**REPORT**

**GAFSP-CSO Mission to Kyrgyz Republic**

**July 23-27, 2012**

**Background: Rationale, Objectives, and Key Activities of the Mission**

This is a report of the GAFSP CSO mission to Kyrgyz Republic conducted by the GAFSP Steering Committee Member-Asia representative, last July 23-29, 2012 The Mission was conducted by Ms. Ma. Estrella Penunia, Secretary General of AFA, Mr. Shun, Te Tsai, President, Taiwan Wax Apple Development Association and Dr. Kuo, Sheng Feng, Irrigation Engineer and Professor, University of Kang Ning, Taiwan. Local host was Helvetas– Kyrgyz, an NGO, represented by Jyldyz Abdyllaeva, On-Farm Water Management Project Manager and Lydia Pluess, Technical Advisor. Helvetas – Kyrgyz worked with Mr. Nurlan Djailobaev, Director of the On-farm Irrigation Project PIU, for the logistics arrangements of the consultation workshop and some meetings at the field sites.

There were six objectives of the Mission:

* Get basic profiles of key FOs and NGOs working for food security
* Get information about the GAFSP processes undertaken by the government and inter-governmental bodies, mainly FAO, WB, IFAD
* Inform key FOs and NGOs about the GAFSP processes at the international level, CSO work within GAFSP, and status of GAFSP proposal of the government
* Get feedback from key FOs and NGOs about the GAFSP process, agriculture situation in the country
* Get recommendations from key FOs and NGOs about CSO involvement in GAFSP at international and country levels
* Get the commitment of the government and the Supervising Entities to include FOs in the design, implementation and evaluation of the GAFSP project through institutionalized mechanisms

The Mission Team met around 40 people (6 women, 31 men) through the following meetings, as arranged by local host Helvetas-Kyrgyz:(*Pls see Annex 1 for program schedule and people met and Annex 2 for highlights of these meetings)*

* Meetings with officers of 2 offices under the Department of Water Resources and Land Improvement: at the national level with the On farm Irrigation Project PIU; and at the local level with the Department of Water Resources in Osh –Arawan
* Meeting with one inter governmental organization: FAO
* Meetings with six NGOs: Helvetas-Kyrgyz, Community Development and Investment Agency of the Kyrgyz Republic (ARIS), Rural Advisory Services (RAS), Union of Cooperatives and Agribusiness Competitiveness Center (ABCC)
* Meetings with leaders of 9 Water User Associations (WUAs) in Arawan and Toi-Moiun

In these meetings, an exchange of information and ideas about the GAFSP mission, the work of the CSO, the situation of farmers and agriculture in the country and thoughts on how to achieve agriculture development benefitting farmers transpired.

A consultation workshop was also conducted on July 27. The Director of the On-farm Irrigation Project PIU, Mr. Nurlan Djailobaev, facilitated the workshop, whose office also hosted the meeting. During the consultation, attended by CSOs, many of whom were also interviewed in the course of the Mission, the government gave an overview and status of the GAFSP Project, while AFA gave an orientation on the CSO work within the frame of the GAFSP Steering Committee. Then, comments and recommendations on the GAFSP proposal were given and current work areas of CSOs were shared.

**Key Information Gathered**

1. **On the status of the GAFSP Project**
   1. There will be a Project Design Mission in August 2012, and an NGO was hired to do the consultations. The government would like to launch this project at the beginning of next year. The timeframe of the Project is five years.
2. **On the IGO, NGOs, CSOs, FOs in Kyrgyz**
   1. FAO sees the GAFSP project as a very important intervention since irrigation is a major infrastructure support for farmers and the irrigation facilities are in dire need of repair and upgrading. However, modernization, such as introducing new techniques for water management will be equally important. FAO was part of the team that formulated the concept note and during that time, it introduced the concept of modernization.

FAO also has a project on irrigation system using the farmer field school approach, with Jalalabad as main project site. It believes the project is a success and should be replicated in the country.

