Indonesia and FAO Achievements and success stories



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Introduction

ndonesia has made significant strides in reducing poverty since the economic crisis and political transformation of 1997-1998. The percentage of its 230 million people living in poverty fell from 16.7 percent in 2004 to 14.15 percent in 2009. Since 2009, Indonesia has been classified as a lower middle-income country. Steady progress is being made to achieve the Millennium Development Goals (MDGs). However, despite these gains, about half of the population still live on less than US\$2 a day, and in 2010 more than 13 percent, about 30 million people, were living on less than US\$1.25 a day.

Indonesia became a member of the FAO in 1948, and an FAO Representative Office was opened in Jakarta in 1978. Since then more than 500 projects have been implemented throughout Indonesia, generating over US\$700 million worth of external and domestic investments in agriculture, fisheries and forestry. Indonesia and FAO has been in partnership for 33 years and significant achievements have been made during those years.

Over the last 10 years, the main areas of support from FAO were in food security and rice production, as well as emergency support for the fight against bird flu and post-tsunami rehabilitation.

Indonesia has also benefitted from a number of FAO regional and global programmes, including Integrated Pest Management (IPM) and the Special Programme for Food Security (SPFS).

1. Analytical summary

1.1 Food security needs to improve

unger and malnutrition remain serious problems for many Indonesians. Despite vast areas of fertile land that produce an abundance of food, hunger and malnutrition exist in nearly every district. Millions of children suffer from deficiencies of iron, iodine and vitamin A. The sharp rise in global food prices, along with skyrocketing fuel and transportation costs, has been particularly hard on the poor, but also made food security an issue for many living above the poverty line.

The Indonesian government and international agencies have implemented a series of complementary programmes during the past 15 years aimed at reaching the poorest and hungriest. These include the FAO-assisted Special Programme for Food Security. Another project supported by the International Fund for Agricultural Development helped foster self-reliance among poor families living in dry lands through participatory integrated development.

The government-run *Village Food Resilience programme* or *Desa Mandiri Pangan*, initially covered 608 villages in 180 districts. It is now the flagship programme of the Agency for Food Security in the Ministry of Agriculture.



1.2 Rice self-sufficiency and farmer field school/IPM

Rice is the staple food for most Indonesians, and the chief source of carbohydrates and protein in their diet. The rice sector plays a dominant role in generating employment: 40 million of Indonesia's labour force is found in agriculture, and 21 million households or about 10 percent of the Indonesian population, are engaged in rice production. Rice is a strategic commodity that influences economic power as well as national social and political stability. As the main staple food, rice is perceived to be a strategic political commodity whose importance outweighs its economic role. Therefore, the government has made rice its top priority in food production since 1968 when it began a series of Five Year Development Plans. Strong commitments by national leaders, political stability and the hard work of those involved have made the country self-sufficient in rice since 1984.

FAO supported the Indonesian government's goal of rice self-sufficiency in many ways, but Integrated Pest Management and Farmers Field Schools which were introduced by the Organization, are recognized as the two most important contributors to the success of this policy.

IPM was launched in 1979 and became an official government policy. IPM is a dynamic process that faces a variety of problems in implementation. Since 1989, the government has been undertaking a large-scale IPM programme that works directly with frontline agricultural extension workers and a large number of farmer's groups across the country.

The IPM programme's emphasis on developing human resources and increasing knowledge brings about tremendous changes in behaviour and field practice, enabling farmers to change their approach and resist persuasive advertising campaigns by companies producing chemical pesticides. IPM in Indonesia has honed the skills of fieldworkers and farmers in ecology-based methods. Decision making and field

management are based upon agro-ecosystem analysis and hands-on fieldwork. In review and evaluations to date, the programme has been judged a success in institutionalizing safer and more environmentally friendly pest management techniques at the farmers' level.

In 2007, the President of Indonesia launched an initiative with the objective of increasing national rice annual production by 2 million tonnes of milled rice (or 3.5 million tonnes of paddy) for 2007, and achieving comparable increases in 2008 and 2009 in order to assure rice self-sufficiency in the country. It is called the National Programme to Increase Rice Production (P2BN). An FAO TC project was designed to contribute further to the achievement of the government food security objectives. This was to be accomplished through activities that would increase the efficiency of the post-harvest system for rice, involving operations such as handling, drying, storage and processing. Capacity building efforts were implemented for key stakeholders such as farmers, extension workers and millers in the post-harvest sector.

1.3 Tsunami – From recovery to peace

Aceh was the province most devastated by the 2004 tsunami. The government – with support from the international community – committed to rebuild and stabilize the province by providing humanitarian and reconstruction assistance, and supporting the peace process in Aceh after years of armed conflict.



As well as emergency humanitarian assistance, FAO and other donors delivered assistance to ensure a sustainable long-term recovery. The Multi-Donor Trust Fund for the reconstruction of Aceh and North Sumatra provided more than US\$37 million in funds channeled through FAO.

The declared motto was "build back better". The aim was to support the province in achieving a higher level of governance, better infrastructure, social services and a stronger level of economic activity than existed before the tsunami.

Local Indonesian communities benefited from support provided by FAO for the rehabilitation and sustainable development of fisheries and aquaculture, particularly those in the tsunami-affected areas of Aceh Province. The Aceh Fisheries Sector Steering Council was created. The provincial Aceh Marine and Fisheries Service (DKP) managed the rehabilitation of the affected coastal areas with support from FAO and funding from the American Red Cross (ARC). The co-management component of the project increased the capacity and awareness of three key elements – government, communities and fishery industries - needed for fisheries co-management, fostering a productive collaboration and facilitating the creation of five co-management demonstration sites. The project relied on the traditional wisdom of local fishing communities, and banned the use of shrimp trawlers along the west coastline of the country – a model with great potential for application in other parts of the country.

