

POST CONFLICT NEEDS ASSESSMENT

**IRRIGATION SECTOR
REPORT**

NORTH EAST

16TH APRIL 2003

IRRIGATION SECTOR – NORTH EAST

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Irrigation Sector Report – North East

Introduction

The irrigation systems in the North East of Sri Lanka have suffered significant damage and deterioration from two decades of armed conflict. This report assesses the need for reconstruction, rehabilitation and augmentation of large and medium scale irrigation systems in the eight districts of the North East. These needs are assessed for all irrigations systems except small systems; these are addressed in the Agriculture Sector Report.

The Needs Assessment Process

Inventory sheets were sent to all authorities responsible for irrigation in the North East. The inventory identified the irrigation schemes, their condition and required interventions. Field visits to all districts and authorities were conducted to verify the data supplied. These data were then entered into a database that was used to cost, to programme and to package the necessary work into "Projects for Financing".

The results sheets generated by the database are presented in Section 4 of this report and Section 5 gives the basic data for each project.

A list of officials met during field visits is shown in Annex 2

1 Analysis

1.1 Current situation

Irrigation schemes have suffered from damages due directly to the conflict, i.e breaches in earth embankments and damage to headworks and canals. By far the most significant problem, however, is deterioration of the systems due to lack of maintenance and abandonment. Virtually all irrigation systems in the North East are in poor condition and will require substantial interventions to rehabilitate them.

1.2 Line Agencies

1.2.1 Water Resources

The Government of Sri Lanka has formulated a water resource policy governing all aspects of water resource management. The National Water Resources Authority (NWRA) is the appropriate agency for implementing this. The ratification of the legal framework to implement this policy is, however, currently undergoing parliamentary review.

The Water Resources Board is a Government Corporation, that is primarily charged with carrying out ground water investigations and appraisals for the entire country.

The water resources management in the Mahaweli River basin is the responsibility of the Mahaweli Authority of Sri Lanka (MASL). The water resources management of individual river basins is currently the responsibility of the Irrigation Departments (Provincial and Central). When the legal framework for the NWRA is in place, water resources management of all river basins and all ground water will be their responsibility.

1.2.2 Irrigation

Irrigation based on "Tanks" has been utilised primarily for rice cultivation and also for cash crops. Irrigation schemes have also served the role of providing water for all needs of farmers. Most irrigation tanks enable cropping in both seasons. Maha the main crop, is grown mostly during the rainy season, and Yala the second crop, is grown during the dry season. The area cropped tends to be smaller in the Yala season due to insufficient storage of water, and the average cropping intensity is around 1.5.

There are three institutions that handle irrigated agriculture:

- i) Central Irrigation Department responsible for Major Irrigation schemes (over 600 ha. command area) and Medium irrigation Schemes (between 80-600 ha. command area) that have their catchments straddling more than one province. They operate offices at Vavuniya, Trincomalee, Batticaloa and Ampara.
- ii) Provincial Irrigation Departments operate in all North East districts and are responsible for major and medium Irrigation schemes where their catchments is within the province.
- iii) Department of Agrarian Development (DAD) maintains all minor irrigation schemes on behalf of Provincial Councils (less than 80 ha.).

Annex I shows the organization charts of both the Central and Provincial Irrigation Departments.

1.3 Current Conditions

1.3.1 Water Resources

Agriculture has been the backbone of the economy of the North East. The security of the Water resource base must be viewed separately for the Jaffna peninsula and the rest of the North East. The entire Jaffna peninsula is underlain by limestone deposits. Most of the water resources in the peninsula are shallow ground water, which lies at depths from 3 m. to 10 m. below surface. It is pertinent to note that the topography of the peninsula is mostly low and flat, with a maximum elevation of 10 m. above mean sea level (MSL).

The only source of input for the ground water of the Jaffna Peninsula is direct rainfall. The water that infiltrates and percolates through the soil adds to the shallow ground water. Fresh water thickness underground varies from a few meters near the coastal areas to 15m. to 29 m. maximum in areas furthest inland. The depths to reach ground water varies from 3m to 8 m. The Jaffna peninsula is surface water resource poor and has no rivers. However, there are surface drainage basins, which become activated during rainy season which discharge into the sea. Some of these drainage lines have had "salt water exclusion" (swe) schemes constructed near their confluence with the sea, in the 1950s and earlier.

There is a need for conveying water from Irranaimadu reservoir in Kilinochchi to Jaffna Peninsula, primarily for drinking water purposes. This has extreme merit, as it will bring relief to the demands being made on the shallow ground water, and has to be examined thoroughly for implementation in the medium to long term future. This is discussed in detail in the "issues" section.

1.3.2 Irrigation

In the Irrigation Sector, the needs have been assessed as arising from a combination of the following;

- a) conflict damage to structures in existing schemes viz.- embankment, spillway, sluice, main and distribution canals and fields canals;
- b) lack of operation and maintenance;
- c) development stagnation;
- d) requirements of the resettlement process.

1.4. Interventions

1.4.1 Water Resources

Immediate / Urgent needs

- a) Closure of the three barrage mouths in Jaffna Peninsula (Uppu Aaru; Vallukkai Aaru, and Thondamanar Aaru), as a matter of urgency. This will help greatly in keeping seawater from entering inland via the lagoons, to reduce the salinity of the shallow ground water. Funding for two of these has been committed by NORAD, which leaves the largest one – Thondamannar Aaru, which has been allocated part funding to procure metal gates only. The balance of the funding required is included in the report.
- b) Comprehensive Water Resources study of the entire North East Province to establish present status of the water resources available, which can be exploited in a sustainable manner.

