

Bangladesh and FAO

Achievements and success stories

FAO Representation in Bangladesh
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Introduction

The challenging country context

Bangladesh joined FAO on 12 November 1973 within two years of gaining its independence from Pakistan. Since that time, Bangladesh and FAO have worked closely together in the areas of agriculture, food, forestry, fisheries, livestock, rural development and climate change. These efforts were strengthened with the establishment of the FAO Representative Office in Dhaka in 1978.

Bangladesh is home to the most densely populated flood-plain delta in the world. It regularly suffers from natural disasters such as floods, cyclones and drought. It is also vulnerable to the growing effects of global climate change. But when faced with adversity, the country, especially its farmers and fishers, is extremely resilient.

In the immediate post-independence period, FAO was one of the first international agencies to extend a considerable amount of assistance to Bangladesh to support relief and rehabilitation, as well as national efforts for economic recovery and reconstruction, and – on the other hand – Bangladesh has contributed significantly to FAO initiatives, commissions, committees and working panels.

Bangladesh has had some success in reducing its numbers of hungry people. The population has increased from about 75 million at independence to about 150 million now. More than 40 million Bangladeshis – 27 percent of the population – are undernourished by FAO's definition – not having access to adequate amounts of safe, nutritious food to sustain a healthy and productive life. In the early 1990s, about 45 million, or 38 percent of the population was hungry.

However, even with the impressive development of the agriculture sector in recent decades, undernutrition has remained a challenge largely because of rapid population growth and dwindling land resources. Today, the situation is being exacerbated by stresses such as climate change and the global increase in the prices of food, fuel and fertilizer.

Bangladesh is struggling to strengthen its institutions and programmes so it will have the capacity to cope with natural disasters, environmental change and population growth. Though the future impact of climate change is still uncertain, Bangladesh is preparing for the likely eventualities of increasingly serious weather-related events. FAO is incorporating responses to these growing concerns in its cooperative development initiatives.

Over the last 30 plus years, the country was served by dedicated FAO teams.



1. Analytical summary

Bangladesh has tripled its rice production in the last 40 years, from 10 million metric tonnes (mt) in 1971 to over 32 million mt today. More than 5.1 million hectares of land are irrigated, which is more than four times the area in 1990. Modern rice varieties have been introduced on 75 percent of the total area growing rice. Though agriculture only accounts for 20 percent of the gross domestic product (GDP), it employs more than 60 percent of the labour force, providing income to the rural population, which makes up about 75 percent of the total population of Bangladesh. FAO's technical assistance has been instrumental in helping the country achieve this progress.

1.1 Comprehensive approach towards increasing agricultural production

Both in terms of institutional transformation and knowledge transfer, FAO has been working to improve agricultural production in Bangladesh through its technical support programmes. Some of the organization's more notable contributions are:

- Development of agro-ecological zones (AEZ) database and installation of a geographic information system (GIS);
- Technical support to establish the Soil Resources Development Institute (SRDI), including its soil survey and soil analytical programmes;
- Transformation of the Directorate of Agriculture (extension and management) into the new Department of Agricultural Extension (DAE);
- Support for the development and modification of agricultural extension systems and technical training programmes for extension staff and farmers through the farmers field school (FFS) programme;
- Transition to irrigated agriculture by testing and demonstrating minor irrigation schemes;
- Cereal technology transfer;
- Integrated pest management (IPM);
- Improvement of household food security;

- Utilization of plant genetic resources for food and agriculture;
- Disaster preparedness and adaptation to climate change.

1.2 Sustainable food security and adaptation to climate change

FAO has long supported Bangladesh's efforts to achieve sustainable food security. Bangladesh approved the National Food Policy Plan of Action (2008-2015), which established a strategic orientation in food security planning. Special care has been taken to align the National Food Policy with Bangladesh's overall development strategy. The Plan of Action recommends a set of policy targets and indicators to monitor progress in the implementation of the National Food Policy. Additionally, FAO is now implementing a substantial food safety programme that will build regulatory and diagnostic capacity to ensure safe food for all.



Bangladesh is extremely vulnerable to climate change, and efforts to achieve food security must take into consideration the projected threat of climate change events. The country's farmers have developed resilience to natural disasters, which has been complemented by FAO programmes and technical assistance that has increased significantly since 2003. The success of FAO's adaptation programmes has been acknowledged by the government and the donor community and forms the framework for long-term, future interventions.

1.3 Development of fisheries

Fisheries products, especially shrimp, are Bangladesh's second largest export after textiles. FAO has provided support to develop both aquaculture and capture fisheries, and to reform fishing policies. The major interventions include:

- Strengthening rural pond fish culture extension;
- Sea surveys;
- *The Bay of Bengal Programme (BoBP)*, which identifies overcapacity, destructive fishing gear and the extent of damage being caused to fishery resources;
- *UNDP/FAO programme, Empowering Coastal Fishing Communities (ECFC)*, aimed at changing attitudes, empowering and encouraging direct participation of communities in coastal resource management;
- FAO actively supported the formulation and implementation of an HACCP-based (hazard analysis and critical control points) fish quality-assurance programme for fisheries products.

1.4 Development of the livestock and dairy sectors

Improved production of milk, meat and eggs is a pressing need for Bangladesh to ensure food security. FAO has been involved in livestock and dairy work since mid-1970. FAO has provided technical assistance to two projects that played an important catalytic role in the dairy and poultry sub-sectors during the 1970s and 1980s: *Milk Vita cooperative dairy projects (1976-1986)*, and *the Poultry development project (1978-1984)*.



FAO provided technical assistance in the 1970s and 1980s to establish the successful Milk Vita dairy cooperative. The Milk Vita dairy model has been adapted for use by many organizations. Technicians and staff trained under the dairy projects are now in every dairy enterprise in Bangladesh.

The successful implementation of the *Community livestock and dairy development project (CLDDP)* helped put the dairy sub-sector in Bangladesh in a unique position to take advantage of the recent rise in the price of imported dairy products, especially milk powder, by substituting imports with domestically produced milk.

Working with the Bangladesh government, FAO developed short-term, tailor-made training courses at the Savar Dairy Farm of the Ministry of Fisheries and Livestock for people and organizations involved in milk production, collection, processing and marketing to improve efficiency, quality and safety throughout the farm-to-consumer milk chain.

FAO has also been very active in combating transboundary animal diseases in Bangladesh. Since the initial outbreak of H5N1 avian influenza in March 2007, a total of 367 H5N1 outbreaks occurred and 1.9 million birds were culled. Fortunately there have been no fatal human cases of bird flu recorded in Bangladesh. FAO's Emergency Centre for Transboundary Animal Diseases (ECTAD) is contributing significantly to government initiatives to control disease through active surveillance for early reporting and early response, and by improving biosecurity in live bird markets. FAO has also advocated implementing biosecurity initiatives through public-private partnerships. Capacity in biosecurity is also being boosted.

1.5 Forestry

FAO's key support in the forestry sector includes:

- increasing the capacity of the Forests Department (FD) to assess national forest resources, by setting up a national database and a national forest assessment unit for long-term monitoring. LANDSAT satellite data is to be collected and processed so that reliable and up to date information for policy makers can be made available. This has been implemented through the *TCP/BGD/3001 – Strengthening capacity to generate quality information on forest resources, 2004-2005* and its second phase *TCP/BGD/3104*. The project produced the *National Forest and Tree Resources Assessment 2005-2007*, printed in 2007, and
- preparing a technical report entitled *Integrated resource management plan of the Sunderbans Reserve Forest*. The report included practical guidelines to bring together all the diverse facets of the Sunderbans Reserve Forests in order to achieve integrated sustainable management of this resource. This has been implemented through training for Sunderbans Reserved Forest Project (UTF/BGD/032/BGD).

1.6 Policy assistance and intervention

FAO developed the *National Plan of Action for Nutrition* (NPAN), which was approved by Bangladesh in 1997. The government undertook a number of NPAN-



recommended projects, which were funded by several donors and implemented by FAO and other agencies.

At the request of the government, FAO formulated the *National Livestock Policy for Bangladesh (2005-2006)*. The government approved the policy in 2007.

FAO also developed the Plan of Action for National Agriculture Policy in 2004 to operationalize the policy with a view towards alleviating poverty and attaining sustainable food security through rapid agricultural growth.

The agriculture sector review of 2004 focused on the longer-term prospects of agricultural growth and structural change within the context of macroeconomic growth. It took into account the emerging trend towards market and trade liberalization, regional developments with neighbouring countries and globalization.

Formulation of Actionable Policy Brief 2004 (APB 2004) primarily focused on the crop sub-sector based on Poverty Reduction Strategy Papers (PRSP) and the government's strategy to meet the Millennium Development Goals. The APB 2004 recommended immediate, medium-term and long-term measures designed to address key constraints, thereby contributing to a sustained increase in land and labour productivity in agriculture. The policy brief also promoted concomitant investment, policy adaptation to respond to natural disasters, and market-related risks.

Formulation of an action plan to implement the Actionable Policy Brief 2006 focused on policy

recommendations that require specific details of what needs to be done, and the legal and financial requirements needed to implement the policy agenda.

National Food Policy Plan of Action (NFP PoA – 2008-2015) was launched in 2009 with the support from the *National Food Policy Capacity Strengthening Programme (NFPCSP)*. NFPCSP is providing necessary policy support to the Food Planning and Monitoring Committee (a Cabinet Committee) through its secretariat in the Food Planning and Monitoring Unit (FPMU) under the Food Division of the Ministry of Food and Disaster Management. NFPCSP has also taken an active role in formulating the Bangladesh Country Investment Plan (CIP) and its ongoing updating process.

1.7 Other programmes

World Food Day: World Food Day (WFD) has always been helpful to raise awareness through the media about agriculture and particularly food security issues. Commemorative stamps were issued on FAO's 50th anniversary and on WFD 2009, with the prime minister presiding over a ceremony issuing the stamps. In recent years the media, including a number of television news organizations, have provided live news coverage of WFD events.

