

Cambodia and FAO

Achievements and success stories

FAO Representation in Cambodia
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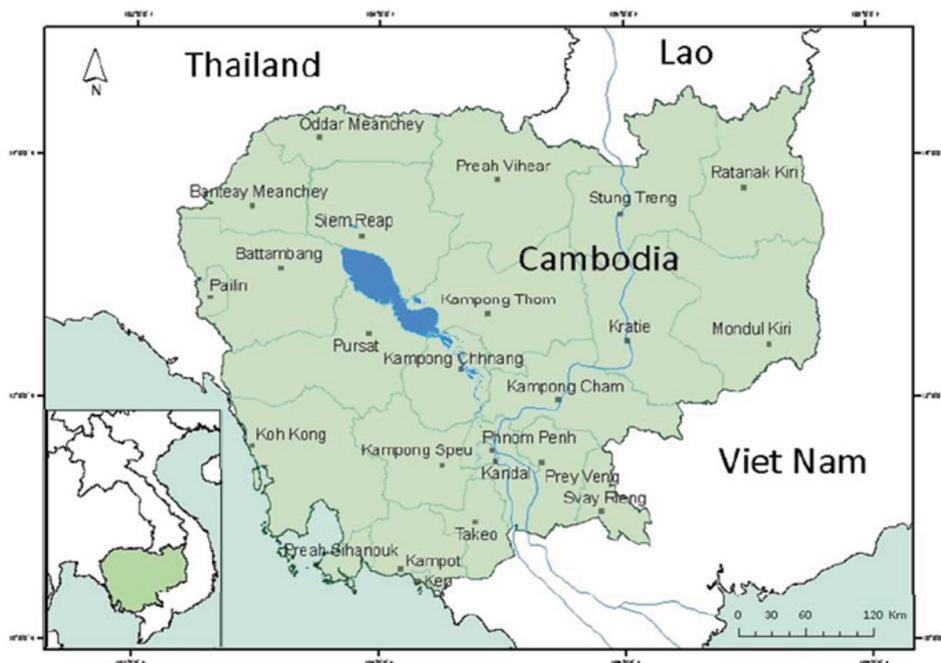
Introduction

Today, over 80 percent of the population of Cambodia lives in rural areas and about 73 percent depends on agriculture for their livelihoods. However, only about 20 percent of the land is arable.

Cambodia became a member of FAO in 1950, and an FAO Representative office was opened in 1995.

Since 1979, FAO Cambodia has invested a total budget of US\$217 326 859 000 through 205 different projects in areas of agricultural productivity, irrigation, livestock production and health, fisheries, food security, consumer protection and food safety, promotion of access to new markets, forestry and the environment, and small-scale craft agro-industry.

As a knowledge institution, FAO's main achievements to the national development process are best expressed through its support to capacity building and the provision of qualified science-based technical advice.



Map of Cambodia

1. Analytical summary

1.1 Food security

The 2009 FAO report *Pathways to Success* places Cambodia as one of the countries that have

registered a significant decline in the number of undernourished people since the early nineties. The table below from the *FAO SOFI Data Report* indicates the hunger numbers and proportions in Cambodia between the periods of 2000-2007.

Country [undernourishment category]	Total Population (millions)	Number of People Undernourished (millions)				Population of Undernourished in Total Population (%)			
		2005-07	1990-92	95-97	00-02	05-07	1990-92	95-97	00-02
Cambodia	14.1	3.8	4.7	3.7	3.0	38	40	29	22

The September 2010 *GIEWS Report* confirms that improvements in food security have been satisfactory. However, climate change and high market volatility for agricultural products require sustained support to maintain Cambodia's successful development towards higher food security levels.

1.2 NMTPF and delivering as one UN

With a return of peace and stability to the country, and with economic growth averaging over 6 percent during the previous decade, Cambodia opened doors for regional and global trade opportunities with membership in ASEAN and WTO. However, the establishment of democratic institutions and the rule of law are not fully implemented and, as economic growth is narrowly based, socio-economic inequality remains high.

In light of this context, two major steps were taken to harmonize priorities within the UN system and with the government, thereby increasing assistance effectiveness towards sustainable and equitable economic growth.

First, the UNDAF 2006-2010 was developed around good governance, the promotion and protection of human rights, agriculture and rural poverty. While the consequent first FAO National Medium Term Priority Framework (NMTPF 2006-2010) focused on policy assistance and advocacy; food security and poverty reduction; productivity and competitiveness enhancement in agriculture; community-based natural resources management; and animal, plant and fish

disease control assistance, food safety and emergency response to natural disasters.

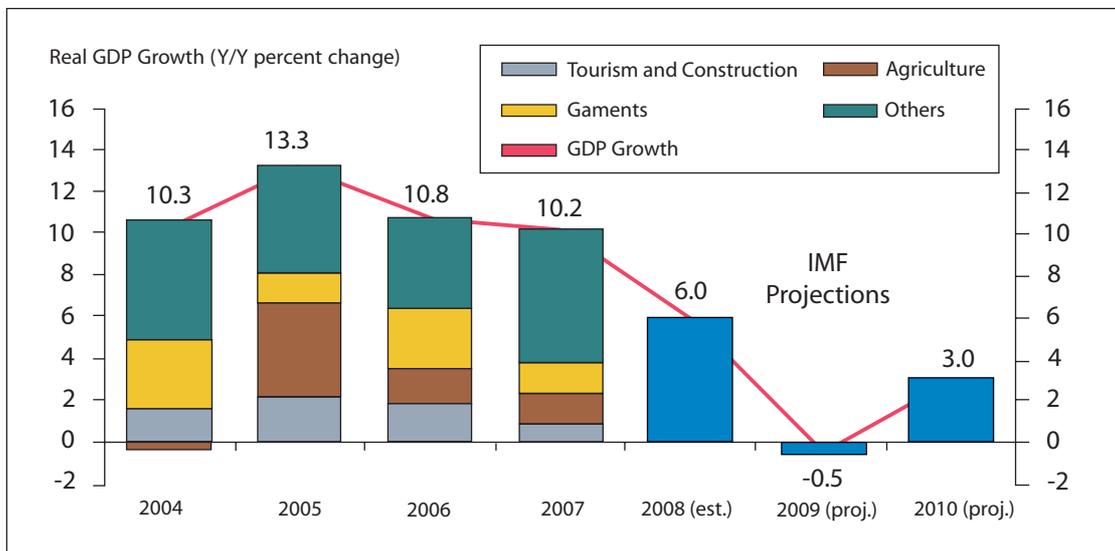
The period also featured some emphasis on harmonization of development activities between RGC and donors and between the donors themselves. This has led to broader participation in policy development and addressing aid related issues such as accountability, meaningful capacity building and the introduction of merit based pay initiatives to enhance sustainability of aid funded projects. Eighteen technical working groups (TWGs) were set up which facilitate harmonization, FAO is a member of four: Fisheries; Forestry and Environment; Agriculture and Water; and Food Security and Nutrition.

The UN launched the Delivering as One initiative in 2007. It aims to reduce fragmentation and harness the full capacity of the UN system in support of development at global, regional and country level. Delivering as One is a pilot programme that elaborates an approach characterized by four principles: *One programme, One budget, One leader, One set of management systems*. It recognizes that each country is unique and that the approach must be adapted to the situation and needs of each individual country.

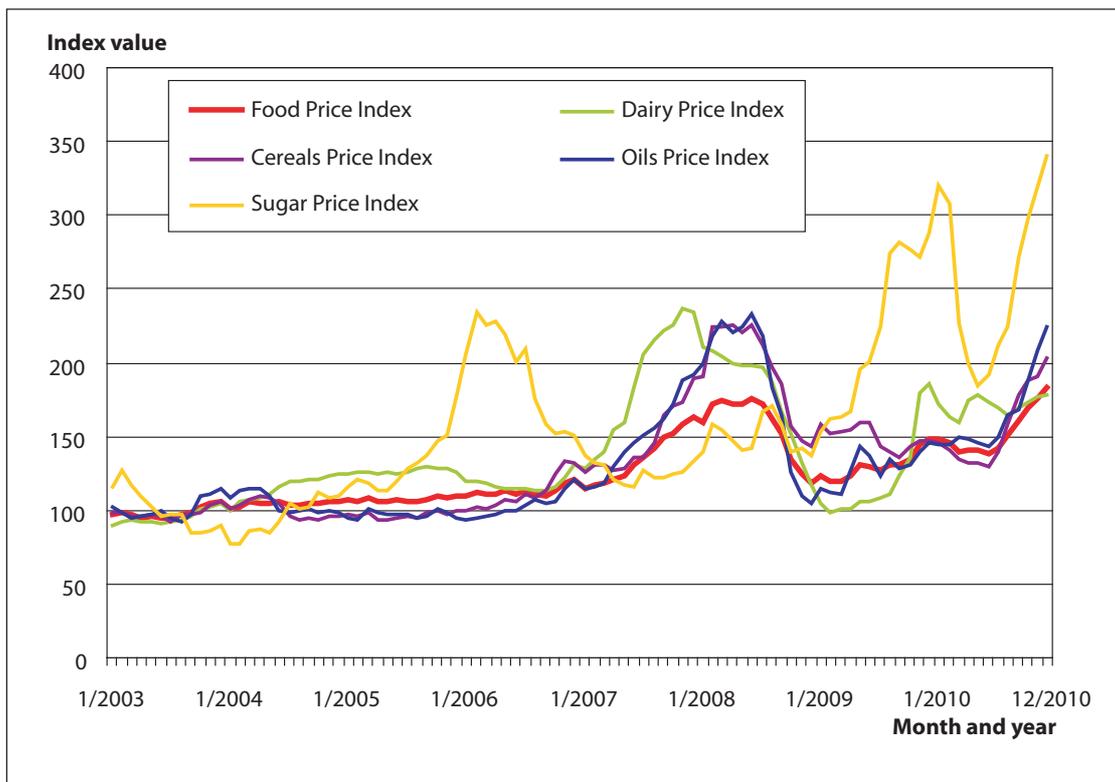
Cambodia is not one of the eight One UN pilot countries. However, the UN agencies in the country embraced the main principles of the initiative and consequently, for the period 2011-2015, a new UNDAF and NMTPF were developed taking into consideration this need for coordination as well as the newly emerging challenges

of the present economic climate, with a more focused approach on external shocks, such as the global

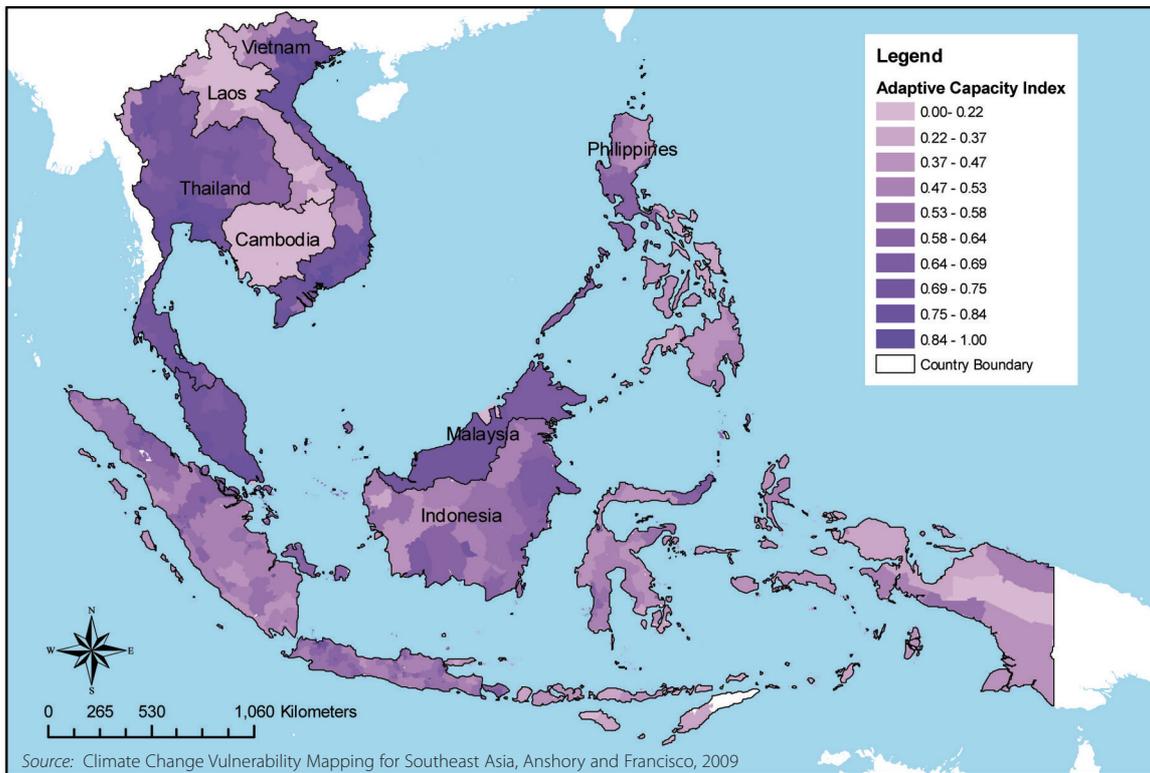
economic crisis, volatile food prices and challenges posed by climate change.



The Global Financial Crisis affected drastically the GDP growth in Cambodia



The soaring food prices have also affected negatively the Cambodian Agricultural Sector



Cambodia is considered as one of countries in the region with the lowest adaptive capacity to Climate Change

The UNDAF 2011-2015 builds on the achievements and progress made over the last decade and leverages the UN's position as a trusted and neutral partner of the Royal Government of Cambodia and the people of Cambodia. The UN Country Team also focused on the marginalized, the disadvantaged and the excluded form one of the core programming principles of the UNDAF.