* 1. ***Helvetas*** is oldest and largest NGO in Switzerland, working in Kyrgyz since 1994. Its current work priority is the building up of local organizations to develop agriculture with a market orientation within the framework of the green economy. It wants disadvantaged sectors to be involved, and wants to establish local organizations that will ultimately become the actors of local development processes. And be the voice of civil society, and not just mere service providers and/or beneficiaries of projects. Current projects include Organic Cotton Production and Trade Promotion, Local Market Development in Central Asia, Skills Training in Rural Areas and On-farm Water Management Project –Efficient Use of Water (SEP).
  2. ***Mehr Savkhat*** is an NGO established in 1997, and is working in the Osh region. The NGO has worked with 276 groups so far, whose members are involved not only in social, but also in cultural, economical, political aspects of their lives. It has connected these groups into 36 big associations and federations. It currently has projects in four areas: local market development, migration, conflict prevention and mediation and SEP.
  3. The ***Union of Cooperatives*** was established with the support of a five-year project from GTZ. Current membership is 250 cooperatives. Currently, the Union follows a strategic plan developed in 2008 which has six directions: lobby interest of this cooperative; provide financial assistance, consulting and training, marketing of outlet products, farm stabilization and guarantee, and audit. No WUA has joined the Union, although the Union counts as members some farmers cooperatives on marketing, processing, seed production and distribution, distribution of other inputs and equipment, and veterinary services.
  4. The ***Community Development and Investment Agency (ARIS)*** is an NGO established by the edict of the Kyrgyz President in October 2003. Through its various projects in partnership with WB, IFAD, German Development Bank, Asian Development Bank, it has established Farmers’ Union, Pasture User Associations, and Local Investment Committees, among others. ARIS has not trained or worked with any WUA before, but sees a possibility of linking Farmers’ Unions, LICs, pasture user committees and WUAs, especially because of the high probability that one farmer can be member of two or more of these groups at the village level.
  5. The ***Rural Advisory Services* *(RAS)*** was established in 1999 under the initiative of government in cooperation with Swiss. In 2008 RAS was restructured – its provincial branches became separate and independent. The RAS office in Bishkek is now a separate organization that unites two regions of the country; but can still represent the interests of the other independent RAS and lobby for them. Services rendered are in: field–based extension and training, demo fields, exhibition, and trials. We are involved in publishing and compiling of manuals on farmers, livestock, crop production, farm economy, and marketing.
  6. The ***Agribusiness Competitiveness Center (ABCC)*** focuses on addressing the issues of marketing of agricultural products. Projects for the past six years have focused on the value chain. For example, this year, a potato processing plant will be launched in the Talas region, with the help of some Indian partners. The Center would like to build model cooperatives of farmers similar to Japanese farmer cooperatives.

1. **On Farmers and the Water User Associations (WUAs)** 
   1. All of the leaders of the WUAs, and the representatives of the NGOs whom the Mission team met, are in unison that one of the main problems of farmers is the poor state of irrigation facilities all over the country. Inspite of the WB projects on rehabilitation of irrigation systems, still a significant percentage (about 70%) still needs to be rehabilitated. The poor state of irrigation facilities have led to shortage of water and consequently poor yields and eventually poor incomes of farmers.
   2. From the WUA Sahy-Daria, the Mission Team got a glimpse of how a WUA functions. A WUA receives the water allocation from the government. Then it divides the water among its members, discusses and determines with every farmer member the water fee he has to pay for the use of the irrigation water. There are standard fees according to size of land, or crops planted. From the fees collected from the farmers, a certain amount goes to the government as payment for rehabilitation (if the WUA canal has been rehabilitated). The rest goes to salaries (manager, accountant, hydro technician, cashier) and to expenses for cleaning the on-farm canals. Even if the WUA has been rehabilitated, support for WUA is still needed. This rehabilitated WUA still needs an office, equipment to clean the canals and to count the amount of water use, as well as training activities on better agricultural production techniques and marketing of their products.
   3. Six WUAs in Toi-Moiun district, Osh oblast united into one federation, with the help of NGOs. Since then, they felt many good things that happened to them. The budget that they receive from the government is enough for cleaning the canals. Through good budgeting, farmers are paying half of what they used to pay before becoming a federation. Conflicts among neighboring WUAs who depend on the same water source are resolved in satisfactory manner through the federation’s grievance committee. Also, the leaders feel that they have more power: they can fire their manager whom they have hired themselves (they couldn’t fire a government staff); they are able to discuss and decide things by themselves on many things that relate to the management of their federation. While two WUAs have been rehabilitated through the WB project, four others need rehabilitation. And while the Federation’s way of distributing and collecting water is better compared to most WUAs (paying for the amount of water use, not the land size), the federation still needs more water measurement equipment as well as more training activities on pest management, on water management, accounting, conflict management and prevention.
2. **Feedback on the GAFSP project**
   1. All those who were interviewed expressed affirmation that rehabilitation of irrigation systems is a key priority intervention needed from government, since many of the irrigation systems are still badly in need of repair, and many WUAs have inadequate capacities to govern their structures as well as manage and distribute water to their members. The WUAs deplore their lack of machines to clean the canals, which result to higher water loss rates. WUAs demand for support such as cleaning machines, offices, water storage facilities and training on efficient water use, pest/reed management, sustainable agro technology, food processing, budgeting and accounting, organizational management, conflict prevention and management.
   2. The Project should also be more gender sensitive. It should look into gender and agriculture. Irrigation is a domain that is usually occupied by men, but now men are migrating to other cities and countries, and more women are left in the farms. The Project should also look at the interests of the women farmers.
   3. The implementation structures, particularly the Steering Committee that will be formed during this Project should involve CSOs, particularly the primary beneficiaries, which are the WUAs.