Medium Term Needs

- a) Establishment of appropriate legislation and a well licensing system, which specifies the volumes that can be abstracted from any given well or borehole, to control the abstraction of ground water.
- b) Revival of the original Mahaweli Scheme proposals to supply water to the North must be reexamined, if possible. The water resources available in the North would then be substantially enhanced.
- c) Rehabilitation of small-scale salt-water exclusion systems in the entire coastal areas of the North East.

1.4. 2 Irrigation

Immediate / Urgent needs

- a) Irrigation schemes in the conflict areas have suffered badly as most of them were abandoned due to lack of access during hostilities. These were earlier developed from jungle areas by clearing and leveling the land. When these schemes were abandoned, there was no maintenance possible.
- b) The conflict itself has caused breaches and damages to the main head works in the earthen embankments (bunds) and also to the irrigation distribution networks.
- c) Lack of any maintenance over 18 years has also caused erosion of numerous water control structures in almost every scheme visited and reported.
- d). The emergence of trees and shrub jungle in some of the irrigated paddy lands.

The immediate needs are to attend to these so that farmers can commence cultivation of at least part of their paddy lands so that they have some form of food security as well as income generation to procure their needs. This should be made as an example to assess the cost of emergency needs to enable the farmers in similar schemes commences cultivation. This has to be coordinated with the work of the rural livelihood development activities.

Medium Term Needs

Essentially, the medium term needs of irrigation will be the continuation of the rehabilitation of the works that are proposed in the urgent and immediate needs. Many irrigation schemes were totally or partially damaged by the conflict. A few have been rehabilitated by different agencies, while many others need rehabilitation. It is therefore necessary to continue with the interventions in the urgent needs category, into the medium term, to fully rehabilitate them. Medium term needs have been analyzed in detail using ranking criteria. Annex 3 shows the criteria used, and the results are in the database.

1.5 Output and beneficiaries

The output will be the rehabilitation of numerous irrigation schemes so that the farmers can recommence cultivation of their lands. This will enable them to recommence their livelihood and will result in the establishment of a better level of food security. The direct beneficiaries will be the farmers themselves, and the indirect beneficiaries will be the rural populations at large.

2. Strategy for Improvements

2.1 Project Activities

Activities will include a water resources study for the North East, civil rehabilitation activities such as earthen dams concrete structures for regulation of water flow, main and distribution canal systems, and lift irrigation schemes, sea water exclusion barrages etc.

2.2 Construction Materials

Although the North East was self sufficient in terms of aggregate, cement, and sand for concrete work, during the period of conflict, no major construction works were undertaken. However, with the impending acceleration of construction works for infrastructure, the demand for good quality construction materials ranging from aggregate to timber and cement is expected to become very high.

Suitable stone for all construction works is available within the province. It is necessary to set up major quarries and aggregate haulage businesses. As for sand, it may become necessary to augment the local supply by pumping from the sea. Requirements of timber, steel and cement may have to be met by importation from overseas.

2.3 Institutional Capacity

The ground water component is an integral part of water resources investigations and utilization. In implementing the projects identified in this needs assessment, groundwater studies will be required. Although the Water Resources Board is specialized in this field, it is clear they will need institutional strengthening to undertake such work.

Capacity exists within the Central Irrigation Department to carry out proper supervision of consultants and contract works. Their staff strength at present is about 230 engineers; 500 Technical Assistants; 220 draughtsmen, of whom some are placed in the North East to undertake normal program of works. For implementation of the findings of the needs assessment, additional staff needs to be recruited, and placed in the North East. The project implementation should look into delays that could arise due to departmental procedures.

The Provincial Irrigation Department of the North East has the institutional capacity to carry out expanded programs of work as they have better representation in the districts. Its staff strength at present is 24 Engineers; 58 Technical Assistants; 29 Draughtsman. They are able to supervise works for medium schemes. There will be a need to strengthen their capacity when an expanded program arises. A small pool of retired Irrigation Engineers and Technical Officers is available in the North East willing to be re-employed. It will be necessary to recruit young engineers and technical officers and provide them with adequate on the job training with the assistance of engineers both in-service and those who have retired.

2.4 Construction Capacity

2.4.1 Consultants

In general, the availability of firms of consultants in the eight North East districts appears very limited. It would be possible to locate individual consultants for different sectoral needs. Reputable Colombo based firms may be able to meet the requirements for consulting services and are able and willing to work in the Project area.

2.4.2 Contractors

A condition similar to that for Consultants exists for contractors of substantial capacity in the North East. However, small and medium scale contractors are available in most districts. Lack of trained earth moving and construction machinery operators is seen as a shortcoming. It would therefore be prudent to institute a good training program, if possible in different districts.

2.4.3 Community Based Organizations

For irrigation schemes, community-based organizations (CBO) and the farmer organizations (FOs) are able to take up small-scale construction on a contract basis for both earthworks and concrete works.

2.5 Training, skills development

For construction, there will be a heavy demand for skilled labour. Due to the conflict, much of the skilled labour force has either moved out as IDPs or to the South or overseas. These skills bases certainly need to be developed. A program for the development of carpentry, masonry, plumbing, operation and maintenance of heavy machinery and construction related skills would be necessary.

2.6 Implementation considerations

The Central and Provincial irrigation Departments will be required to take up the responsibility for the coordination, execution and monitoring of all projects. They will be required to follow appropriate guidelines for the procurement of goods and services. This will include tender and award processes and supervision of consultants and contractors. The Central and Provincial Irrigation Departments are experienced in handling such procedures involving both domestic and international contracts, in line with the requirements of International Donors. Farmer organizations will play a decisive role in being partner organizations for these projects as decision makers.

