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**Proceedings of the 25th West Indies Agricultural
Economics Conference**

**Agricultural, Natural Resources and
Environmental Challenges under
Emerging Trading Regimes**

**Carlisle Pemberton
Sarojini Ragbir
*EDITORS***

The Caribbean Agro-Economic Society
The University of the West Indies
St. Augustine, Trinidad and Tobago
May 2006

**Agricultural, Natural Resources and Environmental Challenges under
Emerging Trading Regimes**

**PROCEEDINGS OF THE 25TH WEST INDIES AGRICULTURAL ECONOMICS CONFERENCE
(Suriname, August 15 – 21, 2004)**

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Editorial

**Carlisle A. Pemberton
Sarojini Ragbir**

The 25th West Indies Agricultural Economics Conference was held for the first time in Suriname from August 15th to 21st 2004. This publication represents the proceedings of this Conference. This publication continues the series of Proceedings of the West Indies Agricultural Economics Conference which started in 1966.

The 25th Conference was an excellent one, which received wide support from co-sponsors as well as regional, international and national institutions and organizations.

Beside the presentation of papers, the Conference also included a wide range of social activities, as well as two simultaneous fieldtrips.

*A list of sponsors who contributed to the funding of the conference is given on the back cover. All papers presented at the conference and submitted to the Society were subjected to peer review. Based on this review, selected papers from the Conference are being published in *Farm and Business*, the journal of the Caribbean Agro-Economic Society. Abstracts of the papers that are being published in *Farm and Business*, are given from Page 149 of the Proceedings.*

The other papers meeting publication requirements are included in these Proceedings. These papers are presented in sections corresponding to their presentation at the Conference.

The theme of the 25th Conference was "Agricultural, Natural Resources and Environmental Challenges under Emerging Trading Regimes" and this theme was chosen to reflect the concerns of the Government of Suriname with trade issues (international and regional), the wise use of natural resources and the maintenance of the quality of the environment.

The papers presented at the Conference reflected the theme of the Conference, as well as the current emphases in research of agricultural economist working on regional issues. Thus the papers concentrated on environmental issues, food security and safety as well as competitiveness of agricultural production, especially with the rise globalization and the loss of preferential access.

It is the hope of the Caribbean Agro-Economic Society that these Proceedings will assist the region in dealing with the issues that challenge the development of its agricultural sector.

The Society is indebted to:

Mrs Indira Ousman (Kitty) for her management of the review of papers and publication process;

Mrs Martha Jiminez-Spence for preparing the manuscript

Mr Albert Mahabir for printing of the Proceedings

Reviewers:

The list of reviewers of these Proceedings and the issues of the Farm and Business Journal were:

- *BABAN, Serwan M.J*
- *BALLAYRAM*
- *BIRLA, Suresh*
- *CAIN, Ashley*
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- *SINGH, Ranjit H.*
- *TAYLOR, Timothy G.*
- *TAVERNIER, Edmund M.*
- *THOMAS, Clive Y.*

Local Organizing Committee of the Conference

The local organizing committee was chaired by Mr Winston Ramautarsing. The Society thanks the committee for organizing a wonderful Conference. Thanks are also extended to the Ministry of Agriculture, Animal Husbandry and Fisheries, Suriname for being a wonderful host.

The Executive Committee of the CAES guided the Conference:

The Executive Committee for 2002-2004 were:

President – Carlisle Pemberton

Vice President – Ramesh Sarabjit

Secretary – Sarojini Ragbir

Treasurer – Bruce Lauckner

Director of Publications – Ranjit Singh

Elected members- Edward Evans and Wendel Parham

The Department of Agricultural Economics and Extension for hosting the Secretariat of the Society and giving its support to the Society's efforts.

A list of participants of the Conference is given at the end of these Proceedings.

