

THE INTERVIEW

Carlos Alfonso Anzueto del Valle, Undersecretary for Rural Economic Development at the Ministry of Agriculture, Livestock and Food, **Guatemala**

FAMILY FARMING OBSERVATORY

Family farming in Mexico

BEST PRACTICES

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- Livestock Family Farming in the Caribbean
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GENDER AND RURAL YOUTH

Junior Farmer Field and Living Schools

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FAO and IFAD sign agreement to generate new policy tools and training material

CALENDAR OF EVENTS

FAMILY FARMING NEWSLETTER

for Latin America and the Caribbean, April - June 2013



Quinnia
2013 International Year





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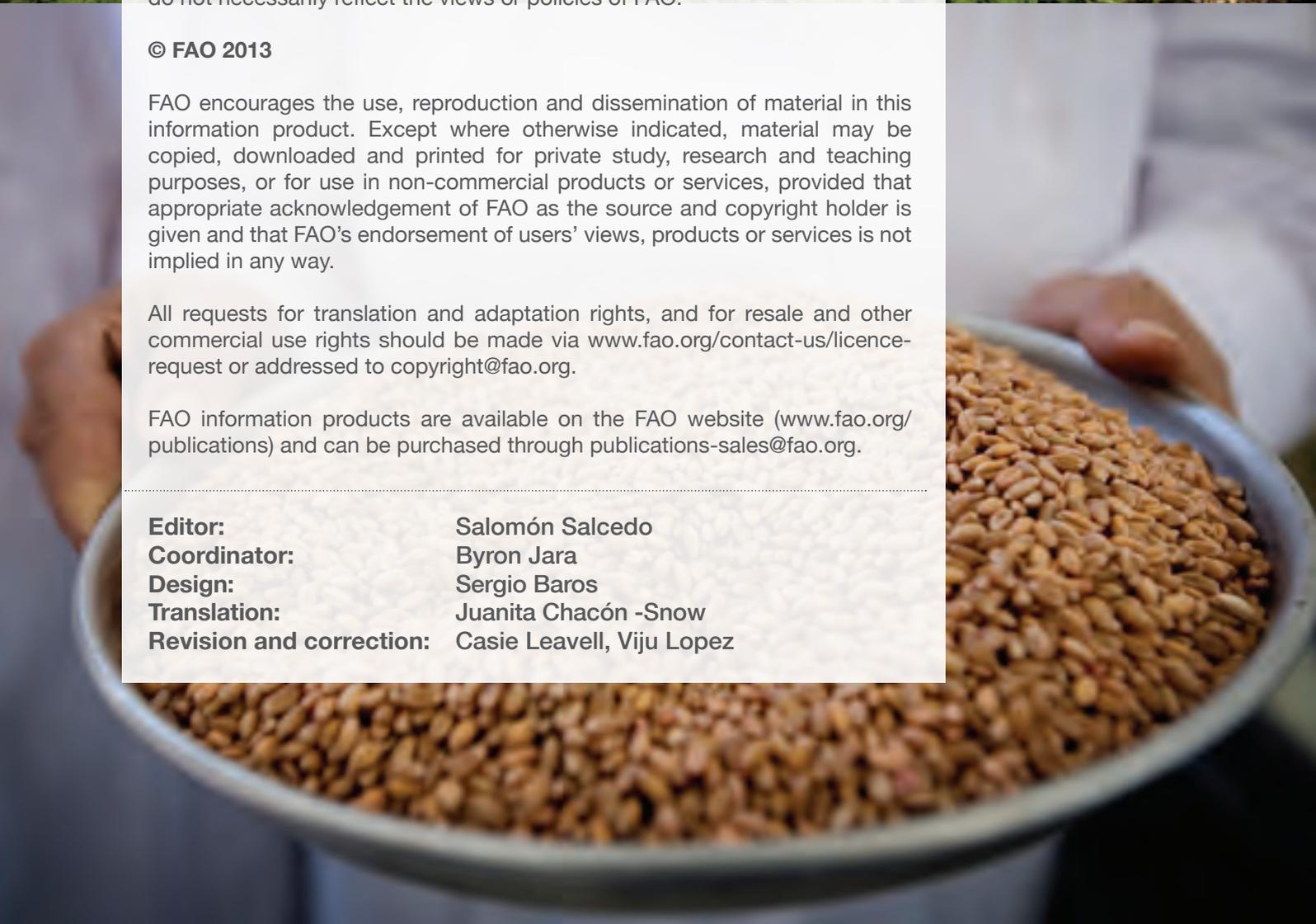
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Editorial

Numerous activities have been planned this year to celebrate the International Year of Quinoa, and we are now preparing for the International Year of Family Farming. Both events serve to raise awareness about the need to protect and strengthen Latin America's traditional agricultural production systems and promote them among governments and international organizations to ensure they become a political priority. These traditional systems contribute directly to the food security and incomes of millions of small-scale farmers and their families in Latin America and the Caribbean who, in turn, make it possible for millions of people in the region to have access to vegetables, meat products and fish.

I would like to bring attention to the need and importance of dialogue within the food production sector. Today more than ever it is crucial to adopt a more systemic approach to the development of policies aimed at creating an enabling environment to ensure greater and more sustainable agrifood production in the countries throughout the region.

Ecosystems that support food production are areas with biophysical and climatic conditions that extend beyond politically accepted borders. Numerous human activities coexist within them, each of them sharing the natural resources contained within them. The territorial nature of these environmental and social processes is gradually being acknowledged and taken into consideration when planning and developing policies.

However, the institutional structures and policies that involve family farming are still being designed in an isolated manner. For example, farmers carry out livestock and/or aquaculture activities in their own farms, integrating natural vegetable, poultry, livestock and fish production as well as fruit or wood producing trees in a somewhat natural way with the use of water, land, energy, ecosystemic services and nutrients, while sharing infrastructure, capital and markets. Furthermore, the diversification of family farming production, even on at a small scale, is a strategy to increase family farm agricultural and livestock production and offset risks.

Thus, it is important to reassess the consultative and participatory policy-making process for family farming, which must arise from inter-sectoral dialogue and institutions. Multiple stakeholders must be involved in the implementation of a territorial approach and in any discussions involving governance issues. The multi-sectoral approach in policymaking and the development of food production mechanisms is not only convenient, but also natural.

Alejandro Flores
Senior Fisheries Officer
FAO Regional Office for Latin America
and the Caribbean

Interview

Mr. Carlos Anzueto del Valle

The following is a summarized version of an interview with Mr. Carlos Alfonso Anzueto del Valle, Undersecretary for Rural Economic Development at the Ministry of Agriculture, Livestock, and Food (MAGA) in Guatemala.



1. “Family Farming Program to Strengthen the Rural Economy” is the name given the small-scale farming program in your country. How will this Program effectively strengthen the rural economy?