FAO's focus is primarily on Outcome 1 – Economic growth and sustainable development, especially 1.1. Enhance agricultural development and food security and 1.2. Environment and sustainable development.

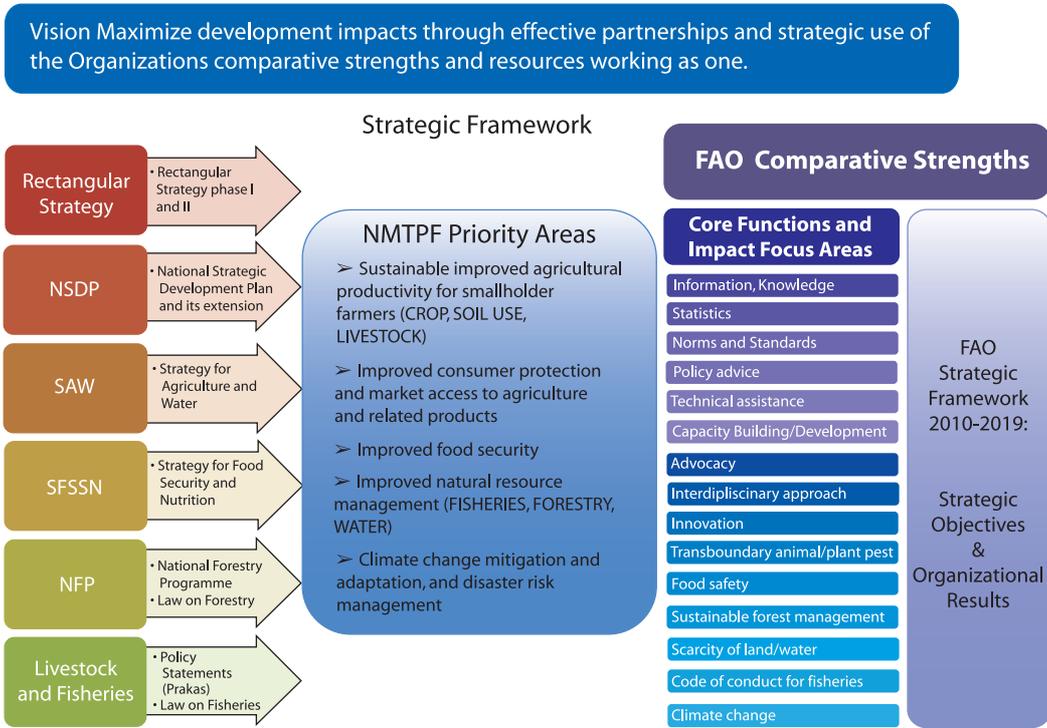
The NMTPF 2011-2015 also illustrates FAO's contribution to the United Nations Development Assistance Framework (UNDAF). The preparation of this NMTPF has enabled FAO to provide a clear position on the UNDAF process on the contribution of FAO to support poverty reduction through a coherent system of outputs, activities and indicators.

This coherence is illustrated in Annex II, which presents a comparison between the two processes.

The structure of the NMTPF Programming Framework, based on the elements above described, can be summarized as follows:

- Priority Area 1: Sustainable improved agricultural productivity for smallholder farmers;
- Priority Area 2: Improved consumer protection and market access to agricultural and related products;
- Priority Area 3: Improved food security;
- Priority Area 4: Improved natural resource management;
- Priority Area 5: Climate change mitigation and adaptation, and disaster risk management.

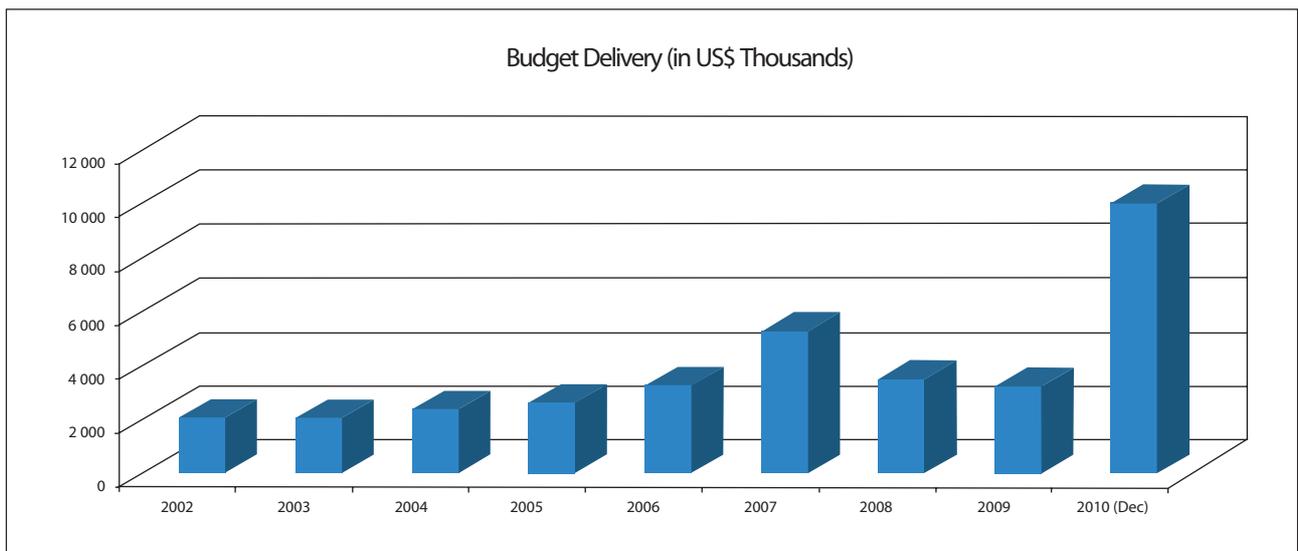
1.3 Country focus and programme



1.4 Budget delivery

FAO’s achievements in Cambodia can also be measured through the delivery of funds, providing evidence of how

the goods and services that FAO produces have been taken up and used. The table below shows the increasing capacity of the country office to mobilize funds over the years, emphasizing its role in technical cooperation.



2. Selected successful FAO programmes

Since its establishment in the country, FAO's role has moved from emergency related aid towards more development oriented activities. However, these are trends starting from a low base, considering that overall agricultural productivity in Cambodia is still low in a regional context, the distribution of benefits is inequitable and many pockets of poverty remain, especially in rural areas. Within this period, three stages with specific characteristics can be identified.

First, during the 1990s, FAO began its in-country direct development assistance focusing in the delivery of agricultural inputs, such as fertilizers and seeds. Some projects on natural resources management and the development of information systems for agriculture and related activities.

The next decade was marked by the diversification of FAO activities, which increased significantly its budget resources thereby delivering assistance on government capacity building, rural extension programmes (such as IPM Farmers field schools), creating new projects in fisheries and forestry, while also responding to emergencies demands, as in the case of the Asian Influenza pandemic.

From the end of the 2000s onwards, FAO has continued and expanded its work in a large spectrum of domains, including improvement of agricultural productivity, irrigation, livestock, fisheries, food security, consumer protection and food safety (including sanitary and phytosanitary protection), promotion of access to new markets, forestry and environment, small-scale craft agro-industry.

In the emergency relief area, the next stage of the intervention in Avian Influenza and the initiative to relieve rural communities from the impact of volatile food prices deserve special attention. However, in managerial terms, there is a new emphasis on the creative use of the existing resources. Instead of relying only in its own funds to implement discrete projects, FAO Cambodia is using its resources to leverage funds from other donor, thereby increasing its impact. This model has been quite successful in programmes like the UN REDD programme and the new EC/FAO collaboration on Urban Food Security currently being implemented in the country.

In 2007, an evaluation of the FAO activities in Cambodia pointed out that since 1993 FAO activities were largely implemented with success in Cambodia. New partnerships were developed, projects designed and implementation initiated and carried out. The major interventions were found to be relevant responses to the issues they addressed, all of which are given priority in the Government's policy framework. Effectiveness in terms of quality of outputs, performance and overall meeting of objectives was generally good, especially for activities related to livestock, IPM and food security information. The evaluation assessed impacts on livelihoods, food security, poverty and social change through studies on interventions related to community forestry, community fisheries and farmers' field schools within the SPFS. The studies generally indicated small but positive impacts on livelihoods, food security, poverty, social change and strength in community-based organizations, management of natural resources and the adoption of technology for beneficiaries as compared to non-participants. Capacity building, linkages to the market, reduced expectations, increased involvement of NGOs, longer project implementation periods with committed support are ways of trying to improve sustainability. Nonetheless, FAO's 'permanent' operational and 'neutral' presence in Cambodia enabled it to successfully build partnerships and mobilize resources to focus on particular areas. Through its position, FAO has been a positive effect on project sustainability by being able to influence and organize the continuation of externally funded operations not just of its own initiatives but also for those funded by other donors.

2.1 Food Security

Food security (FS) initiatives were carried out through two streams of activities: the development and use of information systems on food security and nutrition (FSIS) and food security interventions at village level.

The FSIS interventions aim to raise awareness and disseminate FS data to stakeholders at all levels to assist in the planning and coordination of FS interventions at village level. FAO interventions include capacity building through development of a pool of FSN specialist trainers in government and non government agencies, disseminating capacity to the provincial level, introducing

FS into overarching policies and strategies, capacity building in methodologies and analysis, introducing updated crop forecasting and drought related food insecurity methods.

The second stream of FS activities are those being implemented at village level, which focus on food insecure areas and include income generation/livelihoods development, natural resource management and irrigated cropping. Given the level of poverty and food insecurity in Cambodia, FSIS activities are very relevant. Synergies have been created by coordinating activities between three regional and global FSIS projects and as a consequence have added value. Global and regional networks have facilitated FAO normative products into Cambodia and strong government ownership augers well for sustainability; however provision of adequate government funds outside of the project mode remains to be seen. The village based FS activities are very relevant to foster local ownership, as they expose poor farmers to appropriate technologies, and they were seen to improve trust and social capital in the village as well as introduce a diversified array of income generating opportunities.

One of FAO's first and most important interventions in Cambodia since post conflict recovery was the ***national IPM programme***, which focused on rice and vegetables. Apart from the direct technical aspects of IPM, FAO has also provided associated policy support related to ecology-based crop protection and pesticide risk reduction. IPM's relevance and effectiveness are borne out of MAFF's acceptance of Integrated Crop and Pest Management (ICPM) as a standard approach to overall crop management in Cambodia. Of all FAO activities, it probably best demonstrates the effective linkage from the global, normative programme to the field level. To maintain IPM operations FAO has succeeded in developing and using a network of government, multi-lateral and bi-lateral donors and local and international NGOs. FAO has also successfully promoted IPM for inclusion in numerous large rural development projects and their sustainability of the concept is enhanced by this level of MAFF acceptance; it has an institutional home in DAALI.

Farmers field schools (FFS) were introduced in the late 1980's, as a key method to introduce and disseminate IPM technology. FFS have since been used in the SPFS in Cambodia, while other agencies and NGOs have used FFS often changing the model to suit their own purposes. The widespread use of FFS has been very relevant to increasing agriculture productivity where access to information and modern technology is limited. The programme has produced a cadre of province and district based trainers available for government, donor and NGO funded projects as required. Issues relating to sustainability are generally positive. These include the commitment to FFS by MAFF and MAFF's interest in ensuring quality control, the acceptance and use of FFS by a range of donors and NGOs and the number of trained practitioners down to local level is evidence of ownership. On the other hand FFS are intensive users of resources and sustainability as a mainstream extension tool may be limited particularly as there has been little evidence of positive multiplier effects to potential beneficiaries outside of core participants.

Recently, two ongoing projects have demonstrated great potential in Cambodian Food Security levels:

2.1.1 FAO-EU Food Facility Programme – Improve the food security of the farming families affected by the volatile food prices

Although Cambodia has recently experienced reductions in poverty rates and progress in economic growth, poverty and food insecurity are still prevalent in the country, especially in the rural areas. The situation has been made worse by volatile prices for basic foodstuffs and goods, as well as recurrent natural disasters, such as droughts and floods, which are linked with climate change. As a result, achieving food security has remained one of the continuous priorities for the Royal Government of Cambodia.

In order to mitigate the effects of volatile food prices, the European Union has given, through its Food Facility, € 11.2 million to FAO to address the main issues outlined in the Food Security Support Programme of the Strategy on Agriculture and Water. The project *Improve the food security of the farming families affected by the volatile food*

prices orchestrates activities that emphasize increasing food production of poor smallholders and achieving greater self-reliance on local food supply, especially in areas where producers are not well-connected with markets or the outside economy.



The overall objective of this project is to improve the food security of vulnerable households affected by volatile food prices in ten provinces in Cambodia. Improvements in food security will be achieved through sustainable increases in productivity, by enhancing access to agricultural inputs and services, diversifying and improving feeding practices, and strengthening management practices.

The project is being implemented in partnership with the General Directorate of Agriculture and the Fisheries Administration of the Ministry of Agriculture, Forestry and Fisheries; Ministry of Water Resources and Meteorology and the Ministry of Women's Affairs.

Major project components include: sustainable crop production and intensification of rice and vegetables, strengthened management of rice post-harvest, fisheries, water management, and nutrition. The project operates in close collaboration with government extension services, as well as with experienced national and international non-governmental organizations; provides technical advisory services at provincial and national government level and strategic support to agricultural policy and programme development. Private-sector stakeholders include seed and fertilizer suppliers, local metal artisans, fish hatcheries and other agribusinesses, and irrigation survey and design firms.

The project assists at least 80 000 beneficiary households that are food-insecure smallholder rural producers with potential for rapidly expanding their food and agricultural production (i.e., having access to farm land of less than one hectare and with adequate labour). The main specific project results are the following:

- 50 000 households are benefiting from distribution of quality inputs for rice production (seed and fertilizer), training on improved agriculture practices and farmer-to-farmer learning.
- Around 9 000 households (of the 50 000 selected) will receive equipment, storage facilities and training on improved post-harvest management.



