

Index of Additional Item

Sr. No	Additional Item
1	NH- Notification
2	SIA Report

NH- Notification

पाद टिप्पणी : राष्ट्रीय राजमार्ग अधिनियम, 1956 (1956 का 48) और इसकी अनुसूची, भारत के राजपत्र, दिनांकित 4 अप्रैल, 2011 को प्रकाशित अधिसूचना संख्या का.आ. 689(अ), दिनांकित 4 अप्रैल, 2011 द्वारा प्रतिस्थापित किया गया था और इसमें पिछली बार संशोधन अधिसूचना संख्या 3708 दिनांकित 05.12.2017 द्वारा किया गया था।

MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

NOTIFICATION

New Delhi, the 1st January, 2018

S.O. 06(E).—In exercise of the powers conferred by sub-section (2) of section 2 of the National Highways Act, 1956 (48 of 1956), the Central Government hereby declares each of the highways specified in columns (2) and (3) of the Table below to be a national highway.

The said highways, now declared to be national highways, shall be deemed to be specified in the Schedule to the said Act with the new serial numbers, the new national highways numbers and the description of the national highways thereof, as indicated in columns (1), (2) and (3) respectively, of the said Table.

TABLE

Serial No.	New National Highway No.	Description of National Highways
(1)	(2)	(3)
461	744A	The highway starting from its junction with NH-744 near Alampatti connecting Vadagarai, Nedummadurai, Eliyapathi, Erukkilavellur, Kondagai, Manalur, Kunnathur, Parayankulam, Thamarapatti, Iraniyam, Usilampatti, Kulamangalam, Kalvellipatti, Tatampatti and terminating at its junction with NH-44 near Vadipatti in the State of Tamil Nadu (Madurai Ring Road)
462	948A	The highway starting from its junction of NH 648 & NH-48 near Dobaspete (Manne), Nijagal, Kengal, Gudemaranahalli, Harthi, Melahalli, Hulikeregunnur, Rayasandra, Banavasi, Thokasandra in the State of Karnataka connecting Achettipalli, Alur in the State of Tamil Nadu and terminating at its junction with NH-648 near Sarjapur in the State of Karnataka (Bengaluru Ring Road)

[F. No. NH-14012/27/2014-P&M (Pt-8)]

RAJESH GUPTA, Dy. Secy.

Foot Note : The Schedule to the National Highways Act, 1956 (48 of 1956) was substituted *vide* notification number S.O. 689(E), dated 4th April, 2011 published in the Gazette of India, dated the 4th April, 2011 and subsequently amended *vide* notification No. 3708, dated 05.12. 2017.

Social Impact Assessment Report

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROJECT DESCRIPTION	2
3. NEED FOR SOCIAL IMPACT ASSESSMENT	2
4. OBJECTIVE OF THE STUDY	3
5. SCOPE OF THE STUDY	3
6. METHODOLOGY	4
6.1 Phase – I: Pre Survey Activities	4
6.1.1 Collection and Review of Project Literature	4
6.1.2 Rapid Reconnaissance Survey to Familiarize Field Activities	4
6.1.3 Scoping and Other Pre-Survey Activities	5
6.2 Phase II: Survey Activities	5
6.2.1 Census and Socio – Economic Household Survey.....	5
6.2.2 Qualitative Survey	6
6.2.3 Assessment of Livelihood Losses	7
7. REVIEW OF LEGAL POLICY PROVISIONS AND IMPLEMENTATION CAPACITY	7
8. RESEARCH TOOLS AND INSTRUMENTS	7
9. APPROACH	9
10. BENEFITS OF THE PROJECT	9
11. STRUCTURE OF THE REPORT	9
12. ORIGINAL STRR ALIGNMENT	10
12.1 Modifications proposed	12
12.2 Value addition proposed.....	13
12.3 Connection to Hosur City	14
13. SALIENT FEATURES OF THE PROJECT STRETCH	17
13.1 Description of Project Stretch.....	17
13.2 Road Configuration	18
13.3 Modification in Proposed Alignment.....	18
13.4 Proposed Design Standards	18
13.5 Proposed Typical Cross Sections	18
13.6 Major and Minor Junctions	21
13.7 Proposed Right of Way (PRoW).....	22
14. SCOPE OF SERVICES	23
15. PROJECT IMPACTS	25
16. LAND USE PATTERN	27
17. STRUCTURES AFFECTED ALONG THE PROJECT ROAD	27
17.1 Impact on Structures	27
18. SOCIO ECONOMIC PROFILE OF PROJECT INFLUENCED DISTRICTS	27

18.1 Overall Approach.....	27
18.2 General Features	28
18.3 Project Influence Area	28
18.4 Tamil Nadu at a Glance.....	28
<i>Area and Location</i>	28
18.4.1 Krishnagiri district of Tamil Nadu	31
19. LAND PRICE.....	36
20. SOCIAL IMPACT ASSESSMENT	36
20.1 Magnitude of Impacts	36
20.2 Project Impacts.....	36
20.3 Extent of Land Acquisition.....	36
20.4 Identification of Structures.....	38
20.4.1 Ownership of the Affected Structures	39
20.4.2 Impact on Private Properties.....	39
20.4.3 Impact on Common Property Resources	39
20.4.4 Other Assets and Minor Structures Affected.....	40
20.4.5 Type and Area of the Affected Structures	40
20.4.6 Usage with type of total affected structures	41
20.4.7 Extent of Loss by Usage	41
20.4.8 Affected Mobile Vendors and Road Side Kiosks	41
20.5 Project Impacted PAPs	42
20.6 Profile of Structure Affected Population	42
21. LEGAL POLICY FRAMEWORK & ENTITLEMENT MATRIX.....	46
21.1 Introduction.....	46
21.2 Land Acquisition	46
21.3 Objectives of Resettlement Policy.....	47
21.4 National Highways Act 1956:	47
22. RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT (RFCTLARR), 2013, GOVT. OF INDIA	49
22.1 Resettlement & Rehabilitation Entitlement Framework.....	50
22.2 Other Allowances under RFCTLARR Act 2013	51
23. SCHEDULED CASTE AND SCHEDULED TRIBES ORDERS (AMENDMENT) ACT, 2002	52
24. RESETTLEMENT POLICY AND LAND ACQUISITION FRAMEWORK	52
24.1 R&R Benefits for Project Affected Families.....	52
25. PRINCIPLES AND POLICIES ADOPTED FOR THE PROJECT	59
26. ENTITLEMENT MATRIX	59
27. STAKEHOLDERS' CONSULTATION	63
27.1 Introduction.....	63
27.2 Issues Discussed	63
28. REHABILITATION & RESETTLEMENT BUDGET	64

28.1 Cost and Budget.....	64
28.2 Compensation for Land	64
28.3 Compensation for Structures.....	68
28.4 Compensation for Other Minor Assets	68

LIST OF TABLES

Table 1: Details of Project Road Sections	2
Table 2: Modified proposed Original alignment of Karnataka	13
Table 3: Comparative Statement of Proposed Alignment	15
Table 4: Details of proposed Cross sections	18
Table 5: TCS Schedule	19
Table 6: Major Cross road locations.....	21
Table 7: Details of PRow along the Project Road (STRR Phase-III).....	22
Table 8: Chainage wise List of Villages along the Project Road (STRR Phase-III)	22
Table 9: Details of Structures likely to be Affected	27
Table 10: Religious status of the Krishnagiri District	32
Table 11: Salient features of the District.....	32
Table 12: Connectivity of the major highways to the Krishnagiri district	34
Table 13: Details of Additional Land required for STRR (Phase-III) Section of NH-948A	36
Table 14: Village wise Land required for STRR (Phase-III) Section of NH-948A	37
Table 15: Village wise Ownership of Land along the Project Road (STRR Phase-III).....	38
Table 16: Ownership Status of the Affected Structures	39
Table 17: Usage of the Private Properties Affected	39
Table 18: Common Properties Affected	40
Table 19: Details of Other Minor Assets Affected	40
Table 20: Type and Area of Structures Affected along Project	40
Table 21: Usage with Type of Total Affected Structures	41
Table 22: Percentage of loss by Usage.....	41
Table 23: Socio-Cultural Characteristics of Structure Affected Population	43
Table 24: Economic Profile of Structure Affected Population	44
Table 25: Monthly Expenditure and Others for Structure Affected Households	44
Table 26: Details of Outstanding Loans of Structure Affected Households	45
Table 27: Major Health Problems of Structure Affected Households	45
Table 28: Basic Principles Governing Compensation Structure	50
Table 29: Allowances as per RFCTLARR Act 2013	51
Table 30: Comparison Between LAAR Act-2013 and NPRR-2007.....	52
Table 31: Eligibility for Compensation/Assistance.....	60
Table 32: Entitlement Matrix.....	60
Table 33: Land Acquisition Cost along STRR (Phase-III) Section of NH-948A	66

Table 34: Impact on Structures along STRR (Phase-III) Section of NH-948A.....	68
Table 35: Impact on Other Mnor Asstes along STRR (Phase-III) Section of NH-948A	68
Table 36: Estimated LA Cost and R & R Budget.....	69

LIST OF FIGURES

Figure 1: Flow Chart of Stage-wise activities to be adopted for undertaking the Detail Project Report for STRR (Phase-III) of NH-948A Project Road	8
Figure 2: Original STRR Alignment as think of by Karnataka State Government	12
Figure 3: STRR proposal connect Hosur city with four options.....	15
Figure 4: Final Alignment Map of the Project Stretch	26
Annexure-I: Village wise Land Rates along STRR (Phase-III) section of NH-948A	67

SOCIAL IMPACT ASSESSMENT (SIA) AND RESETTLEMENT ACTION PLAN (RAP)

1. INTRODUCTION

The Ministry of Road Transport and Highways (MORTH), Government of India has proposed “Bharat Mala Pariyojana” an Umbrella scheme of road development project through National Highways Authority of India (NHAI), National Highway and Industrial Development Corporation (NHIDC) and state Public Works Departments (PWD) at an estimated cost of INR 5,35,000 crores. This is the second largest highways construction project in the country after NHDP, in that almost 50,000 km of roads targeted across the country. This project aim is to improve connectivity particularly on economic corridors, border areas and to remote areas with an aim of rapid and safe movement of cargo to boost exports. International trade considered as a key aspect in this scheme and northeastern states have given special focus. The project cleared by the Union Cabinet on October 25, 2017.

The ambitious project expected to create nearly 100million man days of jobs during the construction and subsequently to about 22million jobs of the increased economic activity across the country. The construction will carried out through many means including debt funds, budgetary allocation, private investment, toll operator transfer etc. The total length of around 34,800km considered in phase 1 including

- Economic corridors of around 9,000km,
- Inter-corridor and feeder routes of around 6,000km,
- National Corridors Efficiency Program of about 5,000 km roads
- Border and international connectivity roads of around 2,000 km,
- Coastal and port connectivity roads of around 2,000 km,
- Expressways of around 800 km
- NHDP roads of 10,000km

In pursuance of the above program, NHAI appointed M/s Louis Berger Consulting Private Limited, New Delhi as Consultants to carry out the Consultancy Services for preparation of DPR for development of Economic Corridors, Inner corridors, feeder Routes and Costal Roads to improve the efficiency of fright movement in India - Lot 3/Andhra Pradesh, Karnataka, Goa & Kerala, / Package 1. The project consists the following stretches of roads finalized as per final Inception Report.

1. Aurad – Bidar Road
2. Mydukur – Badvel Road
3. Belagavi (Belgaum) – Sanquelim with a proper Connectivity to NH4A and NH 17 through existing SH
4. Chittoor – Thatchur Greenfield alignment
5. **Balance Portion of Satellite Ring Road of Bangalore (West Side) including connection to Hosur town to ensure ring road connectivity for Bangalore.**

The Letter of Acceptance was communicated vide NHAI letter NHAI/Planning/ EC/2016/DPR/Lot 3/ Ap. Knt. Goa &KL/Package 1/98598 dated 21/04/2017. The contract agreement signed on 11/5/2017 vide letter NHAI/planning/EC/2016/DPR/Lot 3/AP, Karnataka, Goa &KL, / Package 1/99575 dated 11/05/2017 with immediate commencement date.

2. PROJECT DESCRIPTION

The proposed project road section of Satellite Towns Ring Road Bangalore west side (STRR) passes through Bangalore rural, Ramanagara, Bangalore Urban districts of Karnataka state and Krishnagiri district in the state of Tamil Nadu. The project road details are as below.