Two thirds of Guatemala’s population (1.3 million families) lives in rural areas; their livelihoods depend on a very basic rural economic system. This economic system is classified as rural and poly-active, and can survive within the context of poverty and extreme poverty. We have established that this type of rural economy is collective in nature that it often takes the form of family farming, a sector that is particularly active in our country, and that is characterized by demonstrations of solidarity. This type of farming activity is quite wide-ranging and can include the forestry and fishery sectors, among others.

However, the rural economy can also take on other forms such as handicrafts production, the sale of labor, resource extraction, and other rural activities. This means that income can be supplemented from other sources. It is an economy based on family farming, which contains other elements that contribute to its productive system.

At the Ministry of Agriculture, our primary objective at the Ministry of Agriculture is to provide services to family farmers. We have defined family farming as an agricultural activity that is structured around the family workforce and does not require external labor.

2. The government of Guatemala has implemented, what has been labeled, a “two-

door approach” to comprehensively address rural development. Where does family farming fit into this?

We call it the “two-door” approach because comprehensive rural development has several forms of access. The first door, so to speak, is the Family Farming Program to Strengthen the Rural Economy. This is the Agriculture Ministry’s flagship program, which we are using to assist 1.3 million Guatemalans who rely on family farming through three major lines of action.

Technical assistance provided through the National System of Rural Extension is the first line of action. This program is being set up in 334 municipalities throughout the country, thus covering 100% of the national territory. We currently have three extension workers in each municipality, who are providing each and every community the coverage and assistance they require.

The second line of action involves improving the capacity of the municipalities to carry out strategic territorial interventions. Basically, identify each municipality where these initiatives can be carried out to trigger development and promote the transfer and dissemination of the technology that communities need for. This means identifying community resources, the quality of human capital available, and, more importantly, the potential for development in each of these communities.

The third component refers to the ability to use logistics, e.g., the capacity to generate trainers, instructors, and experts in the wide diversity of

subjects associated with the rural extension system, as a whole, to determine the generation mechanisms that exist below subsistence level population dynamics as we refer to those families who have not been able to attain the level of subsistence farming necessary to cover their needs. The idea is to help these families go beyond the subsistence level and enter the category of family farms that produce for on-farm consumption.

On the subject of family farming, I would like to mention that it is not only crucial, but also our main challenge to achieve food security in every rural household in Guatemala. Our ultimate objective is to achieve greater equality, improve incomes, and enhance the livelihoods of every Guatemalan household.

3. How much progress has been made in implementing the Family Farming Program to Strengthen the Rural Economy?

I should start off by saying that this program was created with the support of FAO Guatemala,

an organization with extensive experience in pilot projects, in areas of our country that were somewhat neglected. We also worked with the Rural Development Commission, the Secretary of Rural Affairs and the Under-Secretary of Rural Economic Development. This collaboration resulted in a document known as the “Family Farming Program to Strengthen the Rural Economy”. This document was submitted to the President of the Republic on May 17, 2012, and officially presented as the flagship program of the Agriculture Ministry by the President. The program launched in August 2012, and within the first year, reached the first goal of the family farming program, i.e., the establishment of the national extension system.

In 2013, we were able to earmark 100 million quetzals for the program in the Agriculture Ministry’s budget; 225 million quetzals were allocated for investments and another 80 million for hiring extension workers (three in each municipality). Therefore, we can say that there is a real possibility that we will finally begin the necessary process of implementing the program.





In addition, the national extension system is acting as coordinator for the Zero Hunger Pact, a program implemented by the government of Guatemala that aims to reduce undernutrition in the country by 10% within the next four years. Thus, the national system for rural extension not only provides services to the Ministry of Agriculture, but also a mechanism for channeling services from other ministries throughout the country.

4. What are the major political and technical obstacles that you have had to face while developing and implementing this family farming program?

Government bureaucracy is one of the biggest obstacles. Another major obstacle is Guatemala's long-standing reluctance to properly address rural development.

We believe the family farming economy needs direct, visible and extensive support, both financially and in human resources, if it is to become a self-developing economic agent.

The rural economy cannot be associated with poverty as a subject of patronage that is only on the receiving end. If we create a dynamic environment that facilitates effective mechanisms to activate rural economies, family farmers will become fundamental elements of economic development. This is our goal, drawn from the experience of other countries in the region such as Brazil.

5. Any final words for our readers?

We are making every effort in Guatemala to bolster the rural development of some seven million Guatemalans living in poverty and extreme poverty. The government wants to get these programs underway to be able to address the needs and improve the income of this farming sector. This is what we have focused on and this is why we need the support of international organizations and the private sector within the country to help us in our efforts to promote equality and provide greater opportunities for the Guatemalan people.

FAMILY FARMING OBSERVATORY

Family farming in Mexico

Family farming is a strategic sector in Mexico that feeds more than 112 million people. In recent years, it has been suggested that this sector needs to be viewed under a different lens; in other words, it should be considered part of the solution to generate food, income, and employment and not the root of the problems in Mexico's countryside. The following is a brief summary of the current situation of this important sector of Mexico's economy¹.

In order to define family farming in a country as heterogeneous as Mexico, a series of factors must be taken into consideration. A study conducted

by the Ministry of Agriculture, Livestock, Rural Development, Fisheries, and Nutrition (SAGARPA) and FAO has identified three major groups:

Subsistence family farms: Food production for on-farm consumption characterized by inadequate productive resources and the need to supplement income with non-farm activities or government aid.

Family farms in transition: Production for on-farm consumption and sale, with minor shortages of productive resources; additional sources of income are rarely needed.

Consolidated family farms: Sustainable production and sale in local markets, with no shortage of productive resources; other sources of income may sporadically be required.

¹ This section draws on a summary of the study *Agricultura Familiar con potencial productivo en México* (Family farming with production potential in México) conducted by the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Nutrition (SAGARPA) and FAO.



The study drew data from SAGARPA baseline information, which provided an overview of the rural sector and revealed, using the group classification cited above, that 81.3% of Mexico's 5.4 million rural economic units (REU) could be considered family farms. The aim of

the SAGARPA/FAO study was to identify family farms with business production potential. The study reveals 39.6% of REUs in Mexico have this potential. Table 1 provides a summary of the characteristics of family farm REUs with business production potential.

Table 1: Socio-economic characteristics of family farming RUEs with business production potential in Mexico (2012)

	SUBSISTENCE FAMILY FARMS	FAMILY FARMS IN TRANSITION	CONSOLIDATED FAMILY FARMS
REUs with business production potential (percentage, 100% = 2,147,619 REUs)	17.4	56.8	25.8
Average total surface area (hectares)	3.4	5.0	4.7
Average farmland surface area (hectares)	2.9	3.7	4.0
Average value of assets (Mexican pesos)	6,758	32,689	42,711
Number of family members who participate in an REU	2.6	2.4	1.7
Percentage of REUs located in areas with high and extremely high marginalization	71.9	73.4	43.2
Average gross annual income (Mexican pesos)	17,354	36,150	45,330
Percentage of REUs with access to credit	3.3	2.4	5.5
Average schooling (years)	4.9	5.2	5.9
Percentage of women running REUs	24.8	21.8	23.8
Percentage of the population that speaks an indigenous language	38.6	31.4	11.0
Percentage of REUs with land tenure	91.8	90.5	92.0

Source: SAGARPA & FAO 2012. *Agricultura Familiar con potencial productivo en México*.

