

SUMMARY REPORT

OF

**AN FAO/GFAR REGIONAL WORKSHOP ON INNOVATION AND POST-
PRODUCTION IN LATIN AMERICA AND THE CARIBBEAN**

**Quito, Ecuador
19-22 March, 2002**

Organized by PRODAR/IICA

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THE REGION

Latin American and Caribbean Region consist of 31 countries with a combined estimated land area of about 2,017,761 thousand hectares, and a population of approximately 500 million. The region is facing one of the highest rates in the world of natural resource deterioration in forestry, soil and water resources, as well as an increasing food security problem of feeding an increasingly urbanized population.

Sub-Regions

Southern Cone

The Southern Cone region consists of 6 countries: Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay. The region covers an area of 14 million sq. km, with a population of 233 million.

The Andean Region

Andean region consists of 5 countries: Bolivia, Colombia, Ecuador, Peru and Venezuela. These countries cover an area of 5 million sq. km and with a population of 109 million people.

Caribbean

The Caribbean Region includes 22 countries, most of which are island states: Antigua & Barbuda, Bahamas, Barbados, Belize, British Virgin Islands, Cuba, Curacao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Martinique, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad & Tobago. These countries cover 716 thousand sq. km and have a population of 35 million.

Mexico

Mexico is a federation which consists of 32 free independent provinces, called States, having common interests and covering a territory of 1,969,043.57 km². Of this, 5,943,556 ha is agricultural irrigated land; 19,545,071 ha is agricultural dry land; 107,764,750 ha is rangeland; 45,316,171 ha is forested and 20,423,631 ha is devoted to varied use. There are also approximately 11,500 km of coastal areas.

Central America

The Central American Region consists of 7 countries: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. These countries cover 520,000 sq km and have a total population of 35 million.

Figure 1. Latin America and the Caribbean Region



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INTRODUCTION

This report presents the results of a workshop organized by IICA-PRODAR in the framework of the Global Initiative on Post-Harvest (GIPh), sponsored by FAO and implemented in cooperation with the Global Forum on Agricultural Research (GFAR). The Workshop was conducted in Quito, Ecuador during the period 19 to 22 March, 2002.

Five sub-regional reports were prepared as background papers to the consultation, covering: the Southern Cone; Andean Sub-region; Mexico; Central America and the Caribbean. Sixteen stakeholder presentations were made by representatives from governments, producers associations, export organizations, quality control organizations. These included presentations on successful operations of small-scale local producers both for internal and institutional markets, and presentations by organizations devoted to agro-industrial innovation and consumer associations.

Working group deliberations focused on:

1. Definition of and debate on the most relevant topic areas in the framework of a regional initiative for innovation in post-production.
2. Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis and strategy definition for the sub-regions.
3. Thematic areas for post-harvest interventions in the Region: actors and tools.

This summary report includes: a summary of current trends in the agri-food system of Latin America and the Caribbean; emerging challenges and related proposals; results of the SWOT for each sub-region, as well as the strategies proposed by each sub-region individually; results of thematic discussions, including the objectives, stakeholders and proposed tools, as well as conclusions.

A. BACKGROUND PAPERS

1.1. Trends in the agri-food system of the Region

Since the 1990s, the following trends have become evident in the Latin American and Caribbean agri-food system:

- *Slow agricultural growth* has resulted in a decreasing relative contribution of agriculture to the region's Gross Domestic Product (GDP).
- *Competition among agricultural products in the global market* requires greater competitiveness. Some products, in particular those from the Southern Cone countries (Argentina, Uruguay, Paraguay and Chile) have managed to preserve their market share (e.g. oleaginous seeds, cereals, fruits); while many others have failed to do so and, have lost their market share. Traditional agricultural exports such as coffee and sugar, among others, have suffered as a result of falling prices, due to competition in international markets.
- *Diversification of the export crop base*: Innovative experiences in the Andean Sub-region and the Caribbean have targeted diversifying the export crop base (e.g. yellow yams, pepper, vegetables, asparagus, organic bananas, flowers). Dynamic competitive advantages, specialized institutional frameworks operating with dynamic private initiatives, efficient services and tools for productive and commercial technical assistance, as well as quality certification and control systems all account for the cases of successful innovation in agricultural industry in these areas. Meanwhile, traditional and peasant agriculture has failed to benefit from the input of innovative technologies, due primarily to access restrictions or marginalization. The most traditional sector of small-scale agriculture has been confined to producing for subsistence and selling small surpluses in local markets. A considerable number of small farmers and small scale agro-industry have suffered the impact of globalization and heightened competition from imported products.
- *Restructuring of agro-industrial markets*: Agro-industrial markets have also undergone restructuring as capital investments and state of the art technology are being introduced by large multinational food growers and traders. A consolidation strategy by major international companies through acquisition and/or merger of alliances with local companies has progressively driven small and medium-sized food processing companies out of markets.
- *Emergence of a vast number of urban food processing micro-enterprises* as a major option for creating independent job and revenue sources. These enterprises however lack sufficient technical assistance, credit, ability to grow and the capacity to develop and adapt technologies.
- *Supermarkets have become one of the major marketing channels for food retail sales*, with the typical small shops and open stall markets increasingly displaced.