1.4 Bird flu is entrenched in poultry in Indonesia

Highly Pathogenic Avian Influenza (HPAI)/H5N1 is endemic in Indonesia. The first officially reported outbreak was on 2 February 2004. Thirty-one of 33 provinces had reported HPAI outbreaks since 2004 up to March 2011 when a 32nd province, Gorontalo, confirmed an outbreak to the OIE (World Organization for Animal Health). HPAI appears to be endemic on the island of Java and parts of Sumatra; Lampung, Yogyakarta, Central Java and West Java appear to be the most heavily affected provinces.

Globally, the largest number of human cases of Highly Pathogenic Avian Influenza (H5N1) have occurred in Indonesia. By June 2011, Indonesia had reported 178 human cases with 146 fatalities. Since 2008, when 24 human cases were recorded, cases appear to be declining according to annual reports, with the number falling to only nine reported cases in 2010. Improved government information campaigns on how to respond to HPAI may have been responsible for the apparent recent decrease in annual human cases.

The FAO HPAI Programme in Indonesia focuses on activities to improve surveillance, response and reporting; improved on-farm and market chain biosecurity; market restructuring; and field strain monitoring and appropriate vaccine strain identification. HPAI has been detected in all types of domestic poultry since 2004.

To improve disease surveillance, prevention, and control in village poultry using community-based approaches, FAO has assisted the Ministry of Agriculture and local government livestock services since 2006 to develop and implement the Participatory Disease Surveillance and Response (PDSR) programme. Currently over 2 200 PDSR-trained local government officers are operating in 29 provinces and supported by 33 Local Disease Control Centres (LDCCs). Since 2006, the officers in the PDSR programme have engaged directly with over 5.5 million community members and diagnosed over 10 000 HPAI outbreaks in poultry. FAO is now supporting the central and local governments to transition PDSR into a government-sustained programme via the National Veterinary Service (NVS) initiative, which will also address priority diseases other than HPAI. Specific improvement in village-local government engagement and community empowerment was also achieved in South Sulawesi via the Village Biosecurity, Education, and Communication (VBEC) programme.

FAO also supports a number of activities to improve disease control in the commercial sectors, including a local government commercial poultry veterinary programme (PVUK) modelled on the PDSR programme and a Commercial Poultry Health (CPH) programme to provide expert technical advice directly to farmers. FAO is supporting the development of the National Poultry

Quality Improvement Programme (NPQIP), which is a broad public-private partnership between government and the commercial poultry industry intended to strengthen poultry production via improved farm biosecurity, improved poultry health expertise, and establishment of a private sector-based outbreak compensation system.

In order to reduce risk of virus spread along the poultry market chain, FAO has supported the government to develop a comprehensive market chain programme to profile poultry movement patterns and the value chain, establish ongoing market surveillance and to improve cleaning and disinfection practices in live bird markets and wholesale poultry collector yards. FAO has also supported efforts to restructure the poultry market system so that live birds are no longer sold directly to consumers in Jakarta City. FAO has implemented structured district surveillance, border risk analysis and a market network analysis on the island of Bali to refine the control programme there.

2. Selected successful FAO programmes

2.1 Special Programme for Food Security (GCP/INS/073/JPN – US\$3 099 637)

n 1998, Indonesia faced a severe economic crisis following the Asia financial meltdown. Price hikes for many commodities, including food, resulted in high unemployment, increased poverty and food insecurity.

In response, the government, with financial support from Japan for FAO technical assistance, launched the *Special Programme for Food Security* (SPFS) aimed at strengthening food security, revitalizing rural economies, alleviating rural poverty and enhancing nutritional well-being.

Over six years the total budget for the SPFS was US\$3 099 637, of which US\$2.5 million was provided by Japan through FAO, and US\$800 000 was contributed by Indonesia. The main activities included participatory analysis of food security constraints, water control and management, intensification of farming systems and diversification of agricultural production.

The SPFS proved a success by establishing 36 dynamic farmer groups in five pilot districts, producing comprehensive farmer group development plans and creating a unique system of revolving funds. It also led to greater mutual understanding among communities and government at the central, provincial and district levels with regard to self-motivated development.



The SPFS improved irrigation infrastructure and water management, and encouraged farmers to adopt improved farming systems that increased the productivity of crops, livestock and fisheries. It led to the adoption of improved post-harvest processing and, through the Farmer Field School approach, enhanced the effectiveness of government extension services. SPFS resulted in an overall improvement in the livelihoods and mindset of the community and was eventually replicated in 21 districts.

Using the lessons learned from the SPFS, in addition to the successful experiences from an IFAD-funded project, the government established the *Desa Mandiri Pangan*, initially in 608 villages in 180 districts.

2.2 IPM Rice-Based Cropping Systems

A community-based Integrated Pest Management (IPM) programme comprising eight projects with US\$9 million in funding encourages farmers to join forces to promote farming practices that are healthy and more efficient. It works to develop group action and uses agro-ecological concepts to analyze problems, design field studies and carry out experiments.



The concept of Community IPM emerged from training programmes organized by government agencies and NGOs in various parts of Asia. Many graduates of *Farmer Field Schools* have planned and managed their own IPM activities.

A National IPM Programme established in 1989 aimed to increase the capacity of farmers and field workers to make sound field management decisions based on IPM principles.

For many years, until 1999, the National IPM Programme was supported and funded by the Indonesian government, the World Bank and the US Agency for International Development (USAID). In addition, provincial, district, and local governments also committed funds to IPM training programmes to accelerate the pace of IPM training. The programme operated in 12 of 27 provinces, including the major rice growing provinces. Around one million farmers have graduated from Farmer Field Schools in Indonesia.

In July 1999, the Indonesian Farmers Association was established as a national organization representing the interests of local IPM farmer groups.

2.3 Emergency response and recovery to tsunami affected areas in Nanggroe Aceh Darussalam



As per its mandate, FAO plays the predominant role in the rehabilitation of food production systems. FAO interventions build on reinforcing existing initiatives, focusing on emergency relief interventions and start up phases of rehabilitation assistance.



