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CARIBBEAN FOOD CROPS SOCIETY

40

Fortieth

Annual Meeting 2004

REPORT ON WORKSHOP - "FACILITATING SAFER US-CARIBBEAN TRADE: INVASIVE SPECIES ISSUES" PORT OF SPAIN, TRINIDAD, JUNE 2-4, 2004

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ABSTRACT: Over the past decade trade in agricultural commodities and movement of people have increased considerably, and this has resulted in a surge in worldwide movement and establishment of non-indigenous invasive species in the Greater Caribbean Basin. With further trade liberalization likely, the onslaught of invasive species will continue to increase, and the expected gains from increased product trade and movement of people will continue to be offset and undermined by damage caused by introduced alien species. Workshop participants were in agreement that a regional safeguarding strategy is essential to stemming the onslaught of invasives. Progress toward developing a Greater Caribbean Basin safeguarding system could be facilitated by the Caribbean Agricultural Health and Food Safety Agency, which is expected to come into operation in the near future, and which may enter into relevant partnerships.

Key words: Regional safeguarding strategy, ecological and economic impacts, trade, invasive alien species, interdiction, collective security, Caribbean, Florida.

INTRODUCTION

The Caribbean Food Crops Society (CFCS) at its 39th annual meeting in Grenada conducted a plenary Symposium titled: "Challenges and Opportunities in Protecting the Caribbean, Latin America, and the United States from Invasive Species" (Klassen et al., 2003). The working definition of the term "invasive species" is that of an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human, animal, or plant health. Immediately following this Symposium, Mr. Byron Blake, CARICOM's former Assistant Secretary General for Regional Trade and Economic Integration, appointed two working groups. One working group was charged with developing invasive species policy recommendations, and the other was charged with identifying scientific and technical projects that should be implemented to meet the invasive species crisis in the Caribbean. Of relevance, also, is the fact that the Free Trade Area of the Americas (FTAA) was under construction by the 34 democracies with negotiations scheduled to be complete by 2005. Therefore, it was felt that a workshop should be held to build on the outcomes of the CFCS Symposium and the two working groups in order to inform negotiators and policy-makers on strategic and operational arrangements needed to counter the surge of invasive species as trade and tourism continue to increase.

RATIONALE FOR WORKSHOP

1. Trade in agricultural commodities along with movement of people has increased considerably over the past decade. Concomitant with these trends, both the worldwide movement and the establishment of non-indigenous invasive pests have surged.

2. With further trade liberalization on the horizon, such movements of goods, people, and harmful organisms can be expected to increase.
3. The expected gains from increased product trade and movement of people are being offset and undermined by damage caused by introduced alien pests.
4. The WTO/SPS Agreement establishes rules that govern trade, and the regulation of sanitary and phytosanitary issues, including invasive species.
5. Based on the U.S. experience in attempting to exclude entry of invasive species, the WTO requirements (including the diligent application of the SPS Agreement) provide only a very porous barrier to entry of invasive species. Consequently, in 1999 the U.S. National Plant Board (an association of the Departments of Agriculture of the 50 U.S. States) advised USDA-APHIS to place far greater emphasis on offshore safeguarding strategies to supplement actions at the port-of-entry.
6. Since invasive species cannot be excluded solely by stringent measures at ports of entry, a Caribbean regional safeguarding strategy must be developed and implemented in order to prevent invasive species from entering the Caribbean Basin, and to interdict those that do enter.
7. In order for trade in agricultural commodities between the Caribbean and the USA, and the other major trading partners to expand strongly, a regional safeguarding strategy should be part of the Free Trade Area of the Americas Agreement.

OBJECTIVES OF THE WORKSHOP

1. To provide a continuing regional platform for Caribbean nations, the USA, and other important trading partners to carry out some of the recommendations developed at the Invasive Species Symposium, Caribbean Food Crops Society, 39th Annual Meeting, Grenada, July 2003.
2. To convene a cadre of opinion leaders in an intensive face-to-face mission-oriented dialogue to move beyond rhetoric to consensus on a proactive policy to meet trade-related aspects of the surge of introductions of harmful invasive species into the Caribbean.

EXPECTED OUTCOMES

1. Identify and concretize salient issues pertaining to trade and invasive species.
2. Situate these issues within the context of Caribbean negotiating challenges with respect to FTAA and WTO.
3. Develop the outlines of a regional safeguarding strategy.
4. Capture outcomes in a format suited for use in other forum on trade, and related issues.

