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ENVIRONMENTAL MANAGEMENT PLAN FOR RESETTLEMENT SITES

1.1 INTRODUCTION

The Highways Department (HD), Government of Tamil Nadu (GoTN) is preparing the Tamil Nadu Road Sector Project (TNRSP) with World Bank (WB) loan assistance. Objective of the project is to facilitate economic development of backward areas by improving the connectivity. Project Co-ordinating Consultants (PCC), M/s Kinhill Pty Ltd (now M/s Halliburton) has been appointed by the HD to assist them in preparation and implementation of the project. The project involves upgradation of 732.2 km and maintenance of 2600 km of state roads. The upgradation component has been divided into four contract packages. These include the Northern corridor (TNRSP 01) 397.1km long and the Eastern Corridor (TNRSP 02, TNRSP 03 and TNRSP 04) along the eastern coast for a length of 334.3 km. The improvement corridors include 13 bypasses (totaling a length of 95.4km) and realignment sections due to geometric improvements at many locations. Details of the corridors selected for up-gradation are presented in **Table 1**. Location of the upgradation corridors is shown in **Figure 1**.

Table 1: Contract Packages along the Upgradation Routes

Contract Package	Corridors	Description	Length (km)	Proposed treatments
TNRSP -01	01 - E	Chidambaram bypass	16.9	(i) 2 Lane Sealed Shoulders (2LSS)
	01 - E	Sirkazi bypass	8.8	
	01 - N	Arcot - Polur - Elavanasur	152.0	(i) 2 Lane Sealed Shoulders (2LSS) (ii) 2 Lane Rural Realignment (2LRR) (iii) Enhanced Periodic Maintenance (EPM)
	01 - N	Polur - Chengam	45.1	(i) 2 Lane Rural Realignment (2LRR)
	01 - S	Vriddulachalam Jyamkondacholapuram - Tiruwarur	131.5	(i) 2 Lane Gravel Shoulders (2LGS) (ii) 2 Lane Rural Realignment (2LRR) (iii) 2 Lane Minor Realignment (2LMR)
	01 - S	Jyamkondacholapuram - Ariyatur	43.6	(i) 2 Lane Gravel Shoulders (2LGS)
		N orthern Corridor (TNRSP01)	397.9	
TNRSP - 02 ¹	02	Nagapattinam-Kattumavadi	116.6	(i) 2 Lane Sealed Shoulders (2LSS) (ii) 2 Lane Minor Realignment (2LMR)
TNRSP - 03	03	Kattumavadi -Ramanathapuram	99.8	(i) 2 Lane Gravel Shoulders (2LGS) (ii) 2 Lane Minor Realignment (2LMR)
TNRSP - 04	04	Ramanathapuram - Tuticorin	117.9	(i) Enhanced Periodic Maintenance (EPM) (ii) 2 Lane Minor Realignment (2LMR)
		Eastern Corridor (TNRSP02, 03 & 04)	334.3	
		Total	732.2	

Many small and large settlements are developed adjacent to the road and widening at these locations impacts residential and commercial structures. Though different cross sections are adopted for the rural and urban sections the impacts are unavoidable at places where the available RoW is not adequate to accommodate the proposed treatments.

¹ It is noted that in March 2001, the Chief Engineer, National Highways confirmed that National Highways would undertake widening and strengthening of the newly declared National Highway NH 45A between Cuddalore and Nagapattinam. However, National Highways do not have any plan to undertake bypasses at Chidambaram and Sirkazhi in the near future. Consequently, the GoTN resolved to delete 69 km of road upgrading and rehabilitation between Cuddalore and Nagapattinam but to retain the bypasses at Chidambaram and Sirkazhi in the project.

Figure 1 Location of Project Roads

12 NEED FOR RESETTLEMENT SITES & EMP

As a part of the Resettlement Action Plan preparation census/socio-economic survey was carried out to assess level of impact and the need of the PAPs. Various types of properties impacted by the project are presented in **Table 2**

Table 2: Distribution of PAHs by Category of Impact

Impact Category	Contract Package				Total
	TN RSP01	TN RSP02	TN RSP03	TN RSP04	
A. Residence	1954	682	207	124	2977
Major Impacts	1477	422	76	46	2021
B. Commercial Structure	1187	384	398	246	2225
Major Impacts	762	153	67	61	1043
C. Residence-Cum-Commercial	428	139	52	21	650
Major Impacts	290	85	20	8	403
Total	6098	1865	820	506	9319

Eligibility: Project-affected persons both titleholders and non-titleholders losing their dwelling unit will be provided with the land and houses if they opted land for land and alternative house as compensation.

Magnitude: The project involves a large number (9319) of physical displacement (**Table 2**) and 31 locations are being identified as hot spot as per the socio-economic/census survey. Resettlement sites are provided at the locations of major impacts. The resettlement site location along northern corridor is shown in **Figure 2A** and location details in eastern corridor are shown in **Figure 2B**.

Provision of resettlement site for the PAPs involves the following activities.

- v Identification and selection of resettlement site
- v Developing resettlement site for construction
- v Construction of houses and other infrastructure facilities for the resettlement sites

Considering the magnitude of the exercise, environmental and social impacts due to the provision of resettlement sites are anticipated. An environmental management plan for the resettlement sites is developed to offset/mitigate impacts through appropriate selection of site and management measures during development of the site.

13 STRUCTURE OF THE EMP FOR RESETTLEMENT SITES

The document is intended for use by the officials of Social Development Unit (SDU) and Land Acquisition Unit (LAU) of the PIU during selection and development of resettlement site. To address the environmental and social concerns right from the selection of site, **guidelines for identification of resettlement sites** are presented. This would contribute to elimination of majority of environmental/social problems that are likely to arise in the subsequent stages of site development.

Figure 2(A) Location of Resettlement sites along Northern Corridor

Figure 2(B) Location of resettlement sites along Eastern corridor

Developing resettlement site involves various activities from preparation of the site to handing over the houses to the PAPs. Various infrastructure provisions that have to be made in the resettlement sites and management measures along with responsible agency is provided in the section **Development of resettlement sites**.

Activities mentioned in the preceding sections will have to be carried during development of resettlement sites and it is likely to have residual impacts on the environment. Environmental aspects to be considered and management actions to be undertaken during the site development and construction are identified. These are presented in the section **Environmental Concerns in developing resettlement sites**.