2.7 Issues, Opportunities, and constraints

2.7.1 Environment

Water Resources

The closure of the three Barrages in the Jaffna Peninsula at the sea mouth is seen as urgently needing attention which will have a number of immediate positive environmental effects, the first of which is the prevention of the entry of seawater into the lagoon area. The consequential immediate benefit is the removal of the influence of seawater on all shallow wells in the peripheral areas. Additionally, during rainy seasons, the natural drainage that runs off in these lagoons will help flush the built up of salt, and over a period of time help to reclaim the lands that are unable to support crop production. The presence of fresh water in the lagoon, safe from contact with seawater has a very positive environmental impact all round. A negative impact could be the changing of the ecological regime from that of salt water to fresh water, which will affect the aquatic life that is dependent on the salt lagoons. However, it is difficult to evaluate the full impact to any degree without a proper study.

Irrigation

The works proposed are the rehabilitation of schemes that were fully functional prior to the conflict. One common problem associated with irrigation is salinity intrusion in to irrigated lands, which is caused by inadequate drainage. There has been little evidence to suggest that this process is now happening. The main reason is that in every Irrigation scheme constructed, the drainage system was also designed and constructed to drain away the excess water. Due to poor maintenance the drainage system has deteriorated. Thus, the problem of salt build up in irrigated lands, which is the most serious environmental impact commonly associated with irrigation, is expected to be minimal when these schemes are rehabilitated.

2.7.2 Resettlement

Resettlement has to be seen as two separate aspects in the present context, arising out of the current post conflict situation. Firstly, the internally displaced persons (IDP) wish to return to their original places. There are many refugee camps for IDPs. Many irrigation schemes were abandoned due to the conflict. An attendant problem is the presence of landmines, which are being removed at a steady but slow pace, which hampers all activities as a result.

Secondly, resettlement has to be examined in the sense of whether the proposed works will cause the displacement of residents in the areas. New irrigation schemes may require relocation of villages if these areas are inundated by the reservoirs. In this case, the proposals only deal with the rehabilitation of previously functioning schemes. The residents had to leave their areas due to the conflict. There is no likelihood of such resettlement issues arising with the rehabilitation of these irrigation schemes.

2.7.3 Operation and Management Considerations

Regular and systematic Operation and Management of Irrigation schemes are crucial in keeping the system working. The irrigation departments responsible will form an alliance with the Farmer Organizations (FOs) enabling collective consultation and decisions including the commencement of the irrigation season, water issues, and maintenance of the canal system.

2.7.4 Committed projects and Projects in the pipeline

The only projects in the water resources sub sector that have had funds committed are the Uppu Aaru, and Vallukkai Aaru barrage schemes. World Bank funded NEIAP Project provides for urgent rehabilitation of a number of Irrigation schemes. The continuation of works in NEIAP funded projects is also included in our assessment, as this funding is usually insufficient for total rehabilitation.

2.7.5 De-mining

Sections of Infrastructure in the North East have been mined and unexploded Ordnance (UXO) occurs. There is an ongoing programme to map mined and UXO areas before commencing work in areas so affected it will be necessary to carry out de-mining. Provisions have been made for mine clearance by assessing the irrigation systems affected and adding ten per cent to the basic cost of work for that section. This sum is included in the project cost to fund mine clearance activities in advance of the construction work.

3. Project Packages

All sub projects identified are packaged considering their geographical location, size of the sub projects, and implementation arrangement. Each project package will be implemented in the range of 3 – 5 years. High priority sub projects may be commenced first, followed by other projects in the order of priority.

Summary of Project Packages is shown below:-

Sub Sector	No of Project Packages	North East Province Cost (USD Mil)
Major Irrigation	6	135.18
Medium Irrigation	2	44.61
Lift Irrigation	1	0.47
Drainage	1	22.53
Capacity Building	1	0.59
Total Irrigation Sector, North East	11	203.38

4

**SECTOR, SUB SECTOR AND
PROJECT SUMMARIES
NORTH EAST**

Sector I

Irrigation

SECTOR SUMMARY

Sub Sector		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
CAPB	Capacity Building	57	0.59	0.21	0.29	0.21	0.00	0.00	0.00	0.00
D	Drainage	2,163	22.53	2.25	4.51	6.76	5.63	3.38	0.00	0.00
LI	Lift Irrigation	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00
MA	Major Irrigation	12,977	135.18	15.22	30.44	45.65	38.04	22.83	0.00	0.00
ME	Medium Irrigation	4,282	44.61	5.40	10.80	16.20	13.50	8.10	0.00	0.00
	Total Sector Cost	19,523	203.37	23.18	46.16	68.96	57.27	34.30	0.00	0.00

Sector **I** **Irrigation**
Sub Sector **CAPB** **Capacity Building**

SUB-SECTOR SUMMARY

PROJECT		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
CAPD NE	Capacity Development North East	57	0.59	0.18	0.24	0.18	0.00	0.00	0.00	0.00
	Total Sub-Sector Cost	57	0.59	0.18	0.24	0.18	0.00	0.00	0.00	0.00

Sector I Irrigation
 Sub Sector CAPB Capacity Building
 Project CAPD NE Capacity Development North East

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD							
	RS.	TOTAL	YEAR							
	Incl Taxes		1	2	3	4	5	6	7	
Northern Districts										
Jaffna	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Killinochchi	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Mannar	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Mullaitivu	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Vavuniya	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Sub Total	36	0.37	0.11	0.15	0.11	0.00	0.00	0.00	0.00	0.00
Eastern Districts										
Ampara	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Batticaloa	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Trincomalee	7	0.07	0.02	0.03	0.02	0.00	0.00	0.00	0.00	0.00
Sub Total	21	0.22	0.07	0.09	0.07	0.00	0.00	0.00	0.00	0.00
Total Project Cost	57	0.59	0.18	0.24	0.18	0.00	0.00	0.00	0.00	0.00

