



MYANMAR

POST-NARGIS RECOVERY AND REHABILITATION PROGRAMME

PROJECT PROFILES

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

TABLE OF CONTENTS

Crop Subsector Project Profiles

Improved Village Storage Capacity	2
Agriculture Mechanization.....	5
Improving Storage Capacity.....	8
Local Seed Production	10
Promotion of Environmentally Friendly Practices.....	13
Farmer Groups	15
Intensive Backyard Gardening.....	17
Enhance Agricultural Support Service Capacities	20
Enhance the Production and Processing Capacity of the Landless and Smallholders.....	22
Adapted Financial Services.....	24
Enhance Access to Adapted Credit.....	26

Fisheries Subsector Project Profiles

Subsistence Capture Fisheries	28
Aquaculture	33
Post-Harvest Treatment and Processing.....	36
Resource Monitoring and Protection.....	39

Livestock Project Profiles

Restocking of Draught Animals	42
Restocking of Poultry	44
Restocking of Piglets and Goats	46
Enhance the Existing Vaccination Capacity	48

Forestry Subsector Project Profiles

Community Forestry and Comprehensive Coastal Zone Management.....	50
Community-Based Forestry and Mangrove Rehabilitation	53

PROJECT PROPOSAL - IMPROVED VILLAGE STORAGE CAPACITY

Project Title:	Enhancing Access to Agricultural Inputs through Village Input Stores Networks
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Agricultural production, income generation, farmers' organizations
Objective:	To improve access to agricultural inputs at village level
Targeted Beneficiaries:	Small- and medium-scale farmers
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 8 000 000

1. Background and justification

Farmers, whatever their holding size, face a steady trend of increasing input prices, namely fertilizers. Farmers usually cope with this by decreasing significantly the quantity of fertilizers they use, even limiting the type to the cheapest (i.e. urea), thus carrying out unbalanced fertilization. In addition, farmers barely use amendments that contribute to improving the efficiency of the fertilizers and soil fertility. Subsequently, even the use of high-yielding variety (HYV) seeds cannot allow a significant increase in yields since these varieties are demanding of nutrients. Further, farmers generally lack fresh, quality seeds to renew their stock. This is especially acute in the current situation in the delta where farmers have lost their former stock of seeds and will harvest rice of variable quality, thus facing difficulties in accessing fresh and quality seeds.

2. Project objectives

The objective of this project is to improve the access and use of quality seeds and fertilizers in the most affected townships in the Ayeyarwady delta by establishing self-managed input stores at village level and networking them to achieve scale economies.

To achieve this objective, the project will aim to: i) provide a start-up stock of inputs; ii) establish 100 self-managed village input stores (VIS); iii) build the capacity of 100 farmers' organizations in the management of the stores; and iv) link and network the VIS in order to achieve scale economies.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale farmers who are eager to organize themselves and to improve their access to inputs.

4. Planned activities

The main activities of the project will consist of the following:

PROJECT PROFILES: CROPS SUBSECTOR

- provision of 9 000 tonnes of seeds and 11 000 tonnes of fertilizers to 100 VIS (90 tonnes of seeds and 110 tonnes of fertilizers to each VIS) to constitute the start-up stocks and generate a revolving fund;
- establishment of 100 VIS (approximately 15 per township) and the provision of iron sheets, door/window frames and small furniture;
- facilitation of 100 farmers' organizations for carrying out joint input supply activities;
- building capacity in economic management (i.e. book keeping and stock management) and organizational issues;
- linking and networking the VIS within the same township to carry out the joint purchase of inputs in order to achieve scale economies and increase their bargaining power; and
- linking the VIS with input suppliers and technical advisory services.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 100 self-managed, economically viable and sustainable VIS are established, selling inputs to local farmers, networked and linked with suppliers and relevant technical service providers;
- at least 10 000 households have improved their access to inputs;
- at least 100 000 hectares are sown with quality seeds and properly fertilized;
- at least 500 persons are trained in VIS technical and economic management;
- revolving funds are sustained and increasing at VIS level;
- VIS management teams have increased bargaining power through their network; and
- VIS are linked with their technical, institutional and economic environment.

6. Inputs

One International Expert (part time), Project Manager, will support one National Specialist. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will procure 9 000 tonnes of seeds, 11 000 tonnes of fertilizers, iron sheets, door/window frames and small furniture to set up the VIS. The project will organize training and workshops, exchange of experience among VIS management teams and distribute didactic material related to economic management.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned duration of the project is 36 months, from January 2009 to December 2011. This period of time will cover three revolving cycles of the funds/stocks and will allow for efficient support in capacity building and the provision of advisory services to strengthen the VIS and the management teams.

PROJECT PROFILES: CROPS SUBSECTOR

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	185 800
Inputs (seeds, fertilizers and amendments, training, contracts and other materials)	6 849 500
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	194 927
Administration costs (technical support services, reporting, monitoring and evaluation)	42 500
Direct operating costs	727 273
Total	8 000 000

PROJECT PROPOSAL - AGRICULTURE MECHANIZATION

Project Title:	Improving Access to Agricultural Equipment and Mechanization
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Agricultural production, productive assets recovery, income generation, farmers' organizations
Objective:	To improve access to mechanization and equipment for small- and medium-scale farmers
Targeted Beneficiaries:	Small- and medium-scale farmers
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 4 500 000

1. Background and justification

Cyclone Nargis caused the loss of more than 50 percent of cattle and buffaloes in the Ayeyarwady delta area. The animals were mainly used for draught power to ensure land preparation tillage operations, as well as for threshing paddy. Early recovery humanitarian assistance has restored less than 10 percent of the lost draught livestock. Recovering the initial population of livestock is likely to be a medium- to long-term endeavour. In the short- and medium-term, the most advisable alternative lies in the mechanization of tillage operations to allow timely land preparation and threshing operations in order to decrease post-harvest losses.

However, individual farmers often cannot afford the cost of agricultural machinery. In addition, both the size of the holdings and the operational costs of agricultural machinery make their use non-profitable for small- and medium-scale farmers. In the irrigated area, these farmers often face difficulties in accessing water pumps to cover their irrigation needs, thus limiting their summer paddy production capacity.

2. Project objectives

The project aims to improve access to and the use of productive assets, such as power tillers, threshers and water pumps, in the most affected townships in the Ayeyarwady delta by establishing self-managed machinery rings and networking them to achieve scale economies.

To achieve this, the project will aim to: i) provide start-up kits of agricultural equipment; ii) establish 560 self-managed machinery rings; iii) build the capacity of 150 farmers' organizations in the management of the machinery rings and organization functioning; and iv) link and network the machinery rings with their economic and institutional environment.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta area. Within the defined areas, the project will assist small- and medium-scale farmers who are eager to organize themselves and to improve their access to equipment.

4. Planned activities

The main project activities will include:

- provision of 560 power tillers, 560 water pumps, 560 threshing machines and other equipment according to needs (e.g. seeders, harvesters, etc.) to 560 machinery rings for shared use and service provision to farmers;
- facilitation of 560 farmers' organizations for carrying out joint activities for the shared use of equipment;
- building capacity in economic management (i.e. book keeping, stock management), technical management (operators) and organizational management; and
- linking and networking the machinery rings with the equipment suppliers and technical advisory service providers.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 560 self-managed, economically viable and sustainable machinery rings are established, providing mechanization services to the members and other farmers, networked and linked with suppliers and relevant technical service providers;
- at least 5 600 households have directly improved their access to equipment and an additional 5 600 households are benefiting from services for mechanized farm operations;
- at least 80 000 hectares of land have been timely cropped and irrigated;
- at least 560 persons have received training in the technical and economic management of machinery rings;
- the machinery rings are technically and economically viable and sustainable, capable of self-financing their growth; and
- the machinery rings are linked with their institutional and economic environment.

6. Inputs

One International Expert (part time), Project Manager, will support one National Specialist. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will procure 560 power tillers with attachments, water pumps and pipes, threshing machines, and other relevant equipment (i.e. seeders, harvesters) to set up the machinery rings.

The project will organize training, workshops and an exchange of experience among the management teams of the machinery rings, and will distribute didactic material related to economic management. Machinery operators will receive training in the use and maintenance of the equipment.

PROJECT PROFILES: CROPS SUBSECTOR

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned duration of the overall project is 36 months, from January 2009 to December 2011. This timeframe will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for capacity building and provision of advisory services to strengthen the machinery rings and management teams.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	169 800
Inputs (power tillers and implements, threshers, water-pumps, training and contracts, other materials)	3 699 500
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	179 109
Administration costs (technical support services, reporting, evaluation, etc.)	42 500
Direct operating costs	409 091
Total	4 500 000

PROJECT PROPOSAL - IMPROVING STORAGE CAPACITY

Project Title:	Restoration and Improvement of Individual and Community Storage Facilities
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Post-harvest management, physical assets recovery, food security, farmers' organizations
Objective:	To restore and improve storage capacities at farm and community levels
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 2 500 000

1. Background and justification

Flooding or subsequent wetting from rain destroyed between 75 and 85 percent of seed/grain stocks in the cyclone-affected area. This occurred because traditional bamboo seed stores were severely damaged by the cyclone. Humanitarian assistance during the early recovery phase focused on restoring production capacities as well as housing in the most affected areas.

Ensuring proper storage facilities is critical as it would decrease post-harvest losses and secure stock preservation in the event of future disasters, thus contributing to food security and disaster risk mitigation in rural communities.

2. Project objectives

This project aims to improve the food security status of rural communities through reducing post-harvest losses and improving household storage capacities. This will be achieved through providing vocational and agricultural training, as well as support to the establishment of 4 100 storage silos and emergency reserve stocks.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta area. Within the defined areas, the project will assist rural households and farming communities through the introduction of simple post-harvest technology and storage technology and the establishment of local silos with improved production capacity. Vulnerable populations will also benefit from the establishment of an emergency reserve stock.

4. Planned activities

The main project activities will consist of:

- consolidation of post-harvest loss reduction techniques through training on storage and processing methods;
- training and capacity building for agricultural extension workers, combined with capacity building for local farmers and artisans; and
- establishment of seed/grain storage facilities.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 50 rural blacksmiths and apprentices will have received training in the building of silos in rural areas, combined with community-wide seminars on silo construction and maintenance, allowing for the construction of over 4 100 silos with a total capacity of 4 000 tonnes;
- 100 post-harvest training sessions will have been held for approximately 8 000 farmers, NGOs and government staff in seven townships; and
- community emergency seed/grain stocks will have been established in the villages.

