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IFSP

75 Minor Tank Development Programme

Inventory, Planning Maps, Progress

INTEGRATED FOOD SECURITY PROGRAMMME
TRINCOMALEE

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75 Minor Tank Development Programme

Background

The '75 Minor Tank Development Programme'¹ has been agreed upon between the Integrated Food Security Programme Trincomalee (IFSP), supported by the German Technical Cooperation (GTZ), and the Assistant Commissioner of the Department of Agrarian Services Trincomalee. Minutes of meeting were signed in June 1999.

The large number of tanks neglected, abandoned and more or less destroyed as a cause of the conflict were/are a threat to the livelihoods of village communities. The '75 Minor Tank Development Programme' not only focuses on technical aspects of construction, renovation and repair but rather on the social economic dimension of the village irrigation system. The minor tank is the backbone of the village economy and the livelihoods of families.

¹ The term minor tank is used for all small village tanks and even ponds. The standard Sri Lankan terminology is followed: major tanks (central), medium tanks (provincial), minor tanks (local).

The aim of the programme is first and foremost to bring the command area back into cultivation and to support water supply for the villages. The programme further aims at contributing to stabilised



Levelling: Engineers and helpers at work

ground conditions enhancing confidence among the village communities and encouraging investment at local level. IFSP in closest cooperation with the Department of Agrarian Development Trincomalee ensures a participatory approach at all stages of the programme.

Tank development contributes to village and household food and nutrition security. Integrated food and nutrition security aims at increasing the availability of food, enhancing the access to food, improving use and utilisation of food and contributing to social and economic stability.

Approach

A preliminary assessment survey of about 95 minor tanks was done in early 2000². All tanks were inventoried in terms of location, conditions, potential, need for development/rehabilitation, structures and capacity of the farming community to contribute, and finally social-economic dimension of the tank for the village. A comprehensive inventory was prepared as base line for decisions to start work.

² 75 Minor Tank Rehabilitation Programme – Preliminary Assessment Survey, N. Nadarajah, Trincomalee March 2000, IFSP Technical Paper 2

Planning maps of scale 1:25,000 were prepared, showing the watershed boundaries, micro catchment areas, cascade boundaries and predominant land use pattern³. All inventoried tanks were recorded on the maps.

The majority of minor tanks ('tank land') in Trincomalee district are located in the 'uncleared areas' of Muthur DS Division and in the DS Divisions of Padavisiripura, Gomarankadawela, Morawewa and Kuchchaveli. The density in the Muthur main watershed of Kevuliya (Foul Point) is far higher than elsewhere.



Compacting the bund

³ A set of maps for the DS Divisions of Padavisiripura, Gomarankadawela, Morawewa, Kuchchaveli, Muthur and Eachchilampattai is annexed.

To enhance the capacity of the Department of Agrarian Development, IFSP-GTZ has employed six young civil engineers and two droughts persons. Lack of capacities, lack of manpower and facilities as well as complicated procedures were considered major limitations. The team of the IFSP engineers and droughts persons, together with the technical and field staff of the Department of Agrarian Development have become the core of a people centred development process.

GTZ has been investing in the capacity and skills of this team since mid 1999 with the aim to promote their career. GTZ further supports the Department of Agrarian Development with levelling equipment, computers, motor cycles, training and various logistic support. GTZ-IFSP is the



Bathing steps under construction

main source of funding for this programme.

Procedures

The detailed assessment of the conditions of minor tanks followed the standards of the Department of Agrarian Development, viz. preliminary investigation, several rounds of dialogue with farmers, feasibility report, screening of the feasibility by co-engineers and resident engineer and final decision.

The core of the assessment has been the dialogue with the farming community. They are the owners of the tank and they are obliged to ensure maintenance of structures and water management.

Criteria

Basic criteria are the hydrological potential of the tank, the location in a cascade system, the cultivation pattern and the local habitat. The dialogue with the farming community is essential since it ensures their consent and a highest possible contribution to the development works. The economic dimension of the costs of development vis-à-vis returns have been taken into account.

For all tanks agreements were conducted between the Farmer's Organisations and the Department of Agrarian Development.

