energy), indicating an interest in new products and new techniques. There was a notable interest in sustainable, environmental friendly technology. There has been little work in these areas and much of the information is still unpublished. Programs executed by agricultural networks may have featured high in the rating because the “newer” technologies seem to be largely obtained by networking. Some of the information that was stated by one institution as difficult to acquire was found by a representative of another institution on the Internet. It should be borne in mind also that production information obtained on the Internet is not always suitable (with regards to climatic and other aspects) to local conditions.

39. Crop insurance information was frequently sought by respondents possibly on account of recent natural disasters such as hurricanes and unseasonal rainfall.

40. There were also some types of information that were not frequent in the rating but are critical for the institutions that require them. Examples of such information are Geographical Information Systems, Laboratory reference information and Information needed for certification of organic farms. The following types of information were hard to obtain:

- marketing and trade data;
- specific technical information e.g., mulching , organic farming;
- available funds and how to access them.

3.2 Capacity Building Needs

41. Except for the UWI, the institutions displayed weaknesses in capacity that need to be addressed for improved management of information and communications activities. Among such institutions, MAR is the only one that has an information department. Table 4 outlines the way the institutions are structured for ICM.

Table 4. Departments/individuals responsible for ICM and ICT in key institutions and comment on organization.

| Institution | Unit/person responsible for information management | Unit/ person responsible for ICT | Comment on capacity for information management |
|---|--|--|---|
| Barbados Agricultural Society | A data officer | A data officer | Partially structured* |
| Organic Growers & Consumer Association | (President and Vice President responsible) | Members use their own PCs and hardware | Not structured |
| Barbados Community College (library) | Librarian | The college computer center looks after the hardware etc. | Structured |
| University of the West Indies (library) | Librarians (reader service and cataloguing) | UWI computer center has responsibility for the network; a systems librarian; | Well structured |
| Barbados Agricultural Development and Marketing | Marketing department personnel for market information. Registry for storage of books journals etc (limited) | Equipment maintained by contract to external services | Partially structured |
| Ministry of Agriculture and Rural Development | Information Services Unit (12 persons) headed by a professional trained in ICT | Information Services Unit (12 persons) | Well structured |
| Rural Development Commission | Field officer (also utilizes the information unit at MAR) | Field officer | Partially structured |
| Southern Farmers | (president and secretary responsible) | Individuals look after their own systems | Not structured |
| National Council of Science and Technology | Technical Officer | Equipment is part of Ministry of Commerce office | Partially structured |
| Barbados National Union of Fisherfolk Organizations | (Done by individuals of the secretariat) | None | Not structured |
| Small Business Association | (Done by individuals of the secretariat) | Maintenance only is by a member of the association | Not structured |
| National Union of Farmers | (Done by individuals of the secretariat) Utilizes a committee for special projects. There is a member referred to as the "e-man" who does a lot of the computer work. | Individual members use their own PCs | Not structured |
| Association of Women in Agriculture | (Done by individuals of the secretariat) | Individual members use their own PCs | Not structured |
| Caribbean Herbal Business Association- Barbados chapter | (Done by individuals of the secretariat) Utilizes committees for certain aspects. | Computers are part of IICA office | Not structured (within the institution) |

* "Structured" refers to the extent to which a department or specific person is responsible for information management and ICT.

42. ICM policy and strategy in the institutions was weak or virtually absent. The issue of an existing staff member being used to do ICM tasks, permeates throughout MAR and all other larger institutions. There was generally no organizational structure to accommodate persons involved in ICM. Such persons had posts within the existing organizational structure but were trained and utilized for ICM activities. The staff members did not have ICM posts and were not paid for ICM skills. To cite an example, in MAR there is a Senior Agricultural Assistant (SAA) who has been trained in network engineering and has built and maintains the MAR computer network. However, his salary can only be that corresponding to the SAA post. This often has a negative effect on the enthusiasm for the work. Therefore at the level of the organization there existed a need to create policy that would be a precursor to the structuring of the institution for improved ICM. The respondent for MAR, one of the better organized institutions, noted that there is a need for a policy to mandate the production and dissemination of information as an integral part of work programs. These findings suggest a strong weakness in overall strategy/policy for ICM.

43. The problem of weak policies and strategies was more pronounced within the quasi government institutions and the farmers' organizations (The NSCT was an exception since ICM strategy was written into the strategic plan) The skills developed by the individuals working in ICM was more dependent on their own personal training and or aspirations rather than being guided by the department. These findings suggest a pronounced weakness in overall strategy/policy for ICM.

44. Farmers' organizations have adapted different approaches to fulfilling their capacity for ICM. The secretariats of these groups are mostly voluntary and carry out their responsibilities along with their own business activities. The secretariat members of farmers associations are all volunteers. This organizational structure and function has forced the groups to improvise, using computer skills of members and relatives. The groups utilize networking to fulfill their information needs. The ICM skills depended on the training that the secretariat and members of the group had. Most of this training would have been acquired on the initiative of the individuals. There seemed to be a need for training/exposure of the members in the types of ICM strategies that are appropriate to farmer's organizations.

45. Among respondents, there was a good awareness of the utility of ICT in meeting the everyday needs of the institution (9 of the 15; see table 3) in terms of correspondence and information access. There was also an awareness of the scope of ICT for producing, and disseminating training materials. At least 2 respondents (BAS, NCST) noted the possibility of using ICT to improve the efficiency of the limited human resources. The need exists for training and or sensitizing members of the institutions to exploit the broader uses of ICTs.

46. The study elucidated a need for an intervention to assist MAR in the utilization of mass media. Investigation of the limitations for greater use of electronic and other mass media revealed a complicated problem within MAR. The information has to be released via the Government Information Service (GIS). However, the GIS does not always have personnel committed to agricultural programming. If MAR had the capacity to produce a complete package, ready for airing on television, there would be less of a problem. MAR has been unable to produce such packages largely on account of the problems of staff structure. The videographer is not recognized in the institutions' structure for this ability and is therefore not compensated for the skill. It has been very difficult to get the video capture and editing work done although the equipment is available at MAR. In the case of print media, there was a need to train and mandate technical staff to produce documents for non-technical audiences. Some of the farmers' groups

expressed an intention to use mass media and would require training for such activity. The National Union of Farmers and the Organic Growers/Consumers Association have expressed an interest in using these media for educating the public.

47. The MAR's web page has developed well since being launched. There is further need to develop the capacity of this webpage as a hub for information exchange at the national level. The information unit of MAR already has plans to create a national portal and the web site will be part of this.

48. Most of the institutions spoke of training in relation to the activities that had to be done rather than in relation to improving ICM. Capacity building needs as viewed by the decision makers of the institution often did not include needs for improving ICM. There was, however, a need to train individuals in these departments on ICM and the broader uses of ICTs. Specific training needs have also been noted by the persons who were interviewed and are outlined in table 5.

49. Most institutions expressed a need for more human resources to perform ICT activities. Only the representative of MAR and NCST noted a need for ICM posts to be created (see table 5), but this is required throughout the quasi-government institutions. Representatives from other institutions (see table 5) expressed a need for additional staff or increased involvement of members in the case of farmers groups.

50. Most of the institutions also highlighted the lack of funding as a constraint (see table 5). Most of the farmers' organizations are quite self reliant and have already set out to raise funds internally for some of their ICT and office operational needs. Some respondents expressed concern at the difficulty of acquiring funds from international donor organizations. There have been also misunderstandings of what can be done with such funds. Some members have not understood that when funds are provided for a project the funds are for specific activities or supplies which have to be previously justified (i.e. not just a lump sum to be spent ad lib).

51. The quasi government institutions were equipped with computers and other ICT hardware. However, the representatives of these institutions expressed a need for additional equipment (see table 5), with the farmers' groups having a more pronounced need for computer equipment.

Table 5. Outline facilities, equipment, training, staff and funding needs of key institutions in Barbados

| Institution | Facilities? | Equipment? | Training? | Staff? | Funds? |
|---|-------------|--|---|--|--------|
| Barbados Agricultural Society | | Computers and hardware | Upgrade skills of staff to use ICTs | personnel | Yes |
| Organic Growers & Consumer Association | | Computers and hardware | Use of GIS, HACCP, post-harvest technology, organic farming methods | Personnel, <i>professional personnel</i> | Yes |
| Barbados Community College (library) | Yes | | | personnel | Yes |
| University of the West Indies (library) | | Computers and hardware | Training of clerical staff. | | Yes |
| Barbados Agricultural Development and Marketing | | | Agricultural marketing and business, human resource development, marketing intelligence, agro processing, GAP, | IT personnel | Yes |
| Ministry Of Agriculture and Rural Development | | Computers and hardware | Ongoing training to keep up with computer technology, video production, graphic art, library management, writing technical documents for non technical audience | Information posts needed | Yes |
| Rural Development Commission | | | (Strategic plan being developed but info was not available at the time) | | Yes |
| Southern Farmers | Yes | <i>computers and hardware</i> | Technical and professional help needed | Human resources | Yes |
| National Council of Science and Technology | | Key equipment for generating information | Training in communication of scientific information | Librarian, documenter, key staff for media usage | Yes |
| Barbados National Union of Fisherfolk Organizations | | Computers and hardware | | Professional personnel | |
| Small Business Association | | Computers and hardware | Practical aspects of business | | Yes |
| National Union of Farmers | Yes | Computers and hardware | | Human resources | Yes |
| Association of women in Agriculture | Yes | Computers and hardware | | Human resources | Yes |
| Caribbean Herbal Business Association- Barbados chapter | Yes | Computers and hardware | Training to allow members to access available information | | Yes |

Needs in italics are based on observation of consultant, others are stated needs

52. The establishment of physical office space (which would house computers) seemed to be a priority for those institutions that do not have their own (see table 5). The farmers' organizations,

except for BAS, recognize their need for physical infrastructure for ICTs and literature among other purposes.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

4.1.1 *Extent of Key Problems*

53. This study aims to identify information and capacity building needs of key [and potential] actors in the local agricultural sector. For its 2005 to 2006 program the CTA has identified a number of “key problems” that they will seek to address in its operational sub-programs. The following section outlines the status of these key problems in Barbados.

Information Products and Services

Limited Availability of publications that support decision-making in the agricultural sector

54. A problem in obtaining current local statistical information was observed as number of representatives from the institutions interviewed cited this difficulty. It was also difficult to find information on the agricultural sector after the late eighties.

Shortage of relevant published information on agriculture and rural development because of weak local publishing infrastructure.

55. While the publishing infrastructure may be weak, it is felt that the current shortage of relevant published information may be more related to the changing demand of the audience. The shortage is with respect to the new interest in different types of relevant information beyond the simple production information.

Limited access to locally and externally published information on agriculture and rural development, due a weak distribution infrastructure.

56. All institutions were familiar with the MAR library which is well used by a cross section of those involved in agriculture. There was no indication of any problem in access to locally and externally published information due to weak distribution.

Limited awareness of the existing local or external sources of information and about the type of products and services available.

57. The findings suggest that there is very limited awareness of the existing local and external sources of information and types of services. The institutions tended to seek information largely from familiar institutions such as MAR and CARDI. The level of awareness for CTA products (available through MAR) was very low. Useful facilities such as Q&A and SDI were unknown to most of the respondents.

Communication Channels and Services

Limited contacts among ACP stakeholders and between the latter and experts from other countries and regions

58. Limited contacts among institutions and experts from other countries were observed. Given the tendency for institutions to seek most of information through MAR, IICA and other locally based institutions, much of their expertise is obtained through projects conducted through MAR.

Weak networking services, such as newsletters, web sites, etc.

59. The matter of weak networking services was also a problem requiring some attention. A large amount of effort has gone into launching the MAR website but the site at present has a lot more potential for utilization to strengthen networking activities. Technical and news information in most of the subprograms was limited or non existent. The few newsletters that were produced locally were very sporadic.

Limited first hand experience of pertinent developments in other countries and regions

60. Many of the institutions interviewed reported a lack of first-hand experience of pertinent developments in other countries. Many of the institutions have asked for information on the kinds of events that will allow them to be exposed to such developments.

Limited use of ICTs for networking and dialogue

61. The use of ICT for networking and dialogue was not a limitation for those institutions which have the equipment. The effectiveness in usage for some groups could, however, be improved. The farmers' organizations lacked the equipment and office space for proper utilization of ICTs. Some groups were limited by the proficiency of members in the use of ICTs...

Failure to take full advantage of opportunities for using radio, TV and other non print media in communicating agricultural information and knowledge

62. The use of non print mass media in communication is very weak. The capacity of such media was highly underutilized.

Use of Information and Communication Skills

The lack of expertise in the area of information and communication and management.

63. The lack of expertise in the area of ICM skills was raised as a problem by many of the institutions / organizations interviewed. Except perhaps for the MAR Information Unit and the UWI (professionals in ICM) expertise seems to be very scarce (locally).

Limited opportunities to acquire relevant ICT skills

64. Limited opportunities exist for acquisition of ICT skills. Training in such an area is not typical and is dependent on the motivation and ambitions of the individual staff member. The head of department of the information unit at MAR is the sole person trained at the MSc level and working in the context of agriculture.

Weak ICM policies and strategies

65. Weak ICM policies and strategies were observed in most institutions. MAR and UWI are the most organized re information strategy and policy, however, even the MAR reported shortfalls in its policy.

Limited knowledge of the design of cost effective and participatory ICM systems

66. Among the representatives of the institutions interviewed, only the professional staff member at MAR was trained in this area.

Limited management techniques for the implementation of ICM projects and services

67. The situation of limited management techniques for implementation of ICM projects and services exists for all the institutions except for MAR and UWI library. Many of the institutions did not embrace ICM strategy and policy within the work program.

4.1.2 Information Needs

68. Difficulties were encountered obtaining current local statistical data, especially market and trade data. This was attributable to two main aspects: the delayed publishing of compiled data and locating the published material. There is a need for an information system that compiles and publishes local production and marketing data.

69. There is also a need for a system to guide institutions/individuals to a wider set of information from external sources. There is a need for the further development of the MAR website as an easily accessible source of current information and as a link to external sources. While the web pages did not rate highly on the list of information sources, they have tremendous potential for sharing (or linking to) some types of information.

70. Institutions are looking beyond the typical production information on basic “know how” and seeking more business related information such as trade, marketing and techniques for achieving “value-added” production. Newer technologies which lend to sustainability, environmental enhancement and increased competitiveness are also of greater importance. The traditional repositories of literature may be now deficient in these areas, but MAR and UWI have the potential to be important access points for more up-to-date and relevant information.

71. Farmers and other entrepreneurs in agriculture are not relying on the existing extension services for information. Entrepreneurs are going directly to original sources of information. Extension officers will have to be trained and equipped for repositioning in the information flow process to achieve greater usefulness for these services.