Ceres medal given to Bangladesh prime minister: FAO Director-General Jacques Diouf visited Bangladesh in December 1999 and awarded Prime Minister Sheikh Hasina Wazed with the prestigious Ceres Medal for her outstanding contribution to agricultural development.



A.H. Boerma Award: The A.H. Boerma Award for 2008-2009 was awarded to Shykh Seraj of Channel i TV for coverage of FAO activities, including live coverage from the city as well as the countryside.

LCG platform: FAO is the chair of the Local Consultative Group for Agriculture, Rural Development and Food Security (LCG-ARDFS). This forum provides a platform for aligning the relevant development partners with government programmes and supports harmonization of donor contributions under the Paris Declaration and Accra Agenda for Action. FAO, through the international nutrition specialist of the NFPCSP project, is chairing the LCG-Nutrition Group.

2. Selected successful FAO programmes

2.1 Climate change issues in agriculture

The negative impacts of natural disasters and climate change have the potential to de-rail development efforts including food and livelihood security. Bangladesh is one of the most disaster prone countries in the world, largely because of its geographical location and the geophysical lay of the land. The country is highly vulnerable to almost all types of disasters: floods, cyclones, droughts, tidal surges, tornadoes and earthquakes. All have hit Bangladesh with relatively high frequency. Though natural disasters affect every sector, their impact is most serious on agricultural. Flood, drought, cyclone, soil erosion, river erosion, salinity, insects-pests and chemical contamination of water: all pose constant threats of extensive loss to agricultural production. Early floods in April-June often cause



extensive damage to crops and the government has acknowledged the need to focus more resources on disaster risk reduction.

In response to government priorities, FAO began helping Bangladesh address climate change issues in 2003. FAO implemented four designed achieve livelihood adaptation to climate change, and disaster risk management in the agriculture sector. The first was funded under its Technical Cooperation Programme, and three others by the United Nations Development Programme (UNDP). The projects were:

Strengthening disaster preparedness in the agricultural sector, CP/BGD/2904, \$322 413

Local level capacity building for disaster risk management in agriculture project, BGD/01/004, \$93 879

Comprehensive disaster management programme (CDMP) FAO component: Livelihood adaptation to climate change, LACC, – phase I and II, BGD/01/004, \$900 000

Key achievements in response to climate change:

- Increased the capacity of farmers, public representatives, government officials and scientists to adapt to climate change through disaster risk management. These groups are all more aware of the threats from climate change and understand how they can successfully address these threats.
- Bottom-up and top-down institutional approaches and processes have been developed to catalyze the improvement of climate change adaptation strategy.
- Testing of pilot learning exercises in the existing DAE farmers groups has opened new ways of establishing educational opportunities in the areas of climate change adaptation and disaster risk reduction for farmers.
- Institutionalized partnerships and working collaborations with research institutes and other specialized organizations could continue to act as a science-based forum and regular source of information and technology for testing, adoption and dissemination.

The Bangladesh government, donors and other stakeholders have commended FAO interventions in the field of climate change adaptation. The government has expanded and replicated the tested models in a project entitled *Disaster and climate risk management in agriculture (DCRMA)* with financial support from the Comprehensive Disaster Management Programme (CDMP), jointly funded by the European Community, the Swedish International Development Agency and UNDP.

2.2 Agricultural development tools prepared and installed

FAO has supported the development of techniques for inventory, evaluation and planning of land resources in Bangladesh. Over the last three decades, FAO has helped Bangladesh to prepare and update the Agro-Ecological Zone (AEZ) database for the country. The AEZ database is a biophysical resource based on land, soil, hydrology, and climate and land suitability. The Bangladesh Agricultural Resource Council (BARC) is the custodian of the AEZ database and updates it periodically.

The AEZ database is the foundation for a full-fledged national and sub-national planning database. During the early 1980s, FAO provided assistance to BARC to prepare the AEZ database for the whole country. Initially, the outputs of the FAO AEZ study were estimates of land suitability for major field crops. The study covered where soil moisture reserves are particularly important for residual moisture cropping, allowing moisture storage to be adjusted within a suitable range, according to soil type.

During the 1990s, FAO provided technical support to develop the AEZ database as the foundation for a new effort to develop a comprehensive multi-scale GIS-based Land Resources Information System (LRIS). The approach taken by FAO was to create a dynamic multilayered GIS database, in which the component layers are modelled as variables that change over time. Because of the inherent variability of climatic and hydrologic conditions in Bangladesh, an open-ended system that allows for the modelling of a wide range of dynamic scenarios based on the historical record as well as predicted future scenarios, would be very beneficial and would yield higher quality results.

In 2009, FAO helped Bangladesh update climatic data of the AEZ database to track climate change scenarios in the country. The study determined the extent of climate change during the past 25 years. This is information vital to national planning for almost every economic sector.

2.3 Integrated Pest Management (IPM)

During the last three decades, FAO has been contributing to sustainable, profitable and environmentally sound production of rice, vegetable and cotton crops, through the development, promotion and use of IPM in Bangladesh. The IPM concept was introduced in Bangladesh through FAO's Inter-Country IPM programme in 1981.

FAO strengthened national pesticide policies and enforcement systems and increased the number of IPM Farmer Field School (FFS) programmes to help farmers adopt IPM. IPM reduces pesticide use and results in higher crop yields and safer and more profitable rice, fruit and vegetables. FAO encouraged Bangladesh to adopt a national policy on IPM and the government ultimately produced a National Integrated Pest Management Policy in 2002. FAO's strategies are to sustainably expand IPM by establishing a national IPM programme and to co-ordinate all IPM activities in Bangladesh. Ongoing IPM programmes also influenced the agriculture ministry to encourage further development of IPM policies. This has been reflected in the National Agricultural Policy.

Supported by the *FAO-Regional Vegetable and Cotton IPM, the Farmer's Field School Training Programme* was begun in the early 1990s to help farmers diversify their crop production using the IPM concept.

Bangladeshi farmers have benefited substantially from their participation in FFS-based IPM training. FFS-trained farmers have become ecology-literate and have learned to conserve and make sustainable use of natural biological control systems for various crops. FFS farmers also benefited from cost savings resulting from reduced use of pesticides and higher yields. According to an impact assessment study by the Bangladesh Rice Research Institute, IPM-trained rice farmers have cut their use of pesticides by 90 percent with an increase in crop yield of 10 percent. IPM-trained eggplant/aubergine

farmers reduced their use of pesticides on average by 75 percent with an increase in crop yield of 12 percent, according to the study. As a result, the profit margin of the IPM/FFS-trained farmers increased substantially compared to conventional farmers. With the reduction of pesticide use, IPM also contributes to pesticide risk reduction, fewer poisoning incidents and less environmental pollution in rural communities. It is expected that by end of 2011, about 875 000 farmers, or some 7.4 percent of the 11.8 million farming families in Bangladesh will have benefited from FFS training.

Currently, FAO is implementing the World Bank-funded Emergency 2007 *Cyclone and Restoration Project* (ECRRP) through which 351 FFS will be established over four years to train farmers in stress technologies, better crop management, horticultural production, utilization of livestock and fisheries resources, and nutrition.

2.4 Special Programme for Food Security (SPFS)

The *Special Programme for Food Security (SPFS)* is FAO's flagship initiative to develop effective farming models that will help countries eliminate hunger.



The *SPFS* became operational in March 1999 to address the problems of food security and undernutrition in rural, peri-urban and urban communities by increasing decision-making capacity at different levels. The following five TCP projects have been implemented under the *SPFS*:

On-farm water management pilot programme, TCP/BGD/8928

On-Farm water management pilot programme (second phase of TCP/BGD/8928), TCP/BGD/0167

Strengthening food control in Bangladesh, TCP/BGD/2901

Intensification of sustainable production of wheat and rice-systems, TCP/BGD/2902

Training programme for the small-scale dairy sector, TCP/BGD/2903

In addition, another three projects were implemented:

Crop yield forecasting and agro-meteorology, UTF/BGD/29/BGD

Soil testing and fertility management, UTF/BGD/30/BGD

The special programme for food security with financial support from Japan and Bangladesh, GCSP/BGD/033/JPN

The last project covered the 21 most food-insecure villages of 21 Upazilas in 16 districts covering nine agro-ecological zones.

FAO has introduced a significant model for food security by implementing an SPFS project funded by Japan. As a follow-up action the Bangladesh government has also expanded implementation of the model using some its own funds, while requesting further funding from FAO.

Considering the success and significance of the model developed under this project, a new TeleFood project was implemented beginning in December 2010, GTFS/BGD/041/ITA *Food security through enhanced agricultural production diversified sources of income, value addition and marketing in Bangladesh – Mymensingh and Sherpur (US\$ 2.95 M)* funded with financial support from the Italian trust fund and a contribution from the Bangladesh government.

Major achievements under SPFS:

- A unique model for poverty reduction was developed under SPFS. The model encompassed the formation of farmer organizations (VBO), which were registered by the government and now have legal standing



- Capacity strengthening of VBOs and enhanced implementation of planned activities
- Yields increased up to 20 percent for different crops by using modern farm technologies
- Improving soil health for 100 percent of the cropland in the project area by using organic manure and compost as well as applying the recommended amounts of chemical fertilizer with special emphasis on 'guti' (USG) urea
- Increasing quality seed production, preservation and distribution practices
- The area under irrigation increased by 30 percent, while irrigation costs were reduced by 25 percent through minimizing water conveyance losses
- Self-employment opportunities were provided for a number of poor and destitute women
- The use of post-harvest machinery at project sites reduced post-harvest losses and helped a number of poor farmers become more food secure, because they could rent out the use of the machinery
- Nutritional status was improved when farm families began eating a balanced and nutritious diet
- A revolving fund was introduced to provide a small amount of investment capital so farmers could run their small-scale IGAs. The revolving funds were generated through the accumulation of farmer savings as well as project support.

With a view towards exploring the scale-up potential of food security nationwide through the formulation of a National Programme for Food Security (NPFS), a draft plan outlining implementing of an NPFS has been prepared by the Ministry of Agriculture covering 249 of the most food insecure Upazilas. The proposed budget is US\$320 million, of which the government is expected to contribute 40 percent and project beneficiaries 10 percent. External donors are expected to provide the remaining 50 percent. This outline would serve as the basis to formulate the NPFS.