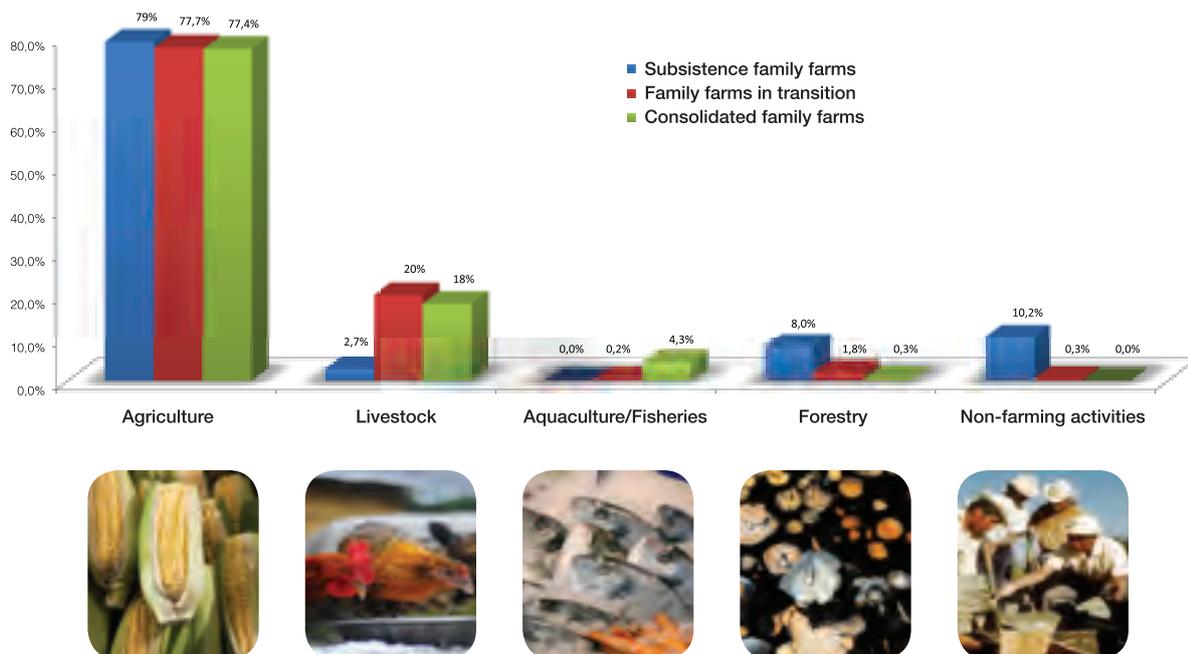


The stratification of REUs with business production potential is as follows: 17.4% were classified as subsistence family farms, 56.8% as family farms in transition, and 25.8% as consolidated family farms. When total income earned by REUs from crops is taken into consideration, the following were identified as the most important cyclical products: corn (58.2%), beans (14.5%) and sorghum (10%). Also, the major perennial crops that generate income are: coffee (33.1%), sugarcane (20.6%) and alfalfa (6.9%). Figure 1 presents a summary

of production stratification by agricultural sector: agricultural production, livestock production, forestry production, fish production or aquaculture, and other non-agricultural activities.

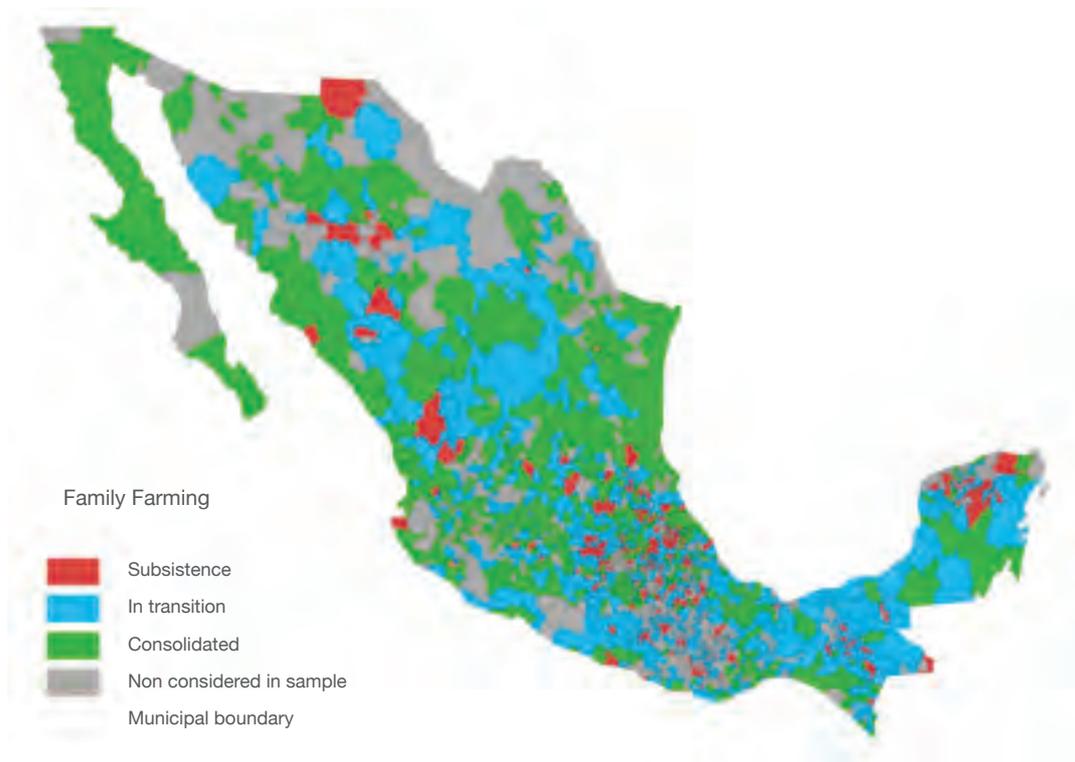
The states with the greatest number of family farming REUs with business production potential are: Coahuila, Guerrero, Hidalgo, Oaxaca, Puebla, Veracruz and the state of Mexico. The map in Figure 2 shows where these family farming REUs with business production potential are located.

Chart 1. Stratification of the economic activity of family farming REUs with business production potential



Source: Drawn from data gathered by SAGARPA & FAO 2012.

Chart 2. Mexico: Location of family farming REUs with business production potential (2012)



Source: SAGARPA & FAO 2012. *Agricultura Familiar con potencial productivo en México.*



SAGARPA is key to the development of the institutional framework for strengthening family farming in Mexico, it should be noted that SAGARPA is key for the development of this sector. SAGARPA is a Federal Executive body whose objectives are to encourage the adoption of a support policy aimed at allowing improvements in production, promoting the comparative advantages of Mexico's

farming sector, integrating the range of activities within the rural sector to be incorporated into the rest of the economy's chains of production, and encouraging producer organizations to collaborate with Mexico's own programs and projects, as well as with its proposed goals and objectives for the farming sector as part of the National Development Plan.