OVERVIEW AND ORGANIZATION OF THE WORKSHOP

WORKSHOP SPONSORS AND ORGANIZERS

The Workshop was officially sponsored by eight institutions with seven institutions having a physical presence in the Caribbean region, and the eighth institution being the University of Florida, via its Institute of Food and Agricultural Sciences (IFAS). Specifically,

the sponsoring institutions/organizations were:

1. Caribbean Agricultural Research and Development Institute (CARDI);
2. Caribbean Development Bank (CDB);
3. CAB International (CABI);
4. Food and Agriculture Organization of the United Nations (FAO);
5. Inter-American Institute for Cooperation on Agriculture (IICA);
6. Ministry of Agriculture, Land, and Marine Resources (MALMR) of Trinidad and Tobago;
7. University of the West Indies (UWI); and
8. University of Florida (UF), via its Center for Tropical Agriculture (CTA) and International Agricultural Trade and Policy Center (IATPC) of the Institute of Food and Agricultural Sciences (IFAS).

The generous financial and logistical support provided by these institutions or organizations is further testimony to the recognition of the importance of the Workshop topics. Sincere appreciation was expressed by Workshop organizers and participants to the sponsors during and at the conclusion of the three-day event.

Planning for the Workshop began almost immediately following the July 2003 CFCS conference in Grenada. Planning Committee members were:

- a. Mr. Bruce Lauckner, Mr. Herman Adams, and Dr. Ardon Iton - CARDI;
- b. Mr. Everton Ambrose - IICA,
- c. Dr. Moses Kairo, and Dr. Vyju Lopez - CABI;
- d. Dr. Ranjit Singh - UWI;
- e. Mr. Robert Best - Caribbean Poultry Association/Private Sector; and
- f. Dr. Waldemar (Waldy) Klassen, Dr. Carlton Davis, Dr. Edward (Gilly) Evans, Dr. William Brown, and Ms. Lisette Staal - UF.

The local Organizing Committee was chaired by Mr. Bruce Lauckner of CARDI and consisted of Planning Committee members resident in Trinidad and Tobago. In addition, the CARDI headquarters in Trinidad and Tobago served as the Workshop Secretariat.

WORKSHOP FORMAT AND TOPICAL SEQUENCING

The Workshop format and topical sequencing consisted of seven highly related components. The first component included a two-part Opening Session consisting of a Round Table Discussion with representatives from the following institutions/organizations:

1. Mr. David Bowen - FAO;
2. Mr. Byron Blake - CARICOM;
3. Dr. Martha Roberts - UF;
4. Dr. Keith Archibald - CARDI;
5. Mr. Aaron Parke - IICA;
6. Dr. Bhoehendrath Teware - UWI;
7. Dr. Moses Kairo - CABI;

8. Dr. Craig Fedchock - USDA/APHIS;
9. Dr. Jeffrey Fisher - US Department of State; and
10. Dr. Alberto Beale - Caribbean Food Crops Society (CFCS).

The second part of the Opening Session included a Feature Address by the Honorable Jarrette Narine, Minister of Agriculture, Land, and Marine Resources (MALMR) of the Republic of Trinidad and Tobago.

The remaining six components were organized around the following themes:

- a. Session I Overview of Key Issues;
- b. Session II Status of Ongoing Regional Initiatives;
- c. Session III Perspectives of Key Trading Partners: Safeguarding Issues and Strategies;
- d. Session IV Synthesis;
- e. Session V Strategies for the Way Forward; and
- f. Session VI Development of an Action Plan.

OVERVIEW OF WORKSHOP SESSIONS

The focal points of the presentations in the Opening Session's Round Table Panel were essentially two-fold. First, presenters used the opportunity to offer expressions of institutional support and endorsements for the Workshop initiative and second, to present institutional perspectives regarding the theme of the Workshop. The unifying theme of both the representatives of Caribbean-based organizations and non Caribbean-based organizations alike was the necessity of recognizing the threat of the alien invasive species (AIS) problem to the economic and environmental viability of the Caribbean region, and the urgency of a coordinated regional inter-institutional safeguarding strategy. In his feature address, Minister Jarrette Narine of MALMR commented on the timeliness of the Workshop and related activities, in light of the increased efforts of Caribbean islands to export agricultural products to the United States even as that country intensifies its bio-terrorism agenda.

The Minister highlighted the economic costs of some \$US125 million in the case of the pink hibiscus mealybug to the economy of Trinidad and Tobago in 1998. He indicated that this particular AIS was estimated to have caused losses to the Caribbean of some \$US138 million in 1998 (excluding control costs and loss of exports), which is considered a conservative estimate, since that estimate does not include control costs and loss of exports.