72. There is a need for support programs/projects which facilitate the use of TV and other mass media for appropriate messages or possibly to promote other information sources. The current limitations preventing greater use of these media need to be addressed. Private entrepreneurs may have an important role in assisting CARDI and MAR to utilize the potential of these media.

73. The specific information needs of some institutions or departments of the MAR require some attention. While information such as Geographical Information Systems may not be widely demanded, it is crucial for e.g. to the work of some departments of MAR.

74. Institutions need to be sensitized to the broader uses of ICTs. A much greater utility could be realized if institutions extend the usage for business support and increase the use of mass media for information dissemination.

75. Interviews with representatives of some of the institutions suggested that there are non-technical factors (such as interpersonal or inter-institutional conflicts that may seriously impede information exchange and access).

4.1.3 Capacity Building Needs

76. Training, funding, equipment, facilities for housing ICT and increased human resources were expressed as the major interventions needed to support the goals of the institutions.

77. There is a need for specific training (see table 5) and equipping of the university library and the information services unit of MAR for managing agricultural information. In the case of UWI this training need exists within the clerical support staff, while at MAR various members of the staff of the information unit could benefit from training as outlined in table 5. Representatives of both institutions have expressed a need for ICT enhancement.

78. There is an urgent need to train individuals of the other institutions to enhance their ICM skills. Those departments that have personnel assigned to ICM activities would require training in the specific areas outlined in table 5 and there may also be a need for other sensitization training at various levels in the institutions to improve skills and awareness.

79. ICM policy and strategy are seen to be weakly entrenched in the programs of the majority of the institutions and this may be having a negative impact on the development of ICT and the greater use of ICM systems.

80. In aiming to improve skills in government and quasi government institutions it must be noted that training interventions may not improve the capacity of the department for ICM if the individual is not in a position to be properly compensated for the skills. After individuals in such a situation have received training it is often completely up to the individual as to what extent they will apply the skill.

81. There is a need to train and sensitize representatives of farmers' organizations to the importance of ICM and the broader uses/benefits. Members of many of these organizations have already begun attending training events on the use of the computer. This training could be enhanced by other training in areas such as ICM in general, webpage maintenance, newsletter production and business applications.

82. ICT facilities were not noted as a limiting factor in most of the quasi government departments, (except for the NSCT and BAS which noted that they would like to utilize more equipment to make up for human resource shortages). Most respondents, however, stated a need for more computer equipment.

83. Among the farmers groups, there was an expressed need for office space and personnel for establishing a stronger secretariat. There is a need for assistance in provision of office facilities where ICTs can be set up and used by farmers groups.

84. The matter of funding for farmers organizations requires some attention. It is felt that injections of funds may sometimes free these groups from the time spent in fund raising activities and allow them to focus more on the intended work programs of the institution (including ICM).

4.1.4 Potential Partners and Beneficiaries

85. The MAR information unit and the UWI library are both in a “position of strength” to make a huge contribution to ICM. The MAR Information unit (including library facility) caters to the needs of all agricultural entrepreneurs as well as students for agricultural information and have a good inherent capacity to do so. These two institutions are already collaborating with CTA to a certain extent. A partnership should be established with MAR while the UWI should be further targeted as a beneficiary.

86. The Small Business Association and the National Council for Science and Technology are critical institutions for the advancement of small farm businesses and technological innovation respectively but are in need of capacity building interventions. These institutions would benefit tremendously as beneficiaries.

87. The other institutions in the list have varying needs for ICM and ICT interventions. These institutions should be targeted as beneficiaries. Among them, The National Farmers Union, Southern Farmers, BARNUFO and the Association of Women in Agriculture are keen on the work programs they have drafted. Unlike the organic growers institutions which are strongly supported by IICA, these institutions still have a need for support. It is further recommended that leaders and members of the associations be included/targeted for appropriate training workshops etc scheduled for the remainder of the CTA program of activities of 2005.

4.2 Recommendations

4.2.1 Information Needs

The following recommendations are made with regard to information needs:

88.

- Analyze the nature of information shortage to establish what information is compiled and how it can be made available. This would have to be done as a joint public service program; the possibility for contracting private entrepreneurs to expedite this work (under the supervision/guidance of MAR and CARDI) should be considered.

89.

- Develop a marketing program to promote and make accessible the products and services of CTA and (other available information from external sources), utilizing the facilities of MAR, IICA and CARDI/UWI; the program should focus on the promotion and distribution of the products and services.

90.

- Source relevant available literature and training materials for areas such as organic farming, mulching, irrigation management, greenhouse technology;

91.

- Examine how the ICM systems of other prominent regional institutions such as the CARICOM Secretariat could be integrated as sources or links to technology that improves sustainability and competitiveness of rural entrepreneurial activity.

4.2.2 *Capacity Building Needs*

For capacity building needs, the following recommendations are made:

Information Network

92.

- Using the contact information from this assessment, formulate an interim Development-Oriented Network (GFAR, 2005). Such a network brings together farmers, researchers, extensionists, marketers, input suppliers and all other stakeholders in such a way that information from all can be posted and shared. There are at present plans for a National network (in collaboration with CAIS). Such a network could be used for the purpose of:
 - Promoting CTA and other external institutions;(Q&A, SDI, Spore, publications)
 - Enhancing and utilizing the web page of the Ministry of Agriculture as a networking hub (with some attention to the management of access to sensitive information);
 - Revive and use the dgroup that was previously set up by the AIS of MAR;
 - Promoting relevant trade fairs, conferences, etc. that are occurring;
 - Utilization of the scope of television, radio and printed media as promotion tools
 - Establishing the details of training required by the various institutions in relation to using ICTs for networking.

93.

- Create a strategy (maybe a collaborative project) for developing the full capacity of the MAR website as a source of available literature and as a link to other diverse sites which offer the relevant information. This will require analysis of the current constraints to information uploading to the various sites. Discussions are already underway for the creation of a web portal to support a national network. A tremendous impact may be seen in the useful content of the web page by contracting private individuals to target specific information and capture it for insertion on the web page and, possibly, to continually update and maintain the contents.

94.

- Setting up of an interim arrangement where MAR and UWI libraries, IICA, CARDI and Small business Association (SBA) offices are utilized as Internet “Café” space for agricultural entrepreneurs. This could be done in the framework of a Development-Oriented Network (national network) as mentioned above. This could be extended to the community resource centers that are already scattered around the island in rural areas and the public libraries.

95.

- Examine how the expertise of existing extension and research services at MAR and BADMC can be integrated into an information network (e.g. a Development-Oriented Network as noted above).

Training Programs and workshops

96.

- Introduction of a training program in the use of ICT for business support and creation of training material (CDROM, DVD)

97.

- Training in post harvest tech., packaging, processing (especially solar drying), marketing information systems

98.

- Organization of workshops/field events to train farmers on the above newly emerging technologies (promotion of the same if already planned).

99.

- Training programs to strengthen ICM skill in MAR and, more so, other institutions.

100.

- Training of the staff of the Information Unit of MAR in library management, video production, electronic graphic art, promotion (should be done concurrently with policy changes).

101.

- Training for the clerical staff of UWI library in library systems and enhancement of the use of ICTs.

102.

- Develop and mount training workshops aimed at improving the skills of members of institutions in ICM and broader uses of ICTs. Such training events would be primarily aimed at developing an institutional “culture” where ICM is integrated in the overall work plan.

103.

- Devise training programs on ICM policies/strategies that are useful for small farmer organizations and NGO’s such as the SBA.

104.

- Develop training for farmer group members on web page creation and management, newsletters, articles (training should also include private entrepreneurs who are interested in participating in the capturing and sharing of agricultural information.

Policies and Strategies

105.

- Initiate dialogue with the administration of institutions in relation to strengthening and, in most cases, establishing ICM policy and strategy. This approach should involve examination of the staff structure in relation to posts available for ICM personnel. This work is likely to be a medium to long term effort since it will involve restructuring at the level of the Public Service.

Funding

106.

- Initiate an intervention to provide support for the process of seeking funding for projects (including acquisition of equipment). This should include a directory of international donors and the procedural guidelines for acquiring funds.

4.2.3 Potential Partners and Beneficiaries

109 It is recommended that the current relationship of CTA with MAR be developed into a partnership. All other institutions on the key list should be considered as beneficiaries. The farmers' organizations in particular have an urgent need for assistance in building their ICM capacity and, based on the keenness that was observed, should respond very positively to any projects or programs that emanate. It is further recommended that leaders and members of the associations be included/targeted for appropriate training workshops etc scheduled for the remainder of the CTA program of activities of 2005.

ANNEXES

ANNEX I. TERMS OF REFERENCE

ASSESSMENT OF AGRICULTURAL INFORMATION NEEDS IN AFRICAN, CARIBBEAN & PACIFIC (ACP) STATES Phase 2: Caribbean

1. Introduction

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's programmes are organised around three principal activities: providing an increasing range and quantity of information products and services and enhancing awareness of relevant information sources; supporting the integrated use of appropriate communication channels and intensifying contacts and information exchange (particularly intra-ACP); and developing ACP capacity to generate and manage agricultural information and to formulate information and communication management (ICM) strategies, including those relevant to science and technology. These activities take account of methodological developments in cross-cutting issues (gender, youth, information & communication technologies – ICTs, and social capital), findings from impact assessments and evaluations of ongoing programmes as well as priority information themes for ACP agriculture¹.

In January 2002, CTA's Strategic Plan (2001-2005) was implemented and CTA's activities were distributed among three operational programme areas / departments:

- Information Products and Services
- Communication Channels and Services
- Information and Communication Management Skills and Systems

These operational departments are supported by Planning Corporate Services (P&CS) which is charged with the methodological underpinning of their work and monitoring the ACP environment in order to identify emerging issues and trends and make proposals for their translation into programmes and activities. This current exercise, therefore, falls within the mandate of P&CS.

2. Background

A comprehensive regional information needs assessment was undertaken in the Caribbean region, by CTA and the Caribbean Agricultural Research and Development Institute (CARDI), over the period 1995-1997. This study detailed the information needs, habits and priorities, of eleven sub-groups of users relevant to the agricultural and rural development sector, presented in sixteen national reports and a regional overview. The results of the studies were followed by a series of

¹ Priority information themes for ACP agriculture have formed the basis of various several studies, workshops and seminars bringing together various stakeholders, organisations and institutions active in the field of agriculture and rural development. The documents (or extracts thereof) will be provided to the consultants.

national consultations, missions and regional meetings, as well as pilot studies in information and communications management all aimed at arriving at or designing a strategy to meet information needs within the sector. The strategy proposed the development of a Caribbean Agricultural Information Service (CAIS) with a two pronged approach to improving access to information within the Caribbean region:

- Working with institutions at the national level to improve capacity in various aspects of information and communication management (e.g. network development, training, sensitisation).
- Developing information products and services to meet specific information needs identified.

The CAIS strategy has been implemented since 2001. A number of capacity building exercises were executed including workshops and training courses; provision of technical assistance; network development, policies and systems. Since the implementation of this strategy in 2001, there have also been a number of changes within institutions in the region with respect to their awareness and use of information and communications tools and technologies.

2. Main issues

CTA works primarily through intermediary organisations and partners (non-governmental organisations, farmers' organisations, regional organisations, ...) to promote agriculture and rural development. Through partnerships, CTA hopes to increase the number of ACP organisations capable of generating and managing information and developing their own information and communication management strategies. The identification of appropriate partners is therefore of primordial importance.

The "Evaluation of the Implementation of the Mid-Term Plan (1997 – 2000)" emphasised the need for CTA to develop a more pro-active approach and elaborate criteria for decision-making with regard to the choice of partner organisations and beneficiaries. Based on this evaluation, the "Strategic Plan and Framework for Action – 2001 – 2005" identifies strategic issues for CTA being: improved targeting (including partnerships and beneficiaries), geographical coverage, decentralisation, regionalisation and thematic orientation. The Plan also expresses concern about: the extent to which CTA's activities are relevant to and reach the poor, gender awareness and how to identify potential partners especially in the independent sectors.

Besides partner identification and selection issues, the observation has also been made that, the Caribbean region could benefit further from CTA's programme and activities. Finally, various national and regional partners with whom CTA has had a long-standing relationship have requested the current study which would serve to update the earlier studies done and allow them to provide more targeted assistance to their beneficiaries.

3. Objectives and scope of the study

The objectives of the study are as follows:

- to identify agricultural information needs of key actors / beneficiaries for CTA products and services;
- to identify needs of potential actors / beneficiaries of CTA activities and services in terms of building capacity for information and communication management;
- to identify potential partners / beneficiaries for CTA activities and services;
- to develop some baseline data to facilitate subsequent monitoring activities.

The study should assist the three operational departments of the CTA as well as its local representatives to improve and better target interventions and activities aimed at potential partners and beneficiaries (including women, youth, private sector and civil society organisations); to have a more informed picture of their needs and aid in the elaboration of a strategy and framework of action. The study should also highlight where there are specific needs for CTA's products and services thereby enabling improvement in the delivery of the same.

4. Methodology

The consultant will use a combination of qualitative and quantitative rapid appraisal methods including:

- the desk review of available literature and information sources including the findings of programme evaluations;
- the conduct of face-to-face interviews with relevant stakeholders / concerned parties;
- the limited use of questionnaires.

The rapid appraisal approach will allow a general overview of the key issues and company / organisational profiles on a per country² basis and may give rise to more in-depth studies as and when needed in the future.

5. Expected outcomes / output

One main report per country not exceeding 20 pages according to the following table of contents:

Main report

1. Executive summary
2. Introduction
3. Country profile – summary structure and economic characteristics with particular attention to agricultural sector (includes fisheries and forestry):
 - Summary of how agriculture, fisheries and forestry is organised in the country
 - Summary of the information and communication management capacity
 - The current source of agricultural information and services (synthesise Annex 3)
4. Needs analysis
 - Information needs
 - Capacity building needs (skills, training, media, ICT, equipment)
5. Conclusions and recommendations
6. References

Annexes

1. *Terms of reference*
2. *Country profile*
 - 2.1 General agricultural profile (from available documentation)
 - Size of agricultural population (male / female / youth)
 - Farmed land, forests, fishing areas
 - Agricultural systems

² Out of 16 countries comprising the Caribbean ACP, only selected number will initially be the subject of studies, with domestic consultants conducting country-specific assessments. Country selection will be done by CTA on the basis of specific criteria.

- Agriculture in the economy (percentage GDP)
- Main agricultural produce and secondary products
- Main export markets
- Trade agreements that include agriculture
- Sectoral policy related to agriculture, fisheries and forests

2.2 Socio-economic profile (from available documentation)

- Total active population, demographic breakdown
- Literacy level and languages
- Access to services (health, schools, electricity)
- Rural urban drift

2.3 Media and telecommunications (update / check)

- Newspapers, periodicals, magazines, radio stations, television channels,
- Telecommunication services (fixed, mobile, etc.)
- Computers and Internet access

3. *Profile of institutions*

- List of all institutions involved in agriculture and rural development activities, including private sector and civil society organisations, with name, contact details, type and role of institution
- Select list of key institutions involved in agriculture and rural development, with extensive data and information on the institution, the problems faced and why it is considered a key actor

It is also expected that the results of this study will lead to identification / update of some priority agricultural information themes which will feed into a possible priority-setting exercise in the region in 2004.