- *Uncertainty and dynamic nature of markets:* Current trends point to increased market segmentation and product differentiation, together with greater demand for processed foods, a new appreciation for traditional products with value added, and mass preference for fresh produce including a post-harvest (standardized, packaged, labeled products) and agro-industrial processing component.

1.2. Challenges and Proposals

Three categories of challenges and proposals were identified on the basis of considerations included in the sub-regional documents, the regional report, as well as stakeholder reports:

1. Production and Supply.
2. Demand for goods.
3. Institutional developments geared toward facilitating market access of products.

The respective challenges and proposals are detailed below

a. Production and Supply

a.1 Challenge

- To profit from the region's biodiversity potential, with an emphasis on developing value added products not traditionally linked to dynamic markets. The purpose will be simultaneously to preserve and add value to a wide range of regional natural products, possessing special characteristics (including nutritional, medicinal, caloric, physical-chemical, sensory and other characteristics) which have earned them market recognition.

Proposals

- Undertake the physical-chemical characterization of promising non-traditional products with market potential, while simultaneously gathering, disseminating and utilizing all information relating to this issue.
- Generate scientific databases on the active principles responsible for the special attributes (nutritional, medicinal, caloric, cosmetic, sensory and other characteristics) of the region's biologically diverse products.
- Prepare a systematic proposal to regulate the intellectual property rights for a wide range of the region's so-called "neutraceutical" products, giving the required recognition to local and ancestral knowledge.
- Develop and adapt technological logistics packages for products from the region, with an emphasis on handling, transportation, warehousing, delivery, registration, packaging and others.

a.2 Challenge

- To develop the rural indigenous knowledge base in both agriculture and agro-industry. Vast segments of the rural population have demonstrated knowledge and skills which, under favorable conditions, has allowed them to preserve their

position in traditional markets and to enter new market niches by combining local knowledge and appropriate modern technologies well suited to the specific characteristics of these economies.

Proposal

- To systematize and disseminate success stories of household agriculture and rural agro-industries that have introduced innovative processes to increase efficiency and to expand their supply portfolios.

b. Demand For Goods

b.1 Challenge

- To profit from market opportunities. This challenge relates to favorable developments in niche markets, including those for organic, exotic, environmentally friendly and safe products, expanding ethnic markets, and the renewed value given to indigenous knowledge and goods.

Proposals

- To generate a scientific database that will assure consumers of the safety of promising products obtained by exploring the region's diverse biological resource base. This will include the identification and quantification of anti-nutritional principles, toxins and other similar components.
- To adopt and enforce the principle of traceability thereby allowing identification of the origin of processes applied to products supplied to markets, and to identify the involved actors.
- To develop and adapt technological logistics packages for regional products, with an emphasis on handling, transportation, warehousing, delivery, registration, packaging and other related processes.
- To support the development of organic product certification systems suited to small scale agricultural producers and rural agro-industries.
- To develop, test and enforce arrangements for regional product differentiation based on special manufacturing attributes, raw materials used or the processes and actors involved in their manufacture. Specifically, to develop initiatives geared toward recognition of collective brand names and certification of labels of origin.

b.2 Challenge

- To contribute to poverty alleviation, and the elimination of inequality and food insecurity throughout the region. Within this context, the focus should be on preparing innovative proposals for large segments of the region's urban and rural populations who live below the poverty line, who are food insecure and are unable to rely solely on market forces to adopt technological innovations.

Proposals

- To systematize and disseminate, through both printed and electronic media, proven appropriate technologies for drying, storage and transportation of agricultural produce and products at the farm and small rural community levels.
- To formulate food products from the local raw material base. These products should adhere to established nutritional criteria and should be offered as interesting alternative products for local government food programs, including school breakfast and milk distribution initiatives.
- To introduce the vision and principles of innovation in production in alternative rural development programs with a view to broadening the scope of traditional initiatives to fighting illicit crops, in particular within the Andean sub-region.
- To disseminate the lessons learnt in the design and development of post-harvest and rural agro-industry, through FAO's post-harvest programs in Ecuador and Bolivia, and through the Swiss Cooperation for Development in Central America.

b.3 Challenge

- To contribute to enhancement of the links between small farm producers and other more dynamic players in the production chain through research, development and technical assistance initiatives.