- Approximately 20 000 households, those with less than 0.2 hectares of land, are also benefiting from training and inputs to diversify food production through vegetable growing and the provision of quality seed, fertilizer, water cans and hoes.
- In areas where appropriate socio-economic and agro-ecological conditions apply, selected households are also benefiting from improved fisheries resource management. Aquaculture inputs were provided for improving 1 315 fish pond and rice-fish culture and for 16 hatchery operations and training is being provided to 1 315 farm households.
- In areas with needs and potential for community-level irrigation or drainage development, the project will support improved water management practices to mitigate local constraints on water supply.

- In selected villages involved in project activities, some of the most vulnerable and previously food-insecure families with access to more diverse food sources through the project are involved in training on improved nutrition practices (about 5 000 vulnerable households of the 50 000 selected).
- The project is supporting a broad programme of training and human resource development for government staff across various ministries to improve the effectiveness of the extension system.
- Policy support is provided to ensure that food security issues are highlighted in national policy and translated into effective policies and actions at a local level.

2.1.2 FAO-EC Urban and peri-urban food security



The situation analyzed by the Strategic Framework for Food Security and Nutrition identified a number of constraints to food security for urban poor, where limited access to food represents the main feature as they are unable to generate sustainable incomes or produce enough quantities of food. These limitations are accentuated by poor market infrastructure and lack of capital to create small businesses to meet minimum food requirements. Inabilities to generate cash income, increasing food prices not only limit the capacity of food-secure households to buy sufficient food but also induce a switch to foods of lower nutritional value.



Due to the settlements' proximity to the riverside, aquaculture production represent the main activities of their income. Urban poor have worse rates of health and malnutrition than the already low national averages and this has implications not only on their hygiene but their food processing activities. These are major constraints to micro and small business development which rely on insufficient or limited knowledge on food hygiene, sanitation and food processing. Furthermore, the lack of appropriate equipment and technologies for food processing influence negatively in the quality of the good produced.

The FAO/EC project *Micro and small enterprise development to achieve food security, food safety and self reliance for urban poor in Phnom Penh* aims to enhance the food security, food safety and nutrition security of poor and vulnerable urban and peri-urban dwellers living along Phnom Penh's river banks, through support to micro and small group enterprises that will generate income for the purchase of diversified and quality food, and through mainstreaming food safety intervention in all the steps of the food chain, from production to commercialization in targeted areas.

With a budget of € 1.25 million to be implemented from 2011 to 2014, the project will target groups of food vulnerable urban and peri-urban households living along Phnom Penh's river banks, including a share of female headed households, migrants and minority groups.

In close collaboration with relevant government departments from national to local level, the project seeks to support 4 450 urban and peri-urban households selected from pilot settlements in 11 *Sangkat* in two *khan* – Russei Keo and Meanchey.



Aquaculture production (cage and pond), food and fish processing activities and horticulture are identified as the most promising activities to tackle food insecurity in target areas. These activities will be enhanced through micro and small group enterprise development. There will also be support of other types of off-farm (food- or non-food based) enterprises that have potential to generate higher income. There are four main components:

- Establishment and/or strengthening of at least 200 micro and small enterprises, involving individual entrepreneurs and leaders of groups engaged in small-scale aquaculture, food processing and off-farm income generating activities.

- Urban and peri-urban horticulture development: growing greener cities. Establishment and/or strengthening of 100 micro and small group enterprises engaged in horticultural production.
- Enhanced nutrition at HH level, food safety, food quality and value addition of processed fish and horticultural products and streamlined food safety practices into small-scale operators along the whole food chain, from production to commercialization.
- Support to institutional strengthening, coordination and extension of innovative food security and nutrition approaches.

These actions materialize in the establishment of sustainable income sources for poor urban households, boost local food production and diversify diets through aquaculture production and urban horticulture.

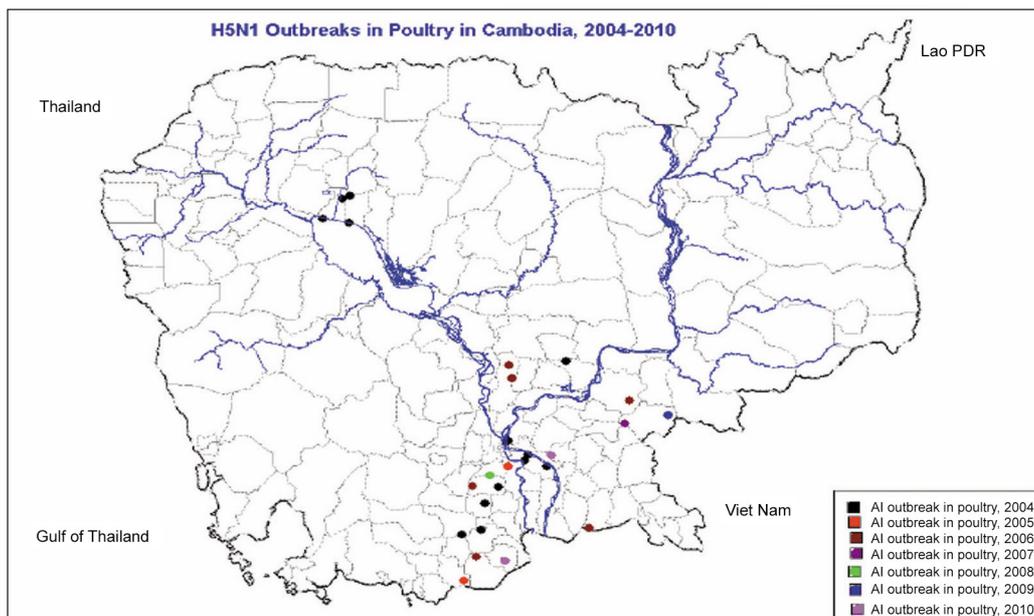
2.2 Livestock

FAO's main involvement in the livestock sub-sector has been with the Avian Influenza (AI) programme. Initial interventions were to redress a state of non preparedness including a lack of basic infrastructure, minimal funds for operating and salaries, and low levels of technical capacity. Later interventions focused on surveillance, diagnostics, response and farmer awareness, animal health legislation, structuring the veterinary service and looking into the socio/economic impact on poultry producers and consumers. With AI outbreaks in Cambodia and the region the overall programme has been very relevant. FAO was the sole supporter to RGC's efforts to control the disease in animals from 2004 to 2006 and it has been the motivator, a donor, project manager, domestic strategy adviser, and facilitator of regional and global linkages. The impact relates to the greater level of awareness that now exists at community and national levels.

Other animal health interventions have addressed foot and mouth disease and classical swine fever, fostering linkages with other projects. This has been very relevant given the regional importance of the subject and it has generated an increased understanding of diseases and their control.

Working in partnership with the Department of Animal Health and Production (DAHP) of the Ministry of Agriculture, Forestry and Fisheries (MAFF), FAO is implementing two important projects in all 24 provinces of Cambodia with special focus on the provinces bordering Viet Nam, Thailand as well as the provinces around the Tonle Sap River and lake:

- *Immediate technical assistance to strengthen emergency preparedness for Highly Pathogenic Avian Influenza (USAID, FY10 US\$400 000)*
- *Avian and human influenza control and preparedness emergency project (WB US\$1 367 595 for period 2010-2012)*



The main objective of these action is to reduce and stop the spread of H5N1 among and between the flocks of birds in Cambodia as well as between Cambodia and the neighbouring countries (Viet Nam, Thailand and Lao PDR) thus reducing the risks of contagion to mammals and humans and avoiding the possibility of a pandemic.

Amongst the main results achieved by the projects are the following:

- FAO hosts the AI Technical Working Group, once a month, with MAFF and MOH representation and attended by experts from WHO and IPC (Institut Pasteur du Cambodge);
- Refresher training on AI recognition, surveillance and communication of 3 000 village animal health workers (of 8 000 trained), 2 500 village chiefs and 94 district veterinarian officers (of 185 trained) up to end of 2009.

- Supported the operation of two telephone hotlines which received more 500 calls during the last twelve months, most of the calls reported about sick and dying poultry and some were seeking information on AI (i.e. transmission routes, cure, preventive measures, etc.)
- An outbreak investigation and emergency response guide is approved and followed by DAHP.
- The joint FAO/AED bio-security training video for women was shown in 44 group discussions with 1 500 backyard poultry raisers (1 004 of them are female) in ten provinces near the borders with Viet Nam and Thailand.
- Broadcast karaoke and radio public service announcements on TV and radio nationwide around the Festival of the Dead

- Finalized and printed 10 000 copies of the Question-and-Answer booklet based on questions received from participants in the community forums and callers to the AI hotline. It was distributed to PVOs, DVOs, VAHWs and Village Chiefs.
- A country report *Cross border poultry trade for management of HPAI risk in Cambodia* produced mid-November 2009.

Two lessons learned demonstrated to be specially important: (i) Coordination is an important mechanism in defining the gaps in the AI sector and in the animal health in general; (ii) awareness plays a key role in Cambodia despite the fact that behavioural changes remain a challenge especially among backyard/semi-commercial farmers (80-90 percent of the poultry in Cambodia) and in the live bird markets.

2.3. Fisheries

FAO's involvement in **community-based natural resource management (CBNRM)** includes the introduction of the concept as a means for the sustainable development and use of fishery resources in Siem Reap and other provinces surrounding the Tonle Sap Great Lake. This includes the ADB-funded Tonle Sap Environmental Management Project (TSEMP) implemented by FAO. Work on community fisheries was accelerated when in 2000-2001,

56 percent of commercial fishing lots on the Tonle Sap were released by the government providing the potential to expand the concept of CBNRM and an opportunity to develop the policy and legislative reform required to effectively manage the expansion. FAO has played a key role in the process, including preparing the regulatory and management framework for the community development of inland fisheries and assisting 168 community fisheries organizations through the steps towards legal recognition.

With the realization of the importance of CBNRM in the development of sustainable resources, the interventions are very relevant. They are consistent with sector policy and address some threats to the inland fishery. The projects have largely driven the work in CBNRM policy development, they have included capacity building both in the government forestry and fishery administrations and at the level of community-based organizations (CBOs) and they have worked on developing some livelihoods support. The involvement of FAO which has proven capacity in CBNRM as well as presence in the area for the last 18 years is also very relevant. The effectiveness of the interventions has been generally good in terms of enhancing the concept of CBNRM in Cambodia.

Currently, FAO is implementing four projects with strong components in the fisheries sector:

Partners	Title	Total Budget	Implementation Period
FAO/RGC	Capacity Building to enhance fish quality control and standardization services and contribute to poverty alleviation	US\$304 000	2009-2011
FAO/AECID	Regional fisheries livelihoods programme for South and Southeast Asia	US\$19 549 000	2009-2013
FAO/EC	Micro and small enterprise development to achieve food security, food safety and self reliance for urban poor in Phnom Penh	US\$340 000	2011-2014
FAO/EUFF	Improve the food security of farming families affected by the volatile food prices	US\$14 900 000	2009-2011

The project *Capacity Building to enhance fish quality control and standardization services and contribute to poverty alleviation* aims at tackling the critical gaps of lack of specific technical capacity and knowledge in the

post-harvest fisheries sector. In particular, there is need for training, technical guidance and sound technical advice through FAO to improve living standards of poor households by enhancing their capacity to more

effectively use fish after capture through better fish processing, handling, storage, transportation and trade. The project consists of four main phases:

- Assessment of the current status and needs of the post-harvest fisheries sector with respect to technical capacity to improve fish handling practices in different segments of the food chain; fish inspection for safety and quality and training of trainers.
- Capacity building of competent authority including their regional offices through training workshops.
- Enhancing capacity to develop standards for local products.
- Development of a National Action Plan (NAP) for improving post-harvest fisheries sector; facilitation of networks for knowledge and experience sharing.

The project *Regional fisheries livelihoods programme for South and Southeast Asia* is being implemented in 6 different countries, including Cambodia. Its objective is to strengthen capacity among participating small-scale fishing communities and their supporting institutions towards improved livelihoods and sustainable fisheries resources management. In targeting coastal fishers, processors, traders and their families, organizations and local authorities, the project seeks to achieve the following outputs:

- co-management mechanisms for sustainable utilization of fishery resources;
- measures to improve safety and reduce vulnerability for fisher communities;
- measures for improved quality of fishery products and market chains;
- diversified income opportunities for fisher families;
- facilitated access to microfinance services for fishers, processors and vendors;
- regional sharing of knowledge in support of livelihood development and reduced vulnerability for fisher communities and of sustainable fisheries resource management.

With the project *Micro and small enterprise development to achieve food security, food safety and self reliance for urban poor in Phnom Penh* FAO will seek to:

- Strengthened capacity of urban poor to sustainably generate income through establishment or expansion of aquaculture, food processing and other types of off-farm micro or small group enterprises linked with local markets
- Enhanced safety, quality and value addition of locally-based fish products supplied by micro-enterprises managed by most vulnerable groups, including women headed families, disabled, ethnic groups, and resource-poor urban dwellers
- Improved nutrition, healthier, diversified and balanced diet of resource-poor urban dwellers through simple nutrition message
- Strengthened capacity of government municipal services and local partners to integrate food security and nutrition best practices/innovative approaches into relevant policies and programmes.

Whereas FAO will concentrate more on technical, administrative and operational support, the MAFF will play the key role in coordinating project activities with active involvement of its subordinate structures, local government agencies, and other involved institutions at the local level. The activities will be implemented by the Project Management Unit under to supervision of the Fisheries Administration (FiA) and its decentralized structure, namely the Phnom Penh Fisheries Administration Cantonment, and the Phnom Penh Municipality department of MAFF, with technical assistance provided by national and international consultants.