6. Inputs

One International Expert (part time), Project Manager, will support one National Specialist. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will procure 4 100 metal silos produced locally for distribution to the communities and beneficiaries selected for assistance. The project will organize training and workshops to build the capacity of local artisans, farmers and communities, and will distribute didactic material related to post-harvest and storage management.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This timeframe will cover two production cycles (i.e. monsoon and summer) for three years and will allow sufficient support for capacity building and provision of advisory services to strengthen the organizations managing the communities' storage facilities.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	169 800
Inputs (material and supplies for metal silo construction, training, contracts and other materials)	1 872 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	187 927
Administration costs (technical support services, reporting, evaluation, etc.)	43 000
Direct operating costs	227 273
Total	2 500 000

PROJECT PROPOSAL - LOCAL SEED PRODUCTION

Project Title:	Support to Local, Quality Seed Production
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Seed production, physical assets recovery, food security, farmers' organizations
Objective:	To restore and improve local communities' quality-seed production capacity
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 1 500 000

1. Background and justification

Between 75 and 85 percent of seed stocks were destroyed by flooding or subsequent wetting from rain in Nargis-affected areas because traditional bamboo seed stores were severely damaged by the cyclone. During the early recovery phase, humanitarian assistance focused on restoring production capacities by distributing seeds and fertilizers to ensure resumption of the monsoon cropping season.

The seeds distributed were of variable quality. The mediocre harvest of the monsoon cropping season will not allow for the reconstitution of the initial stock of quality and adapted seeds. It is essential that farmers can access quality seed to regularly renew their stocks. Myanmar Agriculture Services' (MAS) seed farms are used to contract farmers for registered seed production.

Under the common cropping patterns, farmers need to access various varieties of quality seeds, from high-yielding varieties (HYV) to salt-/flood-tolerant varieties. Farmers in the delta usually crop an assortment of varieties that fit with the various agro-ecological zones and soil type conditions within the holdings (i.e. flooded lowlands, salty soil areas and standards in the upper part of the holdings). In addition, ensuring proper storage facilities is critical because it would decrease post-harvest losses and secure seed stock preservation in the case of future disasters, thus contributing to food security and disaster risk mitigation in rural communities.

2. Project objectives

This project aims to improve access to quality and adapted seeds through building local capacity and facilitating the organization of specialized seed producer groups. This will be achieved through the provision of 150 tonnes of foundation seeds, agricultural training, facilitation and support to the establishment of 100 seed producer groups, equipped with adequate post-harvest equipment (i.e. threshers, dryers, silos) to ensure proper quality and preservation of the seeds.

3. Targeted area and beneficiaries

The targeted area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist experienced, small- and medium-scale rice growers with suitable land to produce quality seeds.

4. Planned activities

The project's main activities will include:

- distribution of 150 tonnes of foundation seeds;
- facilitation of the establishment of seed producer groups linked with the MAS seed farms and the relevant extension and technical services for follow-up and quality control of the seeds;
- consolidation of production and post-harvest loss reduction techniques through the provision of training on seed production, harvest and post-harvest management, storage and processing techniques;
- training and capacity building for agricultural extension workers, combined with capacity building for local farmers;
- facilitation of contractual links for seed production and linkages with technical and extension services for technical follow-up and quality control; and
- establishment of seed storage facilities.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 1 000 farmers have received training on seed production techniques;
- 100 seed producer groups are operational and produce at least 3 000 tonnes of quality seeds of adapted varieties per year;
- 100 seed producer groups are equipped with the relevant material and equipment to ensure proper harvest, post-harvest and storage of the seeds, ensuring maintenance and the preservation of the quality seeds produced; and
- 100 seed producer groups are linked with the relevant technical and extension services through contracts for seed production, technical follow-up and quality control.

6. Inputs

One International Expert (part time), Project Manager, will support one National Specialist. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will provide 150 tonnes of foundation seeds, 100 threshers, 100 dryers and 100 silos to the 100 seed producer groups. The project will organize training and workshops to build the capacity of farmers and extension services and will distribute didactic material related to post-harvest and storage management.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

PROJECT PROFILES: CROPS SUBSECTOR

The planned overall project's duration is 36 months, from January 2009 to December 2011. This timeframe will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for capacity building and provision of advisory services to strengthen the seed producer groups and their linkage to technical and extension services.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	169 800
Inputs (seeds, equipment, silos)	979 250
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	171 586
Administration costs (technical support services, reporting, evaluation, etc.)	43 000
Direct operating costs	136 364
Total	1 500 000

PROJECT PROPOSAL - PROMOTION OF ENVIRONMENTALLY FRIENDLY PRACTICES

Project Title:	Promotion of Environmentally Friendly, Good Cropping Practices
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Plant protection, fertility conservation, farmers' organizations
Objective:	To improve local communities' plant protection and fertility management and mitigate potentially negative impacts of agriculture on the ecosystems
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 2 500 000

1. Background and justification

The Ayeyarwady delta area constitutes a remarkable but fragile agro-ecological system where agriculture and fisheries are interlinked and natural resource preservation is essential. Cropping practices, namely the indiscriminate use of pesticides and mineral fertilization, can potentially have a negative impact on fisheries and on wildlife. Farmers lack awareness of best practices in the use of pesticides or alternative practices, whereas the use of fertilizers remains relatively limited. However, increasing crop productivity is often associated with a higher use of mineral fertilizers. It is therefore important to raise farmers' awareness on appropriate fertilization management.

2. Project objectives

This project aims to improve plant protection and soil fertility management through the dissemination of appropriate environmentally friendly practices to mitigate the potentially negative impact of agricultural activities on the ecosystems in the Ayeyarwady delta area.

3. Targeted area and beneficiaries

The targeted area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale farmers.

4. Planned activities

The main activities of the project include:

- establishment of integrated pest management (IPM), plant protection early warning networks and fertilization management, based on farmer field schools (FFSs);
- promotion of extension networks for IPM and fertilization management, linked with the FFS, and providing services (i.e. soil testing, advisory services) to farmers; and
- building the capacity of farmers and extension services in IPM, fertilization management techniques and extension methods.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 700 FFSs on plant protection and fertilization management are established and have improved their practices, reducing the use of pesticides and better using fertilizers;
- 15 000 farmers are trained in plant protection, IPM and best practices in fertilization management;
- 1 500 extension workers are trained and providing advisory services in IPM and fertilization management;
- use of pesticides is decreased; and
- overall fertility is improved.

6. Inputs

One International Expert (part time), Project Manager, will support two National Specialists. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to beneficiaries.

The project will distribute 700 soil testing kits, 700 soil salinity testers, 10 000 leaf colour charts and material for IPM to 700 FFSs and 1 500 extension workers. Training and workshops will be organized to build the capacity of farmers and extension services. Didactic material related to IPM and fertilization management will be distributed.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This period of time will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for capacity building and provision of advisory services to strengthen the FFSs and extension networks.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	211 800
Inputs (materials for IPM and soil testing)	1 836 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	181 927
Administration costs (technical support services, reporting, evaluation, etc.)	43 000
Direct operating costs	227 273
Total	2 500 000

PROJECT PROPOSAL - FARMER GROUPS

Project Title:	Decreasing Post-harvest Losses
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Crops, post-harvest techniques, farmers' organizations, and physical, human and social capital recovery
Objective:	To improve local communities' capacity to decrease post-harvest losses to increase farm productivity
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 3 000 000

1. Background and justification

Currently, post-harvest losses are estimated as high as 15 percent of the achieved yield. Moreover, some traditional harvest and post-harvest practices can negatively impact the quality of grain and rice. If the grade quality is too low, farmers consequently generate less income.

Introducing adapted equipment and building the capacity of farmers would decrease post-harvest losses from the field to storage facilities and increase the quality of the grain to be processed, thereby achieving a premium for the farmers. The combination of these two measures would result in an increase in the net margin, thus in the income of farmers, while improving the quality of rice along the commodity chain.

2. Project objectives

This project aims to improve harvest and post-harvest technical itineraries to decrease losses and improve grain quality within the Ayeyarwady delta area.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale rice growers.

4. Planned activities

The project's activities will consist of:

- establishing farmers' groups, sharing the use of threshing machines, dryers and rice mills;
- provision of manual threshers to individual farmers;
- building the capacity of operators to operate and maintain the equipment; and
- building the capacity of farmers and extension service providers in harvest and post-harvest techniques to decrease losses.

5. Project expected outputs

PROJECT PROFILES: CROPS SUBSECTOR

At the end of the project, the following outputs are expected:

- 180 farmer groups are established, gathering at least 3 000 farmers, managing threshing machines, dryers and rice mills and offering services to other farmers;
- 360 machine operators are trained in maintaining the post-harvest equipment;
- 1 000 farmers are equipped with manual threshers;
- 5 000 farmers are trained in post-harvest best practices;
- 500 extension workers are trained in providing advisory services in post-harvest management; and
- post-harvest losses are decreased by up to 8 percent of the yield.

6. Inputs

One International Expert (part time), Project Manager, will support two National Specialists. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will distribute 180 engine-powered threshers, 180 dryers and 180 rice mills to 180 farmer groups. Further, 1 000 man-powered threshers will be provided to 1 000 individual farmers.

The project will organize training and workshops to build the capacity of farmers and extension services and will distribute didactic material related to harvest and post-harvest best practices. Training will be provided to 180 operators in the operation and maintenance of the distributed equipment. As much as possible, other operators in existing processing units (rice mills) will be invited to the training.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. The monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This period of time will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for capacity building and the provision of advisory services, which will lead to strengthening farmers' groups.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	229 800
Inputs (engine-powered and manual threshers, dryers, rice mills, training and contracts)	2 252 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	202 472
Administration costs (technical support services, reporting, evaluation, etc.)	43 000
Direct operating costs	272 727
Total	3 000 000

PROJECT PROPOSAL - INTENSIVE BACKYARD GARDENING

Project Title:	Enhancing the Productivity of Kitchen Gardens for Increased Food Security and Income Generation
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Food security, income generation
Objective:	To address food insecurity of landless households in most affected areas
Targeted Beneficiaries:	Vulnerable rural households
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 2 500 000

1. Background and justification

Among the rural poor, home gardening is a strategic way to improve food production and household nutrition. Home gardens, with their intensive and multiple uses, can provide a safety net for poor families, especially during a period of food shortage. Thus they offer exceptional opportunities for food-based approaches to prevent malnutrition and food insecurity. In addition, home gardening may expand the income-generating opportunities of smallholders, particularly women, especially if connected to the increasing food demands of growing urban populations and to value-adding activities.

2. Project objective

This project aims to address the food insecurity of poor households in the most cyclone-affected townships in the Ayeyarwady delta. To achieve this, the project will aim to: i) provide inputs and small adapted equipment to enhance the productivity of traditional kitchen gardens; ii) introduce and demonstrate intensification technologies and integrated/mixed gardens; iii) build the capacity of smallholders in production planning/technologies and value-adding activities; and iv) link and network beneficiaries with local extension and support service providers.

3. Targeted area and beneficiaries

The targeted area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist 10 000 poor households (including single female-headed households) with small plots contiguous to their housing. The availability of time and labour force to care for the kitchen gardens will be essential.