Proposals

- Adapt quality management systems including Good Agricultural Practices, Good Manufacturing Practices, HACCP and ISO standards, and introduce them in household agriculture, rural agro-industry and small and micro food enterprises.
- Promote the development of differentiated products, e.g. intermediate goods for industry, pre-packaged goods for supermarket chains, generic products for third parties etc. and other.
- Disseminate lessons learnt in the design and development of post-harvest and rural agro-industry, in FAO post-harvest programs in Ecuador and Bolivia and through the Swiss Cooperation for Development in Central America.
- Expand the dissemination and use of information systems, including INPhO and the PRODAR information platform.
- Together with technical training and assistance, include initiatives on organizational building for production, trading, management and negotiations.

4. c. Institutional developments geared toward facilitating market access of products.

c.1 Challenge

- To develop, adapt and/or utilize schemes for facilitating innovation in small-scale production. A substantial number of regional experiences have demonstrated their effectiveness and could underpin new adaptive developments in regions and countries in which they are not yet widespread. These should not however be introduced as isolated successful cases, but as ways of introducing production and innovative processes that will eventually turn into habitual procedures.

Proposal

To systematize, disseminate and promote adapted success stories demonstrating the use of the following tools:

- Contracts among private parties for supplying raw materials and throughputs in value added processes under strict quality and timeliness requirements (in several countries).
- Supplier Development Programs (Chile, Mexico).
- Introducing and operating sector Development and Research Centers (Colombia).
- Introducing and operating networks and consortia (several international cases).
- Introducing and operating alliances for innovation between government and industry (Chile and Mexico).
- Developing and implementing competitive funding (various national and international experiences).
- Developing, enforcing and directing development funds by item based on para-government and self-taxation funding schemes (Colombia, Peru).
- Designing and introducing tax incentives (Colombia and others).
- Introducing programs to implement and improve quality management systems through export promotion agencies (Peru, Colombia, Trinidad & Tobago and other countries).

c.2 Challenge

- To strengthen and prepare human resource training programs. The efficient enforcement and utilization of policy instruments and business strategies depends on endowing human capital with the knowledge, skills and attitudes to facilitate such processes. The development of several countries and regions around the world can be accounted for to a large extent by their investment in human capital.

Proposal

- Adapting current teaching programs (and include elements like those proposed throughout this paper).
- Improve alliances between education and business, including in the fields of family agriculture and rural agro-industry.
- Foster research in post-production in universities and vocational schools to better utilize the human capital of students and faculty.

c.3 Challenge

- To contribute to building infrastructure and opening access to productive services for the benefit of regional small-scale farmers and rural agro-industries. Although improving conditions in the agro-industrial system's productive environment falls beyond the scope of an innovation promotion program, factors such as physical access to markets, efficient water, energy and fuel supplies, and modern communications systems have a demonstrable direct impact on the adoption of research and development findings.

Proposal

To contribute to improved infrastructure for and access to productive services for the benefit of regional small-scale producers and rural agro-industries.

- To promote the development and dissemination of alternative technologies for energy generation.
- To establish alliances with local governments to improve road and traffic conditions by proposing economic and social supporting arguments.
- To establish alliances with local governments and other stakeholders to improve local access to modern communications systems (Internet).

B. WORKING GROUP DELIBERATIONS

1. SWOT ANALYSIS BY SUB-REGION

SWOT analyses were conducted by grouping participants on the basis of their sub-regional origin. Results are presented below:

Mexico

Strengths

- *Large productive surface area.*
- *Access to market information.*
- *Large biodiversity and diverse agro-systems.*
- *Cheap labor.*
- *Available energy.*
- *Adequate infrastructure.*
- *Rural producer ownership in 88% of the nation.*
- *Strong agribusiness policies.*

Weaknesses

- *75% of farm land is either under temporary agriculture or is rainfed.*
- *Restricted market information access among rural small holders' markets.*
- *Agro-ecological decline underway.*
- *Poorly skilled labor.*
- *High energy cost*
- *Insufficient infrastructure in the nation's countryside.*
- *Insufficient access to support activities.*
- *Organization underway.*

Opportunities

- *Proximity to the world's largest market.*
- *Large domestic market.*
- *Fresh foreign capital inflows.*
- *Expanding human capital.*
- *Available technology.*
- *Commercial treaties with 38 countries in 3 continents.*
- *Growing foreign demand for Mexican foods.*

Threats

- *Significant dependence (80%) on US and Canadian markets.*
- *Low purchasing power of most people (60%).*
- *Loss of ownership of factors of production.*
- *Brain drain.*
- *Raw materials and equipment imports.*

- *Insufficient funding for the primary sector.*

Caribbean

Strengths

- Shared production systems and products.
- Expertise in post-production with traditional crops and in some market niches.
- Satisfactory natural barriers and quarantine services.
- Variety of seeds and biodiversity.
- Coordinated schemes and working networks in place.