The implementation arrangements existing in the PIU for identification and development of resettlement sites is explained in the section **Implementation Arrangements**. Responsibilities assumed by the officials under selection and development of these sites is also presented.

Budgetary provisions for setting up of resettlement sites and associated infrastructure are presented in this section.

Material Quantities involved in provision of the some of the infrastructure facilities are presented in this section.

14 GUIDELINES FOR SELECTION OF RESETTLEMENT SITES

During the design preparation stage the PCC consultants identified resettlement sites at the identified hot spots. These sites were appraised as part of the independent review and many of them were found unfit for resettlement. To enable the revenue authorities in identifying the suitable site a checklist of items to be considered was made and handed over to the LA officials for evaluating the resettlement site. The checklist focused on the environmental, social, infrastructure availability in the surroundings and characteristics of the land. The revenue officials carried out re-valuation of the resettlement sites selected. Checklist provided to the revenue officials is given in **Annexure I**. The first milestone resettlement sites locations are provided in **Table 3**.

Table 3 Location of Households to be resettled²

Package	Link	Likely date of handing over of land to contractors	Village Name	Survey number	Extent of land available	No. of PAHs to be resettled eligible & opted	No. of PAH to given commercial sites	No. of Community facilities to be relocated	
TNRSP - 01	Polur - Tiruvannamalai (Tiruvannamalai Bypass)	01.04.2003	Kalanbur	94/1A	0.30.50				
			Natchitrakovil	347	0.42.00				
			Kolakurdi	75/7	0.57.00				
TNRSP - 01	Thiruvannamalai - Thirukovilur (Thirukovilur bypass)	01.04.2003	Kolakurdi	75/7	0.57.00	9	2	86	
			Vengur	253/1	1.40.50				
TNRSP - 01	Jyamkondacholapuram - Kumbakonam	01.04.2003	Kovilacheri	79/2			38	5	140
				155/1					
				18/6A	0.08.00				
				18/6B	0.08.00				
				33/3	0.15.00				
				33/2A	0.16.50				
				33/2B	0.14.00				
				T. Vadakadai	85/1	0.57.50			

²Resettlement Sites for Package -01 and 02 are finalized by PIU, for the Contract Packages TNRSP -03 and 04 are in the process. The milestones for construction and developing resettlement sites are provided in Annexure-IV

Package	Link	Likely date of handing over of land to contractors	Village Name	Survey number	Extent of land available	No. of PAHs to be resettled eligible & opted	No. of PAH to given commercial sites	No. of Community facilities to be relocated
			Thirupananthal	294/3	0.09.50			
				294/4	1.00.50			
TNRSP -02	Manora-Kattumavadi	01.04.2003	-	-	-	5	3	48
TNRSP - 03	Thirupalakudi - Ramanathapuram	01.04.2003	Thirupalakudi	285/1		0	0	33
TNRSP - 04	Kulattur - Tuticorin	01.04.2003	Kulattur East	57/1	80.04.50	11	4	41

In many locations resettlement sites are yet to be finalized. The relocation sites given in the list may extend further at the time of implementation based on the requirement of PAPs. In order to streamline the process of identifying the resettlement sites the following guidelines are to be adhered to.

1.4.1 ENVIRONMENTAL ASPECTS

- ❖ Lands notified, as water body³ should be avoided.
- ❖ Irrigated agriculture lands should be avoided⁴.
- ❖ Lands notified, as forest should be avoided, including forests coming under Panchayat.
- ❖ Resettlement sites nearer to the water bodies (including ponds and canals) are to be avoided to prevent water born diseases.
- ❖ Lands under plantation are to be avoided.
- ❖ The distance of the resettlement site should be 7 km away from the ecological sensitive areas given in the **Annexure-III**. In such cases the opinion of the Environmental expert should be obtained.

1.4.2 SOCIAL ASPECTS

- ❖ In cases where the number of PAHs is lesser than 25⁵, there is no need for developing resettlement site. Provision of an alternative location for setting up their houses within the settlement would be sufficient.

Lands owned by the vulnerable communities should be avoided for resettlement sites. This includes SC/ST, women headed households and households below poverty line.

- ❖ Lands owned by small and marginal formers should not be acquired for resettlement sites.
- ❖ PAPs and host community should be consulted for mutual acceptance of the presence of each other.

1.4.3 CONCERNS OF HOST COMMUNITY

While, shifting the PAHs to the resettlement sites, the problems likely to occur to the host community to be identified and addressed by the SDU. The following aspects need to be taken care by the officials of SDU.

³ As per the supreme court order the water bodies should not be transferred to residential purposes

⁴ As per the GO 1761(Department of Revenue) Dated on 25th Oct 1982 and 617 (Department of Revenue) Dated on 18th April 1985 irrigated agriculture lands should not be converted in to residential purposes even for the SC/ST residential housing programmes, however the project has obtained the special permission from GOTN for acquiring of irrigated agriculture land, the suitability of this relaxation should be verified for the resettlement site.

⁵ As followed in other projects of similar nature

- The host community should be consulted for relocation of the PAHs.
- Sharing of existing common resources for the host community and the PAHs should be identified. In such cases mechanism should be worked out.
- Any communal disputes between the host population and the PAHs should be studied and then the site should be finalized.
- In case of any objection for the proposed resettlement sites from the host community that needs to be settled or alternative site should be arranged.
- The minutes of meetings should be maintained by the NGOs and SDU.

1.4.4 BASIC AMENITIES AND FACILITIES

- ♣ Proposed site should be within 2km from the present location and should not be more than 500m away from the end of the settlement.
- ♣ Electricity and drinking water sources should be available within 500 m distance from the proposed site.
- ♣ Proposed resettlement site should have an access road at least earthen road/cart track.
- ♣ Primary school should be within 2kms.
- ♣ Nearest bus stop should be within 500m from the meeting point of main road with access road.
- ♣ Resettlement site layout for 25-50 PAHs and 50-100 PAHs are to be as per the generic layout plan given in Drawing 1(A) and Drawing 1(B) respectively.
- ♣ Proposed resettlement site should be within 1km from main road.

15 DEVELOPMENT OF RESETTLEMENT SITES

Resettlement sites are developed if there are more than 25 households to be relocated at one place. The site provided for the PAPs should have all the basic infrastructure facilities. Development of Resettlement sites involves various activities, like clearing of the site, construction of basic infrastructure, construction of houses and resettling of PAPs. These activities shall be carried out by the SDU in co-ordination with various government agencies.