4. Planned activities

The main activities of the project will consist of the following:

- Providing seeds (vegetable), seedlings (fruit trees, edges), small plastic tunnels, small-scale drip irrigation systems and small equipment/tools to enhance the productivity of traditional kitchen gardens.

PROJECT PROFILES: CROPS SUBSECTOR

- Establishment of demonstration plots, integrated/mixed kitchen gardens that will integrate living fences (for fodder, fuel wood), small animal breeding units (i.e. poultry), compost making, collecting/recycling water systems and diversified vegetable/fruit production. The technology demonstrated will be based on: locally available materials in order to promote replicable and affordable approaches; and improving/reviving traditional practices that have shown their effectiveness. The demonstration gardens will be used to build the capacity of beneficiaries and spread the technology on a broader scale.
- Raising awareness and building the capacity of beneficiaries to enhance the productivity of their gardens using simple, affordable and appropriate technologies. In addition to arranging demonstration days in the pilot plots (demonstration gardens), the project will also organize an exchange of experience/capacity building workshops. Main topics will include the establishment of improved kitchen gardens, production planning, cropping techniques, home processing, compost making, water collection and small-scale irrigation, among others. Didactic material (i.e. leaflets, brochures) will be edited and distributed, illustrating the appropriate technologies.
- Linking and networking with extension and support services. Existing extension services, farmer field schools, agriculture business advisory centres promoted by other projects and local support service providers will be involved in delivering training and continuous technical follow-up to beneficiaries in order to ensure successful production and to establish sustainable relationships for continuous technical assistance and advisory services.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 10 000 households have benefited from direct support and improved the productivity of their kitchen gardens;
- at least 10 000 households have improved their food security and enhanced their income;
- at least 10 000 persons have been trained in best practices for kitchen garden management;
- 20 demonstration plots, integrated/mixed gardens, are established and constitute a location for a continuous exchange of experience, demonstration days and capacity building;
- improved and appropriate technologies are demonstrated and disseminated in the project areas; and
- local extension and support services are promoting improved kitchen gardens and are offering continuous and regular support to the rural population.

6. Inputs

One International Expert (part time), Project Manager, will support two National Specialists. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to beneficiaries.

PROJECT PROFILES: CROPS SUBSECTOR

In addition, the project will facilitate linkages with other relevant service providers and sources of financing. The selection of the beneficiaries will be carried out in two waves, favouring emulation among beneficiaries.

The project will procure the necessary inputs and small equipment to establish 20 demonstration units. Further, seeds and small equipment will be distributed to 10 000 households to enhance the productivity of their traditional kitchen gardens. The project will organize training and workshops, the exchange of experience and demonstration days, as well as distribute didactic material to disseminate appropriate technologies.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This timeframe will cover two production cycles (i.e. monsoon and summer) for three years, including critical periods in kitchen garden management and product harvesting and processing. This period will allow efficient support for capacity building and the provision of advisory services.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	199 800
Inputs (seeds, seedlings, hand tools, training and contracts, other materials)	1 854 500
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	175 927
Administration costs (technical support services, reporting, evaluation, etc.)	42 500
Direct operating costs	227 273
Total	2 500 000

PROJECT PROPOSAL - ENHANCE AGRICULTURAL SUPPORT SERVICE CAPACITIES

Project Title:	Enhancing the Provision of Support Services
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Extension and support services, farmer field schools, human and social capitals recovery
Objective:	To improve local communities' capacities to decrease post-harvest losses, thus increasing farm productivity
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 1 000 000

1. Background and justification

In the Ayeyarwady River delta area, farmers have limited access to innovations and improved technologies that could enable them to increase their farm productivity and achieve better cropping system management and diversification. In addition, farmers have limited access to market information and are therefore unable to adjust their production planning accordingly with market trends.

2. Project objectives

This project aims to improve access to extension and business advisory services and to strengthen the links between existing farmer organizations (e.g. farmer field schools, among others) with both public and private support service providers.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale farmers.

4. Planned activities

The main activities of the project include:

- establishment of Agriculture Business Advisory Centres (ABACs);
- provision of data processing equipment and technical documentation to ABAC; and
- capacity building of extension workers in improved technologies, the economic management of farms and appropriate extension methods.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 250 ABACs are established and self-sustainable, providing tailored advisory services to farmers on a contractual or *ad-hoc* basis;

PROJECT PROFILES: CROPS SUBSECTOR

- 2 000 extension workers are trained and providing advisory services in improved production technologies, farm economic management and marketing; and
- at least 100 000 farmers benefit from the services of ABAC.

6. Inputs

One International Expert (part time), Project Manager, will support one National Specialist. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will establish 250 ABACs, equipped with data processing equipment, and technical and didactic documentation. The project will also organize training and workshops to build the capacity of 2 000 private and public extension workers in the field of technical and economic farm management and marketing. Didactic material related to harvest and post-harvest best practices will also be distributed. As much as possible, contractual relationships between farmers and support service providers will be promoted to ensure sustainability.

Relevant indicators will be developed in order to monitor the impact of the action on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This period of time will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for capacity building of advisory providers and demonstrating the benefit of support services to the farmers.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	169 800
Inputs (data processing equipment, technical documentation, training, contracts and other materials)	497 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	199 291
Administration costs (technical support services, reporting, evaluation, etc.)	43 000
Direct operating costs	90 909
Total	1 000 000

PROJECT PROPOSAL - ENHANCE THE PRODUCTION AND PROCESSING CAPACITY OF THE LANDLESS AND SMALLHOLDERS

Project Title:	Promotion of Value-adding Chain Activities
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Home processing, marketing, capacity building, and physical, human and social capitals recovery
Objective:	To improve local communities' capacity in processing and adding value to agricultural products to increase farm/backyard productivity and household income
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 1 500 000

1. Background and justification

Small-scale subsistence farmers and the landless are engaged in horticultural production and fishing activities, very often selling their products as raw material. Processing the small quantities of perishable products could enable poor households to increase their income by adding value to their production while reaching new segments of the market, thus diversifying their sources of income. Home processing could also allow poor households to develop new businesses, taking advantage of low agriculture prices at peak production times and of the extended marketing period of processed products.

2. Project objectives

This project aims to improve access to processing and other value-adding activities in order to increase household income and diversify the livelihoods of the poorest segment of the rural population.

3. Targeted area and beneficiaries

The target area will cover the seven most cyclone-affected townships in the Ayeyarwady delta area. Within the defined areas, the project will assist subsistence farmers and poor landless households that have a backyard garden.

4. Planned activities

The main activities of the project will consist of:

- provision of small-scale processing equipment (i.e. fruit/vegetable dryers, juice extractors); and
- building the capacity of beneficiaries in small-scale processing technologies, production and business planning, economic/business management and marketing.

5. Project expected outputs

PROJECT PROFILES: CROPS SUBSECTOR

At the end of the project, the following outputs are expected:

- 1 550 small-scale processing units are established and operational;
- 1 550 households involved in value-adding activities have diversified their income and achieved sustainable livelihoods; and
- at least 6 000 persons are trained in small-scale processing technologies, hygiene standards, economic management and marketing.

6. Inputs

One International Expert (part time), Project Manager, and one Specialized International Consultant will support two National Specialists. One Logistics/Administration Officer and seven Field Agents will provide support to the operational team. Service providers or NGOs will be contracted for the provision of technical assistance and capacity building to the beneficiaries.

The project will distribute 1 550 units of small-scale processing equipment to 1 550 poor households, enabling them to resume or develop new business activities. Further, training and workshops will be organized to build the capacity of 6 000 landless households in small-scale processing technologies, hygiene standards, economic management and marketing. Didactic material related to harvest and post-harvest best practices will be provided. Linkages with markets will be promoted to ensure the sustainability of the value-adding activities.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This period of time will cover two production cycles (i.e. monsoon and summer) for three years and will allow efficient support for the capacity building of beneficiaries and the development of sustainable businesses.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	196 200
Inputs (small-scale processing equipment, training, contracts and other materials)	991 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	141 436
Administration costs (technical support services, reporting, evaluation, etc.)	35 000
Direct operating costs	136 400
Total	1 500 000

PROJECT PROPOSAL - ADAPTED FINANCIAL SERVICES

Project Title:	Development of Hire-purchase Schemes
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Rural/agriculture financing, credit, capacity building, and physical, human, financial and social capitals recovery
Objective:	To improve local communities' access to credit for productive equipment
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 5 000 000

1. Background and justification

Most microfinance institutions and banks limit themselves to providing working capital loans in short loan cycles. Mostly, the financial products do not meet needs in terms of amount and maturity (duration). Moreover, in many cases they require collateral or other guarantees.

Many small- and medium-scale farmer enterprises need medium-term investment finance in order to increase their productivity. This is where leasing can help. Small farm enterprises above subsistence level often need loans, which are slightly larger and have longer loan terms than what microfinance institutions can offer. These enterprises sometimes find that they are too big for microfinance institutions but too small or formal for commercial bank loans. In any case, they have difficulty in providing the collateral necessary for bank financing.

Leasing enables borrowers who lack well-developed balance sheets or credit histories to access investment finance for which they might not have been eligible. Meeting the needs of small and medium farm enterprises is one way that leasing can have an important impact on local economic development and increase agricultural productivity.

2. Project objectives

This project aims to improve access to adapted financial services under hire-purchase schemes, thus enabling small and medium farm enterprises and landless households to meet their needs for productive or value-adding equipment.

3. Targeted area and beneficiaries

The targeted area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale farmers and poor landless households.

4. Planned activities

The main activities of the project will consist of:

- establishing hire-purchase schemes through existing banks and/or microfinance institutions;

PROJECT PROFILES: CROPS SUBSECTOR

- building the capacity of bank/MFI staff in designing and managing hire-purchase schemes; and
- building the capacity of beneficiaries in production and business planning, economic/business management and marketing.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- bank/MFI staff are capable of developing hire-purchase schemes;
- the credit scheme is sustainable and repayment rate is over 95 percent;
- at least 300 persons are trained in designing, developing and managing hire-purchase credit schemes; and
- at least 4 800 persons will have access to productive equipment under hire-purchase credit schemes.

6. Inputs

One International Expert (part time), Project Manager, and one Specialized International Consultant (part time) will support one National Specialist. One Logistics/Administration Officer will provide support to the operational team.

A credit fund of USD 4 million will be set up to grant hire-purchase credit to the beneficiaries. The project will organize training and workshops to build the capacity of 500 bank/MFI staff to set up a hire-purchase credit scheme and develop it. Linkages with banks (refinancing) will be established to ensure the sustainability of the hire-purchase credit scheme.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This timeframe will allow for the testing of hire-purchase financial products throughout three production seasons and efficient support for the capacity building of beneficiaries and bank/MFI staff, thus ensuring the development of sustainable access to productive assets.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	252 200
Inputs (credit fund)	4 056 000
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	192 255
Administration costs (technical support services, reporting, evaluation, etc.)	45 000
Direct operating costs	454 545
Total	5 000 000

PROJECT PROPOSAL - ENHANCE ACCESS TO ADAPTED CREDIT

Project Title:	Development of Hire-Purchase Schemes
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Rural/agriculture financing, credit, capacity building and physical, human, financial and social capitals recovery
Objective:	To improve local communities' access to credit for productive investments
Targeted Beneficiaries:	Small- and medium-scale farmers, rural communities
Implementing Partners:	Communities, NGOs, and Ministry of Agriculture and Irrigation
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 5 000 000

1. Background and justification

Producers often sell their products right after the harvest when market prices are low. The main reason lies in the fact that farmers need immediate cash to meet household needs and to finance the following cultivation season. In addition, small- and medium-scale farmers often borrow money at high rates, getting trapped into a cycle of dependence and indebtedness.