Development Works

IFSP-GTZ had mobilised funds under the 'food-for-work' (FFW) budget line made



Turfing: Protection against erosion

available by the Federal German Government as an additional contribution to support conflict affected and vulnerable communities. FFW is combined with cash-for-work (CFW) and GTZ/CF funds for structural development.

FFW and CFW are promoting a labour intensive approach, which fits into the seasonal cultivation calendar. FFW is expected to bridge the food gap that is observed in many villages between Yala and Maha. The value of the food basket⁴

⁴ Food basket for a day's labour task: 2 kg rice, 200g Dhal, 200g Gram, 200g sugar, 1 cake of soap pp/week plus Rs. 50 cash.

is around 150 Rs. per day. The difference to the average local wage rate for unskilled labour (shadow wage rate) of about Rs. 250 is considered the net contribution of the community. CFW is applied for skilled labour engaged in construction work.

The process orientation with a view to encourage the members of the Farmer's Organisations is time consuming. However, only a continuous dialogue and efforts to vest ownership with the local farming community will ensure sustainability.



Earth works: sloping the bund

For specific works IFSP is applying machinery. This should allow to get certain tasks finalised in a given period of time, e.g. raising of bund, excavating soil for road construction, de-silting the tank bed.

Machinery has been employed to construct rural roads and to 'open' remote areas. Manual labour has its limitation. The active involvement of the farmers is the key to success.

Experience and Progress

The uncertain ground conditions made it extremely difficult to establish a fast and comprehensive approach towards development. IFSP staff had to continuously dialogue with the Security Forces and the LTTE. At the same time, regular meetings with farmers and presence at the development sites had to be ensured to contribute to confidence building and stability at local level. Threats had to be absorbed at many a time.

To date about 50 minor tanks are in different stages of progress or were handed



Preparing for cultivation

over to Farmer's Organisations⁵. A large number of rural access roads and connection roads were established. New sluice gates, new spills, primary outlets and bathing steps were constructed.

The 75 minor tank programme has a significant impact on the village and household food security. Employment creation during the lean season has supported thousands of farm families who otherwise had to depend on social welfare. The assets created significantly contribute to boost the local economy.

Expenditure

IFSP has effected about Rs. 50 million from June 1999 to December 2002 for the minor tank programme. For the year 2003 the estimated budget line is Rs. 10 million.

Impact Assessment

An intensive impact assessment is ongoing since September 2002. The aim is to review and assess four focal areas:

- i) technical achievements and standards,
- ii) economic contribution to the livelihoods of farm families and at village and regional level,
- iii) social dimension and perception of the farming community and
- iv) organisational analysis with emphasis on the capacities of CBOs and the Depart-

ment of Agrarian Development in particular.

The results of the impact assessment, which is done as a 'stakeholder dialogue', should allow to better address the needs of the local farming communities and to challenge the capacity of the dominant service providers.



Farmers and engineers in conversation

⁵ List of minor tanks and progress annexed.