Finally, the project *Improve the food security of farming families affected by the volatile food prices* aims to improve the food security of the rural populations, in particular those affected by the volatile food prices. Improvements are being achieved through increases in productivity, improved management practices, improved access to agricultural inputs and services, diversification and improved feeding practices.

Improved fish production and fisheries resource management is designed to expand and improve fish farming and aquaculture practices in order to achieve immediate increases in fish protein availability to poor households. Family fish ponds among target beneficiaries

are to be increased in number, in direct support of local food security. Fish refuges which conserve wild fish from the watershed are to be expanded, and hatcheries to support farmers with suitable fish fingerlings will be upgraded with quality brood-stock and training to improve operational skills. The inputs will benefit over 2 000 farmers plus 350 poor households, and will increase local fish production by over 125 000 kg a year. Over 7.5 million fingerlings of 5 species will also be produced. The project has improved 1 000 fish ponds for household use over five provinces (Kampong Speu, Takeo, Svay Rieng, Prey Veng and Siem Reap).

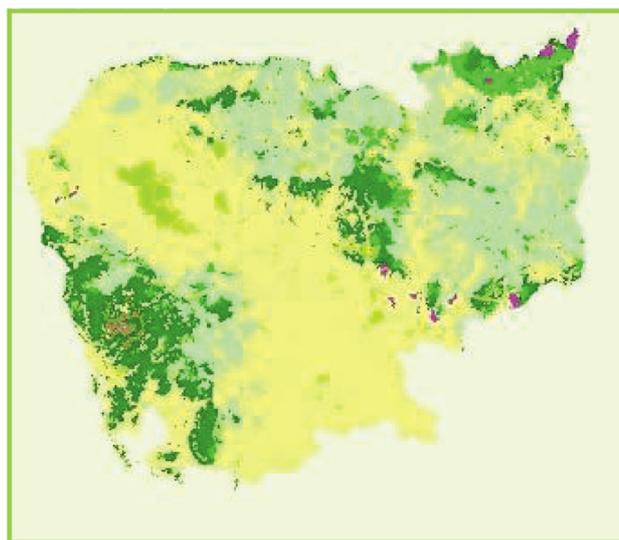
Production inputs have been supplied including different species of fingerling, post larvae of Giant Freshwater Prawn (*Macrobrachium rosenbergii*), lime (35 375 kg), urea (14 150 kg) and DAP (7 150 kg) for reconditioning of ponds before stocking with fingerlings. The project has supported the creation or improvement of rice field aquaculture systems for 100 smallholder farmers with rain-fed rice fields, who will be assisted to grow fish and freshwater prawns in these fields. The project is rehabilitating 82 Community Fish Refuge (CFR) ponds in nine target provinces, where there are surface waters that can be delineated and declared to be refuge ponds to be managed by local communities. The CFR ponds have a dual function, – conserving stocks of wild fish in the watershed; and providing a source of fish protein for the poor families of the commune. These ponds sites have been identified and community consultation is underway to begin the social contract underpinning the CFR ponds.

Support is being provided for capacity building and networking of local hatchery operators so that they can improve their technical and marketing capacity and their hatchery systems in five provinces. In addition, assistance is being given to support fish farmers who desire to be local fingerling producers in the districts where there are less local hatcheries. Training assistance for the fisheries component includes support for fisheries officers, fish farmers, communities associated with fish refuge and hatchery operators. The training activities are supported by provision of training materials and international consultant contributions. In addition, the project contributes to sustainable outcomes by creating a hatchery network to link together operators and share information.

2.4 Forestry

2.4.1 Overview of Cambodia's forests

Cambodia has approximately 10.7 million hectares covering 58.9 percent of its land area. It is the 30th largest tropical forest in the world and the 13th most forested country. Cambodia covers an area of 181 035 km². The Mekong River dominates its geography but in the centre lies the Tonle Sap Lake which is rich in biodiversity.



Forest cover 2006 source: www.cambodiaatlas.com

The forests of Cambodia vary from province to province but include evergreen, semi-evergreen (west and northwest), deciduous (northeast), swamp, mangroves and bamboo forest. There are also re-growth and plantation forests as well as open forest types including evergreen shrub land and dry deciduous shrub land.

However, the extent and quality of Cambodia's forest has declined in recent decades. Considerable areas have been degraded due to logging, forest fires, land grabbing, encroachment and intensified shifting cultivation. Between 2002 and 2005/6 Cambodia lost about 379 485 hectare averaging about 0.8 percent a year. As a consequence Cambodia has been classified as a 'high forest cover, high deforestation' country.

The rural economy is dominant in Cambodia and the majority of the rural populations are subsistence farmers;

75 percent of these depend on access to natural forest resources for essential products, energy and food. Forests also provide supplementary income and employment. A rough estimate based on limited data sources suggests that forest resources account for 10-20 percent of household consumption and income resources for roughly one third of the population.

While forests have substantially provided the basis for rural livelihoods they have also been a source of conflict and exploitation. The Khmer Rouge used the forests for cover, and its resources to finance their activities in the 1970s, thus in the 1980s forest resources were used to finance restoration work.

2.4.2 The National Forest Programme (NFP) and Community Forestry (CF)

The creation and implementation of the National Forest Programme (NFP) shows the willingness of the RGC in achieving sustainable forest management. Through the NFP Facility, FAO forestry provided support to the reformation of the 2010-2029 NFP. FAO's NFP Facility support helped the government to identify a strategy for utilizing and protecting unmanaged forest areas, while also forwarding a poverty alleviation strategy to meet Millennium Development Goals.



The NFP was created under the guidance of the Forest Law 2002, the Independent Sector Review (ISR) 2004, the establishment of the Technical Working Group on Forest and Environment (TWGFE) 2004, and the Cambodian Millennium Development Goals (1&7). During the creation of the NFP, input was given from International

Development Partners such as: DANIDA, FAO, DFID, NZAID, World Bank, JICA, GTZ and ITTO.

The Operational Framework of the NFP consists of six implementation programmes, one of which is community forestry. These programmes will be complemented by shorter term (5 year) rolling plans and quantified one-year action plans:

1. Forest Demarcation, Classification and Registration
2. Conservation and Development of Forest Resource and Biodiversity
3. Forest Law Enforcement and Governance
4. Community Forestry Programme
5. Capacity and Research Development
6. Sustainable Forest Financing

The **Community Forestry Programme** has three sub-programmes:

1. Community Forest Identification and Formalization
2. Community, Institutional and Livelihoods Development
3. Community Forestry Development Support



The community forestry programme meets NFP objectives through a few ways. CFs aim at managing permanent forest estates in a sustainable way – all CFs will be permanently demarcated and registered as public land; multi-purpose forest management will take into account biodiversity conservation and environmental

services; CF will allow public participation in decision-making and if mobilized, they can protect the forest through considerable human resources; CF modalities can enhance socio-economic development; this programme will develop effective models and tools for supporting communities for sustainable forest governance and management, utilization, marketing and benefit distribution; furthermore, CF contributes to mitigation of climate change through forest conservation.

At this point in time, the first 7 steps to formalizing CF have been completed and the steps to completing the legalization process are underway. Sub-programme 2 – Community, Institutional and Livelihoods Development – is the most important phase in the CF Programme and will thus be the main focus.

2.4.3 Community Forestry

Community Forestry has gradually developed since the mid 1990s, through small pilot projects supported by the government, and international and national Non-Government Organisations (NGOs), which have demonstrated that community forestry has considerable potential to protect the forests and enhance their productivity and capacity to support rural livelihoods, while at the same time stabilizing critical watersheds and ecosystems.

The establishment of CF began in approximately 1991. To date there are 377 community forests with 347 740 ha established; besides which, there are 13 potential areas with 20 203 ha to be established.

2.4.4 Role of FAO in Community Forestry

Historical timeline: FAO's Tonle Sap Project

FAO's most successful CF project can be found at the heart of Cambodia – the Tonle Sap Great Lake. This project was recognized at the national level as the foundation project for community-based natural resource management in the country.

Central to the productivity of the Great Lake is the extensive forest and associated vegetation surrounding the lake. This unique seasonally forest provides habitat and food for numerous fish species and supplies the



nutrients that support an exceptionally high fish population within the lake. As the lake has long been the main source of sustenance and survival for the millions of people that live around its shores – even on its waters – in 1992, with the widespread clearing of flood forest vegetation, and the associated threat to fish productivity in the lake, the government sought donor support to investigate and develop management options.

In 1993, the Government of Belgium funded and FAO implemented the first project, *Restoration and preservation of the inundated forest ecosystems of the Tonle Sap and downstream areas*, at the cost of US\$200 000, which then resulted in the formulation of the *Participatory natural resource management in the Tonle Sap region* in 1995. FAO was designated the executive agency while the counterpart agencies responsible for project implementation were Ministry of Agriculture, Forestry and Fisheries (MAFF), Ministry of Environment (ME) and the Ministry of Rural Development (MRD).

The project had 3 phases:

- **Phase I:** January 1995 – August 1998 (US\$2 975 000)
- **Phase II:** September 1998 – October 2001 (US\$1 411 000)
- **Phase III:** November 2001 – April 2005 (US\$2 130 000)

Phase I's overall objective was to introduce and promote environmentally sustainable integrated natural resource management strategies which aim to improve the

socio-economic well being of the inhabitants of the Tonle Sap inundated forest ecosystem. The overall emphasis on Phase I was on data collection, field trials and capacity building of forest staff. It thus provided a solid foundation for the Phase II.

Phase II was the *implementation phase*. The emphasis was on development and implementation of community based natural resource management over a wide area within a variety of environments. By the end of Phase II, 70 000 ha of inundated forest and 20 000 ha of upland forests were under community protection and management by some 180 villages.



The last phase, **Phase III** represents the *consolidation phase* with the emphasis on establishment of both community fisheries and community forestry within Siem Reap. By 2003, the project assisted 116 villages organized into 10 community fisheries organizations.

The project effectively developed a sustainable programme for community-based natural resource management in Siem Reap province. Numerous organizations sent staff to see and learn from what was being done in Siem Reap.

Community forestry has advanced considerably since the start of the project in 1995. Community forestry in Siem Reap continued to develop throughout the second phase, while, during the final phase, the emphasis was on communication and extension, and management planning and implementation. The project established

40 Community Forestry sites in Siem Reap province, involving 79 villages and covering more than 20 000 ha. All activities were integrated within the commune, district and provincial planning framework. When the document was written, there were 50 outstanding requests for assistance to develop community forestry within the province of Siem Reap.

Current status

Since the Tonle Sap project, FAO has assisted in the implementation of other CF projects such as, the *Community forestry development in Northwest Cambodia* project. It began in April 2006 and was funded by the New Zealand Agency for International Development (NZAID). This project expanded and improved upon work carried out under the project *Participatory natural resources management in the Tonle Sap region*. The focus was to further develop and expand community-based natural resource management, in the form of community forestry, in Northwestern Cambodia.

This FAO-NZAID project made a significant contribution in piloting the development of CF in Community Protected Area (CPA) in the country. CF in Siem Reap was officially established and recognized at the local level to the district and provincial authorities. CF development work in SR now operates under a legal framework – the Forest Law of 2002 – and the community forestry sub-decree of 2003 and CF guideline of 2006. It has contributed to developing the legalization of approval process, preparation for signing CF Agreements, developing CF Management Plans and other aspects of CF development. This has made it a model of best practice for community-based natural resource management in the country.

Present project

Given the success of FAO's CF projects in Siem Reap, it is timely to apply lessons learned to communities in the Northeast. The present project, *Enhancing community-based forest management and utilization for the improvement of rural livelihoods in Cambodia* is funded by the Spanish Agency for International Development Cooperation (AECID) with the Forest Administration (FA) and Ministry of Agriculture, Forestry and Fisheries (MAFF)

as partner agencies, to be implemented between July 2010-2030 and June of 2013, at a cost of US\$806 000.

This project will also run parallel with another undertaken by the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) who is supporting other CF developments in Ratanakiri and Kratie.

Background

Extensive areas of forestland were cleared for agriculture, war efforts or personal benefit. Illegal logging and land encroachment continues while land grabbing, particularly in Cambodia's Northeast has become rampant over the past several years. The primary beneficiaries of the project will be the rural populations of Mondulkiri, Kratie, Stung Treng and Ratanakiri provinces. These communities will benefit from increased tenurial security and formal recognition of forest management rights and improved livelihoods through enabling enhanced production and marketing of timber and NTFPs. Most importantly this will lead to the protection and management of forest land and biodiversity.

Currently, FAO is assisting the FA with the final steps of the legalization process – there are a total of 11 steps to be completed in the formalization of CF. These steps are needed in order for the community to best manage the forest, commercialize forest products legally and to maintain tenure over the land:

- **Step 8: Preparation of the CF Management Plan**
- **Step 9: Enterprise Development**
- **Step 10: Implementation of CF Management Plan**

FAO has the comprehensive capacity drawing upon 4 decades of experience globally to implement all these phases and linking them to issues on climate change.

The development goal of the project is to expand responsible, productive and sustainable management of forest resources by local communities to meet their needs and to stimulate development within the provinces of the Northeast of Cambodia, thus meeting CMDGs 1: "to eradicate extreme poverty and hunger", and 7: "to ensure environmental sustainability".

The expected outcome of this project is enhanced capacity of FA and Community Forestry User Groups (CFUGs) in sustainable forest management by responsible utilization of forest resources and nation-wide networks of stakeholders. Specifically, FAO will support the FA to formalize and develop 16 CFs in collaboration with Cives Mundi.

