

Chapter -11

Socio-Economic Aspects

11.0 General

As already mentioned, out of 86 Mm³ of divertable water, 75.141 Mm³ is planned to stabilise the existing ayacut in en-route in Krishnagiri district and about 9850 ha in water-short Palar basin in Tirupattur and Vaniyambadi talukas of Vellore district, besides providing 3.882 Mm³ of water to meet drinking water supply to the population of 1.52 lakh, en-route the link canal. The detailed socio-economic study of the project is proposed to be carried out as part of Comprehensive Environmental Impact Assessment study. As such, based on secondary sources, various socio-economic aspects viz., Demography, Agriculture, Literacy, Public-health and Educational facilities, Livestock and other infrastructure facilities in the region of the proposed Ponnaiyar (Nedungal) – Palar link Project are briefly discussed in the following paras.

11.1 Socio-Economic Aspects and Preparation of R & R Plan

The development of water resources projects is always a boon for the people of command area but at the same time there are some problems associated with land acquisition and displacement of people due to the construction of the project. However, as already mentioned displacement of people is not involved in the present project proposals because no new dam / reservoir has been proposed in the project and the entire length of link canal is aligned avoiding any habitation. As such, no Resettlement and Rehabilitation (R&R) plan needs to be evolved in the present case. Though, there are large benefits that will accrue after implementation of the project, due consideration has to be given to the social aspect.

11.1.1 Demography

The command area spreads over two talukas of Krishnagiri district and two talukas in Vellore district with maximum area lying in Vaniyambadi taluka of Vellore district. Based on 2011 census, the population in the concerned talukas may be considered as predominantly rural.

As per the 2011 census data, the total population of the districts in the project command area is presented in **Table-11.1**.

Table-11.1**District-wise Population, Density and Sex Ratio in the Link Project Area**

State/ District	Total Popu- lation	Male		Female		Sex ratio per 1000 males	SC popu- la- tion	ST popu- la- tion
	No.	No.	%	No.	%	No.	%	%
Tamil Nadu								
Krishnagiri	1879809	960232	51.08	919577	48.92	958	14.22	1.19
Vellore	3936331	1961688	49.84	1974643	50.16	1007	21.85	1.85

Source: *Census of India, 2011 and Statistical Hand Books of Krishnagiri and Vellore Districts - 2012-13, Tamil Nadu.*

It can be seen from the above Table that the male population is 49.84 % in Vellore district and 51.08 % in Krishnagiri district and female population is 50.16 % in Vellore district and 48.92 % in Krishnagiri district. The scheduled caste (SC) population is 21.85 % in Vellore district and 14.22 % in Krishnagiri district and scheduled tribe (ST) population is 1.85% in Vellore district and 1.19 % in Krishnagiri district.

11.1.2 Agriculture

Agriculture is the main occupation of the people in the command area proposed to be stabilised in Krishnagiri and Vellore districts. It is mainly rain-fed and through open and bore wells at present. There are no major/medium, existing/ proposed irrigation projects in the vicinity of the link canal command area. The open wells account for more than 90% of the area being irrigated in the vicinity. Many minor irrigation tanks are also located in the region which depends on rainfall. The command area in the region is rich with red sandy clay loamy soils and also covered with Brown loam/recent old alluvium soils. The principal crops sown in the area are paddy, ragi, maize, jowar, groundnut, pulses, mango, cotton, sugarcane, vegetables and coconut.

11.1.3 Literacy

Education receives due impetus in the region. State Government has launched many programmes to promote literacy, especially, among the rural masses. The district wise percentage of literacy is presented in **Table-11.2.**

Table-11.2
District wise Percentage Literacy (2011)

Sl. No.	District	Male literacy (%)	Female literacy (%)	Total literacy (%)
1.	Krishnagiri	78.72	63.91	71.46
2.	Vellore	86.50	71.95	79.17

Source: Krishnagiri and Vellore Districts Statistical Handbooks, 2012-13, Tamil Nadu.

As could be seen from the above table the literacy rate is 79.17% in Vellore district and 71.46% in Krishnagiri district. The male literacy rate is 86.50% in Vellore district and 78.72% in Krishnagiri district, whereas the female literacy rate is 71.95% in Vellore district and 63.91% in Krishnagiri district. The literacy rate in males is comparatively higher than that in female population.

11.1.4 Public Health Facilities

Hospital facilities such as Primary Health Centres (PHC), Dispensaries, Sub-Centres and Hospitals of various methods of medicine viz., Allopathic, Homeopathic, Indian/Unani are available at different locations in major villages, taluka and district Head quarters of Krishnagiri and Vellore districts in the vicinity of the project area. The details are furnished in the previous Chapter viz., Environmental Impact Assessment and Environment Management Plan.

