



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

SRI LANKA



Final Report

Provision of Essential Agricultural Inputs for Returning War-affected IDPs in the North

OSRO/SRL/006/USA

Funded By:



October 2013

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List of Abbreviations

CBO	Community Based Organization
CDD	Community Driven Development
DAPH	Department of Animal production and Health
DOA	Department of Agriculture
EMMP	Environmental Monitoring and Management Plan
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field School
FO	Farmers Organization
FSRE	Farming Systems Research and Extension
GA	Government Agent
GOSL	Government of Sri Lanka
IEE	Initial Environment Examination
IPM	Integrated Pest Management
IPNS	Integrated Plant Nutrient Management Systems
LOA	Letter of Agreement
MOC	Month Old Chick
OFC	Other Field Crop
PLC	Provincial Land Commissioner
PMP	Performance Monitoring Plan
PPA	Public-Private Alliances
PTF	Presidential Task Force
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
WFP	World Food Programme

EXECUTIVE SUMMARY

The project “Provision of Essential Agricultural Inputs for Returning War-affected IDPs in the North” was implemented by FAO from 5 November, 2010 to 4 July, 2013 (32 months) with generous funding from USAID. The project was implemented covering all districts of the Northern Province (Vavuniya, Mannar, Kilinochchi, Mullaitivu and Jaffna districts). The target groups were the farm families that are food insecure and whose livelihood support systems have been damaged or lost due to the conflict. The total contribution from the USAID was US\$ 6,199,999. The anticipated project impact was to *“improve food security and reduce economic vulnerability of conflict affected families in the Northern Province”*.

The project has restored and strengthened household food security among the returnee households and increased economic sustainability in a number of ways. Overall, the project has played an instrumental role in facilitating a coordinated early resumption of farming activities through seed distribution during five cultivation seasons. It has also provided alternative income-generating opportunities through the provision of backyard poultry assistance and goat packages, thereby reducing the dependency of beneficiary households, particularly vulnerable women-headed households, on unsustainable long-term food aid assistance. Abandoned food production wells were rehabilitated to provide a stable water source for irrigation and drinking of resettled communities. Furthermore, the project has boosted local seed production initiatives, which has increased the availability of certified quality seed for cultivation during the subsequent seasons. A summary of key achievements are listed below.

Summary of Achievements

Output 1 – Paddy Production

Each household received from 1 (20.5 kg) to 7 bushels of seed paddy required to cultivate the abandoned paddy lands over the following seasons.

- 11,733 households resumed their paddy based livelihoods and cultivated 31,400 acres of paddy during the Maha 2010/11 season.
- 1,801 households resumed their paddy based livelihoods and cultivated 3,743 acres during the Yala 2011 season.
- 1,012 households resumed their paddy based livelihoods and cultivated 1,258 acres during the Maha 2011/12 season.
- 376 households resumed their paddy based livelihoods and cultivated 650 acres during the Maha 2012/13 season.
- 1,408 households resumed their paddy based livelihoods and cultivated 2,000 acres during the Yala 2013 season.
- 9,000 households received tarpaulins to assist with temporary storage.

- 200 households received an air tight storage unit to store their harvest for longer periods.

Output 2 - Other Field Crop (OFC) Production

The project planned to increase OFC production by cultivation of approximately 5,710 acres by providing cowpea, green and black gram, onion, maize, and groundnut seeds to 3,500 farming households.

- 8,404 households resumed their OFC based livelihoods and cultivated 3,900 acres of highland during the Maha 2010/11 season.
- 975 households resumed their OFC based livelihoods and cultivated 699 acres of highland during the Yala 2011 season.
- 3,967 households resumed their OFC based livelihoods and cultivated 1,360 acres of highland during the Maha 2011/12 season.
- 158 households resumed their OFC based livelihoods and cultivated 53 acres of highland during the Yala 2012 season.
- 888 households resumed their OFC based livelihoods and cultivated 350 acres of highland during the Maha 2012/13 season.

Output 3 - Homestead Vegetable Production

Each vegetable seeds kit contained an assorted variety of vegetable seeds (snake gourd, tomato, long bean, brinjal, okra, pumpkin, chilli, capsicum, bitter-gourd and amaranthus seeds) sufficient to cultivate $\frac{1}{4}$ acres per household.

- 11,623 households received vegetable seed kits during the Yala 2011 season.
- 15,000 households received vegetable seed kits during the Maha 2011/12 season.
- 1,270 households received vegetable seed kits during the Yala 2013 season.
- 8,316 households received coconut seedlings.
- Over 9,000 households received fruit seedlings.
- 4,400 water pumps were distributed to farmers on a 50 percent subsidized basis.

Output 4 - Backyard Poultry Packages

Each household received twenty 45-day old chicks, 9m of wire mesh (to support the construction of a poultry cage), 25kg of starter mash (sufficient feed for the poultry for one month), a watering device, a feeder and a bottle of antibiotics for the birds.

- 6,432 households were provided with backyard poultry packages.
- 150 households were provided with goat packages.

Output 6 - Food Production Wells

- 285 food production wells are renovated in Kilinochchi and Mullaitivu districts.
- 40 sprinkler irrigation schemes are installed in Mullaitivu district.

1 INTRODUCTION

1.1 Project Background

The project “Provision of Essential Agricultural Inputs for Returning War-affected IDPs in the North” was implemented by FAO from 5 November, 2010 to 4 July, 2013 (32 months) with generous funding from USAID. The project was implemented covering all districts of the Northern Province (Vavuniya, Mannar, Kilinochchi, Mullaitivu and Jaffna districts). The target groups were the farm families that were food insecure and whose livelihood support systems had been damaged or lost due to the conflict.