The history of SAGARPA dates back to 1842 with the creation of the General Directorate for Industry and its Department of Agriculture and Livestock Production. Later, in 1853, the Ministry of Development, Colonization, Industry and Trade was formed. Several structural changes were made to the Ministry, which was then transformed into the Ministry of Agriculture and Water Resources in 1976, and later, in 1995 into what is currently known as SAGARPA.

The following are the current programs that provide assistance to Mexico's agriculture, livestock, and fishery sectors:

- Assistance for Investments in Equipment and Infrastructure
- PROCAMPO Productivo farm subsidies program
- Capacity development, Technological Innovation and Rural Extension
- Risk Prevention and Management
- Programa de Acciones en Concurrencia con las Entidades Federativas en Materia de Inversión, Sustentabilidad y Desarrollo de Capacidades (Investment, sustainability and capacity development initiatives in conjunction with federal aid agencies)
- Strategic Projects
- Sustainability of Natural Resources

The government of Mexico recently created a program with the collaboration of CIMMYT, known as MasAgro (Sustainable Modernization of Traditional Farming). The program is aimed at improving food security through research and development and capacity development and technology transfer in rural areas for small to medium corn and wheat producers to increase crop yield, ensure stability, increase income, and mitigate the impact of climate change in Mexico.

MasAgro is divided into four interconnected components:

- Discovering the Genetic Diversity of Seeds
- International Strategy for Increasing Corn Yields
- International Strategy to Increasing Wheat Yields
- Sustainable Development with Producers

Byron Jara, FAO Regional Office for Latin America and the Caribbean

Find out more:

Ministry of Agriculture, Livestock, Rural Development, Fisheries and Nutrition: <http://www.sagarpa.gob.mx>

MasAgro: <http://www.masagro.mx>

Agricultura Familiar con potencial productivo en México (Family Farms with Productive Business Potential in Mexico): http://www.sagarpa.gob.mx/programas2/evaluacionesExternas/Lists/Otros%20Estudios/Attachments/42/Agricultura%20Familiar_Final.pdf

Diagnóstico del Sector Rural y Pesquero de México (Assessment of Mexico's rural and fisheries sector): <http://www.sagarpa.gob.mx/programas2/evaluacionesExternas/Lists/Otras%20Evaluaciones/Attachments/22/Procampo%20Diagnostico%20FINAL%2022.03.212.pdf>

Information on subsistence, in transition and consolidated small-scale farming can be found in the following link: http://smye.info/mapas/peq_agricultura/

To select the type of family farming, click on the colored checkbox and then click on "consultar" (search). Searches can be made for national and state-level farming.

Strategic framework for medium term cooperation from FAO for family farming in Latin America and the Caribbean 2012–2015: <http://www.rlc.fao.org/es/publicaciones/marco-estrategico-cooperacion-fao-agricultura-familiar-alc/>

Best practices

Ten Years Young and Still Going Strong - Farmer Field Schools in the Caribbean



Introduction

During the 1970s and 1980s, plant protection experts advocated the increased use of broad-spectrum insecticides. The resulting massive pest outbreaks demanded reconsideration of the crop protection approaches. The Farmer Field School (FFS) for Integrated Pest Management (IPM) was developed in response to these conditions (see textbox). The first FFSs were conducted in the rainy season of 1989-90 in the Philippines and,

over the next 10 years, the approach spread throughout South-East Asia. Field schools gave small farmers practical experience in ecology and agro-ecosystem analysis, providing the tools they needed to practice IPM in their own fields. The FFS provided a natural starting point for farmer innovation, covering the full range of issues related to crop and agro-ecosystem management.

Integrated Pest Management (IPM:) is an ecosystem approach to crop production and protection that combines different management strategies and practices to grow healthy crops and minimize the use of pesticides. FAO promotes IPM as the preferred approach to crop protection and regards it as a pillar of both sustainable intensification of crop production and pesticide risk reduction. As such, IPM is being mainstreamed in FAO activities involving crop production and protection.

FAO definition: Integrated Pest Management (IPM) means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

The FFS approach is based upon four IPM principles that provide a guide for farmers participating in FFS. The working definition of IPM for the FAO community IPM program is formed by the following principles:

- Grow a healthy crop
- Conserve natural enemies
- Conduct regular field observations
- Become IPM experts

The FFS approach featured several new departures from earlier farmer education models:

- season-long training for farmers
- participatory field experiments
- focus on plant biology and agronomic issues
- a new method for agro-ecosystem analysis
- the inclusion of human dynamics activities
- a learning approach that stressed participatory discovery learning

IPM field trainers who facilitated FFSs underwent intensive, multi-season residential training. This approach to trainers' training was also an important innovation. By the mid-1990s, more than 50,000 farmers had participated in field schools in Indonesia.

The IPM FFS was on its way to becoming the most effective new approach to farmer education in Asia. At the 1999 regional meeting of the FAO community IPM program, extension education expert Niels Roling stated *"IPM FFS is the model for farmer education across the world. Other extension methods have been exposed as lacking the capacity to provide the education that farmers require in the increasingly complex agricultural systems that they manage"*

FFS in the Caribbean

The starting point for the FFS in the Caribbean was a field survey conducted in Trinidad and Tobago to document farmer practices in key, short-term vegetable crops. The intention was to verify (and confirm!) anecdotal information that farmers often applied pesticides several times a week on a calendar basis, not in response to specific pests but as a preventative measure. Other crop production and protection practices of farmers were also recorded during this survey. The information was shared at a regional workshop with participants from other countries of the region, who confirmed that the situation in their own countries was similar to the findings in Trinidad and Tobago. Participants at this workshop, held in Trinidad in 2001, were introduced, for the first time, in the use of participatory approaches for ecological crop



management. Then, together with regional partners under the Caribbean IPM Network (CIPMNet), a proposal was developed for the introduction of FFS. The European Union (EU) supported the initiative through the Caribbean Agriculture and Fisheries Program (CAFP).

Therefore, the indiscriminate use of a large number of (unnecessary) applications of toxic pesticides without considering the presence of pests or the harmful effects of the chemicals on the environment, as well as human health, triggered the introduction of FFS in the Caribbean

The first pilot Farmer Field School training program was mounted in Trinidad and Tobago from August to December 2002 with funding from the EU under the CAFPP and implemented by CAB International (CABI) in collaboration with FAO and other regional partners. A team of eleven FFS Master Trainers (MTs) was trained from Dominica, Dominican Republic, Suriname, Haiti, Trinidad and Tobago (2 MTs each), and Jamaica (one MT). The participants were drawn from Extension and Research divisions of the Ministry of Agriculture. In turn, the MTs conducted Training-of-Trainers (TOT) in their respective countries during 2003. For the TOT, participants were drawn mainly

from the Extension and about 90 farmers were trained in the pilot Field Schools established under the program.

When the funding ended in 2003, an exit plan was developed by each country for follow-up activities. It was also anticipated that the MTs and TOT graduates would continue to use participatory approaches in their engagement of farmers.