Mortgaging stock has distinct advantages as it addresses cash needs and lack of collateral, allowing producers to catch better market prices while securing food availability for the household, offering easy and flexible repayment conditions and decreasing individual storage costs. The risks taken on possible losses of the stock are limited as the duration of storage does not exceed six months and stock preservation by adequate treatment is ensured.

Such schemes – based on producer organizations and access to storage facilities, stocking/destocking periods, treatment and security – are commonly and preliminarily agreed. Therefore, community-based organizations can manage credit schemes with limited risks and maximized benefits for the community members.

2. Project objectives

This project aims to improve access to adapted and flexible self-managed financial services under hire-purchase schemes, thus enabling small- and medium-scale farmers to enhance their investment capacities.

3. Targeted area and beneficiaries

The targeted area will cover the seven most cyclone-affected townships in the Ayeyarwady delta. Within the defined areas, the project will assist small- and medium-scale farmers and poor landless households.

4. Planned activities

The main project activities will consist of:

- establishing a credit fund to support mortgage on stock linked with existing banks and/or microfinance institutions;
- building relevant storage facilities;

PROJECT PROFILES: CROPS SUBSECTOR

- establishing management committees for the community credit scheme;
- building the capacity of beneficiaries in book keeping and management of the credit scheme; and
- linking the community-based credit scheme with banks and MFIs for refinancing.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- bank/MFI staff are capable of developing the credit on stock scheme;
- the credit scheme is sustainable and repayment rate is over 95 percent;
- at least 300 persons are trained in designing, developing and managing credit for the stock credit scheme; and
- at least 6 000 persons will have access to the credit schemes based on a minimum of 15 000 tonnes of paddy stored under the credit scheme.

6. Inputs

One International Expert (part time), Project Manager, and one Specialized International Consultant (part time) will support one National Specialist. One Logistics/Administration Officer will provide support to the operational team.

A credit fund worth USD 3.9 million will be set up to grant credit on stock credit to the beneficiaries. The project will organize training and workshops to build the capacity of 500 bank/MFI staff in setting up a credit on stock scheme and developing it. Linkages with banks (refinancing) will be established to ensure the sustainability of the credit on stock scheme (refinancing).

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate methodologies.

7. Project duration

The planned overall duration of the project is 36 months, from January 2009 to December 2011. This timeframe will enable the testing of hire-purchase financial products throughout three production seasons and will allow efficient support for the capacity building of beneficiaries and of bank/MFI staff, thus ensuring the development of sustainable access to credit.

8. Financial summary

Budget Items	Total USD
International and national personnel (Project Manager, Technical Experts for Crops and Livestock, Field Officers, Administrative/Logistics Assistant)	252 000
Inputs (credit fund)	4 053 700
Logistics, transport, communication, warehousing, office space, travel, general operating expenses	193 555
Administration costs (technical support services, reporting, evaluation, etc.)	46 000
Direct operating costs	454 545
Total	5 000 000

PROJECT PROPOSAL - SUBSISTENCE CAPTURE FISHERIES

Project Title:	Rehabilitation of Small Scale Fishing Livelihoods Destroyed by Cyclone Nargis
Project Code:	PP-1
Sector:	Agriculture/Fisheries
Themes:	Food security, income generation
Objective:	To restore income generation capacity and food security to small-scale and subsistence fishers in communities in the most affected areas of the Ayeyarwady delta
Targeted Beneficiaries:	Fishers households
Implementing Partners:	Communities, NGOs, and Ministry of Livestock and Fisheries
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 55 000 000

1. Background and justification

Small-scale and subsistence fishing provide high quality proteins for household consumption. Income from the sale of surplus is a main source of livelihood and food security for landless fishers and farmers. Subsistence fishing is a key livelihood coping strategy/option for poor households and landless labourers in the target area. Full-time fishers, whose main or only activity is fishing, often sell or have supply agreements with fish buyers who store and transport fish to larger markets in Yangon and other main population centres. The cyclone destroyed or damaged a large proportion of the production capacity of these poor landless fishers, farmers and labourers throughout the Ayeyarwady delta. Over 100 000 households derive their primary income from fishing. Some 28 000 fishers died during the cyclone and approximately 100 000 boats were lost.

To a high degree, sustainable fisheries livelihoods depend on the availability and sustainable management and exploitation of aquatic resources (natural capital), the economic viability of the activity (financial capital), the infrastructure and associated systems (physical capital) and the communal structure and skills that operate within these ecosystems (human and social capital). Cyclone Nargis caused the death of nearly 140 000 people, many of whom were fishers, boat builders, mechanics and female fish processors and marketers, leaving the fisheries sector scarce of human capital. Before the cyclone, the Ayeyarwady delta and its unique aquatic resources provided livelihoods directly and indirectly to some seven million people. Rebuilding livelihoods, therefore, must be accompanied by pro-livelihood policies that facilitate sound resource management systems and good practices, protect the ecosystem and at the same time preserve livelihoods. In the Ayeyarwady delta, *no resources = no livelihoods*.

This project reflects FAO's overall rehabilitation strategy of building back better in an environmentally sound and economically viable manner, with focus on the most vulnerable and affected small-scale and subsistence fishers. The pillars of the project include good practices, capacity building, awareness raising and training, and the coordination of safe and appropriate inputs that do not contribute to the depletion of resources on which livelihoods depend. Provision of production inputs in quantities that are consistent with available resources is also an important consideration.

2. Project objectives

The purpose of the assistance is the sustainable restoration of small-scale and subsistence fisheries livelihoods in the most affected townships of the Ayeyarwady delta.

The project's approach to sustainable rehabilitation is holistic, balanced and incorporates coordination to ensure the rebuilding of livelihoods but not at the detriment of the marine, fresh and brackish water aquatic resources. Whilst fishing inputs such as boats and fishing gear are important for livelihood recovery, provision of these assets will not be the only or main function of the assistance. The project seeks to obtain its objective through providing quality technical advice, capacity building of the fishing communities, and support and best practices for the overall rehabilitation of the fisheries sector. To achieve this objective, the project will use the Code of Conduct for Responsible Fisheries as the overall guiding principles.

3. Target area and beneficiaries

The targeted area covers the most cyclone-affected townships: Ngapudaw, Labutta, Mawlamyinegyun, Myaungmya, Maubin, Pathein, Bogale, Pyapon, Dedaye, Ngapudaw and Kungyangon. Within these townships, the project will directly benefit some 120 000 households engaged in fishing at small-scale and subsistence levels. The project will work with those most affected by the cyclone and dedicate special focus to the poor, women and marginalized groups.

4. Planned activities

Project activities will be coordinated with those of other projects supporting the sector. The main project activities will consist of:

- supporting sector needs assessments to identify gaps in the replacement of livelihood assets such as fishing boats and gear;
- supporting sector coordination and planning and the provision of technical advice;
- developing criteria for beneficiary selection and identifying beneficiaries to ensure effective targeting;
- developing a strategy and plan for the construction and delivery of boat replacement in the target area based on the updated needs assessment, the resources availability assessment and possible requirements for alternative technologies;
- developing boat designs and plans and step-by-step manuals for safe and quality boat construction based on existing models;
- supervision and inspection of boat building yards and boats to ensure quality and adherence to good practices, ensuring safe and quality products¹;
- assessing the sources and availability of suitable, seasoned wood required for the construction of the boats as identified in the needs assessment;
- training of boat builders in good practices for improved construction methods, which will increase the service life of boats;

¹ Experience from the 2004 Indian Ocean Tsunami showed that many boats were built substandard and endangered the lives of fishers, were not accepted by fishers and were left to rot on the beaches ending in wastage.

PROJECT PROFILES: FISHERIES/AQUACULTURE SUBSECTOR

- setting up and operation of 11 Fisheries Livelihood Rehabilitation and Training Centers (FLRTCs), which will support all project activities;
- providing quality, long lifespan demonstration boats and gear as part of the on-the-job training of boat builders, mechanics and fishers at the FLRTCs;
- developing and testing a programme for the introduction and identification of alternative construction materials and methods, including the associated requirements for training, establishment of distribution networks and awareness raising on alternative ecosystem-friendly technologies;
- construction or support to the construction² of up to 20 000 vessels, consisting of in-shore fishing vessels, river fishing vessels with engines, river fishing vessels without engines and small off-shore fishing vessels, including gear, to replace such lost assets;
- building capacities among fishers and communities in safety at sea and fishing operations, mechanics, small engine repairs and maintenance, gear maintenance and construction;
- rehabilitating small-scale landing site shore facilities at four locations in each affected district, including capacity building for community participation in managing such sites;
- developing a strategy and plan for the replacement of lost fishing gear (taking into account considerations of resource protection and sustainable exploitation, including developing awareness and capacity of the local community in local fisheries resource monitoring);
- developing a programme for monitoring the status of fisheries resources and preventing over-exploitation; and
- awareness raising and capacity building of sector stakeholders in local fisheries resources monitoring and management.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- livelihoods of small-scale and subsistence fishers have been restored;
- awareness has been raised on sustainable resources exploitation at township level with community participation;
- boat builders have been trained in improved boat building techniques, build boats privately or for NGOs and use tools provided by the project;
- construction or support to the construction of up to 20 000 vessels;
- capacity building has been provided in fisheries sector-related livelihood activities, such as mechanics, construction and maintenance of fishing gear (for women and vulnerable groups);
- demonstration and prototype boats have been built and tested, and improved designs are used by a significant number of boat builders;
- up to 20 000 safe, quality boats produced under FAO expert supervision;
- designs and step-by-step boat building manuals have been prepared, distributed and used;
- 11 FLRTCs are built, operational and functional, and have been turned over to the communities or dismantled as they have served their purpose;

² The actual number of boats constructed will depend on the condition of fisheries resources and the number already replaced by other partners.

PROJECT PROFILES: FISHERIES/AQUACULTURE SUBSECTOR

- small-scale landing sites have been rehabilitated at 44 locations, including community participation in management and capacity building;
- small-scale fishing and subsistence fishing gear have been distributed directly or through implementing partners to fisher households; and
- training courses in safety and fishing operations benefiting target fishers have been implemented, and safety equipment for each participant or boat have been procured and distributed.