75 MINOR TANK DEVELOPMENT PROGRAMME

Cooperation with the Department of Agrarian Development



INTEGRATED FOOD SECURITY PROGRAMME

TRINCOMALEE

Progress: 31 December 2002

S. No.	Inv. No.	D.S. DIVISION & AGRARIAN KENDRA	VILLAGE	TANK	COORDINATES		COMMMAND AREA (ha)	FARM FAMILIES	ESTIMATE (TRs.)	EXPENDITURE up to 31.12.2002 (TRs.)	PROGRESS
					Long. (x)	Lat (y)					
MUTHUR											
1	1	Thoppur	Pallikudiyiruppu , Sinivasapuram,	Keerandankulam	81.314400	8.419640	76	120	1,840.0	1,655.5	100%; ready to hand over to FO; 1st round of maintenance to be done
2	2	Do	Iqbalnagar, Thoppur	Puliyankulam			54	82			Not feasible, abandoned tank.
3	3	Do	Iqbalnagar, Thoppur	Pullaanthikulam			50	81			Not feasible, abandoned tank.
4	4	Do	Iqbalnagar, Thoppur	Ithikulam			37	25			Not feasible, abandoned tank.
5	5	Sampoor	Sampoor East	Sinnakulam	81.299840	8.484140	10	12	465.0	221.0	50%; work in progress ; to be completed in 2003
6	6	Do	Sampoor East	Periavembukulam	81.317910	8.483430	25	12	920.0	70.0	10% ; work in progress ; to be completed in 2003
7	7	Do	Kokkatti	Vadumangalkulam	81.335450	8.489360	10	15			Accessible after MoU,hydrological potential to be verified in Feb 2003
8	8	Do	Sampoor East	Thoduvankulam	81.292820	8.487570	18	42	820.0	26.0	5%; work to be commance in March 2003 by heavy machinery
9	9	Do	Vembadithoddam , Kadatkaraichenai,	Vembadithoddam	81.324860	8.457860	18	11	534.0	496.7	100%; ready to hand over , flood damage to be repaired by machinery in February 2003
10	10	Do	Sampoor East	Moddaiyandikulam (Sinna)	81.304430	8.487690	22	15	280.0	265.5	100%; ready to hand over , flood damage to be repaired by machinery in February 2003
11	11	Do	Chennaiyoor	Solaipallakulam	81.320880	8.441720	26	21	969.0	797.7	100%; ready to hand over to FO; 1st round of maintenance to be done in April 2003
12	12	Do	Chennaiyoor, Kaddaiparichchan	Nariyilanthaikulam	81.310140	8.438520	30	25			Emergency repairs done , construction work is to commence in February 2003 by heavy machinery
13	13	Do	Sampoor East	Periyalankulam			31	34			Rehabilitated in 1999 through DOA.
14	14	Do	Koonithivu	Periyakulam	81.308500	8.505030	18	30	821.5	653.0	80%; work in progress ; to be completed in April 2003
15	15	Do	Sampoor west	Kandiyadipathinikulam			8	15			Not feasible. agrowell is recommended.
16	16	Do	Sampoor East	Sinnalankulam	81.315530	8.489560	21	18			Proposed to 2003, after discussion with FO
17	17	Do	Sampoor East	Kokkadikulam			30	24			Rehabilitated under WFP 2000.
18	18	Do	Navaratnapuram	Periyaaripattukulam	81.347830	8.487220	18	16	440.0	20.0	5%; work in progress ; to be completed in July 2003
19	19	Do	Navaratnapuram	Periyamoddiyandikulam	81.308480	8.490810	19	18	805.0	745.0	100%; ready to hand over to FO; 1st round of maintenance to be done
20	20	Do	Sampoor East	Pulavankulam	81.316070	8.477280	10	9	400.0	360.5	100%; ready to hand over to FO; 1st round of maintenance to be done
21	21	Do	Sampoor East	Sinnanaiyanthikulam			35*	22			Implementation is in progress under NEIAP
22	22	Do	Navaratnapuram	Kaddaikadukulam	81.342510	8.497670	37*	25			Not feasible,feared to be land mine
23	77	Do	Ithikulam, Kadatkaraichenai	Ithikulam	81.320560	8.436300	18	25	790.0	424.0	65%; work in progress ; to be completed in June 2003
24	78	Do	Ilakkanthai	Palaimunaikulam	81.342410	8.483720	10	25	550.0	537.5	100%; ready to hand over to FO; 1st round of maintenance to be done
25	79	Do	Kadatkaraichenai	Koolavadikulam	81.342510	8.450450					Undertaken by WFP
26	84	Do	Pallikudiyiruppu , Sinivasapuram	Marawattaikulam	81.314150	8.425930	70	150			Estimate prepared , construction work to be commence in February 2003 by heavy machinery
27	85	Muthur	Periyapalam	Vannankulikulam							Not feasible with selection criteria.
EACHCHILAMPATTAI											
28	23	Eachchilampattai		Tharaisenaikulam			64	130			Hyrological condition not help for rehabilitation.
29	24	Do		Thamaraikulam			16	100			Not feasible with selection criteria.
30	25	Do		Ulugamakulam			40	55			Not accessible.
31	26	Do		Kirankulam			68	130			Work completed by NEIAP in 2002
32	27	Do	Eachchilampattai	Kollankulam	81.368860	8.300520	60	40	675.0	350.0	55%; work in progress ; to be completed in March 2003
33	28	Do		Panichchankulam			34	80			NEIAP-2001-Programme.
34	80	Do		Sinnakulam			10	10			Not feasible due to capillary action in colonized area.