1.2 Financial Contribution of the Donor

The initial project agreement was from November 2010 to November 2011 (12 months) with a budget of US\$ 4,999,999. Subsequently, the project was extended several times for further assistance to the conflict affected vulnerable communities bringing the total project budget to US\$ 6,199,999.

1.3 Project Framework

The anticipated project impact was to *“improve food security and reduce economic vulnerability of conflict affected families in the Northern Province”*. This contributes directly to the Government’s goal of establishing food security for all, rehabilitating the livelihoods and improving the overall nutrition of the most vulnerable IDP returnee populations in a sustainable manner. The outcome of this project is *“17,000 returnee farm families in the Northern Province have re-established productive and sustainable agriculture-based livelihoods”*.

The initial project had five outputs as outlined below:

Output 1 - Paddy Production: 17,000 returnee farm families are food secure and have resumed their paddy based livelihoods.

Output 2 - Other Field Crop (OFC) Production: 3,500 returnee farm families are food secure and have resumed their OFC-based livelihoods.

Output 3 - Homestead Vegetable Production: 12,000 households are more food secure and have resumed homestead vegetable garden production to supplement family income and improve nutrition from homestead vegetables.

Output 4 - Backyard Poultry Packages: Provision of a poultry package will have strengthened and diversified the livelihoods of 3,950 of the most vulnerable of the targeted beneficiaries.

Output 5 - Agriculture Extension: Strengthened Agricultural Extension Services & Public Private Partnerships.

Further revisions were made to the agreement to cover further assistance packages. The flow of the collaboration between USAID and FAO since 2010 November is described below.

Table 1: Modifications to the agreement

Time Period	Amendments	Description of Activities
Nov 2010 to Nov 2011	Initial agreement – Budget US\$ 4,999,999	-
March 2011	1 st modification – Additional US\$ 200,000	<ul style="list-style-type: none"> • 7,000 Tarpaulins • 200 Airtight storage units
November 2011	2 nd modification – No cost extension	<ul style="list-style-type: none"> • No cost extension until Feb 2012 to carry out above activities
February 2012	3 rd modification - No cost extension	<ul style="list-style-type: none"> • No cost extension until Apr 2012 to carry out above activities
April 2012	4 th modification - Additional US\$ 300,000	<ul style="list-style-type: none"> • Extension of project until Oct 2012 • Renovation of 100 food production wells • Distribute 40 sprinkler irrigation systems • Provision of agricultural inputs to 1,350 families (seed paddy, OFC, vegetable seeds) • Backyard poultry packages to 600 families
August 2012	5 th modification - Additional US\$ 700,000	<ul style="list-style-type: none"> • Extension of project until July 2013 • Renovation of 200 food production wells • Distribute 100 sprinkler irrigation systems • Provision of agricultural inputs to 1,650 families (seed paddy, OFC, vegetable seeds) • 1,000 Tarpaulins • Goat packages to 150 families

2 PROJECT IMPLEMENTATION AND ACHIEVEMENTS

2.1 Implementation Arrangements

The project was coordinated and implemented through the FAO Representation in Colombo, with the required operational and technical support from the field offices in Vavuniya, Jaffna, Mannar, Kilinochchi and Mullaitivu. The FAO Representative for Sri Lanka assumed overall responsibility for the implementation of project activities and liaised with the government line authorities, and all relevant partners. The operation benefited from FAO's extensive technical expertise and experience in Sri Lanka, and the technical and operational backstopping from the staff at FAO's Headquarters and Regional Office, as required.

Oversight and review of the project was carried out at two levels: 1) at the national level, FAO's national staff, led by the national Senior Programme Officer, carried out the implementation under the overall guidance of the FAO Representative and the Senior International Northern Programme Coordinator, and 2) at the local level, supervision and oversight was provided by the GA and departmental line agency staff. FAO has been following an explicit Performance Monitoring Plan (PMP). Following several missions of an international M&E Consultant in 2010 and 2011, important changes were made to improve and streamline the monitoring framework.

The seeds provided under the project met the technical specifications determined by FAO experts, and were purchased through local and international competitive bidding. Procurement met FAO procurement rules and regulations and relevant national policies and guidelines. All paddy varieties procured were adapted to the local agro ecology, preferred by the local farmers and approved by the DOA.

The quality of seeds provided was monitored by independent inspection agencies SGS Lanka Ltd. (www.sgs.com) and Baltic Control Ltd. (www.balticcontrol.com). Payment was made to suppliers only upon receipt of a quality certificate from the inspection agency assuring that the seed met the technical specifications required by FAO. The inspection agencies collected samples at the delivery points and conducted tests on the seeds to determine germination, analytical purity, moisture content, inert matter content, etc.

2.2 Achievements in Outputs and Results

The project provided seed assistance to cultivate the abandoned paddy lands and high lands of the resettled community. The selection and distribution of seeds was carried out by the Department of Agriculture with the partnership agreement with FAO; the full beneficiary lists for paddy, other field crops and vegetable seeds are available. The beneficiaries for paddy and for other field crops are two distinct recipient groups. The beneficiaries of the vegetable kits, generally smallholder farmers, may have also received paddy or other field

crop seed assistance. In this regard, it is estimated that 10 to 20 percent of farmers received more than one type of assistance, i.e., paddy and vegetable kit or other field crop and vegetable kit. However, due to the large quantities of seeds handled in a short period of time in order to issue the seeds in time for planting, the exact data on this overlap was not captured. Furthermore, the project distributed 4,400 water pumps on a 50 percent subsidy basis to farmers and renovated 285 food production wells. Thirty two farmers benefited from both the water pump and the renovated food production well.

2.2.1 Output 1 - Paddy Production

Output 1: 17,000 returnee farm families are food secure and have resumed their paddy based livelihoods.