There are 3 expected outputs from this project:

- Output 1: FA Cantonment capable of providing sufficient services for CFs
- Output 2: Commercial activity and livelihoods development for CFs
- Output 3: Contribution made to the development of community networks established at the provincial and national level.

2.5 Climate change

Climate change in Cambodia is projected to impact broadly across ecosystems increasing pressure on all livelihoods. As climatic patterns change, the spatial distribution of agro-ecological zones, habitats, distribution patterns of plant diseases and pests, fish populations and ocean circulation patterns which can have significant impacts on agriculture and food production particularly in Cambodia. Adaptation – to reduce risks in the face of climate trends or events and mitigation-actions to slow global warming are the two main ways to achieve resilience. Marginal development gains attained during



this decade in rural areas, after a turbulent past can be wiped out by climate change and variability. Therefore there is an urgent need to build their currently low capacity to adapt to climate change and variability to achieve resilience.

Cambodia has been participating actively on global discussions on climate change, such as the Conference of Parties (COP) 13 in Bali, and COP 15 in Copenhagen towards the development of “Reducing Emissions from Deforestation and forest Degradation” (REDD+) mechanism and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. Most recently, at the COP 16, in Cancun, Mexico, RGC reassured its support to the existing national climate change secretariats, providing support for capacity building of experts on climate change adaptation and mitigation, as well as national teams working on the preparation and implementation of policies to improve climate change resilience in the country.

The country also has created the National Committee on Climate Change (NCCC) and a National Adaptation Program of Action (NAPA) to Climate Change, has been developed to mainstream climate change resilience in the national programmes and projects.



FAO supports Cambodia’s government on its work on climate change in several areas drawing from its global, regional and national field experience and expertise:

- FAO is currently preparing a GEF project, titled *Strengthening the adaptive capacity and resilience of rural communities using micro watershed approaches to climate change and variability to attain sustainable food security*.
- FAO assistance has been requested by government to enhance capacity building that allows the development of a relevant Measuring, Reporting and Verification system (MRV) and establish a Reference Emissions Level (REL), which are essential components of REDD+ through United Nations REDD programme.
- Cambodia’s forests are home to a large variety on non timber forest products (NTFP), among them bamboo, rattan, honey, resin, mushrooms etc. are some of the main resources. Through projects such as the GCP/CMB/034/SPA *Enhancing community-based forest management and utilization for the improvement of rural livelihoods in Cambodia* FAO is supporting government through Voluntary Carbon market project and community forestry projects to enable small holders to access carbon funds.
- Government has requested FAO support to rehabilitate the degraded mangroves and FAO is currently is exploring ways to restore mangroves and TCP resources are requested to leverage additional climate change funds for this.



2.6 Policy, advocacy and normative thrusts

FAO provides assistance to the government in support to the development of key strategies and sector policies related to agriculture, forestry and fisheries, and in other mandated areas such as natural resource management and climate change. FAO policy, advocacy and normative support function is a key complement to technical assistance to foster institutional development and improve the capacity of key national institutions to respond to increasing challenges of a key sector for national development and poverty reduction.

FAO in Cambodia supported the government in developing a number of key strategies such as the Strategy for Agriculture and Water (SAW) 2010-2013, including the food security and research, extension and education components.

Moreover, in view of the challenge of coordinating donor's response in the sector, FAO supported SAW harmonization process in close consultation with key donors active in the water and agricultural sector to better align and coordinate ODA in the sector. Moreover, FAO provided support in the development of the National Forest Program (2005 and 2010), the SPS Action Plan, the National Adaptation Program of Action to Climate Change (2006) and the National Medium Term Priority Frameworks (2006-2010 and 2010-2015) amongst others.

This document outlines the current RGC priority policy areas in which FAO was requested to provide its assistance:

2.6.1 Development and peer review of SAW

Cambodia's economic performance over the past decade has been impressive and poverty reduction has made significant progress. Agriculture continues to be the mainstay of the economy and the consensus is that in the short to medium term poverty reduction will require growth in rural areas – most likely through sustained agricultural growth.

In the *National Strategic Development Plan 2006-2010* (NSDP), the government emphasized the need for the development of *Strategy for Agriculture and Water* (SAW).

The task of creating the strategy programmes was co-facilitated by the lead Development Partners FAO and AusAID through the Technical Working Group on Agriculture and Water (TWGAW), the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Water Resources and Meteorology (MOWRAM). Created in 2006, SAW's overall goal is to contribute to poverty reduction, food security and economic growth through enhancing agricultural productivity and diversification and improving water resources development and management.

The 5 programmes that will lead towards achieving these goals are:

1. Institutional capacity building and management support programme for agriculture and water
2. Food security support programme
3. Agricultural and agri-business (value-chain) support programme
4. Water resources, irrigation and land management programme
5. Agriculture and water resources research education and extension programme

Renewed efforts to the agriculture and water sector from the donor community needed a strong coordination of activities. FAO and AusAID, through their leadership in the TWGAW, lead the effort to harmonize the five saw pillars laying the foundations of a sound programmatic approach to the sector to increase coordination and alignment with government priorities. The harmonized saw represent a comprehensive investment plan for the sector that can be evaluated against the CAADP criteria, main reference framework to assess the quality of country-led investment plans.

Developed in 2003, CAADP is the agricultural programme of the New Partnership for Africa's Development (NEPAD), which in turn is a programme of the African Union (AU). Their overall goal is to eliminate hunger and reduce poverty through agriculture. CAADP is about bringing together diverse key players – at the continental, regional and national levels – to improve coordination, share knowledge successes and failures, encourage one

another and promote joint and separate efforts to achieve their goals.

With the establishment of Cambodia's SAW Investment Programme, the Canadian International Development Agency (CIDA) prepared a document to demonstrate the investment programme formulation process, extensive stakeholder involvement and compliance of the process and comprehension of the plan to the CAADP Post Compact Country Investment Plan Review. Annex 1 of the Review Guidelines – the source of which Cambodia's Investment Programme is based upon – has 4 main criteria under which there are several subheadings which make up the criterion and they are assigned levels of either high or medium overall importance: i) Overarching; ii) Institutional; iii) Technical; iv) Economic and Financial.

CIDA concluded that Cambodia's SAW Investment Programme is an integral and systemic within the national agricultural development planning and implementation. It builds systems and capacity to effectively and efficiently deliver on national and regional growth and development objectives and targets. The SAW Investment Programme aligns with the objectives and targets of the RGC's key strategies of the National Strategy Development Plan, the Agriculture Sector Strategic Development Plan (ASSDP), the Strategic Development Plan on Water Resources in Meteorology (SPWRM) and the Strategic Framework for Food Security and Nutrition in Cambodia (SFFSN). In addition the Investment Programme shows consistency with growth and poverty reduction options, adoption of the best practices and aligns with the CAADP vision, principles and core strategies.

2.6.2 Livestock sector strategy

Livestock production in Cambodia is small scale with cattle and buffalo being used for traction, and pigs and poultry (chicken and ducks) for subsistence purposes. Cattle numbers have increased from 2.5 million to 3.5 million in the last 20 years and poultry have more than doubled to 20 million. In contrast, pig numbers peaked at 2.7 million in 2006 and have since declined due to low prices, high feed costs, illegal imports and disease (blue ear disease or PRRS).

The growth of livestock sector has a decisive relevance to food security and could benefit the national economy by reducing the dependency of the country from imports from neighbouring countries on livestock that can be efficiently produced in Cambodia. In order to increase livestock production, it may require significant improvements in animal breeding, nutrition and husbandry, prevention and control of animal diseases, and improvement of animal welfare while reducing the risk of the emergence of zoonotic diseases. A strategic approach to the sector should also include special attention to the needs of smallholder producers, and diffusion of good management practices for responsible intensification and increased efficiency of livestock production.

Given the importance of policies that reflect these strategies, MAFF had officially requested FAO technical assistance. Through the project *Formulation of the National Policy and Strategy on Livestock Production*, MAFF, to be implemented between January and December of 2011 at a cost of US\$90 000, enhancing livestock production to meet local consumption in the country.

This requires the intensification of extension and capacity building initiatives, and expansion of advisory services, including veterinary services, on a nation-wide scale. Interventions will be harmonized with other FAO initiatives aimed at attenuating the significance of terrestrial and aquatic animal and zoonotic diseases.

As this kind of policy and strategy never exist, the National Policy and Strategy on Livestock Production will enable MAFF to use it as a critical tool to improving the livestock sector with effectiveness and efficiency.

2.6.3 Action Plan to Improve SPS capacity

Originally the main goal of FAO support was focused on support to export production and trade. However, following discussions with the nominated national task force, FAO approach was a much more holistic set of interventions around the whole SPS system including: import risk, domestic product and environmental safety alongside export-focused actions.

The project *Preparation of a Sanitary and Phytosanitary (SPS) Action Plan for Cambodia (STDF 246)*, implemented between 2009 and 2010 at a cost of US\$200 000, adopted as principle that export development (production, inspection and testing, and certification) will not be credible with trading partners in the absence of a functioning system of control for the quality of food and agricultural produce in the domestic market. There are clearly issues of mandate to be resolved between the various ministries involved in food and agriculture in Cambodia. Although it is a fundamental problem, it does not affect all aspects of the SPS system – some mandates are clear and uncontested. ADB and MIME are currently (May 2010) working to resolve outstanding issues and this effort should be strongly supported by all ministries in the interests of farmers, producers, and consumers.

Where mandates are already clear, the responsible inspection services in many cases lack the resources, staff and management to perform systematic observation, sampling and testing. In order to build credible inspection – eventually funded through cost recovery from producers and traders – development assistance is needed over an extended period to get the inspection services to the point where they can deliver quality service. The core of the action plan is centred on the building of inspection and testing capacities along the food chain.

Finally, the issue of development of laboratory capacity has been studied in some depth. Despite investment in facilities and equipment, to date laboratory testing is not of a very advanced state in Cambodia. One of the reasons is that inspection and testing have been sporadic and based on specific projects rather than part of a systematic programme of food control. Also the responsibility for carrying out laboratory tests has become associated in the minds of staff and managers with holding a particular mandate. It would be helpful to decouple the responsibility for performing tests (which is essentially a scientific matter of technical competence) from the responsibility for taking action based on test results.

In consideration to the above points, clear recommendations have been made to concentrate testing requiring expensive and complex equipment to one laboratory on the grounds of economy and scale.

Laboratories performing less complex tests shall continue to do so but they must be performed to international standards (ISO 17025). However, the National Taskforce chose to defer making a decision on this, instead creating a small working group to study ways of sharing capacity, while continuing investment in multiple laboratories. While this is also a viable approach, making changes to improve capacity in this area depends critically upon the nature of buy-in from laboratory heads. Principles have thus been set out for the development of a Laboratory Action Plan.

2.6.4 Seed policy development

One component of the FAO EU Food Facility Project is intended to assist the General Directorate of Agriculture (GDA) to fulfill its long-term management role in the crop production sector. Based on experience from project implementation, the Steering Committee (which is composed by both Government and DPs) strongly advocated that seeds should be a priority target and requested a consultancy mission to make proposals. The purpose of the mission was to pave the way for a Seed Policy that will guide the GDA in the development of the sector. There has been no document of this kind since the 'Seed Strategy' prepared in November 2000 and many changes have taken place since. The mission was timely in view of the renewed focus on agriculture by the RGC and the recent policy declaration to increase rice production for export. Consultations and expressed views of stakeholders confirmed the seed sector needs more attention and this strongly justifies the need to create a clearer policy:

1. Key issues on the framework include:
 - A better translation of the seed law and regulation priorities to implement it – in particular ensuring regulations commercial malpractice and smuggling.
 - Updating the variety list and procedures for registering new varieties, especially foreign types, is also a key issue.
2. Key issues for seed industry development include:
 - Appropriate division of plant breeding and seed production responsibility between public and private sectors.

- Further development by RGC of its rice variety breeding programme ensuring a continuing productive pipeline of new varieties to meet changing needs.
 - Strengthening the production of foundation seed so this is not a constraint on downstream multiplication;
 - The need for private organizations and grower associations to produce rice seeds to make available to farmers at a higher quality and at affordable prices.
 - The need to involve rice millers actively in seed production to connect farmers more directly to the marketing system and to stimulate seed purchase of premium varieties.
 - The over-riding need to increase availability of credit since this is an important constraint on expansion of a commercial seed industry.
3. There is general agreement that the seed sector needs better coordination if it will be a building block for improved agricultural production. To achieve this, there is a need to establish a National Seed Council using the policy as a guide. The Council should have administrative back-up from a small secretariat that may benefit from the appointment of an expatriate adviser.
 4. Another facet of coordination is that all past interventions in the seed sector of Cambodia have come from donor-funded projects. The mission believes that a stronger management position by GDA would ensure the separate interventions contribute to building a stronger seed sector. Given that there are several large projects pending in the agriculture sector that will surely make demands on seed supply, the mission believes that there is some urgency to launch a policy and a Seed Council to manage it.
 5. There is no standard format for a seed policy and the final presentation has yet to be agreed upon. Consultants have prepared a draft that contains the essential elements of a policy as basis for further discussion. The project should try to assist the policy formulation process to meet the needs of all stakeholders in the remaining months.

2.6.5 Formulation of agricultural land law

Land reform is a critical priority for the government as outlined in the Rectangular Strategy (RS). It is a cross-cutting issue which requires the Ministry of Agriculture, Forestry and Fisheries (MAFF) through its general directorate of agriculture (GDA) to place agricultural land management as a crucial cornerstone for developing the institutional capacity to manage efficiently and equitably the country's most important resources, such as land. Currently, land management is still weak in terms of rules and regulations, as well as in relationship with soil management and improvement. Properly managing land and soil is a key challenge for sustainable agricultural productivity and diversification of agricultural systems. At the moment MAFF does not have any formal legal instruments for solving problems related to agricultural land disputes and to manage soil degradation and impoverishment. MAFF has officially requested FAO's assistance to guide the General Directorate of Agriculture (GDA) in creating a draft of the Agricultural Land Laws in Cambodia – which aims to properly manage all kinds of agricultural areas to accelerate productivity, diversification and in turn contributing to sustainable economic growth and poverty reduction.