2.5 National food policy capacity strengthening project (NFPCSP)

The National Food Policy of Bangladesh was approved in 2006. During the formulation of the policy, the government and development partners recognized the need to enhance Bangladesh's capacities to formulate and implement food security policies. Accordingly, the National Food Policy Capacity Strengthening Programme (NFPCSP) was designed to strengthen the capacities of the Food Planning and Monitoring Unit – which is the government unit responsible for monitoring the food security situation, providing policy guidance and facilitating multi-sectoral coordination – and other agencies to monitor and provide guidance on food security policy making also based on research studies. The project started in September 2005 and is to end in December 2012, counting on the financial support of the EU and USAID that committed, respectively, Euro Million 7 175 and US\$ Million 7.572.

The programme and its major achievements

Since its launch in 2005, the National Food Policy Capacity Strengthening Programme (NFPCSP) has been instrumental in building Bangladesh's institutional and human capacities to design and implement food security policies. Thus far, major achievements of the NFPCSP include:

Improved policy and programming frameworks for a comprehensive and cross-sectoral approach to food security

In the past, Bangladesh's approach to improving food security was largely focused on food availability. As

a consequence, food security was primarily seen as a responsibility of the agriculture sector and of the Public Food Distribution System; important aspects related to improving the economic and physical access to food and the nutritional dimension of food security, on the other hand, were largely marginalized. By providing technical assistance, the NFPCSP has played a major role in enhancing capacities to formulate, implement and monitor comprehensive food security frameworks nutrition. Two outstanding achievements include the development of the National Food Policy Plan of Action (2008) and the Country Investment Plan for Food Security that was first approved in June 2010 and then updated in March 2011. These documents provide the Government and Development Partners with a consistent and comprehensive framework for addressing the availability, access and utilization dimensions of food security across different sectors. The frameworks have also proved to be very important instruments for aligning Development Partners' interventions with national priorities.

Increased human and institutional capacities of the Government of Bangladesh

Capacity building is playing an important role in enabling the Government to better formulate and implement food security policies and monitor the food security situation in the country. At the start of the project, the FPMU had very limited office facilities and only 4 permanent with. thanks to the support provided by the this programme, the agency has fully functional offices, counts 12 staff with university education in subjects closely relevant to the mandate of the FPMU (6 have completed a MSc, 2 are in the process of completing a Ph.D. and another 3 are currently finalizing their MSc). The NFPCSP has also enhanced the analytical skills of staff of the FPMU and other relevant agencies through study tours and tailor made courses (about 500 hours of in-class training) in food security analysis, both in the country and abroad.

Knowledge- and dialogue-based decision making

Information plays an important role in improving food security decision making. However, successful policy making and implementation also requires achieving consensus among the different stakeholders. This implies



that information-based decision making should not be separated from dialogue among stakeholders. With support from NFPCSP, the Government of Bangladesh has established policy processes that are based on both information and dialogue. This includes conducting scientific research on food security and organizing regular seminars and workshops during which the Government, civil society representatives, development partners and researchers discuss findings and their implications on policy reform. So far, 44 research grants for research projects have been awarded to 83 national institutions and all research reports and about 90 research papers have been completed. In addition to this, 11 Ph.D. Theses and 42 MS dissertations have been published. Findings from all of the research projects have been discussed in 10 large national consultative workshops and over 200 technical seminars and smaller workshops, including representatives from civil society, government, development partners, universities and research institutes. This research and dialogue has contributed to putting food security high on the research agenda, to increasing the understanding of food security among civil society and in improving dialogue between stakeholders. In 2011, 16 new researches projects – identified in close consultation with the FPMU – will be commissioned to national research institutes.

Greater access to information on food security

To further facilitate and encourage the use of information in decision making, fortnightly and quarterly food security monitoring reports are regularly issued and a web-based food security information system has been developed and integrated with the new public website. These provide decision makers and the general public with

immediate access to food security information. The information system allows to automatically exchange data between different agencies and automates certain reporting functions. With a similar intention, the NFPCSP has set up a physical and electronic Documentation Centre that provides easy access to essential books, documents and other reference material on food security. Already, the online Documentation Centre is the country's biggest electronic repository on food security and is constantly expanding. This contrasts with the situation at project start, when only a very rudimentary food security data collection system was in place, which made access to key food security documents very difficult.



Well advised decision making

In addition to building national capacities to inform decision making, when needed, the NFPCSP also provides direct policy advice to Government and Development Partners. For example, in the context of the 2007 floods and cyclone and the 2008 food price crisis, the programme provided information and advice to Government and Development Partners on crucial issues such as the National Food Budget, procurement price fixation, and management of public stocks and safety nets. Similarly, during the formulation of the Country Investment Plan, the NFPCSP played a central role in providing advice on the contents of the plan and promoting alignment with national policy and institutional frameworks.

Future goals: To consolidate the above-mentioned achievements and ensure their sustainability, the programme will continue to focus its efforts on:

Strengthening national capacities to monitor the country's food security situation and the implementation of the National Food Policy Plan of Action and the Country Investment Plan. This will involve supporting the completion of postgraduate education, on-the-job training, preparing and delivering training courses on food security and organizing additional training abroad, as well as facilitating inter-ministerial collaboration. A specific effort is being made to strengthen the institutional setting of FPMU so as to retain and make the best use of the technical capacities that have been developed

Providing research-based knowledge as well as timely information and quality advice to policy makers on crucial interventions by commissioning and technically backstopping food security research, further customising the food security information systems to the country's needs and expanding the network to other agencies, and further improving the Documentation Centre

Advising Government and Development Partners on the implementation and monitoring of the National Food Policy Plan of Action and the Country Investment Plan as well as other emerging issues.

2.7 Fisheries development

1. An extensive resource base, favourable climate conditions and expanding global markets have created great opportunities for Bangladesh to generate jobs and income in the fisheries and aquaculture sectors, which would also help the country become more food secure. Fisheries in Bangladesh fall broadly into four areas: inland



freshwater culture fisheries; inland open water capture fisheries; coastal fisheries and brackish water aquaculture; and marine fisheries.

FAO has been involved in all sub-sectors of Bangladesh's fisheries, including extending support to reforming fisheries policies.

The main interventions include:

- Strengthening rural pond fish culture extension.
- Trawl-based surveys for marine fisheries in the mid-1980s.
- The Bay of Bengal programme, which identified overcapacity, destructive fishing practices and equipment, and the extent of damage being caused to fisheries resources. It made recommendations to the Bangladesh government derived from this project.
- As a follow up of those recommendations, the government initiated the UNDP-FAO project called *Empowering Coastal Fishing Communities – ECFC (US\$4.88 M)* aimed at changing attitudes, empowering and encouraging direct participation of communities in coastal resource management.
- FAO supported the Bangladesh government in its formulation and implementation of an HACCP-based fish quality assurance programme for fisheries products.
- In recent years, FAO successfully implemented a Technical Cooperation Programme project on shrimp seed certification systems that endeavoured to develop a quality assurance programme for the black tiger prawn hatchery industry. This is a real need for the sector and should be done to avoid further deterioration in Bangladesh's position in the international aquaculture product market.

Other important project support and achievements:

- In the late 1970s, FAO provided support for Bangladesh to establish fish inspection and quality control laboratories in Khulna and Chittagong with the objective of establishing pre-shipment inspections and certification regarding the general

quality and bacterial count in export fish and fish products;

- The *Shrimp Disease Prevention and Health Management* project was set up to train shrimp farmers and field workers in the prevention and control of shrimp disease;
- The Fisheries Research Institute project helped build national fisheries research capacity;
- FAO provided fish seed, feed and fishing equipment for the rehabilitation of fish farmers in coastal districts who were hit by the cyclones Sidr and Aila.

The current priority for the fisheries sector is to develop the capacity to control the quality of fish and shrimp. However, the government alone cannot implement a quality assurance programme. It has to be a public-private partnership. Discussions between the government and the private sector are needed to arrive at a consensus on how to proceed. It is also important that the private sector itself engage in a much more serious dialogue so that a single voice and vision can emerge to improve the sector.

2.8 Community livestock and dairy development (BGD/98/009)

The *Community livestock and dairy development* project was one of the best UNDP-funded projects implemented by the Grameen Fisheries and Livestock Foundation (GMPF) – a sister organization of the Grameen Bank that receives technical support from FAO. The project was approved on 15 July 1999 with a budget of US\$3.24 million. The UNDP provided US\$3.04 million and US\$0.2 million came from GMPF. The ministry of finance was the government's cooperating agency. The project also worked closely with the DLS.

Objectives: The project was established to contribute to the national effort to alleviate poverty by providing a model for sustainable rural development through livestock-based income generation in rural communities. The model was designed to reduce poverty, enhance development opportunities for women, improve

household food security and nutrition, and increase family income in a sustainable way.

Outcome and achievements: The project operated in one of the poorest, most flood-prone areas of the country. When it ended in December 2005, the number of village group members had doubled from 3 275 to 6 760. Some 85 percent of the new members are landless. There have been significant improvements in household nutrition and earnings with daily incomes on average increasing from US\$0.19 to US\$1.25.

Impact: As of September 2007, the US\$3.4 million invested in the project by UNDP and GMPF had produced meat, milk, eggs and dung valued at almost US\$7 million at retail prices. Important outcomes were that many very poor households rose out of poverty and large numbers rural communities were empowered. GMPF are on target to increase the number of VGMs from 7 670 to 10 500 during the immediate post-project period from 2006 to 2010. Some 85 percent of participants were women who together own more than 20 000 cattle.

Lessons learned: The successful implementation of the Community Livestock and Dairy Development Project has helped to place the dairy sub-sector at community level in a good position to take advantage of recent price increases for imported dairy products by substituting domestically produced milk. The policies and strategies proposed in the National Livestock Policy of 2006 and the National Strategy of Accelerated Poverty Reduction of 2005 recognized that milk produced at the community level can play a significant role in improving nutrition, income and job opportunities, helping Bangladesh to achieve its MDG goals of cutting undernutrition and poverty by half by 2015.