FAO implemented several emergency interventions to assist in the recovery of tsunami affected communities in close collaboration with the government and NGOs. US\$36 990 405 was donated for emergency response and

recovery in tsunami-affected areas, with 20 projects implemented in Nanggroe Aceh Darusalam. Some of those FAO projects are shown in detail in the list below.

Rehabilitation and sustainable development of fisheries and aquaculture affected by the tsunami in Aceh – OSRO/INS/601/ARC, US\$7 554 260, American Red Cross, February 2007 – June 2010

To rehabilitate and develop sustainable fisheries and aquaculture in coastal communities affected by the tsunami in Aceh Province, Indonesia.

Support to tsunami and conflict affected farming and fishing communities for improved food security and livelihoods – OSRO/INS/606/SPA, US\$1 310 000, Spain, January 2007 – July 2008

To assist the tsunami- and conflict-affected farming and fishing communities to improve their food security and livelihoods through the provision of agriculture or fish processing packages, transfer of promising technologies, training and marketing technical assistance.

Rehabilitation assistance for agriculture and fisheries-based livelihoods on Nias Island – OSRO/INS/602/EC, US\$2 180 000, European Community, May 2006 – June 2007

To assist vulnerable families affected by earthquake and tsunami in the resumption of their disrupted agricultural, livestock and fishery livelihoods activities, with the aim to reduce overall dependency on external food aid and other forms of humanitarian assistance

Rehabilitation of livelihoods in the fisheries sector – GCP/INS/076/GER, US\$1 470 635, Germany, December 2005 – August 2009

To ensure a coordinated and sustainable restoration of the small-scale fisheries subsector with special emphasis on promoting enhanced overall coordination for fisheries rehabilitation.

Emergency assistance to tsunami affected coastal communities – OSR O/INS/512/SPA, US\$1 800 000, Spain, November 2005 – April 2007

The overall objective of the project is to assist the Indonesia Government's efforts to sustain the early rehabilitation and recovery of food security and sustainable livelihoods of tsunami-affected coastal communities in Indonesia at least at the pre-tsunami levels.

Emergency provision of essential inputs for rapid re-start of small-scale food crop production and fisheries – OSRO/INS/501/BEL, US\$1 921 945, Belgium, January 2005 – June 2006

Relief and rehabilitation of farmers and fisher folk in areas worst affected by the tsunami through the provision of agricultural and fisheries inputs.

Emergency assistance for tsunami affected coastal communities – OSRO/INS/502/JPN, US\$786 178, Japan, January – December 2005

The project is to assist the Indonesia Government's efforts to safeguard the livelihoods of the tsunami-earthquake affected coastal communities and to enable them to resume their occupations and produce fish for nutrition and income earning.

2.4 Emergency provision of essential inputs for the rapid re-start of small-scale food crop production and fisheries activities within tsunami-affected communities (OSRO/INS/501/BEL-US\$1 921 945)

The massive earthquake and tsunami that hit Aceh and Nias killing some 250 000 people also caused thousands of additional people to lose their productive assets, resulting in increased poverty. In the aftermath of the disasters, FAO helped farmers rebuild their lives. The principle of "Building Back Better" was used for rehabilitating and reconstructing the agricultural sector.

The project assessed the most severely affected farming communities and fishers in the livelihood recovery process following the disaster and supported an early decrease of tsunami-affected household dependency on emergency food aid. The project aims to complete needs assessments among the affected agriculture and fishing folk and to enhance land reclamation and ensure the prompt resumption of agricultural production for vulnerable households affected by the tsunami. This is expected to reduce their dependency on food aid. The project will also assess fisheries-related damages and needs immediately after the tsunami.

Activities were undertaken in more than 360 villages in 11 districts along the east and west coasts of NAD, where a needs assessment in the project area was finalized and technical specification of the needed inputs were defined. The beneficiaries of the project were identified in collaboration with project implementing partners and ultimately there were 12 613 farming households that received seed packages. The seed package distribution activities reached 613 more households than planned because the seeds were distributed to all households in the community. In addition, 211 hand-tractors, 12 reapers and 11 threshers were distributed to 211 farmer groups and farmers began reclaiming 10 500 hectares of land.

During implementation, inputs, tractors and threshers were distributed through a network of national and international NGOs in collaboration with Dinas Pertanian. Training coursed taught farmers how to operate and maintain the tractors for community use.

FAO also assisted people with the rehabilitation of mangroves and livestock. *Rehabilitation and Sustainable Development of Fisheries and Aquaculture Affected by the Tsunami in Aceh Province* (OSRO/INS/601/ARCO was a project funded by the American Red Cross from 2007-2010 at US\$7.6 million.

One of the success stories of the project was fisheries co-management. The project trained 164 community motivators who drove change in community attitudes. The project also established the Aceh Coastal Youth Forum (Forum Pemuda Pesisir Aceh) and provided support for new fisheries legislation. Awareness of the need for sustainable fishing and co-management was raised and five co-management demonstration sites and their supporting institutional structures were established.

Coral was replanted to build community cohesion and emphasize sustainable fisheries management, while local government was supported to address the problem of illegal fishing. The boat registration initiative that was started under another FAO project was continued under this one and an NGO network for energizing the coastal community of Aceh was also established. Two Women's Self-help Empowerment Groups – *Kelompok Usaha Amal Mandiri* (KAUM) were set up to support demonstration site work.

The project reached out to an active fishing population of 2095 covering 80 kilometres of coastline. Drafting of new fisheries legislation was undertaken by the Law Faculty of University of Syiah Kuala (UNSYIAH) in Banda Aceh with wide stakeholder consultations. The role of traditional law in conflict resolution and resource management was strengthened through various awareness raising activities, including sponsorship and release of a widely acclaimed movie.

The co-management concept of the project is considered an outstanding achievement in terms of building capacity and awareness, and led local fisheries communities to ban the use of shrimp trawlers in their traditional fisheries along the west coast.

2.5 Assistance to control of avian influenza



FAO in close collaboration with the Ministry of Agriculture has provided technical assistance through a range of activities aimed at early detection, reporting, increasing the understanding of high pathogenic avian influenza (HPAI) epidemiology and control of the disease.