Table 1: Details of Project Road Sections

Sl. No.	Name of the Stretch	Existing/	Stretch of Land	Total Length	Name of the State	Name of the District	Name of the Taluk	NH/State Highway
		Proposed Chainage	(km)					
1	Satellite Ring Road Bangalore City (STRR)	Km 0.000 to 134.365 km	134.365 Kms.	179.696 Km	Karnataka	Bangalore Rural	Nelamangala	Newly declared NH 948A
						Ramanagara	Magadi	
							Kankapura	
		Bangalore Urban	Anekal					
		Tamil Nadu	Krishnagiri		Km. 134.365 to Km. 180.266	45.331 Kms.	Denikinikottai	
							Hosur	

The proposed project road of west side STRR, starts from NH 207 (at km 131.250) in Dobbasapete and terminates near Bagalur in Tamil Nadu/Karnataka border. The STRR alignment is totally a Greenfield alignment totalling the length of 185km. the alignment passes through Bangalore Rural, Bangalore Urban and Ramanagara districts of Karnataka state (m) and Krishnagiri district of Tamil Nadu state.

The road passes through several habitat areas viz. Dobbasapete. Banawadi, Gudemaranahalli, Ranganahalli, Magadi, Attimgere, Melehalli, Ramanagara, Kunagal, Kanakapura, Banavasi, Indalawadi, Anekal, Perandapalli, Devaripalli, Kalkunte Agrahara.

3 NEED FOR SOCIAL IMPACT ASSESSMENT

The loss of private assets resulting in loss of income and displacement makes social impact assessment an important input in project design while initiating and implementing developmental interventions. An understanding of the issues related to social, economic and cultural factors of the affected people is critical in the formulation of an appropriate rehabilitation plan. A detailed social impact assessment (SIA) therefore needs to be carried out to make project design responsive to social development concerns. SIA also helps in enhancing the project benefits to poor and vulnerable people while minimizing or mitigating concerns, risks and adverse impacts.

4. OBJECTIVE OF THE STUDY

The main objective of the study is to ensure that the project addresses the adverse impacts on the livelihood of the people and that nobody is left worse off after implementing RAP and those affected have access to project benefits, during project construction as well as operation stage.

The report aims to highlight the social problems and suggests general and typical mitigation measures to alleviate social problems of the project-affected people such as loss of livelihood, displacement and loss of access to community facilities through widening of roads, bypasses, service roads, underpasses and other facilities. The specific objectives of the SIA/RAP are as follows:

- To carry out a socio-economic, cultural and political/institutional analysis to identify the project stakeholders and social issues associated with the project;
- To assess the extent of asset loss and undertake the census of potential project affected people;
- To develop a Resettlement Action Plan (RAP) in consultation with the affected people and project authorities;
- To identify likely occurrence of HIV/AIDS resulting from the influx of outside labourers and others and develop a strategy to reduce their incidence; and
- To develop a consultation framework for participatory planning and implementation of proposed mitigation plan.

5. SCOPE OF THE STUDY

The study began with the identification of social issues and stakeholders and communities, including socially and economically disadvantaged communities. The focus of SIA is on identifying local population likely to be affected by the project either directly or indirectly and undertake census survey. The scope of the study in particular included the following:

- Identifying key social issues associated with the proposed project and specifies the project's social development outcomes;
- Assessing potential social and economic impacts both during the construction phase and in the operation phase;
- Reviewing policies, regulations and other provisions that related to resettlement and rehabilitation of project affected people and other social issues;
- Social screening of various project components and likely impacts in terms of land taking (loss of houses, livelihood, etc.), and resultant involuntary resettlement and provide inputs (in terms of magnitude of impacts and likely costs for mitigation) in preparing appropriate mitigation plans;
- Screening the social development issues in the project area and its vicinity and design the social services that may be provided by the project in order to improve the quality of life and achieve the projects economic and social goals;
- Update the profile of the population and available infrastructure facilities for services in the project affected area;

- Based on the assessment of potential social and economic impacts establish criteria that will assist in the formulation of strategies; to the extent possible maximize project benefits to the local population and minimize adverse impacts of the project interventions on the affected communities;
- Inform, consult and carry out dialogues with the project stakeholders on matters relating to project design, objectives, and implementation and provide specific recommendations to avoid/minimize high social risks;
- Screen the social development issues in the project area and its vicinity and accordingly design the social services that may have to be provided by the project in order to improve the quality of life;
- Identify likely loss of community assets (e.g. school, community assets) including the religious structures and common property resources (e.g. forest, grazing land) the impacts of their loss on the local population;
- Assess the impact of influx of construction workers and others (both during civil works and operation of the project) on the incidence of HIV/AIDS and other diseases and develop a strategy to control them;
- Assess the capacity institutions and mechanisms for implementing social development aspects of the project implementation including the social safeguard plans and recommend capacity building measures; and,
- Develop monitoring and evaluation mechanism to assess the social development outcomes

6. METHODOLOGY

Approach and methodology mainly consist of quantitative and qualitative tools and techniques. The study was conducted in two phases.

6.1 Phase – I: Pre Survey Activities

6.1.1 Collection and Review of Project Literature

This phase intends to familiarize with the concerned and important stakeholders to identify and collect the available literature and to scope the activities. This involved two pronged approach (a) discussions with Project Implementing authorities and other concerned, b) collection of available relevant project literature. Consultations were held with concerned revenue officials to establish the ownership of land. Literature review and consultations formed the basis for identification of key stakeholders.

6.1.2 Rapid Reconnaissance Survey to Familiarize Field Activities

In addition to review and consultations, rapid preliminary field visits were conducted as part of ground truthing exercise. It provided the elementary idea about field research preparation and also helped for pilot testing of questionnaires and checklists.

6.1.3 Scoping and Other Pre-Survey Activities

Both the review and rapid reconnaissance survey helped in finalizing the study instruments and inception report detailing the final methodology and work plan.

6.2 Phase II: Survey Activities

6.2.1 Census and Socio – Economic Household Survey

The social team conducted a census study within 30 m on either side of the proposed central line of the project road. The database will be used later to identify structures coming within proposed ROW. The survey also includes comprehensive examination of people's assets, important cultural or religious sites, and common property resources. The process includes collecting details of owner or occupant of the structure, its type and usage and dimensions. A structured format was used to collect all the relevant information on project PAPs and their structures.

The following methodology has been adopted to finalize the likely to be affected persons/assets along the project area.

- Identification of project affected persons(PAPs) and families(PAFs)
- Census survey of affected structures/assets
- Socio-economic base line survey on sample basis and
- Consultations

a) Identification of PAPs/PAFs

For agricultural land affected Title Holders' identification, the likely to be impacted land survey numbers which is derived from Land Plan is taken into consideration. In this process the Title Holders (THs) and Non-Title Holders (NTHs) of the project stretch are included in Resettlement action plan (RAP).

b) Census Survey

In order to identify and establish the legal entitlement of the property, a 100 percent census survey method was adopted. The door-to-door interview helps eliciting information on affected properties belonging to both title and non-titleholders. The property identification exercise was undertaken within 60 meter width of proposed ROW. Prior to initiation of physical identification of the structures, detailed discussions were held with concerned officials to collect information on ownership of property and ROW. To carry out the census survey, an exhaustive interview schedule was prepared and tested for its smooth administration.

All the affected structures belonging to titleholders incorporated in resettlement action plan. Their location, size, geometry, type of construction of the structures, name of the owner(s), etc. were also recorded. This survey is an important tool for preparing resettlement action plan. The following points of census survey include:

- Loss of immovable assets by type and degree of loss;

- Physical measurements of the affected assets/ structures including their replacement valuation;
- Categorization and measurement of potential loss;
- Status of ownership
- Legal right on the likely to be affected assets

c) Socio- Economic Baseline Survey

The socio- economic survey of 25 % of PAFs is also conducted to attain a representative database. The aim of the baseline socio-economic survey is to determine distribution of socio-economic groups on the map, analysis of social structure and income resources of the PAPs, inventories of the resources which the PAP use as well as the data on the system of economic production.

d) Consultations

The consultations are undertaken with various stakeholders at village levels for dissemination of information about the proposed alignments.

In identification stage the public consultations center on the mapping of the social issues related to the project stretch and thereby understand the concerns and aspirations of the people on the widening of the existing road. Public consultations have also facilitated to make a rapport with likely to be affected PAPs by the proposed improvements.

Public consultations assisted in finalizing various issued related to widening of the road with paved shoulder and the location of proposed bypass, possible realignments etc. Focussed Group Discussions (FGDs) are also held with vulnerable and non-vulnerable groups.

Though the stretch passes through number of villages in four taluks of Bangalore Rural District, the settlement/ land pattern as well as socio-economic profile across this whole stretch of 80.02 Kms has lot of uniformity. Even the issues that have emerged as a result of this consultative process are also quite common with minor variations. In addition to the preliminary Public Consultation the PAPs were also informed about the National as well as State Government Rehabilitation and Resettlement Policy (R&R Policy). Thus, the focus on the likely to be project affected people, dependents on PAPs, impact on livelihood and assess the quantum of likely to be losses were central theme of our consultation programs.

6.2.2 Qualitative Survey

Qualitative surveys are conducted for evaluation of both affected population and implementation capacities. The qualitative survey included focus group discussions and in depth interviews with various sections of people such as women, knowledgeable persons and community leaders to elicit their expectations and suggestions, which will support and provide additional information collected through quantitative survey.

6.2.3 Assessment of Livelihood Losses

The study made an attempt to identify people losing their livelihood directly or indirectly. The consultative process paved the way to develop rehabilitation strategies that helps for income generation and other remedial and restoration measures. The preliminary consultations were conducted with project affected people, villagers, knowledgeable persons and community leaders of the village.

7. REVIEW OF LEGAL POLICY PROVISIONS AND IMPLEMENTATION CAPACITY

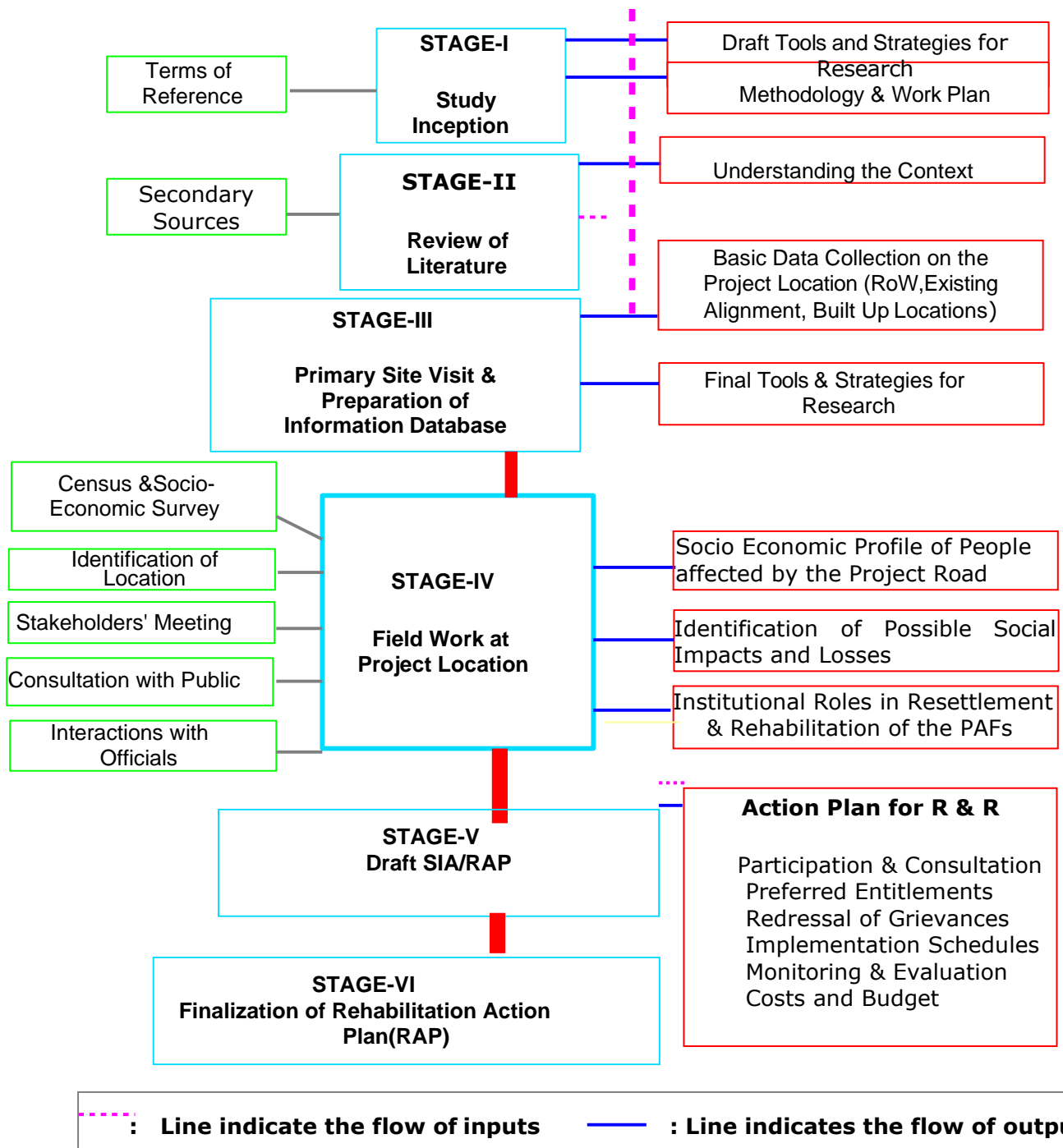
Relevant national and state legislation and regulations were reviewed. To study implementation arrangements and its capacity in delivering the R&R services verification of these arrangements and in-depth interviews with authorities were conducted.