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					Long. (x)	Lat (y)					
		KUCHCHAVELI									
35	29	Pulmoddai	Jinnapuram	Puthuvelikulam	80.983600	8.952280	12	15	670.0	630.0	100%; ready to hand over to FO;1st round of maintainace to be done Apr 2003,access road developed
36	30	Do	Jinnapuram	Vilankulam			8	5			Undertaken by WFP
37	31	Do	Jinnapuram	Kunchukulam	80.982700	8.957680	10	12	515.0	426.0	90%; work in progress ; to be completed in March 2003
38	32	Do	Thaqwanagar	Muhathankulam	80.994890	8.936790	12	25	1,100.0	1,100.0	100%; handed over to FO in Feb. 2001
39	33	Do		Thuvarankulam			16	20			Undertaken by WFP
40	34	Do		Sinnakulam			8	10			Developed through line ministry Fund under DOAD.
41	35	Do	Nillaveli	Thamaraikulam			24	25			Not feasible,pond type tank, limited hydrological potential
42	83	Nilaveli	Nillaveli	Theivanayakikulam			24	50			Not feasible, abandone tank, farmers not ready to contribute
43	86	Do	Periyakulam, Sampalthivu, Atthimoddai	Kankanikulam							Rehabilitated under NIRP in 1998.
		GOMARANKADAWELA									
44	36	Gomarankadawela	Konabendiwewa	Konabendiwewa			13	22			Dialogue with farmers needed for 2003 plan
45	37	Do	Wambadduwewa	Wambadduwewa			16	20			Dialogue with farmers needed for 2003 plan
46	38	Do	Thirappanai	Thalluwewa			16	15			limited command area,tank is with in the Army camp boundary
47	39	Do	Paddagama	Paddagama			24	30			resently rehabilitated by minister fund through DoI
48	40	Do	Gomarankadawela	Palugaswewa	80.957540	8.674550	20	15	590.5	415.0	90%; work in progress ; to be completed in March 2003
49	41	Do	Galkadawela	Galkadawelakumbukwewa	80.934210	8.689170	38	40	875.0	736.0	100%; ready to hand over to FO; 1st round of maintenance to be done in April 2003
50	42	Do	Kirimetiya	Kirimetiya			10	15			Undertaken to be developed through Japanese aid(SLF)
51	43	Do	Gomarankadawela	Kudadivulwewa			12	10			Rehabilitated by Samurthi in 2000
52	44	Do	Karagahawewa	Karagahawewa	80.950430	8.662240	14	38	1,107.5	1,060.0	100%; ready to hand over to FO; 1st round of maintenance to be done in April 2003
53	45	Do	Madugahawewa	Madugahawewa	80.945750	8.655600	35	29	700.0	686.0	100%; ready to hand over to FO; 1st round of maintenance to be done in April 2003
54	46	Do	Weliwewa	Weliwewa			30	25			Not feasible, land dispute exists(lack of ownership)
55	47	Do	Kumbukwewa	Kumbukwewa			20	22			Undertaken by WFP
56	48	Do	Pambarugashwewa	Navatkulam			12	10			Rehabilitation undertaken by NEIAP
57	49	Do	Kuttikulam	Kuttikulam	80.978660	8.744770	15	16			PIR completed, soil test & FR is in progress
58	50	Do	Halambawewa	Halambawewa			11	10			Not Feasible, limited command area
59	51	Do	Kandamalawa	Sinnaudawewa	80.936380	8.673680	18	16	923.0	193.5	20% work in progress,to be completed in June 2003
60	52	Do	Thimbiriwewa	Thimbiriwewa (Kuda)			16	12			Undertaken by NEIAP
61	53	Do	Hapattiyawewa	Hapattiyawewa	80.897950	8.754900	44	35	2,200.0	1,781.1	100%; ready to handover to FO.
62	54	Do	Kuruniyankulam	Kuruniyankulam			44	40			Not feasible , abandoned tank
63	76	Do	Kalyanapura	Behethkawewa	81.050550	8.657340	12	25	1,813.0	1,813.0	100%; ready to hand over to FO; 1st round of maintenance to be done
64	87	Do	Kudawewa	Kudawewa			12	15			Samurthi done bund work 4yrs back,structural work can be attended by IFSP
65	88	Do	Puliyandikulam	Puliyandikulam							Maintained by Irrigation Dept.
		PADAVISRIPURA									
66	55	Padavisripura	Meegaswewa	Meegaswewa			32	28			Tank is under rehabilitation by NEIAP, resettlement of villagers is going to start with IFSP support
67	56	Do		Kaddakulam			44	54			Not feasible, abandoned tank
68	57	Do		Kudakaddakulam			24	30			Not feasible, abandoned tank
69	58	Do		Diyathihawewa			18	16			Not feasible, abandoned tank
70	59	Do	Eramaduwewa	Eramaduwewa	80.889230	8.894350	38	18	2,340.0	1,540.0	90%; work in progress ; to be completed in March 2003
71	60	Do		Karadiyanwewa			16	18			Not feasible with IFSP criteria
72	61	Do	Paranamadawachchiya	Madawachchiwewa	80.878230	8.883290	30	22	1,500.0	1,400.0	100%; handed over to FO Feb. 2001
73	62	Do		Naththavali			60	30			Undertaken by WFP
74	63	Do	Paranamadawachchiya	Puliyankulam	80.866666	8.889930	16	19			PIR in progress
75	64	Do		Wesiathwewa			32	40			Not feasible with IFSP criteria
76	81	Sritissapura	Sritissapura	Pitiyawewa	80.847750	8.932600					Not feasible, limited command area
77	82	Do	Jayanthiwewa	Kokmutawewa	80.846780	8.902580					Not feasible, farmers have alternative irrigation source