6. Inputs

The project will provide technical and project management expertise of the highest quality. The project will be led by an international Chief Technical Advisor (CTA) for part of the duration of the project, assisted by international staff (Naval Architect, Master Boat Builder, Fishing Gear Technologist, Stock Assessment and Monitoring Specialist, Community Development Specialist, Procurement Specialist, Logistics Specialist and Wood Resources Specialist) on an as needed basis and by full time national specialists in technical and project management and administrative disciplines.

Service providers or NGOs will be contracted for the provision of some of the technical assistance and capacity building to the beneficiaries as required and where they have demonstrated competency. In addition, the project will facilitate linkages with other relevant service providers and sources of financing. In all cases, although service providers will be contracted, the overall responsibility for the implementation will be that of FAO.

The project will organize training and workshops, exchange of experiences and prepare and distribute all of the appropriate and necessary didactic material to the beneficiaries, implementing partners and organizations working in fisheries rehabilitation.

Relevant indicators will be developed in agreement with donors and will form an integral part of the project document in order to track and measure the impact of the intervention on household food security and income, the productivity of the capture fisheries subsector and the fisheries resource base. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies and their sustainability.

7. Financial summary

Budget items	Total USD
International and National Personnel (CTA, Technical Experts, Field Officers, Administrative/Logistics Assistants)	5 340 000
Inputs (boats, fishing gear, training and contracts, other materials)	33 960 000
Project operating expenses (including logistics, transport, communication, warehousing, office space, travel, general operating expenses, administration costs, technical support services, reporting, evaluation, etc.)	15 700 000
Total	55 000 000

PROJECT PROPOSAL - AQUACULTURE

Project Title:	Restoration of the Aquaculture Production Affected by Cyclone Nargis
Project Code:	PP-2
Sector:	Agriculture/Aquaculture
Themes:	Food security, income generation, aquaculture
Objective:	To rebuild the lost aquaculture infrastructure and resume aquaculture production in the most affected areas
Targeted Beneficiaries:	Aquaculture farmers' households, labourers on aquaculture farms
Implementing Partners:	Communities, NGOs, and Ministry of Livestock and Fisheries
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 2 190 000

1. Background and justification

The cyclone destroyed or damaged infrastructure (ponds, dykes, canals, buildings) and equipment of aquaculture farms and hatcheries. Much of the ongoing production in ponds was lost, as well as the capacity of the hatcheries to produce seed for the farms. While some emergency repairs have been made to hatcheries, they still require substantial inputs and support to rebuild the lost production capacity and genetically sound and healthy broodstock in order to restore the production of the farms they supply.

Small-scale aquaculture farms provide food security and income to households and the larger more intensive farms provide employment. Aquaculture products are sold on the local market and are exported, generating considerable foreign income through the export of fresh and processed aquaculture products.

2. Project objectives

The purpose of the assistance is the rapid and sustainable restoration of aquaculture activities in the affected areas through the immediate rehabilitation of affected hatcheries in order to restore the supply of seed to the aquaculture farms and through the rehabilitation of small-scale aquaculture farms' infrastructure and equipment.

To achieve this objective, the project will aim to: i) update the needs assessments for hatcheries and aquaculture farm rehabilitation; ii) restore the production of the affected hatcheries within the first year to restore the supply of seed to farms; iii) assist all affected small-scale aquaculture farms in the area with the rehabilitation of their production, including mud and debris clearing from ponds, supply of small equipment, etc.; and iv) build capacity and provide training to all stakeholders in improved aquaculture methods.

3. Target area and beneficiaries

The target area covers the 11 townships in the Ayeyarwady delta most affected by the cyclone. Within the defined area, the project will benefit 186 hatcheries and 500 small-scale aquaculture farms, or approximately 700 directly involved households. Indirectly, a multitude of households will benefit from the recreated employment opportunities at the farms.

4. Planned activities

This project will be implemented in conjunction with the FAO project profile entitled “Rebuilding the Post-harvest Treatment and Processing Capacity in the Area Affected by Cyclone Nargis”.

The main project activities will consist of:

- identifying hatcheries that are a priority for rehabilitation because of their specific products, location or clients;
- preparing a rehabilitation plan for the priority hatcheries;
- restoring productivity of half of the priority hatcheries within the first six months and the remainder within 12 months;
- identifying small-scale aquaculture farms for rehabilitation based on needs assessment;
- preparing an aquaculture farm rehabilitation plan in function of the needs and the available budget to maximize the restored productivity;
- rehabilitating the identified aquaculture farms – 75 within the first six months, 275 by the end of the first year and a further 150 by the end of the project;
- providing training to hatchery operators in improved hatchery management and operations; and
- providing training to aquaculture farmers in improved farm management, operations, and pre- and post-harvest treatment and marketing.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- 186 hatcheries will have been restored to full productivity with improved management, stocked with genetically superior broodstock and with the capacity to produce disease-free seed for distribution to their clients;
- 500 small-scale aquaculture farms will have been rehabilitated and returned to profitable operation; and
- aquaculture farmers will have improved management and operational skills and will be able to add more value to their products.

6. Inputs

The project will be directed by an International Project Director/Aquaculture Specialist, full time for the first year and intermittently afterwards, assisted by an International Hatcheries Specialist and other international specialists’ inputs as required for a total of 28 person months. The project will provide services of national specialist staff and administrative and logistics support for a total of 84 person months.

The project will provide expendable equipment for hatcheries and farms, as well as operating expenses for the rehabilitation of ponds and other aquaculture farm assets.

PROJECT PROFILES: FISHERIES/AQUACULTURE SUBSECTOR

Service providers or NGOs may be contracted for the provision of technical assistance and capacity building to the beneficiaries as required. In addition, the project will facilitate linkages with other relevant service providers and sources of financing.

The project will organize training and workshops, exchange of experience and demonstration days, and will distribute didactic material to disseminate appropriate technologies.

Relevant indicators will be developed in order to monitor the impact of the intervention on household food security and income and on the productivity of the aquaculture subsector. In addition, the monitoring will aim to assess the adoption of knowledge and appropriate technologies.

7. Financial summary

Budget items	Total USD
International and national personnel (Project manager, Technical Experts, Field Officers, Administrative/Logistics Assistants)	385 000
Inputs (hatcheries equipment, aquaculture farm tools, training and contracts, other materials)	1 520 000
Project operating expenses (including logistics, transport, communications, warehousing, office space, travel, general operating expenses, administration costs, technical support services, reporting, evaluation, etc.)	285 000
Total	2 190 000

PROJECT PROPOSAL - POST-HARVEST TREATMENT AND PROCESSING

Project Title:	Rebuilding the Post-harvest Treatment and Processing Capacity in the Area Affected by Cyclone Nargis
Project Code:	PP-3
Sector:	Agriculture/Fisheries, Aquaculture
Themes:	Post-harvest treatment, processing, value chains
Objective:	To restore the capacity of the fisheries and aquaculture sector in the affected area to reduce spoilage losses and to add value to the catches by processing or transporting them under good conditions, thus contributing to food security and generating added value throughout the area
Targeted Beneficiaries:	Fishing households, fishers, aquaculture farmers, household-level processors, commercial processors, transporters and traders
Implementing Partners:	Communities, NGOs, Ministry of Livestock and Fisheries
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 7 578 000

1. Background and justification

The cyclone destroyed or damaged much of the post-harvest infrastructure and equipment both on board fishing vessels and on land. The affected items include ice factories, ice boxes for cool storing of the catch while still on board, ice boxes for transport on land, and a range of processing tools and equipment that is used in the production of the many fish and shrimp products in the area. As a result, the capacity to add value to the fisheries products (including those from aquaculture farms) and to preserve catches for later consumption (key for household level food security of the poor) has been severely reduced.

2. Project objectives

The objective of this project is the immediate restoration of the value chains and the livelihoods of the population in areas affected by Cyclone Nargis through rebuilding and improving the post-harvest treatment capacity and the marketing mechanisms for products from capture fisheries and aquaculture.

To achieve this objective, the project will aim to: i) identify affected post-harvest and marketing value chains in the fisheries and aquaculture subsector with the highest potential for added value and generation of income and employment, in particular for the most vulnerable people; ii) identify the specific needs, priorities and locations, based on the identification of activities with the highest impact potential, resulting in a post-harvest treatment and marketing capacity restoration plan; iii) restore and improve post-harvest and marketing capacity; and iv) identify training needs, develop training material and provide training on all key elements of the post-harvest and marketing value chains for improved handling and value preservation, and value-adding techniques and principles.

3. Target area and beneficiaries

The target area covers the 11 townships in the Ayeyarwady delta most affected by the cyclone. The project will benefit fishing households, fishers, aquaculture farmers,

household-level processors, commercial processors, transporters and traders within the affected area and effectively far beyond.

The project is envisaged to assist 15 000 direct beneficiary households, and many more as indirect beneficiaries through the creation of added value and employment opportunities.

4. Planned activities

The main project activities will consist of:

- identifying affected post-harvest and marketing value chains in the fisheries and aquaculture subsector;
- identifying specific needs for recovery based on the identification of the activities with the highest impact potential;
- prioritizing the identified needs in function of the highest potential for added value and generation of income and employment, in particular for the most vulnerable people, resulting in a post-harvest treatment and marketing capacity restoration plan;
- procuring and distributing essential equipment, tools and inputs to rebuild entire value chains (e.g. on-board and on-land ice boxes, cutting boards, specialist knives, containers, etc.) based on the restoration plan;
- rehabilitating essential infrastructure in the Ayeyarwady delta, in particular ice plants and cold storage facilities, based on the restoration plan;
- restoring and improving the post-harvest and marketing capacity in selected locations based on the restoration plan; and
- identifying training needs, developing training material and providing training to all key stakeholders of the post-harvest and marketing value chains on improved handling, spoilage reduction, value preservation and value-adding techniques and principles.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- identification of affected post-harvest and marketing value chains in the fisheries and aquaculture subsector with the highest potential for added value and generation of income and employment, in particular for the most vulnerable people;
- a post-harvest treatment and marketing capacity restoration plan is established based on the identification of specific needs, priorities and locations;
- post-harvest and marketing capacity is restored and improved in selected locations based on the restoration plan through the provision of equipment, inputs and training; and
- training needs are identified, training material developed and training provided on all key elements of the post-harvest and marketing value chains for improved handling, and value preservation and adding techniques and principles.

6. Inputs

PROJECT PROFILES: FISHERIES/AQUACULTURE SUBSECTOR

The project will be directed by an International Chief Technical Advisor/Project Manager, full time for the first year and intermittently afterwards, assisted by an International Fish Processing Technology Specialist, a Food Inspection and Quality Control Specialist, an International Training Specialist, International Procurement and Logistics Specialists, and other international specialists' inputs as required, for a total of 48 person months. The project will provide the services of national specialist staff and administrative and logistics support for a total of 276 person months.