15.1 PREPARATION OF SITE FOR RESETTLEMENT

Subsequent to selection of site for resettlement based on guidelines presented above, preparation of the site is to be taken up to enable construction of the residential structures and infrastructure facilities. Activities involved in preparation of site for setting up of resettlement site are given in **Table 4**

Table 4: Activities envisaged in Site Preparation

SL.No	Activity	Description	Responsibility	Officer in charge
1.	Uprooting of trees	The trees not a hindrance for the development of site should not be disturbed.	Contractor	ACF, PIU
2.	Improving of access road	The access road connecting to the resettlement site should be provided. At least earthen road with the assistance of local administration.	Contractor	The EOs will facilitate Quality check will be done by the AE
3.	Drainage along the access road	Along the access road of the resettlement site drainage facilities to be provided.	Contractor	Extension officer should provide assistance Quality check will be done by the AE
4	Demarcation of land	Once the site is cleared and the leveling is completed the land allocation for the individual plots and various activities should be demarcated. The areas to be demarcated with stone pillars as per site lay out plan as per the guideline of Department of survey of land records.	Surveyor, Department of Survey and land records	Tahsildar for Land Acquisition of concern districts.

1.5.2 INFRASTRUCTURE FOR RESETTLEMENT SITES WITH 25-50 AND 50-100 PAHs

Some of the activities for developing the resettlement site are common for sites to be designed for 25-50 and 50-100 PAHs. Infrastructure of the resettlement sites is envisaged based on the number of PAPs to be relocated. The resettlement sites are categorized as:

- ♣ Infrastructure for the resettlement sites with 25-50 PAH
- ♣ Infrastructure for the resettlement sites with 50-100 and above

Table 5: Infrastructure Provisions in Resettlement sites

Sl. No	Activity	Management activities	Responsibility	Officer in charge	25-50	50-100
1	Street Roads	Streets within the resettlement site should be provided with concrete road. Cement concrete slab shall be adopting CC 1:2:4 mix or CC 1:1 ½:3 mix. The material for construction should follow specifications of IRC 15-1981 MoRTH specifications detailed in Clauses 601, 602 and sub clauses should be followed.	Contractor	AE in the social development unit at field level.	}	}
2	Drainage facilities	Streets within the resettlement site should be provided with drainage facility having a width of 50cm on either side.	Contractor	AE at field level	}	}
3	Street lights	At every 50m streetlight should be provided.	Tamil Nadu Board Electricity (TNEE) DRDA.	NGOs ensure that streetlights provided are adequate. EO will arrange for the installation of the Electric connections.	}	}
4	Drinking Water sources	In the resettlement site, drinking water facility will be provided. Places connected with water pipeline will be provided with a sump for enabling uninterrupted water supply. Every 50 houses should be provided with one such unit. The sumps should be provided with 4 taps for the users. 1-hand pump will be provided for every 50 households for the domestic usages. At places where there is no water pipeline connection will be provided with overhead tank facility to store water from an	DRDA, BDO Municipal Commissioner in urban areas	AE at field Level Joint Director at head office.	}	}

Sl. No	Activity	Management activities	Responsibility	Officer in charge	25-50	50-100
		available alternative source. From the overhead tanks one tap connection will be provided for every 20 houses.				
5	Place for washing of clothes	Nearer to the sump, stone slabs with drainage facility taking the wastewater away from the tanks will be provided for washing of clothes.	Contractor	AE at field level	}	}
6	Tree plantation	Along the streets trees should be planted at a spacing of 10m on either side. Tree plantation should be completed prior to the construction of house. Every individual house should be provided at least one tree. If any trees removed the	Social Forestry Division, District Forest Office	ACF, TNRSF AE at field level	}	}
7	Provision of Bus stop/shelter	If, there is no bus stop within 500 m from the meeting point of access road with the main road the bus stop should be provided. The bus stop will be constructed as per the Drawing No. 2. Quantity estimates for bus stop are given in Annexure II	The State Transport Corporation, regional office. NGO/EO for consultation and finalisation of the location. The arrangements should be made before settling of the PAHs.	LA Tahsildar DE highways.	}	}
8	Shops	For the basic services shopping complex will be provided. The shops will be provided to the PAPs who are losing their livelihood. If they are willing to shift their business otherwise the PAPs residing with in the resettlement site will be given for rent.	Contractor NGO for consultation with PAPs	AE at Field level EO at Field level	}	}
9	Construction of houses.	The construction of houses will be carried out as per the plan given in Drawing No. 3A for vulnerable PAPs and for the owners of Kutcha structure affected by the Project. If lost asset value is higher than Type-1 house, those PAHs will be eligible for Type-2 on case-to-case basis.	Contractor	AE at field level EO in co-ordination with Building center	}	}
10	Toilets	Every house units will be provided with toilet. The toilets will be constructed as per the specifications provided in Drawing No. 4. Quantity estimates for the individual toilets are given in Annexure II	Contractor	EO at field level. AE at field level	}	}
11	Disposal of house hold wastages.	For every 10 houses one Garbage bin should be provided for the disposal of the household wastage	Contractor	EO at field level	}	}
12	Child care center and Noon Meal center (Anganwadi)	The design for the childcare center and Noon meal center (Anganwadi) is provided in Drawing No. 5. The quantities for construction of the child care center are provided in Annexure II	Contractor	AE at field level EO at field level		}
13	Place for community gathering	A vacant land of 15 cents should be provided for utility of the community uses. Here a community hall will be constructed as per the requirement for use of the PAPs in the resettlement site and for the host community. The community hall should be constructed as per Drawing No. 6. Quantity estimates for the community hall are given in Annexure II	Contractor for construction EO/NGO for finalising location for the community hall in consultation with the PAPs and the host community.	Tahsildar for Land Acquisition. AE at field level for construction	Only Site	}
14	Place for worship	2 cents of land should be provided for the construction of the religious places. Any project affected cultural property is relocated to the resettlement site; the PAPs/community acceptance should be received and recorded.	Contractor for construction NGO for consultation with PAPs.	Tahsildar for Land acquisition AE at field level	}	}
15	T.V. Room	One T.V. Room for every 50-house holds shall be setup near the place of community gathering. Design of the T.V. Room is provided in Drawing No. 7. Quantity estimates are provided in Annexure II .	Contractor for construction	A.E at field level E.O. for co-ordination	}	}