Sector I Irrigation
 Sub Sector D Drainage

SUB-SECTOR SUMMARY

PROJECT		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
DR ALL	Drainage/Salt Water Exclusion Schemes N	2,163	22.53	2.25	4.51	6.76	5.63	3.38	0.00	0.00
	Total Sub-Sector Cost	2,163	22.53	2.25	4.51	6.76	5.63	3.38	0.00	0.00

Sector I Irrigation
 Sub Sector D Drainage
 Project DR ALL Drainage/Salt Water Exclusion Schemes NE & Puttala

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Northern Districts									
Jaffna	583	6.08	0.61	1.22	1.82	1.52	0.91	0.00	0.00
Killinochchi	545	5.67	0.57	1.13	1.70	1.42	0.85	0.00	0.00
Mannar	156	1.62	0.16	0.32	0.49	0.41	0.24	0.00	0.00
Mullaitivu	233	2.43	0.24	0.49	0.73	0.61	0.36	0.00	0.00
Sub Total	1,517	15.80	1.58	3.16	4.74	3.95	2.37	0.00	0.00
Eastern Districts									
Ampara	482	5.02	0.50	1.00	1.51	1.26	0.75	0.00	0.00
Batticaloa	78	0.81	0.08	0.16	0.24	0.20	0.12	0.00	0.00
Trincomalee	47	0.49	0.05	0.10	0.15	0.12	0.07	0.00	0.00
Sub Total	607	6.32	0.63	1.26	1.90	1.58	0.95	0.00	0.00
North Western Districts									
Puttalam	39	0.41	0.04	0.08	0.12	0.10	0.06	0.00	0.00
Sub Total	39	0.41	0.04	0.08	0.12	0.10	0.06	0.00	0.00
Total Project Cost	2,163	22.53	2.25	4.51	6.76	5.63	3.38	0.00	0.00

Sector I Irrigation
 Sub Sector LI Lift Irrigation

SUB-SECTOR SUMMARY

PROJECT		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
IRR LFT	Lift Irrigation Schemes North East	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00
	Total Sub-Sector Cost	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00

Sector I Irrigation
 Sub Sector LI Lift Irrigation
 Project IRR LFT Lift Irrigation Schemes North East

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD							
	RS.	USD	YEAR							
	Incl Taxes		1	2	3	4	5	6	7	
Eastern Districts										
Batticaloa	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00	
Sub Total	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00	
Total Project Cost	45	0.47	0.09	0.14	0.14	0.09	0.00	0.00	0.00	

Sector I **Irrigation**
Sub Sector MA **Major Irrigation**

SUB-SECTOR SUMMARY

PROJECT		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
IRR MJ TRI	Major Irrigation Trincomalee	1,587	16.53	1.65	3.31	4.96	4.13	2.48	0.00	0.00
IRRANAMADU	Major Irrigation Irranamadu Project	2,429	25.30	2.53	5.06	7.59	6.33	3.80	0.00	0.00
IRR KI MUL	Major Irrigation Killinochchi and Mullaitivu	2,040	21.25	2.13	4.25	6.38	5.31	3.19	0.00	0.00
IRR VA MA	Major Irrigation Vavunia and Mannar	2,720	28.34	2.83	5.67	8.50	7.08	4.25	0.00	0.00
IRR MJ BAT	Major Irrigation Batticaloa	2,093	21.80	2.18	4.36	6.54	5.45	3.27	0.00	0.00
IRR MJ AMP	Major Irrigation Ampara	2,108	21.96	2.20	4.39	6.59	5.49	3.29	0.00	0.00
Total Sub-Sector Cost		12,977	135.18	13.52	27.04	40.55	33.80	20.28	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRR MJ TRI Major Irrigation Trincomalee

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Eastern Districts									
Trincomalee	1,587	16.53	1.65	3.31	4.96	4.13	2.48	0.00	0.00
Sub Total	1,587	16.53	1.65	3.31	4.96	4.13	2.48	0.00	0.00
Total Project Cost	1,587	16.53	1.65	3.31	4.96	4.13	2.48	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRRANAMAD Major Irrigation Irranamadu Project

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Northern Districts									
Killinochchi	2,429	25.30	2.53	5.06	7.59	6.33	3.80	0.00	0.00
Sub Total	2,429	25.30	2.53	5.06	7.59	6.33	3.80	0.00	0.00
Total Project Cost	2,429	25.30	2.53	5.06	7.59	6.33	3.80	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRR KI MUL Major Irrigation Killinochchi and Mullaitivu

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Northern Districts									
Killinochchi	421	4.39	0.44	0.88	1.32	1.10	0.66	0.00	0.00
Mullaitivu	1,619	16.87	1.69	3.37	5.06	4.22	2.53	0.00	0.00
Sub Total	2,040	21.25	2.13	4.25	6.38	5.31	3.19	0.00	0.00
Total Project Cost	2,040	21.25	2.13	4.25	6.38	5.31	3.19	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRR VA MA Major Irrigation Vavuniya and Mannar

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Northern Districts									
Mannar	2,558	26.65	2.66	5.33	7.99	6.66	4.00	0.00	0.00
Vavuniya	162	1.69	0.17	0.34	0.51	0.42	0.25	0.00	0.00
Sub Total	2,720	28.34	2.83	5.67	8.50	7.08	4.25	0.00	0.00
Total Project Cost	2,720	28.34	2.83	5.67	8.50	7.08	4.25	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRR MJ BAT Major Irrigation Batticaloa