Scaling up: Investment programmes and more investors, especially from the private sector, are needed to further extend and expand the successes of this kind of project. In Bangladesh there is not only a great need to develop the livestock sector, there is much potential to do so and this could be achieved by scaling up the successes of earlier projects.

3. Collaboration for the long-term

Building a better future together

Since the global food crisis of 2007-2008, donor commitments to invest in food security and agricultural development have increased dramatically. For instance, at the July 2009 summit in L'Aquila, Italy, donors pledged to invest US\$20 billion in food security and agriculture over three years, both multilaterally and bilaterally. New funding arrangements have been created, including the *Global Agriculture and Food Security Programme*, the *European Union Food Facility* and the *US Feed the Future Initiative*.

The increased availability of funding for food security offers an enormous opportunity for Bangladesh. Food security is multi-sectoral by nature and as such requires interdependent interventions across diverse sectors such as agriculture, health, nutrition, education and disaster management. Without strategic planning and coordination, it will be difficult to ensure resources are channelled where they are most needed.

The *Country Investment Plan (CIP) for Investment in Agriculture, Food Security and Nutrition*, was launched in 2010 as an integrated approach to facilitate investment in all the dimensions of food security – availability, access and nutrition. This government document is currently under review, and the updated version was launched on 20th March 2011 at a high profile National Forum. This will likely provide a solid platform for multi-sectoral approaches to many of the country's food security and health issues.

Bangladesh has been awarded US\$52 million from the *Global Agriculture and Food Security Programme (GAFSP)*, of which FAO is the technical assistance supervisor. The GAFSP-funded initiative is expected to serve as a seed to germinate additional multilateral development efforts.

A master plan for the southern coasts links agriculture and water, and fosters collaboration with other countries on major deltas, including the Mekong Delta. This has produced a cooperative relationship with the Dutch *Delta Alliance* and *Water Mondial* initiatives. These cooperative efforts are expected to lead to larger long-term

development initiatives based on the proposed multi-billion dollar Padma Bridge Project, that would build a rail and road link over a vast (more than 6 km wide) river and unlock the potentials for comprehensive southern development.

FAO Bangladesh now has a standard *National Medium-Term Priority Framework (NMTPF)* and has completed the first stage of the *Investment Assessment to 2030*. These strategic preparations, including the NFP PoA, set the stage for robust growth in agricultural development. This would be in line with the country's long-term plans to meet the MDGs and become a middle-income country in the coming decade.

The challenges are huge considering the additional burden emerging from rapidly increasing food prices, new epidemics and other food security challenges. However, hope can be found in the recent formation of linkages between agriculture, health and nutrition around the world, and the collaborative clusters established among the UN agencies, governments and private sector resource providers. Achieving MDG 1 will require untiring and concerted effort from all – the Bangladesh government, the donor community, investors, academia, financiers, farmers and civil society.

FAO Representatives in Bangladesh	
David Butcher	November 1977 to June 1980
L.I.J. Silva	October 1980 to December 1985
John A. Hoskins	January 1986 to June 1990
Peter J. Myers	September 1990 to August 1995
Hiroyuki Konuma	April 1996 to September 1999
Ms Bui Thi Lan	July 2001 to August 2006
Ad Spijkers	October 2006 to March 2011

Success stories

1. Making it happen in Bangladesh: Country investment plan

Launched on 14 June 2010, Bangladesh is one of the leading countries in the developing world, the first in Asia, to have a comprehensive Country Investment Plan for agriculture, food security and nutrition (CIP). FAO joined hands with the Ministry of Food and Disaster Management (MoFDM) in the formulation process which proved the highest degree of commitment and coordination for the convergence of all stakeholders around a challenging task.

Commitments of global leadership in L'Aquila, Rome, Pittsburg, New York and elsewhere led to new initiatives like the Global Food Security Investment Fund (GAFSP), and President Obama's *Feed the Future initiative* – demanding, at the same time, strategic readiness with country-led and country-owned instruments.

An inclusive CIP that incorporates the interests of the public and private sectors and promotes a convergence among the government, development partners (DP) and other stakeholders, is considered as a key strategic step for sustainable investment.

FAO supported the government, under funding from USAID and EC, in the formulation of its National Food Policy Plan of Action (PoA) for 2008-2015, in May 2008. This PoA provided the launching pad for the subsequent actions. Now, Bangladesh is strategically in a position to embark on large investment initiatives for sustainable food security.

The Local Consultative Group on Agriculture, Rural Development and Food Security (LCG-ARDFS), chaired by FAO since 2007, played a pioneering role in many of the initiatives. The LCG platform provides with the opportunity for convergence and harmonization in aid effectiveness as envisaged in Paris Declaration and Accra Agenda for Action. A Joint Cooperation Strategy (JCS) was signed between the government and the development partners (DP) in June 2010 that makes way for CIP

and also Country Partnership Framework among development partners.

The 26-27 May 2010 Bangladesh Food Security Investment Forum was a world class event attended by the top experts and policy makers in agriculture and food security from Bangladesh and abroad. The Forum was organized with financial contributions by USAID, scientific inputs from IFPRI and BIDS, technical contributions by FAO, and support from other development partners.

The forum was inaugurated by the prime minister, and attended by the agriculture minister, the food minister, the USAID Administrator, the head of BIDS (Bangladesh Institute of Development Studies), the director-general of IFPRI (International Food Policy Research Institute), the FAO regional representative for Asia and the Pacific, and the UN special representative on food security and nutrition.

Five principles (known as *Rome Principles*), endorsed by the international community during the Rome Summit on World Food Security (November 2009), inspired and guided the government leadership in the process of CIP and ownership of the outcome document: the investment plans for food security should be country-led, comprehensive, coordinated, and the UN system can play an important role in ensuring the coordination of the actors and in securing additional funds from development partners.

The CIP provides a coherent set of priority investment programmes (12 at this stage) to improve food security and nutrition in an integrated way. It is a comprehensive plan, builds on the existing framework, reflects the Government's investment priorities and aims to: (i) plan and invest resources in a coordinated way; (ii) increase convergence and alignment of budget and external sources of funding, and; (iii) to mobilize additional resources. Proposed investments relate to strengthening physical, institutional and human capacities in the field of agriculture, water management, fisheries, livestock, agricultural marketing, food management, safety nets, nutrition and food safety.

The Forum provided a perfect stage for reviewing the draft CIP towards a comprehensive document. Following the formulation and endorsement of CIP, Bangladesh applied for funding under GAFSP on 14 June and is expected to be one of the first beneficiary countries receiving assistance.

New technological and agronomic interventions, as discussed for a second green revolution, should give prior attention to, inter alia, government ownership and leadership, convergence and harmonization in aid through close interactions between the government and DP, and inclusive and integrated planning that promotes the private sector participation also.

2. The national food policy and plan of action

Since the global food crisis of 2007-2008, donor commitments to invest in food security and agricultural development have increased drastically. For instance, at the July 2009 G8 summit in L'Aquila, donors committed to invest USD20 billion in food security and agriculture over three years, both multilaterally and bilaterally. New funding arrangements have been created including the Global Agriculture and Food Security Programme, the European Union Food Facility and the US Feed the Future Initiative.

The increased availability of funding for food security offers an enormous opportunity for Bangladesh. However, it might also present unprecedented challenges to channel resources efficiently and coherently. Food security is multi-sectoral by nature, and as such requires interdependent interventions across diverse sectors such as agriculture, health, nutrition, education and disaster management. Without strategic planning and coordination, it will thus be difficult to ensure resources are channeled to where they are needed most.

To provide food security actors in Bangladesh with a strategic orientation in food security planning, the government of Bangladesh designed and approved the National Food Policy (2006) and Plan of Action (2008-2015). The latter translates three core objectives of the policy into strategic areas of intervention and priority actions: Adequate and stable supply of safe and nutritious food; Increased purchasing power and access to food of

the people; and adequate nutrition for all individuals, especially women and children.

Special care was taken to align the National Food Policy with Bangladesh's overall development strategy. The document is consistent with all relevant sectoral policies and broader policy frameworks, thus making it a suitable instrument to align donors' interventions with government priorities.

The Plan of Action also identifies relevant actors and suggests a set of policy targets and indicators to monitor progress in the implementation of the National Food Policy. While progress has been achieved in increasing rice production, in reducing the prevalence of malnourishment and in lowering the number of underweight children, monitoring of the Plan of Action identified several areas that require increased attention by the Government of Bangladesh and international donors.

Filling the gaps

Evidence shows that, while production has substantially grown, Bangladesh still needs to further increase and diversify agricultural output. To improve the availability of food, investments are needed to intensify and diversify food production and increase its sustainability; support adaptation to climate change; and develop agricultural marketing and infrastructure.

Specific entry points for action include increasing research and extension capacities, with special attention to the development of new rice and non-rice varieties; developing programmes on crop diversification and increasing funding to livestock and fisheries sectors; facilitating access to agricultural inputs and credit and ensuring that fertilizers and pesticides are used sustainably; and protecting producers' incentives by strengthening procurement programmes.

Another important food security challenge is to increase the number of people who can access sufficient and nutritious food. Investments to eradicate income poverty, with a particular emphasis on the most vulnerable groups, and improved risk management, will help increase and stabilize access to food. Among other things, this involves promoting income generation in rural areas

by increasing access to markets, strengthening women's access to productive assets, increasing value-addition, paying special attention to the development of micro-enterprises and reforming technical and vocational training to be more gender sensitive. In addition, safety net programmes need to be expanded to the landless, marginal farmers and food insecure people in urban and disaster-prone areas.

Diets in Bangladesh are highly unbalanced and diseases impair people's ability to absorb nutrients from the food they eat. To improve nutrition, investments are needed to promote diversified food consumption, tackle nutrient deficiencies among women and children and improve food safety. This requires strengthening health and nutrition programmes by adopting life-cycle approaches in programme design and implementation, and improving their targeting. It also calls for further improving food supplementation and fortification interventions for vulnerable groups, as well as breast feeding and complementary feeding practices. Most critically, a nutrition focus needs to be mainstreamed within agriculture, health, safety nets and education policies and programmes.