Sl. No	Activity	Management activities	Responsibility	Officer in charge	25-50	50-100
16	Library	The community halls in the resettlement site will be provide with library.	Contractor	EO for co-ordination		1
17	Maintenance of trees	After handing over of the resettlement sites to the PAPs the trees should be taken care by PAPs.	PAPs for maintenance	Forest officer	1	1
18	Forming a Residents welfare society	A Residents welfare society will be established as per the Societies Act. The household heads of the PAH residing in the resettlement site will be member of this. It shall function as a body to address internal grievances, settlement of disputes in sharing common resources provided in resettlement sites and co-ordination with government agencies during operation period.	PAPs, NGO	EO at field level	1	1
19	Maintenance of community assets	The community assets shall be handed over to the local panchayat bodies for their maintenance and management.	Local Panchayat		1	

16 ENVIRONMENTAL CONCERNS IN DEVELOPING RESETTLEMENT SITES

Activities involved as mentioned in the Section 1.5 in both site preparation and infrastructure provisions will have to be carried during development of resettlement sites and it is likely to have residual impacts on the environment. Activities likely to have environmental impacts and management actions to be undertaken during the site development and construction are presented in the **Table 6**.

Table 6: Environmental Management Actions

Sl. No.	Activity	Environmental Management Actions	Responsibility
I Site Preparation			
1.1	Removal of trees	The trees, which are not a hindrance for the development of site, should not be removed. Trees to be removed shall be marked before cutting. Each Felled trees should be compensated with 4 trees.	ACF, TNRSP AE at field level
1.2	Water crossing	Any water crossings/drains/Nalas should not be closed and that portion may be avoided or the drain can be diverted. Other wise cross drainage structure should be provided.	AE at field level EO at field level in consultation with the PWD
1.3	Filling of site	During and after leveling of the ground, the plots should be watered and compacted to avoid dust.	Contractor AE, Field level
1.4	Fill material for resettlement site	The fill material should be taken from the local ponds/borrow areas. No agricultural lands should be utilized for borrowing. Borrow material shall be taken from the borrow areas identified for road construction. All clauses applicable for such areas shall be applied for borrowing for resettlement sites.	Local Panchayat EO at field level Contractor AE at field level
1.5	Water consumption	For the leveling purposes minimum water should be utilized. Water for leveling of the ground should not be taken from the drinking water sources.	Contractor
1.6	Noise impacts	Construction hours shall be limited to daytime to eliminate noise in the night hours. Site clearance machinery shall be shielded to avoid noise emanating from the source.	Contractor AE at field level
II Developing infrastructure for resettlement site			
2.1.	Drains along the access road	Adequate drainage facilities should be provided along the access roads.	Contractor AE and EO at field level.
2.2	Slope of drains	Slope of the drain should be away from the water storage tanks and should dispose the sewage into the existing sewerage system.	Contractor AE at field level
2.3	Cross drainage	Any water crossing with in the resettlement site, cutting across the streets, cross drainage structures should be provided.	Contractor, AE at field level
2.4	Plantation of trees	-Trees should be planted along the access road and the streets of resettlement sites. -Plantation of trees should be prior to the construction of	ACF, TNRSP and foresters

Sl. No.	Activity	Environmental Management Actions	Responsibility
		houses. -The fruit bearing trees can be used for the roadside plantation.	
25	Material for road construction	The construction material for the road should be collected as per the IRC recommendations for the village roads.	Contractor AE at field level
26	Maintenance of trees	During the development of infrastructure facilities and construction of houses, the trees will be maintain by the PIU. Subsequent to occupation of the premises, PAPs shall maintain the trees.	ACF, TNRSP and foresters, PAPs and EO at field level
III Other infrastructure facilities			
3.1	The electric lines	Full insulation of the electric lines is to be provided at the tree locations if the lines are over ground. Under ground cabling for street lighting and domestic distribution within the resettlement site would be preferable.	Electricity Board EO at field level.
3.2	Drinking Water supply	Drinking water supply lines should be laid at least 1.0 m distance from the drain. Periodical cleaning of the sump and overhead tanks have to be taken up. PAPs through the Residents welfare association have to address any grievances to the local panchayat in the operation stage.	AE at field level EO at field level Local panchayat
3.4	Road side drains	Road side drains have to be lined wherever feasible. Cleaning of the drains of silt in construction stage has to be taken up by the contractor. In operation stage the drains have to be cleaned periodically by the employees of the panchayat.	AE at field level EO at field level Local panchayat
3.5	Construction of houses and other buildings	All basic infrastructure facilities should be established before construction of the houses.	AE at field level EO at field level
3.6	Location of toilets	No house toilets should be with in 40m from the drinking water source (if it's a ground water based) to avoid the seepage in to ground water.	AE at field level
3.7	Collection of House hold wastages	The arrangements to be made for the removal of wastages from in the resettlement sites garbage collection bins will be provided. The local village/municipal administrative authorities should arrange regular removal as they do for other parts of the settlements. The PAPs should be educated to keep their surroundings clean by the NGOs.	EO at field level should approach the Local Panchayat The NGOs should take the responsibility of Educating the environmental concerns to the PAPs.
3.8	Drainages to the houses	All the houses in the resettlement site should be provided with drainage facility to avoid water logging around the houses. All the household drains should be connected with the main sewerage system	AE at field level EO at field level
3.9	Plantations of trees and plants at land allotted for community gathering.	Around the boundaries of the community site, plantation has to be taken up for shade. If any trees are felled, replacement should be made at the ratio of 1:4 at all the locations.	EO at field level ACF, TNRSP
3.10	Disposal of wastewater from washing platforms.	The washing platforms should be connected to the main sewer line to discharge the wastewater.	AE at field level EO at field level
3.11	Existing wells in the resettlement site.	Wells located in the resettlement site should not be closed. Existing wells in the resettlement sites can be utilized for construction of washing platforms. The washing platform should be cement paved. If it's a open well safety wall should be provided. If the wells required deepening, to be made by the project and handed over to the community usage.	EO at field level, AE at field level
3.12	Provision for the disposal of sewerages	- The sewerage water collected from the households to be drained with the help of existing drains out side the resettlement site, if such facility is not available septic tank with sock pit should be provided with in the resettlement site, and adequate land should be made available.	AE at field Level EO at field Level
3.13	Rain Water Harvesting	Provision for rain water harvesting should be provided in association with the TWAD Board	AE at field level EO at field level

1.7 IMPLEMENTATION ARRANGEMENTS

The Social Development Unit (SDU) and Land Acquisition Unit (LAU) of the PIU will select suitable sites for resettlement and develop all necessary infrastructure and amenities. The SDU will co-ordinate with various government agencies for providing basic services and amenities in the

resettlement sites, Assistant Engineer (AE) will be looking into the technical aspects of construction of houses, infrastructure and amenities at field level. An Extension Officer (EO) will co-ordinate with the various government bodies at the field level for smooth functioning of the site development. Joint Director of SDU will co-ordinate the overall functioning of resettlement activities. Social Development expert will assist and advice the Joint Director on the resettlement issues.