Weaknesses

- Insufficient number of trained post-production experts.
- Financial barriers at all levels.
- Organizational weakness of laboratory testing facilities, scientific databases and marketing systems.
- Inappropriate infrastructure in transportation, warehousing, etc.
- Inappropriate policies and regulatory framework

Opportunities

- Expanding market niches outside the region.
- Growth potential in local and inter-regional markets.
- Positive image relating to intrinsic qualities of products grown in a healthy environment.
- Trade deregulation together with proximity to major markets.
- Access to technical and financial resources.

Threats

- Globalization.
- Barriers for MRLs established in extra-regional markets to supply regional commodities.
- Growing rejection to widespread use of agro-chemicals in the region.
- Discontinuous supply of export products due to high post-harvest losses and inappropriate knowledge of market conditions.
- Use of standards and rankings as strategic marketing tools together with significant investments required to obtain certification that opens the doors to large product supply chains.

CENTRAL AMERICA

Strengths

- Wide biodiversity.
- Diversity of farm products supply.

- Export promotion policies.

Weaknesses

- Inappropriate rural development policies.
- Poor production and post-production infrastructure.
- Poorly trained human capital.
- Inappropriate financing.
- Poor access to information.
- Natural catastrophes.
- Small supply volumes.
- Small regional markets.

Opportunities

- New market trends.
- Proximity to markets of interest.
- Information technology.
- Some marketing channels in external markets.

Threats

- Globalization (insufficient competitiveness in some sectors).
- New suppliers for similar products.
- Growing migration flows to urban areas.
- Limited local demand for value added products.

ANDEAN GROUP

Strengths

- Successful experiences in international markets.
- Agricultural heritage.
- Ethnic and product diversity.
- Research, transfer and support service organizations, including human talent...
- Idle infrastructure and facilities.

Opportunities

- New market demand for organic, healthy natural food.
- Unsatisfied domestic market needs.
- International technical cooperation.

Weaknesses

- Unskilled labor.
- Deficient and heterogeneous technological development.
- Local consumers not aware of quality.
- Lack of knowledge or enforcement of technical specifications, standards and quality requirements.

- Precarious organization of weakest chain links.
- Scarce financial resources.
- Inappropriate information exchange.
- Resistance to change.
- Lack of interdisciplinary work.

Threats

- Continuous price drops.
- Trade barriers and subsidies in developed countries.
- Transnational corporations' monopoly.
- Climate changes.
- Corruption.

SOUTHERN CONE

Strengths

- Appropriate infrastructure.
- Qualified human resources.
- Less vulnerable natural resources.
- Diversified economies.
- Insertion in international markets.

Weaknesses

- Lack of sensitive government agencies (insufficient regulation).
- Insufficient protection regulations for domestic demand (quality issues).
- Lack of specific policies.
- Heterogeneous structures and productive sectors.
- Lack of attention to small-scale producers and spreading rural poverty.

Opportunities

- Potential for broad technology transfers for initial takeoff.
- New opportunities in established markets.
- Outsourcing of throughput supply to small- and intermediate agro-industrial companies.
- Middle class purchasing power as an engine for domestic market growth.

Threats

- Political and economic instability.
- Shrinking competitive advantage due to high input costs compared to other countries.
- Wide-scale distribution, high-cost barriers, payment schedules, company concentration (small number of businesses).

Summary Table of SWOT Analyses

Sub-region	Strengths	Weaknesses	Opportunities	Threats
Mexico	<ul style="list-style-type: none"> • Large productive surface area. • Access to market information. • Large biodiversity and diverse agro-systems. • Cheap labor. • Available energy. • Adequate infrastructure. • Rural producer ownership in 88% of the nation. • Strong agribusiness policies. 	<ul style="list-style-type: none"> • 75% of the territory consists of dry lands • Access to market information is limited in rural areas • Deteriorating agro-ecological systems • Inadequately trained labor force • High cost of electricity • Lack of infrastructure in the rural areas in the southern part of the country • Insufficient support. 	<ul style="list-style-type: none"> • Large productive surface area. • Access to market information. • Large biodiversity and diverse agro-systems. • Cheap labor. • Available energy. • Adequate infrastructure. • Rural producer ownership in 88% of the nation. • Strong agribusiness policies. 	<ul style="list-style-type: none"> • Significant dependence (80%) on US and Canadian markets. • Low purchasing power of most people (60%). • Loss of ownership of factors of production. • Brain drain. • Raw materials and equipment imports. • Insufficient funding for the primary sector.
Caribbean	<ul style="list-style-type: none"> • Shared production systems and products. • Expertise in post-production with traditional crops and in some market niches. • Satisfactory natural barriers and quarantine services. • Variety of seeds and biodiversity. • Coordinated schemes and working networks in place. 	<ul style="list-style-type: none"> • Insufficient number of trained post-production experts. • Financial barriers at all levels. • Organizational weakness of laboratory testing facilities, scientific databases and marketing systems. • Inappropriate infrastructure in transportation, warehousing, etc. • Inappropriate policies and regulatory framework 	<ul style="list-style-type: none"> • Expanding market niches outside the region. • Growth potential in local and inter-regional markets. • Positive image relating to intrinsic qualities of products grown in a healthy environment. • Trade deregulation together with proximity to major markets. • Access to technical and financial resources. 	<ul style="list-style-type: none"> • Globalization. • Barriers for MRLs established in extra-regional markets to supply regional commodities. • Growing rejection to widespread use of agro-chemicals in the region. • Discontinuous supply of export products due to high post-harvest losses and inappropriate knowledge of market conditions. • Use of standards and rankings as strategic marketing tools together with