On average, 20 percent of paddy beneficiaries were women, and the majority of these women were from Kilinochchi and Mullaitivu districts. The quantity of paddy seed provided ranged from 1 to 7 bushels per household (sufficient to cultivate from 0.5 acres to 3 acres per household). Although initially 3 bushels per household were planned for households receiving paddy seed (1 bushel is equivalent to approximately 20.5 kg), district and location-specific differences in the extent of land that had been cleared by the relevant mine action authorities and prepared in time for cultivation within the project period were taken into consideration. Thus, each household received appropriate quantities of seed required for the area of land available for cultivation, ensuring that the seed was used to meet the needs of each household.

In total, the project has distributed 120,521 bushels of seed paddy during five cultivation seasons starting from 2010/11 Maha season. The following tables give more information on the cultivated extents and bushels distributed in relation to beneficiary households.

Table 2: Summary of seed paddy distribution

Season	District	Distributed Amount (Bu)	Land Cultivated (ha)	Yield (MT/ha)	Production (MT)	Number of Beneficiaries		
						Male	Female	Total
Maha 2010/11	Jaffna	1,131	159	2.051	326	244	62	306
	Kilinochchi	51,654	7,104	2.973	21,121	5,885	1,956	7,841
	Mullaitivu	39,592	5,444	5.546	30,192	2,706	880	3,586
Total		92,377	12,707	4.064	51,642	8,835	2,898	11,733
Yala 2011	Mannar	1,268	171	3	514	279	30	309
	Mullaitivu	3,463	470	3	1,410	520	61	581
	Vavuniya	6,488	874	3	2,621	700	211	911
Total		11,219	1,515	3	4,544	1,499	302	1,801
Maha 2011/12	Kilinochchi	2,585	147	3	442	321	80	401
	Vavuniya	6,390	362	3	1,085	522	89	611
Total		8,975	509	3	1,527	843	169	1,012

Season	District	Distributed Amount (Bu)	Land Cultivated (ha)	Yield (MT/ha)	Production (MT)	Number of Beneficiaries		
						Male	Female	Total
Maha 2012/13	Kilinochchi	600	81	0.91	74	96	21	117
	Mullaitivu	1,350	182	2.1	382	167	92	259
Total		1,950	263	3	456	263	113	376
Yala 2013	Mullaitivu	6,000	809	2.4	1,942	1,228	180	1,408

Tarpaulins for Temporary Storage

During a joint FAO/USAID mission to monitor the progress of seed distribution during the Maha 2010/11 season, farmers requested support for temporary storage for the anticipated surplus of the harvest. Following further discussions with farmers by the DOA and the Presidential Task Force (PTF), FAO was requested by the Government of Sri Lanka and USAID to urgently procure tarpaulin sheets for selected farmers to facilitate safe storage of paddy for 3-4 months thus enabling farmers to sell their harvest at a higher price, rather than being forced to sell their crop to private buyers at lower prices immediately after harvest. Since the tarpaulins were urgently required, FAO worked quickly with the World Food Programme (WFP) and the United Nations High Commissioner for Refugees (UNHCR), to identify suitable suppliers and initiate the procurement of 7,000 units.



Distribution of tarpaulins to beneficiaries

Further, heavy rains and floods during the beginning of the year severely affected the 2012/13 Maha season crops. FAO addressed the need for temporary storage by distributing 2,000 tarpaulins to needy farmers in the Mullaitivu District. Accordingly, the project procured and distributed 9,000 tarpaulins covering two seasons. The gender disaggregated beneficiary data is provided in the below table.

Table 3: Summary of tarpaulin beneficiaries

Season	District	Number of Distributed Tarpaulins	Number of Beneficiaries			
			Male	Female	Female %	Total
Maha 2010/11	Kilinochchi	3,250	2,510	740	23%	3,250
	Mullaitivu	3,750	2,573	1,177	31%	3,750
Total		7,000	5,083	1,917	27%	7,000
Maha 2012/13	Mullaitivu	2,000	1,443	557	28%	2,000
Grand Total		9,000	6,526	2,474	27%	9,000

Airtight Storage Units



Beneficiaries using the airtight storage units

The project procured and distributed 200 airtight seed storage units during Yala 2012 harvesting season that can be used by farmers to preserve their harvest for long periods. These can be used to store grains, pulses, seeds and other dried agricultural products for many months. It provides a controlled environment conducive for storage with a capacity of 1 tonne. The units are made up of lightweight UV resistant PVC and set-up at ground level on a concrete floor or a pallet. Also those are foldable in a carry bag when not used. The gender disaggregated beneficiary data is provided in the below table.

Table 4: Summary of beneficiaries of airtight storage units

Season	District	Number of Distributed Units	Number of Beneficiaries			
			Male	Female	Female %	Total
Yala 2012	Kilinochchi	100	93	7	7%	100
	Mullaitivu	100	96	4	4%	100
Total		200	189	11	6%	200

Achievements in indicators

Table 5: Output 1 – achievements in indicators

Output: 17,000 returnee farm families are food secure and have resumed their paddy based livelihoods.	
Indicators (Planned Results)	Achieved Results
Acres of farm land cultivated under paddy and number of farming families who have received input support.	Cumulative 39,051 acres land cultivated with paddy and 16,330 farming families benefitted over five cultivation seasons.
Number of farmers who have received training on improved rice cultivation practices and number of training activities carried out.	Sufficient numbers of awareness sessions conducted in each village level by DOA in parallel with seed distributions.
MT of estimated rice yield from the paddy cultivation.	Cumulative 60,112 MT of rice yield estimated over five seasons (Yala and Maha).
Improved household income level through the sale of surplus produce; and increase and distribution of calorie intake within the families.	In an average 80% of paddy production sold at government fixed price, out of which 80% received income in an average of 75,000 LKR per acre. 15% of harvested paddy stored for domestic consumption.
Number of tarpaulin and air tight storage utilized for intended purpose to increase quality of storage.	50% of tarpaulin used for intended purpose, to increase quality of storage. However, including protection 81% highly utilized for agriculture purposes.