8. RESEARCH TOOLS AND INSTRUMENTS

Various social research tools are employed to ensure that, all issues related to the study need to be adequately addressed so that a meaningful package of deliverables can be developed. The entire exercise was carried out through an appropriate mix of social research techniques including desk research through review of information, concerned government departments and project authorities. Structured and semi- structured interviews, group discussions with the affected people and relevant government agencies and community were undertaken. The study used various instruments to collect information for the different stakeholders involved in the project.

The above tasks are planned to flow in a manner that will complete the project in line with the NHAI. The proposed method is illustrated in the form of a task flow diagram and is shown in **Fig 1**. Each of the above tasks is briefly discussed in the above sections to demonstrate consultants understanding the project required.

Figure 1: Flow Chart of Stage-wise activities to be adopted for undertaking the Detail Project Report for STRR (Phase-III) of NH-948A Project Road



9. APPROACH

The approach of the study is as follows:

- Primary data with the emphasis on observations and discussions.
- The relevant secondary information has been collected from Revenue Department, Census Report, Directorate of Economics & Statistics, Govt. of TN etc. to supplement the primary survey data.
- In addition, discussions were held with the community leaders, NGOs, government officials concerned with R&R.
- The important aspect of the study was also participatory appraisal with the involvement of the community to enable them to understand the process of R&R.

10. BENEFITS OF THE PROJECT

The main objective of the project is to improve the performance of the National road transport network. All the road users including the affected persons (PAPs) will benefit from the proposed improvement through increased comfort and reduced travel time. The society will benefit economically from the saving in vehicle operating costs due to enhanced speed and better geometric. The project also will open up the areas adjacent to the project road to increased economic activity. The project is expected to bring quite a few benefits viz.

- result in lower transport costs for freight and passengers of motorized and non-motorized vehicles,
- improve road transport corridors and road network connectivity,
- improve management of road sector institutions,
- enhance maintenance of priority roads and rural prosperity,
- reduce risk of highway related diseases, and basic amenities to the village along the proposed highways,
- increase in the local employment opportunities is a significant and immediate economic benefit of the project,
- better connectivity, increase in traffic will result in an increased economic activity in the vicinity of the proposed works and
- local communities will have greater access to public infrastructure and increased mobility through enhanced transport facilities

11. STRUCTURE OF THE REPORT

The report is presented in the following chapters:

- Project and Methodology
- Project Stretch Profile
- Socio-Economic Profile of Project Influenced District

- Evaluation of Social Impact & Socio Economic Profile of Affected People
- Legal Policy Frame Work and Entitlement Matrix
- Stakeholders' Consultations
- LA and R&R Budget

The entire STRR road divided in 3 phases as follow. The proposed phases approved by NHAI are as follows.

1. Dobbaspet to Kunagal (km 0 to km 79.100 – Length 79.00km)
2. Kunagal to S. Muduganapalli (Hosur Taluk) (km 79.000 to km 144.480 – 65.48km)
3. S. Muduganapalli (Hosur Taluk) to TN/KNT border (km 140.000 to km 179.969 – 39.969km)

The Phases further divided in packages. The details recommended to competent authority by PIU/NHAI for approval vide letter MHAI/12012/STRR/Phasing/1/2018/ (PIU-BNG-EXP)/957 dated 26/02/2019. Accordingly the Phase 3 considered in one contract package as follow.

Phase 3

1. **Package 1: From km 144.480 0 to km 179.969**

The current submission is Final Social Impact Assessment (SIA) and Resettlement Action Plan (RAP) Report for Phase 3 in one package.

12. ORIGINAL STRR ALIGNMENT

In order to ensure safe, smooth, efficient, and high-speed transport corridor to Bangalore city, it is impetus that the infrastructure of city and adjoining towns anticipated the development. National Highways NH 648 (NH 207), NH 48 (NH 4), NH 275, NH 948, NH 209 & NH 75 (Hassan road), and majority of State Highways SH 3, SH 85, & SH 35 pass through Bangalore city comprising heavy commercial traffic movement. Most of this traffic are not intend to pass through the Bangalore city. This traffic further aggravate the scenario in the city roads and resulting huge traffic jams.

The Government of Karnataka took steps to improve and augment network within and neighboring area of the city to match with its phase of development. Bangalore Metropolitan Regional Development Authority (BMRDA) had planned the following network of roads consisting the length of 367km to match these requirements.

- Satellite Towns Ring Road (STRR) – 204km
- Individual Town ring Roads (ITRR) – 163km

The total length of STRR (204km) is exclude the stretch passing within the ITRR except for Neelmangala town. The STRR connects the important towns namely Dobbaspet, Doddaballapura, Devanahalli, Sulibele, Hoskote, Sarjapura, Attibele, Anekal, Tattekere, Kanakapura, Ramanagara and Magadi.

BMRDA assigned M/s SECON for the consultancy services to undertake the topographical & Cadastral surveys, finalize the proposed alignment and to prepare the land acquisition report in year 2006. Subsequently, the same agency was engaged to carry out the consultancy for Techno –Economic

Feasibility Report in 2007. The notification for land acquisition for STRR & ITRR issued on 12/09/2007 and the project report approved by BMRDA on 10/06/2008. The proposed STRR alignment has declared as State Highway (special) -2 as per the provisions of Karnataka Highways Act 1964 and the SE, PWD, Bangalore circle nominated as 'The Highway Authority'. Land acquisition processes initiated vide notification NO4017-07-08 dated 19/10/2007.

The original corridor proposed with 90m right-of-way consists of divided 4lanes carriageways with depressed median of 20.50m, with service roads (7m) on both sides. Provision of high-speed rail corridor of 15m on one side throughout also made. In addition to this utility corridor of 5m and bus lay-bye of 4m also considered on both sides. The corridor of 90m also frozen by the state government. Ring roads was also proposed to be developed individually for 8 major towns namely Anekal, Kanakapura, Ramanagara, Magadi, Neelmangala, Doddaballapura, Devanahalli & Hoskote to act as bypass for these towns. However, the project shelved due to paucity of funds with the State government.

The original alignment as think of by Karnataka State government and obtained from M/s SECON through NHAI enclosed in Figure 2.

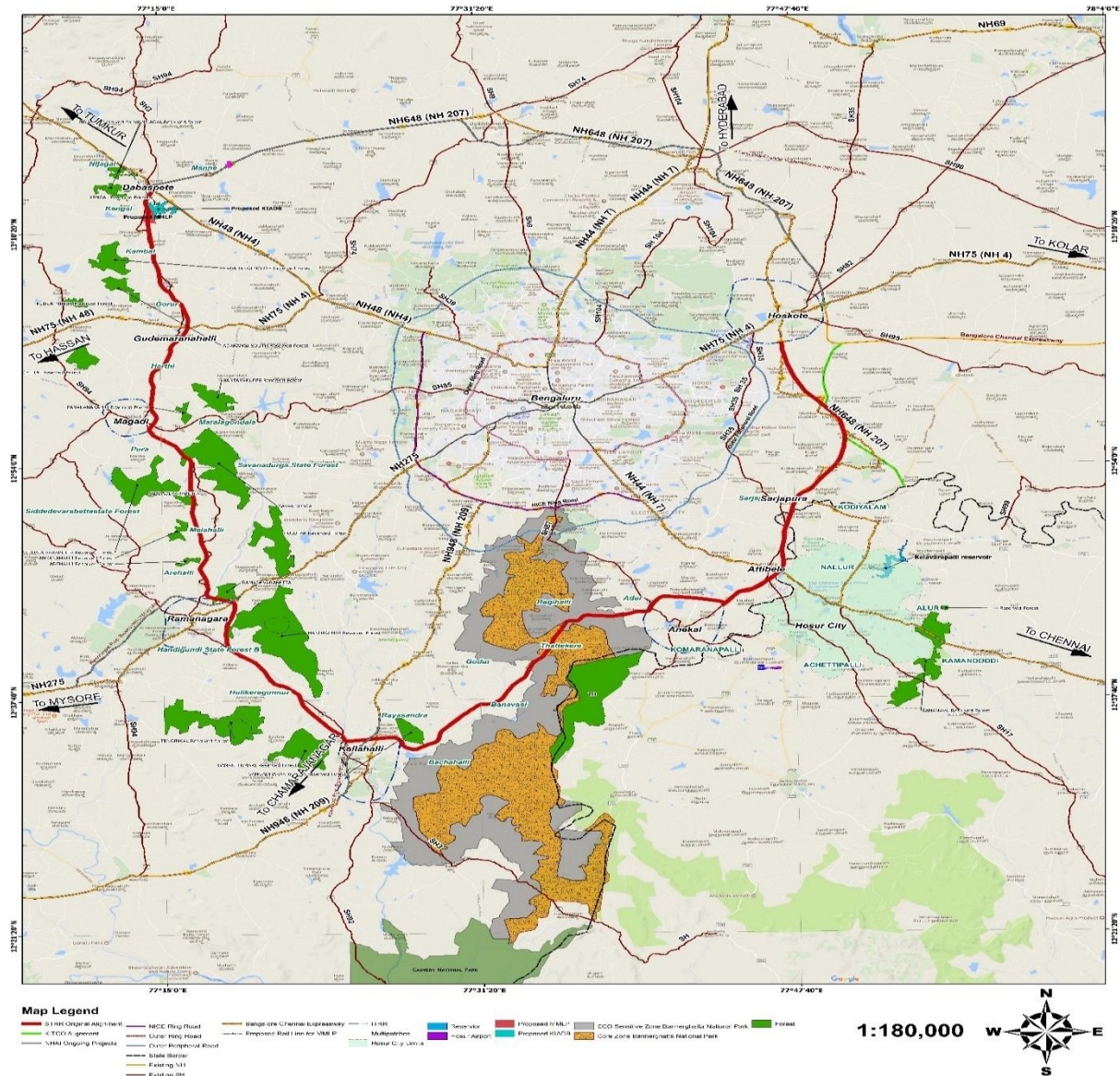


Figure 2: Original STRR Alignment as think of by Karnataka State Government

However, the earlier proposed alignment by the Karnataka state government passes through some of built up stretches, tanks including religious structures, burial grounds etc. Also during the course of time, some new activities also come up. Therefore, it was indispensable to further study the alignment and update, considering the current scenario along the original proposed alignment. Accordingly, modifications are propose to ensure minimal social Impact and to serve the alignment to wider spectrum of inhabitants in that region. The details given below.

12.1 Modifications proposed

1. The original alignment passes through the Dobbaspeth town connecting NH 4 on Bangalore side. This extended further on Doddaballapura side towards NH 207 to ensure avoidance of Dobbaspeth town local traffic.

2. The original alignment (in the cross point of Hassan road) passes through thickly built up area in Gudermanahalli from km 14.000 to km 22.000 This stretch consists of residential, school and religious structures.
3. The earlier alignment passes through thickly built up area from km 22.000 to km 25.600 in Harthi/Renganahalli.
4. The original alignment passes through Savanadurga Forest area from km 34.700 to km 41.700. This forest also has wildlife.
5. The original alignment pass through Siddadevarabetta Forest area from km 43.000 to km 46.700
6. The original alignment passes through Ramadevarabetta forest area from km 57.700 to km 58.300 near NH 275 crossing in Ramanagara.

12.2 Value addition proposed

Further the alignment made value additions by connecting some cross roads and considering the current and future proposals in that location as per below details.

1. The starting point of the STRR extended to connect NH 207 (near km 131.200) with a bypass provision in Dobbaspeta town on Pune side to ensure uninterrupted traffic flow, contrary to the earlier proposed location pass through the mid of built up area in Dobbaspeta. It is relevant to mention that the through traffic contribute from Pune direction, on NH 4 is significant.
2. There is Multi Model Logistic Park (MMLP) and proposed KIADB coming up near Dobbaspeta on SH 3 spread at about 250acres of land. The Feasibility study also done for the proposed MMLP project. Therefore, connection to this park is eminent and provision made accordingly to these logistic park & KIADB with proposed STRR.
3. NHAI is currently developing bypasses to Kankapura and Ramanagara towns under different programs to ease traffic congestion on NH 209 and NH 275 respectively. Thus, in order to ensure seamless traffic flow through these proposed bypasses, it is necessary to integrate with proposed STRR at these locations.
4. Hosur is an automobile industry town located near about 7km away from Karnataka state border. This city generates huge amount of through traffic and currently experiencing massive traffic congestion. It observed that the proposed STRR would further deteriorate the Hosur traffic. Therefore, consideration of STRR taking along this town necessitated.