The project will provide expendable equipment for the rehabilitation of ten ice plants, supply 5 000 on-land and 5 000 on-board ice boxes, rehabilitate 55 damaged cold storage facilities and distribute 15 000 packages of fish and shrimp processing equipment and tools. Further, the project will carry out extensive field surveys, training and awareness raising activities, as well as distribute didactic material.

Service providers or NGOs may be contracted for the provision of technical assistance and capacity building to the beneficiaries as required. In addition, the project will facilitate linkages with other relevant service providers and sources of financing.

7. Financial summary

Budget items	Total USD
International and national personnel (Chief Technical Advisor, Technical Experts, Field Officers, Administrative/Logistics Assistant)	888 000
Expendable equipment and contracts (processing equipment, cold storage repairs, training materials, survey equipment, data management equipment, other materials)	6 115 000
Training	200 000
Non-expendable equipment (transport)	100 000
Travel	50 000
Project operating expenses (including logistics, transport, communications, office space, general operating expenses, administration costs, technical support services, reporting, evaluation, etc.)	225 000
Total	7 578 000

PROJECT PROPOSAL - RESOURCE MONITORING AND PROTECTION

Project Title:	Protecting the Fisheries Resources of the Area Affected by Cyclone Nargis
Project Code:	PP-4
Sector:	Agriculture/Fisheries, Aquaculture
Themes:	Sustainable fisheries, food security, durable fisheries-based livelihoods, biodiversity
Objective:	To protect the fisheries resources of the area affected by Cyclone Nargis from over-exploitation as the fishing capacity is rebuilt
Targeted Beneficiaries:	Fishing households
Implementing Partners:	Communities, NGOs, and Ministry of Livestock and Fisheries
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 1 500 000

1. Background and justification

The cyclone destroyed or damaged large parts of the fishing fleet of all segments of the fisheries sector (off-shore, in-shore, inland) and much of the fishing gear was lost. Fishing in the affected area is a main source of livelihood and food security, and generates considerable foreign income through the export of fresh and processed fisheries products. Experience from the recovery of similar disasters reveals that there is a risk that the rebuilt fishing capacity may actually harm the fisheries resources, in particular when there is no or inadequate knowledge of the pre-disaster conditions, as is the case with some segments of fisheries in the affected area. The durable rehabilitation of fisheries-based food security, livelihoods and value chains depends on the ability to monitor and manage the levels of exploitation effectively.

2. Project objectives

The purpose of the assistance is the protection and conservation of fisheries resources in the cyclone-affected area through the development of monitoring and management capacities (community-based and others).

To achieve this objective, the project will aim to: i) identify the most vulnerable stocks and species at risk of over-exploitation; ii) identify for each vulnerable stock/species specific threatening issues and formulate measures to reduce their vulnerability; iii) establish a baseline for all the major commercial species against which future developments in abundance and dynamics can be measured; and iv) support the establishment and strengthening of effective management structures, including the identification and establishment of channels of data collection and information sharing among stakeholders.

3. Target area and beneficiaries

The target area covers the 11 townships in the Ayeyarwady delta most affected by the cyclone. The project will benefit all stakeholders and fisheries resource users in the area.

4. Planned activities

The main project activities will consist of:

- identifying the most vulnerable stocks and species at risk of over-exploitation based on catch statistics, known vulnerabilities, informal information on stocks of fish, crustaceans and other aquatic organisms, and known levels of pre-cyclone fishing pressure;
- identifying for each vulnerable stock or species specific threats, including drivers of over-exploitation, levels of pressure and catch efforts, and formulating measures to reduce their vulnerability;
- establishing a baseline for all the major commercial species against which future developments in abundance and dynamics can be measured;
- establishing a continuous monitoring system for the most vulnerable species and stocks;
- supporting the establishment and strengthening of effective management structures, including exploring and developing the potential of the existing licensing systems to enhance their management impact;
- identifying and establishing channels of data collection and information sharing among stakeholders; and
- increasing awareness of all stakeholders, and in particular fishing communities and fisheries associations, on sustainable fishing principles, destructive gear and practices, indications of over-exploitation, ecosystem functioning and importance (particular mangroves and floodplains), and the importance of sustainable resource use.

5. Project expected outputs

At the end of the project, the following outputs are expected:

- the most vulnerable stocks will have been identified, the pressure on them described and a strategy for preservation developed, ensuring high but safe levels of exploitation;
- a baseline will have been established for the major commercial species to monitor trends for which a mechanism has been developed and implemented;
- fisheries management capacity, including data collection and exchange mechanisms, will have been strengthened at all levels, including with communities and fisheries' associations; and
- awareness will have been strengthened and, accordingly, practices of fishing changed towards improved sustainability and biodiversity conservation.

6. Inputs

The project will be directed by an International Chief Technical Advisor, full-time for the first year and intermittently afterwards, assisted by an International Stock Assessment and Monitoring Specialist, an International Training Specialist and other international specialists' inputs as required for a total of 34 person months. The project will provide services of national specialist staff and administrative and logistics support for a total of 132 person months.

The project will provide the expendable equipment necessary, carry out extensive field surveys, training and awareness raising activities, and will distribute didactic material.

PROJECT PROFILES: FISHERIES/AQUACULTURE SUBSECTOR

Service providers or NGOs may be contracted for the provision of technical assistance and capacity building to the beneficiaries as required. In addition, the project will facilitate linkages with other relevant service providers and sources of financing.

7. Financial summary

Budget items	Total USD
International and national personnel (Chief Technical Advisor, Technical Experts, Field Officers, Administrative/Logistics Assistant)	594 000
Expendable equipment (training materials, survey equipment, data management equipment, other materials)	131 000
Training	250 000
Field surveys	250 000
Travel	25 000
Project operating expenses (including logistics, transport, communications, office space, general operating expenses, administration costs, technical support services, reporting, evaluation, etc.)	250 000
Total	1 500 000

PROJECT PROPOSAL - RESTOCKING OF DRAUGHT ANIMALS

Project Title	Enhancing Crop Production and Improving Farming Communities' Livelihoods
Project Code	OSRO/MYA/XX/XX
Sector	Agriculture (Livestock)/Rural Livelihoods
Theme	Agricultural production, income generation
Objective	To improve rice crop growing through provision of draught animals
Targeted Beneficiaries	Small- and medium-scale farmers
Implementing Partners	Communities, NGOs, and Ministry of Livestock and Fisheries, Livestock Breeding and Veterinary Department
Project Duration	36 months: January 2009 to December 2011
Funds Requested	USD 8 580 000

1. Background and justification

Most of the small- to medium-scale farmers in the delta use animal traction, not only because access to power tillers is limited but also due to the fragile soil. Cyclone Nargis caused the loss of 227 424 draught animals (50 percent of buffaloes and 25 percent of cattle), reducing animal traction drastically for the cultivation period of the next rice season. The emergency assistance covered only a small fraction of the required draught animals, while the Government of Myanmar, FAO and other organizations provided around 8 800 power tillers, especially where communities had lost most or all of their animals and tillers. Replacing all of the lost draught animals will remain a major challenge for all stakeholders in the coming years.

The restocking of draught animals is essential over the next three years to ensure that farming communities can fully revitalize their agricultural production. While replacing all animals may not be feasible or possible, the project will introduce new technologies and approaches that would enhance animal management, development and reproduction at community level. At the same time, alternative approaches will be sought to replace draught animals, including the provision of community-shared power tillers, where possible and feasible.

2. Project objective

The objective of the project is to improve the livelihoods of small- and medium-scale farming households through increased availability of animal traction and improved livestock production.

3. Targeted area and beneficiaries

The project target area will be the most affected townships in Ayeyarwady and Yangon Divisions. Within the defined areas, the project will assist small- and medium-scale farmers who are eager to organize themselves and to improve their access to inputs.

4. Planned activities

Principle project interventions will include the following:

PROJECT PROFILES: LIVESTOCK SUBSECTOR

- Restocking of draught animals in Bogale, Mawlamyinegyun, Ngapudaw, Labutta, Pyapon, Dedaye, Kungyangon and Kyaiklat townships along with animal feed for one month. Animals will be vaccinated and treated against internal and external parasites prior to distribution and quarantined for a specific period of time.
- Supplementary feed will be provided for surviving animals.
- Training programmes will strengthen the capacity of extension workers and farmers in livestock management and development, and a livestock banking system will be initiated.

5. Expected project outputs

By the end of the project period, the following outputs are expected:

- 15 000 small-/medium-scale farming households will have received one pair of draught animals each, enabling the preparation of 15 000 hectares of paddy;
- 2 500 households will have received supplementary feed for 5 000 draught animals, covering an additional 5 000 hectares of paddy;
- 2 500 farmers will have received training in draught animal development;
- 2 500 farmers will have become members of a livestock development and banking system; and
- the draught animal multiplication process will have become fully operational.

6. Inputs

One international expert (part time), one national specialist and one assistant will form part of the operational team. The project will provide 15 000 draught animals, cyclone-proof shelters and training for extension workers, as well as facilitate the exchange of experience among management groups. Draught animal breeder groups will be established with functional livestock banking services.

The project will be implemented in collaboration with the Livestock Breeding and Veterinary Department (LBVD) and the Myanmar Livestock Federation. Non-governmental organizations active in agricultural rehabilitation activities in the assisted townships will be major partners in the delivery of inputs at field level. In each LBVD township office, a local staff will oversee and coordinate the activities within the township.

7. Financial summary

Budget Item	Total USD
International and national personnel	160 000
Inputs (draught animals, training school, didactic and other materials)	8 000 000
Logistics, transport, communications, collecting centres, office space, travel, general operating expenses	200 000
Administration costs (technical support services, reporting, evaluation, etc.)	100 000
Direct operating costs	120 000
Total	8 580 000

PROJECT PROPOSAL - RESTOCKING OF POULTRY

Project Title	Provision of Poultry Packages to Poor and Landless Families
Project Code	OSRO/MYA/XX/XX
Sector	Agriculture (Livestock)/Rural Livelihoods
Theme	Improved food security, income generation
Objective	Restocking of poultry to landless and most vulnerable households in cyclone-affected areas, improving nutrition and enhancing income
Targeted Beneficiaries	Landless, female-headed and other vulnerable households
Implementing Partners	Communities, NGOs, Ministry of Livestock and Fisheries, Livestock Breeding and Veterinary Department, Myanmar Livestock Federation
Project Duration	36 months: January 2009 to December 2011
Funds Requested	USD 1 920 000

1. Background and justification

Approximately 50 percent of the population in Ayeyarwady and Yangon Divisions are classified as landless and their livelihoods depend on casual labour, backyard gardening and small animal and poultry rearing. The loss of poultry in these two divisions following Cyclone Nargis was devastating and included the death of nearly 503 000 ducks (52 percent of the total duck population) and 1 250 000 chickens (45 percent of the total chicken population, including commercial farms).