2.2.2 Output 2 - Other Field Crop (OFC) Production

Output 2: 3,500 returnee farm families are food secure and have resumed their OFC-based livelihoods.

The project planned to increase OFC production by cultivation of approximately 5,710 acres by providing cowpea, green and black gram, onion, maize, and groundnut seeds to 3,500 farming households. With continued funding, the project distributed OFC seeds covering 5 cultivation seasons starting from Maha 2010/11 season. The distributed quantities and beneficiary details are provided in the table below.



Ground nut cultivation

Table 6: Summary of OFC seeds distribution

Type of OFC Seed	District	Distributed Amount (kg)	Land Cultivated (ha)	Yield (MT/ha)	Production (MT)	Number of Beneficiaries		
						Male	Female	Total
Maha 2010/11 season								
Groundnut	Mullaitivu	15,000	152	0.98	149	461	218	679
	Vavuniya	15,010	151	0.97	146	526	254	780
Total		30,010	302	0.98	295	987	472	1,459
Cowpea	Kilinochchi	3,997	101	0.5	51	969	374	1,343
	Mannar	1,600	18	0.5	9	73	15	88
	Mullaitivu	5,000	127	0.5	63	395	229	624
	Vavuniya	4,800	121	0.5	61	635	173	808
Total		15,397	367	0.5	184	2,072	791	2,863
Black gram	Kilinochchi	6,002	101	0.53	54	970	374	1,344
	Mullaitivu	24,000	808	0.53	428	1,861	877	2,738
Total		30,002	909	0.53	482	2,831	1,251	4,082
Yala 2011 season								
Red onion	Jaffna	68,363	277	18.5	5,121	600	66	666
	Mannar	11,637	6	18.8	114	279	30	309
Total		80,000	283	18.5	5,235	879	96	975
Maha 2011/12								
Green gram	Jaffna	1,800	75	0.5	37	309	92	401
	Kilinochchi	2,400	91	0.5	46	332	186	518
	Mannar	600	9	0.5	4	41	26	67
	Mullaitivu	2,400	91	0.5	46	399	119	518
	Vavuniya	2,400	83	0.5	41	415	232	647
Total		9,600	350	0.5	175	1,496	655	2,151
Cowpea	Jaffna	800	16	5	79	26	11	37
	Mannar	3,200	65	5	324	430	195	625
	Vavuniya	4,800	121	5	605	789	365	1,154
Total		8,800	202	5	1,008	1,245	571	1,816
Yala 2012								
Red onion	Kilinochchi	31,600	21	14.57	313	148	10	158
Maha 2012/13								
Maize	Mullaitivu	1,750	142	1.98	280	614	274	888

Achievements in indicators

Table 7: Output 2 - achievements in indicators

Output: 3,500 returnee farm families are food secure and have resumed their OFC-based livelihoods.	
Indicators (Planned Results)	Achieved Results
Acres of farm land cultivated under other field crops and number of farming families who have received input support.	Cumulative 6,365 acres land cultivated with OFC and 14,392 farming families benefitted over five cultivation seasons.
Distribution of calorie intake within the families.	40% of harvest allocated for household consumption.
Estimated yield from the cultivation of other field crops.	Cumulative 7,971 MT of OFC yield estimated over five seasons (Yala and Maha).
A more diversified source of household income from the sale of surplus produce, and seed resources saved for next cropping season.	36 % surplus of harvest sold to get income and 24% of seed saved for following cropping season.
Number of farmers who have received training on improved agricultural practices and number of training activities carried out by private sector partners.	Sufficient numbers of awareness sessions conducted in each village level by DOA in parallel with seed distributions.

2.2.3 Output 3 - Homestead Vegetable Production

Output 3: 12,000 households are more food secure and have resumed homestead vegetable garden production to supplement family income and improve nutrition from homestead vegetables.

Vegetable Seed Kits

Each kit contained an assorted variety of vegetable seeds (snake gourd, tomato, long bean, brinjal, okra, pumpkin, chilli, capsicum, bitter-gourd and amaranthus seeds) sufficient to cultivate ¼ acres per household. The assistance was provided over three cultivation seasons as the need arose. The table below provides the beneficiary details.

Table 8: Summary of vegetable seeds distribution

Season	District	Number of Beneficiaries			
		Male	Female	Female %	Total
Yala 2011	Mannar	1,382	2,202	61%	3,584
	Mullaitivu	1,431	5,282	79%	6,713
	Vavuniya	253	1,073	81%	1,326
Total		3,066	8,557	74%	11,623
Maha 2011/12	Jaffna	1,800	1,200	40%	3,000
	Kilinochchi	1,800	1,200	40%	3,000

Season	District	Number of Beneficiaries			
		Male	Female	Female %	Total
	Mannar	1,200	800	40%	2,000
	Mullaitivu	3,000	2,000	40%	5,000
	Vavuniya	1,200	800	40%	2,000
Total		9,000	6,000	40%	15,000
Yala 2013	Kilinochchi	190	60	24%	250
	Mullaitivu	788	232	23%	1,020
Total		978	292	23%	1,270

Fruit Seedlings

In addition, fruit seedlings were also distributed to 9,697 beneficiaries in Vavuniya, Mannar, Kilinochchi and Mullaitivu districts during Maha 2011/12 season. They were provided with mango, jack, pomegranate, orange, lime and guava seedlings. The table below provides the beneficiary details.