17.1 SITE SELECTION

The SDU established for the project has been entrusted to carryout selection of resettlement sites with the assistance of the LA unit of TNRSP. Selection of site shall be carried out in accordance with the guidelines provided in the Section 1.4. Activities that have to be carried out for finalization of site for resettlement is given in the following sections.

1.7.1.1 Activities for Field level LA officers

- All details of the resettlement site should be collected by the VAO as per the checklist. **(Annexure- I)**
- Before recommending the land for resettlement site the number of PAPs opted for resettlement should be finalized.
- Every location requiring resettlement should have minimum of two site options.
- The Tahsildar should make a joint verification with the VAO before recommending for finalisation.
- In case of the lands are owned by the private parties, the revenue officers should ensure that the land does not have any litigation.
- A site report on the resettlement site has to be prepared by the field level officers. The report should also provide the information of what are the additional activities involved in development of resettlement site.
- Alternative sites option should be discussed with PAPs before the recommending for finalisation.
- The copy of host community consultation and PAP consultation should be attached with site report.

1.7.1.2 Activities for Site finalisation (SDO/JD)

The following factors have to be considered for approving the resettlement site recommended by the field level LA officers.

- There should be favorable response from the host community and the PAPs opinion has to be clearly mentioned; otherwise a joint inspection of the Joint Director with the field level officers shall be carried out and give necessary guidance to the field level officers for the further course of action.
- The cost involved in cutting and filling should be considered.
- The cost involved in establishing the basic facilities like access road, drinking water, electricity should be considered.
- Features of alternative sites should be evaluated and the best one is to be selected.

17.2 SITE DEVELOPMENT

Field level officers shall take up Site development under the guidance of the SDU. All infrastructure facilities based on the number of PAH to be resettled should be provided in the resettlement site. Activities/responsibilities of the Assistant Engineer and Extension Officer during site development are presented in the following sections.

1.7.2.1 *Activities for AE*

- The engineering part of the resettlement site should be handled.
- The AE is responsible for the quality of the construction
- The AE should certify completion of any construction activity and quality of construction carried out by the external agency
- The AE should prepare a detail report at the completion of the following works.
 - ♣ Preparing the site for resettlement site
 - ♣ Completion of the infrastructure facilities in the resettlement sites
 - ♣ Completion of the construction of the houses for the PAPs

Apart from these he should send a status report to the SDC with in 5th of every month for the previous month.

- Any delay in the developing the resettlement sites should be intimated to the SDC then and there with in 3 days to avoid delay in the process and he should seek the advice of the social Development expert, if any intervention of the Joint Director is required, should be informed with reasons.
- Once the contractor completed the construction of the houses AE should check the quality of each house and the certificates should be issued that the house is ready for handing over for the occupancy of the PAPs.

1.7.2.2 *Activities for EOs*

- The Extension officer at the Field level will assist the AE in developing the resettlement sites
- The extension officer should co-ordinate the activities of the PIU and other government agencies at the field level.
- All clearances and approvals from the government department should be obtained
- He also co-ordinates the PAPs, NGOs PIU
- He should function on behalf of the PIU in receiving the complaints and requisitions from the PAPs and take the necessary actions for resolving the issues.
- Intervention of the Joint Director should be availed only in cases, where the Social Development Officer could not settle grievances of resettled people
- The Extension Officer in co-ordination with the NGOs will make allotment of the houses.

18 BUDGET ESTIMATES

A cost estimate of typical resettlement site for accommodating 25-50 and 50-100 PAHs is worked out. Budgetary provisions are incorporated in the Resettlement Action Plan budget to ensure implementation of the resettlement provisions. **Volume – Cost Estimates for Environmental Management** provides cost estimate for developing resettlement sites for 25-50 and 50-100 PAHs for perusal of the PIU and World Bank.

19 DRAWINGS & MATERIAL QUANTITIES

Various buildings recommended for construction are based on the designs developed by Department

ANNEXURE I: DETAIL CHECKLIST FOR RESETTLEMENT SITE

Detail Checklists

1. Name of the Village:
2. Name of the Project Road: (Specify the starting place –Ending place)
3. Survey No of proposed Resettlement site
4. Type of Land: Agriculture (wet/dry) Vacant Land
- 5A Land Ownership: Private / Government / Local Panchayat/trust
- 5B Name of the land owner:
- 6 Availability of Land for development
- 7 Soil type: Red-1 / Sandy-2 / Clay-3 / Rocky-4
- 8 Soil Stability: unsuitable / better / good
- 9 Drainage network Connectivity:
- 10 Water logging at site during monsoons:
- 11 Water logging in the surroundings of the site
- 12 Distance from main Road / Project Corridor
- 13 Any access, road to the proposed site. If Yes (cart track/ Metal Road / BT. Road)
- 14 Distance from nearest Electric line pole
- 15 Nearest Drinking water sources (Bore well / water tap) distance
- 16 Approximate Ground water table.
- 17 Distance from the nearest Settlement
- 18-A Distance from nearest Bus stop
- 18-B Distance from nearest Post Office
- 18-C Access for Telephone from site
- 18-D Distance from Market/shops
- 19 Distance from shopping places / daily / weekly market.
- 20 Distance from medical facility
 - Primary Health Center
 - Medical care and maternity
 - Veterinary hospital
- 21 Distance from nearest school

- Distance from Primary School
Distance from Middle School
Distance from High School
Distance from Higher Secondary School
- 22 Distance from Religious/Cultural important places (specify distance)
Distance from Temple
Distance from Mosque
Distance from Church
Distance from Grave yard
- 23 Does the site require any earthwork? If so what would be the extent of work,
Specify
Any water Bodies at the nearest place, specify the distance
- 24 Tank / Pond / Lake / River / Stream / Seashore
Distance
Area
Depth
- 25 Availability of borrow areas (Location / Distance) Km ()
- 26 Any major pollution complaints with in 1 km radius of proposed site
- 27 Any Industry near to site specify distance
- 28 Location for disposal of solid wastages from households
- 29 If the land is owned by private, specify the following details
Occupation:
Caste:
Income:

Name and signature of VAO _____

Name and signature of the LA Tahsildar _____

Include the details of the " A " register with FMB
Include the village map with land use for 500 m radius from the resettlement site

ANNEXURE II: QUANTITY ESTIMATES

BUS SHELTER

Table 1: Requirement of Materials

Sl. No.	Materials	Ordinary Soil	Difficult Soil sbc - 10T/M ²
1	Cement	52Bags or 2.56 MT	59 Bags or 2.94 MT
2	Steel		
	6mm MS	28 Kgs.	28 Kgs.
	8mm RTS	150 Kgs	185 Kgs
	10mm RTS	67 Kgs.	200 Kgs.
3	Country Bricks		
	8 3/4 " * 4 1/4" * 2 3/4"	4562 Nos.	5224 Nos.
4	40mm ISS size HBG Metal	4.26 cum	2.03 cum
5	20mm ISS size HBG Metal	2.07 cum	3.74 cum
6	10-12mm ISS Size	0.25 cum	0.25 cum
	HBG Metal		
7	Sand for Mortar and filling	7.72 cum	11.72 cum
8	RCC Jali 1.20* 1.20m	3 Nos.	3 Nos.
9	Pressed Tiles of size (20* 20*2 cm)	386 Nos.	386 Nos.
Source: Technical Guide, Directorate of Rural Development (DRD) 2001.			

DWELLING UNIT (TYPE-I)**Table 2: Requirement of Materials**

Sl. No.	Materials	Ordinary soil	Difficult soil sbc - 10T/M ²
1	Cement	66 Bags or 3.28 MT	70 Bags or 3.50 MT
2	Steel		
	6mm MS	25 Kgs	46 Kgs
	8mm RTS	170 Kgs	170 Kgs
	10mm RTS	48 Kgs	105 Kgs
3	Country Bricks (8 3/4" * 4 1/4" * 2 3/4")	6992 Nos	7523 Nos
4	40mm ISS size HBG Metal	3.22 cum	3.22 cum
5	20mm ISS size HBG Metal	2.71 cum	3.11 cum
6	10-12mm ISS Size (HBG Metal)	0.34 cum	0.34 cum
7	Sand for Mortar and filling	10.50 cum	16.70 cum
8	Steel Door Size 0.90 * 2.00m (Single Leaf)	1 No.	1 No.
	Steel Door Size 0.75 * 1.80m (Single Leaf)	1 No.	1 No.
	RCC Jali (0.60 * 0.90m)	4Nos.	1 No.
	RCC Jali (0.60 * 0.45m)	1 No.	1 No.
Source: Technical Guide, Directorate of Rural Development (DRD) 2001.			

C.R.S.P IN DIVIDUAL HOUSE HOLD LATRINES**Table 3: Requirement of Materials**

Sl. No	Materials	Quantity soil
1	Cement	8 Bags or 0.38 MT
2	Steel 8 mm MS	33. Kgs
3	Country Bricks 8 ¼" x 4 ¼" x 2 ¼"	1106 Nos.
3	40 mm ISS size HBG Mattel	0.37 cum
4	40 mm ISS size HBG Mattel	0.00 cum
5	10-12 mms ISS size HBG Mattel	0.22 cum
6	Sand for Mortar and filling	1.46 cum
7	Steel Door (Single leaf) 0.75 x 1.8 Meter	1 No
8	RCC Jali 0.60 x 0.45M	1 No
9	Indian Water Closer pan with 'P' Trap etc.	1 No

Source: Technical Guide, Directorate of Rural Development (DRD) 2001.

NOON MEAL/CHILD CARE CENTRE**Table 4: Requirement of Materials**

Sl. No.	Materials	Ordinary soil	Difficult soil SBC - 10T/M ²
1	Cement	144 Bags or 7.97 MT	160 Bags or 7.97 MT
2	Steel		
	6mm MS	37 Kgs.	37 Kgs.
	8mm RTS	437 Kgs.	508 Kgs.
	10mm RTS	111 Kgs.	368 Kgs.
3	Country Bricks		
	8 ¾ " * 4 ¼" * 2 ¾"	14538 Nos.	15968 Nos.
4	40mm ISS size HBG Metal	9.87 cum	5.14 cum
5	20mm ISS size HBG Metal	5.12 cum	8.64 cum
6	10-12mm ISS Size (HBG Metal)	1.103 cum	1.103 cum
7	Pressed Tiles (20cms*20cms*20mm)	845 Nos.	845 Nos.
8	Sand for Mortar and filling	23.85 cum	36.46 cum
9	Steel Windows (Two leaves) 0.90* 1.30m	2 No.	2 No.
10	Steel Door (Single leaf) (0.90 * 2.10m)	2 No.	2 No.
11	Steel glazed Ventilators(0.90 * 0.45m) (N type fixed)	2 Nos	2 Nos
12	R.C.C. Jali 1.50 * 1.30m	2 Nos	2 Nos
13	Brick Jelly of 200mm size	3.06 cum	3.06 cum