USAID, AusAID, Japan, the Netherlands and Norway have provided US\$57 454 543 to support the implementation of the projects. Some of the HPAI control projects implemented in Indonesia are listed below.

Assistance through FAO for the control of avian influenza in poultry — OSRO/INS/701/AUL, US\$8 365 333, Australia, June 2007 — March 2011

To provide sound technical and policy advice to the Government of Indonesia onavian influenza; and to support the efficient establishment of a surveillance and control of avian influenza programme in South and West Sulawesi.

Expansion of the avian influenza participatory disease surveillance and response programme in Indonesia – OSRO/ INS/604/USA, US\$44 200 000, USA, July 2006 – September 2007

Extend participatory disease surveillance and rapid response capability to all the districts of Java; implement PDS/R programmes in Bali and defined areas of Sumatra (Medan and Lampung or Kalamaten); initiate capacity PDS/R in Sulewasi and Kalamaten through training of trainers; and facilitate the strengthening of district level capacity to coordinate disease surveillance and response within the context of the national strategic plan.

Monitoring AI virus variants in poultry and defining an effective and sustainable vaccination programme – OSRO/INS/703/USA, US\$1 630 500, USA

H5N1 HPAI virus field isolate collection for biological and genetic characterization challenge testing of antigenic variants against newly developed vaccine strain capacity building technical recommendations for vaccination strategy.

Immediate assistance for strengthening community-based early warning and early reaction to Avian Influenza outbreaks in Cambodia, Indonesia, Lao PDR, PR China and Viet Nam – OSRO/RAS/505/USA, US\$857 630, USA

Strengthen capacity for early detection and early warning of HPAI outbreaks through community-based field surveillance and effective disease outbreak investigations; enhance the capacity for rapid and effective response to outbreaks of HPAI; and promote public awareness and education on HPAI.

Support to the FAO Animal Health Service in infectious and vector borne disease control and to FAO Indonesia in the prevention and control of HPAI – OSRO/INT/901/NET, US\$280 00. Netherland

Prevent and control HPAI and to strengthen national veterinary services and their capacity to respond to future epizootics. Specific activities include (1) HPAI Duck Study in South Kalimantan; (2) Model Methodology for

declaration of freedom of Al in South Kalimantan; (3) Quality control for cleaning and disinfection of poultry transport; and (4) Communications campaign for purchasing of safe and healthy chickens in Jakarta.

The FAO Emergency Centre for Transboundary Animal Diseases (ECTAD) in Indonesia enhanced the capacity and ability of the Indonesian government to implement its Avian Influenza Control Programme. The programme funded at US\$44.2 million, helped safeguard the health and livelihoods of the Indonesian people and reduce the threat of a global pandemic.

In the greater Jakarta area, ECTAD has significantly expanded cleaning and disinfection activities at poultry collection yards and live bird markets. It also provided training courses and awareness raising events for vendors and traders in 43 collection yards and 14 live bird markets. ECTAD also supported the construction of three truck cleaning and disinfection stations at poultry collection and slaughtering facilities.



Throughout 2010, the programme cooperated with, and supported the activities of, the Ministry of Agriculture and local government livestock services. Highlights included identifying a poultry-trading network that was at particularly high-risk for spreading the H5N1 virus and providing HPAI control support for over 2 200 local government livestock service officers. The officers were trained in Participatory Disease Surveillance and Response and came from 29 provinces and 33 Local Disease Control

Centres. Support was provided to local governments in Bali and Sulawesi to drastically reduce the number of H5N1 outbreaks in poultry.

Through the OIE/FAO network on animal influenza, the programme developed a novel reverse-genetics vaccine for preventing H5N1 HPAI in poultry.



With the assistance of a local NGO, FAO helped local administration officials assess the preparedness and increase the competency of the different poultry relocation centres and to analyze their organizational and training needs. FAO proposed practical solutions through the development of training modules and standard operating procedures, and assisted with the implementation of training and organization for individuals involved in poultry market restructuring in Jakarta.

As a result, management and staff of the poultry relocation centres in Jakarta now have a better understanding of what collectors and slaughterers need.



They are better prepared to handle the hundreds, if not thousands, of small collectors and slaughterers who will eventually make use of these facilities. Additionally, they will facilitate training and assist the collectors and slaughterers to operate the facilities and equipment in proper, safe and efficient ways. The management will also ensure that the collectors and slaughterers abide by existing biosecurity and food safety regulations. Standard operating procedures have been adapted to local requirements, resulting in the optimization of facilities use so that Jakarta consumers do not face supply disruptions or food safety problems.

Annex I

Success stories

1. Integrated Pest Management

Around 1 million farmers have graduated from Farmer Field Schools in Indonesia. The Indonesian Farmers Association was established in July 1999 as a national organization representing the interests of local IPM farmer groups.

Story extracted from Getting off the pesticide treadmill

Attention in implementing IPM has focused on rice, largely because of its central role in food security in Asia, where 90 percent of the world's crop of the cereal is grown and where half the Earth's population eats several bowls a day.

One of the most quoted success stories is IPM's triumph against an Indonesian infestation of brown rice-hopper. The insect was resistant to pesticides; natural predators had been wiped out. The narrow genetic base of the high-yielding rice variety in Indonesia could offer no resistance to attack. Pesticides were sprayed up to 50 times a season without having any impact on the resistant insects, which practically decimated the country's harvests in the mid-1980s.

The Government backed an IPM approach, banning 56 insecticides used on rice. Rice yields rose by 13 percent while pesticide use dropped by 60 percent in just five years after the approach was widely introduced. In the first two years alone the Government saved US\$120 million that would otherwise have been spent on subsidizing chemicals.

The Indonesian programme – which was supported by the FAO regional IPM programme in South and Southeast Asia – was based on Farmer Field Schools. Dr Peter Kenmore, its director, had long been convinced that the IPM concept would fail unless farmers participated in understanding and applying solutions.