Beneficiaries receiving fruit seedlings

Table 9: Summary of fruit seedlings distribution

District	Number of Beneficiaries			
	Male	Female	Female %	Total
Vavuniya	910	700	43%	1,610
Mannar	521	340	39%	861
Kilinochchi	1,392	4,625	77%	6,017
Mullaitivu	751	458	38%	1,209
Total	3,574	6,123	63%	9,697

Coconut Seedlings

The project distributed 27,307 coconut seedlings to 8,316 farmers during Yala 2011 season. Each beneficiary received 3 to 12 seedlings based on the availability of land and water to cultivate. The table below provides the beneficiary details.



Beneficiaries receiving coconut seedlings

Table 10: Summary of coconut seedlings distribution

District	Number of Distributed Seedlings	Number of Beneficiaries			
		Male	Female	Female %	Total
Mullaitivu	20,139	4,855	1,858	28%	6,713
Vavuniya	3,984	253	1,073	81%	1,326
Kilinochchi	3,184	208	69	25%	277
Total	27,307	5,316	3,000	36%	8,316

Agricultural Tools

The households that were provided with tools were the same households who also received seed assistance. The tools were provided as toolkits as well as separate tools during different seasons. The provided tools were mammoty, watering cans, knives, metal rakes and barbed wire. Moreover, each tool kit comprised of a mammoty, rake, plastic bucket and a knife. The table below provides the beneficiary details.



Distribution of agricultural tools

Table 11: Summary of provided agricultural tools

Season	Type of Tool	District	Number of Beneficiaries		
			Male	Female	Total
Yala 2011	Mammoty	Kilinochchi	4,625	1,392	6,017
		Mullaitivu	2,984	550	3,534
		Vavuniya	1,230	510	1,740
	Total		8,839	2,452	11,291
	Watering can	Jaffna	212	188	400
	Multipurpose knives	Jaffna	1,230	770	2,000
Maha 2011/12	Mammoty	Mullaitivu	3,000	2,000	5,000
		Vavuniya	15,320	6,510	21,830
	Total		18,320	8,510	26,830
	Watering can	Jaffna	700	300	1,000
		Mannar	750	1,750	2,500
	Total		1,450	2,050	3,500
	Multipurpose knives	Kilinochchi	3,011	989	4,000
		Mullaitivu	2,991	1,009	4,000
		Vavuniya	789	211	1,000
	Total		6,791	2,209	9,000
Rakes	Jaffna	1,989	1,011	3,000	
	Mullaitivu	120	180	300	
Total		2,109	1,191	3,300	
Yala 2012	Galvanized buckets	Vavuniya	654	246	900
		Jaffna	957	513	1,470
		Mullaitivu	1,204	396	1,600
		Kilinochchi	638	345	983
Total		3,453	1,500	4,953	
Maha 2012/13	Tool kit	Mullaitivu	2,320	680	3,000
	Barbed wire	Mullaitivu	912	288	1,200
Yala 2013	Tool kit	Kilinochchi	190	60	250

Water Pumps

The project procured 4,400 water pumps through the launch of an international tender. The majority of pumps were distributed on a 50 percent subsidized basis, so funds were revolved to purchase additional pumps in future growing seasons. Since the Provincial Department of Agriculture (DoA) was authorized by the Provincial Council to manage these revolving funds, FAO signed a Letter of Agreement (LOA) with the Provincial DOA to monitor the distribution of the water pumps. Prior to distribution, an Initial Environment Examination (IEE) was conducted to assess environmental impact of the use of these water pumps and other project interventions. The IEE has recommended the use of an Environmental Monitoring and Management Plan (EMMP) to mitigate the negative impact of project interventions. Most of the activities identified by the EMMP fall within the

purview of the Provincial Department of Agriculture, Department of Wildlife Conservation and the Divineguma Programme of the Ministry of Economic Development and are being followed up by these government bodies. The table below provides the beneficiary details.



Distribution of water pumps

Table 12: Summary of water pumps distribution

District	Number of Beneficiaries			
	Male	Female	Female %	Total
Jaffna	186	44	19%	230
Mullaitivu	1,503	297	17%	1,800
Kilinochchi	1,960	410	17%	2,370
Total	3,649	751	17%	4,400

2.2.4 Output 4 - Backyard Poultry Packages

Output 4: Provision of a poultry package will have strengthened and diversified the livelihoods of 3,950 of the most vulnerable of the targeted beneficiaries

The project provided backyard poultry assistance, with emphasis on vulnerable women-headed households wherever possible. Backyards poultry can be fed with kitchen refuse and require minimal care in terms of feeding as the birds are scavengers. They provide both eggs and meat for the beneficiaries. FAO conducted a rapid assessment, followed by a detailed outcome assessment of its poultry programme, and recommendations were made to improve the poultry packages and implementation modality. These recommendations were taken into consideration and the poultry package was revised again accordingly.



Backyard poultry beneficiaries

Under the new package, each household received twenty 45-day old chicks, 9m of wire mesh (to support the construction of a poultry cage), 25kg of starter mash (sufficient feed for the poultry for one month), a watering device, a feeder and a bottle of antibiotics for the birds. At the time of distribution, beneficiaries receive basic training from the Department of Animal production and Health (DAPH) in backyard poultry keeping and post veterinary care following distribution. The project provided full backyard poultry packages to 6,432 beneficiaries, 45 percent of which are females. The table below provides the beneficiary details.