The modification proposed to original alignment of Karnataka state portion tabulated as below.

Table 2: Modified proposed Original alignment of Karnataka

S. No	STRR Original alignment (km) as received			Modified STRR Alignment (km)			Re-Alignment Side w.r.t Original STRR Alignment	Reason for change
	From	To	Length (km)	From	To	Length (km)		
1	0.00	6.50	6.50	0.00	17.50	17.50	Right	To provide Bypass to Dobbaspeta town and to connect NH 207 and Proposed MMLP in Dobbaspeta
2	6.50	14.00	7.50	17.50	25.00	7.50		No change in original alignment
3	14.00	22.00	8.00	25.00	33.40	8.40	Left	To avoid Temple and Pond

S. No	STRR Original alignment (km) as received			Modified STRR Alignment (km)			Re-Alignment Side w.r.t Original STRR Alignment	Reason for change
	From	To	Length (km)	From	To	Length (km)		
4	22.00	25.60	3.60	33.40	37.00	3.60	Left	To avoid Built-up area
5	25.60	34.70	9.10	37.00	46.00	9.00		No change in original alignment
6	34.70	41.70	7.00	46.00	52.70	6.70	Right	To avoid Savanadurga forest.
7	41.70	43.00	1.30	52.70	54.00	1.30		No change in original alignment
8	43.00	46.70	3.70	54.00	58.00	4.00	Left	To avoid Siddadevarabetta Reserve Forest.
9	46.70	51.00	4.30	58.00	62.20	4.20		No change in original alignment
10	51.00	68.00	17.00	62.20	80.80	18.60	Left	To avoid Siddadevarabetta Vulture Sanctuary (Ramanagara)
11	68.00	74.00	6.00	80.80	86.75	5.95		No change in original alignment
12	74.00	99.00	25.00	86.75	106.00	19.25	Left	To avoid Reserve forest and Hill cutting (Kanakapura)
13	99.00	115.00	16.00	106.00	121.85	15.85		No change in original alignment
14	115.00	End	-	121.85	179.63	57.78		Due to inclusion of Ring Road of Hosur town, Automobile Hub of Tamil Nadu and Connecting with proposed KITCO alignment

12.3 Connection to Hosur City

It was also envisage connecting the Hosur city with the proposed STRR alignment as per the meeting held with CGM/NHAI in Bangalore during the Inception study. The city is located in the proximity of only 7km from Karnataka state border. The Industrial town of Hosur is also an automobile hub of Tamil Nadu. Thus, this proposal will enable to disburse the traffic toward further south in a methodical manner. It also further enables a connectivity for Hosur to the proposed Bangalore - Chennai Expressway.

The proposed alignment also discussed with District Commissioner, Krishnagiri and with various stakeholders, district level officers, and NHAI. Four options proposed and all options discussed with its merits and demerits. The details given in **Figure 3**.

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Costal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

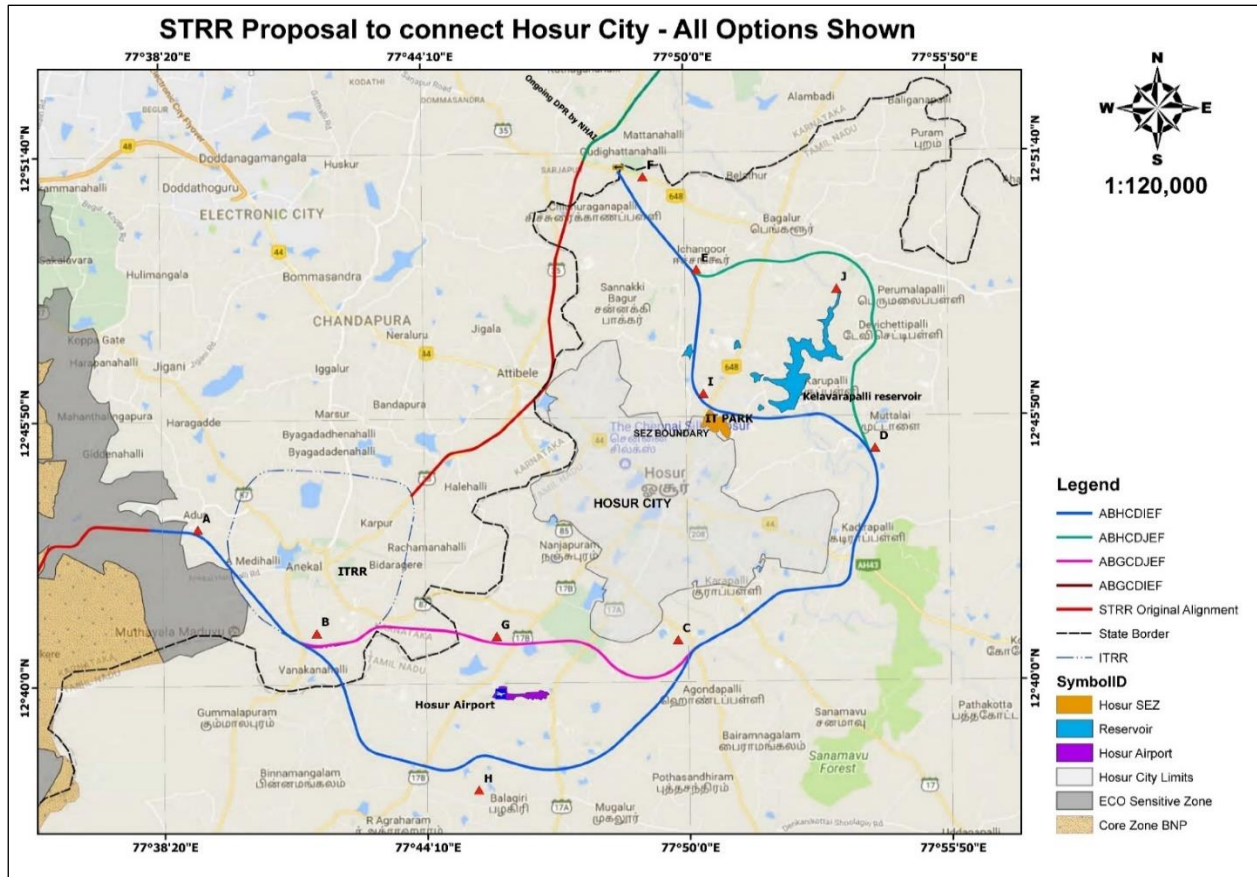


Figure 3: STRR proposal connect Hosur city with four options

The comparative statements of all options of proposed Hosur bypass alignment are as below

Table 3: Comparative Statement of Proposed Alignment

No	Description	Option - 1 (ABHCDIEF)	Option - 2 (ABGCDIEF)	Option - 3 (ABHCDJEF)	Option - 4 (ABGCDJEF)
1	Starting	139.000	139.000	139.000	139.000
2	Ending	190.000	190.000	190.000	190.000
3	Route Alignment side	After Hosur airport & away from Kelavarapalli reservoir area	Before Hosur airport & away from Kelavarapalli reservoir area	After Hosur airport & Close to Kelavarapalli reservoir area	Before Hosur airport & Close to Kelavarapalli reservoir area
4	Length of Bypass (km)	60	59	63	59
5	Length of existing alignment/ bypassed (km)	nil	nil	nil	nil
6	Built-up stretch (km)	nil	nil	nil	nil
7	Terrain	Plain	Plain	Plain	Plain
8	Speed	100 km/h	100 km/h	100 km/h	100 km/h

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Coastal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

No	Description	Option - 1 (ABHCDIEF)	Option - 2 (ABGCDIEF)	Option - 3 (ABHCDJEF)	Option - 4 (ABGCDJEF)
9	Geometries	Geometry is good, supports 100 km/h speed. Good sight distance with curves widely spaced.	Geometry is good, supports 100 km/h speed. Good sight distance with curves widely spaced.	Geometry is good, supports 100 km/h speed. Good sight distance with curves widely spaced.	Geometry is good, supports 100 km/h speed. Good sight distance with curves widely spaced.
10	Intersection developments	7	7	7	7
11	Existing Land use pattern through proposed alignment	Agricultural Land and barren land	Agricultural Land and barren land	Agricultural Land and barren land	Agricultural Land and barren land
12	Major Bridge	2	2	2	2
13	Minor Bridge	3	3	2	2
14	Approximate Culverts (no)	120	120	130	120
15	ROB	1	1	1	1
16	Interchange	7	7	7	7
17	VUP	nil	nil	nil	nil
18	PUP	nil	nil	nil	nil
19	Proposed ROW	90	90	90	90
20	Existing ROW	0	0	0	0
21	No of affected Settlements	nil	nil	nil	nil
22	Alignment passes through villages	Agasa Timanahalli, Patnagere Gollahalli, Muttur, Mattakur, Agraharam, Achettipalli, Kothur, Peranadapalli, Attur, Pathamuthalli, Avalapalli, Eluvapalli, Nallur, Chikhanathpuram, Kothapalli, Sarjapur	Agasa Timanahalli, Singasandra, Komaranapalli, Poonahalli, Achettipalli, Kothur, Peranadapalli, Attur, Pathamuthalli, Avalapalli, Eluvapalli, Nallur, Chikhanathpuram, Kothapalli, Sarjapur	Agasa Timanahalli, Patnagere Gollahalli, Muttur, Mattakur, Agraharam, Achettipalli, Kothur, Peranadapalli, Nandimaglam, Baglur, Kaganur Sarjapur.	Agasa Timanahalli, Singasandra, Komaranapalli, Poonahalli, Achettipalli, Kothur, Peranadapalli, Nandimaglam, Baglur, Kaganur Sarjapur.
23	Social Impact	Not significant	Not significant	Not significant	Not significant
24	Environmental Impact	Not significant	Not significant	Not significant	Not significant

The merits and demerits for the Hosur alignment inclusion in STRR are as follow.

Merits

- Enabling new spatial distribution of business/ housing in Hosur city
- Improved road geometry will ensure enhanced traffic safety and reduction in road accident rate.
- Major cross roads intersections will provisioned with free flow interchanges and will catalyzed development of Industrial sited located near to this places
- Will remove through truck traffic from city's main artery
- More local traffic may get encouraged to use a route previously avoided due to heavy truck traffic
- Proactive planning by local authorities will further catalyze industrial development
- Will benefits the town in revenues, real estate, and job opportunities

Demerit

- The overall alignment length will increase and result higher land acquisition and construction costs.
- Based on facts presented, the district administration recommended and approved Option (ABGCDJEF) for consideration.

13. SALIENT FEATURES OF THE PROJECT STRETCH

13.1 Description of Project Stretch

The project road currently intends to connect Dobbaspet, Magadi, Ramanagara, Kankapura, Anekal, Hosur & Sarjapur. The proposed road passes through Bangalore Rural, Bangalore Urban, and Ramanagara districts in Karnataka state and Hosur town in Krishnagiri district of Tamil Nadu state. The total length of this alignment will 179.969km. The start point co-ordinate of STRR - 750104.8329/1465840.4410 (near Dobbaspet). End coordinates of STRR merging with KITCO alignment at Tamil Nadu/Karnataka Border – 83614.6946/1424665.8098 (near Sampangere).

The section of Phase-3 falls in the State of Tamil Nadu starts from km 144.480 and terminate in km 179.969 in Tamil Nadu/Karnataka Border. The total length of this section is 35.489km

NH Section	Geo-Coordinates		Design/ Proposed Chainage (km)		Length (km)
	Start Point	End Point	From	To	
Peddamadthagondapalli to Devarapalli section of NH-948A	1398631.353 N 801810.826 E	1424665.810 N 1398377.660 N	144.480	179.969	35.489km

Terrain

The project road stretch is passing through Plain and rolling terrain

Land use

The land use by the side of this road predominantly barren and agriculture

Proposed ROW

A 70m corridor will propose for the entire alignment (except at Interchange, Toll Plaza/Toll Booth, Wayside Amenities locations, where proposed ROW will be more than 70m as per relevant drawings at these locations).

13.2 Road Configuration

The proposal envisages six lanes divided carriageway configuration with raised median as per the latest circular issued in Bharatmala program. All provisions of structure will be consider as per relevant IRC Manual. The proposed project road will be consider for fully access controlled facilities as per NHAI guidelines. All major cross roads will be provide with grade-separated structures to ensure uninterrupted free flow through traffic and to provide safety to local traffic. All minor crossroads will also ensure its connectivity by provision of suitable vehicular and light vehicular underpasses to ensure safe geometry standards. Service roads will envisage as per requirement for segregation of local traffic needs.