In close consultation with relevant government, private sector and civil society actor involved in the sector, FAO approved the project *Formulation of Agricultural Land Law for General Directorate of Agriculture, MAFF*, at the cost of US\$99 000, to be implemented from January to December of 2011. Its main outcome is the development of a draft of the new Agricultural Land Law that will equip MAFF with a preliminary legal document to kick start

consultations and discussions with relevant stakeholders and at the Inter-Ministerial level before submitting it to the National Assembly for approval.

2.6.6 Agro-industry development plan

FAO is currently assisting MAFF, and in particular the Department of Agro-Industry (DAI), in the formulation of the five-year Agro-Industrial Strategic Development Plan (AISDP) and is facilitating consultation meetings/workshops to integrate comments/inputs from stakeholders to improve the draft strategy that will be endorsed by the ministry of Agriculture in middle 2011.

Through the project *Agro-Industrial Strategic Development Plan (AISDP) for 2011-2015*, that was implemented between 2008 and 2010 at a cost of US\$95 000, FAO provided a comprehensive situation analysis of the agro-industry capacity, its main constraints and opportunities. Additionally, FAO provided recommendation for strategic intervention to improve the capacity of processing agricultural products, developing contract farming and monitoring of the Economic Land Concessions, which are the main DAI mandated areas. FAO analyzed existing policies and strategies related to agriculture and agro-industry aspects in order to jointly develop the Agro-industry Development Plan. Consultations with key stakeholders including government counterparts, development partners, NGOs and potential beneficiaries are currently ongoing and a first draft plan has been prepared.

The first draft strategy serves as a platform to initiate a dialogue among key stakeholders including government counterparts, development partners, non-governmental organizations and potential beneficiaries.

2.6.7 Food security policy for poverty reduction and food security information systems

The RGC formulated the Rectangular Strategy II (RS II), which is a comprehensive, sharp and focused policy framework for future development in the country towards achieving prioritized goals of the National Poverty Reduction Strategy (NPRS) and CMDGs with four priority areas for improvement: (i) agriculture sector; (ii) infrastructure development; (iii) private sector

development and employment generation; and (iv) capacity building and human resource development.

The National Strategic Development Plan (NSDP) operationalizes the RS II by setting poverty reduction as the foremost priority. It also recognizes a key need for further progress in Food Security and Nutrition (FSN) so as to reduce high levels of malnutrition and micronutrient deficiencies among women and children. It has also ensured its systematic implementation by translating the development goals into sectoral strategies, programmes/projects and planning processes at commune level.

The cross-cutting nature of food security, with responsibilities spread across a number of the government's ministries and agencies and a number of development partners, require concerted efforts, good cooperation and coordination. The Council for Agricultural and Rural Development (CARD) has been mandated to manage this cross-cutting issue and thus, two coordination mechanisms have been established: The Food Security Forum (February 2003) and the Technical Working Group on Food Security and Nutrition (TWGFSN) (December 2004). The TWGFSN, composed of government institutions and development partner agencies, is responsible for the formulation of national policies and strategies in regard to FSN in Cambodia as well as monitoring the progress of their implementation. FAO actively supports CARD and actively participates in the TWGs.

A Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012 was formulated in 2007 as a reference document for FSN actors and other interested stakeholders to systematically consider FSN in strategies, policies and plans at all levels with support from FAO and donors.

Moreover, FAO promoted the spread of food security related information supporting different initiative, such as the Food Security and Nutrition Information System in Cambodia, a national web-based information system, that has been developed to support the policy-making process, as well as the coordination of FSN activities in Cambodia. Moreover, the FAO regional project *Linking information and decision-making to improve food security* under the EC-FAO Food Security Programme activities

in Cambodia and Lao PDR aims to improve the quantity and quality of food security information and analysis to enhance its relevancy and utility to support decision-making at all levels. The goal of the project is to reduce hunger and undernourishment in the project countries by effectively linking food security information and analysis to decision-making at regional, national and sub-national levels.

The expected outcome is enhanced national and regional capacities to provide appropriate, useful and timely information and analysis to inform decisions at all levels in support of more effective and efficient policies, strategies, interventions and action for hunger and vulnerability reduction in both the short and long term. This is being achieved by supporting and strengthening capacity of information producers (supply side) to produce more accurate and relevant information and analysis in a timely and appropriate format to more effectively meet the needs of decision-makers and decision-making processes.

The project also supports food security information users (demand side) to better understand and apply food security information and analysis for more effective, appropriate and evidence-based decision-making.

2.7 Ongoing FAO partnerships and joint programmes

FAO programmes in Cambodia have a strong livelihood support focus and have contributed to food security improvement of the poor through not only to agricultural production intensification but also community empowerment, livelihood diversification and community-based natural resource management.

2.7.1 Integrated Food Security Phase Classification (IPC)

The Integrated Food Security Phase Classification (IPC) provides global standards and protocols for food security analysis and classification using a food security severity scale. The IPC is being promoted and supported globally by a partnership of UN agencies, international NGOs and donor agencies active in food security analysis and action. Now in use at national and regional levels in parts of Africa, Asia, the Caribbean and Central America, the IPC is

gaining momentum as a global tool supported and used by a growing number of governments, UN Agencies, NGOs, donors, and academic organizations. The IPC promotes:

- A common technical approach to classify food security according to reference outcomes that are drawn from recognized international standards, in order to facilitate comparison between countries and over time.
- An institutional process for maximising consensus between stakeholders about the current and likely food security situation and minimising political bias.
- A potential basis for response analysis and decision-making about appropriate policies, programmes and resource allocations.

FAO and WFP work closely together to integrate the IPC tools and methodologies in the Cambodian context. For instance, the Council for Agricultural and Rural Development, The World Food Programme, OXFAM (GB), CARE International in Cambodia, The EC-FAO Food Security Programme organized on November of 2010 an awareness-raising meeting on the Integrated Food Security Phase Classification (IPC) with the overall objective of introducing the IPC and engage partners and stakeholders in a dialogue.

2.7.2 Nutrition for Education programme: A food chain approach

FAO is leading a collaborative process among the agencies involved in the field of food security and nutrition at the UN country team level to identify areas of joint collaboration. The underlying principle of the Nutrition for Education Programme (N4E), would be to integrate food and health based nutrition approaches (used by the UN system) to collectively enhance the educational performance of school children in Cambodia.

The emphasis is improved nutrition as an entry point to better educational performance and not education per se. The programme would take an holistic and incremental approach to the production, treatment and end use of food and nutrients where various UN efforts and activities build on each other to enhance the end

result (i.e. educational or learning performance and aptitude).

The approach would be based on a food chain framework, driven by the nutritional needs of school children and will build on the unique comparative advantages of the UN system in Cambodia. The holistic approach would examine ways of increasing agricultural productivity and food source diversification, mainstreaming food safety in production and food delivery systems, supporting sustainable school feeding programmes, establishment of supplementary feeding initiatives, treatment of malnutrition and other health-oriented interventions.

The N4E Programme encourage schools to make use of the synergies between food production and nutrition education to teach the importance of consuming safe and diversified basket of locally produced food. Targeting children in schools, the programme will examine and implement interventions to improve daily diets providing safe essential micronutrients, fibre, vegetable proteins and other bio-functional components. In addition, food preparation and dietary practices should be improved at the household and community level while strengthening prevalent nutritional practices. In future, the objective could be for the Government to include a multi-sectoral approach to food production, education and health.

2.7.3 The Global Agricultural and Food Security Programme (GAFSP)

As a response to the food price and financial crisis, world leaders at the meeting of the G-8 in L'Aquila, Italy, pledged more than \$20 billion dollars for sustainable agriculture development and safety nets for vulnerable populations. The Global Agricultural and Food Security Programme (GAFSP), a World Bank (WB) managed Financial Intermediary Fund was established in April 2010 under the auspices of the L'Aquila Joint Statement on Global Food Security (AFSI). Its objective is to address the underfunding of country and regional agriculture and food security strategic investment plans already being developed by countries. This will make aid contributions toward the achievement of the Millennium Development Goal 1 – to cut hunger and poverty by half by 2015 more predictable.

GAFSP has a steering committee comprising its donors, representatives from a number of developing countries, a senior WB representative, the United Nations Secretary General's Special Representative on Food Security and Nutrition as well as representatives from supervising entities including the International Fund for Agricultural Development (IFAD), Multilateral Development Banks (MDBs), FAO and the World Food Programme (WFP).

FAO Cambodia supported the government in the preparation of the food security investment proposal, in line with the SAW, to be funded under the GAFSP. The proposal for a total funding of 50 million US\$ was submitted in September 2010. Overall more than 20 proposals were submitted from eligible countries under the October 2010 call for proposals. In November 2010, the Steering Committee awarded funds to three countries. Although the Cambodia proposal was not amongst the three, it was highly ranked and it is anticipated that the GAFSP Steering committee will allocate further funds in the second quarter of 2011, depending on funding availability.

2.7.4 UN-REDD programme

Government of Cambodia is has taken proactive steps towards REDD+ and has requested assistance from FAO, UNDP, UNEP and World Bank. Cambodia submitted its R-PIN to the World Bank Forest Carbon Partnership Facility (FCPF) in late 2008 and was accepted into the FCPF in early 2009. In August, Cambodia applied to join the UN-REDD Programme, and was granted observer status in October 2009. Following Cambodia's entrance to UN-REDD, the UNDP Cambodia and FAO Cambodia Country Offices committed to support the government with a REDD Readiness planning process, which led to the development of the Cambodia REDD+ Roadmap with 6 sections.

- Section 1: Management of National REDD+ Readiness
- Section 2: Consultation, stakeholder engagement and awareness-raising plan
- Section 3: Development and selection of REDD strategies
- Section 4: Implementation framework

- Section 5: Development of the Reference Scenario against which performance will be measured
- Section 6: Development of the Monitoring System for national Monitoring, Reporting and Verification

These agencies supported the development of REDD Road map and to become UN-REDD pilot country. Government of Cambodia requested further support from UN-REDD, FAO and UNDP to actively work towards the establishment of REDD+ mechanisms. FAO used the TCP resources to leverage the funds from the UN-REDD. In November 2010, the UN-REDD Policy Board approved a budget of S\$3 million for Cambodia in addition to FAO's TCP resources.

The objective of the Cambodia UN-REDD National Programme is to support Cambodia to be ready for REDD+ Implementation, including development of necessary institutions, policies and capacity. This will contribute to the overall goal of ensuring that by the end of 2012 Cambodia has developed a National REDD+ Strategy and Implementation Framework and is ready to contribute to reductions in emissions from deforestation and forest degradation.

- Component 1: National REDD+ Readiness Management arrangements and stakeholder consultation
- Component 2: National capacity-building towards development of the REDD+ strategy and implementation framework
- Component 3: Sub-national REDD+ capacity-building and demonstration
- Component 4: Support to development of the monitoring system

2.7.5 Joint Programme on children, nutrition and food security

The Joint Programme (JP) for Children, Food Security and Nutrition in Cambodia (2010-2012) addresses issues pertaining to:

- Health of women and children
- Food security and nutrition

The project area is the provinces of Kompong Speu and Svay Rieng and it has 5 components:

- Component 1: Behaviour Change Communication (BCC) plans developed and implemented for: breastfeeding, complementary feeding, IFA (iron folic acid) supplementation of pregnant and postpartum women.
- Component 2: Nutrition services and food security interventions in 2 food insecure provinces (Kompong Speu and Svay Rieng). Adults in vulnerable households and selected VHSG (Village Health Support Group) members will be trained in: improved homestead food production techniques; food preparation and conservation.
- Component 3: Revision of implementation status of relevant legislation and policies.
- The JP will contribute to revision of the following 2 specific policies: legislation on maternity protection; mainstreaming of nutrition into the plan of action for the Early Childhood Development policy.
- Component 4: New policies, strategies and guidelines relevant to nutrition developed.
- The JP supports the Ministry of Health to develop: national guidelines on the management of malnutrition; policy and implementation guidelines for the prevention and control of micronutrient deficiencies in women and children.
- Component 5: Integrated national food security and nutrition (FSN) monitoring systems.
- A new institutional framework for an integrated FSN monitoring system is developed under the coordination of CARD and the FSN Technical Working Group.

Outputs

- Improvement of the nutritional status of children aged 0-24 months and pregnant and lactating women
- Implementation of existing FSN and agricultural policies strengthened, and new policies on nutrition developed
- Integrated FSN monitoring system developed

FAO contributes to this programme implementing the following activities in close collaboration with WFP:

- develop and produce educational and communication materials using FAO's Family Nutrition Guide;
- support the setting-up and the training of Farmer Field School groups in improved home gardening techniques and chicken raising;
- provide agricultural inputs to Farmer Field School groups (vegetable seeds, chicken, small agricultural equipment,...);
- Support training implemented by CARD (Council on Agricultural and Rural Development) on Food Security and Nutrition benefitting local officials on both national and provincial levels;
- co-support with WFP the development of integrated Cambodian FSN information and monitoring systems;
- training on technics to prepare and publish timely and quality Food & Agriculture Statistics and News by concerned Cambodian institutions (National Institute of Statistics, Ministry of Agriculture,...);
- contribute to updating and reviewing FSN policies through participation to working groups, workshops, etc.

2.7.6 Joint support programme on creative industries

Cambodia's rich cultural heritage is known worldwide and its tourist industry is booming. However, tourism has not brought prosperity to the 5 million Cambodians who live on less than half a dollar a day. Siem Reap province, which receives 1.5 million tourists each year, is still the second poorest province of Cambodia.