Sub-region	Strengths	Weaknesses	Opportunities	Threats
				significant investments required to obtain certification that opens the doors to large product supply chains.
Central America	<ul style="list-style-type: none"> • Wide biodiversity. • Diversity of farm products supply. • Export promotion policies. 	<ul style="list-style-type: none"> • Inappropriate rural development policies. • Poor production and post-production infrastructure. • Poorly trained human capital. • Inappropriate financing. • Poor access to information. • Natural catastrophes. • Small supply volumes. • Small regional markets. 	<ul style="list-style-type: none"> • New market trends. • Proximity to markets of interest. • Information technology. • Some marketing channels in external markets. 	<ul style="list-style-type: none"> • Globalization (insufficient competitiveness in some sectors). • New suppliers for similar products. • Growing migration flows to urban areas. • Limited local demand for value added products.
Andean Group	<ul style="list-style-type: none"> • Successful experiences in international markets. • Agricultural heritage. • Ethnic and product diversity. • Research, transfer and support service organizations, including human talent. • Idle infrastructure and facilities • Appropriate infrastructure. • Qualified human resources. 	<ul style="list-style-type: none"> • Unskilled labor. • Deficient and heterogeneous technological development. • Local consumers not aware of quality. • Lack of knowledge or enforcement of technical specifications, standards and quality requirements. • Precarious organization of weakest chain links. • Scarce financial resources. • Inappropriate information 	<ul style="list-style-type: none"> • New market demand for organic, healthy natural food. • Unsatisfied domestic market needs. • International technical cooperation. 	<ul style="list-style-type: none"> • Continuous price drops • Trade barriers and subsidies in developed countries • Monopoly of transnational corporations • Climate change • Corruption

Sub-region	Strengths	Weaknesses	Opportunities	Threats
	<ul style="list-style-type: none"> • Less vulnerable natural resources. • Diversified economies. • Insertion in international markets. 	<p>exchange.</p> <ul style="list-style-type: none"> • Resistance to change. • Lack of interdisciplinary work. 		
Southern Cone	<ul style="list-style-type: none"> • Appropriate infrastructure • Qualified human resources • Less vulnerable natural resources • Diversified economies • Insertion in international markets. 	<ul style="list-style-type: none"> • Insufficient protection regulations for domestic demand (quality issues). • Lack of specific policies. • Heterogeneous structures and productive sectors. • Lack of attention to small-scale producers and spreading rural poverty. • Lack of sensitive government agencies (insufficient regulation). 	<ul style="list-style-type: none"> • Potential for broad technology transfers for initial takeoff. • New opportunities in established markets. • Outsourcing of throughput supply to small- and intermediate agro-industrial companies. • Middle class purchasing power as an engine for domestic market growth. 	<ul style="list-style-type: none"> • Political and economic instability. • Shrinking competitive advantage due to high input costs compared to other countries. • Wide-scale distribution, high-cost barriers, payment schedules, company concentration (small number of businesses).

2. CROSS-CUTTING ISSUES

A number of cross-cutting issues were identified during Workshop discussions.

Gender

Post-harvest and food processing largely involve women throughout the region, particularly in rural areas. Additional efforts are needed to promote and sensitize professional and technical experts (both male and female) to develop strategies and methodologies that will address the needs of rural women, and their demands, by promoting services to introduce innovation, provide training and technology transfers, build business and credit service facilities, increase their labor productivity, reduce the drudgery associated with their work and reproductive burden, and acknowledge their families and communities' recognition for their work.