Table 13: Summary of the backyard poultry packages

District	Number of Birds	Number of Beneficiaries			
		Male	Female	Female %	Total
Jaffna	5,040	127	41	24%	168
Vavuniya	38,940	669	729	52%	1,398
Mannar	7,350	203	142	41%	345
Kilinochchi	66,280	1,654	1,083	40%	2,737
Mullaitivu	52,520	894	890	50%	1,784
Total	170,130	3,547	2,885	45%	6,432

Provision of Goat Package

The Department of Animal Production & Health (DAPH) made a request to FAO to support 150 recently settled farmers in the Mullaitivu District. The selected beneficiaries were provided with 2 goats by the DAPH on a subsidy basis and FAO provided two additional goats and a goat shed to the selected beneficiary families to make it as a viable livelihood support. The additional 300 animals are supported with USAID funding and goat shed constructions are met with CIDA funding. The procurement activities and beneficiary selection were completed in January 2013 and the animal distribution commenced in late February and is now completed. Beneficiaries receiving goat packages are provided with training by the DAPH in goat rearing and management practices. Detailed gender disaggregated data of the beneficiaries are provided in the below table.

Table 14: Summary of goat packages

District	Number of Goats	Number of Beneficiaries			
		Male	Female	Female %	Total
Mullaitivu	300	88	62	41%	150

2.2.5 Output 5 – Agriculture Extension

Output 5: Strengthened Agricultural Extension Services & Public Private Partnerships

It was envisioned that a Public-Private Alliances (PPAs) component, in which the private sector would commit to providing training to the government and farmers, would be developed. While the focus of the project by FAO was directly supporting farmers for

resumption of agricultural production, it was felt the private sector could also be encouraged to play a role. Initial discussions were held with USAID and some of the agro-chemical companies, but the response from the private sector at that time was lukewarm.

However, the strong presence of FAO and the GOSL in supporting agricultural recovery in the north resulted in a series of meetings with the major seeds producers, first starting in June, 2010, where a common fixed price for quality seed paddy was established. This was maintained throughout the following three growing seasons.

While FAO hoped to leverage other PPA linkages under this project, the urgency of the recovery interventions meant it was ultimately not possible to dedicate sufficient time and resources to strengthen agricultural extension services through public-private partnerships.

2.2.6 Output 6 – Food Production Wells

Output 6: Food production wells are renovated to re-establish the agriculture production

The project planned to rehabilitate 300 food production wells aiming the recovery of agricultural livelihoods of the returnees in Kilinochchi and Mullaitivu districts. The activity was implemented in partnership with the Department of Land Administration Northern Province, ZOA and Danish Refugee Council.

Table 15: Summary of renovated food production wells

District	Number of Wells	Number of Beneficiaries			
		Male	Female	Female %	Total
Kilinochchi	160	126	34	21%	160
Mullaitivu	125	111	14	11%	125
Total	285	237	48	17%	285



Renovated food production wells

Sprinkler Irrigation Schemes

The purpose of a sprinkler irrigation method is always to attain a better crop and a higher yield. It is a method of applying irrigation water which is similar to natural rainfall. Water is distributed through a system of pipes usually by pumping. It is then sprayed into the air through sprinklers so that it breaks up into small water drops which fall to the ground.

Though this activity was planned to support 100 households, there was an initial delay of implementation due to the lack of interest by beneficiaries, as resource poor farmers wish to minimize risk and this has a major impact on the adaption of innovations. Furthermore, the beneficiaries needed to have sufficient capacity to maintain the schemes. Finally, the project team was able to go ahead with this activity with 40 beneficiaries. The beneficiaries were also provided with training on sprinkler irrigation methodologies and maintenance. The gender disaggregated beneficiary data is provided in the table below.

Table 16: Summary of installed sprinkler irrigation systems

District	Number of Sprinklers	Number of Beneficiaries			
		Male	Female	Female %	Total
Mullaitivu		36	4	10%	40

3 CHALLENGES ENCOUNTERED/LESSONS LEARNED

Under a more stable environment and improved security conditions in the Northern Province, the project would have been able to provide standard quantities of seed per household. However, since returnee households had different extents of land available for cultivation depending on the progress of mine clearance and land preparation, the priority was to provide sufficient seed that would be fully utilized for cultivation wherever possible based on actual household needs. FAO worked closely with the DOA to ensure that neighboring households and villages received the same quantities of seed per household (based on land availability) to minimize possible conflict caused as a result of uneven distribution.

The only implementation modality available for UN agencies at the time of implementation was through the line departments, and selection of non-governmental organizations (NGOs) as implementing partners was not permitted under the instruction of the Presidential Task Force (PTF), the main coordinating body of the Government in the Northern Province. FAO worked in partnership with the DOA and the Department of Animal Production and Health (DAPH). However, since these departments also had their own programmes to implement under the resettlement programme of the Government, their capacity was limited, initially delaying the receipt of beneficiary lists.

Working together, FAO and the DOA staff provided beneficiary farmers with technical advice on crop establishment and crop management; conservation agriculture farming methods; post-harvest losses; marketing and seed preservation and storage. This occurred mostly during monitoring missions and field visits. Although training programmes were initially planned for beneficiaries, this was not feasible since the biggest priority was to ensure that the necessary logistical arrangements were in place to transport sufficient seed and ensure timely distribution to farmers to meet the Government targets for cultivation of abandoned paddy land and highland.

The floods during late December 2010 to January 2011 caused average yield losses in paddy of 20 percent, and average OFC losses of 85 percent. The Department of Agriculture (DOA) recommended the need for further seed assistance for the subsequent Maha 2011/12 season in order to support households who had lost their crop due to the floods.

Some delays were experienced in the distribution of water pumps, due to circumstances in beneficiary selection and getting the government approval. In addition, due to the high requirement for inputs for very large numbers of farming families in Northern Province, FAO also experienced some supply issues. Some contracted suppliers of locally crafted field tools provided poor quality merchandise, which resulted in large quantities of tools being rejected following FAO quality control. In response, FAO identified a larger number of

smaller, “home-based” producers of tools. Although the procurement, production and delivery of tools were slower as a result, the project was able to ensure that quality standards were maintained.