The training takes place in farmers' fields. Both trainers and farmers are taught how to identify pests and their predators, to understand when a pest will cause

economic damage, and to learn how much a plant can fight back. Two hundred thousand farmers were trained between 1985 and 1990 – cutting their average pesticide use to less than one application per season as a result. The Government's full backing for the programme was a further crucial element in the programme's success: high-level policy support is essential if IPM is to be adopted on a country-wide basis.

2. SPFS and Food Security

The success of the SPFS programme in Indonesia was illustrated by:

- the establishment of a total of 36 dynamic farmer groups in the five pilot districts, the production of comprehensive farmer group development plans and the creation of a unique revolving fund system;
- the growth of mutual understanding among communities and central, provincial and district governments with regard to self-motivated development;
- improved irrigation infrastructures and water management;
- the adoption of improved farming systems to increase the productivity of crops, livestock and fisheries:
- the adoption of improved post-harvest processing; the enhanced effectiveness of government extension services by means of the farmer field school approach;



- an overall improvement in the livelihood and mindset of the community; and
- the replication of SPFS concepts in 21 districts.

FAO supported the Indonesian government effort to achieve the their goal of increasing national rice production by 5 percent each year between 2007 and 2010. The Farmer Field Schools for integrated rice management have contributed substantially to the growth in rice production, allowing the country to become a net exporter of rice since 2008.

3. Co-management in fisheries

One of the outstanding achievements of the co-management project component of the American Red Cross-funded Project in Aceh from 2007-2010 was how it built up the capacity and awareness of the three key partners needed for fisheries co-management. The project brought them together into a productive collaboration, facilitating the creation of five demonstration co-management sites. The project also empowered the local communities by training local community motivators. The result was that local fisheries communities used their traditional sustainable fisheries wisdom to ban shrimp trawlers in the seas along the western coasts. This co-management model has the potential to be replicated in other parts of the country.

4. 2004 WFD model farmer from Indonesia – Onah Lasmanah – agroforestry

Back in 1997, when the men in her village of Cimaragas on the western end of the island of Java refused to admit her to a farmers group, Mrs Onah Lasmanah decided she would start her own Harumsarmanis, a farmers group for women. In the midst of a financial crisis and unusual weather patterns brought on by El Nino, crops were failing and families were suffering in her village. But, open to new ideas, Onah took a course in hydroponics and turned her farm green, bursting with life. Amazed by her success, her neighbours asked her to teach them how to farm the same way. Mrs Lasmanah started with 32 members of her women's group and continued spreading knowledge out from there.

Besides El Nino, deforestation was also a factor in drought and soil problems. So Onah started planting mahogany trees on unused land near the village. Soon, it became a community forest, with everyone caring for the trees. Onah learned how to use the spaces in between the trees to plant rice, medicinal plants and other crops. Free-range chickens and other animals roamed the land. It all brought steady income to the community while also creating a sustainable forest ecosystem.

Aside from improving the income of the villagers, 38-year-old Onah understands the wider benefits caring for Indonesia' forests brings to everyone, including her young son. "Indonesia is the lung of the world," she says. Some might believe that planting a community forest is a hopeless pursuit. Onah knows better. She's a woman who doesn't take no for answer. She's a woman who understands the power of yes. FAO is awarding her for outstanding achievement in agroforestry.

Annex II

List of selected projects

Title	Symbol	EOD	NTE	Budget (\$)
Pilot Extension Training Programme for Transmigration Settlement Schemes (Pomatang Panggang)	TCP/INS/6701	1977	1978	250 000
Primary Cooperative Development	TCP/INS/8902	1979	1980	226 000
Recycling of Organic Wastes for Agricultural Purposes	TCP/INS/8904	1979	1980	35 000
Animal Drawn Equipment for Transmigration Areas	TCP/INS/8905	1979	1979	47 500
Information and Documentation Centre for Agricultural Planning	TCP/INS/8906	1980	1981	132 000
Land Resources Evaluation on Outer Islands	INS/78/006/ /01/12	1980	1994	2 097 298
Development of Biogas Technology for Rural Community and Agricultural Purposes (Phase II)	TCP/INS/0001	1981	1982	119 000
Identification Survey on Site Selection for Shrimp Culture Development	TCP/INS/0002	1981	1982	97 000
Rodent Control	TCP/INS/0003	1981	1982	105 000
Study of a Fish Desease Quarantine System	TCP/INS/0107	1981	1983	65 000
In-Service Training in Identification, Preparation, Monitoring and Evaluation of Agricultural Projects	TCP/INS/0108	1981	1982	175 000
Assistance to Prevent Quality Deterioration in Harvested Rice in Aceh Province	TCP/INS/2201	1982	1984	157 890
Review and Programming Mission	TCP/INS/2202	1982	1982	81 695
In-Service Training in Identification, Preparation, Monitoring and Evaluation of Agricultural Projects (Phase II)	TCP/INS/2204	1982	1983	105 901
Preparation and Pilot Project for the Establishment of Cropinsurance Programme	TCP/INS/2203	1982	1984	91 377
Design of a Monitoring and Evaluation System of External Assistance for Agricultural Development	TCP/INS/2205	1983	1983	47 959
Seafarming Development	INS/81/008/ /01/12	1983	1993	2 294 150
Community Action for Disadvantaged Rural Women in Transmigration Areas	TCP/INS/2309	1983	1984	51 267
Water Management Training	TCP/INS/2310	1983	1984	100 047
Assistance to Tree Crop Sub-Sector Investment Planning	TCP/INS/2311	1983	1983	121 593
Rural Cooperative Development	INS/83/018/ /01/12	1984	1993	1 303 044
Support to Small Scale Fisheries in Outer Islands	INS/83/014/ /01/12	1984	1993	1 390 449
Monitoring and Evaluation in the Ministry of Agriculture	INS/83/017/ /01/12	1984	1992	768 147
Assistance for the Development of National Cooperative Bank	TCP/INS/4401	1984	1986	93 580
Assistance to the National Centre for Transmigration Development	TCP/INS/4402	1985	1986	206 947
Demonstration and Training in Water Lifting Devices	TCP/INS/4403	1985	1986	35 056