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					Long. (x)	Lat (y)					
		MORAWEWA									
78	65	Pankulam	Athabendiwewa	Kathuruwewa	80.919530	8.628330	18	16	600.0	575.0	100%; ready to hand over to FO; 1st round of maintenance to be done in Apr 2003
79	66	Do	Athabendiwewa	Ehalawewa	80.918590	8.634510	20	70	915.0	882.0	100%; ready to hand over to FO; 1st round of maintenance to be done in 2003
80	67	Do	Mailakudawewa	Kaluwankulam	80.994590	8.627980	65	14	1,240.0	1,107.7	80%; work in progress ; to be completed in March 2003
81	68	Do	Panikatiyawa	Kudapaniketiawewa			18	16			Reported to have been attended by 'Japan aids'
82	69	Do	Nochchikulam	Nochchikulam			30	18			Reported to have been attended by 'Japan aids'
83	70	Do	Panikatiyawa	Panikatiyawa			46	23			Not feasible:direct beneficiaries are not resettled
84	71	Do	Rottawewa	Rottawewa Thimbiriwewa	80.918890	8.603190	12	11	715.0	710.0	100%; ready to hand over to FO; 1st round of maintenance to be done Apr 2003
85	72	Do	Panikatiyawa	Rottawewa			78	40			NEIAP - 2002 - Work in progress
86	73	Do	Nochchikulam	Kambakotte	80.999430	8.634170	16	14			PIR submitted
87	74	Do	Ralapanawewa	Bellangadawewa	80.917860	8.644630	34	23	1,815.0	1,745.0	100%; ready to handover to FO
88	75	Do		Galgoruwewa			16	18			Dialogue with farmers and DS is needed to confirm land ownership.
89		Do		Road to Medawewa					985.0	975.0	100%; ready to hand over to FO; 1st round of maintenance to be done
90		KUCHCHAVELI	Jinnapuram	Road to Puthuveli kulam					525.0	505.0	100%; ready to hand over to FO; 1st round of maintenance to be done
91	89	THAMPALAKAMAM	Jayapura	Puliutu kulam	81.084270	8.520590	40	109	205.0	235.0	100%; ready to hand over to FO; 1st round of maintenance to be done

Summary

Physical progress (no.)