The Cambodia Creative Industries Support Programme is a concerted effort by UNESCO, UNDP, ILO and FAO to support Cambodia's creative industries, based on existing programmes and expertise in the areas of cultural preservation, trade, entrepreneurship and marketing. With a budget of US\$3.3 million, it started in 2008 with activities until 2011.

The programme will be in line with and contribute to (a) the RGC's Rectangular Strategy (RS) (b) the ratified UNESCO conventions on "World Heritage", "Safeguarding of Intangible Heritage" and the "Protection and Promotion of the Diversity of Cultural Expressions" (c) the Small and Medium Enterprise Development Framework and (d) the Cambodian Trade Integration Strategy.

The long term prospects of the programme will result in improved capacity of national institutions to preserve cultural heritage, enhanced employment opportunities in the Cambodian creative industries. The programme will also ensure that women and indigenous minorities benefit equitably and that gender imbalances in the enabling environment with regards to working conditions and access to markets and services are addressed.

The indigenous people are the poorest of the poor and as such suffer from multiple disadvantages and will be one of the main benefactors of the programme. The project will focus on four of the northern and remote provinces: Kampong Thom, Preah Vihear, Mondulakiri and Ratanakiri.

FAO along with ILO and the Ministry of Agriculture, Forestry and Fisheries (MAFF), Mines and Energy are working specifically towards income generation and livelihood improvement of the indigenous people. FAO brings experience in supporting producers groups and associations to produce and market products together.

In order to pursue these goals the JP will achieve the following:

- Outcome 1: Improved capacity of national institutions to preserve and develop Cambodia's tangible and intangible cultural heritage and living art and promote its social and economic potential.
- Outcome 2: Improved employment opportunities and income generation in the creative industries through enhanced cultural entrepreneurial skills, improved business development services and market access.
- Outcome 3: Improved commercialization of local cultural products and services in domestic and international markets.

Progress Update

The project has generally been on track. Progress towards achieving the overall goal was accelerated since the beginning of Year 2. The following have been the main achievements of the programme so far:

- The Royal Decree for the establishment of a Living Human Treasure (LHT) system has been drafted, discussed and has been approved by the Council of Ministers and officially adopted on 16 February 2010.
- In an effort to maintain entrepreneurial skills a number of trainings and capacity building activities have been completed including training to NGOs and financial literacy and small business management trainings to producers among others.
- Assessment of trade related legislation and procedures for selected cultural products is under progress by a short-term Legal Consultant. A series of consultations with relevant government authorities at national and provincial level, Civil Society organizations and target communities are under progress.

Success stories

1. Farmer Field Schools increase agricultural productivity in Cambodia

The majority of Cambodians are subsistence farmers who depend on their own capacity to meet food requirements. As a result, ongoing natural and man-made challenges from seasonal flooding to low levels of education are a constant hindrance to raising the quality of life. In Cambodia, poverty and food insecurity are interlinked.



Farmer Field Schools (FFS) were introduced in the late 1980's, as a key method to introduce and disseminate IPM technology. FFS have since been used in the SPFS in Cambodia, while other agencies and NGOs have used FFS often changing the model to suit their own purposes. The

widespread use of FFS has been very relevant to increasing agriculture productivity where access to information and modern technology is limited. The programme has produced a cadre of province and district based trainers available for government, donor and NGO funded projects as required. These include the commitment to FFS by MAFF and MAFF's interest in ensuring quality control, the acceptance and use of FFS by a range of donors and NGOs and the number of trained practitioners down to local level is evidence of ownership. On the other hand FFS are intensive users of resources and sustainability as a mainstream extension tool may be limited particularly as there has been little evidence of positive multiplier effects to potential beneficiaries outside of core participants.

Between 1997 and 2002, the Special Programme on Food Security was successfully implemented by the Government of Cambodia to help meet Cambodia's food security challenges, through the increase agricultural productivity in Cambodia so that farmers can devote time to land diversification – thus decreasing the shocks attributed to natural and man-made disasters.

In 2004, the programme was extended with US\$1.127 million in proceeds from the UN Human Security Trust Fund. The extension of the SPFS has been implemented by the Ministry of Agriculture, Forestry and Fisheries in collaboration with the Ministry of Water Resources and Meteorology and the Ministry of Rural Development. The FAO provides managerial and technical support, achieving 5 063 farmers from six provinces.

Activities

The programme uses the Farmer Field School concept. Using the community approach, Farmer Field Schools identify the needs of poor farmers and then develop a learning curriculum. Farmers learn by doing, through experimentation, discussion and decision-making. Subject matter revolved around agronomy, livestock, small-scale inland aquaculture and irrigation. 5 063 farmers from six provinces participated (of which 56 percent are women) in 180 Farmer Field Schools.

Results

A total of 346 savings groups in 179 villages have been developed to finance income generating plans to apply the techniques they learned from the Farmer Field Schools. Plans are mostly related to the improvement of food security.

Community micro projects were initiated in the 179 villages. The community micro projects were managed by village advisory committees, elected by the community and supported by the FAO. The committee, along with the village, identified a food security related project that would benefit the community. As a result, 73 rice banks, 106 fertilizer banks and one well construction unit were formed.

2. Integrated Pest Management

One of FAO's first and most important interventions in Cambodia since post conflict recovery was the ***national IPM programme***, which focused on rice and vegetables. Apart from the direct technical aspects of IPM, FAO has also provided associated policy support related to ecology-based crop protection and pesticide risk reduction. IPM's relevance and effectiveness are borne out of Ministry of Agriculture, Forestry and Fisheries' acceptance of Integrated Crop and Pest Management (ICPM) as a standard approach to overall crop management in Cambodia. Of all FAO activities, it probably best demonstrates the effective linkage from the global, normative programme to the field level. To maintain IPM operations FAO has succeeded in developing and using a network of government, multilateral and bi-lateral donors and local and international NGOs. FAO has also successfully promoted IPM for inclusion in numerous large rural development projects and their sustainability of the concept is enhanced by this level of MAFF acceptance; it has an institutional home in Department of Agronomy and Agricultural Land Improvement (DAALI).

Project activities

FFS by IPM Farmer Trainers (FT): Seven season-long Farmer Field Schools on vegetables were organized by four different FT teams in the provinces of Kandal, Siem



Reap, Banteay Meanchey and Kampong Speu. About 130 farmers (50 of them were women) graduated from these field schools.

Mungbean FFS: Two Mungbean IPM FFS were organized by a team of two IPM Farmer trainers and one provincial IPM trainer in Siem Reap province. These trainings were organized in collaboration with the FAO Natural Resource Management Project, based at Siem Reap.

IPM alumni meetings: Several meetings with graduated farmers (IPM alumni) were organized by different teams of FT in the provinces of Kandal, Siem Reap and Banteay Meanchey. The meetings aimed at reviewing what farmer have learned in FFS and what other issues they would like to continue testing in the field to improve their understanding of crop ecology. Farmers who had common interests in terms of learning needs, joined together and set up their own field experiments.

Farmer field experiments: Different farmers' groups in the provinces of Kandal, Siem Reap and Banteay Meanchey conducted over sixty field experiments on vegetable crops such as Tomato, Cabbage, Chinese kale, Cauliflower, String bean, Cucumber and Bitter gourd. Many field experiments focused on exploring crop protection issues, aimed at reducing the use of pesticides and looking for other alternative methods to deal with pest problems. Each field study was facilitated by a FT. Farmers participating in each field study ranged from five to fifteen depending on location. According to type of vegetable crop and experiment conducted, farmers usually met together from six to eight times in each experiment with the goal to set up experiments, make

observations, collect and analyze data and evaluate their crop/field conditions. A provincial or district IPM trainer was invited by farmers on need-basis to assist them for one to two times in each experiment. The process of farmers designing, implementing and evaluating their own field experiments was documented by a consultant in order to keep a record of the activities developed.

Farmer exchange visit: Exchange visits for farmers who participated in the field experiments were organized by FT who led these field experiments. Usually the visits were organized locally but sometimes they were also organized across the provinces. The aim of the visit was to allow farmers to share their experiences, their findings and learn from each other. The activities were organized twice per cropping season. The first visit was arranged when their field experiments were ongoing and the second exchange was organized after the crops were harvested to assess experiment results.

Farmer-to-farmer health study: Farmer-to-farmer health studies for IPM alumni and other farmers were organized as follow up activities after FFS. These were also partly integrated into the curriculum of the FFS on vegetables. These activities were conducted by FT teams in the provinces of Kandal and Banteay Meanchey. The studies focused on increasing farmers' awareness on the effect of pesticides' usage on their health and how to minimize risks involved in pesticide applications.



Farmer Trainers regular meetings: Farmer Trainer regularly met at a meeting organized by a team of FT representatives in each province. These meetings allowed for exchange of experiences as well as refresher training

and improved planning. These FT meetings were organized at district and provincial levels. IPM trainer(s) from the government provincial or district office were invited as resource person(s) on a need-basis.

Farmer Trainer End-of-Season Workshop: An End-of-Season Workshop was organized by the FAO-IPM training team at the end of the dry season (June 2001). FT representatives from each province were invited to participate in the workshop. The aim of the workshop was to provide a free forum for FT to share their experiences and lesson learnt across the provinces. The workshop also aimed at evaluating the farmer-organized activities and planning for next season together with FT. It was also used as refresher training for FT on some topics such as problems solving process, facilitating skill, gender and IPM, and other issues that were of relevance to their training work.



Clearly, the ongoing and FAO-IPM facilitated initiative to directly support farmer-organized vegetable IPM training and follow up study activities provides for an important innovation in the Cambodia IPM programme. This model of farmer-organized training and study activities resembles similar models in Western countries (such as Netherlands and Australia) where farmers meet and study in groups on topics that relate to their common interest. Similarly, Government extension workers/IPM trainers could play a key role in technical backstopping of these farmer study activities based on farmer-identified needs.

3. FAO project helps government revolutionize natural resource management

A decade ago at Cambodia's Tonle Sap Lake there were days when it seemed more like a militarized zone than one of the world's most productive freshwater fishing grounds.

"You might see boats full of guys carrying automatic weapons, patrolling their fishing grounds. At times, the lake could look like an armed camp," a FAO expert recalls.

Along the main source of sustenance and survival for the millions of people that live around its shores – and even on its waters – the rich resources of the Tonle Sap were being poorly managed. Fish, and timber from surrounding forests, were harvested unsustainably, and a 100-year-old system of commercial fishing concessions, inherited from colonial times, was troubled by problems of unfair access, corruption and, occasionally, violent disputes.

"Under that system, after fishing rights were leased initially they were often sub-leased, and then sub-leased again, so people holding rights were under pressure to defend their piece of the pie," the FAO expert explains.

Overfishing and illegal fishing were taking their toll on fish stocks, also.

"People were using small-mesh mosquito nets to capture fish, taking too many small juveniles, or carrying out electro-shock fishing with car batteries".

Catch amounts, as well as the size of fish, were declining – which meant that there was less food to go around. In

light of these mounting problems, Cambodian authorities teamed up with FAO to establish a natural resource management programme in one of the lake's poorest provinces, Siem Reap.



The programme *Participatory natural resource management in the Tonle Sap region*, began operations in early 1995, thanks to financial support from the Government of Belgium. Working closely with staffers from Cambodia's MAFF, FAO conducted studies on the flora and fauna of the Great Lake while reaching out to communities to identify problems and prioritize needs. The FAO/MAFF team also assessed the way that natural resources were used and began to draw up plans for strengthening resource management capacity in the lake communities. Beyond overfishing, another key issue that became evident immediately was excessive clearing of the forested land that surrounds the lake.

"That forest is essential to productive fisheries on the lake," says the FAO expert. "Every year when the lake rises by some 7 to 9 metres in depth, hundreds of thousands of hectares of forest are flooded, which provides nutrients, food and habitat for the fish, upon which millions of people depend. Deforestation was affecting the productivity of the lake's fisheries."

The primary cause of forest loss was land clearing for agriculture, as the flood lands bordering the lake are highly fertile. A secondary cause was a high demand for fuel wood to support an expanding brick-making industry.

Fortunately there was already widespread awareness among Siem Reap's lake communities that forest clearing was hurting fishing. In 1997, the project team began to help the villagers organize themselves into local resource management organizations, and by 2000 community-led planned management – integrating people's livelihoods with forestry and fishery sustainability concerns – was occurring on around 10 000 ha of land. The improved management, combined with a 1997 government ban on brick kilns in the region, stemmed excessive timber harvesting and today much of the cleared flood forest is growing back.

These developments so impressed Belgian aid authorities that they extended aid for the project until 2005. According to Evans, this kind of sustained donor support is crucial if projects like that on the Tonle Sap are to bring about real change.

With community-led sustainable resource management taking root in the province, in 2000 came an added opportunity to change the way the lake was being managed, and on an even wider scale, thanks to a reform initiative spearheaded by Cambodian authorities.

During a visit by Prime Minister Hun Sen to Siem Reap following a series of devastating floods, local officials and fisher folk involved in the FAO project vividly described to him the growing intensity of conflicts between fishing communities and commercial fishers. What he heard led the prime minister to support the creation of a fact-finding commission, which held open meetings in fishing villages first in Siem Reap and then around the entire lake. What the people wanted was clear: a complete makeover of the way the lake's fisheries were managed.

"Fisheries reform became the mantra of the day," recalls Evans. Calls for reform soared, and in early 2001 the government released 56 percent of the area previously controlled by commercial interests under the old colonial-era system for managing fisheries, over 500 000 ha, for public access.