Minister Narine suggested a multi-dimensional short and long-term AIS management strategy consisting of the following six components: (1) increasing awareness and improving understanding of the impact of invasive species on agriculture, biodiversity, ecosystems and trade, (2) recognition that alien invasive species should always be treated as a priority issue, requiring immediate national and international action to prevent their entry, (3) minimization of the intentional introduction of invasives, (4) evaluation of the risks of deliberate introductions such as biological control agents, in advance, (5) encouragement and development of action plans to eradicate and manage invasives, and (6) encourage development and the enacting of national legislation and obtaining cooperation to regulate the introduction, eradication, and management of invasives.

SESSION I: OVERVIEW OF KEY ISSUES

Session I consisted of three formal presentations focusing on key issues relating to the Trade/Invasive Species nexus, and a Private/Public Sector Round Table Forum. The Round Table participants included: *Private Sector Representatives* (1) Regional Poultry Industry (Mr. Robert Best); (2) Livestock Industry (Mr. Ian Leong); (3) Citrus industry (Dr. Stephen Williams); and (4) General Agri-Food Sector (Mr. James Paul); *Public Sector Representatives* (1) Government (Dr. Jerome Thomas); (2) Academics (Dr. Ranjit Singh); and (3) Development Agency (Mr. Everton Ambrose). The consensus emerging from the Round Table Forum was that private sector input and partnership are essential ingredients in an effective regional AIS safeguarding policy and strategy.

One presentation titled, “Invasive Alien Species: A Global Perspective of Issues” was authored by Dr. Sean Murphy of CABI and the Global Invasive Species Program (GISP). This paper pointed out that AIS, although long recognized as threats to agriculture, are now considered one of the leading drivers of biodiversity loss and environmental change. Also, growing world trade and ongoing changes in land use and climate are accelerating the appearance of new AIS problems. One of the poignant messages of the presentation was that the cross-sectoral nature of the AIS issues is requiring new thinking by governments and others in terms of institutional linkages and policy frameworks.

In a presentation titled, “Update on Matters Arising from the Invasive Species Symposium at the 2003 Grenada CFCS Meeting”, Mr. Byron Blake of CARICOM provided an update on the status of recommendations forwarded to the Secretariat following the 2003 CFCS meeting. Mr. Blake informed Workshop delegates that recommendations and supporting documents to CARICOM were actively under review by that body. He further informed the Workshop that discussions regarding a CARICOM-led regional AIS safeguarding strategy was moving forward under the leadership and protocols of CARICOM Ministerial Council for Trade and Economic Development (COTED). However, COTED is in the process of embedding the 2003 CFCS AIS recommendations within the context of establishing a Caribbean Agricultural Health and Food Safety Agency (CAHFSA). COTED was scheduled to have further discussions on the issues during its June 18, 2004 meeting in Trinidad. Workshop deliberations would also be made available to COTED.

The third presentation was by Dr. Edward Evans and was titled, “Trade and Socioeconomic Perspective”. This presentation lamented the confusion on the part of the general public regarding the terminology “invasive species”. Evans contends that this confusion was to a large extent, the result of the historical emphasis on the environmental consequences of AIS, rather than the *causes* of the problem. The point was made forcefully that economic forces play a major role in how “biological pollutants” (AIS) get introduced in the first place, become established, and later spread. The presenter used empirical data to establish strong positive correlations between and among increased global trade flows in merchandise goods, travel and transport, and the increased incidence of AIS. The bottom line is that while trade, in and of itself, may be economically beneficial, the downside is that it increases the risk of the introduction and spread of AIS. The paper made the final argument that those who benefit the most from increased global trade should be the ones made to pay for the cost of any adverse spillovers. Suggestions are offered how this could be operationalized. Discussions centered around the following areas:

1. The need for quantitative data on the impacts of AIS,
2. Greater engagement of the relevant ministries,
3. Stronger and more systematic institutional linkages,
4. Greater community involvement via public awareness,
5. Simplification of terminologies to facilitate communications with wider cross-section of the public and decision-makers, and
6. A well-developed policy framework.

SESSION II: STATUS OF ONGOING REGIONAL INITIATIVES

The presentation by Dr. Waldemar Klassen was titled, “Invasive Species: A Florida and Third Border Perspective.” The presenter made the point that the volume of movement of AIS is essentially in lock step with increases in trade and tourism, and these are doubling about every five years. Every country in the Greater Caribbean Basin is being overrun by invasive species. Florida, being geographically a part of the Greater Caribbean Basin, is experiencing a similar problem, and cannot be protected unless the entire region is protected. The paper pointed out that estimates are that each year about fourteen species of invasive insects, mites, and ticks become established in Florida, and that the invasion by plant pathogens and harmful plants is similar in magnitude. The point was made forcefully that heavy reliance on inspection at the port-of-entry no longer provides adequate protection, and that a cooperative regional approach to achieve collective security within the Greater Caribbean Basin was a logical approach. The paper proposed five key elements within an AIS safeguarding paradigm for the Greater Caribbean Region, and linked these elements to seven operational modalities for achieving the desired results.