Tanks originally identified	75
Tanks surveyed/inventorised	91
Accesssible tanks	50
Developed tanks handed over to FOs	20
Work in progress	30
Access roads developed (14 km)	11

Estimate (TRs.)	24,644
Expenditure to date (TRs.)	19,138

Remark:

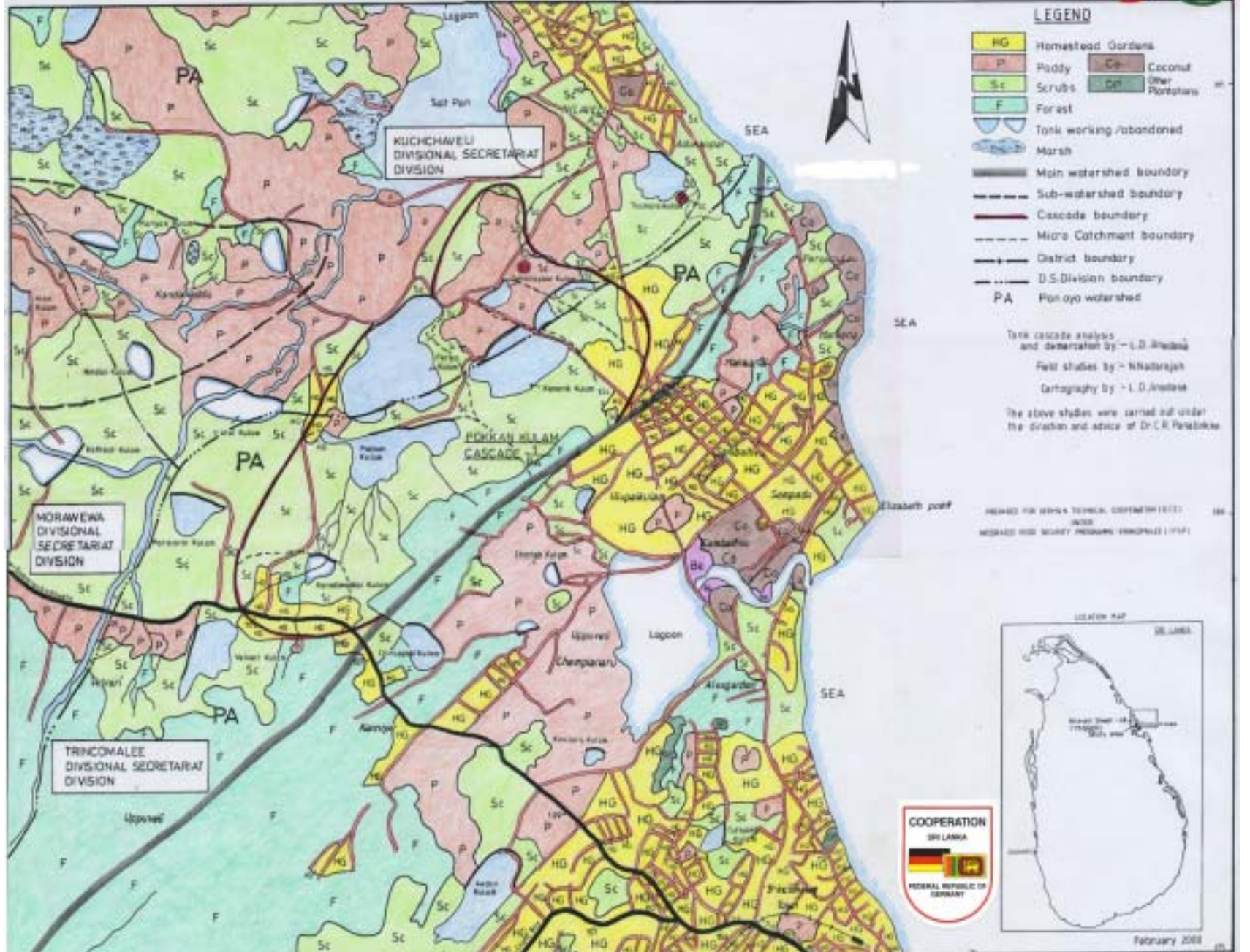
S. No. represents continuous numbering; Inv. No. represents the inventory code of IFSP.

Coordinates were taken by GPS at the middle of the bund; where no coordinates are available tank is either non-accessible or developed by other agencies/projects.

Date: 05/02/2003

\\75minortanks\reports\Progress-List-12.02.xls

MAP SHOWING CASCADES AND COMPONENT SMALL TANKS
(KUCHHAVELI D.S DIVISION)



Trincomalee Nilaveli