**Conclusions and Recommendations**

1. Since the Mission Team visited some WUAs and met with some NGOs and government agencies in the Osh region, the Mission Team offers the following description of the situation and some recommendations about the irrigation system in Osh region, particularly in Arawan.
   1. *Irrigation System*. An irrigation system consists of water resources, intake, water conveyance works, water measurement devices, and irrigation area. The water conveyance works divide into primary canal (PC), secondary canal (SC) and tertiary canal (TC). The irrigated area of TC is termed tertiary unit (TU), which is the basic unit of irrigation farmer organization. The canal conveyance losses of PC, SC and TC were roughly about 15%, 10% and 5% for lined canal, and 20%, 15%, 10% for unlined canal, respectively. Based on the information obtained during the visit in Osh on July 25, the WUA federation with water source from a reservoir which serves six water user associations (WUAs) is one of the irrigation systems with better Operations and Maintenance (O&M) in Kyrgyz. Its average canal conveyance losses in the irrigation system is about 38%, while in other irrigated areas their canal conveyance losses are higher. Therefore, it is highly recommended to rehabilitate the irrigation system facilities and supply adequate O&M machines to WUAs for improving the overall O&M of the Arawan Irrigation System.
   2. On farm water management. Appropriate estimates of crop water requirements (CWR), farm water requirements (FIR), and entire system irrigation requirement (SIR); and proper arrangements of cropping patterns and irrigation schedules for an irrigation system are fundamental to irrigation water management for ensuring efficient irrigation water use. With the related information about the visited WUAs from July 24~25 in Osh, the irrigated crops are diversified (mainly including cotton, wheat, fruit, sugar beet, vegetable) within tertiary units (TUs), which leads difficulty to estimate the SIR, appropriate allocation of water to and rotation of irrigation among the TUs.  
        
      Therefore, it is recommended to strengthen the WUAs personnel‘s knowledge and skill in estimates of CWR, FIR and SIR, and arrangements of cropping patterns and irrigation schedules for the TUs and canals of the irrigation system, for upgrading WUAs’ on-farm water management and hence promoting the irrigation efficiencies.   
        