During the detailed field surveys and land acquisition process, it is note that the alignment at near km 157.800 need some modification as the original alignment pass through in the mid of school.

Accordingly, following modifications are suggest. The modifications propose are currently approve by NHAI vide letter NHAI/12012/BM/STRR/DPR/TN/2/2018/PIU BNG (EXP)/765 dated 13/12/2018

13.3 Modification in Proposed Alignment

School building near (near km 157.100)

While fixing the boundary stone near km 157.800, it noted that the alignment was passing through the school building. A 100m corridor is notify here also contrary to the requirements of 70m of proposed right of way requirements. Therefore, considering school building and the safety to the children, the alignment shifted away from the school building to the maximum extent possible within the 100m proposed width. It is also pertinent to mention that the proposed shift does not compromise any geometric requirements.

13.4 Proposed Design Standards

The geometry design standard as per six lanes and Guidelines issued for Bharatmala program

13.5 Proposed Typical Cross Sections

Based on traffic considerations, geometric standards and considering the site condition and economy following typical cross sections have been propose for different stretches of the project road. The main components are as given in **Table 4**.

Table 4: Details of proposed Cross sections

Cross Section Elements	Width (m)	Total Width (m)
Main Carriage way	3 x 3.50	10.50
Paved shoulder	2 x 1.50	3.00

Cross Section Elements	Width (m)	Total Width (m)
Earthen shoulder	2 x 2.00	4.00
Raised Median	0.5+4+0.5	5.00

The Typical Cross Sections of the package worked out based on geometry design, the typical cross section schedule, and its drawing given below:

Table 5: TCS Schedule

S. No.	Design Chainage (km)		Length (m)	TCS Type
	Start	End		
1	144.170	144.400	230	TCS 1
2	144.400	144.565	165	TCS 5
3	144.565	144.758	193	TCS 12
4	144.758	144.818	60	TCS 16
5	144.818	144.990	172	TCS 12
6	144.990	145.150	160	TCS 5
7	145.150	145.630	480	TCS 1
8	145.630	145.870	240	TCS 2
9	145.870	146.650	780	TCS 1
10	146.650	146.830	180	TCS 2
11	146.830	147.130	300	TCS 1
12	147.130	147.350	220	TCS 2
13	147.350	147.970	620	TCS 1
14	147.970	148.250	280	TCS 2
15	148.250	149.060	810	TCS 1
16	149.060	149.470	410	TCS 2
17	149.470	149.600	130	TCS 1
18	149.600	149.820	220	TCS 9
19	149.820	150.080	260	TCS 1
20	150.080	150.340	260	TCS 2
21	150.340	151.050	710	TCS 1
22	151.050	151.200	150	TCS 2
23	151.200	151.580	380	TCS 1
24	151.580	151.620	40	TCS 11
25	151.620	151.700	80	TCS 9
26	151.700	152.100	400	TCS 5
27	152.100	152.170	70	TCS 14
28	152.170	152.290	120	TCS 12
29	152.290	152.480	190	TCS 5
30	152.480	152.650	170	TCS 1
31	152.650	152.850	200	TCS 11
32	152.850	153.090	240	TCS 1

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Costal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

S. No.	Design Chainage (km)		Length (m)	TCS Type
	Start	End		
33	153.090	153.290	200	TCS 2
34	153.290	153.640	350	TCS 1
35	153.640	153.760	120	TCS 2
36	153.760	154.300	540	TCS 1
37	154.300	154.480	180	TCS 2
38	154.480	154.525	45	TCS 16
39	154.525	154.820	295	TCS 2
40	154.820	154.905	85	TCS 5
41	154.905	154.970	65	TCS 7
42	154.970	155.110	140	TCS 6
43	155.110	155.210	100	TCS 5
44	155.210	155.270	60	TCS 16
45	155.270	155.900	630	TCS 12
46	155.900	156.050	150	TCS 5
47	156.050	156.090	40	TCS 10
48	156.090	156.590	500	TCS 1
49	156.590	156.740	150	TCS 2
50	156.740	157.230	490	TCS 1
51	157.230	157.450	220	TCS 2
52	157.450	158.070	620	TCS 1
53	158.070	158.160	90	TCS 2
54	158.160	158.700	540	TCS 1
55	158.700	158.980	280	TCS 2
56	158.980	159.450	470	TCS 1
57	159.450	159.520	70	TCS 11
58	159.520	159.890	370	TCS 1
59	159.890	159.980	90	TCS 2
60	159.980	160.155	175	TCS 4
61	160.155	162.225	2070	Refer Interchange Drawing
62	162.225	163.940	1715	TCS 1
63	163.940	164.080	140	TCS 2
64	164.080	166.140	2060	TCS 1
65	166.140	166.200	60	TCS 10
66	166.200	166.310	110	TCS 5
67	166.310	166.520	210	TCS 12
68	166.520	166.650	130	TCS 13
69	166.650	166.780	130	TCS 5
70	166.780	166.820	40	TCS 9
71	166.820	168.000	1180	TCS 1
72	168.000	168.340	340	TCS 2
73	168.340	169.790	1450	TCS 1

S. No.	Design Chainage (km)		Length (m)	TCS Type
	Start	End		
74	169.790	169.880	90	TCS 2
75	169.880	170.350	470	TCS 1
76	170.350	170.560	210	TCS 2
77	170.560	171.000	440	TCS 1
78	171.000	171.220	220	TCS 2
79	171.220	172.050	830	TCS 1
80	172.050	172.220	170	TCS 2
81	172.220	173.850	1630	TCS 1
82	173.850	173.920	70	TCS 9
83	173.920	174.030	110	TCS 5
84	174.030	174.350	320	TCS 12
85	174.350	174.470	120	TCS 5
86	174.470	174.520	50	TCS 11
87	174.520	176.150	1630	TCS 1
88	176.150	176.470	320	TCS 2
89	176.470	178.050	1580	TCS 1
90	178.050	178.210	160	TCS 2
91	178.210	179.936	1726	TCS 1

13.6 Major and Minor Junctions

The proposed alignment crisscrosses the NH and SH locations. Different options of interchanges are propose in these locations. The options with its merits and demerits including amount of land needs and cost aspects discussed and the details as below. The options also submitted to NHAI with recommendation for further consideration and approval.

Table 6: Major Cross road locations

S. No.	Road	Chainage of Cross road Cross point (km)	Proposed STRR (km)	Description
1	SH17A	12.220	144.788	Attibele - Denkanikottai Road
2	SH 85	25.930	152.035	Attibele - Rayakottai Road
3	Proposed NH-844	-	155.240	Hosur-Dharmapuri
4	NH7	48.020	161.099	Bangalore - Krishnagiri Road

13.7 Proposed Right of Way (PRoW)

Details of proposed Right of Way are given below:-

Table 7: Details of PRoW along the Project Road (STRR Phase-III)

Sl. No.	Design Chainage (km)		ROW (m)			Remarks
	Start	End	LHS	RHS	Total	
1	144.170	147.723	35	35	70	
2	147.723	147.823	35	Varying	Varying	Rest Area on RHS
3	147.823	148.023	35	185	220	Rest Area on RHS
4	148.023	148.858	35	35	70	
5	148.858	149.158	165	35	200	Rest Area on LHS
6	149.158	151.800	35	35	70	
7	151.800	152.150	50	50	100	Refer Interchange Drawing
8	152.150	154.500	35	35	70	
9	154.500	155.400	50	50	100	Refer Interchange Drawing
10	155.400	160.155	35	35	70	
11	160.155	162.230	Varying as per Interchange drawing			Refer Interchange drawing
12	162.230	179.936	35	35	70	

Utilities such as electric poles, lines and transformers, telephone poles and lines, Optic fiber cable lines are noticed in the isolated as well as along the road. The Chainage wise list of the villages in Phase-III along the project stretch is given in Table 8.

Table 8: Chainage wise List of Villages along the Project Road (STRR Phase-III)

Sl. No.	Phase/Package Number	Name of the District	Name of the Taluk	Name of the Village	Chainage	
					From	To
1	Phase-III/Package-1 (from Km. 144.480 to Km. 179.969)	Krishnagiri	Hosur	S. Mudhuganapalli	144+480	145+726
2				Mugalur	145+726	147+582
3				Gopanapalli	147+582	148+956
4			Denkenikottai	Hosapuram	148+956	150+275
5				Kundhumaranapalli	150+275	151+342
6				Biramangalam	151+342	154+883
7			Hosur	Thorapalli Agraharam	154+883	158+895

Sl. No.	Phase/Package Number	Name of the District	Name of the Taluk	Name of the Village	Chainage	
					From	To
					159+665	160+375
8				Mornapalli	158+895	159+665
					160+375	161+896
9				Allur	161+896	164+783
10				Attur (H/o Muthalli)	164+783	165+074
11				Muthali	165+074	165+750
12				Pathamuththali	165+750	167+889
13				Karupalli	167+889	169+683
14				Nandimangalam	169+683	171+607
15				Attur (H/o Paduthepalli)	171+920	172+424
					171+607	171+920
16				Paduthepalli	172+424	173+826
					173+826	175+012
17				Thummanapalli	175+678	176+004
18				Mallasandram	175+012	175+678
19				Pattavarapalli	176+004	176+846
20				Alasapalli	176+846	178+409
21				Deeviripalli	178+409	179+969

14 SCOPE OF SERVICES

The proposed right of way for the Greenfield alignment is considered as 70m in the throughout corridor. Additional land for proposed interchanges, toll collection plaza, truck parking etc. will also envisaged. A number of habitation is found near existing SH or NH crossings on both left and right side of the road. While finalizing the road alignment efforts have been made by adopting appropriate engineering designs, to minimize resettlement impacts. To minimize displacement and to reduce disruption of livelihoods, The field visits, extraction of information, interaction with people and road users helped in getting better planning and design inputs towards minimizing negative social impacts.

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Costal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

Plate 1: Project Road features and Settlements along the Existing/Proposed Road Alignment



Structure/Buildings likely to be affected along the Project Road (STRR Phase—III)

***Source: Field survey during initial social assessment, September 2019.**

15. PROJECT IMPACTS

As part of the Social assessment potential positive externalities and negative impacts of the project were identified. The assessment of impacts is cover under following variables: number of structures likely to be impact, number of religious structures likely to be impact, number of community property and resources likely to be impact, built up sections along the corridor etc. The project triggers the following categories of loss:

- Loss of Agricultural/ homestead/ Forest Land and other Properties
- Loss of Residential Properties
- Loss of Commercial Properties
- Loss of Residential cum Commercial Structures
- Loss of economic/ livelihoods

The project-affected families may be categorizing in following three broad categories:

- Title holders: People who are losing land, land & structures, only part of structures, which are under legal ownership of the incumbent
- Non-Title holders: People who are losing structures/ part of structures, which were erected/ extended on the land not under his legal ownership, and
- Livelihoods Losers: Any person from the previous categories, Kiosks operators, tenants of the affected structures and employees of the affected Business are likely to be affect with existing economic/ physical livelihood losses.