Challenges/constraints

One of the major pitfalls was that FFS projects started off as a fully-funded 'pilot project' in the six countries, but failed to become a 'program' within the Ministry of Agriculture in at least three countries. The reason for the failure was a lack of 'key elements', such as political will and government support, quality control and standards, funding, farmer motivation and incentive etc. Beyond that, the extremely 'independent' attitudes of farmers producing short-term vegetable crops and the distrust of fellow-farmers / ministry personnel were often challenges difficult to overcome in several countries.



On the other hand, in Trinidad and Tobago, the farmer group that participated in the pilot FFS took advantage of the opportunities that arose. The group was already in existence as a Community Based Organization (CBO) prior to its participation in the FFS projects and was keenly interested in protecting the pristine environment in which the farmers and their families lived and worked. The CBO used the opportunity to not only strengthen its own capacity and capabilities, but to also engage other members of the Community in its activities and to expand the development aspects. Therefore, the results of FFS implementation, perhaps, depend largely on the motivation, commitment, and engagement of the farmers and, to a lesser extent, on other stakeholders.

Results

Several graduates from the MT and TOT programs have moved to other areas (career-wise as well as geographically) but many continue working with farmers.

Farmers who participated in the pilot FFS in Trinidad and Tobago, are experimenting with various production systems to reduce the use of pesticides and realize increased returns. Additionally, these farmers need recognition or certification of their crops as being produced using IPM. Unfortunately, not much progress has been made on this front and the issue of IPM certification that needs to be addressed urgently if farmers are to obtain maximum benefits for their efforts.

Over the years, FAO has supported several FFS initiatives including Suriname (rice - 2006) and St. Lucia (vegetables – 2009-10, under the SFA-2006 project). In St. Lucia, the Ministry of Agriculture took full ownership of the FFS when the project ended and supported a second generation of FFS in different regions of the island. Additionally, a project has just been initiated in Jamaica which promotes a FFS wherein farmers are being trained in a TOT to then become FFS facilitators in their respective communities.

One of the Master Trainers from Trinidad and Tobago, Deanne Ramroop, has commented: *“the FFS approach to IPM continues to be one of the extension tools being utilized by the Ministry of Food Production and this program will continue to be implemented as an alternative to the widespread use of pesticides in vegetable production in Trinidad and Tobago”*. In the program, Deanne’s co-facilitator, Alan Balfour, and the TOT graduates have all been at the forefront of farmer participatory innovation. One of the other Master Trainers, Keian Stephenson has continued to fly the FFS flag high in

Dominica. The Master Trainer from Jamaica, Donald Robinson has also been facilitating FFS activities in that country in recent years.

So, ten years later, we in the Caribbean continue to spread the message of FFS / Farmer Participatory IPM.

Lessons Learned

FFS should be viewed as a tool and a stepping-stone towards participatory innovation. The bigger picture is to foster the promotion and use of participatory approaches in sharing knowledge among agriculture stakeholders. FFS is just one of the vehicles by which this can be done.

Efforts should not ‘end’ with the FFS. In fact, FFS should only be the beginning for fostering better relationships between farmers, extension and research personnel, and other stakeholders. Ideally, the next step should be participatory innovation at the field level with all the key stakeholders playing their respective roles.

This type of cooperation takes time and effort from all sides and requires commitment and contribution from farmers and facilitators. Beyond that, institutional support is essential for such interactions to continue indefinitely.

Inevitably, relationships can start to come apart after a while. This is where networking among the various interest groups - farmers, FFS facilitators, researchers - can play a key role. Sharing experiences - positive as well as negative and supporting each other, sharing work, and keeping up each other’s morale are all essential for long-term success.

Vyjayanthi (Vyju) Lopez, Plant Production and Protection Officer, FAO Sub-Regional Office for the Caribbean (FAO-SLC), Barbados.

For further information:

<http://www.youtube.com/watch?v=QMotaD0yUr0>

http://www.thevoiceslu.com/features/2009/october/31_10_09/Farmer_Field_School_a_success_story.htm

Good practices

Livestock Family Farming in the Caribbean - The Jamaican experience with meat goat production



Introduction

In most Caribbean countries the concept of family farming is relatively new with most farmers because many are not familiar with the term. However, efforts are underway to change this because family farms are in fact the predominant farming system in most of the countries. A survey of livestock farms across the region will clearly show that the vast majority use 'predominantly family labor'. This is true not only for small holdings with a few animals, but also for relatively large holdings. The importance of the livestock family farm is not well recognized in many countries despite the fact that for many commodities, such as poultry meat, eggs, and goat and sheep meat, family farms are the predominant producers of these commodities. Despite the prevalence of livestock family farms across the region and their

importance to food and nutrition security, the sector faces many challenges. More attention is necessary if the sector is to survive and continue to provide animal protein for the people of the Caribbean. Some of the major challenges include land tenure and land usage issues, lack of adequate support services, lack of extension services, environmental challenges and lack of policy direction.

The European Union funded and the FAO implemented a recent, two year project with the overall objective of reducing poverty and enhancing food security for vulnerable groups through the improved availability of safe, affordable, and nutritious food for the rural population and urban poor. Under the direction of this project, the FAO

and the Government of Jamaica decided to focus on a market driven strategy for increased small ruminant production while targeting family farms. The project sought to enhance small ruminant production among clusters of farmers in selected communities by the demonstration and adoption of best practices and innovation in husbandry, breeding, housing, and nutrition of goats.

Activities

The strategy to achieve the objectives of the project revolved around establishing a close working relationship with the Jamaica Goat Farmers' Association (JGFA) to ensure wide coverage and sustainability of the project. Specific activities that were implemented with the Association members included the following:

- Providing training in leadership and group dynamics for the executive members of the Association
- Setting up of clusters of small ruminant family farmers
- Establishing of nine small ruminant demonstration units at strategic locations across the country
- Training of farmers in improved small ruminant management practices
- Establishing fodder banks, pastures, and forage delivery systems
- Establishing model goat breeding units
- Setting up of livestock waste management systems including the use of on-farm vermicompost units
- Introducing and training of extension officers and selected farmers in artificial insemination techniques for goats
- Introducing record keeping to support improved efficiency and decision making

The clusters supported group training of family farmers in all aspects of small ruminant husbandry and management. At the cluster sites, farmers received hands-on training in areas such as feeding and nutrition of goats and sheep, planting and maintenance of protein and fodder banks, animal identification techniques, record keeping, basic housing requirements, preventative health care for goats and selection and preparation of animals for breeding.

The FAO and the Caribbean Agriculture Research Development Institute (CARDI) jointly implemented activities and provided technical and operational support for the project in close collaboration with the Ministry of Agriculture. The Jamaica Goat Farmers Association was the main institutional stakeholder and beneficiary of this component of the project.