Dr. M. Ian McDonell of the North American Plant Protection Organization (NAPPO) made a presentation titled, “A Regional Approach to Safeguarding.” The paper outlined the mission of NAPPO and proceeded to suggest some key elements for an effective safeguarding strategy. Among the points made were the following: (1) A regional approach to safeguarding is much more than an organization chart on paper. The mission has to be enthusiastically shared by members; (2) A regional safeguarding approach is only as strong as its weakest link. For this reason, capacity building, information sharing, expertise, and infrastructure are essential; and (3) An important element of a successful regional plant protection, and by implication AIS safeguarding system, is the establishment of a permanent secretariat. Dr. McDonell pointed out the need to manage the IAS risks at the origin of the commodity in the exporting country, so that clean material arrives at the ports of entry of importing country.

Mr. Everton Ambrose presented a paper titled, “Caribbean Regional Invasive Species Strategy (CRISIS)”. The paper was essentially an overview of the working document, which emerged from the post -2003 CFCS AIS Symposium, and subsequently inputted to COTED of CARICOM Secretariat. The document outlines a framework for regional cooperation and action to deal with invasive species safeguarding in the wider Caribbean. Specific activities to stem the problem of AIS are also identified.

A paper presented by Drs. Gene Pollard and Rupert Pegrarn, outlined the FAO policy and experiences with respect to AIS issues in the Caribbean. The paper pointed out that FAO has been dealing with AIS since 1952, when the International Plant Protection Convention (IPPC) initially went into force. A comprehensive review of examples of recent AIS into the Caribbean was presented, along with their impacts, and FAO’s interventions to such introductions. They

noted that the Interim Commission on Phytosanitary Measures (ICPM) adopted ISPM 11 Rev.1: *Pest risk analysis for quarantine pests including analysis of environmental risks*. This standard includes details for the conduct of pest risk analysis (PRA) with respect to plant pests to the environment and biological diversity, including those risks affecting uncultivated/unmanaged plants, wild flora, habitats, and ecosystems contained in the PRA area.

Dr. Ranjit Singh presented a paper titled, “The Economic Case for Safeguarding Agriculture and the environment: The Experience of the Pink Hibiscus Mealybug Control Program in Trinidad and Tobago.” The paper reported on a study designed to determine the economic and environmental impact of the pink hibiscus mealybug infestation in Trinidad over the June 1995 to December 1997 period, and the economic feasibility of biological control. The study concluded that: (1) The biological control program generated a social benefit/cost ratio of 8:1 over the 1997-2004 period, and a net benefit of \$222.675 million; and (2) The results were important in providing economic justification for adoption of a biological control program for this AIS, and for mobilizing public financial support for a longer-term intervention strategy.

In a paper titled, “Invasive Species: Implications for Caribbean Intra-Regional Trade” by Dr. Ardon Iton of CARDI and Mr. Everton Ambrose of IICA, the authors examine the implications of AIS for Caribbean intra-regional trade. They pointed out that the Region is faced with a number of AIS that are not widely distributed; but the problem has to do with the regional economic system that is continually moving the species around.

A paper by Dr. Moses Kairo shifted the focus somewhat from production agriculture issues to the broader impact of AIS on the region’s natural resources and the environment. In this paper titled, “Invasive Species: A Caribbean Environment and Natural Resources Perspective”, the following key points were made: (1) Small island states (SIDS) such as those in the Caribbean, are particularly vulnerable to AIS; (2) While historically, attention has tended to focus on the immediate impact of AIS on agricultural production and trade, it is clear that threats to the environment and natural resources are just as important; (3) The Caribbean is considered to be one of the world’s biodiversity hotspots. With many endemic species an AIS has the potential to cause extinction of species; and (4) Establishment of comprehensive and effective AIS safeguarding mechanisms must involve a diverse range of stakeholders. Dr. Kairo’s paper proceeded to examine the risks posed by AIS to marine, freshwater, and land resources including forestry, in the broad context.