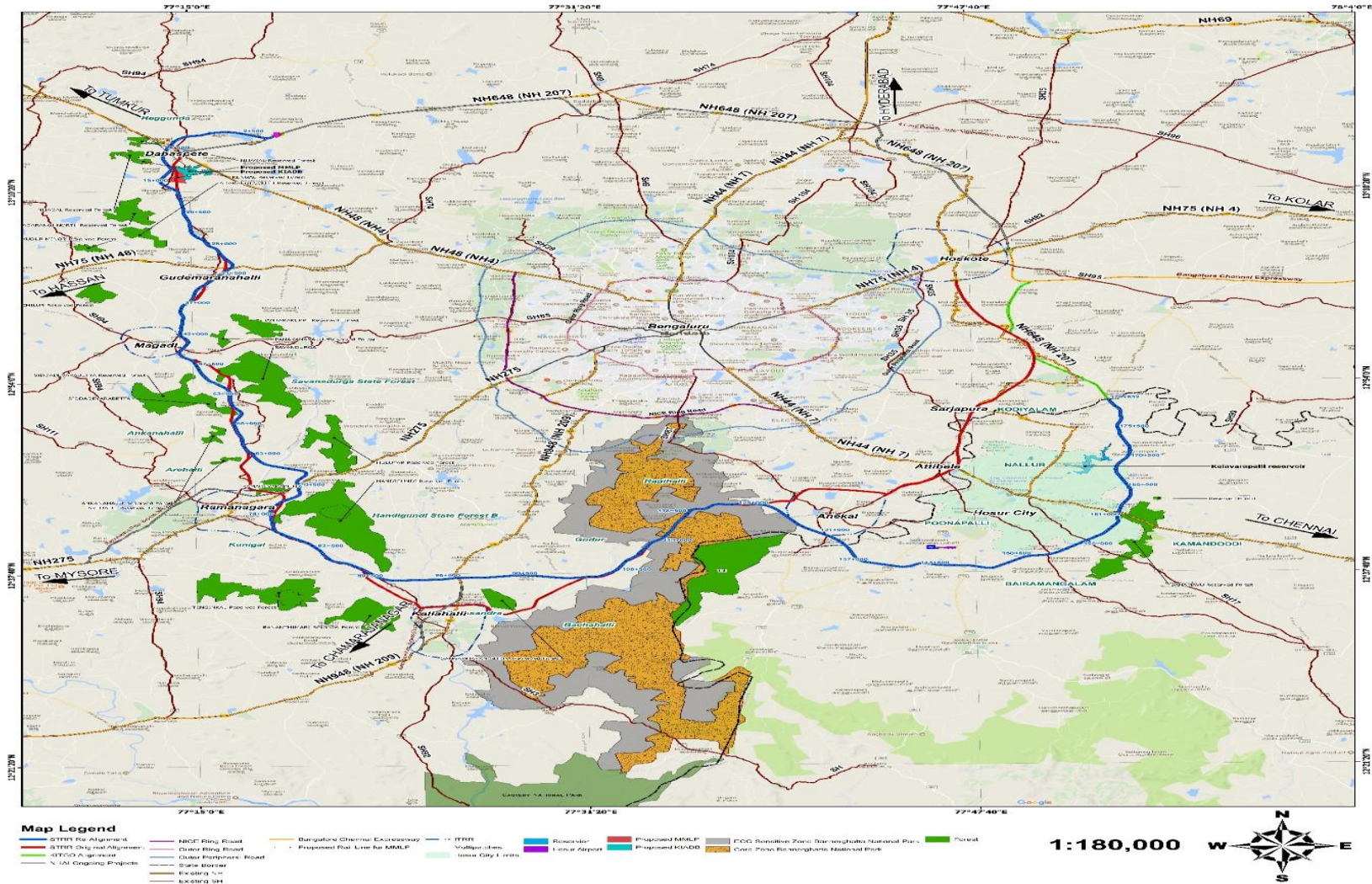


Figure 4: Final Alignment Map of the Project Stretch

16 LAND USE PATTERN

The entire corridor length of road is passing through rolling and plain terrain. The land use by the side of the corridor includes agriculture activities, barren, residential and commercial purposes. Some built-up locations are also noticed particularly near SH and NH crossings.

17. STRUCTURES AFFECTED ALONG THE PROJECT ROAD

17.1 Impact on Structures

The impacts on structures along the project road particularly at proposed Interchange locations have been estimated on the basis of visual assessment and topographical survey data within 60 m bandwidth, i.e., 35m on either side of proposed centre line. The list of likely affected structures according to utilization is presented in **Table 9**.

Table 9: Details of Structures likely to be Affected

Sl.	Type of Structure	No of Likely Affected Structures
1	Residential, Commercial, Residential cum Commercial Structure, Compound Walls, Community Structures etc.	206
Total		206

Source: Topographic survey report, LBC, 2018 & 2019

18. SOCIO ECONOMIC PROFILE OF PROJECT INFLUENCED DISTRICTS

18.1 Overall Approach

This section provides socio-economic profile at two levels, like, regional or state level and project influence area.

For a better understanding about how the growth of traffic and demand for transport infrastructure is dependent on the region's available resources, human and natural, social and economic distribution, gross output and growth potential, a study of socioeconomic profile is essential. For any region, a close inter-relation exists between the socio economic activity and transport infrastructure. The region's development is totally governed by these components and how they complement each other.

The socio economic profile helps in making project implementation decisions. A survey of economic activity and demographic trends in the past can help in explaining current social status distribution among the society, the living standards, the quality of life, the general awareness, maturity levels and in turn the reflection on the growth of traffic etc.

Socio-economic and demographic data of the project area – population & density, employment, poverty levels, industry, agriculture, literacy, health, transport, tourism potential and related aspects. Socio – economic profile has been prepared to provide a quantitative framework against which qualitative socio and economic impacts of any of the development initiative can be assessed and evaluated.

monsoon, and 32 per cent through the south-west monsoon. Since the state is entirely dependent on rains for recharging its water resources, monsoon failures lead to acute water scarcity and severe drought. Tamil Nadu is divided into seven agro-climatic zones: north east, North West, west, southern, high rainfall, high altitude hilly, and Cauvery Delta (the most fertile agricultural zone).

Agriculture

Tamil Nadu has historically been an agricultural state and is a leading producer of agricultural products in India. In 2008, Tamil Nadu was India's fifth biggest producer of rice. The total cultivated area in the State was 5.60 million hectares in 2009–10. The Cauvery delta region is known as the Rice Bowl of Tamil Nadu. In terms of production, Tamil Nadu accounts for 10 per cent in fruits and 6 per cent in vegetables, in India.

The state is the largest producer of bananas, turmeric, flowers, tapioca, the second largest producer of mango, natural rubber, coconut, groundnut and the third largest producer of coffee, sapota, Tea and Sugarcane. Tamil Nadu's sugarcane yield per hectare is the highest in India. The state has 17,000 hectares of land under oil palm cultivation, the second highest in India.

Industries

Traditionally, Tamil Nadu has always been in the forefront of industrialization with a strong presence in the manufacture of engineering and auto components, textiles, leather, sugar etc. During the post liberalization period since 1991, private Sector began to take over the lead in the industrial development of the country. In the different scenario, States started taking the initiative in the new and competitive environment and Tamil Nadu was one of the earliest to seize the opportunity and announced its Industrial Policy in 1992 itself. This policy became the cornerstone and laid the foundation for the rapid growth of new industries in the State. This policy became the harbinger of growth that facilitated the electronics and automobile industry revolution in Tamil Nadu by attracting major projects from Industrial giants.

Education

Tamil Nadu is one of the most literate states in India. Tamil Nadu has performed reasonably well in terms of literacy growth during the decade 2001–2011. A survey conducted by the Industry body Assocham ranks Tamil Nadu top among Indian states with about 100 per cent Gross Enrolment Ratio (GER) in primary and upper primary education. One of the basic limitations for improvement in education in the state is the rate of absence of teachers in public schools, which at 21.4 per cent is significant. Tamil Nadu has 37 universities, 552 engineering colleges 449 Polytechnic Colleges and 566 arts and science colleges, 34335 elementary schools, 5167 high schools, 5054 higher secondary schools and 5000 hospitals.

Culture

Tamil Nadu has a long tradition of venerable culture. Tamil Nadu is known for its rich tradition of literature, art, music and dance, which continue to flourish today. Tamil Nadu is a land most known for its monumental ancient Hindu temples and classical form of dance Bharatanatyam. Unique cultural features like Bharatanatyam (dance), Tanjavor, and Tamil architecture were developed and continue to be practiced in Tamil Nadu.

Transport System

- **Road**

Tamil Nadu has a transportation system that connects all parts of the state. Tamil Nadu has an extensive road network, providing links between urban centers, agricultural market places and rural areas. There are 29 national highways in the state, covering a total distance of 5,006.14 km (3,110.67 mi). The state is also a terminus for the Golden Quadrilateral project, that connects Indian metropolises like (New Delhi, Mumbai, Bengaluru, Chennai and Kolkata). The state has a total road length of 167,000 km (104,000 mi), of which 60,628 km (37,672 mi) are maintained by Highways Department. This is nearly 2.5 times higher than the density of all-India road network. The major road junctions are Chennai, Vellore, Madurai, Trichy, Coimbatore, Salem, Tirunelveli, Tuticorin, Karur, Krishnagiri, Dindigul and Kanyakumari. Road transport is provided by state owned Tamil Nadu State Transport Corporation and State Express Transport Corporation. Almost every part of state is well connected by buses 24 hours a day.

- **Railways**

Tamil Nadu has a well-developed rail network as part of Southern Railway. Headquartered at Chennai, the Southern Railway network extends over a large area of India's southern peninsula, covering the states of Tamil Nadu, Kerala, Puducherry, a small portion of Karnataka and a small portion of Andhra Pradesh. Express trains connect the state capital Chennai with Mumbai, Delhi and Kolkata. Chennai Central is gateway for train towards north whereas Chennai Egmore serves as gateway for south. Tamil Nadu has a total railway track length of 5,952 km (3,698 mi) and there are 532 railway stations in the state. The network connects the state with most major cities in India.

- **Airports**

Tamil Nadu has four international airports namely Chennai International Airport, Coimbatore International Airport, Tiruchirappalli International Airport and Madurai International Airport. Salem Airport and Tuticorin Airport are domestic airports. Chennai International Airport is a major international airport and aviation hub in South Asia. Besides civilian airports, the state has four air bases of the Indian Air Force namely Tanjavoor AFS, Tambram AFS, Coimbatore AFS and two naval air stations INS Rajali and INS Parundu of Indian Navy.

- **Seaport**

Tamil Nadu has three major seaports located at Chennai, Ennore and Tuticorin, as well as seven other minor ports including Cuddalore and Nagapattinam. Chennai Port is an artificial harbour situated on the Coromandel Coast and is the second principal port in the country for handling containers. Ennore Port handles all the coal and ore traffic in Tamil Nadu.

- **Tourisum**

The tourism industry of Tamil Nadu is the largest in India, with an annual growth rate of 16 per cent. Tourism in Tamil Nadu is promoted by Tamil Nadu Tourism Development Corporation (TTDC), a Government of Tamil Nadu undertaking. According to Ministry of Tourism statistics, 4.68 million foreign (20.1% share of the country) and 333.5 million domestic tourists (23.3% share of the country) visited the state in 2015 making it the most visited state in India both domestic and foreign tourists. The state boasts some of the grand Hindu temples built in Dravidian architecture. The Brihadishwara Temple in Tanjavoor, Gangaikonda Cholapuram and the Airavatesvara Temple in Darasuram built by the Cholas and the Shore Temple along with the collection of other monuments in Mahabalipuram (also called Mamallapuram) have been declared as UNESCO World Heritage Sites. Erwadi in Ramanathapuram district is one of the major Islamic tourist attraction site.

18.4.1 Krishnagiri district of Tamil Nadu

The holy land of wise scholars, men of valour and courage, blessed with the green valleys, hills and hillocks and inhabited by people known for innovative farming was divided, for the formation of Krishnagiri district, carved out of Dharmapuri district as 30th district of Tamil Nadu.

'Krishna' refers to 'black' and 'giri' refers to 'hill'. This district is gift with black granite hillocks and named as "Krishnagiri".

Krishnagiri district bounded by Vellore and Thiruvannamalai districts in the East, Karnataka state in the west, State of Andhra Pradesh in the North Dharmapuri District in the south. Its area is 5143 sqkm. This district is elevated from 300m to 1400m above the mean sea level. It is located between 11° 12'N to 12° 49'N Latitude, 77° 27'E to 78° 38'E Longitude.

- **Geography**

The prominent geomorphic units identified in the district through interpretation of satellite imagery are structural hills in the southwestern part of the district, denudational land forms like buried pediments in the plains and inselbergs and plateaus represented by conical hills aligned with major lineaments. Krishnagiri district forms part of the upland plateau region with many hill ranges and undulating plains. The western part of the district has hill ranges of Mysore plateau with a chain of undulating hills and deep valleys extending in NNE-SSW direction. The plains of the district have an average elevation of 488m msl. The plateau region along the western boundary and the northwest part of the district has an average elevation of 914m The Guthrayan Durg with an elevation of 1395m msl is the highest peak in the district.

- **Drainage**

Krishnagiri district forms parts of Cauvery and East Coast Minor Rivers basins. Cauvery River forms the southwestern boundary of the district. Dodda Halla is the most important tributary of Cauvery draining the rugged terrain in the northwest part of the district. Ponnaiyar is the major river draining the district and is ephemeral in nature. It originates from Nandhi hills in Karnataka, enters Tamil Nadu west of Bagalur and flows almost in a southeast direction till it reaches Manjamedu from where it flows along the district boundary before entering the district, again near Hanuman Tirtham. After flowing for a short distance in an easterly direction, it again follows the district boundary before entering the neighbouring Dharmapuri district. Pambar and Burgur Ar., are among the important tributaries of Ponnaiyar draining part of the district.

- **Climate**

The climate of Krishnagiri district is comparatively more pleasant than that of the surrounding districts due to general dryness of atmosphere and appreciable drop in temperature in the monsoon season. The year may be divide into four season namely dry season from January to March, summer season April and May, southwest monsoon season from June to Sept. and northeast monsoon season from October to December.

During summer season (April to May); the maximum temperature is about 37°C, and the mean daily minimum temperature of about 25°C in the plains. There is a gradual decrease of both day and night temperatures from June onwards till December, when the mean daily maximum temperature is about 30°C and the mean daily min. is about 19°C in plains.