6. Reporting

The country reports will not exceed 20 pages (excluding annexes). The annexes should include a list of acronyms, of persons/institutions interviewed with addresses, phone, fax numbers, e-mail addresses (if any) as well as bibliography.

7. Timing

- Draft final report is to be submitted within three months after contract signature by CTA
- Final report due two weeks after receipt of comments from CTA.

8. Expertise

| Consultant | Country |
|-----------------------------|----------------|
| Godfrey Eneas | The Bahamas |
| Stevenson Skeete | Barbados |
| Conrad Smikle | Jamaica |
| Citrus Growers' Association | Belize |

The expert should have a university degree or equivalent by experience. In addition, he/she should have at least 10 years experience in field of agriculture, rural development or social / economic sciences. He/she must have in-depth knowledge of the agricultural sector in his/her country and be able to identify key players and institutions / organisations active in this area. The ability to communicate and write clearly in English is essential, while knowledge of at least one of the local languages for communication / interview purposes is an added advantage.

The overall coordination will be carried out by Ms Christine Webster, Deputy Head, Planning and Corporate Services CTA, assisted by Mrs Lola Visser-Mabogunje, Project Assistant.

9. Implementation schedule (CTA)

- Preparation/Finalisation of ToR; Identification/ short-listing of (potential) consultants; Call for offers: February – October 2004
- Selection of consultants & contractual arrangements: October 2004
- Briefing: 3 – 4 November 2004
- Start date of contract: 2 November 2004
- Implementation period: 3 November – 1 May 2005
- End date of contract: 1 May 2005

10. Key documents to be made available to consultants

Documents include:

- Cotonou Framework Agreement
- Excerpts of relevant sections of CTA's Strategic Plan and Plan of Action (2001-2005)
- Annual Reports
- Documents on priority information themes identified for the Caribbean region
- Documents on products & services provided by CTA
- Information Needs Relevant Country and Regional Reports 1997
- CAIS Stakeholders Meeting Reports

11. Role of Regional Coordinator

- Respect the timeframe as specified in Annex IV (regarding submission of reports)
- Help identify and vet country consultants
- Attend briefing meeting in Trinidad
- Review the terms of reference
- Finalise questionnaires and methodological approach after due consultation with CTA Team
- Draw up briefing notes and guidelines for local consultants to ensure accurate and consistent application of the agreed methodology in data collection
- Answer queries (technical & otherwise) of local consultants
- During the studies, monitor and provide technical assistance to the local consultants
- Review preliminary country reports and findings and send comments back to local consultants
- Coordinate and ensure consistency of country reports
- Prepare the overall report taking into account the findings and recommendations of all the Caribbean country reports (table of contents to be agreed).

12. Role of Local Consultants

- Respect all the timeframe as specified in Annex IV (regarding submission of reports)
- Attend briefing meeting in Trinidad
- Familiarise themselves with background documents received from CTA; including the Terms of Reference
- Undertake desk study and prepare country profile, list of institutions involved in agriculture as well as preliminary list of select institutions.
- Undertake field visits in country specified in the contract

- Conduct interviews and gather information in country specified in the contract
- Draft preliminary country reports and send to Regional Coordinator for initial comments
- Based on comments received from Coordinator, revise country reports and send draft final report to CTA within the specified timeframe
- Finalise country reports based on comments and observations received from CTA and send final report back to CTA

13. Role of CARDI

- Assist in the identification and vetting of Local Consultants
- Provide input and feedback for the Terms of Reference
- Make all the logistical arrangements (flights, hotel, venue of meeting, etc) for the briefing session
- Participate in the pre/briefing sessions (in Trinidad)
- Provide backstopping for the Regional Coordinator
- Liaise with CARDI and Regional Coordinator throughout the study
- On receipt of the draft and final reports give comments and observations to the Regional Coordinator with copy directly to CTA

14 Role of CTA

- Draw up initial Terms of Reference and prepare relevant background documents
- Appoint the Regional Coordinator and the ACP Local Consultants
- Attend briefing meeting of consultants in Trinidad
- Liaise with CARDI and Regional Coordinator throughout the study
- Invite the Regional Coordinator and Local Consultants for Briefing Meeting
- Provide input to the Regional Coordinator with regard to fine-tuning terms of reference, questionnaires, interview guide and reporting guidelines for the consultants
- Provide relevant background documents to the Local Consultants & Regional Coordinator
- Elaborate budget and discuss contractual obligations with the Team of consultants & Regional Coordinator
- Pay invoices for services rendered in a timely manner on condition that all payment conditions are fulfilled
- Overall responsibility for the supervision and implementation of the studies
- Bear the agreed costs of expenditure in respect of the study (economy class return tickets to Trinidad, hotel accommodation and subsistence allowances during briefing meeting, or during agreed and specified field visits)
- Provide feedback and comments on draft country reports to the Local Consultants
- Give feedback to the Regional Coordinator on the overall report for the Caribbean.

ANNEX II. COUNTRY PROFILE- BARBADOS



Source: the Lonely Planet web site www.lonelyplanet.com/mapshells/caribbean/barbados/barbados.htm

II.1 General Agricultural Profile

Information presented in this country profile was sourced from documentation and interviews with the Planning Unit of the Ministry of Agriculture and Rural Development (MAR) as well as from online data provided by United Nations Organizations, CARICOM and the World Bank.

The agriculture sector in Barbados has undergone significant changes occasioned by domestic and economic factors. The sector competes with other vibrant sectors such as tourism and other business services for key national resources. This occurs in an environment in which trade liberalization, privatization and deregulation of ICT have become dominant features.

Sugar has been the main export over the years, but the contribution of sugar to GDP and the quantity of land planted under sugarcane have declined over time. Sugar continues to be an important foreign exchange earner, but the GDP contribution of food crops, livestock and fisheries is now greater than that of sugar.

In 2002 food imports were valued at US\$ 176.3 million while exports were valued at US\$ 73.4 million. (FAO, 2004) Efforts are being made to intensify the measures to reduce the islands dependence on imports and to generate foreign exchange earnings.

The sugar cane industry is being revitalized with greater emphasis on alternative uses for sugar cane and the rationalization of sugar factory operations. Non sugar agriculture is envisaged as having a strategic role to play in the economy with respect to food security, employment generation, tourism linkages, and maintenance of aesthetics of the countryside. Government has proposed a number of initiatives that are expected to double the relative contribution of non sugar agriculture to Gross Domestic Product (GDP). These measures focus on diverse aspects such as intellectual property rights, youth in agriculture natural resource development, competitiveness enhancement, and health safety which will benefit all sub-sectors.

II.1.1 Size of Agricultural Population

Based on the World Bank report on development indices the agriculture labour force has remained constantly at about 4% of the total population.

The World Bank report on development indicators (2004):

Table 6. The population of Barbados from 1999 to 2002, showing the percentage of the labour force in agriculture

| | 1999 | 2000 | 2001 | 2002 |
|--|-------------|-------------|-------------|-------------|
| Total population (1000) | 267 | 267 | 268 | 269 |
| Agricultural labour force/total labour force (%) | 4 | 4 | 4 | 4 |

FAOSTAT: World Bank - World Development Indicators, 2004

UNDP human development report (UNDP,2004) depicts the rate of employment in agriculture for women as 77% of the rate for men. To add perspective to this, fewer women are employed in industry than men (35% of male rate) while more women than men tend to be employed in the services sector (129%).

II.1.2 Farmed Lands, Forests, Fishing

II.1.2.1 Farmed Lands

Barbados has a total land area of 43,176 hectares. Approximately 22,500 hectares (51%) of the total land area remains in agriculture (Government of Barbados; Town and Country Planning, 1999)

II.1.2.2 Forests

There are 2,000 hectares of land under forest (4.6% of total land area)(FAO, 2004) . Most of the forest cover is in an area of the country called the Scotland District, which is prone to land slippage (Country profile, FAO web site).

The economic importance of forest cover is in terms of maintaining the integrity of a protected landscape (Scotland District). Other areas are spread throughout the country in the many gullies that characterize the countryside. The value of this cover is environmental as well as adding to the aesthetic appeal (conversation with staff member at Soil Conservation Unit, Ministry of Agriculture).

II.1.2.3 Fisheries

Fisheries in Barbados contributed 0.42% to the national GDP in 2003 (Ministry of Agriculture Economic planning unit, 2005). The shelf fishing area is given as 277 km², while the exclusive economic zone (EEZ) is 48,800 km². (CRFM website, 2005) There is at present a legal dispute with Trinidad and Tobago in relation to the EEZ.

II.1.3 Agricultural Systems

Plantations represent the largest farming system and occupy the largest land area generally producing sugar cane in rotation with root crops in open field and rain fed environments. A few plantations have diversified from sugarcane and resorted to vegetable cultivation. There are a large number of small farm units producing vegetable crops in open field, with irrigation and high levels of other inputs. There is a recently emerging trend towards intensification by the use of greenhouses (and shade houses in the case of ornamentals). Pigs and poultry are produced intensively with a strong degree of vertical integration in the industries. Sheep and cows are mostly by extensive methods, including a significant “landless farming” type of rearing of sheep i.e people rear livestock extensively, but have no land of their own. There is at least one feedlot where sheep are reared intensively. There is also a trend towards sustainable and environmentally friendly production systems such as organic farming. (Government of Barbados; Town and Country Planning, Area Development Plant, 1999, and interviews with staff of Ministry of Agriculture).

II.1.4 Agriculture in the Economy

The contribution of agriculture to GDP has remained at about 4% over the period of 2000 to 2003 (Ministry of Agriculture Economic planning unit, 2005).

Table 7 The contribution of agriculture (and sub-sectors) to total GDP in Barbados

| | GDP contribution (\$M BDS) | | | |
|--------------------------|----------------------------|--------|--------|--------|
| | 2000 | 2001 | 2002 | 2003 |
| Sugar | 63.2 | 50.5 | 24.0 | 38.9 |
| Non-Sugar | 126.8 | 144.4 | 129 | 154.6 |
| Food crops | 51.4 | 92.5 | 76.1 | 101.4 |
| Livestock | 46.6 | 31.2 | 33.7 | 34.0 |
| Other cultivation | 0.1 | 0.1 | 0.2 | 0.3 |
| Fisheries | 28.7 | 20.7 | 19.0 | 18.8 |
| Total Agriculture | 190.0 | 194.9 | 153.0 | 193.5 |
| Total GDP at Factor Cost | 4225.8 | 4216.7 | 4155.7 | 4443.1 |

| | 2000 | 2001 | 2002 | 2003 |
|---|------|------|------|------|
| Agriculture as percentage Of total GDP | 4.5 | 4.6 | 3.7 | 4.3 |

Source: The Economic Planning Unit, Ministry of Agriculture, Barbados, website.

II.1.5 Main Agricultural Produce and Secondary Products

Table 8. Main and secondary agricultural products in Barbados

| Main products | 2004 (000' KG) |
|---|--------------------------|
| Corn | 250.4 |
| Cotton: | |
| Seed | 68.5 |
| Lint | 22.5 |
| Peanuts | 28.2 |
| Cassava | 316.7 |
| Eddoe | 115.4 |
| Sweet Potato | 1,913.0 |
| Yam | 603.4 |
| Bean | 243.6 |
| Beets | 218.4 |
| Cabbage | 432.3 |
| Carrot | 826.8 |
| Cucumber | 1,361.9 |
| Melon | 375.5 |
| Lettuce | 316.5 |
| Okra | 569.7 |
| Onion | 550.8 |
| Pepper (Hot) | 323.1 |
| Pepper (Swt) | 548.5 |
| Pumpkin | 291.3 |
| Tomato | 837.4 |
| Pork | 2064.4 |
| Beef | 244.5 |
| Veal | 13.90 |
| Mutton | 97.30 |
| Poultry | 13521.30 |
| Eggs | 1928.00 |
| Milk | 6620.8 |
| Fish | 1745.6 |
| Secondary products Rum, molasses, hot pepper sauces and other seasonings, jams and other preserves, yogurt, sausages, ham, bacon | Quantities not available |

Source: Ministry of Agriculture Economic Planning unit (1996) and interview with staff member (2005).

II.1.6 Main Export Markets

Table 9. Main exports of Barbados and the countries exported to.

| Products | Quantity (x1,000 kg) | Value (Euro) | Country |
|-------------------|-------------------------|-----------------|-------------|
| Cane sugar | 33,629 | 15814491 | U.K |
| Rum | 86305 | 12956212 | UK, USA |
| Hot pepper | Not recorded | | USA, Canada |
| Hot pepper sauce | 72 | 103888 | USA |
| Condiments | 35 | 73108 | Canada |
| Sweet potato | Not recorded | | Canada |
| Okra | Not recorded | | Canada |
| Sea island cotton | 18 | 334778 | Japan |
| | | | |

Source: Planning Unit of Ministry of Agriculture, (1996) and interview with staff member (2005).

II.1.7 Trade Agreements that Include Agriculture

Barbados, as a Caribbean country, is in an unusual position to benefit from preferences under both the US and the EU trade regimes. However, the trade liberalization set in train with the conclusion of the Uruguay Round, and the establishment of the World Trade Organization (WTO) and the North American Free-Trade Agreement (NAFTA), have diluted the value of the region's established preferential arrangements by extending them to other countries (as with rum exports to Europe), or have forced radical restructuring (as with bananas). This requires the Barbados to prepare for a more competitive trading environment (Economist Intelligence Unit, 2004).

- **The Caribbean Trade Partnership (CTP)**

This trade agreement with the United States was formerly known as the Caribbean Basin Initiative (CBI). It is a textiles program based on section 807 of the U.S import code and an import quota system for sugar. The agreement allowed duty free access to certain textiles shipped directly to U.S and catalysed the development of a number of garment factories. However with the advent of North American Free Trade Agreement (NAFTA) in 1994, Mexico and Central America became the preferred locations. Such manufacturing is now non existent (Economist Intelligence Unit, 2004).

- **Free Trade Area of the Americas (FTA) and NAFTA**

The FTAA has a proposed starting date of 2005. The scheme proposes to extend the conditions similar to those of NAFTA to the whole hemisphere (except Cuba and French overseas departments). There are special provisions for small and vulnerable economies of the Caribbean. Earlier applications by CARICOM and by individual countries such a Trinidad to join the NAFTA trading system were not successful. (Economist Intelligence Unit, 2004).