Title	Symbol	EOD	NTE	Budget (\$)
Preparatory Assistance to Development of Forest Inventory design	TCP/INS/4404	1985	1986	97 772
Support to Planning	INS/84/003/ /38/99	1985	1994	95 416
Water Management for Increased Food Productivity (Phase I and II)	GCP/INS/059/NET	1985	1996	3 754 317
Assistance in Commodity Analysis and Policy Formulation	TCP/INS/4514	1985	1986	62 808
Assistance to Soil Conservation/Legislation Programmes	TCP/INS/4511	1986	1987	75 105
Assistance to Forest Fire Prevention and Control	TCP/INS/4513	1986	1987	114 339
Development of Crocodile Industry	GCP/INS/060/JPN	1986	1999	1 245 802
Forestry Development Planning	INS/83/019/ /01/12	1986	1995	858 523
Shrimp Culture Development	INS/85/009/ /01/12	1986	1993	1 257 836
Cotton Pest Control Programme	INS/83/025/ /01/12	1986	1993	701 664
Water Resources Development	INS/83/028/ /01/12	1986	1991	657 825
Beekeeping for Rural Development	INS/85/008/ /01/12	1986	1991	452 987
Assistance in Developing the Ministry of Transmigration's Master Training Plan and Programme Development Strategies	TCP/INS/6651	1986	1987	128 483
Control of Cocoa Disease	TCP/INS/6652	1986	1987	114 412
Assistance for Increased Soybean Production in East Java	TCP/INS/6653	1986	1987	133 630
Community Extension Training in Environment Protection and Improvement	TCP/INS/4515	1987	1987	145 130
Assistance in Developing Training Performance Evaluation Procedures and Methods	TCP/INS/4516	1987	1987	67 391
National Strategy for Estate Crops Small Holder Development	TCP/INS/6654	1987	1989	185 000
Seed Production Advisor	UTF/INS/058/INS/A	1987	1992	136 006
Citrus Rehabilitation Research	INS/84/007/ /01/12	1987	1993	1 271 748
National Fisheries Development Centres	INS/86/021/ /01/12	1987	1993	851 822
Coconut Pest Control Programme	INS/85/014/ /01/12	1987	1992	968 095
Assistance to Wonogiri Watershed Conservation	TCP/INS/6757	1987	1987	35 232
Strengthening the Food Control Systems	TCP/INS/6758	1987	1988	52 000
Assistance in Developing Training Performance Evaluation Procedures and Methods	TCP/INS/6760	1988	1988	87 000
Study on Manpower Development Planning	UTF/INS/069/INS/A	1988	1993	547 107
Agricultural Planning, (Moa)	INS/88/001/ /01/12	1988	1991	900 013
Forestry Sector Studies	UTF/INS/065/INS/A	1988	2000	2 456 496
Secondary Crop Seed Control	INS/85/028/ /01/12	1988	1993	962 801
National Watershed Technology Development	INS/86/024/ /01/12	1988	1993	668 413
Food and Agricultural Products Quality Control Development	INS/86/009/ /01/12	1988	1994	809 657
Cenderawasih Bay Coastal Area Development	INS/88/011/ /01/12	1988	1996	2 610 277
Post Harvest Tools and Equipment (Phase II)	INS/88/007/ /01/12	1988	1994	995 111

Title	Symbol	EOD	NTE	Budget (\$)
Agri-Business Development	INS/89/012/ /01/12	1988	1992	266 649
National Forest Inventory	UTF/INS/066/INS/A	1988	1994	2 646 244
Dairy Training at Snakma School Magelang, Central Java	GCP/INS/064/DEN	1988	1993	219 773
Development of Pekarangan Lands	TCP/INS/8852	1989	1991	159 000
Support for WFP Transmigration Development	INS/89/004/ /01/12	1989	1999	1 197 194
Marketing of Horticultural Produce	TCP/INS/8953	1989	1989	116 000
Field Trial of Specific Nutrition Indicators	TCP/INS/8954	1989	1991	86 000
Study on Sugarcane Farming Systems	TCP/INS/8955	1989	1991	201 700
International Workshop on Citrus Pests and Diseases	TCP/INS/8956	1989	1989	97 000
Study of Potential Cashew Production and Marketing in Selected Areas	TCP/INS/8960	1989	1989	124 000
Training on Preparation, Monitoring and Evaluation of Agricultural and Rural Development Projects	GCP/INS/061/SWI	1989	1995	1 950 664
Dairy Training Facilities at Agricultural Training Centre	GCP/INS/063/DEN	1989	1995	424 684
Pest Management Training in Rice-Based Cropping Systems	UTF/INS/067/INS/Y	1989	1995	4 157 556
Durable Resistance Breeding of Arabica Coffee to Coffee Rust	TCP/INS/8959	1990	1991	140 000
National Workshop on Fisheries and Planning	TCP/INS/0053	1990	1991	188 413
Feasibility for Tree Crops in Transmigration Areas	TCP/INS/9051	1990	1990	254 000
Agricultural Project Formulation	TCP/INS/0052	1990	1992	201 000
National Forestry Action Plan	UTF/INS/070/INS/A	1990	1995	202 106
Water Resources Policy (Phase II)	INS/86/028/ /38/31	1990	1992	119 506
Water Resources Policy	INS/90/024/ /01/12	1990	1994	1 145 433
Integration of Women in Mainstream Agriculture and Rural Development	GCP/INS/071/NET	1991	1994	115 212
Field Trial of Specific Nutrition Indicators	TCP/INS/0154	1991	1993	78 400
IPM Rice-Based Cropping Systems Palawija Component (Phase II)	UTF/INS/067/INS/Y	1992	1997	1 190 107
TA to the Integrated Pest Management Project, Indonesia	UTF/INS/072/INS/A	1992	1999	6 409 237
Forest Fire Management	TCP/INS/1253	1992	1992	100 000
Assistance to the On-Farm Water Management Training and Development Programme	TCP/INS/2255	1992	1994	388 500
Training/Development IPM in Rice-Based Cropping Systems (Amend. 3)	UTF/INS/067/INS/A	1992	1995	1 286 475
Eastern Islands Smallholder Cashewnut Development Project	INS/92/004/ /01/12	1992	1994	419 461
Development of Monitoring, Control and Surveillance of Fishing Operations	TCP/INS/2252	1993	1994	239 000
Cenderawasih Bay Area Development (Phase II)	INS/92/008/ /01/99	1993	1994	1 024 965
Agricultural Mechanization Policy and Strategy Formulation	TCP/INS/2356	1993	1994	187 000
Improvement of Indigenous Swamp Buffalo Production	TCP/INS/2357	1994	1995	226 000