Opening Ceremony Programme

Monday 16th August, 2004

The Suriname National Anthem

Chairperson

Bruce Lauckner
(Treasurer, CAES)

Address by the Local Organising Committee

Mr. Winston Ramautarsing
(Coordinator)

Presidential Address:

Carlisle Pemberton
(President, CAES)

Opening Address:

The Hon. Mr. Gangaram Panday
*(Minister of Agriculture, Animal Husbandry
and Fisheries, Suriname)*

Vote of Thanks:

Sarojini Ragbir
(Secretary, CAES)

Reception

(Venue: De Pier)

Presidential Address

Carlisle Pemberton

President, Caribbean Agro-Economic Society

Thank you, Mr. Chairman for this opportunity to address this Conference.

On behalf of the Caribbean Agro-Economic Society, I take this opportunity to welcome you to the 25th West Indies Agricultural Economics Conference. This 25th Conference represents a milestone in the life of this conference series, and we are particularly happy to welcome you here in Paramaribo in the lovely nation of Suriname.

We particularly also want to welcome our co-sponsors. The Ministry of Agriculture, Animal Husbandry and Fisheries, Suriname; Agriforum, the University of Suriname, the Department of Agricultural Economics and Extension, of the Faculty of Science and Agriculture of the University of the West Indies and CARDI, the Caribbean Agricultural Research and Development Institute.

In a paper prepared for the last Conference in Grenada, Dr Suresh Barla of the University of the West Indies presented a paper on the history of the West Indies Agricultural Economics Conferences held so far. Since this summary is available here in the Proceedings of that 24th Conference, I will not report in detail what he has written.

However I will just stress a few points. First the Conference series began with the Department of Agricultural Economics and Farm Management in 1966 and after the Conference in Jamaica in April 1974, all subsequent conferences have been organized by the Caribbean Agro-Economic Society. Hence the Society itself on 8th April 2004 celebrated its 30th Anniversary.

This is the first West Indies Agricultural Economic conference to be held in Suriname. We are most delighted to be here and we especially want to thank the Ministry of Agriculture, Animal Husbandry and Fisheries, Agriforum and the University of Suriname for assisting us so graciously in hosting this conference. We extend special thanks also to our other co-sponsors: CARDI, and the Department of Agricultural Economics and Extension, of UWI, St. Augustine, Trinidad and Tobago.

A special feature of our Conferences over the years has been the level of co-sponsorship and collaboration, that has been fostered with a wide range of Governments of the region, international and regional organisations and local groups and organisations. This Conference continues in this tradition of co-sponsorship that started from the second West Indies Agricultural Economics Conference in 1967.

The theme of this 25th conference is: "Agricultural Resources and Environmental Challenges Under Emerging Trading Regimes", and over the next four days, we will be exposed to many thoughts and analyses on what these challenges are and how we can deal with them.

There is one thing we are sure about, and that is that changes are constantly taking place and they are having profound effects on the economies of the region, the agricultural sectors and the physical or natural environment.

Our preferential marketing arrangements continue to be disputed at the World Trade Organisation and in every dispute it seems, we lose ground to our competitors. The fact that these competitors in many cases are fellow Third World countries and fellow Latin American partners does not lessen the damage to our economies.

In response to these challenges in the trading regimes, I believe that CARICOM nations have to become pro-active and chart an independent path or route to our own economic development. It seems clear that we cannot negotiate a continuation of the status quo, which is a dependent path to development.

It is my hope that this conference will assist in leading us on the way to such independent thinking.

In this regard, I would just like to share with you a few brief thoughts, with particular regard to Universities in the Caribbean region, as I do believe that Universities have to take the lead in thinking out solutions to the challenges we face.

In the first place, as we think of the economic development of the region, we have to widen our focus or conceptualization to take into account all those factors and activities that either promote our economic development or hinder its progress. Then, we in agriculture must determine how our sector can help in the alleviation of hindrances to economic development and how we can accentuate factors that promote development.

I will give just two illustrations, one activity that can promote economic development and one hindrance to economic development. First I will deal with an activity to promote development. I have been impressed by the thoughts of Keith Rankin on "cultural employment". His main point is that industrial (sector) activities have been increasing their technical efficiencies over time, which have allowed them to satisfy consumer markets, without expanding or in some cases even contracting their labour employment.