Lastly, food security governance needs to be enhanced. This involves increasing human and institutional capacities to implement and coordinate food security interventions and to monitor the National Food Policy and its Plan of Action by ensuring that the relevant data are available and easily accessible.

The National Food Policy and Plan of Action provide the reference policy frameworks for defining a comprehensive investment plan that is able to mobilize additional resources in the context of renewed international commitment to support food security, agriculture and nutrition.

3. Towards a master plan for a mega delta

Bangladesh is the largest delta, the most densely populated country in the world, and its low-lying flood plains are considered by many as one of the most disaster prone territories.

Presently with about 150 million people and two million new mouths to feed each year, the food security challenges to its population – exacerbated by climate change – seem perpetual. In spite of these adversaries, people are amazingly resistant to calamities and bounce back to prosperity with a little but useful assistance.

In 2007 Bangladesh was hit by two devastating floods, one damaging the main rain-fed rice while another disaster, cyclone *CIDR*, inflicted casualties in thousands and damages in billions of dollars. The most affected areas include the southern delta, where the *Sundarbans* mangrove forests – a world heritage which usually acts as a barrier to the battering by nature – suffered severe damages. Dikes and embankments were broken and salt water flooded the inland, damaging fishery resources as well.

In addition to immediate emergency assistance to the tune of USD11 million, FAO supports the introduction of agricultural technologies to improve the resilience of communities and households to future disasters in cyclone prone areas – as part of the World Bank's *Emergency 2007 Cyclone Recovery and Restoration Project* (2008-2013). This has long-term impact on sustainable food security by aiming at bringing the southern delta back as the *bread-basket* of Bangladesh.

In tandem, an EU Food Facility project, *Overcome soaring input and food prices in impoverished areas of Bangladesh*, is providing Euro 7.5 million assistance in the crop, livestock and fisheries sectors for more than 80 000 farming households, focusing on agricultural modernization, women's empowerment, sustainable linkages to the existing private sector market potentials and ensuring the sustainability of the interventions for food security of the target areas in the future.

Following the above, Bangladesh successfully applied to the Global Agriculture and Food Security Programme (GAFSP) to obtain USD52 million for *Integrated agriculture development programme for agro-ecologically constrained and economically depressed areas*. This programme will directly benefit 350 000 farmers and indirectly another 750 000 farmers, adopting modern technologies and

practices over a five year period. The proposed programme consists of five inter-related components: (i) technology generation; (ii) technology adoption; (iii) water management; (iv) linking farmers to markets; and (v) technical assistance, capacity building and project management.

An increase in agricultural productivity in these areas, characterized predominantly by poor, smallholder farm households, is expected to positively impact household food security and welfare in a number of ways.

The project focuses on specific agro-ecological areas including the salt affected tidal surge areas in the south (approximately 2 million hectares), flash-flood prone areas in the north and north-east (approximately 0.75 million ha) and drought-prone areas in the south-west and north (approximately 1.3 million ha). The project approach is to break out of the low-equilibrium trap in these areas through a set of complementary interventions – in the sense that each intervention enhances the returns on other interventions – that together constitute an integrated strategy for the agricultural development of these areas.

Together, these initiatives build towards a master plan for the southern delta in Bangladesh. FAO has taken the lead in the process and is mobilizing other development partners for complementing investments under a framework.

The experiences and innovations whether in the form of stress-tolerant varieties or in the adaptive farming practices of one corner of earth can be no less useful for other corners. Deltas around the world may benefit from the interactions and exchange of knowledge and experiences. FAO's success in Bangladesh so far and in future may stimulate similar achievements in other countries, especially deltas.

4. Feeding Bangladesh's growing population amid rising climate changes

New technologies and agricultural practices key

7 October 2010, Barisal and Khulna, Bangladesh – At first glance it looks like another of Bangladesh's hundreds



FAO is working with the Government of Bangladesh to unlock the agricultural potential of the southern coastal zone

of rivers – that is, until the half-submerged houses and blackened trees come into view.

Thousands of acres of rice paddy have been under water in Koira Upazila (sub-district) in southern Bangladesh since Cyclone Aila swept through more than a year ago, damaging miles of protective flood embankments and wiping out crops, fish stocks and livestock.

Like most rural Bangladeshis, people here rely heavily on agriculture, yet the stagnant floodwaters have rendered much of their crop land useless and made keeping goats or chickens nearly impossible.

"Before Aila, this area was better off than the *monga*-prone areas of the north," said Arabindo Biswas, a Koira Upazila agricultural officer, referring to the Bengali term for seasonal food shortages. "Now it is much worse."

Many have left for Dhaka, the capital, to look for work. Others have stayed on, living along embankments and narrow roadsides in temporary shacks made of bamboo, mud bricks and plastic sheeting – one after the other.

Money is tight as jobs are scarce, plunging families deeper into poverty and hunger.

Surprisingly, many houses in the flooded areas remain inhabited.

"Where else are we supposed to go?" asked Zahiruddin Sarder, a 70-year old farm labourer. "The embankment is already over-crowded."

Multiple challenges

The scene in Koira, though extreme, speaks to the multiple challenges facing the Government of Bangladesh as it seeks, with FAO's help, to stimulate agricultural growth and development in the southern coastal belt – one of the country's poorest regions..

Bangladeshi farmers in this low-lying delta have had to deal with a gamut of climate challenges – from increasingly unpredictable monsoon rains and river erosion to tidal surges and saltwater intrusion.

"In 2007 alone, we had two floods back-to-back in the south and then Cyclone Sidr," said Ad Spijkers, FAO Representative in Bangladesh. "We lost 1.8 million tonnes of rice. That amount can feed 10 million people for a year."

In Bangladesh, nearly 160 million people live in an area less than half the size of Italy and the population is expected to expand by about two million people per year.

The country has managed to triple its rice production in the 40 years since independence, but feeding such a rapidly growing population, especially given dwindling land and water resources and rising climate threats, requires new strategies, technologies and innovation.

This is the approach the government, with the help of FAO and other partners, is taking as it tries to turn the southern delta into an agricultural powerhouse and help the rural poor achieve greater prosperity.

Increased investments

These efforts have gathered steam thanks to initiatives like a \$109 million World Bank-funded cyclone recovery and rehabilitation project – with FAO heading up the agricultural component – and a recent \$52 million grant from the Global Agriculture and Food Security Program, a multi-donor fund resulting from the L'Aquila Food Security Initiative.

The grant is in response to Bangladesh's country investment plan for agriculture, food security and nutrition, which builds on existing national food security policies and strategies.

Developed by the Government with FAO support, the plan maps out a set of priority investment programmes to improve the availability of safe and nutritious food, ensure that people have the means to buy the food they need and reverse the country's staggeringly high malnutrition rates.

Adapting to a changing climate

Work is already under way to introduce new crop varieties in the coastal zone – seeds tolerant to saline and other stresses – and so far results have been good, with farmers getting higher yields.

Farmers are being trained in new agricultural practices, from modifying cropping patterns in order to cope with changing weather to ensuring the balanced use of fertilizers and modern machinery.

Significant attention is being paid to improving water and infrastructure management. Damaged embankments and dikes – crucial to protecting fields from tidal surges and sea water intrusion – need to be repaired.

Silted rivers and canals need to be dredged to allow for proper drainage and water flow and surface water irrigation systems need to be developed.

"If you look at the agricultural success in Vietnam's Mekong Delta, you will see that they have done a lot of work on irrigation water management and I think there are lessons to be learned there," said Spijkers.

There is also a push to improve the productivity of brackish water shrimp farming, which has good export potential, and to promote smallholder poultry and dairy production.

These efforts will help boost incomes and create new jobs, especially among women and the landless, and ensure that people have access to a more diversified food basket, including some form of protein.

5. Boosting incomes of Bangladesh's rural poor

Barisal and Khulna, Bangladesh – Shefali Rani, a Bangladeshi woman in her fifties, dreams of starting her



own paper bag making business one day. And it is her pregnant goat – her sole asset – that holds the key to that dream, she says.

“I hope to sell one of the kid goats when it gets a little older and use that money to get a business going,” she said. “Then I can fix my house.”

Like many Bangladeshis in the country’s southern coastal belt, Shefali Rani lost nearly everything to Cyclone Sidr three years ago.

The storm flattened her family’s home along the river embankment, killed their livestock and swept away most of their meagre belongings.

Her husband, a shop owner, became ill shortly after, only to die when another massive cyclone – Cyclone Aila – ripped through the country two years later.

Today she and her 12-year-old daughter sleep on a narrow wooden platform, alongside their goat, in a shack cobbled together with pieces of corrugated metal, wood and plastic sheeting. Gaping holes do little to keep the rains out and safety is a constant concern.

Cyclone devastation

Cyclone Sidr, which followed closely on the heels of two severe monsoon floods, affected over eight million people, many of them landless labourers and marginal farmers with less than 0.2 hectares of land.

The storm damaged 1.5 million homes, uprooted around 4 million trees, killed off livestock, destroyed fishing boats,

nets and fish stocks, and wiped out a good portion of the soon-to-be-harvested aman rice, the region’s main staple.

It also wiped out people’s main means of making a living – and this at a time when food and fuel prices were beginning to soar.

Back on their feet

As part of an emergency project, FAO provided nearly 10 000 of the poorest and most vulnerable households – those living on river and canal embankments – with fishing boats and gear, chickens, ducks and goats and tree seedlings to help them get back on their feet as quickly as possible.

Khadiza Akhter, 28, who has no land of her own, earns a steady income thanks to chickens received from FAO. The money she pulls in, mainly from hatching the eggs and selling the live birds, allows her to keep her young children in school.

“My children are eating healthier food now – spinach, potatoes, rice, dhal and even fish once a month,” said the mother of five, who used to scrape by on part-time jobs pounding out rice for snacks, while her husband spends months on a deep-sea fishing boat. “I’m now able to save about 100 taka (US\$1.50) each month after expenses and I don’t have to look for work outside the house.”