Ministry of Agriculture



The cluster concept was chosen to interact with the stakeholders so that farmers, who lived in a community and were familiar with each other, could learn together, exchange ideas and information, as well as see practical and useful demonstrations of best practices in their own communities. Farmers could visit the demonstration sites as often as they wished and were encouraged to interact with the lead farmer, who managed the unit, bearing in mind that the farmers managing these sites were selected as leaders based on their wide knowledge of goat rearing, their years of experience as successful farmers, and their willingness to share information, including best practices, with their peers.

Results

- Eight hundred and forty five goat farmers were trained at the training events completed during the life of the project.
- Twelve training resource materials were produced and distributed to the members of the Jamaica Goat Farmers' Association, these included brochures on 'Assisted Breeding Technologies' and 'Preparing For The Breeding Season And After'.



- A training video on artificial insemination in goats was produced for further training.
- Fourteen extension officers and farmers were trained, certified, and equipped to deliver artificial insemination services to goat farmers across the country; this services has since been in great demand by the farmers who have been convinced that artificial insemination is a useful tool for enhancing goat breeding and improving productivity. (The first cohort of animal inseminated by the certified inseminators had a 60% conception rate.).
- Nine demonstration units were established and stocked with animals selected locally.
- Cultivation of protein and fodder banks was implemented at the demonstration sites and these banks were maintained and used by farmers.
- Vermi-compost pits were constructed at the demonstration sites, breeder units, and used for the stocking of the pits with California red worms in order to create compost from goat manure and other farm waste.
- Four goat breeding sites were established and mandated to provide breeding stock to members of the clusters; since their establishment several farmers, who are cluster members, have benefited by receiving young breeding animals at a reduced cost.
- Database software, mainly for the keeping of breeding records, has been distributed and used in the breeding sites.

Main lessons

The main lessons learned from this project are the following:

- Strong livestock farmers' organizations can be effective in introducing small ruminant farmers to best practices and innovation.
- Livestock Farmers' Associations play a critical role in ensuring the sustainability of livestock projects and the adoption of best practices by farmers.
- The cluster concept brings communities together and provides a forum where farmers can learn new techniques and share information with each other; this concept also fosters better relationship among farmers who would not normally interact with each other.
- National and regional organizations with similar mandates can collaborate effectively to build synergies while recognizing their particular strengths and areas of weakness.

Cedric Lazarus, Livestock production Officer,
FAO Sub-regional office for the Caribbean
(FAO-SLC) Barbados

For further information:

<http://www.jis.gov.jm/news/list/27428>

Best practices

Artisanal production of bamboo baskets – A pilot to explore a forest based, livelihood opportunity in St Vincent



Background

Georgetown is a small city on the Northeast coast of the Caribbean island St. Vincent. Following the closure of the local sugar factory and the decline of the banana production, due to the WTO ruling to cut the preferential market access for banana export to Europe, the region has lost its traditional sources of income. As a result a growing number of male youth are “taking” to the hills to cultivate marihuana, a lucrative, yet dangerous and illegal activity.

Approximately 30 % of St Vincent is covered with forest. Unfortunately, due to the rugged terrain, conventional forestry is difficult to practice. However, the forest offers many non-timber forest products, including bamboo, which could provide the base for alternative livelihood opportunities

Decades ago the people of Georgetown were well known for their skills in using bamboo to build baskets and other household items. With the increased use of plastic, the tradition of bamboo weaving was almost lost.

Activities

The Georgetown Craft Makers Association is a local community development organization that had the idea to revive the traditional bamboo craft to generate income opportunities for local youth. With the assistance of FAO, the community group formalized its status as a registered non-profit organization. The group presented a proposal to train interested youth in the art of bamboo weaving. With funding from FAO, two local trainers were hired through a letter of agreement with the Georgetown Craft Makers Association. One was over 80 years old and known to be one of the last and best artisans in bamboo weaving. In addition to the trainers, the association contracted a facilitator to organize the selection of the trainees and the training. The venue for the training was the community center which was provided basically free of charge by a local church. The staff of the forestry department assisted in allocating the bamboo resources and supported the transport of the cut bamboo. 15 persons, mainly young women were trained in harvesting



and processing bamboo and weaving of different types of bamboo baskets and items. Over a period of 15 weeks, 44 training days were offered. Trainees received a small stipend, slightly less than the daily pay for agricultural labor. Although the payment was rather small, all trainees completed the course.

The Facilitator not only organized the training, she also prepared a small practical study on the production of the prepared items. She analyzed time and production costs for specific items and estimated an economically justified selling price. A sturdy, medium size, market basket could be produced for a sale price of approximately \$20 US dollars.

Results

At the end of the training, all 15 community members learned how to make baskets and other handicraft items out of bamboo. A simple economic analysis showed that bamboo weaving is a viable economic activity that could contribute significantly to the family income. The trainees not only acquired bamboo working skills, they also received training in marketing their products.

As the foundation for the production process is established, the next step is to improve the products and secure the market. In addition to the local demand for bamboo products, there are approximately 750000 tourists visiting St Vincent and the Grenadines every year. The task at hand

is to develop small, attractive bamboo products as souvenirs for overseas tourists

The training program ended with a formal closing ceremony and the opening of an exhibition of bamboo craft. The trainees proudly presented their products. The trainers, the Georgetown Craft Makers Association, the local church, and the Forestry Department expressed their satisfaction with the training program. All stakeholders felt that they had contributed to and are part of the success.

Main lessons

The development of community based livelihood opportunities is a complex undertaking and can only be achieved in close cooperation with a locally rooted community organization.

The facilitator is an additional factor to the success. Most community groups have shown a serious commitment to the project; however, many don't have the skills to coordinate the project, organize instructors, and obtain a venue, tools, and raw materials, as well as money to pay for food. Therefore, hiring a qualified facilitator is an important component of the LoA. Similarly, mentoring was provided through external project funding. Ideally, the national forest administration should provide this support; however, very few state administrations currently have the capacity to provide this service.

An additional value to the project is that it brings a wide range of stakeholders together, first to communicate and interact and then to collaborate to achieve the set goal. It facilitates a culture of partnership between government agencies and civil society organizations as well as interaction among different civil society groups. It nurtures dialog and collaboration among different players. This culture of trust and dialog is the foundation on which any successful national forestry program or forest policy is built. The above mentioned LOA was an investment of \$18,000 US dollars toward this goal and it may be a possible model for the newly established Forest Farm Facility.

*by Claus Eckelmann, Regional Forestry Officer
for the Caribbean*

Best practices

Sustainable Aquaculture Development Programs in Uruguay



Uruguay's fish farming sector is quite unique. There are several Siberian sturgeon (*Acipenser baerii*) farms in the country, including the first Oscetra Malossol Caviar and sturgeon meat producers in the southern hemisphere. However, this country still depends primarily on agricultural production and is far from developing a solid aquaculture sector. After more than 50 years of isolated and rather unsuccessful experiments in aquatic organism breeding, the government decided to begin actively promoting the development of the aquaculture sector. The National Directorate of Aquatic Resources (DINARA), the government agency responsible for regulating the fishery and aquaculture sectors, received the support of FAO through the "Fisheries Legislation Assistance" project (TCP/URU/2802), implemented between 2002 and 2003, to update the legal framework of the DINARA on aquaculture. The project identified several gaps that limited the development of the sector, namely the lack of policies and of a national plan for the development of aquaculture. These instruments were later formulated in

participatory workshops as part of the "National Plan for Aquaculture Development" project (TCP/URU/3101). The project identified the areas of priority that were put into action in 2007 through the "Fisheries Management in Uruguay" project (UTF/URU/025/URU). Several private initiatives launched in the last five years in fish and shellfish farming. This article highlights the actions taken in Uruguay proven to be beneficial practices for the development of small-scale farming.