- **Caribbean**

Since 1986 Canada has maintained a preferential trade program for the Caribbean, named Caribbean, which is similar to Caribbean Trade partnership (CTP), grants duty free entry to

Caribbean exports excluding textiles, leather goods, lubricants and methanol. Negotiations for a new agreement were in progress in 2004 (Economist Intelligence Unit, 2004).

- **The Caribbean Cotonou partnership**

The comprehensive trade and aid agreement between the EU and the African, Caribbean and Pacific (ACP) group of countries, the Cotonou partnership, replaces the Lomé Convention, which expired in February 2000 and provided preferential access to the EU for the region's sugar, bananas, rum and rice, as well as development assistance. The Lomé arrangements were extended to 2008, with a WTO waiver. Talks began in 2003 for a new long-term agreement to run from 2008. Most CARICOM members are to be covered by a review of EU trading arrangements with countries that are not in the least developed category, yet are not in a position to negotiate a full-partnership agreement including free trade; talks were expected to begin in April 2004. There will be assistance for sectors that experience difficulties as a result of the transition to global free trade, such as the banana and rice industries (Economist Intelligence Unit, 2004).

II.1.8 Sectoral Policy Related to Agriculture, Fisheries and Forests

The agricultural sector, besides its current aim to double its relative contribution to Gross Domestic Product in the medium term (2004-2007), is seen as having an important role to play in food security, environmental preservation and aesthetics.

The sector is expected to pursue: - support for private sector investment, greater self sufficiency, enhanced productivity and competitiveness, stronger inter-sectoral linkages, promotion of value added production and niche marketing, exploiting of intellectual property rights, capitalising on opportunities of CSME, diversification within the sugar industry, strengthening of institutions such as labs that safeguard the health of the nation and facilitation of optimal fisheries production.

The Ministry of Agriculture has been adopting a commodity-focused approach in order to position the sector on a competitive and sustainable path. There are a number of programs and initiatives that are expected to benefit all sub-sectors:

- Remodeling the sector through institutional restructuring;
- Human resource development;
- Youth in agriculture;
- Natural resource development (land for landless program, Scotland district development, water resources for agriculture);
- Rural development;
- Competitiveness enhancement (benchmarking, incentives, new product development, transforming research, extension and development, marketing, agro-processing, credit and investment);
- Commodity specific initiatives (sugar, cotton, beef and dairy, pig industry, poultry, "commodity" crops e.g. hot pepper and onions, fisheries);
- Agricultural health and food safety;
- Export agriculture;
- Capitalise on opportunities arising through Barbados' hosting of the Cricket World cup 2007.

(Source: Summarised from Medium term strategy for the Agricultural sector 2004 to 2007, Agricultural planning Unit, MAR, Barbados,2004)

II.2 Socio-Economic Profile

The Central Bank estimates that real Gross Domestic Product grew in 2004 by 3.1% (Central Bank of Barbados, 2004). Growth of GDP during the period 1994 to 2000 was on average 3.2%. However, in 2001 and 2002 the economy contracted by 2.8% and 0.6% respectively, largely due to a downturn in the performance of the tourism sector (Economist Intelligence Unit, 2004). Government has set a target of real GDP growth rate of 3% as the sustained rate that would meet the needs of the Barbadian society (Ministry of Economic Development, 2004).

Barbados has high health and educational standards. The island is an important air transport hub for the eastern Caribbean and also enjoys good international shipping connections. Road infrastructure is good and all parts of the island are in easy reach of the city, schools, hospitals, etc. There is an efficient public transport system covering all parts of the island. The telecommunications infrastructure is also well developed, having a high density of telephones by Caribbean standards (Economist Intelligence Unit, 2004).

II.2.1 Demographics

The population of Barbados is given as 270,800 (Economist Intelligence Unit, 2004). The annual growth rate for men and women is similar. A CARICOM population study of gender proportions in the population (2004) indicated the following:

Table 10. Proportion of men and women in the population of Barbados in 1980, 1990 and 2000

| Year | Population | | Sex ratio |
|------|------------|---------|-----------|
| | Women | Men | |
| 1980 | 128,457 | 115,771 | 111 |
| 1990 | 128,732 | 118,556 | 109 |
| 2000 | 130,084 | 119,926 | 108 |

Source: CARICOM Population Study of Gender Proportions in the Population, 2004

From the UNDP Human development report (UNDP, 2004) the breakdown in relation to age is as follows:

Table 11. The total population of Barbados and the numbers under 15 and over 65

| | Year 2000 |
|-----------------------------|-----------|
| Total population (1000) | 270,800 |
| Population under age 15 (%) | 16.4 |
| Population 65 and above (%) | 10.0 |

Source: UNDP Human Development Report, 2004.

Distribution by parish in 2000 was as follows:

Table 12. The distribution by parish of the population in Barbados

| Parish | Population in 2000 |
|---------------|--------------------|
| Christ Church | 52,922 |
| St. Andrew | 5,613 |
| St. George | 19,048 |
| St. James | 24,270 |

| Parish | Population in 2000 |
|-------------|--------------------|
| St. John | 9,448 |
| St. Joseph | 7,244 |
| St. Lucy | 9,991 |
| St. Michael | 91,025 |
| St. Peter | 11,405 |
| St. Philip | 24,566 |
| St. Thomas | 13,266 |

Source: Telephone conversation with staff member of [Barbados](#) Government Statistical Department, 2005

II.2.2 Literacy level and languages

The literacy rate is very high by world standards. Reports suggest that in 2002 rates were equal for both genders and adult literacy is only marginally lower than for the youth. Similar trends in gender equality are seen for primary and secondary enrolment level, while at tertiary level females enroll at 2.55 times the rate of males (UNESCO,2004).

Table 13. The literacy rates of adult and youth citizens of Barbados and the net enrollment rates at primary secondary and tertiary institutions.

| Year2002 | Adult | Youth | Net primary enrolment ratio | Net secondary enrolment | Gross tertiary enrolment |
|-------------------------|-------|-------|-----------------------------|-------------------------|--------------------------|
| Literacy rate | 99.7 | 99.8 | 103 | 87 | |
| Ratio of female to male | 1.00 | 1.00 | 1.00 | 0.99 | 2.55 |

UNESCO Institute for Statistics, web page. Country Data for Barbados, 2002-2004.

English is the official language while a dialect called “Bajan” is widely spoken.

II.2.3 Access to Services

II.2.3.1 Health

The country has a Hospital and a network of strategically located district hospitals and clinics that offer free health treatment to the public. Private hospitals and several private clinics also operate (Economist Intelligence Unit; 2004).

Government spends about 4.3 % of GDP on health care. Indicators of access to health care services are as follows in the UNDP Human Development Indicators Report (UNDP, 2004):

Table 14. Health indicators for Barbados

| Indicator | (%) |
|---|--------|
| Population with sustainable access to improved sanitation (2000) | 100 |
| Population with sustainable access to improved water source(2000) | 100 |
| Population with sustainable access to affordable essential drugs | 95-100 |
| Births attended by a skilled health personnel | 91 |

Source: UNDP Human development report, 2004

II.2.3.2 Education

According to the Economist intelligence Unit (2004), access to primary and secondary education is universal and tuition is free up to and including university. The Samuel Jackman Prescod polytechnic teaches a certificate in Agriculture, while at the Barbados Community College an associate degree in Agriculture is offered. There is a project, Edutech 2000, which is geared towards developing curriculum reform and computer-based education. All primary and secondary schools are expected to be linked to the Internet (Economist Intelligence Unit, 2004).

Available figures reflect a situation where government accords high commitment to education in terms of public spending. Spending on education, in the 1999-2001 period, was 6.5% of GDP (UNDP, 2004) which is relatively high on world standards. In 2001 there was an increase in spending on tertiary education as compared to primary and secondary, bringing the former category on par with the other two levels.

UNDP (2004) enrolment (used as a reflection of access to education) figures are as follows:

Table 15. Net enrolment ratios for three levels of education in Barbados

| Level of Education | Net enrolment ratio (%) | |
|---|-------------------------|----------|
| | 1990-1991 | 200-2001 |
| Primary | 80 | 103 |
| Secondary | -- | 87 |
| Children reaching grade 5 (% of grade 1) | -- | 95 |

Source: UNDP Human development report, 2004

II.2.3.3 Electricity

The World Bank reports coverage by the Barbados Light and Power in the island as 100% and of good quality. (World Bank, 2004)

II.2.4 Rural/Urban Drift

No documented statistics were found locally that portray rural/urban drift. The UNDP Human Development Report (2004) provides the following figures on urban population as a percentage of the overall population, showing an increase since 1975 and projecting further increase:

Table 16. Urban population as a percentage of total in Barbados in 1975, 2002 and the projection for 2015

| Year | Urban population as percentage of total |
|-------------------|---|
| 1975 | 40.8 |
| 2002 | 51.1 |
| 2015 (projection) | 59.1 |

Source: UNDP Human Development Report, 2004

II.3 Media and Telecommunications

II.3.1 Newspapers, Periodicals and Broadcast Media

II.3.1.1 Newspapers

The following is a list newspapers published in Barbados:

Table 17. Ownership, circulation, agriculture focus and website information on newspapers in Barbados

17(a)

| Name | The Barbados Advocate |
|---------------------------------------|--|
| Ownership | Privately owned |
| Circulation | Printed daily 25,000 printed on Sundays 16,000 to 18000 printed during the week |
| Focus on agriculture and rural issues | Devotes a page to agriculture- the “green page” Has articles on other agricultural issues as the issues arise |
| Website address | www.barbadosadvocate.com |
| Delivery outlets | Supermarkets, vendors, bookstores, snackettes |

Source: Telephone interview with owner of the Barbados Advocate (2005).

17 (b)

| Name | The Nation |
|---------------------------------------|---|
| Ownership | Privately owned (Nation Publishing Co. Ltd) |
| Circulation | Printed daily. 56, 000 printed on Sundays, 33,000 printed during week |
| Focus on agriculture and rural issues | Features an article on agriculture every other Wednesday. Also there are often articles on agriculture in the “Better Health” supplement every last Saturday in month. |
| Website address | www.nationnews.com |
| Delivery outlets | Supermarkets, vendors, bookstores, snackettes |

Source: Telephone interview with staff member of The Nation (2005).

II.3.1.2 Periodicals

The following is a list periodicals published in Barbados:

Table 18. Ownership, circulation, agriculture focus and website information on periodicals in Barbados

18(a)

| Name | The Broad Street Journal |
|---------------------------------------|---|
| Ownership | Privately owned (Patrick Hoyos) |
| Circulation | 8,000 once a week |
| Focus on agriculture and rural issues | No specific focus. The paper targets a business audience so would feature an article about an agricultural enterprise, not issues of agriculture, per se. |

| | |
|------------------|---|
| Name | The Broad Street Journal |
| Website address | Working towards creating a website at present |
| Delivery outlets | Sent by email (no printed copies anymore) |

Source: Telephone interview with staff member of the Broad Street Journal (2005).

18(b)

| | |
|---------------------------------------|--|
| Name | Friends |
| Ownership | (Nation Publishing Co. Ltd) |
| Circulation | 10,000 bi-monthly (mid month and month end) |
| Focus on agriculture and rural issues | No focus on agriculture. Contains information that is targeting tourists and locals involved in tourism sector |
| Website address | none |
| Delivery outlets | Hotels, travel agencies and other business where tourists frequent. |

Source: Telephone interview with staff member of the Nation (2005).

II.3.1.3 Broadcast Media

II.3.1.3.1 Radio

The following is a list of radio stations in Barbados:

Table 19. Ownership, broadcast hours/ range, and agriculture focus of radio stations in Barbados

19(a)

| | |
|---------------------------------------|--|
| Name | Barbados Broadcasting Service 90.7 FM |
| Ownership | Privately By Anthony Bryan |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Music only |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of BBS (2005).

19(b)

| | |
|---------------------------------------|---|
| Name | Barbados Broadcasting Service Faith 102.1 FM |
| Ownership | Privately By Anthony Bryan |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Music Only |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of BBS (2005)

19(c)

| | |
|---------------------------------------|--|
| Name | Caribbean Broadcasting Corporation (CBC) radio 900 |
| Ownership | Government |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Farmer's Corner - a five minute program 3 days/week hosted by Ministry of Agriculture. Programming is for farmer education/information "Talk your Talk" a call-in program for discussing issues in agriculture (on Thursdays from 9 am till 10.30 am) |
| Broadcast range | St Vincent, St Lucia, Guyana, Grenada, Tobago |

Source: Telephone interview with staff member of CBC (2005)

19(d)

| | |
|---------------------------------------|----------------------|
| Name | 98.1 THE ONE |
| Ownership | Government |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Music only |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of CBC (2005)

19(e)

| | |
|---------------------------------------|-----------------------------|
| Name | 100.7 Quality FM |
| Ownership | Government |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Airs the CBC TV programming |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of CBC (2005)

19(f)

| | |
|---------------------------------------|----------------------|
| Name | HOTT 95 .3 FM |
| Ownership | Starcom Network |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Music only |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of Starcom network (2005)

19(g)

| | |
|---------------------------------------|----------------------|
| Name | LOVE 104.1 FM |
| Ownership | Starcom Network |
| Broadcast hours | 24 hours, daily |
| Focus on agriculture and rural issues | Music only |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of Starcom network (2005).

19(h)

| | |
|---------------------------------------|--|
| Name | Gospel 790 AM |
| Ownership | Starcom Network |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Music and other gospel programming only |
| Broadcast range | Extends to St Vincent, St Lucia, Grenada, Tobago |

Source: Telephone interview with staff member of Starcom network (2005)

19(i)

| | |
|---------------------------------------|--|
| Name | Voice of Barbados (VOB) 92.9 F.M |
| Ownership | Starcom Network |
| Broadcast hours | 24 hours daily |
| Focus on agriculture and rural issues | Farmer's Corner- a five minute program 3 days/wk hosted by Ministry of Agriculture. Programming is for farmer education/ information "Tell it like it is" call-in program 6.15 p.m to 7.45 p.m open to discussion including agriculture topics "Down to Brass Tacks" call in program 11.00 a.m to 1.00 p.m open to discussion including agriculture topics |
| Broadcast range | Island wide coverage |

Source: Telephone interview with staff member of Starcom network (2005)

II.3.1.3.2 Television

There is only one Television station operating in Barbados:

Table 20. Ownership, broadcast hours/ range, and agriculture focus of the television station in Barbados

| | |
|---------------------------------------|--|
| Name | Caribbean Broadcasting Corporation (CBC) TV |
| Ownership | Government |
| Broadcast hours | 24 hours (classified ads 1- 5 a.m) |
| Focus on agriculture and rural issues | None on the program menu at present. Has aired a 15 minute program called Agroscope in the recent past (1 day per week) this program is not being produced at present. The morning program "Morning Barbados" features interviews/discussions with those involved in agriculture at times [government and NGO]. (Includes a call in component in relation to the issues at hand). This is a segment of programming open to agricultural content. |
| Broadcast range | Extends to parts of St Lucia and other islands near to Barbados(reception poor) |

Source: Telephone interview with staff member of CBC (2005).