Long-term focus

FAO is expanding its investment assistance activities and reaching out to many more households via a four-year USD16 million agricultural project to revitalize crop, livestock and fishery production in Barisal and Khulna – two southern districts hit hard by Cyclone Sidr.

It is part of a broader USD109 million World Bank-financed project aimed at restoring livelihoods, rehabilitating and upgrading coastal embankments, building new shelters and strengthening disaster risk management in the south’s cyclone-prone areas.

And it is fully in line with the Government’s efforts to “build back better” and turn the southern coastal belt into the country’s bread basket.

Boosting incomes and resilience

Around 40 percent of Bangladesh's nearly 160 million people live below the poverty line. Many are unable to afford the food they need. Malnutrition rates are among the highest in the world.

The push to intensify and diversify agricultural production in the southern delta, through the better use of technology and improved agricultural practices, will help boost people's incomes and diets.

This, along with better water and embankment management, will help prevent the rural poor from being completely blindsided by the next disaster – important in a country increasingly faced with erratic monsoon rains, cyclones, rising sea levels and drought.

"It's extreme when it rains and extreme when it's dry," said Abdul Mannan, a 70-year-old rice farmer who has lost crop land to encroaching sea water and salinity over the years – a phenomenon affecting many in this area.

New technologies and training key

To help farmers get the most from their land, especially during the dry boro season, FAO is working to introduce new crop varieties, such as saline- and stress-tolerant seeds, as well as modern machinery like power tillers, threshers, dryers and irrigation pumps.

It is also focusing on increasing surface water irrigation – or flood irrigation – and encouraging farmers to plant higher-value crops like fruit trees, vegetables, oil crops and mung beans.

Likewise, FAO is providing improved fishing boats, nets and safety equipment, supporting sustainable fishing practices and strengthening livestock management and production.

Helping producers form community-based groups and marketing organizations will ensure sustained access to inputs and stronger bargaining power.

While technical training on diversifying production, minimizing post-harvest losses and increasing the value

and consumer appeal of their goods will help put the producers on a path to a more secure future.

"Around the time of the religious feast, Eid-al-Adha ('Festival of Sacrifice'), goats can go for up to 10 000 taka each (\$143)," said Abu Sayeed Mia, a livestock production specialist with FAO Bangladesh. "If we can train women to raise their goats using better feed, vaccinations and shelter and wait to sell them in time for Eid, with two or three goats they can make 20 000-30 000 taka and that's good money."

6. Initiative on soaring food prices

Bangladesh's location at the mouth of three huge river systems flowing into the Bay of Bengal makes it particularly susceptible to floods. It is densely populated so overcrowding, land shortages and unsustainable farming practices mean forests have been destroyed and soil erosion has made riverbeds rise. Monsoonal floods are an almost annual occurrence, as are the seasonal cyclones.

While agriculture is the major livelihoods source for most Bangladeshis, most struggle to maintain any significant level of production. About 60 percent of farmers are functionally landless, working as sharecroppers on terrain owned by landlords.

Another 20 percent of farmers are considered marginal, eking out crops on fractions of a hectare, but not enough to feed a family for the year.

In November 2007, tens of thousands of homes were destroyed by Cyclone Sidr and two major floods also wreaked havoc, causing the loss of an estimated 1.4 million tonnes of rice. Furthermore, rapid price rises of rice and other foods are putting intolerable pressure on poor urban and rural households, forcing them to abandon consumption of protein foods and causing an increase in malnutrition.

This year, rice harvests may be reduced by pest infestations. Potash fertilizer normally would reduce the likelihood of infestations, but in many cases potash simply wasn't available or was too pricey.

In September, the price of staple rice was 41 percent higher than in September 2007. As a result, most households have even less “spare” cash to buy agricultural inputs such as seed and fertilizer. Over the last year, the price of quality seed also rose around 15 percent, making it too expensive for many marginal and small farmers.

FAO response

FAO already has an emergency programme that helps farmers to deal with the regular weather shocks that afflict Bangladesh. In the wake of the food price crisis, interventions include a Technical Cooperation Programme project supporting small and marginal farmers in the cyclone-affected districts. The project is valued at US\$500 000 to cover distribution of 680 tonnes of high-yielding seed to 140 000 beneficiaries.

Bangladesh is also included in a regional Technical Cooperation Programme project that aims to build capacity of countries in putting in place the social and productive safety nets, such as agricultural tools and supplies, to support vulnerable people. The project also strengthens monitoring and evaluations systems as well as policy making via national and regional institutions.

FAO/WFP Crop and Food Supply Mission to Bangladesh, August 2008

The mission estimated that an increase in food prices had raised the number of “Absolute Poor” by 9 million people to a total of 80 million and increased the prevalence of undernourishment to over 55 percent.

The mission made various recommendations to improve agricultural production in Bangladesh such as:

- Increase investment in superior rice varieties specific for areas of Bangladesh
- Improve access to fertilizers and ensure their most efficient and effective use
- Secure the electricity supply necessary to power irrigation systems
- Strengthen farmers’ organizations
- Improve access to credit for vulnerable farmers so they can buy inputs

- Expand incentives to increase pulse crop production
- Explore ways to address micronutrient deficiencies

7. Bangladesh dairy cooperative lifts farmers out of poverty

Milk Vita, independent of aid for 10 years, expanded milk production, improved cow care and set an example for private dairies

Potazia, Bangladesh – The morning “rush hour” in this dusty but prosperous village in northeast Bangladesh is a happy affair. Talking and laughing, children and adults throng a collection point in the main square, all holding in their hands the source of the community’s success: jugs of milk.

“In 1976, when I first came to this village, the houses were made of straw and palm fronds,” says Dr Mohammad Abdul Barik, a veterinarian and Deputy General Manager for Societies of the Bangladesh Milk Producers’ Cooperative Union Ltd., known throughout the country by the brand name Milk Vita. “Now, as you see, the houses are made of corrugated iron.”

Alhaj Mohammed Huq, a retired teacher and chairman of the local milk society, adds, “The conditions here were miserable when I was a child. Most students had a hard time buying books.”

Potazia’s business had been to supply milk to a small commercial dairy about 20 to 25 kilometres away. Roads were bad. Villagers would send milk all that way and sometimes the dairy couldn’t process any more milk and wouldn’t buy it.

“We were exploited,” says Mr Huq. “Milk was used in sweets but there was a monopoly of sweet makers and they controlled the price. If they liked they would offer five taka (10 cents), or they would not even take the milk.”

Then the people from the Milk Vita dairy cooperative came to town, and the result is a remarkable 25-year march of progress in a corner of one of the world’s poorest countries. Not only did Milk Vita break the milk buyers’ monopoly but, more importantly, it substantially expanded milk production in the region. The success

shows clearly what is possible when the right idea, the right economic and physical environment and the right participants come together under competent management.

FAO, the United Nations Development Programme and the Danish aid agency DANIDA stuck with the dairy cooperative for as long as they were needed – 15 years – a long time for development agencies to stay focused on one project. FAO trained the current generation of managers and provided technical assistance for everything from animal health to milk processing to product marketing.

Sheikh Mujibur Rahman, Bangladesh's founding father, had a vision of democratically run farmers' cooperatives leading rural development in the country.

The government started Milk Vita shortly after independence in 1974. In the early 1990s it withdrew, leaving the cooperative to an independent Board of Directors, the majority of who are now farmer-elected. The new board replaced civil servants with professional managers and the cooperative finally became profitable.

Milk Vita is Bangladesh's largest dairy company and the leading supplier of fresh milk and dairy products such as butter and yogurt to Dhaka. Private dairies even copy some of Milk Vita's business model. For the last 10 years Milk Vita has stood on its own two feet, without subsidies from either the international community or the government. In 1998, 40 000 farmers, who pay a nominal fee to join the cooperative, earned a total of US\$9.3 million through the sale of 30 million litres of milk. Farmers receive crucial animal services such as vaccinations and artificial insemination.

Dividends decided by the cooperative flow back to producers – in 2000, US\$1.5 million was paid out. The price of milk is set by the cooperative based on current demand.

The best news of all is that Milk Vita will expand into four new areas of Bangladesh where traditional small-scale milk production still prevails – to be financed not by international charity but by the cooperative's own profits.

"My vision 25 years ago was that this farmers' cooperative would cover all of Bangladesh," says Dr Barik.

Judging by the facts, there is no reason why the dream can't come true.