The Environment

Post-harvest innovations are intimately related to conservation of the environment:

Organic Products

The growing popularity of organic farming catering to local high income and export markets opens a range of opportunities for small-scale producers not engaged in intensive agriculture. However, reaping the benefits of access to those markets requires both simplified certification processes and opening those markets to small producers.

3. REGIONAL STRATEGIC PRIORITIES

Goal and Objectives

Goal: To contribute to increased competitiveness¹ in agro-industrial systems based on sustainable and equitable development, and including food security criteria.

Regional initiatives to innovate in post-production systems should be aimed at accomplishing the goal of enhancing the competitiveness of Latin American and Caribbean agro-industrial systems, as part of a broad development initiative that will involve a majority of small-scale producers while paying due attention to their food security.

General Objective: To increase efficiencies in post-production

Specific Objectives: To foster the design of viable policies
To strengthen support services¹
To develop local capacities

Post-production initiatives in Latin America should set themselves the goal of increasing the efficiency of post-production systems by increasing the competitiveness of production chains in both international and local markets. This requires creating an environment to facilitate those processes through policy design, training of human resources in services and producer support for innovation, strengthening support services for organizations, and establishing alliances between governments and industry. In turn, this will pave the way to increase competitiveness all along product chains.

4. SUB-REGIONAL STRATEGIES

MEXICO

- Alliances and support networks (producer, expert and business community associations)
- Truthful, timely and open information for economic agents in the agro-industrial chain
- Teaching, research and development of appropriate technologies
- Training and technology transfer
- Sufficient, open and timely financing
- Market and marketing systems surveys (costs, prices, qualities, yield and quality competitiveness)
- Infrastructure: basic production and environmentally friendly infrastructure building.

¹ Including technological, information, marketing, financial, business management and other types of development.

CARIBBEAN

Strategy

To establish and/or strengthen regional organizations to pave the way for greater knowledge dissemination while providing training, infrastructure and the necessary political framework for competitive and sustainable involvement of the Caribbean region in the world's post-harvest sector.

Rationale

Globalization has pushed the Caribbean region to diversify its product portfolio away from traditional products like bananas, sugar, and coffee, while developing market niches for tropical roots and tubers, fruits, vegetables and herbs. Nonetheless, regional organizations must be strengthened so that the vast numbers of small-scale farmers growing these crops will be provided with the services they need for pest and disease management, credit systems, extension services, market information, infrastructure (pesticide research laboratories), and thus be in a position to meet new competitiveness and quality standards required for these export products.

CENTRAL AMERICA

Strategy

To invest in developing local and national capacities for organizational strengthening. Organizations will promote geographically-based alliances and use innovations in post-production as a tool for comprehensive rural development.

The **strategic action plan** for the sub-region includes the following elements:

- Priority setting by sector and type of product.
- A chain approach to the identification of development initiatives
- Training and strengthening of networks and producer groups to increase available supplies.
- Training (participation, chain and production, innovation, creativity and other principles).
- Formal training in production management, innovation and allied topics.
- Development of financial instruments adapted to small-scale producer demand in post-production initiatives.
- Easier access to information at all levels.
- Optimum use of existing external marketing channels.
- Fostering demand for value added products in domestic markets.

ANDEAN SUB-REGION

Strengthening networks of producer organizations, research and technology transfer institutions, and participants in agri-food chains for a more balanced coordination of agri-food systems. As a result, initiatives, products, markets and areas will be prioritized,

together with recommendations for policy governments that suit the need for information and knowledge policies aimed at improving the quality of rural and community life at large.

Strategic Goal

- Contributing to the general well being of the people by strengthening their agri-food chains in the search of increased efficiency and sustainability in a framework of equality.

The proposed **Strategic Plan** aims at:

- Disseminating successful experiences and creating links and information networks that highlight the importance of post-production.
- To build on the skills of rural workers' concepts and systems in line with new knowledge in post-production.
- To analyze biodiversity from the viewpoint of market trends.
- To strengthen national research, transfer and service support organizations by creating specialized human talent and working in multidisciplinary networks.
- To increase the use of currently underutilized equipment and other investments in place.
- To adapt technology to local conditions.
- To promote the dissemination and enforcement of technical specifications and standards, and quality requirements among all actors in the production chain.
- To strengthen the organizational systems of the chain's most vulnerable links.
- To promote and redesign credit policies aimed at supporting the productive system and to strengthen alternative credit schemes.
- To create regional information networks.
- To promote alliances and linkages among producers, organizations and companies to create a new institutional setup.
- To promote products that meet the demand from different niches.
- To coordinate with local governments the funneling of surplus supply subsequent to post-harvest improvements, with a view at catering local institutional market demand.
- To identify all actors in the CTI to involve them in post-harvest processes.

SOUTH CONE

Strategy

To advise governments on adapting and adopting the tools and standards needed for a stronger post-production sector.