II.3.2 Telecommunication Services

The vision of the Government of Barbados is to make Barbados a center of excellence for information technology with world class telecommunications (Ministry of Economic Development, 2000).

Cable and Wireless (C&W) had a monopoly on internal telecommunications (telecom) from 1991 until 2004. The company inherited a well developed telecom infrastructure and has made further investment in fibreoptic cable for both domestic and overseas links. Competition in cellular telecommunications was introduced in February 2004 when three cell phone operators entered the market alongside Cable and Wireless. New licenses for land line and International services are also expected to be awarded by the end of the year. Local telephone calls are covered by a flat rate monthly fee, encouraging a high level of Internet usage. Internet services are provided by Cable and Wireless as well as by independent operators. (Economist Intelligence Unit, 2004).

The following telecommunication companies operate in Barbados:

Table 21. Telecommunication companies in Barbados; ownership and type of service

| | |
|-------------------------------|-------------------------------------|
| Name | Cable and Wireless (C&W) |
| Ownership | Privately owned |
| Cost of a 3 minute local call | Flat monthly rate |
| Type of service | international |

| | |
|-----------------|-----------------|
| Name | Digicel |
| Ownership | Privately owned |
| Type of service | cellular |

| | |
|-----------------|-----------------|
| Name | Cingular |
| Ownership | Privately owned |
| Type of service | cellular |

| | |
|-----------------|--------------------------------------|
| Name | Cable & Wireless Cellular |
| Ownership | Privately owned |
| Type of service | cellular |

| | |
|-----------------|---|
| Name | Sunbeach (has applied for license) |
| Ownership | Privately owned |
| Type of service | cellular |

The number of land lines in 2003 was 134,000 while cellular phones number 140,000. For both these types of communication the number of subscribers is close to half the total population. Coverage is island wide for both types of telecom service. ADSL high speed connections and Internet roaming services are also provided by Cable and wireless. (Economist Intelligence Unit,2004)

In 2003, Barbados had 49.68 land lines per 100 inhabitants and 101.59 total telephone subscribers per 100 inhabitants (ITU, 2004). Subscriptions to cellular telecom services have grown rapidly over the last 5 years.

Table 22. Numbers of telephone main lines and cellular subscribers in Barbados in 1998 and 2003

| | 1998 | 2003 |
|-----------------------------------|---------|---------|
| Main telephone lines in operation | 118,000 | 134,000 |
| Cellular mobile phone subscribers | 12,000 | 140,000 |

Source: ITU website, 2004

II.3.3 Computers and the Internet

In year 2000, the number of Internet subscribers (referred to as customers) was estimated as 12,000 (Ministry of Economic Development, 2000).

Information on the total number of users and the number of PCs, as presented by ITU (2004) has been tabulated as follows as:

Table 23. The total number of Internet users and number of PC'S per 1000 inhabitants in 2003 and the number of Internet subscribers in 2000

| | Year 2003 |
|-------------------------------------|--|
| Internet users | 100,000 |
| Internet subscribers | <i>Year 2000</i> Estimated at 12000 ¹ |
| Number of PC's per 1000 inhabitants | 104.1 |

Source: ITU website, 2004

1- Estimate given in sector policy paper of the Ministry of Economic development, 2000

Barbados has a noticeably high ratio of users of the Internet/per PC owned when compared to countries in the region. This trend suggests that many users either use PCs at the work place or share with family or friends to access the Internet. The number of Internet users per 1000 inhabitants is also high. The table below compares this ratio for Barbados to the value for six other countries:

Table 24. Internet users per PC and per 1000 inhabitants in Barbados and five other countries in 2003

| Country | Internet users per PC in 2003 | Internet users per 1000 persons (2003) |
|---------------------|-------------------------------|--|
| Barbados | 3.57 | 370 |
| Canada | 0.99 | 439 |
| Grenada | 1.36 | 169 |
| Antigua and Barbuda | 0.13 | 128 |
| St Vincent | 0.50 | 60 |
| United States | 0.85 | 556 |

Source: ITU website, 2004 (Internet user per PC column has been calculated from two columns, Internet users/population)

There are a number of paying arrangements available, based on monthly billing or special packages of 10 or 15 hours. There were 19 Internet service providers (ISP) in 2003 (ITU, 2004) The telephone directory lists 20 companies under the section of ISP's. Of these, 6 offered no dial-up service while 10 were unreachable or voice mail was consistently encountered.

Internet service is provided at the following rates at two of the leading providers and 4 Internet cafés.

Table 25. Listing of cost per 10 hour usage per month for C&W and Sunbeach, (and four Internet café's) and other payment arrangements

| Name | Cost of 10 hours/month |
|---|---|
| Cable & Wireless (C&W) (10 hour/month) | Euro 11.09 per month plus Euro 1.33 for each additional hour used |
| C & W Monthly unlimited access | Euro 23.14 |
| C&W monthly junior cyberclub unlimited time, (but filtered access to sites) | Euro 15.43 |
| Sunbeach (60 hours per month@\$45) | Euro 2.89 |
| Sunbeach monthly unlimited access | Euro 20.68 |
| Cable & Wireless DSL | Euro 38.18 minimum |
| Café ICS | Euro 6.94/per hr |
| Bean& Bagel | Euro 6.94/per hr |
| Connect Internet Café | Euro 4.63/per hr |
| Global Link | Euro 4.63/per hr |

Source: Telephone interviews with staff member of C&W and Sunbeach (2005)

ANNEX III. PROFILE OF INSTITUTIONS

Annex III.1. List of All Institutions Involved in the Agricultural Sector

| Name and Contacts | Type | Role |
|--|------|-------|
| <p>Barbados Agricultural Society The Grotto, Beckles Road St. Michael</p> <p><i>tel</i> 4366683 <i>fax</i> 4350651 <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | TM |
| <p>St George Farmers Marketing Cooperative Society Ltd The Glebe, St George</p> <p><i>tel</i> 4368106 <i>fax</i> none <i>email</i> none <i>web site</i></p> | AS-F | TM, |
| <p>Cotton Growers Association 33 Rowans, St. George</p> <p><i>tel</i> 4291221 <i>fax</i> <i>email</i> <i>web site</i></p> | AS-F | PS-P |
| <p>Barbados Dairy and Beef Producers' association The Grotto, Beckles Road St. Michael</p> <p><i>tel</i> 4366683 <i>fax</i> <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | PS-P |
| <p>Barbados Egg and Poultry Association The Grotto, Beckles Road St. Michael</p> <p><i>tel</i> 4366683 <i>fax</i> 4350651 <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | PS-P, |

| Name and Contacts | Type | Role |
|---|------|-------|
| <p>Hot Pepper Association c/o IICA, Chelsea House, St Michael</p> <p><i>tel</i> 4280293 <i>fax</i> <i>email</i> pauley@caribsurf.com <i>web site</i></p> | AS-F | TM |
| <p>Organic Growers & Consumer Association Highwood Pk, Highland, St Thomas</p> <p><i>tel</i> 4368076 <i>fax</i> <i>email</i> huntejohn@hotmail.com <i>web site</i></p> | AS-F | PS-P |
| <p>Barbados Horticultural Society Balls Plantation, Christ Church</p> <p><i>tel</i> 4285889 <i>fax</i> 4285889 <i>email</i> (unavailable) <i>web site</i></p> | AS-F | TM |
| <p>Barbados Sheep Farmers Inc. The Grotto, Beckles Road St. Michael</p> <p><i>tel</i> 4366683 <i>fax</i> 4350651 <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | PS-P, |
| <p>Barbados Community College Eyrie, Howells Cross Rd., St Michael</p> <p><i>tel</i> 4262858 <i>fax</i> 4295935 <i>email</i> eyrie@bcc.edu.bb <i>web site</i> bcc.edu.bb</p> | EDU | TR |
| <p>University of the West Indies Cave Hill, St. Michael</p> <p><i>tel</i> 4174440 <i>fax</i> 4251327 <i>email</i> <i>web site</i> www.cavehill.uwi.edu</p> | EDU | TR |

| Name and Contacts | Type | Role |
|--|------|------|
| <p>Samuel Jackman Prescod Polytechnic Wildey, St. Michael</p> <p><i>tel</i> 4261920 <i>fax</i> 4260843 <i>email</i> wcozier@sjpp.edu.bb <i>web site</i></p> | EDU | TR |
| <p>Barbados Agricultural Development and Marketing Corporation Fairy Valley, Christ Church</p> <p><i>tel</i> 4280250 <i>fax</i> 4280152 <i>email</i> badmcaact@caribsurf.com <i>web site</i> www.agriculture.gov.bb</p> | STA | TM |
| <p>Barbados Agricultural Marketing Company P.O Box 7192, Bridgetown, St. Michael</p> <p><i>tel</i> 4250010 <i>fax</i> 4310754 <i>email</i> csimpson@bamc.net <i>web site</i> www.agriculture.gov.bb</p> | STA | TM |
| <p>Barbados Society for Technologists in Agriculture 40 Seascope, Inch Marlow, Christ Church</p> <p><i>tel</i> 4288252 <i>fax</i> <i>email</i> <i>web site</i></p> | OTH | OT |
| <p>National Nutrition Centre Clyde Bank, Ladymeade Gdns, St. Michael</p> <p><i>tel</i> 4271694 <i>fax</i> 4319203 <i>email</i> nutritioncentre@caribsurf.c <i>web site</i></p> | GOV | EX |
| <p>Ministry of Agriculture and Rural Development PO Box 505, Graeme Hall, Christ Church</p> <p><i>tel</i> 4284150 <i>fax</i> 4208444 <i>email</i> farnumr@excite.com <i>web site</i> www.agriculture.gov.bb</p> | GOV | EX, |

| Name and Contacts | Type | Role |
|---|------|------|
| <p>Rural Development Commission Porters, St James</p> <p><i>tel</i> 4224108 <i>fax</i> 4227669 <i>email</i> ruraldevcom@caribsurf.com <i>web site</i> www.agriculture.gov.bb</p> | GOV | RU |
| <p>Pine Hill Dairy Oine, St. Michael</p> <p><i>tel</i> 4304100 <i>fax</i> 4293514 <i>email</i> balkins@banksholdings.co <i>web site</i></p> | PRV | PS-M |
| <p>Windmill Products Tudor St., Bridgeown, St. Michael</p> <p><i>tel</i> 4273008 <i>fax</i> <i>email</i> wmillhotsauce@caribsurf.c <i>web site</i></p> | PRV | PS-M |
| <p>Barbados Hotel and Tourism Association 4th Ave., Belleville, St. Michael</p> <p><i>tel</i> 4265041 <i>fax</i> 4292845 <i>email</i> admin@bhta.org <i>web site</i> info@bhta.org</p> | NGO | TM |
| <p>EME Ltd 2 Grantley Adams Industrial Estate, Christ Church</p> <p><i>tel</i> 4280293 <i>fax</i> <i>email</i> pauley@caribsurf.com <i>web site</i></p> | PRV | PS-E |
| <p>Carter's General Store Willey, St Michael</p> <p><i>tel</i> 4311500 <i>fax</i> <i>email</i> <i>web site</i> www.carters.bb</p> | PRV | PS-S |

| Name And Contacts | Type | Role |
|---|-------------|-------------|
| <p>Agrochemicals Ltd 41 Warrens Industrial Park</p> <p><i>tel</i> 4253939 <i>fax</i> <i>email</i> <i>web site</i> www.agrochemicals.com</p> | PRV | PS-S |
| <p>ARC Irrigation Inc. Constant, St. George</p> <p><i>tel</i> 4352044 <i>fax</i> 4352047 <i>email</i> arcirrigation@caribsurf.com <i>web site</i></p> | PRV | PS-S |
| <p>National Library Services Coleridge Street, St. Michael</p> <p><i>tel</i> 4366081 <i>fax</i> 4361501 <i>email</i> natlb1@caribsurf.com <i>web site</i></p> | GOV | IN |
| <p>Eastern Caribbean Fertiliser Co. Barbados. Ltd Upland Factory, St. John</p> <p><i>tel</i> 4332740 <i>fax</i> 4335739 <i>email</i> <i>web site</i> www.ecffertiliser.com</p> | PRV | PS-S |
| <p>RIMCO Searles Factory, Christ Church</p> <p><i>tel</i> 4303600 <i>fax</i> 4369892 <i>email</i> <i>web site</i></p> | PRV | PS-S |
| <p>Barbados Manufacturers Association Bldg 1, Pelican Village Industrial Park, St michael</p> <p><i>tel</i> 4279898 <i>fax</i> 4365182 <i>email</i> bmex_products@sunbeach. <i>web site</i> www.bma.org.bb</p> | OT | TM |

| Name and Contacts | Type | Role |
|--|------|------|
| <p>Barbados Industrial Development Corporation Pelican House, Princess Alice H'way, St. Michael</p> <p><i>tel</i> 4275350 <i>fax</i> 4267802 <i>email</i> bidc@bidc.org <i>web site</i> www.bidc.org</p> | STA | TM |
| <p>Barbados Marine Trust Underwater Barbados, Carlisle Bay Center, Bay St., St. Michael</p> <p><i>tel</i> 2622048 <i>fax</i> 4260655 <i>email</i> info@barbadosmarinetrust. <i>web site</i> www.barbadosmarinetrust.com</p> | NGO | OT |
| <p>Barbados National Union of Fisherfolk Organisations Fisheries Complex, Princess Alice H,way, St. M.</p> <p><i>tel</i> 4265189 <i>fax</i> 4263689 <i>email</i> Barnufo@sunbeach.net <i>web site</i></p> | NGO | |
| <p>National Council for Science and Technology Reef Rd, Fontabelle, St Michael</p> <p><i>tel</i> 4275270 <i>fax</i> <i>email</i> ncst@commerce.gov.bb <i>web site</i> www.commerce.gov.bb</p> | GOV | RD |
| <p>Barbados 4H club Foundation Crumpton Street, St. Michael</p> <p><i>tel</i> 4277576 <i>fax</i> 4277576 <i>email</i> b4hfon@caribsurf.com <i>web site</i></p> | AS-Y | EX |
| <p>South End Farmers Gibbons Boggs, Christ Church</p> <p><i>tel</i> 4206291 <i>fax</i> <i>email</i> jefferynurse@hotmail.com <i>web site</i></p> | AS-F | PS-P |