The day temperature increases gradually from January onwards. The lowest temperature reached in January when the mean daily minimum is about 19°C. However, in higher areas i.e., Hosur, Thally and Krishnagiri taluks day and night temperature are lower by about 2 to 3°C. In these areas, weather is comparatively pleasant round the year.

The district receives the rain under the influence of both southwest and northeast monsoons. The normal annual rainfall over the district varies from about 750 to about 900 mm. It is the minimum around Hosur (767.7 mm) and Rayakottai (768.0 mm) in the northern and central parts of the district. It gradually increases towards west and east and is the maximum around Denkanikotai (910.7 mm) in the western part.

- **Religion**

The villages in the state are comprised of Hindus as the majority community. The presence of Muslims and Christians as the two non-Hindu and minority communities is limited. As per official census 2011 and population data 2018 of Krishnagiri district, Hindu are majority in Krishnagiri state. Total population of Krishnagiri district is 1,879,809 as per census 2011. Hinduism constitutes 91.70% of Krishnagiri population.

Table 10: Religious status of the Krishnagiri District

District	Krishnagiri
Population	1879809
Hindu	91.70%
Muslim	6.13%
Christian	1.91%
Sikh	0.02%
Buddhist	0.01%
Jain	0.02%
Other	0.01%

- **Language**

Three languages namely Tamil, Telugu and Kannada are predominantly speak in this district. Major religions are Hindu, Islam and Christianity. This district stands as an ideal exhibit of National integration and religious harmony. The society exhibit the confluence of different languages and religions.

- **Demography**

According to the 2011 census, Krishnagiri district has a population of 1,879,809. The district has a population density of 370 inhabitants per square kilometre. The growth of population of the district is 20.41 per cent. Krishnagiri has a sex ratio of 958 females for every 1000 males.

Table 11: Salient features of the District

S. No.	Particular	Units	Figure
1	Area	In '000 Sq. Km	5129
2	Administrative Units		
3	Revenue Villages	Number	655
4	Revenue Talukas	Number	5
5	Gram Panchayats	Number	352
6	Municipalities (incl. Corpns. & NPs)	Number	2

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Costal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

S. No.	Particular	Units	Figure
7	Population		
8	Total	In Persons	1879809
9	Male	In Persons	960232
10	Female	In Persons	919577
11	Male to Total Population	%	51.08
12	Female to Total Population	%	48.92
13	Sex	Ratio	958
14	Rural	In Persons	1451446
15	Urban	In Persons	428363
16	Rural Population (%)	%	77.21
17	Urbanization	%	22.79
18	Density of Population (per Sq. Km.)	In Persons	367
19	Child Population (0 - 6 Years)		
20	Total	In Persons	217323
21	Males	In Persons	112832
22	Females	In Persons	104491
23	Rural	%	166231
24	Urban	%	51092
25	Sex Ratio (Females per 1000 Males)	Ratio	926
26	Literates		
27	Total	In Persons	1187958
28	Males	In Persons	667062
29	Females	In Persons	520896
30	Literacy Rate		
31	Total	%	71.46
32	Males	%	78.72
33	Females	%	63.91
34	Scheduled Castes Population		
35	Total	In Persons	267386
36	Males	In Persons	135474
37	Females	In Persons	131912
38	Sex Ratio (Females per 1000 Males)	In Persons	974
39	Scheduled Tribes Population		
40	Total	Number	22388
41	Males	Number	11419
42	Females	Number	10969
43	Sex Ratio (Females per 1000 Males)	Number	961
44	Working Population		
45	Total	Number	877779
46	Males	Number	561634
47	Females	Number	316145

• **Working Profile**

The important crops of Krishnagiri District are Paddy, Maize, Ragi, Banana, Sugarcane, Cotton, Tamarind, Coconut, Mango, Groundnut, Vegetables and Flowers. The district has an excellent scope for agro business. Regional Agricultural Research Centre of Tamil Nadu Agricultural University is functioning efficiently at Paiyur in Kaveripattinam union since 1973. This centre is functioning in 18.5 hectare of land. It helps the peasants to develop and adopt the modern technique of cultivation. It has developed hybrid seeds by research, which yields more tonnage and good quality.

• **Connectivity**

This district is connect by Prime Minister's Golden Quadrilateral (GQ) Project executed by National Highways Authority of India. This district has a network of National Highways converging.

- NH-7 (Kanyakumari-Kashmir)
- NH-46 (Chennai-Bangalore)
- NH-66 (Pondicherry-Bangalore)
- NH-207 (Sarjapur-Bagalur-Hosur)
- NH-219 (Krishnagiri-Kuppam)

Apart from this, state highways and district highways are linking almost all the towns and villages of the district. Four National highways converge at the Head Quarters of this district is unique.

People of Krishnagiri District belong to various racial groups. People from Kashmir, Maharashtra, Karnataka and Andhra have settled in this District. Hence, it can be rightly call a Cosmopolitan society. Ancient Art & Culture is preserve and maintained by inhabitants. The major entertainment for rural folk form the 'Street Play' (Therukoothu) and 'Sevaiattam'.

The following major Highways passes through Krishnagiri District:

Table 12: Connectivity of the major highways to the Krishnagiri district

S. No.	Start-End Point	NH No.	Length(Km)
1	Kanniyakumari–Varanasi	7	2460
2	Krishnagiri–Ranipet	46	144
3	Pondicherry–Krishnagiri	66	214
4	Krishnagiri–Madanapalli	219	175
5	Sarjapur–Bagalur–Hosur	207	40

Salem, Bangalore Broad gauge line run through Hosur. A railway line between Jolarpet and Hosur (Via) Krishnagiri will pave way for further improvement of industrial growth in Hosur. This will link Chennai city and its port facilities with the growing town of Hosur, which is also a hub for horticulture crops. However, this will take some time for realization. As per new budget report, the proposed new line would take off from Jolarpet Junction, Tirupattur and pass through Kandili, Bargur, Krishnagiri and Shoolagiri a length of 104 km to join at Rayakottai. Another survey was conduct for a new rail link between Krishnagiri and Dharmapuri in 2004-05.

- **Economy**

- Krishnagiri district is famous for Mangoes. Krishnagiri district is also famous for the Granite Industry with quarries and processing units spread around the district. Hosur, one of the most industrialized places in the state is located in this district.
- With 40% share, the district is the top producer of Ragi in Tamil Nadu.
- The national fruit of India and of the state of Tamil Nadu is mango. The major crop of Krishnagiri district with 300.17 km² area of cultivation is mango. The district produces 300,000 tonnes annually and in Tamil Nadu Krishnagiri District is the First Place in The Production of Mango. Almost 20% of the mango varieties like 'Thothapuri' and 'Alphonso' that are produce in this district processed into pulp. In addition to mango pulp processing, tonnes of mangoes processed into juice every year in this district. A large-scale mango export zone has approved for the Krishnagiri district. This will allow growing as well as processing of mangoes thus yielding higher profits for the farmers.

- **Industry**

Approximately 25 industries located in these district process mangoes. Much of the population in this district is employ through mango cultivation directly and other labour class benefit through employment in mango processing units. There are about 150 mango nurseries which produce mango saplings in and around 'Santhur Village'. The district exports mango based products worth over ₹8 billion. Under the horticulture development program, government owned horticulture farms are functioning here. Through these units, about 300,000 fruit saplings are produce and distributed under different schemes. Apart from production and export, Krishnagiri also hosts Mango exhibition every year that is the unique in its kind in line with the annual exhibition held at New Delhi.

- **Tourist Places**

Thousands of visitors visit Krishnagiri each year. Majority come from Hosur, Bangalore, Dharmapuri, Vaniyambadi, Ambur and Chennai. The Krishnagiri Dam (Krishnagiri Reservoir Project Dam) is construct in 1958 during the rule of the then Chief Minister late Kamaraj located near the town. Nearby, Sayed Basha hills has a fort that was the fortress of the ruler, Tippu Sultan. Treks to the nearby hills/mountains as well as farmhouses are located in the outskirts. The boathouse is situate 8 km from the central bus stand, which also houses a children's park. There are variety of ancient temples near Krishnagiri. Nearby Ramapuram is the site of a 500-year-old Rama Temple that draws many visitors each year.

The presence of museum in this District known for traditional culture, Art and Architecture, Heritage and Historical Background is a blessing in disguise, to spread the traditional and heritage, culture and art of Tamil Nadu and Krishnagiri District in particular. This museum is functioning since 1993 AD, situated on Gandhi Salai in Krishnagiri. Historical monuments are preserved and exhibited here. It is not only a place of tourism but also a centre of education. This museum collects the monuments, Classifies and preserves them to conduct research on its historical worthiness. The syed Basha Mountain is very famous for two Sufi martyr saints who had been slain in a battle long ago, every year on 10th of Shawwal (Islamic month) a grand celebration is made. Almost thousands gather during this Urs festival with devotion and respect.

19. LAND PRICE

The land price, as per the details obtained from Department of Stamps and Registration of both the state governments varies significantly from place to place. The circle rate of agricultural land varies from Rs. 1.20 lakhs to 10 lakhs per acre in Tamilnadu.

20. SOCIAL IMPACT ASSESSMENT

20.1 Magnitude of Impacts

This section contains the intensity and magnitude of losses due to the construction of new Green field alignment of STRR (Phase-III) section of NH-948A project road. The impacts of the present project include loss of land (agriculture, residential and commercial); structure (residential, commercial, community, government & religious); income and livelihood (Title holder, encroacher and squatter), and common properties (Bus Stop, Pond and other small government buildings etc.). Census of all the structures lying within 60 meter width has been undertaken from the topographical data to assess the project impact on the population for displacement, resettlement and rehabilitation.

20.2 Project Impacts

As the proposed project road is entirely green field alignment, the proposed cross sections were prepared by accommodating various features of proposed road as per the Proposed RoW of 70M. The social assessment of the impact was conducted within 35m on either side of the road from the existing centreline. During the survey it was found that the settlements comprise of residential & commercial structures including small religious shrines and squatters etc.

20.3 Extent of Land Acquisition

The 35.489 kilometer design length of the project corridor requires both private and government land constituting 318.179 hectare with regard to construction of STRR Phse-III Section of NH- 948A road. The scope of land acquisition in the project road sections includes a) a minimum 70m RoW is required b) Interchanges are proposed at crossings of existing State Highways and National Highways where additional land needs to be acquired c) provisions on road side amenities. **Table 13 to 15** below presents the detail account of land to be acquired in Krishnagiri district of Tamilnadu state under STRR Phase-III for the project road.

Table 13: Details of Additional Land required for STRR (Phase-III) Section of NH-948A

Sl. No.	Particulars	Quantity
1	Total Length of proposed Road: Design Length (in km.)	35.489
2	Total Land to be Acquired in STRR Phase-III Section (in Ha.)	318.179

A total of 318.179 Ha. of land to ne acquired for the proposed project road of STRR (Phase-III) section of NH-948A, in Krishnagiri district of Tamilnadu state. Village wise land to be acquired is given in below **Table 14.**

Table 14: Village wise Land required for STRR (Phase-III) Section of NH-948A

Sl. No.	Phase/Package Number	Name of the District	Name of the Taluk	Name of the Village	Total Area		
					Sq. Mtrs.	Ha.	Acres
1	Phase-III/Package-1 (from Km. 144.480 to Km. 179.969)	Krishnagiri	Hosur	S. Mudhuganapalli	125110	12.511	30.90
2				Mugalur	130342	13.034	32.19
3				Gopanapalli	183665	18.367	45.37
4			Denkenikottai	Hosapuram	169713	16.971	41.92
5				Kundhumaranapalli	70243	7.024	17.35
6				Biramangalam	344010	34.401	84.97
7			Hosur	Thorapalli Agraharam	370749	37.075	91.58
8				Mornapalli	342122	34.212	84.50
9				Allur	187561	18.756	46.33
10				Attur (H/o Muthalli)	18450	1.845	4.56
11				Muthali	20575	2.058	5.08
12				Pathamuththali	180537	18.054	44.59
13				Karupalli	177981	17.798	43.96
14				Nandimangalam	116373	11.637	28.74
15				Attur (H/o Paduthepalli)	40610	4.061	10.03
16				Paduthepalli	176695	17.670	43.64
17				Thummanapalli	88062	8.806	21.75
18				Mallasandram	70956	7.096	17.53
19				Pattavarapalli	60958	6.096	15.06
20				Alasapalli	191630	19.163	47.33
21				Deeviripalli	115444	11.544	28.51

Of the total land (318.178 Ha.) to be acquired in Krishnagiri district of Tamilnadu state around 240.451 Ha.(75.57%) is Private Land and 77.727 Ha. (24.43%) is Government Land. Details of Village wise ownership of land is given in below **Tables 15**.