The **Strategic Plan of Action** comprises the following:

- To promote small-producer organizations to involve them in modern productive chains.
- To sensitize successful agro-industries to include small-producers in their chains (through alliances).

- To carry out promotion campaigns among consumers focusing on their requirements for quality food.
- To conduct local training programs for marginal small-scale producers dealing with management, organization, administration, negotiation and other related topics.

5. THEMATIC DISCUSSIONS

Workshop participants prioritized a number of thematic areas for inclusion in the post-harvest initiative, based on a synthesis of the information contained in the sub-regional reports, the SWOT analysis and the emerging sub-regional strategies. These thematic areas (and the activities identified within them, were compatible with the *goal* and *purpose* identified for the overall initiative.

5.1. Policies:

Goal: To generate a favorable environment for developing competitiveness in production chains and innovation in post-production systems by committing stakeholders at various levels.

WHAT TO DO	ACTORS	SCHEMES
1. Sensitize decision makers and actors as to the importance of the post-production process.	<ul style="list-style-type: none"> • Local and national government. • Private sector, from producers to consumers. 	Strategic regional committees for agro-industry development.
2. To establish alliances between government and businesses (technical stakeholders) that will foster actor training from the local to the national levels.	<ul style="list-style-type: none"> • Government. • Business community. • Academic community. • Research community. 	National, regional and local coordination councils. Agro-industrial development programs involving research institutions and the agricultural business community.
3. To create conditions that will facilitate, foster and promote private, international and national investment and funding, through clear legal frameworks, alternative guarantee systems and basic social services.	<ul style="list-style-type: none"> • Government. • Banks. • Business community. • International Organizations. 	Laws, dissemination programs and local information and advise services.
4. To create and enforce the legal framework and schemes that determine the quality parameters for domestic and export markets	<ul style="list-style-type: none"> • Government (law makers and the Judiciary). • Organized civil 	Updating academic products addressing demand to bring about innovative applied post-production processes in

where higher. product competitiveness is required.	society.	alliances with producer networks.
5. To create or strengthen, through government and private schemes and with international cooperation, research and technology transfer and information services, as well as opening access to market to all actors, by facilitating the understanding and enforcement of market knowledge.	<ul style="list-style-type: none"> Government and business community. 	

5.2 Business and Market Development

Goal: To promote demand-driven competitiveness in product chains and innovation in post-production systems by facilitating the supply of market and marketing services for the business community, as well as business management and credits, training and technical assistance for production, innovation and quality, while adopting a participatory approach.

Facilitators	Actors	Schemes
Government	Rural producers	Associations: Local Urban International
Funding Agencies	Exporters	Strengthening chains. Sharing information Adopting a participatory approach.
Educational institutions	Processors	Local and regional forums
Agency development /NGOs	Wholesalers	Information and service networks.
Arbitrators	Retailers / Consumers	

5.3. Training

Goal:

To promote a participatory approach in human resource training at various levels with a view to strengthening service supply organizations and the capacities of the various types of rural producers involved. This effort seeks to enhance competitiveness in product chains and innovation in post-production systems with a business focus aimed at meeting market demand.

Formal Training

Actors	Tools
Primary, intermediate, higher and postgraduate (rural and urban) levels. Vocational and agricultural schools. Financial sources.	Including the topic in the curriculum. Teacher training. Comprehensive learning programs. Agro-business internships. Short specialization and updating courses.

Informal Training

Actors	Tools
NGOs. Vocational schools. Cooperation organizations. Governments. Cooperatives and associations. Universities. Financial organizations.	Extension and rural development programs and projects with an emphasis on agri-food chains.

Technical Assistance

Actors	Tools
Public Sector. Private Sector . Universities. Trained producers. NGOs. Local governments.	Counseling. Advisory programs. Technical assistance programs .

Technology

Actors	Tools
Research organizations. Universities. Private Sector. NGOs. Chain links. Science and technology commissions. Financial organizations or funding sources.	Basic and applied research projects. Technology testing and adjusting. Local participatory research program. Purchase of technological packages. Preferential credit systems. Agreements, networks and alliances. Credit lines.

5. 4. Alliances and Tools

a. Government level

To promote public-private alliances, including organized producers and service supply organizations, through competitive funding managed by independent organizations with demonstrated appropriate technical capacity. These organizations should be overseen by a Management Committee to prevent corruption and clientele-building, in an appropriate legal and administrative (regulatory) framework. Competitive funding may be provided in the following areas: production, marketing, management (administrative and environmental) and new product development. A project to be funded through competitive funding must include monitoring systems and schemes for evaluating impacts on beneficiaries.

Present cases that may be replicated include:

In Chile: Productive Development Projects (PROFOS) and Supplier Development Programs (CORFO).