| Name and Contacts | Type | Role |
|---|------|------|
| <p>St Andrew Small Farmers' Coop Unable to obtain information on this group</p> <p><i>tel</i> <i>fax</i> <i>email</i> <i>web site</i></p> | AS-F | PS-P |
| <p>Small Business Association Bldg #1, Pelican Industrial Park, Bridgetown, Barbados</p> <p><i>tel</i> 2280162 <i>fax</i> 2280163 <i>email</i> sba@sunbeach.net <i>web site</i></p> | NGO | TM |
| <p>Corner stone Highwood Pk, Highland, St. Thomas</p> <p><i>tel</i> 4231455 <i>fax</i> <i>email</i> huntejohn@hotmail.com <i>web site</i></p> | AS-F | PS-P |
| <p>Ichirouganam Council for the Advancement of Rastafari Bath, St. John</p> <p><i>tel</i> 4334356 <i>fax</i> <i>email</i> <i>web site</i></p> | AS-F | PS-P |
| <p>Bawden Environmental Park Group Highwood Pk, Highland, St. Thomas</p> <p><i>tel</i> 4388076 <i>fax</i> <i>email</i> huntejohn@hotmail.com <i>web site</i> bawdenenviropark.tripod.com</p> | AS-F | PS-P |
| <p>Pothouse Organic and Cultural Group Welchman Hall, St. Thomas</p> <p><i>tel</i> 4388076 <i>fax</i> <i>email</i> huntejohn@hotmail.com <i>web site</i></p> | AS-F | PS-P |

| Name and Contacts | Type | Role |
|--|------|-------|
| <p>Caribbean Regional Environmental Program Suite 1, Ground Floor Alpha Building, Dayrell's Court Business Center, Dayrell's Road, Christ Church <i>tel</i> 4272520 <i>fax</i> 2285608 <i>email</i> webmaster@crepnet.net <i>web site</i> www.crepnet.net</p> | | |
| <p>National Union of Farmers c/o Prudential Credit Union#2, Beckwith Mall <i>tel</i> 4254847 <i>fax</i> <i>email</i> nufbarbados@yahoo.com <i>web site</i></p> | AS-F | PS-P, |
| <p>Barbados Association of Pig Farmers The Grotto, Beckles Road St. Michael <i>tel</i> 4366683 <i>fax</i> 4350651 <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | PS-P, |
| <p>Barbados Fruit and Vegetable Growers Association The Grotto, Beckles Road St. Michael <i>tel</i> 4366683 <i>fax</i> 4350651 <i>email</i> bas@sunbeach.net <i>web site</i></p> | AS-F | PS-P, |
| <p>Barbados National Bank #1 Broad St, Bridgetown, St. Michael <i>tel</i> 4315800 <i>fax</i> <i>email</i> clarke@bnbbarbados.com <i>web site</i> www.bnbbarbados.com</p> | STE | FS |
| <p>Choo's Enterprises Ltd P.O Box 5, Bridgetown, St. Michael <i>tel</i> 4271339 <i>fax</i> 4276933 <i>email</i> packaging_center@hotmail. <i>web site</i></p> | PRV | PS-M |

| Name And Contacts | Type | Role |
|---|------|---------------|
| <p>Pinnacle Feeds P.O. Box 1275, Bridgetown, St. Michael</p> <p><i>tel</i> 4292131 <i>fax</i> 4273387 <i>email</i> roberts2rmco.com <i>web site</i> www.rmco.com</p> | PRV | PS-S |
| <p>Caribbean Export Development Agency P.O. Box 34b, Bridgetown, St. Michael</p> <p><i>tel</i> 4360758 <i>fax</i> 4369999 <i>email</i> info@carib-export.com <i>web site</i> www.carib-export.com</p> | REG | TM, RD |
| <p>Seedburst Nurseries Lot 3, Gibbons Boggs, Christ Church</p> <p><i>tel</i> 4281938 <i>fax</i> <i>email</i> <i>web site</i></p> | PRV | PS-S |
| <p>Caribbean Herbal Business Association - Barbados Chapter</p> <p>Secretariat is IICA, Chelsea House, Chelsea Rd, St. Michael</p> <p>Tel 2304697 Fax: none Email: dewent@sunbeach.net Web site: www.caribbeanherbs.org</p> | REG | PS-P, PS-A |

Annex III.2 Select List of Key Institutions Involved in Agriculture and Rural Development

| |
|--|
| <p>Name of institution: <i>Barbados Agricultural Society</i></p> |
| <p>Objective / mission statement:</p> <p>Mission: One voice for agriculture</p> <p>Objective:</p> <ol style="list-style-type: none"> 1. To coordinate the efforts of those agricultural producer groups who believe in united action in establishing policy and in speaking to government. 2. To provide for one central office and central secretariat for those member associations that require such service and to give producers a basis for unity of purpose and a united voice. 3. To provide member associations with the helpful information, statistics, forecasts and development possibilities to meet the changing economic conditions. 4. To investigate pricing structures, both for selling of products and for purchasing inputs and if deemed necessary, arrange to move into any field where either buying, selling or manufacturing would prove beneficial to any or all groups. 5. To be a reliable and trustworthy "one voice" for all agricultural producers. |
| <p>Field of specialisation:</p> <ul style="list-style-type: none"> ▪ Marketing of fruits of various commodities ▪ Lobbying and representing the interests of farmers ▪ Operation of a secretariat for commodity groups |
| <p>Number of staff professional, clerical, technical, etc; permanent / temporary): Secretariat consists of:</p> <p>1 Chief executive officer, 1 Accountant, 1 Secretary, 1 Data Officer, 1 Field Officer.</p> |
| <p>Branches, other sites: None</p> |
| <p>Annual budget: Euro 115,709</p> |
| <p>Source of funding, incl. main donors / sponsors:</p> <p>Subscriptions, external funding, sales of feed</p> |
| <p>Programme / projects undertaken:</p> <p>Marketing information; training; acquiring and upgrading ICT</p> |

| |
|---|
| Name of institution: <i>Barbados Agricultural Society</i> |
| Target audience (plus number, actual or estimated): All targeting members. approx 375 |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Not aware of CTA, but receive Spore Participated in co-seminars (seminar on information in Trinidad). |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ Caribbean poultry association- Training and information ▪ Pork Association of the Caribbean- workshops ▪ CARICOM Secretariat- trade issues ▪ Ministry of Agriculture- sector issues ▪ IICA- inputs to program ▪ CARDI-Workshops |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ Ministry of Agriculture - various technical information ▪ CARDI - various technical information ▪ IICA - various technical information ▪ Poultry International - reports. ▪ News - various technical information ▪ Caribbean Poultry Association - reports, news -various technical information ▪ CTA - Spore ▪ Internet - various technical information ▪ Publications - CTA, IICA |
| Main information needs not satisfied: Trade fairs, exhibitions etc; markets and trade; specific information on pests etc; equipment and products; sources of farm inputs worldwide; new varieties |
| Main problems faced in terms of information and communication management: Resources-personnel and funding; lack of technology to maximize on efficiency of current staff resource. |
| Why institution selected as a key: This is one of the largest and most recognized associations representing 5 farmer associations (includes livestock and flower export) and marketing for many small farmers |

| |
|--|
| Name of institution: <i>Organic Growers & Consumer Association</i> |
| Objective / mission statement: Motto: Food you can trust, from farmers that care Objectives: 1 Environmental enhancement to retain biodiversity 2 To offer sustainable rural development 3 To educate an awareness in consumers on benefits of organic food 4 To sustain livelihoods (cottage industries) |
| Field of specialisation: <ul style="list-style-type: none"> ▪ Training ▪ Marketing development ▪ Dissemination of information ▪ Networking ▪ International exchange ▪ Input acquisition and supply ▪ Networking |
| Number of staff professional, clerical, technical, etc; permanent / temporary): President, Vice president, Secretary, Assistant Secretary/Finance officer, Finance Officer, Public Relations Officer |
| Branches, other sites: None |
| Annual budget: Euros 20,056 |
| Source of funding, incl. main donors / sponsors: CREP, ADF |

| |
|--|
| <p>Name of institution: <i>Organic Growers & Consumer Association</i></p> |
| <p>Programme / projects undertaken:</p> <ul style="list-style-type: none"> ▪ Training courses on post harvest (practical) - members ▪ Marketing development - members ▪ production of news articles - public ▪ Website development - members/public ▪ Production of training CD-ROM - members ▪ Collaboration with group in Suriame - members ▪ Collective farming initiative at Bath -members ▪ International exchange program -members ▪ Proinvest project linking growers with buyers in UK ▪ Preparing information sheets on foods - public ▪ Packhouse initiative members ▪ Input acquisition and supply ▪ Creating a natural Caribbean label |
| <p>Target audience (plus number, actual or estimated):</p> <p>Members - 175 approx. General public</p> |
| <p>Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications:</p> <p>Unaware of CTA</p> |
| <p>Extent of collaboration / interaction with other institutions (name, nature):</p> <ul style="list-style-type: none"> ▪ IICA - training CD-ROM development, distance learning ▪ CARDI (in the past) - distance learning, consultant for general information ▪ Ministry of Agriculture - extension services, use of library ▪ FAO - telefood program ▪ CIDA - marketing/sale of medicinal herbs (feasibility study) ▪ Other farmer groups within the network |
| <p>How information needs are currently met, and from where or by whom:</p> <ul style="list-style-type: none"> ▪ IICA - various technical information ▪ CARDI - various technical information ▪ Ministry of Agriculture - various technical information ▪ National Council for Science and Technology - reports, various technical information ▪ Trade Watch - reports, statistical data ▪ Internet - various technical information ▪ Colleagues - various technical information ▪ Personal collection - various technical information, reports, and other documentation. |

| |
|---|
| Name of institution: <i>Organic Growers & Consumer Association</i> |
| Main information needs not satisfied: Costs and costing methodology; seeds and planting material (adaptable sources); types of farm technology a (e.g. flamers); specialized equipment; quarantine info |
| Main problems faced in terms of information and communication management: lack of resources especially dedicated personnel; Funds to maintain personnel; Funds in general time constraints of people in secretariat (unable to attend workshops at times |
| Why institution selected as a key: This is a very vibrant umbrella group of persons involved in organic farming. The group has special needs for networking and accessing information in the area of organic farming. Such information is harder to find than classical production information. |

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| Name of institution: <i>Barbados Community College</i> |
| Objective / mission statement: To train young people in Agricultural production systems and for agricultural entrepreneur |
| Field of specialisation: Training (Associate Degree program) |
| Number of staff professional, clerical, technical, etc; permanent / temporary): Head of program (who is also main tutor) only |
| Branches, other sites: None |
| Annual budget: Not available (respondent did not have figures) |
| Source of funding, incl. main donors / sponsors: Government |

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| Name of institution: <i>Barbados Community College</i> |
| Programme / projects undertaken: Routine training program; Farmer training with IICA |
| Target audience (plus number, actual or estimated): Students approx. 35 per year |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Aware of CTA Spore, CTA publications Attended 1 seminar |
| Extent of collaboration / interaction with other institutions (name, nature) <ul style="list-style-type: none"> ▪ MAR - tutors, attachment, library ▪ IICA - organic farmer training program ▪ FAO - publications |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ MAR - various technical information ▪ CTA - supply of books ▪ FAO - reports, -various technical information ▪ IICA -various technical information ▪ CTA publications, ▪ CARDI publications, ▪ Personal collection - various technical information ▪ Electronic media teaching aids |
| Main information needs not satisfied: None |
| Main problems faced in terms of information and communication management: Funding for purchase of educational software; need a new site for the agriculture program |
| Why institution selected as a key: The college library is an important source of information on agriculture. Students of the agriculture program have a special need for accessing agricultural information. This institution produces future agricultural entrepreneurs and requires the best information available for the purpose. |

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| Name of institution: <i>University of the West Indies Library</i> |
| Objective / mission statement: |
| Field of specialisation: Collect and make available , store, maintain and preserve materials for study/research loans, reference, provide info |
| Number of staff professional, clerical, technical, etc; permanent / temporary): Librarians: 1 Acquisitions 1 Reader services 2 Cataloguers 1 Systems 2 Special collections |
| Branches, other sites: Library operates small branch at Andromeda Gardens, St Joseph |
| Annual budget: Inadequate (unknown) |
| Source of funding, incl. main donors / sponsors: Government, grant funds, donations |
| Programme / projects undertaken: Information literacy program, training programs; continuing education of professional staff |
| Target audience (plus number, actual or estimated): Students Researchers Agricultural entrepreneurs |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Aware of CTA Spore, CTA publications No participation in events, but has an interest |

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| Name of institution: <i>University of the West Indies Library</i> |
| Extent of collaboration / interaction with other institutions (name, nature): CARDI- general cooperation, sharing of resources |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ Faculty and research; information on literature ▪ Blackwells book services; information on literature ▪ Subscriptions agent information on literature ▪ UN documents; reports, statistical data ▪ World Bank; reports, statistical data ▪ FAO reports, statistical data |
| Main information needs not satisfied: Statistical data for Barbados |
| Main problems faced in terms of information and communication management: Lack of funding |
| Why institution selected as a key: The university library is an important source of information on agriculture. The library is a well organized and equipped potential agricultural information base. |

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| <p>Name of institution: <i>Barbados Agricultural Development and Marketing Corporation</i></p> |
| <p>Objective / mission statement:</p> <p>The functions of the Corporation are:</p> <p>(a) to develop agriculture and to operate and participate in such agricultural projects as the Minister may approve;</p> <p>(b) to facilitate Government's policy with respect to rural development and land reform;</p> <p>(c) to facilitate the development of agricultural programmes particularly among the youth;</p> <p>(d) to foster co-operation in agricultural development between the public and private sector;</p> <p>(e) to manage on a commercial basis such plantations and other agricultural land as may from time to time be vested in the Corporation in accordance with Government's agricultural policy;</p> <p>(f) to stimulate and improve the production, marketing and processing of produce;</p> <p>(g) to assist farmers in securing arrangements for the purchase, handling, transportation, exportation, shipping, marketing and sale of produce whether within or outside of Barbados;</p> <p>(h) to promote the development of agricultural co-operative societies, including the marketing of their produce;</p> <p>(i) to assist farmers in securing the most favorable arrangements for the storage of produce; and</p> <p>(j) on the request of the Minister, to make recommendations on any matter directly or indirectly related to the production and marketing of produce.</p> |
| <p>Field of specialisation:</p> <ul style="list-style-type: none"> ▪ Irrigation Engineering ▪ Marketing (intelligence and information aspects) ▪ Extension ▪ Agro-processing (includes creating new products) ▪ Allocation of land to farmers and rural folks/rural district development ▪ Commercial operations |
| <p>Number of staff professional, clerical, technical, etc; permanent / temporary):</p> <p>1 CEO, 1 Deputy CEO, 1 Chief Extension Officer, 1 Irrigation Engineer, 1 Agronomist, 1 Marketing Officer,</p> <p>As well as 1 Purchasing Manager, 1 Finance Officer, 1 Personnel Officer, 1 Administration officer, 1 Accountant, 1 Sales Manager</p> |
| <p>Branches, other sites:</p> <p>Princess Alice Highway, St Michael.</p> |