Title	Symbol	EOD	NTE	Budget (\$)
National Action Programme on Water for Sustainable Agricultural Development: Preparatory Assistance	TCP/INS/2358	1994	1996	67 000
Programme Support (Phase II)	INS/91/008/ /01/31	1994	1994	143 250
Plan of Action for Nutrition	INS/94/01T/ /08/12	1994	1994	83 180
Soybean Seed Production and Development	INS/93/020/ /01/99	1994	1999	529 270
Strengthening National Forest Fire Management Capacity	INS/93/010/ /01/99	1994	1998	263 276
Improving the Legal and Administrative Framework of the Food Control System	TCP/INS/4451	1994	1995	140 000
Cenderawasih Coastal Area Development – Phase III	INS/93/016/ /01/99	1995	2000	1 219 859
Cendrawasih Bay Coastal Area Development (Phase III) (TSS2)	INS/93/016/ /09/12	1995	2000	81 261
Post Unced Activities (TSS-2)	INS/92/007/ /09/12	1995	1996	38 000
Agribusiness Statistics and Information System	TCP/INS/4552	1995	1996	274 000
Strengthening Marine Fisheries Development	TCP/INS/4553	1995	1997	327 200
Technical Assistance to Food and Nutrition Diversification Programme	TCP/INS/4554	1996	1997	334 911
Agribusiness Statistics and Information System (Phase II INS/4452)	TCP/INS/6711	1997	1999	44 500
Assistance for Improving Rural Banking Services	TCP/INS/6712	1998	1999	258 000
Crop Assessment Mission	INS/98/002/ /08/12	1998	1999	42 713
SPFM Indonesia	SPFM/INS/8801	1998	1998	57 826
Technical Assistance for the Formulation of Projects of Agricultural Relief for Drought and Fire-Affected Areas	OSRO/INS/801/AUL	1998	1998	142 000
Strengthening the Development and Use of Hybrid Rice	TCP/INS/8921	2000	2001	311 000
Assistance in Marine Fisheries Legislation	TCP/INS/8922	2000	2001	223 870
Strengthening the Livestock Statistical Information System	TCP/INS/0165	2001	2003	248 000
Emergency Supply of Seeds to Affected Provinces of West Sumatra, Jambi and North Sumatra	TCP/INS/9166	2001	2002	339 485
Special Programme for Food Security in Indonesia	GCSP/INS/073/JPN	2001	2007	3 099 637
Medium Term Framework for Agricultural Policy in Indonesia	INS/01/027/ /08/12	2001	2003	307 000
Emergency Assistance for Food Production in Support to Returnee Farmers in North Maluku	TCP/INS/0167	2001	2002	400 000
Support to Secretariat of Coordination Team for Water Resources Management at BAPPENAS	TCP/INS/2802	2002	2003	355 000
Assistance for Improving Rural Banking Services – Phase II	TCP/INS/2801	2002	2003	191 910
Framework for Agricultural Policy	TCP/INS/2803	2002	2002	53 000
Emergency Supply of Seeds and Fertilizer to Flood-affected Provinces of West Java and Central Java	TCP/INS/2804	2002	2003	394 000

Title	Symbol	EOD	NTE	Budget (\$)
Livelihood support to resettling Internally Displaced Persons (IDPs) and vulnerable populations in North Maluku Province	OSRO/INS/201/NET	2002	2003	475 000
Health Management in Freshwater Aquaculture	TCP/INS/2905	2003	2004	361 523
Formulation Mission: Formulation of Principles and Framework of National Water Resources and Irrigation Sector Management	GCP/INS/074/NET	2003	2003	43 921
National Programme for Food Security – Formulation Assistance	TCP/INS/2906	2003	2005	320 104
Livelihood and food production support to resetting internally displaced persons (IDPs) and vulnerable populations in the Malukus	OSRO/INS/301/NET	2003	2004	250 000
Assistance for Improving Rural Banking Services	TCP/INS/2901	2004	2004	92 859
Emergency assistance for the control of avian influenza	TCP/INS/3001	2004	2005	388 170
Livelihood support for resettling Internally Displaced Persons (IDPs) and vulnerable populations in selected districts of North Maluku Province	OSRO/INS/401/EC	2004	2005	262 800
Emergency assistance to prevention, disease investigation, control and surveillance of avian influenza in the Republic of Indonesia	OSRO/INS/402/GER	2004	2004	61 000
Agriculture based livelihood recovery support in resettlement areas of West Timor	OSRO/INS/403/EC	2004	2005	292 841
Emergency assistance to support the rehabilitation in earthquake/tsunami affected areas	TCP/INS/3002	2005	2007	397 601
Emergency assistance to support the rehabilitation of small-scale fisheries activities in earthquake/tsunami-afffected areas in Aceh, Northern Sumatra Coastline and in Nias Island, Indonesia (TSU – IND-05/A02)	OSRO/INS/504/GER	2005	2006	993 687
Japan/FAO Joint Emergency Assistance for Tsunami Affected Coastal Communities in Indonesia (TSU – IND-05/A02)	OSRO/INS/502/JPN	2005	2005	786 178
Japan/FAO joint emergency assistance to Tsunami affected rural communities in Indonesia (TSU – IND-05/A01)	OSRO/INS/503/JPN	2005	2005	597 794
Emergency provision of essential inputs for the rapid re-start of small-scale food crop production and fisheries activities within Tsunami affected communities (TSU – IND-05/A01)	OSRO/INS/501/BEL	2005	2006	1 921 945
Rehabilitation of fish processing capacity in Tsunami-affected areas of Indonesia (Naggroe Aceh Darussalam and Nias Island) (TSU – IND-05/A02)	OSRO/INS/507/NOR	2005	2006	649 996
Support to the Coordination of Emergency Assistance for the Restart of Staple Food Production in Indonesia (TSU – IND-05/A03)	OSRO/INS/508/NOR	2005	2006	400 000