The emergency programme so far has replaced only a minor fraction of the total requirements, preventing most affected households from regaining an essential part of their livelihoods. Restocking poultry is not only vital for the affected households to regain lost livelihood activities, but will also contribute, at a later stage, to the increased availability of poultry meat and fresh eggs in the local and regional markets. A livestock banking system will be introduced to ensure that poultry offspring will be further distributed to additional households in need, thereby increasing and improving the quality and quantity of the poultry population.

2. Project objective

The main objective of the project is to improve the livelihoods and food security of poor and landless families severely affected by the cyclone through the provision of poultry, while increasing income and enhancing the availability of poultry meat and fresh eggs in the market.

3. Targeted area and beneficiaries

The targeted area for this project will be the 11 townships in Ayeyarwady and Yangon Divisions most affected by the cyclone. Within the defined areas, the project will assist landless and female-headed households and similarly vulnerable groups of people who are eager to organize themselves and to improve their access to inputs.

4. Planned activities

Principle project interventions will include:

PROJECT PROFILES: LIVESTOCK SUBSECTOR

- the restocking of chickens and ducks in designed packages that would provide sufficient start-up capital to beneficiary households;
- initiating a livestock banking system in the assisted townships, increasing productivity and access to poultry by other households; and
- a training programme for extension workers and beneficiary households on poultry management, development and reproduction, and animal health.

5. Project expected outputs

By the end of the project, the following outputs are expected:

- 11 000 most vulnerable households have each received one poultry package (consisting of 15 ducks or 10 chickens each), improving household food security and income;
- 11 000 households have improved and increased their income through the sale of reproduced poultry and fresh eggs;
- the flow of meat and fresh eggs in the local and regional markets is significantly increased;
- 11 000 households and extension workers are trained in poultry management, production and development, and have become members of the poultry banking system; and
- at least 2 200 additional families restock lost poultry, supported by the poultry banking system.

6. Inputs

One international expert (part time), one national specialist and one assistant will form part of the operational team. The supply of poultry and relevant material will be secured in local/national markets, supporting the revitalization of the local economy. Relevant indicators will be developed to monitor the provision of inputs and supplies, as well as production and reproduction activities.

The project will be implemented in collaboration with the Livestock Breeding and Veterinary Department (LBVD) and the Myanmar Livestock Federation. Non-governmental organizations active in agricultural rehabilitation activities in the 11 assisted townships will be major partners in the delivery of inputs at field level. In each LBVD township office, a local staff will oversee and coordinate the activities within the township.

7. Financial summary

Budget Item	Total USD
International and national personnel	160 000
Inputs (chickens, ducks, training school and other materials)	1 340 000
Logistics, transport, communications, collecting centre, office space, travel, general operating expenses	200 000
Administration costs (technical support services, reporting, evaluation, etc.)	100 000
Direct operating costs	120 000
Total	1 920 000

PROJECT PROFILES: LIVESTOCK SUBSECTOR

PROJECT PROPOSAL - RESTOCKING OF PIGLETS AND GOATS

Project Title	Provision of Pigs and Goats for Increased Food Security and Income Generation
Project Code	OSRO/MYA/XX/XX
Sector	Agriculture (Livestock)/Rural Livelihoods
Theme	Income generation, farmers' organizations
Objective	Restocking of piglets and goats to cyclone-affected landless farmers for food security and income generation
Targeted Beneficiaries	Landless and widow-headed families
Implementing Partners	Communities, NGOs, Ministry of Livestock and Fisheries, Livestock Breeding and Veterinary Department, Myanmar Livestock Federation
Project Duration	36 months: January 2009 to December 2011
Funds Requested	USD 1 920 000

1. Background and justification

Approximately 50 percent of the population in Ayeyarwady and Yangon Divisions is classified as landless. Their livelihoods depend on casual labour, backyard gardening and small animal and poultry rearing. The loss of pigs and goats in these two divisions due to Cyclone Nargis was devastating, which included the death of nearly 68 000 pigs (28 percent of the total pig population) and 7 000 goats (30 percent of the total goat population). The emergency programme has so far replaced only a minor fraction of total requirements, preventing the most affected households from regaining an essential part of their livelihoods.

Restocking pigs and goats is not only vital for affected households to regain lost livelihood activities but will also contribute at a later stage to increased meat in the local and regional markets. A livestock banking system will be introduced to ensure that offspring will be further distributed to additional households in need, increasing and improving the quality and quantity of small animals.

2. Project objective

The project aims to improve the livelihoods of vulnerable households most in need through increased income and food security, while improving the quantity and quality of fresh meat supply in the local and regional markets.

3. Targeted area and beneficiaries

The project target area includes the seven most affected townships in Ayeyarwady Division. Within the defined areas, the project will assist the most vulnerable households, including landless and female-headed households that are eager to organize themselves and to improve their access to inputs.

4. Planned activities

PROJECT PROFILES: LIVESTOCK SUBSECTOR

Principle interventions of the project include:

- restocking of pigs and goats;
- initiating livestock banking systems; and
- training farmers and extension workers.

5. Project expected outputs

By the end of the project, the following outputs are expected:

- 2 500 households will have received one piglet package (four piglets per package);
- 500 households will have received one goat package (two goats per package)
- markets will have access to sufficient quantities of good quality meat;
- at least 1 000 additional households will have received pigs and goats (i.e. offspring from the livestock banking system); and
- 3 000 farmers and 300 extension workers will have received training in livestock management, development and reproduction.

6. Inputs

One international expert (part time), one national specialist and one assistant will form part of the operational team. Project inputs include pigs and goats (vaccinated and quarantined), training and training material.

Indicators will be developed to monitor the distribution, reproduction, animal health and livestock banking processes, as well as training programmes. The project will be implemented in collaboration with the Livestock Breeding and Veterinary Department (LBVD) and the Myanmar Livestock Federation. Non-governmental organizations active in agricultural rehabilitation activities in the seven targeted townships will be major partners in the delivery of inputs at field level. In each LBVD township office, a local staff member will oversee and coordinate the activities within the township.

7. Financial summary

Budget Item	Total USD
International and national staff	160 000
Inputs (pigs, goats, training school and other materials)	1 340 000
Logistics, transport, communications, collecting centres, office space, travel, general operating expenses	200 000
Administration costs (technical support services, reporting, evaluation, etc.)	100 000
Direct operating costs	120 000
Total	1 920 000

PROJECT PROPOSAL - ENHANCE THE EXISTING VACCINATION CAPACITY

Project Title	Strengthening of the National Vaccine Production Programme, Improving Livestock Health in Affected Areas
Project Code	OSRO/MYA/XXXX
Sector	Agriculture (Livestock)/Rural Livelihoods
Theme	Animal health, improved and increased livestock production
Objective	To improve animal health and increase livestock productivity
Targeted Beneficiaries	Small- and medium-scale farmers, landless and vulnerable households
Implementing Partners	Communities, NGOs, Ministry of Livestock and Fisheries, Livestock Breeding and Veterinary Department
Project Duration	36 months: January 2009 to December 2011
Funds Requested	USD 8 580 000

1. Background and justification

With a large number of draught animals and a much larger quantity of small animals and poultry, access to sufficient vaccines had always been a challenge in the delta region before the cyclone. Animal diseases and the lack of sufficient vaccines impact not only the livestock subsector but have also negatively affected the crop subsector, especially given the significant number of small- and medium-scale farmers who depend on draught animals for traction.

Current vaccine production in the country is limited. Damages caused by Cyclone Nargis will further deteriorate the situation, especially in view of the significant restocking plan by both the Government of Myanmar and the aid community. Therefore, enhancing the capacity of national vaccine production is vital to maintain the health of draught animals, as well as small ruminants, swine and poultry.

2. Project objective

The project's main objective is to control animal diseases, reduce animal losses and enable livestock to become more productive.

3. Targeted area and beneficiaries

The project target area includes 11 townships in Ayeyarwady and Yangon Divisions most severely affected by the cyclone. Within the defined areas, some 150 000 farming and non-farming households involved with livestock will benefit from the project.

4. Planned activities

Principle interventions of the project will include the following:

- national vaccine and drug production will be increased, enabling more households in the affected areas to access vital drugs and vaccines;
- drug and vaccine production of the Livestock Breeding and Veterinary Department (LBVD) will be increased and mass vaccination campaigns will be carried out in all affected areas;

PROJECT PROFILES: LIVESTOCK SUBSECTOR

- production facilities will be rehabilitated and improved to enable increased vaccine production; and
- cyclone-proof livestock shelters will be developed and initiated, thereby reducing future disaster risks.

5. Expected project outputs

By the end of the project, the following outputs are expected:

- 350 000 cattle vaccines, 125 000 swine vaccines and 3 million poultry vaccines will have been produced;
- most livestock, particularly all animals restocked through the recovery project, will have been vaccinated through mass vaccination campaigns;
- 3 000 community-based, cyclone-proof livestock shelters in target villages will have been built; and
- animal disease will be reduced drastically and controlled in the target areas, leading to greater and improved livestock production, thereby increasing household diet and income.

6. Inputs

One international expert (part time), one national specialist and one assistant will form part of the operational team. Inputs include material (e.g. cyclone-proof livestock shelter construction material) and necessary tools and equipment for LBVD, as well as training and the development of training material for the benefit of project beneficiaries, livestock extension workers and LBVD. Training material will include didactic material on improved livestock management and development, with special emphasis on animal health. Indicators will be developed to monitor vaccine production and vaccination campaigns performed against haemorrhagic septicaemia, foot-and-mouth disease, black quarter and Newcastle disease, including animal treatment centres and clinics.

The project will be implemented in collaboration with LBVD and the Myanmar Livestock Federation. Non-governmental organizations active in agricultural rehabilitation activities in the 11 targeted townships will be major partners in the delivery of inputs at field level. In each LBVD township office, a local staff member will oversee and coordinate the activities within the township.

7. Financial summary

Budget Item	Total USD
International and national personnel	160 000
Inputs (lab equipment, cyclone-proof shelter and other materials)	8 000 000
Logistics, transport, communications, collecting centres, office space, travel, general operating expenses	200 000
Administration costs (technical support services, reporting, evaluation, etc.)	100 000
Direct operational costs	120 000
Total	8 580 000

PROJECT PROFILES: FORESTRY SUBSECTOR

PROJECT PROPOSAL - COMMUNITY FORESTRY AND COMPREHENSIVE COASTAL ZONE MANAGEMENT

Project Title:	Rehabilitation of Mangroves: Development of a Coastal Zone Management Plan and Enhancing Disaster Risk Reduction in Cyclone-affected Areas
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Theme:	Rehabilitation of mangroves, coastal zone management and disaster risk reduction
Objective:	To implement mangroves rehabilitation, implement comprehensive coastal zone management and reduce disaster risks for communities living along riverbanks
Targeted Beneficiaries:	Mangrove-dependent communities, 10 000 households
Implementing Partners:	Communities, NGOs, and Ministry of Forestry
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 2 000 000

1. Background and justification

Mangrove forests in Myanmar occur on alluvial flats of the deltaic regions and on sheltered coastal areas within the tidal limits in Rakhine State, Tanintharyi and Ayeyarwady Divisions. The total area of mangrove forests in Myanmar used to be approximately 704 596 hectares. The largest among these is in the Ayeyarwady delta, where its original mangroves covered 274 795 hectares.