Source: Technical Guide, Directorate of Rural Development (DRD) 2001

COMMUNITY HALL**Table 5: Requirement of Materials**

Sl. No	Materials	Ordinary Soil
1.	Cement	1781 Bags or 89.04 MT
2.	Steel 6mm MS 8mm MS 10mm MS 12mm MS 16mm MS 20mm MS 25mm MS	540 Kgs 4325 Kgs 745 Kgs 3095 Kgs 3390 Kgs 470 Kgs 850 Kgs
3.	Country Bricks (8 ^{3/4} " * 4 ^{1/4} " * 2 ^{3/4} ")	53800 Nos
4.	40mm ISS Size HBG Metal	37.01 cum
5.	20 mm ISS Size HBG Metal	155.63 cum
6.	Pressed Tiles (20 cm x 20 cm x 20mm)	4760 Nos.
7.	Sand for Mortar and filling	200.27 M ³
8.	Steel Door (Two Leaves)(1.80x2.1M) Galvanized Steel Door Frame with Practical Board Shutters	3 Nos
9.	Steel Window with 18 gauge MS Sheet shutter and 12mm square MS bars (3 leaves) (1.50 x 1.30m)	23 Nos
10.	Steel Door (Two leaves) (0.75 x 2.10m)	8 Nos
11.	Steel Doors (Single leaf)(0.90 x 2.10 m) 18GMS Sheet Shutter)	5 Nos
12.	Steel window glazed shutter (3 leaves) (1.20 x 1.30) 12 mm Sq MS Bars	5 Nos
13.	Steel Glazed Ventilator N Type (0.90 x 0.45m)	22 Nos.
14.	Steel Glazed Ventilator N Type (0.60x 0.45 m)	4 Nos
15.	RCC Jali (fixed Type) (1.80x 2.10m)	2 Nos
16.	Collapsible gate (1.80 x2.10 m)	2 Nos
17.	10-12 mm ISS size HBG Metal	6.93 cum.
18.	Brick Jelly of 20mm size	20.25 cum
19.	Glazed Tiles (White)	2115 Nos.
20.	Ceramic Tiles	330 Nos.
21.	Floor Tiles	9735 Nos.
Source: Technical Guide, Directorate of Rural Development, 2001.		

TV ROOM**Table 6: Requirement of Materials**

Sl. No	Materials	Ordinary Soil	Difficult Soil
1	Cement	24 Bags of 1.20 MT	27 Bags or 1.33 Mt
2	Steel 6mm MS 8mm RTS 10mm RTS	25 Kgs. 35 Kgs. 30 Kgs.	25 Kgs. 50 Kgs. 100 Kgs.
3	Country Bricks (8 3/4" x 4 1/4" x 2 3/4")	2619 Nos	2619 Nos
4	40mm ISS size HBG Metal	1.76 cum	0.76 cum
5	20mm ISS size HBG Metal	0.80 cum	1.55 cum
6	10-12mm ISS size HBG Metal	0.10 cum	0.10 cum
7	Sand for Mortar and filling	3.64 cum	5.22 cum
8	Steel Door (Single leaf) 0.90 x 2.10 m	1 No	1.No
9	Steel Windows (Sliding Type) (0.90 x 0.75)	1 Nos	1 Nos
10	Pressed Tiles of size (20 x 20 x 2cm)	158 Nos	158 Nos
Source: Technical Guide, Directorate of Rural Development (DRD) 2001			

ANNEXURE III: ECO SENSITIVE AREAS ALONG THE CORRIDOR

**Table 1: Reserve Forests, Wildlife Sanctuaries and Biosphere Reserves along the
Corridor**

Sl. No	Link	Package	Forest	Plant Species found	Animal Species found	Animal Crossing	Chainage
Reserve Forest							
1	Arani Polur	TNRSP 01(N)	Kelur Reserve Forest	98 plant species were recorded	111 animal species occur in this forest	-	17.6- 18.0 (148.6) - 148.3 and Km 147.0-146.4
2	Polur Chengam	TNRSP 01(N)	Parvathamalai Reserve Forest	152 species of plants	128 species of animals	Monkeys & Spotted Deer Crossing	Between Km 22.0 & 23.0
3	Polur Chengam	TNRSP 01(N)	Mundanai Reserve Forest	166 plant species	115 animal species	Spotted Deer Crossing	Between Km 40.0 & 41.0
4	Tiruvannamalai Tirukkivilur	TNRSP 01(N)	Attipakkam Reserve Forest	106 species of plants	98 animal species	-	85.6- 83.8
5	Vridhachallam Jayankondam	TNRSP 01(S)	Peria Odai Social Forestry	-	-	Monkeys Crossing	Between Km 4.2 & 5.0
6	Tiruvannamalai Tirukkivilur	TNRSP 01(N)	Thippakkadu Reserve Forest	112 plant species	109 species of animals	-	Between Km 102.0-103.0
7	Tirukkivilur Elavanasur	TNRSP 01(N)	Nattamur Reserve Forest	68 floral species	98 animal species	Spotted Deer Crossing	Between Km 17.0 & 19.0
8	Vridhachallam Jayankondam	TNRSP 01(N)	Sluvaicheri Reserve Forest	59 floral species	94 animal species	-	Between Km 17.0-16.4
9	Jayankondam Kumbakonam	TNRSP 01(N)	Periavalayam Reserve Forest	62 plant species	84 animal species	-	Between Km 95.0-96.5
10	Nagappattinam Kattumavadi	TNRSP 02	Muthupet Reserve Forest	Mangrove forest	different species of reptile, avian and mammals	-	lies at a distance of about 5 km
11	Nagappattinam Kattumavadi	TNRSP 02	Maravakkadu Reserve Forest	Mangrove forest	85 animal species	-	lies at a distance of about 3 km
12	Kattumavadi Ramanathapuram	TNRSP 03	Kodiakkadu Reserve Forest	Casuarina forest	79 animal species	-	lies at a distance of about 3 km
Wild life Sanctuary / Biosphere Reserve							
13	Nagappattinam Kattumavadi	TNRSP 02	Udayamrthandapuram Birds Sanctuary	-	13767 bird species	-	lies at a distance of about 500m
14	Ramanathapuram Tuticorin	TNRSP 04	Gulf of Mannar Biosphere Reserve	-	120 species of coral, 6 species of seagrass	-	lies at a distance of about 7 km
15	Ramanathapuram Tuticorin	TNRSP 04	Point Calimere Sanctuary	300 plant species	260 species of resident and migratory birds	-	lies at a distance of about 25 km

ANNEXURE IV: SECTION WISE TIME LINE FOR HANDING OVER OF SITE TO CONTRACTORS AND RESETTLEMENT SITE ARRANGEMENTS

Package	Total Length of the corridor	Link	Likely date of handing over of land to contractors	Village Name	Survey number	Extent of land available	No. of PAHs to be resettled eligible & opted	No. of PAH to given commercial sites	No. of Community facilities to be relocated
TNRSP - 01	397.40	Arcot - Tiruvarur including Bypass							
Section - 1	136.10						1	0	1
	35.60	Polur - Tiruvannamalai (Tiruvannamalai Bypass)	01.04.2003	Kalambur	94/1A	0.30.50			
				Natchitrakovil	347	0.42.00			
				Kollakudi	75/7	0.57.00			
	45.10	Chengam - Polur	01.07.2003	Kadaladi	788/2	0.66.50	67	33	140
					788/3	0.05.05			
					788/4B	0.18.0			
					788/5	0.29.0			
				Thenmagadevamangalam	277/1A	0.21.00			
				Kangiyanoor	64/1C	1.33.00			
Chengam	48/1A	0.53.50							
25.50	Arani - Polur (Polur bypass)	01.10.2003	Kasthampadi	374/5	0.46.50	18	10	49	
29.90	Arcot - Arani (Arani bypass)	01.01.2004	Irrempedu	314/1	0.05.50	30	33	112	
				314/2	0.05.50				
				314/3	0.03.00				
				314/4	0.05.50				