Fingerling Production for Aquaculture

The DINARA, through its Center for Fisheries and Fish Farming Studies (CAIP, Villa Constitución, Salto), played an important role in the production of fish larvae and fingerling production for fish farms. The species being cultivated at the Center are the **black catfish** (*Rhamdia quelen*), **smelt** (*Odontesthes bonariensis*), and, until a few years ago, **common carp** (*Cyprinus carpio*), and **grass**

carp (*Ctenopharigodon idella*). More than 50% of the requests for breeders received by DINARA are for on-farm consumption. The rest are for small-scale production and for recreational purposes (sports fishing and ornamental). The most sought-after species is the black catfish, due to its hardiness and good quality meat, and smelt, highly favored for the quality and flavor of its meat and highly demanded for sport fishing. The figures show that the services provided by DINARA primarily benefit family-based enterprises and small-scale producers. Fingerling production, both for freshwater species at the CAIP (Salto) and for brackish and salt water species that the DINARA breeds at its Cabo Polonio Cultivos Marinos Center (Rocha), could eventually help to recover overfished species by cultivating them in their natural habitat.

Dissemination of Cultivation Technologies

During 2010, a manual was published (*Manual básico de Piscicultura en estanques*) explaining the basics for setting up fish farming installations with chapters on smelt and black catfish meat production. During the same year, a course was organized at the CAIP in Salto on pond fish cultivation and black catfish breeding for small-scale producers and government agency staff. A total of 40 people participated in this theoretical and hands-on course.

Capacity Building in Aquatic Animal Health

A training program was organized on Aquaculture Health for technical staff who work in fish breeding and DINARA facilities with the objective of promoting good practices in the management of live organisms and the prevention of frequent illnesses in fish farms. A manual was also published and distributed on illness prevention practices in aquaculture enterprises.

Regulatory Framework for Aquaculture

In 2009, following an extensive process of consultation, a Responsible Fishing and Promotion of Aquaculture Law proposal was presented before Parliament. The bill includes a set of standards aimed at regulating aquacultural activities. The bill also proposed another innovation possibility of granting licenses to individuals or organizations for the use of state-owned areas, sea beds, and marine or inland waters for aquacultural development. Additionally,

the bill proposes the creation of an Advisory Council on Aquaculture of national authorities and two representatives of the aquaculture sector.

Aquaculture Planning

Following an agreement with the Faculty of Sciences, a National Aquaculture Zoning plan began to classify the country's aquatic coastlines within the boundaries of "agreement areas" that are suitable for cultivating aquatic species. This tool, also included in the proposed law, will assist in the aquacultural planning and spatial management, with a focus on ecosystems. Nine cultivation systems were determined suitable for aquacultural activities, where semi-extensive fish production in ponds could be carried out by rural producers as an alternative or additional activity.

Promoting Research and Innovation

During the last quarter of 2012, the National Directorate of Aquatic Resources (DINARA), in conjunction with the National Agency for Research and Innovation (ANII), created a Fisheries and Aquaculture Fund aimed at promoting scientific research and innovation in these productive sectors. The Fund is to be used, among other activities, for joint projects with potential producers and researchers that ultimately benefit both and reduce the risks for private investors or small-scale producers associated with new ventures.

Lessons Learned

- In countries without fish farming tradition, the state can play an important role in promoting its development by conducting the necessary research in larvae reproduction and breeding, upgrading breeding technology, and improving feed, thus mitigating the risks associated with the early learning stages of any new activity.
- Centers dedicated to the production and distribution of fingerlings to small producers and family-run enterprises provide these beneficiaries with the opportunity to get involved in fish farming initiatives that, otherwise, would have been impossible. This activity has provided family-run enterprises a new source of protein for their families.
- Diseases have devastating effects on production, even in countries with advanced

levels of development, in the cultivation of aquatic organisms; therefore, adequate training in aquaculture health and disease prevention must be implemented from the start of any planning process for the development of aquaculture.

- The assessment of the spatial distribution of biophysical, social, and economic variables that simultaneously use geographic information systems is a powerful tool for identifying which areas within a country are most suitable for aquaculture activities and also help prevent any conflicts surrounding the territorial and/or water use.
- Uruguay's growing aquaculture sector and increasing industry development policy initiatives, which include the development of laws that specifically deal with the regulation of fisheries are a reflection of the government's growing interest in this sector.

This is, perhaps, the biggest advantage of a country with limited development of aquaculture: the ability to start, almost from scratch, taking into account the lessons learned by other countries supported by organizations such as FAO.

There is now a possibility for rural producers and small-scale fishermen to participate in these activities and breed aquatic species, thus contributing towards the diversification of food production while reducing the pressure on traditional fishery resources.

Silvana Giordano, *FAO Representation in Uruguay*

Find out more:

Manual básico de Piscicultura en estanques (Basic pond fish breeding manual): http://www.dinara.gub.uy/web_dinara/images/stories/new/manual.pdf

Ley de pesca responsable y fomento de la acuicultura (Legislative bill on responsible fishing and aquaculture promotion): http://www.dinara.gub.uy/web_dinara/images/stories/file/Proyecto_Ley_de_Pesca_Resposable_Fomento_Acuicultura.pdf



GENDER AND RURAL YOUTH

Junior Farmer Field and Living Schools²

Providing continuity to rural societies through youth involvement



In order to meet the current employment demand for jobs for the *youth*, classified as people between the ages 15 and 24 (18% of the world's population), it is estimated that some 400 million jobs will need to be created in urban and rural areas by 2020. Jobs in rural areas will undergo many changes: informal employment will fall, salaries will increase, and social protection systems will improve.

These changes in the future scenario pose a great challenge to labor policies in Latin America and the Caribbean because they must offer employability options for the rural youth. FAO provides assistance to rural employment through

the promotion of two youth employment programs. The "Human Development for Youth: Overcoming the Challenges of Migration through Employment" program in **Honduras** is a joint initiative aimed at discouraging the exodus of youth from rural areas by promoting networking and entrepreneurship, thus improving their chances of entering the labor market. The priorities of the program, implemented by the Ministry of Employment with the support of the United Nations, are rural development and food security with equity and sustainability, achieved by applying a two-tier strategy. Targeting the chains that could potentially generate decent employment in combination with stronger partnerships with local

² We would like to thank Clement de Rivas and Cristina Rapone for their participation, under the coordination of Elisenda Estruch of the Gender, Equity and Rural Employment Division (ESW).

institutions, businesses and educational centers made it possible to enhance national identity and local connections, as has become evident in the program carried out with indigenous Lenca youth.