11.1.5 Educational Facilities

All the villages in the vicinity of the Project area in Krishnagiri and Vellore districts have good educational facilities starting from the primary schools to the level of Universities including Engineering and Medical colleges.

The district-wise educational facilities available in Krishnagiri and Vellore districts are given in **Table-11.3**.

Table-11.3
Educational Facilities in the Vicinity of the Link Project

Sl.No.	Details	Krishnagiri District	Vellore District
1	Primary Schools	988	2002
2	Middle Schools	107	444
3	High Schools	113	167

Sl.No.	Details	Krishnagiri District	Vellore District
4	Higher Secondary Schools	72	162
5	I.T.I s	5	-
6	Musical Schools	1	-
7	T.T.I s	2	39
8	Polytechnics	4	-
9	Engineering Colleges	5	11
10	Arts and Science Colleges	8	21
11	Agricultural Colleges	-	1
12	Nursing Colleges	-	1
13	Medical Colleges	-	4
14	Universities	-	2
	Total	1305	2854

Source: Krishnagiri and Vellore Districts Statistical Handbooks, 2012-13, Tamil Nadu.

11.1.6 Livestock

As per the 19th Livestock Census-2012 (All India report), the total Livestock population in Krishnagiri and Vellore districts is 694922 and 1102821 respectively. Similarly, the total number of Poultry birds in these districts is 4499997 and 4315772 respectively. The Livestock population in the vicinity of the project in Krishnagiri and Vellore districts is dominated by cattle and sheep, followed by goats. The details of Livestock in the two districts are given in **Table-11.4**.

Table-11.4
District-wise Livestock Population in the Link Project Area

Sl. No.	Type of Livestock	Krishnagiri District	Vellore District
1	Cattle	323602	527080
2	Buffalo	10822	16308
3	Sheep	230527	275160
4	Goats	126517	262659
5	Horses and Ponies	390	904
6	Pigs	2218	18865
7	Donkeys	846	1845
	Total	694922	1102821

Source: 19th Livestock census-2012 (All India Report – Vol. III), Ministry of Agriculture, Dept. of Animal Husbandry, Dairying and fisheries, New Delhi.

11.1.7 Land Use Pattern

The land use pattern in the vicinity of Project area of Vaniyambadi, Krishnagiri, Pochampalli and Tirupattur talukas for the year 2013-14 are discussed in Chapter-8: Irrigation Planning and Command Area.

11.1.8 Source of Water for Drinking, Domestic and other Purpose in the Project Area

The villagers in the project area fetch drinking water from different sources including bore wells/tube wells, dug wells, hand pumps, tanks and infiltration wells in Palar river bed etc. These sources of water are being used for other purposes also like washing, bathing of cattle and sanitation etc.

11.1.9 Power Supply

Power supply for domestic uses is available in all villages in the vicinity of the project area. All villages including Hamlets are fully electrified with well street lighting arrangements.

11.1.10 Transport Facility

Transport facility including plying of Govt. and Private Vehicles is available in all villages. All villages are well connected by network of bitumen top roads. Bengaluru is the nearest Airport to the project area at a distance of about 100 km. The NH-66 (Bengaluru-Uthangarai) and NH 46 (Bengaluru- Chennai) traverse through the project area. Tirupattur and Jolarpet are the nearest railway stations /junctions to the link project area under Southern Railways.

11.1.11 Banking and Credit Society Facilities

There are numerous financial institutions in and around the command area since Krishnagiri and Vellore districts are developed by many major industrial establishments such as Bharat Heavy Electrical Limited (BHEL-B.A.P), State Industrial Development Corporation(SIDCO), State Industrial Promotion Corporation (SIPCOT), Automobile and Mechanical companies of global brands etc,. and Leather based industries besides agribusiness. Nationalized Banks, Foreign Banks, regional Rural Banks and Grama Banks are major financial Institutions providing assistance to the farmers for meeting their agricultural expenses, purchase of livestock, acquisition of new lands/farm-houses, improvement of land & drainage and other necessities etc,.

The Banking and Credit Societies in Vellore district where major part of the command area is located are given in Table-11.5.

Table-11.5
Details on Banking and Credit Societies in the Project Area

Sl. No.	Details	Vellore District
1	Primary Land Development Banks	9
2	District Central Co-operative Banks (with Branches)	1(35)
3	Urban Banks with Branches	20
4	Primary Agricultural Credit Societies	182
5	Housing Co-operative Societies	29
6	Employees Co-operative Societies	66
7	Weavers Co-operative Societies	49
8	Industrial Co-operative Societies	13
9	K & V Industrial Societies	33
10	Primary Co-operative Societies	18
11	Co-operative Sugar Mills	3
12	Co-operative Marketing Societies	7
13	Other Co-operative Societies	175

Source: Asst. Director of Statistics, Vellore, Govt. of Tamil Nadu.