      The on-farm water management technology related software (e.g. CROPWAT, AquaCrop from FAO) is recommendable tool to estimate the periodical CWRs, which are the basis of an irrigation system’s irrigation water requirements (SIRs). With the knowledge of periodical total irrigation requirements, it is essential to conduct the water balance analysis for the irrigation system. The analysis is to compare the periodical dependable flows from the water resource (i.e. river or reservoir) with the corresponding total irrigation requirements of the irrigation system. The annual runoff from snow and glacier melting is approximately 47 billion cubic meters; therefore, it is also recommended that each TU build a catch basin to divert and store water from river with function of reduce water temperature for irrigation requirements.
   3. Drip Irrigation. Drip irrigation apply water under full control within root zone, aimed to increases the efficient use of water, reduce evaporation losses, soil erosion and weeding and improves growing conditions of irrigated crops. Fertigation supply fertilizers through the drip system to minimum nutrient losses, improving nutrients’ availability to plants, saving labor and fertilizers. About 1.07 million hectares of farmland in Kyrgyz have been developed for irrigation, in which 767,000 hectares receive water through off-farm irrigation system and conventional furrow irrigation method is adopted. It is recommendable that farmers use drip irrigation (or low pressure gravity drip irrigation) accompanying with fertigation to orchard and other high economic crops to save irrigation water use, increase yields and income.
   4. On farm water management to efficiently allocate and rotate water to each TU, canal design, operation, maintenance and drip irrigation are important technologies of WUAs in Osh area of Kyrgyz. It is recommend that the government, in partnership with NGOs and WUAs themselves, provide a series of theoretical and practical training courses with demonstration sites on topics related to irrigation management, targeting WUAs personnel and key farmers, and making the training appropriate and accessible to majority of women farmers, since an increasing number of farms are being worked on by women, an offshoot of men migrating to Russia and other cities. The training courses may include: irrigation system O&M, crop water requirement, soil and plant analysis, cropping patterns, irrigation scheduling, furrow irrigation, drip irrigation with fertigation methods, greenhouse irrigation and benefit cost analysis of irrigation. Besides, it is also required to establish the regulations, structures, financing and sanctions related to WUAs. This will upgrade WUAs functions and enhance WUAs human resource development.
2. Agriculture is the most important sector of the economy, accounting for 45% of GDP and 40% of total employment in Kyrgyz. Farmers need to learn the technologies regarding sustainable farm management including farming, crop management, crop diversification for food security, sustainable and organic agriculture, fertilizing water management (utilization and drainage), and harvesting to produce high quantity and good quality crops. In addition, the storage of harvested crops is also part of farm management, and hence can never be overlooked. The value addition, food processing and export of agricultural products to overseas are also necessary strategy to increase famers’ income. Accurate and timely data base management systems which are accessible and understandable to farmers are also necessary – WUA maps, GIS maps, good agriculture practices for each crop, good practices for water use, for example.
3. The NGOs whom the Mission Team visited have concrete projects on ground, with WUAs and other farmer groups, and do work in partnership with government agencies at both national and local levels. It will be good to seek their partnership and significant involvement in the GAFSP, build on their relationships with the people and tap their expertise on a wide range of subjects from irrigation to farm production, linking farmers to local markets, cooperative building and management, value addition, organization development, federation building and conflict prevention and mediation.
4. WUAs have been established all over the country as mandated by law, but many of them lack the resources (equipment and machines) and the skills (e.g. technologies and systems for efficient water use) to perform their main task of cleaning the on-farm canals, distributing water according to the needs of their members. The GAFSP team has to carefully select the WUAs who will be involved (targeted beneficiaries). Based on the experience of the WUA federation in Toi Moiun, and the expressed need of the Sahy-Daria WUA, one possible approach or strategy to consider is the building of WUA federations at the district or province level. While there is the National Union of WUAs, its services are not felt by the local WUAs (at least in the WUAs the Mission Team visited). Its capacity to render services as a national Union has to be strengthened. It will be good to study the strengths and weaknesses of the national WUA and see how it how it can acquire more legitimacy to the rest of the WUAs and then how it can be supported so that it is able to represent the WUAs at the national level.
5. The NGOs who were present during the consultation workshop as well as the National Union of WUAs and the FAO have expressed interest to engage the government in the design and implementation of this GAFSP project. It is recommended that they are properly represented and significantly involved in the formulation of the final implementation plan and in the management and implementation structures (or steering committees) of the Project. It is possible that there are other NGOs whom the Mission Team has not reached. It will be good if the government, together with other NGOs and FAO, can do an inventory or mapping of all those who work in the irrigation and health/nutrition sector, both at national and local levels, and include them in the consultations.
6. The link between irrigation, agriculture and food and nutrition security has to be established, and one possible strategy to do this is to ensure that irrigation water reaches the farmers, especially the women farmers, and crops that are planted in the family farms are able to provide many of the nutrients that the family, especially the children, needs.

*Annex A Program and People Met  
Annex B Highlights of Individual Meetings in Kyrgyz Republic*

*Annex C Highlights of July 27 Consultation*



Submitted by:

Dr. Kuo, Sheng Feng

Mr. Tsai, Shun Te

Esther Penunia

October 8, 2012