Considerable time was spent to identify suitable poultry suppliers, who were mostly small-scale and rural based, and this delayed the implementation of the poultry component. To ensure that poultry was provided with the necessary technical specifications, FAO conducted regular field missions to suppliers to inspect the quality of the birds and provide suppliers with proper instructions on the conditions to be fulfilled during the transportation of the chicks. Following the identification and selection of the suppliers, the distribution of poultry to the target districts was only able to begin in June 2011. Following reports of high mortality of chicks in Jaffna and Kilinochchi in late 2011, FAO conducted an assessment to further strengthen its poultry programme and to determine causes of post-distribution mortality and appropriate responses. Accordingly, chicks were vaccinated prior to delivery and there were two follow up vaccinations at 60 days and 90 days through the DAPH. As it was revealed, the rainy season was not a good time to distribute poultry.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Overview

Since relatively larger assistance packages and inputs were provided during Maha 2010/11 season, the outputs and outcomes of the agricultural recovery program interventions were assessed in the target districts at the end of Maha 2010/2011 season. The Northern Recovery program consisted of four agricultural recovery projects, namely OSRO/SLR/004/AUL, OSRO/SLR/003/SWE, OSRO/SLR/007/NOR and OSRO/SLR/006/USA. Various types of agricultural emergency recovery interventions were administered under the Northern agricultural recovery program during Maha 2010/2011. These included direct seed distributions, hand tools distribution, support to mechanized means of production, support to horticulture, home gardens and re-establishment of orchards and support to backyard poultry production. Technical support was also provided to the beneficiaries and officers of the implementing agencies under the program.

The field study was conducted during 15-30 June, 2011 to assess the outcomes of program interventions. Primary data from 991 respondents in 37 cluster villages across the five districts were collected through direct interviews using structured HHs questionnaire during the period. In addition, perceptions of the implementing partners on the implementation of the recovery program were obtained through administering a separate semi-structured questionnaire. The assessment report is provided as an annex to this report and the key conclusions and recommendations are highlighted in the following sections.

4.2 Conclusions

Outcomes assessment in an emergency context looked at how far obtained outputs and outcomes of Program interventions were coinciding with the set objectives from the beneficiaries' perspective. The assessment of outcomes of the agricultural recovery program interventions during the Maha 2010/2011 revealed positive achievements and all the actors agreed on the good performance recorded despite some risks encountered.

Overall, the recovery program's huge input distributions were highly satisfactory, and all the stakeholders agreed on the good performance recorded. The program attained its initial objectives although the start-up conditions were problematic and caused significant delays. The outputs in terms of quality inputs received by the beneficiaries and the extents cultivated were remarkable. These achievements were realized owing to the close collaboration established with the Government implementing agencies and the village level community –based organizations (CBOs).

The substantial rise in the Maha 2010/2011 paddy production in the North and the household incomes is attributable to the increase in the abandoned paddy land area developed and cultivated. However, the inclement weather conditions experienced during

the season resulted in paddy productivity decline of 26 percent and OFC and home-garden vegetable productivity decline of about 75-90 percent. If the productivity of these crops had not been affected by the weather vicissitudes, the productivity and household income increases due to the projects interventions would have been exponential. Further, at the time of assessment, the egg production was in the inception phase as one or two birds attained the laying stage (out of distributed 20-30 birds) in most of the beneficiaries resulting in very low income generated. There will be increased income from poultry production when more birds attain laying stage through the sale of surplus meat and eggs on top of reducing malnutrition.

The recovery program had allowed the creation of increased job opportunities in the agricultural sector, the resettling of displaced rural dwellers and a marked improvement in the living conditions of the returnee rice farmers in particular, in the North. There was enhanced engagement of female-headed families in backyard poultry production. Moreover, the enhanced performance of OFC and home-garden vegetable crops in some isolated pockets and the provision of the poultry package enabled the beneficiaries to reduce malnutrition and to generate additional income through the sale of the surplus produce.

Elite paddy varieties had been introduced among the farmers in the five districts. Most of the varieties were new to the farmers and exhibited enhanced productivity performance. Some of the elite varieties introduced among farmers through the seed input support were Bg-300, Bg-406, Bg-362, Bg-360, Bg-358, At-308, At-362 and At-353. The farmers and field staff were provided with training and thereby developed skills and enhanced their knowledge in crop farming and backyard poultry production. However, the field study revealed that the coverage of training and technical guidance was inadequate. The implementation of the recovery program in partnership with the implementing agencies (PDOA & PLC) strengthened the agencies, as implementing guidelines were given to the agencies concerned.

Livelihood programs in agriculture need to link short and long-term perspectives – transit from emergency support to medium-term /long-term rehabilitation for building back better. The provision of recovery livelihood packages to the returnee farmer families to resume agriculture-based livelihood activities reduced dependency of the beneficiaries on aid packages. The overall program outcomes are highly satisfactory, from the assessment shared by all actors. Now the time is appropriate for a transition from subsistence traditional agriculture to a more market-oriented sustainable agriculture. Maintenance of this momentum can only be ensured by guaranteeing farmers interests in terms of financial returns on the crop and their farms. This, therefore, requires proper support comprising a whole package: outreach, technical advice (quality seed production, conservation farming, on-farm water management, high-value crop production, protected agriculture, IPNS, IPM,

post-harvest technology and value-addition and disaster risk management), input supply, marketing, access to credit facilities, maintenance, etc.