11.2 Submergence Area

Due to the utilisation of existing dam/reservoirs no submergence is involved in the project. It is significant that no railway lines/telephone lines/main power lines, mineral deposits, historical and archaeological monuments are affected by the project proposal.

11.3 Project Affected Villages

The project affected villages are those, where either government or private lands or both shall be acquired for construction of the Ponnaiyar (Nedungal) - Palar link canal. As a result, a part of culturable land would be affected by loss of land. 740 ha of land is to be acquired for execution of the link canal and for borrow areas because of which some Project Affected Population (PAP) are involved. However no residential buildings/houses are affected by the link canal.

11.4 Agricultural Implements

The use of wooden/iron ploughs with bullock/tractor power for ploughing land is common in the area proposed for stabilisation of command. The use of traditional implements is also very common among majority of the farmers.

The agricultural implements and machinery available with farmers in the Krishnagiri and Vellore Districts are given in **Table-11.6**.

Table-11.6
Agricultural Implements with the Farmers (Year 2006)

Sl. No.	Details	Krishnagiri District	Vellore District
1	Ploughs		
	a. Wooden	79628	38465
	b. Iron	47720	17633
	Total	127348	56098
2	Water Pumps for irrigation		
	a. Worked by Oil engines	24278	2380
	b. Worked by Electrical Power	22684	14859
	Total	46962	17239
3	Tractors		
	a. Government	61	4
	b. Private	566	902
	Total	627	906
4	Sugarcane crushers		
	a. Worked by Power	111	12
	b. Worked by Bullocks	86	771
	Total	197	783
5	Oil Ghanis		
	a. 5 kg and above	29	96
	b. Less than 5 kg.	8	0
	Total	37	96

Source: District statistical Hand book of Krishnagiri(2013-14) and Vellore(2011-12) districts.

11.5 Marketing Facilities

The command area is spread over in four talukas of two districts where the agricultural activities are the predominant occupation. These places are developed with enough marketing facilities to sell their agricultural food and non-food produce. Besides this, good number of outlets for the supply of the agricultural inputs like seeds, fertilizers and pesticides to the farmers to meet their requirements already exist in the command area.

Good marketing facilities are available mainly at Krishnagiri town (District Headquarters), Pochampalli, Tirupattur and Vaniyambadi towns (taluka Headquarters). These facilities are available at Kaveripatnam, Sandur, Mattur, Natrampalli and Jolarpet also. All the above places are connected within reasonable distance in the vicinity of the link command area with good transportation facilities. Many co-operative societies are available to take care of marketing of various agricultural as well as household goods.

11.6 Income sources

The major source of income is from the agriculture based activities such as mango processing units, coconut plantations including horticulture and sericulture activities. The area in the vicinity of the link project is mainly rural with 75% of the land holdings being marginal. Nearly 60% of population consist of agriculture labourers. Therefore, the average income is very less. However, granite processing units, rock-quarry industries, animal husbandry and fisheries sector are the other income sources to the population in the vicinity of the proposed project.

11.7 Resettlement and Rehabilitation and its Cost

No submergence area due to the dams/reservoirs is involved in the proposed project. The link canal of length 54.150 km is so planned not to pass through thickly populated/developed areas. It passes through rural areas without affecting the existing households/residential area. Hence, displacement of families residing in these areas/villages is not required. However, 740 ha of land is to be acquired for execution of the link canal and for borrow areas because of which some Project Affected Population (PAP) are involved.

To minimise such adverse effects as loss of land due to canal construction, it is imperative to provide a suitable compensation package in lieu of land to be acquired. Considering the National Rehabilitation and Resettling Policy- 2013, formulated by the Ministry of Rural Development (Department of Land Resources), Govt. of India, the package

with fair amount of compensation for land acquisition shall be provided to those whose land is to be acquired.

11.7.1 Compensation on Land Acquisition

The Clause 26 of Land Acquisition, Rehabilitation and Resettlement (LARR) Act - 2013 defines the method by which market value of the land shall be computed under the proposed law.

According to LARR the minimum amount of compensation has to be multiple of total of ascertained market value plus a solatium. Specifically, the current version of the bill proposes the total minimum compensation to be at least four times the market value for the land acquired in rural areas. It becomes the responsibility of the District Collector to decide Minimum Value Rate, taking into account the prevailing market rate.