The Ayeyarwady mangroves provide goods such as timber, firewood, food and protection from storms. The Ayeyarwady mangrove forests decreased to 177 327 hectares in 1989 due to the over-exploitation of mangrove products, mainly firewood and charcoal for the city of Yangon and conversion to paddy fields, aquaculture, salt pans and human settlement. There were more than 200 000 people living in 350 villages scattered around mangrove reserve forests in Labutta and Bogale in 2002.

A recent assessment conducted by FAO in close collaboration with the Government in May/June 2008 assessed the impact of the cyclone in terms of physical destruction and impact on people's livelihoods. Based on the assessment information, the existing network of the Ministry of Forestry and the analysis of satellite imagery, the cyclone affected both the natural forests and plantation stands, especially in Ayeyarwady Division. Approximately 14 000 out of 56 000 hectares of mangroves were reported lost. In addition to the natural mangroves, the Forest Department had also established plantations in Ayeyarwady and Yangon Divisions. Out of the 63 000 hectares of tree plantations in the area, about one-third (21 000 hectares) was reported damaged by the cyclone. The cyclone also destroyed Forest Department infrastructure, mainly office and housing buildings, in addition to access roads, bridges, camps, vehicles and logging machinery.

Ayeyarwady mangrove forests are important both from an ecological and socio-economic perspective. Artisanal fishers, the landless poor and marginal farmers, especially women,

PROJECT PROFILES: FORESTRY SUBSECTOR

depend on mangroves as direct and indirect income sources (minor forest products collection, casual labour in forestry operations and food from the mangrove forests).

The current annual production of the forest amounts to approximately USD 10 million in the cyclone-affected areas of Myaungmya, Pyapon, Patheingyi and Yangon townships, causing considerable losses to livelihoods for the poor.

Therefore, this project aims to address the following priority issues:

- farming practices are unsustainable and the deforestation rate is increasing;
- income earning opportunities for the poor have decreased;
- mangrove forest resources are inadequate to meet the basic needs of mangrove communities;
- lack of awareness generation on mangrove conservation and disaster risk reduction;
- lack of vibrant local organization to achieve recovery and to improve livelihoods; and
- lack of disaster risk reduction management and preparedness.

2. Objectives

The objectives of the project are to improve RS/GIS facilities, to acquire and analyse satellite images for mangrove rehabilitation, to restore Forest Department facilities and to enhance staff capacities in preparation for the implementation of a comprehensive coastal zone management plan. In addition, the project aims to facilitate the development of community forestry, while improving disaster risk reduction through riverbank forest plantation.

3. Project inputs

The project will initiate participatory approaches at community level, strengthen capacities to cooperate and share good practices in support of mangrove rehabilitation, leading to improved socio-economic conditions. The project will introduce community development, mangrove ecosystem rehabilitation and partnership among stakeholders. The project will address the needs of mangrove-dependent communities by providing opportunities that promote income generation activities through raising nurseries, mangrove regeneration and similar activities.

Issues related to disaster risk reduction will be addressed through mangrove plantation along the riverbanks, providing shelter to communities in the area. Implementing partners, supported by local authorities, will implement activities in Labutta and Bogale townships. Some of the main inputs to implement the above-mentioned activities include the training and capacity building of community members (especially user groups and extension service workers), developing didactic material and organizing workshops, along with the provision of necessary material and equipment for the nurseries.

Community-based mangrove management will foster greater participatory management of resources, leading to the sustainability of project achievements. Primary target groups are small-scale farming and fishing communities as well as landless households.

PROJECT PROFILES: FORESTRY SUBSECTOR

The development of community nurseries will enhance household income through the sale of produced seeds and seedlings. Micro-enterprise services, such as the production of efficient stoves and rice husk stoves, will contribute to income opportunities and reduce firewood demand.

Necessary equipment and material, including modern technologies, will be provided to the Forest Department, along with technical assistance, intensive capacity building and the improvement of existing facilities for the implementation of the comprehensive coastal zone management plan. Seventeen forestry camps will be rehabilitated/reconstructed. The comprehensive coastal zone management will be initially introduced in three key locations and expanded thereafter.

4. Project expected outputs

At the end of the project period, the following outputs are expected:

- manifestation of improved mangrove forest rehabilitation activities through community participation;
- increased awareness on mangrove conservation;
- development of disaster risk reduction for up to 10 000 households in the project area through community-based mangrove plantation; and
- enhanced capacities of relevant government departments for a comprehensive coastal zone management plan to balance the competing demands of different users (agriculture, fisheries and forestry).

5. Financial summary

Budget Item	Total USD
National and international personnel (Project Manager, technical experts on mangroves, administrative/logistic support)	180 000
Inputs (material, tools, equipment for village and forest nurseries, training, capacity building, contracts)	1 400 000
Logistics, communications, travel, general operating expenses	90 000
Administration costs (technical support services, reporting, evaluation)	130 000
Direct operating costs	200 000
Total	2 000 000

**PROJECT PROPOSAL - COMMUNITY-BASED FORESTRY
AND MANGROVE REHABILITATION**

Project Title:	Mangrove Rehabilitation: Restoration of Livelihoods through Community-based Forestry and Development of Income-generation Activities in Cyclone-affected Areas
Project Code:	OSRO/MYA/XX/XX
Sector:	Agriculture/Rural Livelihoods
Themes:	Rehabilitation of mangroves, income generation and community forestry
Objective:	To rehabilitate mangrove forests and improve the livelihoods of mangrove-dependent households by promoting income-generating activities
Targeted Beneficiaries:	Mangrove-dependent communities, 10 000 households
Implementing Partners:	Communities, NGOs, and Ministry of Forestry
Project Duration:	36 months: January 2009 to December 2011
Funds Requested:	USD 3 000 000

1. Background and justification

Mangrove forests in Myanmar occur on alluvial flats of the deltaic regions and on sheltered coastal areas within the tidal limits in Rakhine State, Tanintharyi and Ayeyarwady Divisions. The total area of mangrove forests in Myanmar used to be approximately 704 596 hectares. The largest among these areas is in the Ayeyarwady delta, where its original mangroves covered 274 795 hectares.

The Ayeyarwady mangroves provide goods such as timber, firewood, food and protection from storms. The Ayeyarwady mangrove forests decreased to 177 327 hectares in 1989 due to over-exploitation of mangrove products, mainly firewood and charcoal for the city of Yangon, and conversion to paddy fields, aquaculture, salt pans and human settlement. There were more than 200 000 people living in 350 villages scattered around mangrove reserve forests in Labutta and Bogale in 2002.

A recent assessment conducted by FAO in close collaboration with the Government in May/June 2008 assessed the impact of the cyclone in terms of physical destruction and impact on people's livelihoods. Based on the assessment information, the existing network of the Ministry of Forestry and the analysis of satellite imagery, Cyclone Nargis affected both the natural forests and plantation stands, especially of Ayeyarwady Division. Approximately 14 000 out of 56 000 hectares of mangroves were reported lost.

In addition to the natural mangroves, the Forest Department had also established plantations in Ayeyarwady and Yangon Divisions. Out of the 63 000 hectares of tree plantations in the area, about one-third (21 000 hectares) was reported damaged by the cyclone. The cyclone also destroyed Forest Department infrastructure, mainly office and housing buildings, plus access roads, bridges, camps, vehicles and logging machinery.

Ayeyarwady mangrove forests are important both from an ecological and socio-economic perspective. Artisanal fishers, landless poor and marginal farmers, especially women,

PROJECT PROFILES: FORESTRY SUBSECTOR

depend on mangroves as direct and indirect income sources (e.g. minor forest products collection, casual labour in forestry operations and food from the mangrove forests).

Current annual production from the forest amounts to about USD 10 million in the cyclone-affected areas of Myaungmya, Pyapon, Patheingyi and Yangon townships, causing considerable losses to livelihoods for the poor.

Therefore, this project aims to address the following priority issues:

- farming practices are unsustainable and the deforestation rate is increasing;
- income earning opportunities for the poor have decreased;
- technical facilities are inadequate to effectively assess and monitor mangrove rehabilitation;
- lack of awareness generation on mangrove conservation and disaster risk reduction;
- lack of a multifaceted approach to the integrated planning and management of agriculture, forestry and fisheries into coastal zone management; and
- lack of disaster risk reduction management and preparedness.

2. Project objectives

The objective of the project is to improve the ecosystem through the revitalization and rehabilitation of natural mangrove forests in coastal areas and to reduce disaster risks for communities living along the riverbanks. Community-based forestry approaches will enhance communities' awareness in the preservation of existing forests and will lead to increased forest coverage.

3. Project inputs

The project will initiate participatory approaches at community level, strengthen capacities to cooperate and share good practices in support of mangrove rehabilitation, leading to improved socio-economic conditions. The project will introduce community development, mangrove ecosystem rehabilitation and partnership among stakeholders. The project will also support strengthening and improving the capacity of forest camps and RS/GIS facilities of the Forest Department.

Issues related to disaster risk reduction will be addressed through mangrove plantation along the riverbanks, providing shelter to communities in the area. Implementing partners, supported by local authorities, will implement activities in Labutta and Bogale townships. Some of the main inputs to implement the above-mentioned activities include the training and capacity building of community members, especially user groups and extension service workers, developing didactic material and organizing workshops, along with the necessary provision of material and equipment for the nurseries.

Community-based mangrove management will foster greater participatory management of resources, leading to the sustainability of project achievements. Primary target groups are small-scale farming and fishing communities, as well as landless households.

PROJECT PROFILES: FORESTRY SUBSECTOR

The development of community nurseries will enhance household income through the sale of produced seeds and seedlings. Micro-enterprise services, such as the production of efficient stoves and rice husk stoves, will contribute to income opportunities and reduce firewood demand.

4. Project expected outputs

At the end of the project, the following outcomes are expected:

- 10 000 households will improve their livelihoods through income opportunities;
- 50 village nurseries and 50 community forestry user groups will be formed and some 10 000 hectares of mangrove plantations will be established;
- 14 000 hectares of natural mangrove will be rehabilitated through community forestry;
- emergence of self-sustaining income-generation groups and self-help groups, including women and landless/marginal farmers, contributing to resource mobilization; and
- increased awareness on mangrove conservation.

5. Financial summary

Budget Item	Total USD
National and international personnel (Project Manager, technical experts on mangroves, administrative/logistic support)	180 000
Inputs (material, tools, equipment for village and forest nurseries, training, capacity building, contracts)	2 300 000
Logistics, communications, travel, general operating expenses	90 000
Administration costs (technical support services, reporting, evaluation)	130 000
Direct operating costs	300 000
Total	3 000 000