4.3 Recommendations

Recommendations are made to improve the implementation of similar programs in the future as detailed below:

- Ensure that the milestone outputs such as signing the agreement, IDPs re-settlement, beneficiary/site selection, land development, input procurements, plant availability, and staff recruitment needed for the overall progress of the Program are in place at the appropriate time.
- Seek technical assistance from international consultants with experience in the design and implementation of agricultural recovery programs in countries emerging from conflicts such as ours. Well qualified technical assistance staff with a sound vision of team work definitely contributes to ensuring proper program management and implementation (to fill the capacity gaps, ensure knowledge transfer, build forecasting capacity, etc.).
- Adopt Community Driven Development (CDD) approaches at all stages of program implementation to ensure that the correct beneficiaries are identified (with a balanced number on men and women, female-headed households, single parent households and unemployed youth and ex-combatants) and the most appropriate livelihood packages are selected. Community contributions would also be maximized under the program to enhance local ownership of its interventions. Moreover, the beneficiary selection procedure should be cut-short through involving only the Agriculture/Livestock related Officers to finalize the list instead of involving GS, DS, and Security Officers which is time consuming resulting in time-overrun of recovery projects.
- Avoid causing inconvenience to both implementing partners and beneficiaries by *ad hoc* distribution arrangements of fruit plant sapling and MOC by formulating a rigid distribution schedule appropriately phased-out in consultation with the implementing partner.
- Encourage field monitoring by the Implementing partners and FAO at the time of planting/seeding, which is essential to ensure farmers use the seed input for the intended purposes. Monitoring and evaluation should be continuous regardless of project duration and budget to track progress, shortcomings and to devise strategies for effective project implementation.

- Procure and supply quality seeds of appropriate varieties with multiple-tolerance recommended for a specific location to avoid field performance problems.
- Advise farmers strongly at the cultivation meetings to strictly adhere to the cultivation schedule during the season (planting & harvesting times) to avoid staggered planting and thereby contain pest/disease resurgence.
- Guarantee farmer interests in terms of financial returns on the crop and their farms to ensure development momentum following the recovery from the socio-economic shocks in the conflict-affected areas. This requires proper support comprising a whole package: outreach, technical advice, supply, marketing, access to credit facilities, maintenance, etc. Strategies as establishing storage facilities, developing value-chain, improving market linkages, strengthening public-private partnership are needed to handle surplus produce as 99 percent respondents reported that they did not engage in value-addition of agricultural surplus produce.
- Provide home-garden quality vegetable seed packages along with some fencing material to protect the crops from stray animal trespass. The varieties should be area specific and acceptable to farmers and consumers. Hence, in the future, attention should be paid to provide vegetable varieties/ types (eggplant variety *TV-Purple*, bitter gourd variety *TV-White*, snake gourd variety *TV-Long*, tomato variety *KC-1* and amaranth variety-*Green-chadachchi-type*) suitable to the specific area with consumer and market acceptance. This is applicable to OFC (chilli varieties *KA-2*, *MI-2* and *MI-Green*) and Fruits (banana-*Embul*) as well.
- Support individual or CBOs/FOs to procure labour saving machines such as harvesters, processors, to construct threshing/drying floors and storage facilities to tide over labour and errant trader problems during harvesting and post-harvesting periods.
- Some nursery-workers and budders lost their tools and former skills as budders due to the conflict across the districts. These people should be supported for skill development and tool procurement so that they become real assets for future quality nursery plant production in the Northern districts. Also, assist in fruit nursery development and clonal garden establishment of elite varieties to obtain bud-wood for vegetative propagation.
- Encourage organic matter production and utilization among farmers in order to overcome environment related issues, particularly, with ground water pollution due to overuse of chemical fertilizers and soil productivity decline.

- Follow emergency prevention system for trans-boundary poultry diseases as strict quarantine measures. Moreover, local MOC production should be encouraged through establishing district-level hatcheries. Further, poultry producers should be advised to insure their birds so that the beneficiaries will get compensated for bird losses due to floods and diseases.
- Build the capacity of track-level agricultural officers and veterinary surgeons and their agricultural service centres cum training and promoting FSR&E approaches such as FFSs will result in achieving much higher levels of input handling and technology transfer in order to sustain investments.
- Invest in the institutions (CBOs, Cooperatives, groups etc) strengthening through training in the area of financial management and formulation of strategic plans at village level to implement CDD activities at village level as almost all the CBOs are weakened due to the prolonged conflict. This will further strengthen bottom-up approach of rural development and also the smooth running of irrigation schemes.
- Schedule beneficiary training programs in such a way to improve beneficiary participation (Off-Season) and arrangements should be made to provide District-specific extension materials to beneficiaries to handle issues specific to the district. Moreover, promoting Farming systems research and extension (FSR&E) such as FFS will result in higher rates of technology transfer. Further, extension services should establish Centres which are easily accessible to farmers to obtain latest market information on their produce. Perhaps this facility could be provided at the Agrarian Centres.
- Enhance the coverage of technical support including exposure visits and re-training (crops/livestock-poultry) to improve knowledge and skills of beneficiaries as most of the beneficiaries are farmers who lost their former knowledge and skills of farming due to the prolonged conflict.
- Encourage consumption of OFC produce in view of the high nutritional value and relatively low prices which are affordable to the low income groups.
- Improve Farmer's credit facilities. Although low interest credit is available from Rural Banks and a few other sources for the benefit of the farmers, these facilities are not easily available either due to lack of information, long procedure involved or inability to provide equity. It should be the responsibility of extension services to assist farmers in obtaining these loans from these banks as well as providing advice on repayment plans.

- Advise farmers, arrange insurance and help them in recovering claims in case of crop failure due natural calamities, pests etc. It should be the responsibility of the extension staff to ensure that the full advantage of crop insurance schemes is available to the farmers.