List of selected projects

Title	Symbol	EOD	NTE	Budget (\$)
Support to Practical Training of Small Farmers At the Tajhat Agricultural Extension Training Institute	TCP/BGD/6702	1977	1979	119 187
Strengthening Plant Quarantine Services	TCP/BGD/6703	1978	1978	135 000
Freshwater Aquaculture Training	TCP/BGD/6704	1978	1978	250 000
Training Assistance (Agricultural Credit) to the Bangladesh Krishi Bank	TCP/BGD/8801	1978	1980	180 000
Mango Orchard Treatment	TCP/BGD/7904	1979	1979	75 700
Mango Orchard Treatment	TCP/BGD/7903	1979	1979	150 000
Emergency Supply of Wheat Seed	TCP/BGD/8906	1979	1979	150 000
Emergency Supply of Wheat Seed	TCP/BGD/8907	1979	1979	100 000
Supply of Tarpaulins for Storage	TCP/BGD/8908	1979	1979	15 000
Feasibility Study for Setting Up of a Food Corporation	TCP/BGD/8909	1979	1979	100 000
Training Field Supervisors in Construction Techniques	TCP/BGD/8905	1980	1980	120 000
Support to Pratical Training of Small Farmers At Tajhat Agricultural Extension Training Institute (Phase II)	TCP/BGD/8914	1980	1981	216 000
Agricultural Extension System (Phase II)	BGD/79/034/ /01/12	1980	1992	5 406 584
Fertilizer Demonstration	BGD/80/002/ /01/12	1980	1994	1 903 393
Assistance in Temporary Storage	TCP/BGD/0004	1980	1981	140 500
Emergency Assistance Rice Hispa Control	TCP/BGD/0107	1982	1982	250 000
Bangladesh - Fisheries Advisory Services	BGD/81/034/ /01/12	1982	1989	2 153 448
Accelerated Pulses Improvement Programme	TCP/BGD/2202	1982	1984	83 025
Demonstration and Training in Water Lifting Devices Installation and Operation for Crop Production	TCP/BGD/2204	1982	1983	25 593
Zinc and Sulphur Deficiency	TCP/BGD/2203	1983	1985	78 539
Bangladesh - Strengthening of the National Progr. in Marine Fisheries Research Mang. and Dev.	BGD/80/025/ /01/12	1983	1991	3 396 124
Freshwater Pearl Culture Demonstration	TCP/BGD/2308	1984	1985	78 073
Sundarbans Forest Development Planning Mission	TCP/BGD/2309	1984	1984	100 447
Assistance to the Second Agricultural Research Project	BGD/83/010/ /01/12	1984	1992	559 314
Poultry Improvement	BGD/82/003/ /01/12	1984	1990	2 445 766
Mango Development	BGD/81/022/ /01/12	1984	1992	1 499 228
Agricultural Marketing and Price Policy Improvement	TCP/BGD/4401	1984	1986	144 164
Procurement of Vegetable Seeds for Agriculture Rehabilitation Programme	TCP/BGD/4404	1984	1985	60 426
Forest Industries Development Corporation Study	TCP/BGD/4403	1984	1984	51 303
Provision of Veterinary Supplies for Livestock in Flooded Areas	TCP/BGD/4405	1984	1985	101 424
Vegetable Dye Development (Women)	TCP/BGD/4406	1985	1987	76 206
Soil Resources Development Institute	BGD/81/023/ /01/12	1985	1992	1 002 569

Title	Symbol	EOD	NTE	Budget (\$)
Cotton Improvement	BGD/84/068/ /01/12	1985	1991	882 494
Community Forestry	BGD/81/028/ /38/45	1985	1995	1 337 180
Training of Tree Planting Silvic and Agriculture	BGD/84/046/ /01/12	1985	1990	132 892
Second Rural Development Programme	BGD/83/007/ /01/12	1985	1993	1 228 709
Freshwater Pearl Culture-Aquaculture	TCP/BGD/4508	1985	1986	90 672
Strengthening Inoculant Production-Fertilizers	TCP/BGD/4509	1985	1987	65 857
Provision of FMD Vaccine	TCP/BGD/4510	1985	1986	192 984
Improvement of Rural Marketing	TCP/BGD/4511	1986	1987	156 011
Assistance in Developing New Markets for Fresh Andprocessedpotatoes	TCP/BGD/4512	1986	1987	139 866
Agricultural Research	BGD/83/010/ /01/12	1986	1992	1 096 212
Dairy Extension	BGD/85/231/ /01/12	1986	1996	1 877 770
Fishing Quality Control	BGD/85/063/ /01/12	1986	1991	90 671
Statistics Development	BGD/82/024/ /01/12	1986	1990	354 153
Emergency Provision of Goat Pox Vaccine	TCP/BGD/6651	1986	1987	145 919
Strengthening of National Vegetable Seed Programme (Phase I and II)	GCP/BGD/025/BEL	1987	1999	3 871 610
Third Flood Control Project	BGD/85/029/ /38/42	1987	1996	165 595
Strengthening in Fisheries Sector	BGD/85/009/ /01/12	1987	1991	360 377
Coconut Production	BGD/85/141/ /01/12	1987	1992	261 911
FAO/WFP Mission to Assess Loss and Damage Due to Flooding and Propose Rehabilitation Measures	TCP/BGD/6754	1987	1987	34 332
Supply for Vegetable Seeds for Post-Flood Agricultural Rehabilitation Programme	TCP/BGD/6755	1987	1988	203 913
Rural Roads and Markets (Phase II)	TCP/BGD/6760	1988	1988	122 000
Operational Efficiency of the Directorate General of Food	GCPS/BGD/026/SWI	1988	1996	2 210 058
Upazila Afforestation	BGD/84/054/ /38/45	1988	1995	2 415 892
Development of an Early Warning System (Phase I)	GCPS/BGD/021/JPN	1988	1993	370 320
Re-Organization D.G. of Food and Strengthening Food Security	GCPS/BGD/024/SWI	1988	1993	2 173 393
Assistance to the Small Farmers	BGD/81/012/ /01/12	1988	1993	231 693
Education in the Forestry Sector	BGD/85/011/ /01/12	1988	1994	2 641 756
Remote Sensing in Agriculture, Fisheries, Forestry	BGD/85/031/ /38/99	1988	1996	812 004
Duck Breeding Farm	BGD/85/124/ /01/12	1988	1996	1 541 498
Fisheries Strengthening	BGD/87/045/ /01/12	1988	1995	3 078 820
Cereals Production	BGD/88/031/ /01/12	1988	1992	280 676
Forestry Sector (Phase II)	BGD/85/085/ /01/12	1988	1995	2 548 457
Emergency Supply of Vaccines for Post-Flood Livestock Rehabilitation	TCP/BGD/8852	1988	1989	222 347
Emergency Supply Vegetable Seeds for Post-Flood Agr. Rehab.	TCP/BGD/7851	1988	1989	250 000
Fertilizer Demonstration and Distribution	TCP/BGD/8853	1989	1990	266 000
Assistance in Food and Nutrition Planning	TCP/BGD/8954	1989	1990	190 000

Title	Symbol	EOD	NTE	Budget (\$)
Vegetable Seed Production (Phase I - III)	GCP/BGD/022/DEN	1989	1997	1 726 747
Agricultural Research	BGD/83/010/ /01/12	1989	1992	504 147
Emergency Supply of Goat Pox Vaccine	TCP/BGD/9052	1990	1990	65 000
Development of Sundarbans Reserved Forest	BGD/84/056/ /01/12	1990	1993	3 597 922
Assisting Transformation to Irrigated Agriculture	BGD/89/039/ /01/12	1991	1994	1 855 636
Promotion of Tissue Culture Technology	TCP/BGD/0051	1991	1993	364 000
Horticulture Research and Development	BGD/87/025/ /38/45	1991	1997	3 681 866
Mango Improvement and Development Project (Phase II)	BGD/89/044/ /01/12	1991	1993	699 128
Emergency Assistance for Agricultural Rehabilitation in Cyclone Affected Areas	TCP/BGD/0154	1991	1991	300 000
Emergency Support to the Livestock Sector Following the Cyclone	TCP/BGD/0155	1991	1991	305 000
Rehabilitation of Cyclone and Tidal Bore Affected Artisanal Fishermen	TCP/BGD/0156	1991	1992	245 000
Forestry Master Plan	BGD/88/025/ /38/45	1991	1992	347 985
Assistance to Livestock Research Institute	BGD/89/013/ /01/12	1991	1993	344 657
Fisheries Development	BGD/92/01T/ /08/12	1992	1993	135 525
Assistance to Fisheries Research Institute	BGD/89/012/ /01/12	1992	1994	734 015
Follow-up to Agricultural Sector Review	BGD/92/02T/ /08/12	1992	1993	163 481
Strengthening of the National Vegetable Seed Programme	GCP/BGD/028/DEN	1994	1998	1 753 984
Support for Development of National Action	BGD/94/01T/ /08/12	1994	1995	155 000
Strengthening Rural Pond Fish Culture Extension Services	TCP/BGD/4451	1994	1996	246 200
Establishment of Agricultural Research Management Procedures	TCP/BGD/4452	1994	1996	232 000
Agro-Ecological Zones	BGD/95/006/ /01/99	1995	2002	1 399 510
Thana Cereal Technology Transfer and Identification	BGD/89/045/ /01/12	1995	2002	4 415 896
Thana Cereal Technology Transfer and Identification Project	BGD/89/045/ /09/12	1995	2001	49 400
Integrated Pest Management (TSS2)	BGD/95/003/ /09/12	1995	2001	81 504
Agro-Ecological Zones (TSS2)	BGD/95/006/ /09/12	1995	2001	87 501
Emergency Supply of Vegetable Seeds	TCP/BGD/4554	1995	1996	178 000
Support to Master Plan for the Forestry Sector	TCP/BGD/4553	1996	1997	273 000
Pracration of Haccp-Based Fish Quality Assurance	TCP/BGD/4555	1996	1998	136 000
Sustainable Food Security in Bangladesh (TSS1)	BGD/96/02T/ /08/12	1996	1997	114 000
Integrated Pest Management	BGD/95/003/ /01/99	1996	2001	986 640
Emergency Assistance to Tornado-Affected Families	TCP/BGD/6611	1996	1997	139 000
Horticulture Research and Development - TSS2	BGD/87/025/ /09/12	1996	1997	52 050
Strengthening of Support Services in Irrigated Agriculture	TCP/BGD/6612	1997	1999	220 000
Development and Use of Hybrid Rice	TCP/BGD/6613	1997	1999	191 222