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| Name of institution: <i>Barbados Agricultural Development and Marketing Corporation</i> |
| Annual budget: Euro 3.08 million |
| Source of funding, incl. main donors / sponsors: Revenue from sales |
| Programme / projects undertaken: <ul style="list-style-type: none"> ▪ No specific projects for ICM ▪ Irrigation repair and expansion-farmers; land for the landless program (distribution of land to farming entrepreneurs who did not have land) - farmers; creation of agriculture derived products – agro-processors |
| Target audience (plus number, actual or estimated): Farmers - approximately 400 in rural development projects |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Not aware of CTA (one of staff member had a Spore magazine on desk) |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ CARDI - Research and Development ▪ MAR - policy ▪ IICA - technical support ▪ Agricultural Diversification Fund - financing of enterprise growth fund ▪ Barbados Agricultural Society and other farmers cooperatives - issues in agriculture ▪ Barbados industrial Development corporation - matters re agro-processing ▪ Ministry of tourism-linkages re agro-tourism, ecotourism ▪ National cultural foundation - cultural issues re rural districts |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ CARDI - various technical information ▪ MAR - various technical information ▪ Central Bank of Barbados - statistical reports ▪ IICA - various technical information ▪ Not much from UWI - various technical information ▪ CTA booklets ▪ IICA booklets ▪ MAR booklets |

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| <p>Name of institution: <i>Barbados Agricultural Development and Marketing Corporation</i></p> |
| <p>Main information needs not satisfied:</p> <p>Information on markets for fresh produce internationally; Local agricultural production information; extension materials</p> |
| <p>Main problems faced in terms of information and communication management:</p> <p>None stated</p> |
| <p>Why institution selected as a key:</p> <p>This statutory department has a critical role to play in marketing and works with a wide range of small farmers and entrepreneurs. The corporation has special functions such as gathering market intelligence as well as needs for internal communication of information.</p> |

Name of institution: *Ministry of Agriculture and Rural Development*

Objective / mission statement:

Mission:

To transform and reposition the agricultural sector in Barbados through the promotion of an agri-business approach to farming, with particular attention being paid to the effective use of resources, as well as the adoption of appropriate technology and sound management practices in order to achieve internationally competitive production, processing and marketing enterprises, which contribute significantly to social and economic development and food security, as well as to the sustainable management of the natural resource base of the country.

The Ministry aims to support the doubling of the relative contribution of the agriculture sector to Gross Domestic Product in the medium term (2004-2007) and facilitating the sector in its important role in food security, environmental preservation and aesthetics.

The Ministry will facilitate: - support for private sector investment, greater self sufficiency, enhanced productivity and competitiveness, stronger inter-sectoral linkages, promotion of value added production and niche marketing, exploiting of intellectual property rights, capitalising on opportunities of CSME, diversification within the sugar industry, strengthening of institutions such as labs that safeguard the health of the nation, facilitation of optimal fisheries production..

Name of institution: *Ministry of Agriculture and Rural Development*

Field of specialisation:

Information specifically:

- Produce the Agricultural Calendar
- Farmer's Corner Radio Program
- Produce Agricultural TV Series - Bernard, the Extension Officer
- Production of Agricultural Publications
- Distribution of Agricultural Publications
- Organize Workshops, Seminars and Field Days
- Organize National Agricultural Conference
- House the National Agricultural Library and Provide Library Services
- Coordinator of the Ministry of Agriculture and Rural Development's (MAR's) Website
- Develop MAR's Information Technology Infrastructure

Other:

- Crops research and development
- Plant pathology department
- Entomology department
- Livestock research and development
- Soil Conservation
- Fisheries
- Analytical services
- Vet services
- Market development
- Administration
- Regulatory services - quarantine, pesticide control board, smoke control board
- Planning unit
- Projects department
- Tissue culture laboratory
- Information unit
- Extension services
- Meteorological department
- Services department for incentives
- Rural Development Commission

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| Name of institution: <i>Ministry of Agriculture and Rural Development</i> |
| <p>Number of staff professional, clerical, technical, etc; permanent / temporary):</p> <p>1 Chief Agricultural Officer (CAO), 1 Deputy CAO, 6 Agronomists, 1 Pathologist, 2 Entomologists, 3 Animal husbandry, 2 Veteranarians 2 Meteorologists, 1 Forester, 1 Economist, 1 Accountant,</p> <p>In the Agricultural Information services department;- 1 Agricultural Officer, 2 Senior Agricultural assistants, 1 Photographer, 1 Graphic artist, 1 Clerical officer, (permanent)</p> |
| <p>Branches, other sites:</p> <p>None</p> |
| <p>Annual budget:</p> <p>Approximately Euro 23.91 million for whole ministry (Euro 1.5 million for Information Unit Programme)</p> |
| <p>Source of funding, incl. main donors / sponsors:</p> <p>Government, external institutions fund some activities</p> |
| <p>Programme / projects undertaken:</p> <p>(AIS dept only) Networking of MAR-staff;</p> <ul style="list-style-type: none"> ▪ Ministry web site - agricultural community and abroad; ▪ National Agricultural research conference agricultural scientists, key persons in industry; Library improvement program (improved book stock and library cataloguing) - sector, students, technical staff; ▪ TV series-general audience, farmers.; ▪ Crop publications - crop farmers; ▪ Pest publications- farmers home owners; ▪ Radio programs-farmers and backyard growers; newspaper series (partially successful) - general public |

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| Name of institution: <i>Ministry of Agriculture and Rural Development</i> |
| Target audience (plus number, actual or estimated): <ul style="list-style-type: none"> ▪ Farmers - approx 3000 ▪ Other agricultural entrepreneurs ▪ Students -100's each year ▪ General public- over 100,000 |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> <ul style="list-style-type: none"> ▪ Aware of CTA ▪ Receive Spore, CTA publications, DORA, SDI, QAS (local node) ▪ Participated in CTA annual seminars, co Seminars, CTA training programs |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ CARDI, IICA,, OVID, FAO, CTA - provision of information; ▪ CARDI, IICA,BADMC, BAMC,BAS, UWI, National Union of Farmers, Barbados Community College, UWI, Samuel Jacman Prescod Polytechnic, Rural Development Commision - joint projects; ▪ Government Information Services - dissemination |
| How information needs are currently met, and from where or by whom: (For Information Unit only): <ul style="list-style-type: none"> ▪ OVID - various technical information ▪ FAO- various technical information, reports ▪ CARDI/CTA -various technical information ▪ IICA/SIDALC - various technical information ▪ International institutions send information to the library, reports, statistical data ▪ Internet - various technical information |
| Main information needs not satisfied: Market information; livestock production information; economic information on various agricultural activities |
| Main problems faced in terms of information and communication management: Funding; lack of training for the many specialized areas of the MAR; staff members in AIS not paid for the ICM and ICT skills; lack of information policy, no mandated information work program in the broader MAR. |
| Why institution selected as a key: The Ministry of Agriculture is a pivotal department for all small farmers/ entrepreneurs in Barbados. It has diverse needs for information access, exchange and management. |

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| Name of institution: <i>Rural Development Commission</i> |
| Objective / mission statement: Mission: A better quality of life for the people of rural Barbados: The functions of the Commission are: <ul style="list-style-type: none"> ▪ To facilitate road improvement and the lighting of streets in rural districts of the island; ▪ To provide housing and ancillary services including the installation of sanitary facilities in rural areas; ▪ To provide assistance to small farmers in the areas of agricultural training and investments; engineering and machinery and production and marketing of agricultural produce; ▪ To allocate land under the control of government to persons desirous of farming; ▪ To give assistance in the establishment and development of cottage industries in rural areas. |
| Field of specialisation: Infrastructure development; Welfare Program for Poverty Alleviation; business development; training in collaboration with Small Business Association |
| Number of staff professional, clerical, technical, etc; permanent / temporary): Director, Deputy Director, Administrative Officer, Project Officer, Loans Administrator, 5 technical officers. |
| Branches, other sites: None |
| Annual budget: Euro 3.86 million |
| Source of funding, incl. main donors / sponsors: Government |
| Programme / projects undertaken: Infrastructure development; Welfare program for Poverty Alleviation; business development (ongoing), training in areas such as Business Start Up, Accounts, Basic Bookkeeping, Marketing, Business Mathematics, Communication, General Management, Computer Awareness, Introduction to the Internet, Product Costing, Record Keeping |

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| Name of institution: <i>Rural Development Commission</i> |
| Target audience (plus number, actual or estimated): Farmers and entrepreneurs - approximately 3,000 Other rural households (could be over 8,000). |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Unaware of CTA |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ MAR; meetings, information exchange ▪ IICA; joint programs, technology transfer ▪ BADMC; meetings, information exchange ▪ BAS meetings, information exchange |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ Ministry of Agriculture - various technical information ▪ IICA - various technical information ▪ BADMC - marketing intelligence information, reports ▪ CARDI booklets ▪ IICA booklets ▪ MAR booklets ▪ Colleagues - various technical information |
| Main information needs not satisfied: Not Stated |
| Main problems faced in terms of information and communication management: Human resources |
| Why institution selected as a key: This department plays a very critical role in rural development, assisting a large number of small farmers and other agricultural entrepreneurs with credit and other support. |

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| Name of institution: <i>Barbados National Union of Fisherfolk Organisations</i> |
| Objective / mission statement: Objectives (stated as "strategic directions" in strategic plan for 2002-2006): <ul style="list-style-type: none"> ▪ Building human and financial capital; ▪ Strengthening our organization through networking; ▪ Fostering partnerships between government and the industry. |
| Field of specialisation: <ul style="list-style-type: none"> ▪ Secretariat functions ▪ Training and extension |
| Number of staff professional, clerical, technical, etc; permanent / temporary): 1 President, 1 Vice President, 1 Secretary Treasurer, 1 Assistant Secretary Treasurer (voluntary) |
| Branches, other sites: None |
| Annual budget: Euro 19,284.77 |
| Source of funding, incl. main donors / sponsors: Government (subvention) |
| Programme / projects undertaken: Infrastructural improvement at Oistins; OfCOMP project-dive trails, etc. |
| Target audience (plus number, actual or estimated): Fisherfolk |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Aware of CTA; attended training event in Dominica |

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| <p>Name of institution: <i>Barbados National Union of Fisherfolk Organisations</i></p> |
| <p>Extent of collaboration / interaction with other institutions (name, nature):</p> <ul style="list-style-type: none"> ▪ CERMES - technology transfer programs ▪ CANARI - training, information ▪ British High Commission - (could not specify) ▪ CFU - information exchange ▪ Ministry of Agriculture - institutional support ▪ Barbados Marine Trust -joint programs ▪ COADY - (unspecified) ▪ FAO - technology transfer programs ▪ FSRC - information exchange |
| <p>How information needs are currently met, and from where or by whom:</p> <ul style="list-style-type: none"> ▪ CERMES - reports, news ▪ CANARI - various technical information ▪ CFU - reports, statistical data ▪ Ministry of Agriculture - various technical information ▪ FAO - reports, statistical data ▪ FSRC - reports, statistical data ▪ Internet - various technical information |
| <p>Main information needs not satisfied:</p> <p>Information on industry trends (economics, investment opportunities, etc.), stock management</p> |
| <p>Main problems faced in terms of information and communication management:*</p> <p>The secretariat is done on a voluntary basis. There is need for paid secretariat; need for equipment for ; tendency for government to control; lack of skilled/professional personnel and funds to pay for such (forces a strong dependency on the Ministry of Agriculture)</p> |
| <p>Why institution selected as a key:</p> <p>This body incorporates many small fisherfolk associations and entrepreneurs and has a special need to network and access information on related to fisheries.</p> |

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| Name of institution: <i>National Council for Science and Technology</i> |
| <p>Objective / mission statement:</p> <p>Mission statement:</p> <ul style="list-style-type: none"> ▪ To give purpose and coherence to the various isolated efforts in the area of Science and Technology. ▪ To ensure that modern developments in these fields are fully used where relevant to support the national development objectives. ▪ To advise on the development and application of the appropriate technology. <p>Goals for period 2004-2021:</p> <ul style="list-style-type: none"> ▪ To enhance productivity, efficiency and international competitiveness (by funding innovative research, creating conditions that nurture scientific innovation, and encouraging the use of S&T in all areas of economic activity; ▪ To increase public awareness of Science and Technology; ▪ To develop an institutional framework for Science and Technology. |
| <p>Field of specialisation:</p> <ul style="list-style-type: none"> ▪ Training for scientific writing in media ▪ Collection collating and review of information on Science and Technology (S&T) ▪ Coordination of scientific research and development of S&T ▪ Fostering of scientific research relating to the development and utilization of local resources, the improvement of existing technical processes, the development of new processes and methods |
| <p>Number of staff professional, clerical, technical, etc; permanent / temporary):</p> <p>1 Director, 2 Technical officers, 1 Stenographer</p> |
| <p>Branches, other sites:</p> <p>None</p> |
| <p>Annual budget:</p> <p>Euro 250,316</p> |
| <p>Source of funding, incl. main donors / sponsors:</p> <p>Government</p> |

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| Name of institution: <i>National Council for Science and Technology</i> |
| Programme / projects undertaken: <ul style="list-style-type: none"> ▪ 2 surveys - ecommerce and IT indicators; school science debate; Scitech biennial exhibition; Millennium Energy Project; target - general corporate institutions and schools ▪ Training for scientific writing in media ▪ Survey on the public perception of S&T ▪ Workshop on the effect of emerging technologies on public sector management ▪ Directory of public service institutions involved in S&T ▪ Publication of Monitor, a newsletter on S&T |
| Target audience (plus number, actual or estimated): General corporate institutions and schools Researchers Public |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Aware of CTA Spore Attended workshop entitled Enhancing the S&T policy dialogue (April 2004) |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ CARDI - technology transfer ▪ Scientific Research Council of Jamaica, National Science Commission of Jamaica, Caribbean council of Science and Technology, Regional Science councils, NIHERST of Trinidad, Ministry of the environment, Third World Academy of Sciences, - training, information, scholarships ▪ Ministry of Education, Ministry of Energy, meetings, information exchange |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ CTA - Spore ▪ IICA - Various technical information, reports ▪ Third World Academy of Sciences - information on training |
| Main information needs not satisfied: Human resources; funds spent in R& D locally |
| Main problems faced in terms of information and communication management: Lack of human resources or the technology that would allow the current resources to be more efficient; funding |

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| Name of institution: <i>National Council for Science and Technology</i> |
| Why institution selected as a key: This entity is critical to the development of Science and Technology. To achieve its objectives the department depends heavily on the use of ICTs. |