AIS intervention and safeguarding Caribbean Basing programs, administered and supported by USDA/APHIS, were reviewed by Drs. Richard Pacer and Carl Castleton. The paper by Pacer was titled, “USDA-APHIS Contribution to Animal Health Safeguarding Programs in the Caribbean”, and the one by Castleton was titled, “APHIS Plant Health Programs in the Caribbean”. The Pacer paper focused on the contributions of that United States government agency to the Caribbean Amblyomma Program (CAP), which has a primary objective, the elimination of the tropical bont tick (TBT) as a major vector of ruminant diseases. Assistance has also been provided to selected Caribbean countries with respect to the development of strategic plans in the eradication programs for classical swine fever (CSF). The paper emphasized the fact that the TBT eradication efforts are carried out by CAP in collaboration with FAO and CARICOM. USDA/APHIS is expected to continue its support for TBT and CSF efforts in the Caribbean, and to leave a legacy of alliances dealing with future animal health diseases. The presentation by Castleton was essentially an overview of the USDA/APHIS plant health interventions in the Caribbean Basin. The following points were made: (1) The agency’s 2001 Plant Health Safeguarding Report recommends more extensive

efforts to detect potential pest problems before they arrive in the US and to initiate offshore mitigation programs; (2) The US now requires the registration of firms involved in the perishable food chain and prior shipment notification and permits are now enforced stringently; (3) USDA/APHIS now considers the first barrier to the introduction of pests in the US to be at the foreign production site, rather than at US Ports-of-Entry; and (4) The challenge is how best to partner with collaborating countries to ensure a sustainable pest mitigation system without impeding the flow of trade.

An overview of AIS interdiction and safeguarding issues within the French Caribbean territories was presented by Dr. Claude Vuillaume of CIRAD. In his presentation Vuillaume made, among others, the following points: (1) The French territories of Guadeloupe and Martinique are confronted with strong constraints to AIS mitigation and safeguarding like the rest of the Caribbean islands, (2) The French islands benefit from specific regulations prohibiting the introduction of some plants, and frontier checks (ports and airports) are the main vehicles for regulating these flows; (3) Regulatory services are heavily oriented toward diagnostic laboratories located in the territories; (4) Research organizations such as CIRAD and INRA collaborate with State services to develop early detection techniques for AIS, biological control and related activities; and (5) AIS monitoring programs are set up within a framework of a broader regional cooperative policy under the umbrella of the French Departments of America (DFA).

Dr. Darius Gabriel, Ministry of Agriculture, St. Lucia presented a veterinary perspective from standpoint of the Sanitary and Phytosanitary Agreement. He reported that in addition to the advent of various exotic pathogens and pests of livestock and poultry, honeybees and bee keeping in the Caribbean have been severely impacted by the arrival on some islands of the Varroa mite and the small hive beetle. The small hive beetle is an African pest that entered Florida in 1998, and it infested various Caribbean islands.

SESSION III: PERSPECTIVES OF KEY TRADING PARTNERS

Four papers were presented in Session III, all designed to highlight the perspectives of the US as a key trading partner with Caribbean Basin countries. Dr. Craig Fedchok of USDA/APHIS presented a paper titled, "The Caribbean Third Border Initiative and the Role of USDA/APHIS in Trade." Fedchok's paper included the following points: (1) The Caribbean Basin Initiative (CBI) of the US government consists of a targeted package of programs designed to enhance diplomatic, economic, health, education and law enforcement cooperation, and collaboration; (2) The USDA/APHIS mission is an integral part of the USDA's efforts to provide the US with safe and affordable food; (3) The specific rules affecting the role and activities of USDA/APHIS are found in the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement); (4) The WTO's SPS Agreement has raised the profile of SPS measures in trade, increased transparency related to its measures, and highlighted the importance of risk assessment in developing SPS measures based on international standards; (5) Specific impact of the SPS Agreement for USDA/APHIS has been to expand the agency's mission from one of protecting to include that of removing unjustified trade barriers; (6) Shifts in agency mission objectives have engendered increased participation in the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC); (7) A key change has been the shift in regulatory focus from a policy of zero risk to one of managed risk and of considering international standards when promulgating any rule; and (8) The combined

effect of these changes resulting from the SPS Agreement has been to further reaffirm and expand the commitment of USDA/APHIS to the Caribbean region to not only protect the US from unwelcome pests and diseases; but also to expand such protection to Caribbean neighbors.

Dr. Robert Balaam a colleague of Dr. Fedchock, presented a paper titled, "USDA/APHIS Offshore Pest Information System." Balaam described the USDA/APHIS Offshore Pest Information System (OPIS) as a process designed to collect, analyze, communicate, and use relevant international information concerning pests that are not known to occur in the US. The objective of the OPIS is to assist the agency in meeting its mission to "safeguard American resources from exotic invasive pests and diseases." The following components of OPIS were identified and elaborated on in the paper: (1) A global pest and disease database; (2) A target pest list; (3) Pest pathway status in foreign countries; (4) Pest interception data from US ports; (5) Communication component; and (6) Initiation of protective and mitigation measures. It was pointed out that a benefit of OPIS has been demonstrated in the Caribbean region through the effective development and establishment of biological control programs for the pink hibiscus mealybug.