The intention of these reforms was that the newly opened areas would be managed by fishing communities under the auspices of Cambodia's Department of

Fisheries (DOF). The communities where FAO had been working were well positioned to take on management of the new public fishing grounds. By the project's end in April 2005 some 15 different community-based natural resource organizations were established in 116 villages in Siem Reap and actively managing 108 000 hectares on and around the lake. These organizations make decisions via democratic processes, with clear by-laws for their transparent and effective operation, and manage the resources under their control according to detailed and forward-looking five-year plans. However, many Tonle Sap communities do not have the level of capacity that the FAO project helped establish in Siem Reap, and are struggling to effectively manage the resources in their local areas.

Gradually that situation should improve, since the government has incorporated the concept of community-led development planning and resource management into its development planning programmes and national legislation. Already, Cambodian officials report that some 320 community fisheries organizations have been established countrywide. And though the original Tonle Sap project supported by FAO has come to an end, its work continues under MAFF's leadership, thanks to a US\$10 million Asian Development Bank programme in support of sustainable development in the lake region.

4. Support livelihood diversification and natural resource management by small group enterprises

The project aimed to support rural and vulnerable poor farmers to increase off-farm income and improve natural resource management through small group enterprises. The project team worked with 915 farmers (of whom 90 percent were women) in 15 villages from the Krakor district, Pursat province. The project was implemented under the National Programme for Food Security and Poverty Reduction (FSPR), MAFF with the cooperation of the local authorities, provincial departments of agriculture and women's affairs, international organizations, NGOs and the private sector.

The overall objectives of the project were as follows:

1. Improve saving and access to credit for project beneficiaries
2. Create job opportunities and income generation activities for selected farmers
3. Create opportunities and encourage women to participate in small business activities
4. Improve the production skills, sales and small business activity of the farmers
5. Improve natural resource management and make it more sustainable.



These objectives were achieved through a variety of activities. The first project activity was the formation of farmer saving groups. Fifty four saving groups were formed all together, thirty four at the beginning of the project and a further twenty in August, 2007. Saving groups were formed which improved the group members' access to credit and built trust within the groups. Group enterprises were next formed and the related training provided. Thirty four active farmers, many of whom were young women, were selected as volunteers with the responsibility of supporting the saving groups and group enterprise activities. They were trained in business management, facilitation and community development. Further training was provided on gender awareness, health and nutrition and natural resource management. Study tours were conducted, which also developed the beneficiaries' knowledge and skills.

For instance, the project successfully conducted literacy training for 30 illiterate farmers in the target villages with the result that they were able to read, write and do simple calculation. All training was provided in a participatory way, facilitated by the district staff who encouraged the full participation of all the farmers.

In practice, these 54 saving groups and 21 small group enterprises generated working capital and income generation activities efficiently, effectively, profitably and sustainably. This could be clearly observed as the project beneficiaries improved their food security and income generation by increasing their off-farm production and improving product quality, group enterprise management, business networks and marketing. The income of the beneficiaries increased from US\$0.47 to US\$1.40 per person day as a result of participation in the project.

At the start, project implementation was slow because of general lack of trust among people and lack of capacity of farmers in business development. This explains the limited number of beneficiaries. However, the approach which made saving groups formation precede the formation of enterprise groups and training of both field staff and the farmers proved effective. Clear objectives and managing structure of enterprise groups and the networks with stakeholders helped the project significantly. Farmers came to realize the collective conservation of their local natural resources, which they used to produce the products in their group enterprises. They established a natural resource management committee at community level for the conservation and protection of the natural resources in the target area.

While it was difficult to quantify exactly the degree of food security improvement, it was reported that food security had improved for all of the group members participating in the project. The project results, outcomes and impacts provided good experiences and lessons learnt for the implementation of an action plan related to livelihood diversification, food security, natural resource management and poverty reduction for the second phase of the project.

List of selected projects

Title	Symbol	EOD	NTE	Budget (\$)
Agriculture Rehabilitation	TCP/CMB/8901	1979	1980	200 000
Fresh Water Fishery Emergency Operation	OSRO/KAM/010/EEC	1988	1991	1 478 417
Fourniture d'Urgence Intrants et Petit Equipement Agricoles	OSRO/KAM/601/SWE	1988	1991	927 088
Assist. a la Campagne de Vaccination Contre Fievre Aphteuse	OSRO/KAM/901/UK	1988	1992	170 400
Mise en Place d'un Systeme pour la Distribution de Vaccins	TCP/CMB/8951	1989	1991	390 000
Emergency Supply of Fertilizers for Dry Season Rice Production	OSRO/KAM/101/NET	1991	1995	1 046 215
Fertilizer Supply for the Dry Season 1993	OSRO/CMB/202/NET	1992	1993	2 538 439
Fertilizer Supply for the Rainy Season 1992	OSRO/CMB/201/SWE	1992	1994	1 621 569
Technical Assistance for the Distribution of Agricultural Inputs and Management of Counterpart Funds	TCP/CMB/2252	1992	1993	400 000
FAO Logistic and Liaison Support	TCP/CMB/2251	1992	1992	315 000
Plan d'Urgence pour la Sauvegarde du Betail	TCP/CMB/2254	1992	1994	212 872
Restoration and Preservation of Inundated Forest Ecosystem	GCP/CMB/001/BEL	1992	1995	199 947
Fertilizer Supply 1993/94	OSRO/CMB/302/SWE	1993	1997	2 471 044
Fertilizer Supply Financed by the Netherlands Contribution to the Cambodia Trust Fund	OSRO/CMB/301/NET	1993	1997	1 676 368
Agri Options Review (Phase I)	CMB/92/005/ /01/12	1993	1994	641 138
Renforcement de la Capacite de Manutention et de Distribution de l'Aide d'Urgence au Secteur Agricole	OSRO/CMB/303/MSC	1993	1996	408 385
Gestion des Ressources Forestieres sur une Base de Developpement Durable	TCP/CMB/2355	1993	1994	159 000
Restoration and Preservation of the Inundated Forest Ecosystem in Tonle Sap and Downstream Areas	GCP/CMB/002/BEL	1994	1998	2 975 700
Support to Handling, Distribution and Proper Use by Farmers of Fertilizers	OSRO/CMB/401/GER	1994	1997	419 715
Training for Agricultural Statistics	TCP/CMB/4452	1994	1996	360 000
Fourniture d'Urgence de Semences de Riz et Autres Intrants Agricoles pour les Populations Affectees par les Inondations	TCP/CMB/4453	1994	1996	182 000
Legislation Forestiere	TCP/CMB/4451	1994	1996	122 000
Inventaire Ressources Forestieres du Cambodge	CMB/95/002/ /01/12	1995	2001	1 376 997
Rehabilitation de Kamcontrol dans ses Activites de Controle Alimentaire	TCP/CMB/4554	1995	1997	158 000
Appui a la Preparation de la Restructuration des Institutions de Developpement Agricole	TCP/CMB/4558	1996	1997	290 000

Title	Symbol	EOD	NTE	Budget (\$)
Implementation of Ipm in Rice	TCP/CMB/4556	1996	1997	289 000
Creation d'un Centre de Documentation Agricole	TCP/CMB/4555	1996	1998	161 000
SPFP – Cambodia	SPFP/CMB/6701	1997	2007	745 058
Carere 2 Project. (Battambang)	CMB/95/011/ /01/31	1997	2000	341 000
Agricultural Market Information Improvement	TCP/CMB/6611	1997	1999	290 500
Support for Human Resources Development for Sard	TCP/CMB/6612	1997	1997	194 057
Food Security for Poverty Alleviation Strategy	CMB/97/022/ /08/12	1997	2001	154 000
Urgent Supply of Small Water Pumps to Flood Affected Farmers	OSRO/CMB/701/MUL	1997	1998	136 600
Phase II of GCP/CMB/002/BEL TF 039950	GCP/CMB/002/BEL	1998	2001	1 411 562
Technical Support for Cambodia Area Rehabilitation and Regeneration (Carere 2)	CMB/98/010/ /09/12	1998	2001	349 500
Support to Cambodia Special Programme for Food Security	TCP/CMB/8821	1998	2000	343 251
Forestry Policy and Programme Formulation	CMB/98/007/ /08/12	1998	2000	204 561
Forestry Crime Monitoring and Reporting (CMB/99/A05)	UNTS/CMB/001/DFI	1999	2003	1 227 846
TA to Wb/Rgc Agricultural Productivity Improvement Project (APIP) Agricultural Statistics Sub-Component, Cambodia	UTF/CMB/003/CMB/B	1999	2003	528 908
Technical Support to the Cambodian Ipm Training Programme (Addendum to Project GCP/RAS/145/NET)	GCP/CMB/006/NET	1999	2001	338 295
Preparation de Programmes de Renforcement des Organisations prof. Agricoles et des Institutions de Developpement Rural	TCP/CMB/8822	1999	2000	261 000
National Biodiversity Strategy, Action Plan, First National Report to the Conference of Parties of the Biodiversity Convention	UNTS/CMB/002/GEF	2000	2004	328 475
Strengthening of the National Codex Committee	TCP/CMB/8923	2000	2001	174 000
Participatory Natural Resources Management in the Tonle Sap Region (Phase III)	GCP/CMB/008/BEL	2001	2005	2 131 257
Emergency Supply of Rice Seeds to Flood-affected Household	TCP/CMB/0167	2001	2003	400 000
Information and Communications for Sustainable Natural Resources Management in Agriculture	TCP/CMB/0165	2002	2003	318 956
Assisting Cambodian Women to Improve Household Food Security and Increase Family Income	TCP/CMB/0166	2002	2003	185 210
Extension of the Special Programme for Food Security (SPFS) to Improve Food Security and Income Generation of Poor Farmers in Cambodia	GCSP/CMB/010/UNO	2003	2006	1 127 772
Trust Fund to Support the Donor Working Group on Natural Resources Management (DWGNRM) in Cambodia – UK Contribution	GCP/CMB/012/UK	2003	2005	568 564
Improving the Regulatory and Management Framework for Inland Fisheries	GCP/CMB/011/ASB	2003	2004	540 000

Title	Symbol	EOD	NTE	Budget (\$)
Empowering Vulnerable Groups through Training on Village Level Food Processing	TCP/CMB/2902	2003	2004	369 000
Policy and Strategy Formulation for Enhanced Agro-Industrial Development	TCP/CMB/2901	2003	2004	256 000
Trust Fund to Support the Donor Working Group on Natural Resources Management (DWGNRM) in Cambodia – Danish Contribution	GCP/CMB/013/DEN	2003	2005	245 000
Assessment and Localization of the MDG on Poverty Reduction and Food Security	CMB/02/016/ /08/12	2003	2003	108 000
Emergency assistance for the control of avian influenza	TCP/CMB/3002	2004	2005	387 075
Capacity Building for the Implementation of the Cambodian SPFS Extension Phase	TCP/CMB/2903	2004	2005	263 928
Tonie Sap Environmental Management Project Component 2: Organizing Communities for Natural Resource Management of the TSBR	UTF/CMB/015/CMB	2005	2008	4 393 336
Community Forestry Development in Northwestern Cambodia	GCP/CMB/026/NZE	2005	2008	350 000
Capacity building for community fisheries management in the Department of Fisheries, Cambodia	TCP/CMB/3004	2005	2007	265 000
SPFS Support Livelihood Diversification and Natural Resource Management by Small-Group Enterprises	GCP/CMB/024/OPF	2005	2008	250 017
Integrated Irrigation Development Project in Battambang Province in Support of SPFS in Cambodia	GCSP/CMB/009/ITA	2006	2009	3 268 302
Building Capacity at the Grass-roots Level to Control Avian Influenza	GCP/CMB/027/GER	2007	2009	3 506 892
Support to Smallholder Livestock Production in Cambodia	GCP/CMB/028/EC	2007	2010	1 956 565
Strengthening of agricultural project formulation and design	TCP/CMB/3102	2007	2009	448 648
Strengthening the participatory irrigation management and development strategy	TCP/CMB/3101	2007	2009	375 000
TCP Facility	TCP/CMB/3103	2007	2008	166 299
Creative Industries Support Programme – (MDGF-1838)	UNJP/CMB/030/SPA	2008	2011	791 553
Agricultural policy and programme support under the Initiative on Soaring Food Prices	TCP/CMB/3203	2008	2010	471 000
TCP Facility	TCP/CMB/3201	2008	2010	299 167
Strengthening the sanitary and phytosanitary services	TCP/CMB/3104	2008	2009	270 286
Off farm income generation within the National Programme for Household Food Security and Poverty Reduction, PHASE II – (GCP/CMB/024/OPF) Livelihood Diversification and Natural Resource Management by Small-Group, Phase I	GCP/CMB/029/OPF	2008	2010	250 000
Input supply to vulnerable populations under ISFP (Recoded from Entity no. 605774)	TCP/CMB/3202	2008	2009	200 000

Title	Symbol	EOD	NTE	Budget (\$)
Improve the food security of farming families affected by the volatile food prices	GCP/CMB/033/EC	2009	2011	15 196 970
Support to sericulture rehabilitation	TCP/CMB/3205	2009	2011	470 000
Capacity building to enhance fish quality control and standardization services and contribute to poverty alleviation	TCP/CMB/3204	2009	2011	304 000
Preparation of an Sanitary and Phytosanitary (SPS) Action Plan for Cambodia (STDF 246)	MTF/CMB/032/STF	2009	2010	199 360
Technical Assistance in support of the Animal Health Component of the AHI Influenza Control and Preparedness Emergency Project	OSRO/CMB/901/WBK	2010	2012	1 367 595
Enhancing community-based forestry management and utilization for the improvement of rural livelihoods in Cambodia	GCP/CMB/034/SPA	2010	2013	806 871
Children, Food Security and Nutrition in Cambodia (MDGF-1992)	UNJP/CMB/031/SPA	2010	2013	493 270
TCP Facility	TCP/CMB/3301	2011	2011	189 125

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