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| Name of institution: <i>Southern Farmers</i> |
| Objective / mission statement: <ul style="list-style-type: none"> ▪ To improve things for farmers in the current world situation ▪ To form a cooperative ▪ To source inputs ▪ To set up a farmers market to retail produce ▪ To produce seedlings in nursery ▪ To train farmers ▪ To source information from abroad ▪ To operate a labor pool to the benefit of members |
| Field of specialisation: Newly formed group, setting up the cooperative and discussing |
| Number of staff professional, clerical, technical, etc; permanent / temporary): President, Vice president, Secretary, 2 floor persons, treasurer and assistant being sought |
| Branches, other sites: None |
| Annual budget: Unknown (very small) |
| Source of funding, incl. main donors / sponsors: Members bear expense costs so far |
| Programme / projects undertaken: New group, no projects as a group yet except setting up secretariat |
| Target audience (plus number, actual or estimated): Members (approximately 20) |

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| Name of institution: <i>Southern Farmers</i> |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Unaware of CTA |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ MAR - green house technology, assistance re shell damages issue ▪ BADMC - water issues, Shell company damage issue, training events |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ MAR - various technical information ▪ BADMC - various technical information ▪ Input suppliers - various technical information ▪ MAR booklets; ▪ Internet - various technical information ▪ Radio call-in programs - news on agricultural issues |
| Main information needs not satisfied: Seeds, pesticides (problems in getting specs): mulching; IPM |
| Main problems faced in terms of information and communication management: Funding; lack of location for secretariat; marketing; Some personnel required to be able to register as a cooperative are not yet on board; the group is trying to resolve an issue with Shell Oil company re damages to lands of members. |
| Why institution selected as a key: A recently formed group of farmers with a keen interest in networking and accessing information on newer technologies, etc. |

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| Name of institution: <i>Small Business Association</i> |
| Objective / mission statement: Mission statement: The Small Business Association is a non profit organization representing the interests of small enterprises and promoting their success by developing financial trading opportunities to bring about long term stability and growth to their sector Objectives: To facilitate the real and sustained growth and development of the small business sector in Barbados |
| Field of specialisation: <ul style="list-style-type: none"> ▪ Professional Services ▪ Construction services ▪ Training ▪ Funding (management of venture capital) ▪ Policy committee to interact with the Social Partners group ▪ General support for small businesses |
| Number of staff professional, clerical, technical, etc; permanent / temporary): Director, Accounts officer, Research officer, Member Relations officer, Administration Officer; the institutions draws on the expertise of members (for payment) |
| Branches, other sites: None |
| Annual budget: Euro 173,563 |
| Source of funding, incl. main donors / sponsors: Subvention, member dues |
| Programme / projects undertaken: <ul style="list-style-type: none"> ▪ Organisation of small business sector to lower costs and expand markets ▪ Building a business culture ▪ Program to increase efficiency of businesses |

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| Name of institution: <i>Small Business Association</i> |
| Target audience (plus number, actual or estimated): Members - approximately 250 |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Unaware of CTA |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ Ministries (Commerce and Consumer affairs, Poverty Alleviation, Agriculture, etc.) - facilitation of changes to regulations, etc., ▪ Coordination and information. ▪ BIDC - technical support ▪ OAS and CARICOM - capacity building |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ Ministries - reports, statistical data ▪ Barbados Industrial Development Corporation - various technical information ▪ Barbados Manufacturers Association - information exchange ▪ ECLAC, CARICOM Secretariat - reports, statistical data ▪ OAS - reports, statistical data ▪ UWI - various technical information ▪ Central Bank - reports ▪ IICA booklets ▪ Internet - reports, statistical data ▪ Agribusiness consultants - reports, statistical data |
| Main information needs not satisfied: Trade data; information on what is required to get assistance from institutions (what is available and how to procure it); Hands on information on how to do certain types of business; |
| Main problems faced in terms of information and communication management: "Kinks" in the database software package; Funding; More institutions needed to work with SBA to get information out to members |
| Why institution selected as a key: This association plays a very critical role in rural development, assisting a large number of small entrepreneurs (many of them agricultural) with credit and other support. |

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| Name of institution: <i>National Union of Farmers</i> |
| Objective / mission statement: (Working on mission statement) Objectives: <ul style="list-style-type: none"> ▪ The promotion of a scientific approach to farming through education and training ▪ The implementation of measure which will see a reduction in the cost of inputs such as labor, water, chemicals, planting material, fuel and cultivation. ▪ The promotion of market-based activity which will link agricultural production to market demand at local and international level. In this respect action to identify and promote niche crops and their marketing will major thrust. ▪ Establishment of facilities for secondary processing of produce both for the purpose of delivering value-added benefits to farmers and for the efficient utilization of all produce, particularly during periods of glut. ▪ The establishment and strengthening of linkages with other NGOs, the Ministry of Agriculture and Rural Development and the UWI (cave Hill) that will result in greater agricultural production through research and cooperative endeavors. |
| Field of specialisation: <ul style="list-style-type: none"> ▪ Fund raising events (concerts, etc.) ▪ Printing and distribution of newsletter ▪ Operation of a revolving credit scheme ▪ Overseas tours for education ▪ Establishing a secretariat |
| Number of staff professional, clerical, technical, etc; permanent / temporary): President, Secretary, Treasurer. accounts done by private accountant |
| Branches, other sites: None |
| Annual budget: Euro 3,857 |
| Source of funding, incl. main donors / sponsors: Members contributions, fund raising |

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| Name of institution: <i>National Union of Farmers</i> |
| Programme / projects undertaken: Fund raising |
| Target audience (plus number, actual or estimated): Approximately 30 members |
| Extent of interaction with CTA – <i>Spore Magazine</i>, SDI, QAS, DORA, seminars, consultants, publications: Unaware of CTA |
| Extent of collaboration / interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ Association of Women in Agriculture - issues of agriculture and general cooperation ▪ Barbados Association of Vendors - issues of agriculture and general cooperation ▪ NRI and HRI (UK) - overseas tours ▪ National Farmer Union of England and Wales - assistance in setting up the organization ▪ Samuel Jackman Prescod polytechnic - incentive scheme for students ▪ Barbados Community College - incentive scheme for students ▪ BIDC - utilization of small business centre for photocopying, etc. ▪ Small Business Association - membership ▪ National Council for Science and Technology - use of office facilities/equipment ▪ MAR - support and cooperation ▪ Ministry for Poverty Alleviation - consultancies to disability support program (rabbit rearing project) |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ IICA -various technical information ▪ CARDI - various technical information ▪ MAR - various technical information ▪ BADMC - market intelligence information |
| Main information needs not satisfied: Markets; exposure visits to whole sale markets over seas |
| Main problems faced in terms of information and communication management: Meetings not as frequent as desired; limitation of not having a full secretariat in place; setting up the logistics of the wholesale program; lack of location for secretariat; lack of funds |

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| Name of institution: <i>National Union of Farmers</i> |
| Why institution selected as a key: A recently formed group of farmers with a keen interest in networking and accessing information on newer technologies etc. Also interested in setting up their own research program |

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| Name of institution: <i>Association of Women in Agriculture</i> |
| Objective / mission statement: Overall goal: To equip women to be self-reliant thereby empowering them in order to improve their overall socio-economic status. Specific objectives: <ul style="list-style-type: none"> ▪ The creation of sustainable employment ▪ The promotion of self-reliance among rural and urban women producers ▪ The promotion of relevant training thereby upgrading and developing the human resource capacity of rural and urban women producers ▪ Strengthening the linkages among rural and urban women producers ▪ Building and strengthening the capacity of Women in Agriculture ▪ Promoting the sustainability of each member. |
| Field of specialisation: Training; revolving credit scheme; public education on food preparation |
| Number of staff professional, clerical, technical, etc; permanent / temporary): President, Vice President, Secretary/assistant, Treasurer, Public Relations Officer, 2 floor members |
| Branches, other sites: None |
| Annual budget: Euro 964 |
| Source of funding, incl. main donors / sponsors: subscription and fund raising |

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| Name of institution: <i>Association of Women in Agriculture</i> |
| Programme / projects undertaken: Training farm in management, ecommerce, hydroponics, organic farming, strategic planning- targeting members |
| Target audience (plus number, actual or estimated): Members – approximately 20 |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Aware of CTA - receive Spore and CTA publications CANROP - Participated 2 workshops in St. Lucia; workshop in Guyana on women and youth in agriculture. |
| Extent of collaboration / interaction with other institutions (name, nature) <ul style="list-style-type: none"> ▪ IICA - training and information ▪ MAR - issues of agriculture ▪ BAS - association ▪ CANROP - networking ▪ National Union of Farmers - general cooperation |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ IICA - various technical information ▪ MAR - various technical information ▪ CANROP network, ▪ Internet - various technical information ▪ IICA booklets ▪ CTA booklets ▪ Colleagues - various technical information ▪ Agribusiness consultants - various technical information |
| Main information needs not satisfied: Marketing of food products locally and internationally (quantities etc); marketing strategy; exposure to be obtained for overseas trade fairs/exhibitions |
| Main problems faced in terms of information and communication management: Lack of membership, need to rebuild; lack of human resources for the tasks to be done; need for a location for secretariat and other activities |

Name of institution: *Association of Women in Agriculture*

Why institution selected as a key:

A recently group of female farmers and entrepreneurs with a keen interest in networking, accessing information on newer technologies etc and general self improvement.

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| Name of institution: <i>Caribbean Herbal Business Association - Barbados chapter</i> |
| Objective / mission statement: Mission: To develop a sustainable herbal industry and become the recognized body for networking, lobbying, and negotiation on issues affecting the herbs/botanicals industry Goals: <ul style="list-style-type: none"> ▪ To establish a forum for the generation and exchange of ideas and information among persons involved in the herbal industry. ▪ To coordinate the efforts of herbal businesses to ensure sustainability to the industry. ▪ To promote and advance social and economic conditions through lobbying and advocacy. ▪ To promote and maintain linkages with the banking, tourism sector, development agencies and affiliated associations. ▪ To provide analyzed information on trade and regulatory conditions in the industry. ▪ To identify technical and financial support as well as business opportunities to assist the CHBA |
| Field of specialisation: <ul style="list-style-type: none"> ▪ Networking ▪ Integration of all entrepreneurs involved in herbs and botanicals (development of the 'from earth to market' project proposal) |
| Number of staff professional, clerical, technical, etc; permanent / temporary): President, Vice President, 1 paid Secretary, Secretary treasurer, representatives from main body of regional body, Public Relations officer, 2 floor members |
| Branches, other sites: None |
| Annual budget: Euro 1,543 spent per meeting |
| Source of funding, incl. main donors / sponsors: Member dues, fundraising, external institutions |
| Programme / projects undertaken: "From earth to Market" project-target members; regional conferences in St Lucia - target members; consumer re-education program for general public. |

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| Name of institution: <i>Caribbean Herbal Business Association - Barbados chapter</i> |
| Target audience (plus number, actual or estimated): Members - approximately 75, public |
| Extent of interaction with CTA – <i>Spore Magazine, SDI, QAS, DORA, seminars, consultants, publications:</i> Vaguely aware of CTA (promotion brochure of CHBA has CTA listed as sponsor) |
| Extent of collaboration/ interaction with other institutions (name, nature): <ul style="list-style-type: none"> ▪ UNDP - GEF program ▪ IICA - secretariat and support ▪ FAO - provision of raw materials for farms (soft technology) ▪ MAR - stipends, incentives ▪ CREP - environmental aspects ▪ Organic Farmers and Consumers Association -general cooperation ▪ Barbados Coalition of Service Institutions - networking ▪ Alternative Medical Practitioners - general cooperation ▪ Earth Mother Botanicals- source of all botanicals |
| How information needs are currently met, and from where or by whom: <ul style="list-style-type: none"> ▪ UWI - various technical information ▪ IICA - various technical information ▪ CARDI to lesser extent - various technical information ▪ MAR -various technical information ▪ Individuals and companies doing work in the area, -various technical information ▪ Farmer associations in organic growing, -various technical information ▪ IICA publications, ▪ embassies, ▪ CTA publications ▪ Newspaper, personal collections - various technical information ▪ Networking - various technical information |
| Main information needs not satisfied: None to come to mind (Internet provides most so far) |
| Main problems faced in terms of information and communication management: Habits, practices attitudes of people; lack of funding to assist in the networking process |
| Why institution selected as a key: This body incorporates many small associations and agricultural entrepreneurs and has a special need to network with other parts of the association through the region. |

ANNEX IV. LIST OF PERSONS INTERVIEWED

| Name of person | Designation and contact information |
|-----------------|--|
| James Paul | Chief Executive Officer Barbados Agricultural Society The Grotto, Beckles Road St. Michael Tel: 4366683 Fax: 4350651 Email: bas@sunbeach.net |
| John Hunte | Secretary Organic Growers & Consumer Association Highwood Pk, Highland, St Thomas Tel: 4368076 Fax: none Email: huntejohn@hotmail.com |
| Marcia Marville | Program Head Barbados Community College Eyrie, Howells Cross Rd., St. Michael 4262858 4295935 greta@caribsurf.com |
| Barbara Chase | Acquisition Librarian University of the West Indies Library Cave Hill, St Michael 4174449 4251327 bchase@uwi.chill.edu.bb |
| Richard Knight | Chief Executive Officer Barbados Agricultural Development and Marketing Corporation Fairy Valley, Christ Church 4280250 4280152 badmcacct@caribsurf.com |
| Mark Byer | Head of Agricultural Information Services Ministry of Agriculture and Rural Development PO Box 505, Graeme Hall, Christ Church 4284150 4287777 markabyer@excite.com |
| Peter Scott | Director Rural Development Commission Porters, St James 4224108 4227669 ruraldevcom@caribsurf.com |

| Name of person | Designation and contact information |
|-----------------|---|
| Clifton Ifill | Secretary Barbados National Union of Fisherfolk Organisations Fisheries Complex, Princess Alice H'way, St. Michael. 4265189 4263689 barnufo@sunbeach.net |
| Lennox Chandler | Director National Council for Science and Technology c/o Ministry Of Commerce and Industry, Pelican Village, St. Michael 4275270 ncst@commerce.gov.bb |
| Jackie Bartlett | President Southern Farmers Gibbons Boggs, Christ Church 4206291 none jefferynurse@hotmail.com |
| Deighton Babb | Executive Director Small Business Association Bldg #1, Pelican Industrial Park, Bridgetown 2280162 2280613 sba@sunbeach.net |
| Julian Dottin | President National Union of Farmers c/o Prudential Credit Union#2 Beckwith Mall 4254847 none nufbarbados@yahoo.com |
| Eleanour Clarke | President Association of Women in Agriculture c/o Mrs. Eleanour Clarke, EC's Nursery, Thyme Bottom, christ Church 4207340 none sherrylync@hotmail.com |
| Derek Went | President Caribbean Herbal Business Association- Barbados chapter c/o IICA, Chelsea House, Clelsea Rd, St Michael 2304697 dewent@sunbeach.net |

ANNEX V. REFERENCES

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