The importance of the Florida/Caribbean Basin connection with respect to AIS was captured in a paper by Dr. Martha Roberts of the University of Florida (UF). Roberts' paper was titled, "Impacts of Invasive Species on Agriculture-Related Industries and Natural Resources in Florida: Is There Any Relief in Sight?" Some of the key points made in the paper were: (1) Florida serves as a US sentinel for pest introductions due to the escalation of international trade, and of travelers moving through Florida's twenty-five international seaports and airports; (2) The unique peninsular geography of Florida with a 365 day growing period for plant and animal pests make the state the most vulnerable in the US mainland for AIS introduction and establishment; (3) Economic damage from AIS such as the Mediterranean fruit fly, citrus canker, brown citrus aphid, *Thrips palmi*, citrus leafminer, sweet potato whitefly, leather leaf fern anthracnose, and tropical soda apple, to name a few, have cost the State of Florida and the US federal taxpayers hundreds of millions of dollars to control and eradicate; and (4) Florida has come to the realization that in the case of AIS, prevention is always less costly than eradication or the perpetual management of these pests. Roberts' paper reported on the efforts of the 1999 State-appointed Florida Pest Exclusion Advisory Committee (PEAC) and its work related to the development of an exclusion, detection, and response program for AIS. The paper concluded that for Florida, relief from AIS is more likely to come through US/Caribbean cooperation and coordination in a seamless system of exclusion and prevention, surveillance, early detection, and swift eradication.

The final paper in this Session was presented by Dr. Jeffrey Fisher of the US Department of State. Fisher's paper was titled, "Addressing Invasive Species in Environmental Cooperation Annexes of Free Trade Agreements." Fisher's paper provided a brief review of the increasing number of Free Trade Agreements (FTAs) signed between the US and other countries/regions over the last decade and identified several on the horizon. His paper made the point that while FTAs are seen as a primary vehicle for ensuring market access and economic growth among partners, it should be recognized that these agreements can generate both positive and negative environmental consequences. As a result of this growing recognition Environmental Consultative Mechanisms (ECMs) have been developed, in part, to address some of these potential consequences. ECMs identify priority areas for cooperation, and also establish mechanisms for environmental protection, conservation, and sustainable development. It was first pointed out that the prevention of costly and unintended introduction of AIS as one potential

environmental input of FTAs is an important component of ECMs. The paper discussed the development of ECMs directly relevant to the Caribbean Basin, and how AIS issues may be considered within them.

SESSION IV: WORK GROUP SYNTHESIS

The focal point of activities in this Session was the facilitation of a synthesis of the vast amount of information presented in formal papers as well as the capturing of delegate's interventions up to this point in the Workshop. To accomplish these objectives, delegates were organized into three Working Groups with each group instructed to key on specific themes. Group composition was accomplished by a combination of self-selection and assignments. The three groups and their assigned themes were:

- Group I Provide a review of the relevance of the CRISIS document submitted to CARICOM and address areas for improvement - Chair: Mr. Everton Ambrose, IICA.
- Group II Evaluate the role and function of the proposed CAHFSA under consideration by CARICOM with respect to AIS issues - Chair: Margaret Kalloo, CARICOM, Co-Chair: Navin Chandarpal, Government of Guyana.
- Group III Evaluate the relevance of the "Third Border" concept as a value idea for the Caribbean and address how CAHFSA may operate within this context - Chair: Dr. Ranjit Singh, UWI.

Group I Deliberations: After reviewing the CRISIS document, the group concluded that the document is relevant to the needs of the Caribbean region. However, the group commented that the strategy component of the document gave a sense of being more of an operational plan than a strategy plan. Therefore, additional work on further strengthening the document after the Workshop was anticipated. Group discussions and concerns were centered around the following points: (1) Insufficient attention to environmental – including marine - issues; (2) Need to make strategy sector-based; (3) Need for consistency and organic linkage balance between regional and functional country strategies; (4) Need for simultaneous parallel strategies within collaborating countries, since the system is only as strong as its weakest link; and (5) Imperative that given the urgency of the AIS issue, in the region that the proposed strategy be widely vetted at the national level for distillation and broader stakeholder involvement. The group suggested the following two-pronged approach to maximize dissemination of the document in the short-term: (1) A communiqué be produced and the CRISIS document sent as an attachment to each country represented at the Workshop, and shortly thereafter to relevant countries not present; and (2) There should be a pro-active attempt to sensitize the CARICOM Ministers of COTED at the June 18, 2004 meeting regarding AIS issues and the required components for an effective strategy.