Title	Symbol	EOD	NTE	Budget (\$)
Empowerment of Coastal Fishing Communities	BGD/97/027/ /08/12	1997	1998	31 978
Improvement of Household Food Security Through the Promotion of Community Based Self-Help Farmers Groups	MTF/BGD/001/JFA	1997	2000	81 628
Disease Prevention and Health Management in Coastal Shrimp Culture	TCP/BGD/6714	1997	1999	297 747
SPFM Bangladesh	SPFM/BGD/6701	1997	1999	41 980
National Plan of Action on Nutrition	BGD/98/002/ /08/12	1998	1999	83 933
Consequences of the Uruguay Agreements for Bangladesh	BGD/98/008/ /08/12	1998	1999	108 000
Continued Support to the Master Plan for Developing Theforestry Sector (Phase II Bgd/4553)	TCP/BGD/7821	1998	1998	75 461
Preparation of a Haccp-Based Fish Quality Assurance Programme (Phase II BGD/4555)	TCP/BGD/8822	1998	1998	33 000
Preparation of a Haccp-Based Fish Quality Assurance Programme (Phase II)	TCP/BGD/7822	1998	1999	33 000
Northwest Region Integrated Agricultural Development Project	TCP/BGD/7823	1998	1998	164 000
Preparation of the Pilot Phase for Launching Watercomponent of SPFS	TCP/BGD/8824	1998	1998	33 000
Emergency Supply of Agricultural Inputs to Flood-Affected, Marginal and Landless Farmers	OSRO/BGD/801/OPF	1998	1999	194 099
Emergency Supply of Vegetable Seeds to Flood-Affected Farmers	TCP/BGD/7825	1998	1999	250 000
FAO/WFP Crop and Food Supply Assessment Mission	BGD/91/029/ /01/99	1998	1999	86 000
Emergency Supply of Veterinary Medicines and Vaccines to Flood Affected Livestock Farmers in Bangladesh	TCP/BGD/8826	1998	1999	400 000
Emergency Supply of Veterinary Medicines and Vaccines to Flood Affected Farmers in Bangladesh	TCP/BGD/7826	1998	1999	400 000
Assessment of Flood Damages in Fisheries and Livestock Sectors	TCP/BGD/7827	1998	1999	104 966
Preparation of a Pilot Phase for Launching Water Control Component of SPFS (Advance Allocation)	TCP/BGD/7824	1998	1998	33 000
Smallholder Livestock and Dairy Development	BGD/98/001/ /09/12	1999	2002	160 257
On-Farm Water Management Pilot Programme in Support of the Special Programme for Food Security	TCP/BGD/8928	1999	2000	257 648
Community Livestock and Dairy Development	BGD/98/009/ /01/72	1999	2005	1 123 442
SPFP Bangladesh	SPFP/BGD/8901	1999	2002	206 150
Crop Yield Forecasting and Agrometeorology	UTF/BGD/029/BGD	2000	2003	454 500
Soil Testing and Fertility Management Project	UTF/BGD/030/BGD	2000	2003	437 000
Seed Quality Control.	BGD/99/006/ /08/12	2000	2000	81 000
Affects of Arsenic Contaminated Water on Crop Production	BGD/99/009/ /08/12	2000	2002	167 453

Title	Symbol	EOD	NTE	Budget (\$)
Empowerment of Coastal Fishing Communities For Livelihood Security	BGD/97/017/ /09/12	2000	2003	95 000
Integrated Horticulture and Nutrition Development	BGD/97/041/ /09/12	2000	2003	100 522
Integrated Horticulture and Nutrition Development	BGD/97/041/ /01/99	2000	2006	3 793 556
Emergency Supply of Agricultural Inputs to Floodaffected Farmers in Bangladesh	TCP/BGD/0066	2000	2001	-8 470
Emergency Supply of Agricultural Inputs to Floodaffected Farmers in Bangladesh (Recoded from TCP/BGD/0066)	TCP/BGD/9066	2000	2001	290 302
Empowerment of Coastal Fishing Communities for Livelihood Security	BGD/97/017/ /01/99	2001	2007	4 883 356
Developing Plan of Action for Implementation of the National Agriculture Policy	BGD/00/006/ /08/12	2001	2003	146 000
On-Farm Water Management Pilot Programme in Support of the SPFS (Phase II)	TCP/BGD/0167	2001	2001	77 346
Technical Assessment for the Development of Agriculture, Fisheries and Livestock Sectors in the Chittagong Hill Tracts	BGD/99/007/ /08/12	2001	2003	178 000
Emergency Control of PPR Epidemic	TCP/BGD/0168	2001	2003	400 000
Overseas Training for Sunderbans Reserved Forest Project	UTF/BGD/032/BGD	2001	2005	778 225
Agricultural Market Information Improvement	TCP/BGD/0065	2002	2003	256 500
Special Programme for Food Security in Bangladesh	GCSP/BGD/033/JPN	2002	2008	3 296 075
Assessment of utilization and potential of bio-technological advancement for agricultural development	BGD/02/005/ /08/12	2002	2003	228 000
Strengthening Food Control in Bangladesh	TCP/BGD/2901	2003	2005	294 715
Intensification of Sustainable Production of Wheat and Rice-Wheat Systems	TCP/BGD/2902	2003	2005	300 752
Training Programme for the Small-scale Dairy Sector (Recoded from TCP/BGD/2903)	TCP/BGD/2903	2004	2005	358 330
Strengthening Disaster Preparedness in the Agricultural Sector	TCP/BGD/2904	2004	2005	322 413
Strengthening Capacity to Generate Quality Information on Forest Resources	TCP/BGD/3001	2004	2007	324 766
Comprehensive Disaster Management Programme (CDMP): FAO Component: Sustainable Livelihood Adaptation	BGD/01/004/ /01/99	2004	2010	900 000
Emergency Supply of Seeds and Fertilizers to Flood Affected Farmers in Bangladesh	OSRO/BGD/401/NOR	2004	2005	289 456
Emergency supply of rice seeds and fertilizers to flood affected farmers in Bangladesh	OSRO/BGD/402/SWE	2004	2005	700 890

Title	Symbol	EOD	NTE	Budget (\$)
Sustainable Livelihood Development of Urban Poor through Improved Management of Urban and Peri-urban Agricultural Micro-enterprises	BGD/98/006/ /01/99	2005	2007	430 155
National Food Policy Capacity Strengthening Programme	GCP/BGD/034/MUL	2005	2010	6 953 944
Local Level Capacity Building for Disaster Risk Management in Agriculture (LDRRF, Component 3c of the CDMP): Inter-agency Agreement number 26001	BGD/01/004/ / 01/31	2006	2007	93 879
Emergency control of the spread of Post-flood Foot and Mouth Disease in Bangladesh through Strategic Vaccination	OSRO/BGD/701/CHA	2007	2007	337 256
TCP Facility	TCP/BGD/3103	2007	2008	121 162
Emergency agricultural response to cyclone-affected farmers and fishing communities	OSRO/BGD/702/CHA	2007	2008	1 000 000
Emergency response to cyclone Sidr affected farmers and fishers in the worst affected districts of South-West Bangladesh	OSRO/BGD/703/BEL	2007	2008	2 000 000
Emergency Response and Early Recovery for flood- and cyclone-affected farmers in Bangladesh	OSRO/BGD/704/SWI	2007	2009	2 243 919
Developing a national shrimp seed certification system	TCP/BGD/3101	2008	2009	391 348
Assistance in the formulation of enabling regulatory measures for research and sustainable application of biotechnology	TCP/BGD/3102	2008	2009	330 000
Strengthening Capacity to Generate Quality Information on Forest Resource – Phase II of TCP/BGD/3001	TCP/BGD/3104	2008	2008	26 690
Emergency response to Cyclone Sidr and Flood affected farmers through agricultural input supply and Foot-and-Mouth Disease vaccination for livestock	BGD/08/001/ /01/34	2008	2009	1 800 000
TCP Facility	TCP/BGD/3201	2008	2011	298 518
Input supply to vulnerable populations under ISFP (Recoded from Entity no. 605708)	TCP/BGD/3202	2008	2009	500 000
Emergency Restoration of Livelihoods of Impoverished Households Living on Embankments and Affected by Cyclone Sidr.	OSRO/BGD/801/SPA	2008	2009	2 089 136
Emergency Recovery of the Agriculture Sector and Rehabilitation of Livelihoods in Areas of Bagerhat District Severely Affected by Cyclone Sidr	OSRO/BGD/802/SWI	2008	2009	493 776
National Food Policy Capacity Strengthening Programme (NFPCSP) USA – (Phase II of GCP/BGD/034/MUL)	GCP/BGD/037/MUL	2009	2012	5 082 460
National Food Policy Capacity Strengthening Programme (NFPCSP) EC – (Phase II of GCP/BGD/034/MUL)	GCP/BGD/037/MUL	2009	2012	5 307 227
Improving food safety, quality, hygiene and food control in Bangladesh	GCP/BGD/038/EC	2009	2010	9 207 536

Title	Symbol	EOD	NTE	Budget (\$)
Assistance in the data processing and analysis of the Bangladesh census of agriculture	TCP/BGD/3203	2009	2011	165 000
Emergency safety net for vulnerable groups affected by high food prices and natural disasters in Bangladesh – homestead gardening.	OSRO/BGD/901/WFP	2009	2010	500 000
Emergency Provision of Agricultural Inputs to Cyclone Aila Affected Farmers in Southwestern Bangladesh	TCP/BGD/3204	2009	2010	490 000
Immediate technical assistance to strengthen emergency preparedness for Highly Pathogenic Avian Influenza (HPAI), including active surveillance – Strengthening emergency preparedness and Response for HPAI – (Grant number GHA-G-00-06-00001)	OSRO/BGD/902/USA	2009	2011	5 332 800
Enhancing rural communication services for agricultural development through community rural radio	TCP/BGD/3205	2010	2011	457 500
Protecting and Promoting Food Security and Nutrition for Families and Children in Bangladesh (MDGF-1994)	UNJP/BGD/042/SPA	2010	2013	2 289 498
Support to assist landless, marginal and small farmers to overcome soaring input and food prices in impoverished areas of Bangladesh	GCP/BGD/043/EC	2010	2011	8 981 063
Emergency Cyclone Recovery and Restoration Project (ECRRP)	UTF/BGD/040/BGD	2010	2013	16 000 000
Developing a National Shrimp Seed Certification System in Bangladesh – Phase II of TCP/BGD/3101	TCP/BGD/3206	2010	2010	25 530
Bangladesh Avian Influenza preparedness and Response project	UTF/BGD/036/BGD	2010	2012	1 082 167
TCP Facility	TCP/BGD/3301	2010	2011	162 226
Food Security through enhanced agricultural production diversified sources of income, value addition and marketing in Bangladesh	GTFS/BGD/041/ITA	2010	2014	2 954 210
Restoration of the Livelihood of 1 000 Women Severely Affected by Cyclone Aila in Southwestern Bangladesh	OSRO/BGD/002/SWI	2010	2011	200 000
Immediate Assistance to Restore the Livelihoods of Women and Fish Farmers Severely Affected by Cyclones in Southwestern Bangladesh	OSRO/BGD/001/SPA	2010	2011	855 052

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