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Eastern Districts									
Batticaloa	2,093	21.80	2.18	4.36	6.54	5.45	3.27	0.00	0.00
Sub Total	2,093	21.80	2.18	4.36	6.54	5.45	3.27	0.00	0.00
Total Project Cost	2,093	21.80	2.18	4.36	6.54	5.45	3.27	0.00	0.00

Sector I Irrigation
 Sub Sector MA Major Irrigation
 Project IRR MJ AMP Major Irrigation Ampara

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD						
	RS.	USD	YEAR						
	Incl Taxes		1	2	3	4	5	6	7
Eastern Districts									
Ampara	2,108	21.96	2.20	4.39	6.59	5.49	3.29	0.00	0.00
Sub Total	2,108	21.96	2.20	4.39	6.59	5.49	3.29	0.00	0.00
Total Project Cost	2,108	21.96	2.20	4.39	6.59	5.49	3.29	0.00	0.00

Sector **I** **Irrigation**
Sub Sector **ME** **Medium Irrigation**

SUB-SECTOR SUMMARY

PROJECT		COSTS		DISBURSEMENT USD						
Code	Name	RS.	USD	YEAR						
		Incl Taxes		1	2	3	4	5	6	7
IRR A B T	Medium Irrigation East Provinces	2,094	21.81	2.18	4.36	6.54	5.45	3.27	0.00	0.00
IRR NORTH	Medium Irrigation North	2,188	22.80	2.28	4.56	6.84	5.70	3.42	0.00	0.00
	Total Sub-Sector Cost	4,282	44.61	4.46	8.92	13.38	11.15	6.69	0.00	0.00

Sector I Irrigation
 Sub Sector ME Medium Irrigation
 Project IRR A B T Medium Irrigation East Provinces

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD							
	RS.	USD	YEAR							
	Incl Taxes		1	2	3	4	5	6	7	
Eastern Districts										
Ampara	489	5.10	0.51	1.02	1.53	1.27	0.76	0.00	0.00	
Batticaloa	527	5.49	0.55	1.10	1.65	1.37	0.82	0.00	0.00	
Trincomalee	1,078	11.23	1.12	2.25	3.37	2.81	1.68	0.00	0.00	
Sub Total	2,094	21.81	2.18	4.36	6.54	5.45	3.27	0.00	0.00	
Total Project Cost	2,094	21.81	2.18	4.36	6.54	5.45	3.27	0.00	0.00	

Sector I Irrigation
 Sub Sector ME Medium Irrigation
 Project IRR NORTH Medium Irrigation North

Project Summary

PROVINCE/DISTRICTS	COSTS		DISBURSEMENT USD							
	RS.	USD	YEAR							
	Incl Taxes		1	2	3	4	5	6	7	
Northern Districts										
Jaffna	8	0.08	0.01	0.02	0.03	0.02	0.01	0.00	0.00	
Killinochchi	293	3.05	0.31	0.61	0.92	0.76	0.46	0.00	0.00	
Mannar	282	2.93	0.29	0.59	0.88	0.73	0.44	0.00	0.00	
Mullaitivu	882	9.19	0.92	1.84	2.76	2.30	1.38	0.00	0.00	
Vavuniya	723	7.53	0.75	1.51	2.26	1.88	1.13	0.00	0.00	
Sub Total	2,188	22.80	2.28	4.56	6.84	5.70	3.42	0.00	0.00	
Total Project Cost	2,188	22.80	2.28	4.56	6.84	5.70	3.42	0.00	0.00	

5

PROJECT SHEETS

NORTH EAST

Project Sheet

Programme /Project Reference Number and Name: Capacity Building of Irrigation Sector Agencies in North East Province	
Sub-Sector Number and Name (if applicable): CAPB Capacity Building	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Eight districts in North East Province	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. Capacity building of irrigation sector institutions is vital to carry out proposed infrastructure development works The objectives of the project are: a. To support provincial / central irrigation departments to improve their building, transport, investigation (laboratory) facilities and skill development	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
To support provincial / central irrigation departments to improve their building, transport, investigation facilities and skill development in North East Province	0.59
Total Budget	0.59
Duration of activities:	3 Years
Outputs: Provincial / central irrigation departments will be in a better position to implement proposed irrigation projects	
Indicators: -Project implementation capacity of Provincial / central irrigation departments	

Sustainability & Implementation: With the implementation of the proposed capacity development program, irrigation departments will be in a better position to mobilise their staff in field. It will also support investigation and design works. Consultants and contractors will be used to implement the project	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Capacity development needs of relevant agencies should be identified and addressed in order to implement effective capacity development program. Mandates of Central and Provincial Irrigations will have to be defined. Throughout the process of implementation, the Sub-Committee on Immediate Humanitarian and Rehabilitation Needs will be involved in monitoring of project implementation.	
Total number of beneficiaries:	
Type	Number
Total	
Comments:	

Project Sheet

Programme /Project Reference Number and Name: Drainage and salt water exclusion schemes in North East Province	
Sub-Sector Number and Name (if applicable): Drainage	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): North East Province	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers. Destruction to salt water exclusion systems has caused high salinity levels in ground water in some areas	
The objectives of the project are: b. To support the construction / rehabilitation of drainage system in Ampara, Thondamanaru and Elephant Pass Lagoon schemes in Jaffna and small scale salt water exclusion schemes in 8 coastal districts in North East province and in Puttalam district	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of drainage system in Ampara, Thondamanaru and Elephant Pass Lagoon schemes in Jaffna and small scale salt water exclusion schemes in 8 coastal districts in North East province and in Puttalam district	22.53
Total Budget	22.53
Duration of activities:	5 Years
Outputs : Better yield from agricultural activities in coastal areas and possibility to cultivate more land area	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required)	
Total number of beneficiaries:	
Type	Number
Ampara Drainage Scheme	10,000
Major salt water exclusion schemes in Jaffna	30,000
Small scale salt water exclusion schemes	4,000
Total	44,000
Comments:	