Title	Symbol	EOD	NTE	Budget (\$)
Emergency assistance for food security and restoration of livelihoods amongst tsunami affected farmers, fisher folks, women and other vulnerable groups in Indonesia (TSU – IND-05/A01)	OSRO/INS/509/EC	2005	2006	7 118 710
Support to farmers in tsunami-affected areas through the provision of agricultural and livestock inputs	OSRO/INS/513/BEL	2005	2006	1 188 496
Emergency Assistance to Tsunami-affected Coastal Communities in Aceh and North Sumatra, Indonesia	OSRO/INS/512/SPA	2005	2007	1 800 000
Emergency in-kind assistance to fisheries communities in Indonesia (TSU – IND-05/A02)	OSRO/INS/511/CPR	2005	2006	375 000
Support to FAO Rehabilitation Support and Coordination Unit (RSCU) in Aceh Province for the preparation and implementation of agriculture, fisheries and forestry based sustainable livelihoods recovery	OSRO/INS/514/CHA	2005	2006	400 000
Rehabilitation of livelihoods in the fisheries sector affected by the tsunami and earthquake in Indonesia	GCP/INS/076/GER	2005	2009	1 470 635
Accelerated adoption, capacity building, and training for Rice Check-Group Procedures that increase productivity and net income from smallholders' integrated rice crop management	TCP/INS/3003	2006	2007	500 000
Emergency assistance for the control of avian influenza in Indonesia	GCP/INS/077/AUL	2006	2007	1 666 910
Rehabilitation assistance to fishing communities in the Tsunami-affected areas of Naggroe Aceh Darussalam (NAD) Province – Reconstruction of a fish landing centre in Seunudon, Aceh Utara District, Indonesia	OSRO/INS/515/ITA	2006	2008	500 000
Expansion of the Avian Influenza Participatory Disease Surveillance and Response Program in Indonesia	OSRO/INS/604/USA	2006	2011	44 200 000
Emergency assistance to support the rehabilitation of the agricultural sector and poor household livelihoods in earthquake-affected areas of Yogyakarta and Central Java	TCP/INS/3101	2006	2007	500 000
Rehabilitation assistance for agricultural- and fisheries-based livelihoods on Nias Island through supply of primary production inputs, training and marketing support	OSRO/INS/602/EC	2006	2007	2 180 000
Enhancement of agricultural based livelihoods for food insecure households affected by natural disasters in Belu, West Timor	OSRO/INS/603/EC	2006	2007	731 248
Support to tsunami- and conflict-affected farming and fishing communities for improved food security and livelihoods in Aceh province	OSRO/INS/606/SPA	2007	2008	1 310 000
Rehabilitation and sustainable development of fisheries and aquaculture affected by the tsunami in Aceh Province, Indonesia	OSRO/INS/601/ARC	2007	2010	7 554 260

Title	Symbol	EOD	NTE	Budget (\$)
Emergency Assessment and Response to Migratory Locust Outbreak in NTT Province, Indonesia	OSRO/INS/702/AUL	2007	2009	718 716
Assistance through FAO for the control of avian influenza in poultry in Indonesia	OSRO/INS/701/AUL	2007	2011	8 365 333
Emergency response to a migratory locust outbreak in Nusa Tenggara Timur Province, Indonesia	TCP/INS/3103	2007	2009	500 000
Livelihood support to rural communities affected by earthquake in Yogyakarta and Central Java Provinces through agriculture-based home industry	OSRO/INS/704/AUL	2007	2008	521 625
Implementation of the FAO-GTZ MicroBanking System in 10 Bank Perkreditan Rakyat (BPR), under the AsDB Livelihood and Microfinance Sub-Project (LMS) of the Earthquake and Tsunami Emergency Support Program (ETESP)	GCP/INS/079/ASB	2007	2009	199 990
Monitoring AI virus variants in Indonesian poultry and defining an effective and sustainable vaccination strategy	OSRO/INS/703/USA	2007	2010	1 630 500
Assistance for improving food security and livelihoods for fishing communities of Nusa Tenggara Timur (NTT) province	OSRO/INS/705/SPA	2007	2009	737 463
Fisheries Marketing information for Aceh	GCP/INS/078/SPA	2008	2010	854 881
Support Disaster Preparedness and Household Resilience for Enhanced Food Security in NTT Province	OSRO/INS/802/EC	2008	2010	784 692
Consultant Services for Participatory Disease Surveillance and Response	OSRO/INS/803/WBK	2008	2009	467 874
Consultant Services for Community Based Vaccination	OSRO/INS/804/WBK	2008	2009	1 156 052
Strategy for improving the rice post-harvest system in Indonesia	TCP/INS/3202	2009	2011	450 400
Strengthening quarantine control systems for invasive alien species (IAS)	TCP/INS/3203	2009	2011	370 000
Improved market system for fisheries products in Nias Islands	GCP/INS/080/SPA	2009	2010	578 516
Improved food security of farmers through emergency supply of agriculture inputs in Padang, West Sumatra, Indonesia	OSRO/INS/901/CHA	2009	2010	600 000
Indonesia UN-REDD National Joint Programme	UNJP/INS/081/UNJ	2010	2012	1 498 000

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