In **Antigua and Barbuda**, the youth population is considered a long-term alternative for the agriculture sector. FAO provides assistance to the government in the development of a “Strategic Plan for Youth Development/Involvement in Agriculture”. The plan seeks to integrate sustainable national and regional diversification policies and strategies, creating an enabling environment for markets applying a participatory approach and conducting an in-depth analysis of local conditions. The government’s high-level commitment to the plan is reflected in the creation of the Ministry of Education, Sports, Youth and Gender Affairs, and the National Youth Policy.

Honduras and Antigua and Barbuda are examples of how capacity development tailored to local circumstances focused on the younger generations can discourage the exodus of youth and improve rural areas. Both experiences could set a precedent in the region for the implementation of a methodology that FAO, through its Gender, Equity and Rural Employment Division (ESW), has already applied with great success in the West Bank, Gaza and Mozambique: **Junior Farmer Field and Life Schools**.

This methodology, initially aimed at youth between the ages of 15 and 18 in conflict zones with a high risk of contracting HIV who had lost their livelihood options and/or parents (who introduce them to farming), provides training to youth in rural areas for employment in the farming industry and to help them understand the decisions that will affect them on a daily basis. Farmer Field and Life Schools have already helped develop enterprises and cooperatives run by youth in Asia, Africa and the Middle East.

Farmer Field and Life Schools have proven to be effective; a place where youth of both sexes can interact in a lively classroom setting, learning traditional and modern methods and observing the full crop cycle. Theater, music, and dance classes are also part of the curriculum, which help them develop and increase their self-esteem.

The activities run throughout the crop-growing season, during which they learn to deal with the crucial, daily challenges and discuss issues involving nutrition, entrepreneurship, the prevention of child labor, land property rights, and gender equality. The youth are also taught how to recognize the risks their communities face and their potential, identifying

windows of opportunity and putting into practice problem-solving strategies through cooperation.

Several manuals have been developed for Farmer Field and Living Schools that can be used in different contexts, covering the methodology used to set up, monitor, and evaluate a school. These manuals focus on some of the current concerns of rural societies, such as land tenure and ownership, water use and management, as well as on **providing employment opportunities and entrepreneurship**.

Farmer Field and Life Schools in Latin America may become a means to provide some sense of continuity in rural societies by strengthening the social capital of their youth, increasing their sense of belonging and reducing their exodus from rural areas.

Cristina Renteria; *FAO Regional Office for Latin America and the Caribbean, Chile*

Find out more:

<http://www.fao.org/gender/seaga/seaga-home/es/>



Calendar of events

March

- 10 – 16** Technical Workshop on Youth, Coops & Entrepreneurship: CaribDE10, (International Labour Organization), Kalinago Resort, Grande Anse, Grenada.
- 18 March – 22 April** International Distance Learning Course: ITCs in Rural Extension, Agrocampus, www.agrocampus.org.
- 18 March – 03 June** Course: Family Farms and Rural Development, Faculty of Veterinary Sciences, Universidad Nacional de La Plata, Argentina.

April

- 01 April – 24 May** Course: Statistics and Gender Indicators, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile.
- 04** Workshop: Production of Healthy Food at Home to Improve Nutrition, San Basilio, Argentina.
- 08 – 11** “Quinoa Week in Tarapacá,” Iquique, Chile.
- 09** 2nd Social Dialogue “Indigenous Peoples and FAO, Building a Common Agenda,” FAO Regional Office, Santiago, Chile.
- 15 – 17** Sub-regional Seminar: “Impacto del diálogo sobre políticas públicas para la Agricultura Familiar en Mercosur”, FIDA MERCOSUR, Montevideo, Uruguay.
- 26** Awards ceremony 2012: Successful Cases of Innovations in Family Agriculture in Latin America and the Caribbean. Inter-American Development Bank (IDB) Headquarters, Washington DC, USA.
- 29 April – 03 May** Agrishow 2013, Sao Paulo, Brazil.

May

- 20 – 31** Permanent Forum on Indigenous Issues. United Nations Headquarters, New York, USA.
- 27 – 31** 19th MERCOSUR Special Meeting on Family Farming (REAF), Atlantida, Canelones, Uruguay.
- 30** “Family Farming: A Way of Life” Production technologies, tools and machinery for small-scale producers (INTA), Estación Experimental Agropecuaria Sáenz Peña, Chaco, Argentina.

June

- 04 – 29** International Distance Learning Course: Una aproximación crítica a la juventud rural latinoamericana (A Critical Approach to Latin American Rural Youth in Latin America), Agrocampus, www.agrocampus.org.
- 04 – 29** International Distance Learning Course: Participación de las mujeres rurales en el desarrollo de América Latina, Agrocampus, www.agrocampus.org.
- 12 – 15** 3rd Latin American Congress of the International Union of Forestry Research Organizations (IUFRO), San José, Costa Rica.
- 27** International Seminar: Quinoa, an Ally in the Fight against Hunger (ALADI), Montevideo, Uruguay.

July

- 08 – 12** 4th International Quinoa Congress, Ibarra, Ecuador.

DID YOU KNOW?

Tropical Agricultural Platform

The Tropical Agricultural Platform (TAP) provides a mechanism for all actors to communicate, exchange ideas, knowledge, experiences, practices, and work in a more coordinated way, learning from each other about proven capacity development policies and practices. The G20 Agriculture Ministers requested that FAO lead the development of the platform. TAP was launched at the first G20-led Meeting of Agriculture Chief Scientists (MACS) in September 2012 in Mexico. The direct beneficiaries of TAP activities are policymakers and institutions in agricultural innovation, together with the private sector and civil society active in innovation systems, and relevant development.

In 2013, the TAP partners will develop three services that will help boost agricultural innovation in the Tropics:

- Policy-Dialogue Space – Allowing for greater dialogue and interaction among stakeholders to enhance clarity and coherence of national policies for capacity development in agricultural innovation.
- Marketplace – Promoting and brokering existing demands and offers in capacity development for agricultural innovation. Efforts will be scaled based on demand, web-based, and face-to-face training efforts.
- TAPipedia – Offering a global information system for innovation outputs, success stories, socioeconomic impacts, lessons learned, and analyses of impacts.

Source: <http://www.tropagplatform.org/es>

FAO and IFAD sign agreement to generate new policy tools and training material

The United Nations Food and Agriculture Organization (FAO) and the International Fund for Agricultural Development (IFAD) have signed an \$875.000 agreement aimed at helping small-scale farmers and rural households in developing countries gain improved access to agricultural and rural finance, thus opening opportunities for investment.

The three-year grant agreement is intended to generate new policy tools and training material for public-sector agencies, donors, financial institutions, and NGOs working to enhance smallholder access to financial services, including credit, savings and insurance. The knowledge gained will be disseminated world-wide through the Rural Finance Learning Center (RFLC), a jointly supported web platform managed by FAO which has been operating since 2004.

For more information: <http://www.ruralfinance.org>

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