Project Sheet

Programme /Project Reference Number and Name: Lift irrigation schemes in North East Province	
Sub-Sector Number and Name (if applicable): Lift Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): North East Province	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is irrigation facilities to farmers.	
The objectives of the project are: c. To support the construction / rehabilitation of lift irrigation facilities in North East Province	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of lift irrigation schemes North East province	0.47
Total Budget	0.47
Duration of activities:	3 Years
Outputs : Better yield from agricultural activities and possibility to cultivate more land area	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation.	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required)	
Total number of beneficiaries:	
Total	10,000
Comments:	

Project Sheet

Programme /Project Reference Number and Name: Major Irrigation schemes in Trincomalee District	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Trincomalee District	
Rationale / Objectives The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: To support the construction / rehabilitation of 5 Major Irrigation schemes in Trincomalee District	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of 5 major irrigation schemes in Ampara District	16.53
Total Budget	21.80
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Total	80,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Iranamadu Irrigation scheme in Killinochchi District	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Killinochchi District	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: To support the construction / rehabilitation of Iranamadu Irrigation scheme in Killinochchi District	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of Iranamadu Irrigation scheme in Killinochchi District	25.30
Total Budget	25.30
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: Provincial Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Total	30,000
Comments:	

Project Sheet

Programme /Project Reference Number and Name: Major Irrigation schemes in Killinochchi and Mullaitivu Districts	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Killinochchi and Mullaitivu Districts	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: d. To support the construction / rehabilitation of Major Irrigation schemes in Killinochchi (2 schemes) and Mullaitivu (3 schemes) districts.	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of 5 major irrigation schemes in Killinochchi and Mullaitivu districts.	21.25
Total Budget	21.25
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Kiillinochchi District	10,000
Mullaitivu District	30,000
Total	40,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Major Irrigation schemes in Vavunia and Mannar Districts	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Vavunia and Mannar Districts	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: To support the construction / rehabilitation of Major Irrigation schemes in Vavunia (1 scheme) and Mannar (3 scheme) Districts	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of 4 major irrigation schemes in Vavunia and Mannar Districts	28.34
Total Budget	28.34
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Mannar District	48,000
Vavunia District	17,000
Total	65,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Major Irrigation schemes in Batticaloa District	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Batticaloa District	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: To support the construction / rehabilitation of 8 Major Irrigation schemes in Batticaloa District	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of 8 major irrigation schemes in Ampara District	21.80
Total Budget	21.80
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Total	91,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Major Irrigation schemes in Ampara District	
Sub-Sector Number and Name (if applicable): MA Major Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Ampara District	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: To support the construction / rehabilitation of 11 Major Irrigation schemes in Ampara District	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
Construction / rehabilitation of 11 major irrigation schemes in Ampara District	21.96
Total Budget	21.96
Duration of activities:	5
	Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Total	90,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Medium Irrigation schemes in East Province	
Sub-Sector Number and Name (if applicable): ME Medium Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Three districts in East Province	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: e. To support the construction / rehabilitation of Medium Irrigation schemes in Ampara (18 schemes), Batticaloa (20 schemes) and Trincomalee (19 schemes) districts.	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
I. Construction / rehabilitation of 57 medium irrigation schemes in Ampara, Batticaloa and Trincomalee district	21.81
Total Budget	21.81
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Ampara District	18,000
Batticaloa District	19,000
Trincomalee District	24,000
Total	61,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

Project Sheet

Programme /Project Reference Number and Name: Medium Irrigation schemes in North Province	
Sub-Sector Number and Name (if applicable): ME Medium Irrigation	
Sector Number and Name: Irrigation, water supply, sanitation and solid waste	
Geographical area: (districts / sub-units): Five districts in North Province	
Rationale / Objectives: The two decades of ethnic conflict in the North East in addition to causing population displacement and human suffering has led to the destruction of infrastructures and disruption of social services. One of the prominent and vital among these basic services is the irrigation facilities to farmers.	
The objectives of the project are: f. To support the construction / rehabilitation of Medium Irrigation schemes in Killinochchi (6 schemes), Vavunia (26 schemes), Mannar (7 schemes) and Mullaitivu (19 schemes) districts.	
Budget Breakdown: US\$	
Activities	Capital Cost (US \$ MIL)
1. Construction / rehabilitation of 58 medium irrigation schemes in Killinochchi, Vavunia, Mannar and Mullaitivu districts	22.80
Total Budget	22.80
Duration of activities:	5 Years
Outputs : Provision of irrigable areas and better yield from agricultural activities	
Indicators: -Increase in agricultural production and increase in cultivated lands	