					314/5	0.02.00			
					314/6	0.04.00			
					314/8	0.07.50			
					314/9	0.22.50			
					314/10	0.17.50			
					314/11	0.10.50			
					314/12	0.15.50			
					314/13	0.10.10			
					314/14	0.10.10			
					314/15	0.14.50			
				Dajpura	231/1	1.93.50			
				Timiri	440/12	0.11.00			
					441	1.43.00			
					442	0.15.50			
				Tamaraipakkam	513/3	0.99.00			
	126.3								
Section -2	32.3	Thiruvannamalai - Tirukovilur (Tirukovilur bypass)	01.04.2003	Vengur	253/1	1.40.50	9	2	86
	28.7	Tirukovilur - Ulundurpet	01.07.2003	Erraiyur		0.57.00	9	1	76
						0.50.00			
	39.60	Virdhachalam - Jeyamkondam (Virdhachalam bypass)	01.10.2003	Karuvepaankurchi	22/3	0.18.00	13	1	97
				Vetakudi	76/3A	0.83.00			
				Andimadam	241/18B	0.54.00			
	25.70	Chidambaram & Sirkazhi bypass	01.01.2004	Vettakudi	76/3A	0.86.00	42	2	56
				76/3D1					
Karuvepaankurchi				22/3	0.81.00				
Rajendrapattinam				101	0.64.00				
			Karunthani	69/5A	0.14.50				
Section -3	135.00								
39.50	Jeyamkondam - Kumbakonam	01.04.2003	Kovilacheri	79/2		38	5	140	
				155/1					

					18/6A	0.08.00			
					18/6B	0.08.00			
					33/3	0.15.00			
					33/2A	0.16.50			
					33/2B	0.14.00			
				T. Vadakadi	85/1	0.57.50			
				Thirupananthal	294/3	0.09.50			
					294/4	1.00.50			
	51.20	Ariyalur - Jayamkondam (Ariyalur bypass)	01.10.2003	Senthurai	233/1A	0.17.00	19	11	124
					233/1B	0.16.00			
					233/1C	0.19.00			
				Ponparappi	285/1	0.32.00			
					285/2	0.32.50			
				Variyankaval	146/1	0.73.50			
					146/2	0.76.00			
	44.30	Kumbakonam - Tiruvarur (Kumbakonam bypass)	01.01.2004	Malaiyappanallur	337/1A	0.22.50	46	4	232
					337/2C	0.10.50			
				Krishnapuram	262/2	0.20.00			
					262/3	0.17.00			
					262/4	0.03.00			
					262/8	0.27.00			
TNRSP -02	117.00	Nagapattinam - Kattumavadi (including bypass)							
	18.00	Manora-Kattumavadi	01.04.2003				5	3	48
	27.00	Muthupet - Manora (Muthupet bypass)	01.07.2003	Thampikottai	85/1	9.06.00	29	11	163
					85/9	0.57.50			
				Palanjore	417	2.62.00			
				Rajamadam	65/5	0.22.00			
					65/6	0.24.00			

					65/8C	0.26.00			
	25.00	Thiruthuraiipoondi - Muthupet (Tiruvarur bypass)	01.10.2003	Nedampalam	184/4	0.05.00			
				Kallikudi	93/2	0.25.00			
				Kelapandi	37	4.30.00			
				Edaiyaur	401/2	0.51.50			
					401/3	0.17.50			
					401/5	0.41.00			
					401/6	0.18.00			
					401/1	0.26.50			
					401/4	0.20.00			
				Pinathur	178/6	0.26.50			
				Uthymarhandampura m	167/1	0.50.00			
	47.00	Nagapattinam - Thiruthuraiipoondi (Nagapattinam bypass)	01.01.2004	Thirupoondi	45/1H	0.31.00			
					45/3F	0.09.50			
				Kelaiyur	395/13A	0.09.50			
					395/13A 2	0.12.50			
					395/14	0.10.00	76	18	152
					395/17	0.07.50			
					395/18	0.07.50			
				Neermoolai	182/14A	0.62.50			
	99.80	Kattamavadi - Ramanathapuram							
TNRSP - 03	18.00	Thirupalakudi - Ramanathapuram	01.04.2003	Thirupalakudi	285/1		0	0	33
	27.00	Tondi - Tirupalakudi	01.07.2003	Tondi	86/1	11.52.50	0	0	23
				Nambuthalai	106	43.87.50			
	23.30	Mimisal - Tondi	01.10.2003				3	1	33
TNRSP - 03	31.50	Kattumavadi - Mimisal	01.01.2004	Kattamavadi	96/3	0.37.0	6	5	122
				Krishnajipattinam	44/1	0.41.5			
							1.03 cents		

				Pillayarthidal	26/1	0.10.0			
						0.25 cents			
				Manamelkudi	291/148	0.46.5			
						1.15 cents			
				Kottaipatinam	272	0.24.50			
				Jagathapattinam	135/2	0.92.5			
						2.29 cents			
				Ayyapattinam	135/2	0.33.0			
						0.82 cents			
				Balakudi	135/2	0.18.5			
						0.46 Cents			
				Velliman	27	0.44.0			
						1.09 cents			
TNRSP - 04	117.90	Ramanathapuram - Tuticorin							
	21.50	Kulathur - Tuticorin	01.04.2003	Kulathur East	57/1	80.04.50	11	4	41
	38.20	Sayalkudi - Kulathur	01.07.2003	Vembar	234/1B2	0.54.00			
				M. Shanmugapuram	51/2	4.03.50			
				Panaiyur	428	3.53.50			
				Melmanthai	365/2	0.32.50	1	4	32
					365/8	0.28.50			
					365/12	0.54.00			
					365/9	0.12.00			
					365/10	0.36.00			
	29.10	Edambadal - Sayalkudi	01.10.2003				8	10	44

	29.10	Ramanathapuram - Edambadal	01.01.2004			0	0	0	
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Title: 1
Subject:
Author: satish
Keywords:
Comments:
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