This has been leading to higher levels of unemployment and as he puts it "demoralizing poverty" and perhaps higher levels of crime and illicit activity. Rankin's idea is that those persons displaced from the industrial activities or unavailable to find jobs there, should become employed in cultural activities. These are basically self-employing activity that people enjoy doing and are chosen by the creative impulse of the individual. Thus cultural activities are self-motivated and self-satisfying. Thus he argues that cultural activities can result in natural and human resources being used more efficiently and creatively and as he says "while the output may be small it would be in large part a gift to the community". Such activities he states include "invention", "educating persons" or "being educated" and "aesthetic enhancement of the environment".

He does admit that the income to support such cultural employment would have to be obtained from both public and private funds and he does spend some time examining some operations for obtaining the income. But that is not the issue that I wish to examine. The issue is, can agriculture contribute activities for cultural employment? Activities that would, make individuals believe that they are making a meaningful contribution to society, so much so that they will be willing to promote social welfare, rather than engaging in socially undesirable pursuits?

The second activity that I will refer to is the hindrance to economic development and this environmental degradation. It is well known that there is increasing concern about the effects of agriculture on the environment.

These concerns are especially about:

- (i) The destruction of wetlands and forests for the expansion of agricultural production.*
- (ii) The pollution of rivers, lakes and wetlands by soil and agricultural chemicals, including phosphorus from dairy, pig and poultry production*
- (iii) The pollution of ground water by agricultural chemicals especially nitrates and*
- (iv) The destruction of habitat for aquatic plants and animals, especially fish, by reducing inflows to rivers and lakes to provide irrigation water for agriculture.*

Now concerns are escalating about the effects of all these pollutants on human health. There is also concern about the effects of the wide range of additives and preservatives used routinely in food processing and animal and crop husbandry.

The question again arises as to what is the agricultural sector itself doing about these concerns? We all know of the work being done by environmentalist, but are agriculturalists themselves doing anything about agriculture's negative impact on the environment of the region? My point really is that there has to be a changed orientation in the agricultural sector.

The orientation of agriculture has to shift to concerns that affect the economic development of the region. Concerns about unemployment, poverty, cultural employment, pollution of the environment and the health and safety of the population. And here is where I return to the role of Universities in thinking out solutions to the challenges we face. In my opinion Universities in the region especially those teaching agriculture have to be the leaders in helping to change the orientation of agriculture in the region. Specifically, I believe that there is need for a re-examination of the courses taught in Agriculture, a change in agricultural research and a reduction in the emphasis on maximizing farm production and maximizing profit for farmers, to a greater emphasis on maximizing social welfare from agriculture and sustainable economic development.

In fact some people have suggested a new goal for agriculture: "A goal of protecting the environment while maintaining the agricultural producers' ability to

operate a viable enterprise that provides an adequate standard of living, contributes to the community and produces high quality, affordable food.”

We thus need new courses and to explore new research issues such as:

- (i) Best management practices in agriculture and forestry to reduce agricultural pollution and soil erosion*
- (ii) Protecting endangered species*
- (iii) Environmental stewardship as a cultural activity where by farmers can be paid directly for environmental goods they produce, and*
- (iv) Organic versus conventional Farming Systems*

The changing and emerging trading regimes seem to be ruling out agriculture in the region from having a major impact on international trade. Thus the international dimensions of our agriculture seem destined to shrink. What is left is for our agriculture to serve the needs of the region it-self by re-focusing on our own economic developmental imperatives of the region. Thus I support the thrust for Regionalism stated by Mr. Winston Ramoutarsing who has just urged a regional approach to these problems. As some persons have already realized “Given the diversity of agricultural enterprises and natural landscape, it will require a variety of creative and knowledgeable people to craft equitable and effective solutions.”

I do hope that this Conference will provide us with such persons and will also accelerate the research for these effective solutions.

I thank you Mr. Chairman, Ladies and Gentlemen.

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