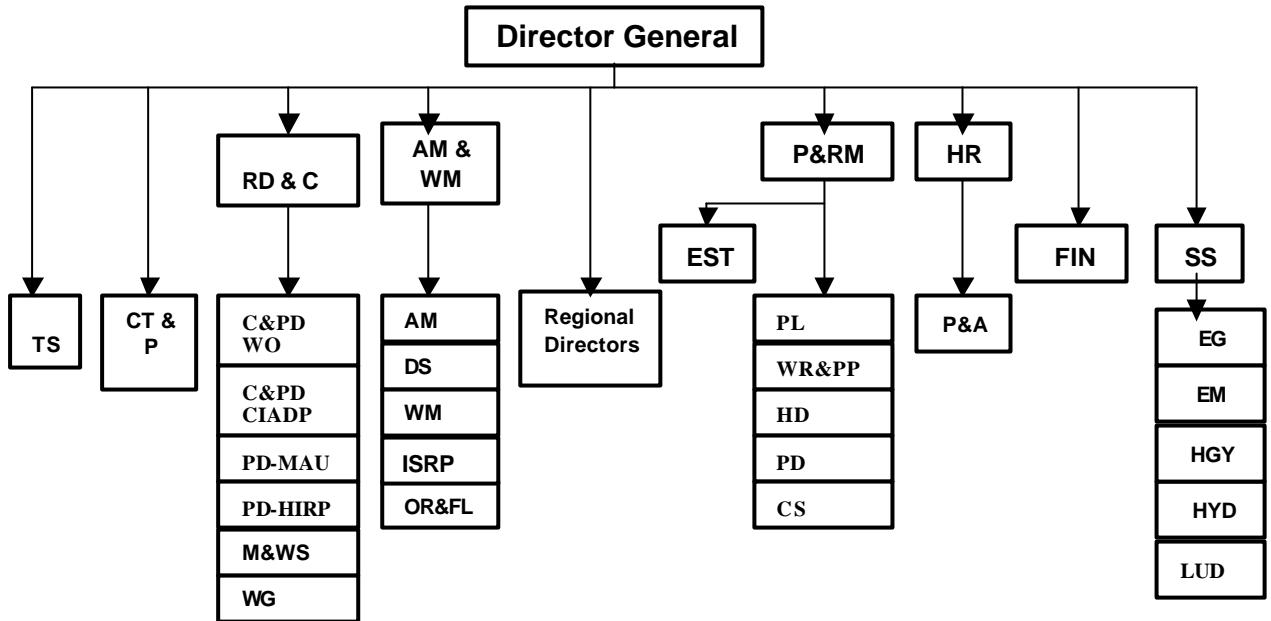
Sustainability & Implementation: : Provincial /Central Irrigation Departments will implement the project. Consultancy services will be provided for scheme design and project management. Local contractors will carry out construction of facilities. In a situation where local capacity does not exist the project will be contracted to an outside organisation	
Issues & Risks: (including constraints, follow-up mechanisms, further studies required) Water sector master plan should be developed to assess the capacity if irrigation tanks and catchment areas	
Total number of beneficiaries:	
Type	Number
Killinochchi District	8,000
Mannar District	10,000
Vavunia District	20,000
Mullaitivu District	28,000
Total	64,000
Comments: Priority should be given to heavily damaged irrigation schemes and areas which farmers totally displaced due to conflict	

ANNEX
NORTH EAST

ANNEX 1

ORGANIZATION CHART CENTRAL / PROVINCIAL IRRIGATION DEPARTMENTS

Organization Chart – Central Irrigation Department

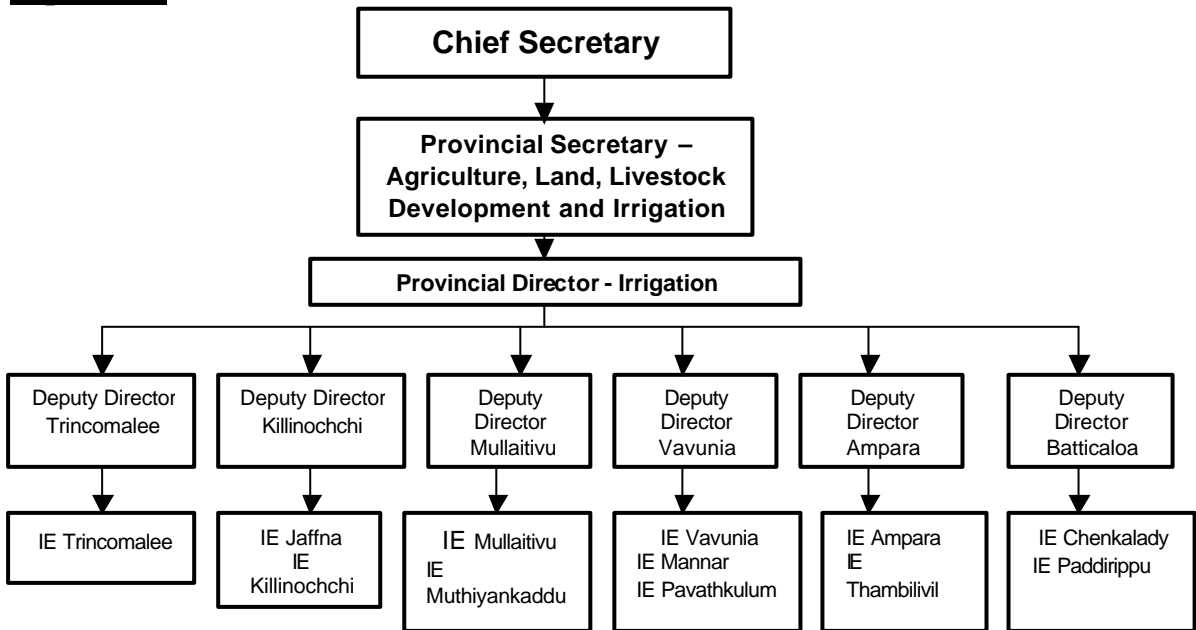


HR – Human Resources
 HD – Head Work’s design
 PD – Project Design
 WG – Works General
 AM – Assets management
 FIN- Finance
 AM &WM – Asset management and water management