Group II Deliberations: The group spent a considerable amount of time discussing the background to the CAHFSA proposal, relative to the requirements of the SPS Agreement of the WTO. This was considered necessary because among other things, the reality was that this was not a totally familiar issue to the delegates. Some of the important clarifications discussed were: (1) Under the WTO's SPS Agreement, each sovereign country has the responsibility for SPS rules and implementation requirements; (2) CARICOM, as a regional body, has no legal

authority to assume the SPS responsibility of its fifteen sovereign member states; and (3) The role of CARICOM (and CAHFSA) is to coordinate, mobilize resources, and provide an effective regional strategy with respect to SPS issues.

The group recognized three critical and related problems of the CAHFS proposal, within the context of the AIS issue. First, the additional difficulty posed by the small size and resource constraints of Small Island States (SIDS). Second, the urgency of the AIS issue, such that immediate attention is required (time sensitivity). Third, the realization that among sovereign states of CARICOM, there is no first line of defense, with the exception of the proposed CAHFSA. The group proposed that: (1) COTED be advised of the importance of the AIS issue and the need for a regional strategy; (2) Encourage and assist COTED in finding ways whereby the CAHFS system can forge effective partnerships/linkages that would expand the scope of the proposed Agency with respect to AIS safeguarding problems in the Greater Caribbean Area.

Group III Deliberations: The group spent some time addressing the definition of the “Third Border” concept as used within the context of the coining of the concept by the US government, and a lesser-known usage within the Region. The more widely used concept applies to the three physical border frontiers between the US, Canada, Mexico and the Caribbean Sea Territories. The more narrower Caribbean concept includes boundary recognition issues between: (1) Sovereign national entities within the Caribbean Basin; (2) The Wider Caribbean Basin configurations; and (3) Extra-Caribbean entities. The group arrived at the following decisions: (1) The geographical area defined as the “Greater Caribbean Basin” should be considered at the target area for a regional safeguarding systems; and (2) An integrated approach should be adopted with respect to safeguarding animal health, plant health, and food safety. The group suggested that a framework for collaborative safeguarding links should be built around CAHFS. Within this framework, these links would join CAHFS as a CARICOM institution, to the Greater Caribbean countries and territories, to the Tri-lateral Commission, to US institutions, and other entities. It was pointed out that the constitution of the proposed CAHFS permitted the organization to access external funding and to accommodate non-independent territories. The point was also made that key stakeholders representing regional industries, NGOs, and agri-business associations be an integral part of the safeguarding system. The group suggested that one of the first projects undertaken by CAHFS would be one on data sharing through databases on AIS-related activities. The way forward from that point is to build incrementally on this first project.

SESSION V: STRATEGIES FOR THE WAY FORWARD

To facilitate this Session, Workshop organizers, with input from delegates, drafted a document suggesting both the procedures and a contextual framework for guiding the discussions and deliberations. First, the document provided an overview of the proposed outcomes of the Workshop. Second, the document proposed that the deliberations be organized around two Working Groups, with each group assigned specific charges. Third, the document provided essential components of an overall framework as contextual guidelines for both groups. The two groups and their designated charges were:

Group I Continuation of discussions on the CRISIS document - Chair, Mr. Everton Ambrose - IICA. Focus should be given to: (1) Identify gaps in the document with respect to

policies and strategies, (2) Explore the involvement of other stakeholders, including environmental, tourism, and others; and (3) Propose specific steps to advance the process.

Group II Examine relevant databases and start-up projects for an AIS safeguarding system - Chair, Dr. Moses Kairo - CABI. Focus should be given to: (1) Specific data information needs; (2) Issues relating to the accessing and sharing of data and information; (3) Problems of interfacing with existing databases; (4) Identification of relevant presentations at the Workshop pertaining to data; (5) Assess the availability of information systems; and (6) Review the two previously developed CRISIS project proposals relating to:

- Timely internet-based tracking of invasive pest interceptions and introductions.
- Develop a Caribbean pest and disease diagnostic system based on distance digital imaging and internet-based communications.

The guiding contextual framework provided to each group consisted of the following components:

1. Technical parameters and operational modalities should be taken into account. In other words, program components should be identified and consideration given to how best to structure them.
2. Consider alternative models for harnessing the capabilities of the region, given knowledge of resource constraints.
3. Explore the appropriateness of alternative collaborative frameworks or partnerships necessary for facilitating the strategy. Special consideration should be given to whether these are national, international, or regional.
4. Consider components of policy requirements, political dimensions, and ways of strengthening the systems. Recognition should be given to the fact that some entities in the region are a long way from having the appropriate regulatory and policy systems. Also, some entities do not have adequate quarantine laws or procedures for risk analysis.
5. Take into account other issues such as critical financial support needs and the challenge of maintaining sustainable funding levels.

In addition to the aforementioned document, Workshop delegates were provided with a draft resolution regarding the AIS issue. The intent here was to have delegates discuss and reflect on the AIS issues and challenges, and to come prepared in the final Session (VI) to offer support or non-support for a resolution on the issues to be communicated to COTED and others.