In Mexico: Rural Alliances Program.

In Peru: INCAGRO and Service Centers.

b. Operating organizations (executers of competitively-funded programs)

Operating organizations using competitive funding may be consultancy organizations, NGOs, foundations, professional associations, trade chambers, corporations and universities. These organizations will be charged with implementing projects and act as intermediaries between governments (suppliers of competitive funding) and producers. The capacities of operating organizations must be strengthened to ensure their efficient access to and utilization of resources. Organizational strengthening must be provided in the fields of project management, technical market managing, capacity-building, etc.

c. Producer organizations

The following initiatives seem appropriate so that producer organizations can access competitive funding:

- To identify and train leaders and promoters in local and municipal governments.
- To promote or strengthen local business management systems.
- To promote business manager training to advise producers and their organizations.
- To foster social responsibility of large companies and producers, as well as a tradition for honoring contract arrangements.
- Supplier training.

5.5. Quality

Goal: To introduce the required policies and systems that will ensure quality output and supply for domestic, regional and international markets.

Actors	Reference Framework	Functions
Consumers	<p>Consumer's right to know. Information through brand names, media campaign (nutritional and health attributes and risks involved). Laws and regulations for consumer protection. Periodical and systematic inspection systems to monitor product quality and punish offenders.</p>	
Producers, farmers, food processors, wholesalers, supermarket chains, retailers and exporters	<p>To identify a sustainable system that will supply services to interested parties at a reasonable cost. To create an umbrella organization to achieve this goal. This organization must be funded by government, international donors and producers. (Producers will pay service fees)</p>	<p>Organizational Functions: Training and awareness raising. Advisory services New technology identification Assisting players in maintaining standards Identifying new trends in marketing, intrinsic components and nutritional and quality attributes of foodstuffs. Organizational Needs: Access to information Body of experts Capacity to call forth experience and abilities according to need Analysis services.</p>
Government and public administration.		<p>Functions To introduce policies, rules and regulations To introduce a certification system compliant with policies, rules and regulations To award certification directly from government or through private agencies with a government mandate.</p>

6. CONCLUSIONS

1. Workshop attendees prioritized developing competitiveness of product chains and post-production system innovation as the main activity in the regional agenda in this field. Participants specifically mentioned two types of product chains, i.e., non-conventional export-oriented chains and conventional product chains. Competitiveness in the global market requires the development of a number of business, technology and innovation services to meet the quality and productivity standards of modern and international markets. Emphasis was placed on the need to promote new products for which potential market demand exists, based on the biodiversity of the region.
2. The need to create a favorable environment that would enhance competitiveness in product chains and innovation in post-production systems, by developing appropriate policies and creating cross-institutional networks was expressed.
3. Strengthening existing organizations and training human resources at all levels was another priority shared by all sub-regions. Training should be directed at strengthening organizations and human resources thereby enabling them to provide expert services in marketing and commercialization, business management and administration, technical assistance, technology transfer and quality upgrading.
4. Developing business and market capacity among producers emerged as a regional priority. The need for locally supplying services of a comprehensive nature and specialized by type of product chain was recognised. These schemes should span the whole gamut of required services, including market and marketing information, business management and culture, credit information, technology transfer and assistance, as well as innovation and quality approaches, all within a systemic view encompassing the producer-to-consumer continuum. In term these services will be demand-driven, and will involve producers organized by product chain and/or at the local level.
5. Government-industry alliances to supply these services are of the utmost importance. Other successful tools throughout the region include competitive funding that calls for bids to use public resources. These calls for bids provide for easier screening and funding of projects submitted by both private or government organizations linked to organized producers who can, thus, provide demand-driven services. Executing organizations charged with implementing tendered projects must be strengthened to ensure efficient project execution, successful results and favorable results in increasing producers' revenues.
6. Services to ensure quality post-production processes emerged as a regional priority to both enhance product access to international export markets and to ensure the continued supply of small farmer products in local markets. A proposed strategy included introducing umbrella organizations and/or strengthening specialized organizations that will provide certification services with international accreditation as well as support the introduction of quality management systems, such as Good Manufacturing Practices, Hazard Analysis of Critical Control Points, and conformance with environmentally-friendly production systems, together with consumers awareness campaigns on product and productive process characteristics so that consumers will be informed of the latter's' characteristics and able to identify and discern health and environmental risks.

A priority throughout the workshop focused on the need for programs which utilize small-scale agriculture as a means of poverty alleviation in the region. A considerable number of small-scale producers is currently bound to live in poverty and marginality. Any such program should make a special effort to improve the competitiveness of the products of small-scale agriculture and its access to markets. A recommendation was made to underscore the development of local service supply and to promote participatory approaches focusing on the attention to small farmers' needs.