GRI – Geo reference information
 WO – Weli Oya
 SS – Specialized services
 TS – Technical Standards
 P & RM – Plan implementation, Water resource planning, design and range management
 I & WM – Irrigation, water management

RD &C – Regional development and construction
 EST – Engineering, Scientific & Technical services

Organization Chart – North East Provincial Council Provincial Irrigation Department



ANNEX 2

OFFICERS MET DURING FIELD VISITS

	Organization	Location	Designation	Name
1	NE Provincial Council	Trincomalee	Chief Secretary	S. Rangarajah
2	NC Provincial Council	Anuradhapura	Chief Secretary	J.A.M. Karunarathne
3	District Secretary	Trincomalee	District Secretary	N.P.K. Nelumdeniya
4	District Secretary	Jaffna	District Secretary	C. Pathmanadan
5	District Secretary	Mannar	District Secretary	V. Visvalingam
6	District Secretary	Polonnaruwa	District Secretary(actg)	J. A. S. Ravindra
7	SHIRAN	Killinochchi	Director	M.S. Ireneous
8	SFIRAN	Killinochchi	Consultant	Gunalingam
9	NWSDB	Colombo	General Manager	M. Wickramage
10	NWSDB	Colombo	Addl. GM (RO)	S.K.H. Perera
11	NWSDB	Colombo	Addl. GM (ADB)	K.L.L. Premanath
12	NWSDB	Colombo	Addl. GM (P&M)	K.M.N.S. Fernando
13	NWSDB	Trincomalee	C.E (Dev)	K. Vasudevan
14	NWSDB	Ampara	M (O&M)	S.A. Rasheed
15	NWSDB	Jaffna	M (O&M)	T. Bathiyadasan
16	NW SDB	Anuradhapura	AGM (NC)	L.L.A. Peiris
17	Central Irrigation Dept.	Colombo	Director (P&RM)	G.T. Dharmasena
18	Central Irrigation Dept.	Anuradhapura	Reg. Director Irrigation	N. J. Baranasuriya
19	Central Irrigation Dept.	Ampara	Reg. Director Irrigation	R.M.W. Rathnayake
20	Central Irrigation Dept.	Batticaloa	Reg. Director Irrigation	K. Paskaradas
21	Central Irrigation Dept.	Moneragala	Reg. Director Irrigation	N. Indrasenan
22	Central Irrigation Dept.	Polonnaruwa	Reg. Director Irrigation	S.S.L. Weerasinghe
23	Central Irrigation Dept.	Puttalam	Reg. Director Irrigation	M. Thirnavukarasu
24	Central Irrigation Dept.	Trincomalee	Reg. Director Irrigation	S. Jegathesevaran
25	Central Irrigation Dept.	Vavunia	Reg. Director Irrigation	A. Vimalachandran
26	Prov. Irrigation Dept.	Trincomalee	P. Director Irrigation	S. Sarvaloganathan
27	Prov. Irrigation Dept.	Vavunia	Dep. Director Irrigation	K.S. Sivapatham
28	Prov. Irrigation Dept.	Killinochchi	Dep. Director Irrigation	S.Kumaradevan
29	Prov. Irrigation Dept.	Mullaitivu	Dep. Director Irrigation	S.S. Sivakumar
30	Prov. Irrigation Dept.	Trincomalee	Dep. Director Irrigation	S. Selvarathnam
31	Prov. Irrigation Dept.	Trincomalee	Irrigation Engineer	Sarojini Devi
32	Prov. Irrigation Dept.	Jaffna	Irrigation Engineer	T. Ganesharaja
33	Prov. Irrigation Dept.	Anuradhapura	P. Director Irrigation	Senavirathna
34	Prov. Health Dept.	Trincomalee	P. Director Health	Kumaravetpullai
35	Prov. Health Dept.	Vavunia	Dep. P. Dir. Health	A. Ketheesvaran
36	Prov. Health Dept.	Kalmunai	Dep. P. Dir. Health	
37	Prov. Health Dept.	Batticaloa	Dep. P. Dir. Health	K. Muruganandan
38	National Health Dept.	Jaffna	Director TH	
39	TRO	Jaffna		
40	TRO	Trincomalee		
41	Water Resources Board	Colombo	Chairman	M.W.P. Wijesinghe
42	Water Resources Board	Colombo	General Manager	K.N. Karunarathne
43	Divisional Secretary Office	Kytes	Divisional Secretary	
44	Divisional Secretary Office	Welikanda	Divisional Secretary	S. Premachadra
45	Jaffna NGO Consortium	Jaffna		P. Vigneshwaran
46	Jaffna Municipal Council	Jaffna	Mun. Commissioner	

ANNEX 3

PRIORITIZATION CRITERIA

Prioritization Criteria

Sub sector – Irrigation

District –

Name of scheme-

Criteria	Range or Condition	Marks
Present Situation	Bund Breached	6
	Bund Damaged	4
	Canal Damaged	4
Position of Resettlement	Full Resettlement	5
	Partial Resettlement	3
	No Resettlement	0
Intervention Cost per hectare	More than Rs 200,000.00	0
	Rs 150,000.00 - 200,000.00	1
	Rs 100,000.00 - 150,000.00	2
	Rs 50,000.00 - 100,000.00	3
	< Rs 50,000.00	5
Cropping Intensity	Over 1.5	5
	1.00 - 1.50	3
	<1.00	2
Extent of Farm Land	Over 5,000 Ac	5
	1500 - 5,000 Ac	4
	500 - 1,500 Ac	3
	<500 Ac	2