SESSION VI: DEVELOPMENT OF AN ACTION PLAN

After three days of plenary Workshop and specific Work Group discussions and deliberations, the Workshop arrived at some general conclusions regarding key elements of a Greater Caribbean action plan for an AIS safeguarding strategy. It was recognized upfront however, by the majority of the delegates, that the term “Action Plan” might have been a misnomer in the sense that the Workshop was acting, in essence, as a “quasi-passive” instrument

in the evolution of a regional strategy. In other words, the Workshop was not designed to develop a specific organizational structure or operational framework for the crafting of a regional AIS safeguarding strategy. Those components, by virtue of the nature of the issues and political/economic dimensions, must by necessity reside with a regionally sanctioned body, such as CARICOM. In its quasi-passive strategy development role, the Workshop would have fulfilled its “action plan” ambitions by bringing together, prioritizing, and rationalizing the essential components of an effective regional AIS safeguarding strategy.

Some of the essential action plan components identified were:

1. A Greater Caribbean Basin-wide approach is a necessary, if not a sufficient, condition to effectively deal with AIS issues in the region.
2. CAHFSA is the logical regional coordinating entity to spearhead the regional AIS safeguarding strategy. However, CAHFSA being specifically a CARICOM serving institution will have to be structured such that its sphere of influence is extended beyond the boundaries of its fifteen member states.
3. Forging appropriate and strategic partnerships with the US and other entities should be assigned high priority in structuring CAHFSA. In so doing, CAHFSA will be better able to mobilize the technical, institutional, and financial resources required for extension of both its scope and effectiveness in coping with the AIS issues.
4. As CAHFSA proceeds with plans for a regional safeguarding strategy, serious efforts must be made from the very outset to address environmental, natural resources, and biodiversity components of trade.
5. As CAHFSA becomes operational, it may be prudent, given the resource constraints, but recognizing the urgency of the AIS problem to start incrementally with the two projects identified in the CFCS Action Plans document and elaborated on by discussion in Group II of Workshop Session V. These were:
 - a. Timely internet-based tracking of invasive pest introductions and interceptions.
 - b. Development of a Caribbean pest and disease diagnostic system based on distance digital imaging and internet-based communications.

Finally, the Workshop delegates voted unanimously that the following resolution and related supporting material be forwarded to CARICOM, and to be brought to the attention of COTED Ministers at the June 18, 2004 meeting in Trinidad.

RESOLUTION OF THE WORKSHOP ON FACILITATING SAFER US-CARIBBEAN TRADE: INVASIVE SPECIES ISSUES

- Whereas**, participants of the Workshop “*Facilitating Safer U.S.-Caribbean Trade: Invasive Species Issues*” representing the various nations and agencies of the Caribbean Basin, (including U.S., Canadian, and French participants) met in Port of Spain, Trinidad and Tobago, West Indies, June 2-4-, 2004, to discuss matters relating to the growing incidence of the introduction and spread of invasive species as well as consider options for safeguarding the region against such incursions, and
- Whereas**, an “invasive species” is defined to include plants, animals, and other organisms such as microbes that are non-native (alien) to the ecosystem under consideration, whose introduction causes, or is likely to cause, economic or environmental harm, or harm to human health, and
- Whereas**, it is recognized that international trade, defined broadly to include trade in goods, movement of people, and transportation contributes significantly to the national economies of the region, and to the domestic security of the nations; but itself can lead to the spread of invasive species, and
- Whereas**, the introduction and establishment of invasive species through trade and other pathways represents a critical threat to international trade, tourism, economic livelihood, and the health of people, plants, animals, and natural resources in the countries of the region, and
- Whereas**, continued inaction could seriously interrupt trade, imposed undue hardships and burdens on societies, and be detrimental to the environment, and the well being of the region,
- Therefore be it resolved**, that the members of the Workshop on *Facilitating Safer U.S.-Caribbean Trade: Invasive Species Issues* do hereby recognize and affirm that invasive species represent a critical issue to all nations in the Caribbean, and do hereby, respectfully, request the consideration and action by each Government to address this urgent issue in a collaborative, constructive, and timely manner.

CONCLUDING COMMENTS

According to Workshop records, some twenty different countries were represented by seventy-three participants. Based on feedback provided to the Workshop organizers during and following the event, the general conclusion is that the objectives and expected outcomes of the Workshop were largely realized.

REFERENCE

- Klassen, W., W. Colon, and W.I. Lugo (editors). 2003. Challenges and Opportunities in Protecting the Caribbean, Latin America, and the United States from Invasive Species. *Proc. Caribbean Food Crops Society* 39(1):1-141.