Table 15: Village wise Ownership of Land along the Project Road (STRR Phase-III)

Sl. No.	Phase/Package Number	Name of the District	Name of the Taluk	Name of the Village	Private	Govt.	Total
1	Phase-III/Package-1 (from Km. 144.480 to Km. 179.969)	Krishnagiri	Hosur	S. Mudhuganapalli	11.285	1.226	12.511
2				Mugalur	12.417	0.617	13.034
3				Gopanapalli	5.413	12.953	18.366
4			Denkenikottai	Hosapuram	3.234	13.737	16.971
5				Kundhumaranapalli	3.168	3.857	7.024
6			Hosur	Biramangalam	20.458	13.943	34.401
7				Thorapalli Agraharam	31.006	6.069	37.075
8				Mornapalli	23.453	10.759	34.212
9				Allur	17.397	1.359	18.756
10				Attur (H/o Muthalli)	1.845	0.000	1.845
11				Muthali	1.860	0.198	2.058
12				Pathamuththali	14.254	3.800	18.054
13				Karupalli	15.168	2.630	17.798
14				Nandimangalam	9.880	1.757	11.637
15				Attur (H/o Paduthepalli)	3.645	0.416	4.061
16				Paduthepalli	16.999	0.671	17.670
17				Thummanapalli	7.562	1.245	8.806
18				Mallasandram	6.912	0.183	7.096
19			Pattavarapalli	5.904	0.192	6.096	
20			Alasapalli	17.452	1.711	19.163	
21			Deeviripalli	11.140	0.405	11.545	
Total					240.451	77.727	318.179

20.4 Identification of Structures

Census of all the structures lying within 70m has been undertaken from the topographical survey data to assess the project impact on the population for displacement, resettlement and rehabilitation. The structures existing within the proposed RoW belong to encroachers as well as title and non-title holders. The total number of structures within proposed RoW to be impacted is around 206 (which includes Residential, Commercial, Cattle Sheds, small Religious Structures etc.).

Of the total likely to be affected structures, significant number (190) of private properties comprising Residential, Commercial and Cattle Sheds structure of various types (Pucca/Semi-Pucca/Kutchu) are existing along the project road followed by community/panchayat structures (12 Nos.) (Religious/Tombs) and Government (4 Nos.) are affected.

20.4.1 Ownership of the Affected Structures

The estimated number of structures identified and verified of which are affected completely or partially along STRR Road (Phase-III) is about 206 structures including compound walls. Of the total affected structures, 190 (92.23%) are private, 4 (1.94%) are owned by the government and 12 (5.83%) are owned by the Community in the form of religious and other properties are affected in this project road. Ownership wise details of likely affected structures are presented in below **Table 16**.

Table 16: Ownership Status of the Affected Structures

Sl. No.	Ownership	No	% to total
1	Private	190	92.23
2	Government	4	1.94
3	Community	12	5.83
4	Panchayat/MC	0	0.00
Total		206	100.00

20.4.2 Impact on Private Properties

The estimated land requirements are resulting in complete or partial displacement of about 206 private structures. Of the total affected private structures, 44 (23.16%) are used for residential purpose, 43 (22.63%) are used for commercial purposes and 5 (2.63%) used for both residential cum commercial purposes are affected. A considerable number 98 (51.58%) of affected structures are found to be compound walls, toilets, basements, sheds, cattle sheds etc. Most of the commercial establishments are provisional (kirana) shops. The usage wise details of all private structures likely to be affected are presented in below **Table 17**.

Table 17: Usage of the Private Properties Affected

Sl. No.	Usage	No	% to total
1	Residential	44	23.16
2	Commercial	43	22.63
3	Residential + Commercial	5	2.63
4	Others (incl. Toilets, Sheds, , Petty Shops, School etc.)	98	51.58
Total		190	100.00

20.4.3 Impact on Common Property Resources

A total of 16 common properties are affected across the project road. Of which 3 (18,75%) are Religious structures in the form of small temples. About 9 (56.25%) of other religious structure in the form of grave yard/tomb are affected in this project road. In addition, around 4 (25%) other structures such as Bus Stops, Compound Walls etc owned by the government/community are affected. No other structures owned by the community/government are affected along the project road. Details of the usage of these common properties such as religious places and other structures are given in **table 18** below.

Table 18: Common Properties Affected

Sl. No.	Usage	No	% to total
1	Religious Places (Temples)	3	18.75
2	Grave Yard/Tomb	9	56.25
3	Government Buildings	2	12.50
4	Others (Market, Arch, Statue, Shopping Complex, Bus Stops, Compound Walls Etc.)	2	12.50
Total		16	100.00

20.4.4 Other Assets and Minor Structures Affected

In addition to the above listed properties other minor assets which includes well, bore well, water tanks, taps, Hand pumps and Overhead Tanks etc. around a total of 93 minor assets are affected in this road. Details are given in the **table 19** below.

Table 19: Details of Other Minor Assets Affected

Sl. No.	Usage	No	% to total
1	Well	9	9.68
2	Bore Wells	10	10.75
3	Water Tanks	14	15.05
4	Pump House	5	5.38
5	Hand Pumps	0	0.00
5	Others (Over Head tanks, Pits, Sump, Taps etc.)	55	59.14
Total		93	100.00

20.4.5 Type and Area of the Affected Structures

Of the total 206 structures affected under both private and government/common property resources a majority 100 (48.54%) are Semi-Pucca and of the remaining, 91 (44.17%) structures are Pucca and 12 (5.83%) are Kutcha in nature. The total area affected excluding Compound Walls Length is about 17038.45 square meters. Details are presented in **table 20** below.

Table 20: Type and Area of Structures Affected along Project

Sl. No	Type	Total Structures Affected		Total Area affected (Sq.mts)	
		No	%	No	%
1	Pucca	91	44.17	4946.55	29.03
2	Semi pucca	100	48.54	9288.84	54.52
3	Kutcha	12	5.83	463.02	2.72
4	Movable	3	1.46	2340.03	13.73
Total		206	100.00	17038.44	100.00
Area affected is excluding affected compound walls area.					

20.4.6 Usage with type of total affected structures

Observed across the type and usage of the total affected structures, majority of the residential, commercial, structures used for other purposes and compound walls are Semi-Pucca in nature. Details of usage with type of likely affected structures including compound walls are presented in **table 21** below.

Table 21: Usage with Type of Total Affected Structures

Sl. No.	Usage	Type of affected property (%)		
		Pucca	Semi-Pucca	Kutcha
1	Residential	12	28	4
2	Commercial	14	26	3
3	Res+Commercial	3	2	0
4	Others (Incl. Common Property Resources, CWs etc.)	62	44	8

20.4.7 Extent of Loss by Usage

Table 22 below presents the percentage of loss for the total affected properties by their usage. From the table below it is seen that out of the total area of 21318.64 square meters the affected area is 17038.44 square meters thus resulting in a loss of 73.48% of the total area excluding the affected length 1976.84 Metres of Compound walls.

Table 22: Percentage of loss by Usage

Sl. No	Type of usage	Total		
		Total Area	Affected area	% of loss
1	Residential	3130.63	2980.92	95.22
2	Commercial	13363.77	10051.78	75.22
3	Res+Commercial	1609.51	1296.19	80.53
4	Others (incl. Common property resources)	3214.73	2709.55	84.29
5	Compound Walls (Length in Mtrs)	1976.84		
Total		21318.64	17038.44	79.92

20.4.8 Affected Mobile Vendors and Road Side Kiosks

In addition to the affected structures discussed above some roadside Kiosks and mobile vendors are also affected mainly near the proposed Interchanges where the proposed project road crosses existing State Highways and National Highways. As per the verification approximately a total number of 62 kiosks and local mobile vendors are affected. A majority of them are into these businesses from the last 5 to 10 years are found to earn about 350 to 400 rupees per day. Of the total 55 kiosks and local mobile vendors who are temporarily affected due to the widening of the existing road are into the business of Coconut vendors, Flower vendors, fruit vendors etc. are affected.

20.5 Project Impacted PAPs

The acquisition of private land and the affected structures by the project are indicators of impact on the social environment. To estimate the exact number of impacted persons at this stage is not possible. Generally, the impact of project is evaluated on magnitude of land loss and other immovable assets/ structures.

Here, the impacted persons are calculated on the basis of affected structures in project road. The affected persons can be derived by multiplying the average members of household in the project influence districts into likely to be affected structures. The district average of the family size is considered as the base. According to the estimation, approx. 410 project-affected persons of 102 households are likely to be impacted directly or indirectly by the widening of the project road.

20.6 Profile of Structure Affected Population

As part of the social assessment survey the demographic and socio-economic particulars of the occupants of the above discussed affected properties is collected. The total number of project-affected households who will be losing their privately owned structures including compound walls is 102. Of the total households, the survey was conducted in around 26 households who are losing their privately owned structures either partially or fully (approximately a sample of 25% of the total households losing their properties). To avoid the non-response cases the survey was conducted in more than the required sample and all are completed. The following analysis is presented for some of the useful indicators at the household level. The analysis tables presenting not available response cases for some of these indicators are mostly due to the respondent being an absentee or not allowed to provide the details.

20.6.1 Socio-Cultural profile of the Project Road

Of the total surveyed households a total of 149 persons are affected due to acquisition of houses and other assets of which 83 (55.7%) constitute Male and 66 (44.3%) constitute female. **Table 23** on the analysis of Socio-Cultural profile of the surveyed households shows that along the project corridor, there were households belonging to only two religions viz Hindus (96.15%) and Muslims (3.85%). Social group-wise most of the affected people represents the Backward caste (73.08%) and of the remaining 19.23 percent are General castes. The incidence of Scheduled Castes is around 7.69% along the project road. Observed across the family pattern majority (50%) of the affected households are joint families and of the remaining 46.15 percent of the affected households live as nuclear families.

Most of the households are staying along the roadside from a long time where in nearly 42.31% of them are living since more than 10 years. About 26.92% of them are found to have settled in the last 2-6 years. Details are presented in table below. Analysis on literacy level of head of the affected households shows that around 61.54 percent of them are literates. During the survey, some of the owners/occupants of the structures are not available and the respondent is not in a position to give the details of the concerned head of the Household.

Table 23: Socio-Cultural Characteristics of Structure Affected Population

Item	Description	No	% of total
Population	Male	83	55.70
	Female	66	44.30
	Total	149	100.00
Religious Group	Hindu	25	96.15
	Muslim	1	3.85
	Christian	0	0.00
	Others	0	0.00
	Total	26	100.00
Social Group	General	5	19.23
	BC	19	73.08
	SC	2	7.69
	ST	0	0.00
	Total	26	100.00
Family Type	Joint	13	50.00
	Nuclear	12	46.15
	Individual	1	3.85
	Total	26	100.00
Years of stay	Up to 1 year	5	19.23
	2 to 4 years	3	11.54
	5 to 6 years	4	15.38
	7 to 9 years	3	11.54
	10 and above years	11	42.31
	Total	26	100.00
Education level of HH	Illiterate	10	38.46
	1-5 class	1	3.85
	6-7 Class	2	7.69
	8-9 Class	2	7.69
	SSC	7	26.92
	Inter	1	3.85
	Degree	1	3.85
	PG	1	3.85
	Technical	1	3.85
	Professional	0	0.00
	Total	26	100.00

20.6.2 Economic Profile along the Project Road

Occupation wise, most of them are engaged into agriculture activity (57.69%) followed by commercial activity of petty shop keeping (19.23%), non-agricultural labour, Trade/Business (3.85%) and other occupations such as retired pensioners, auto drivers, depend on fixed deposits, Dhobis etc. Details are

presented in **Table 24** below.

The income levels of all the surveyed households fall under lower and middle income families who are earning less than Rs. 300000 per annum. Details are given in below **Table 24**.

Table 24: Economic Profile of Structure Affected Population

Item	Description	Number of HH	% of total
Occupation of HH	Agriculture	15	57.69
	Trade/Business	1	3.85
	Petty shop keeping	5	19.23
	Agri labour	0	0.00
	Non-Agri labour	1	3.85
	HH Industries/Artisan activity	1	3.85
	Govt service	0	0.00
	Pvt.service	0	0.00
	Professional	0	0.00
	Self employed	1	3.85
	Others (Pensioner)	2	7.69
	Total		26
Annual income (Rs)	Up to 50000	0	0.00
	>50000 to 100000	10	38.46
	>100000 to 300000	16	61.54
	>300000 to 500000	0	0.00
	>500000	0	0.00
	Total		26

The expenditure pattern for the affected households shows that a majority of them are having an average monthly expenditure less than Rs. 10000 per month. Details are given in **Table 25**. Majority of the affected persons (96.15%) reportedly hold the ration cards given for Below Poverty Level (BPL) families.

Table 25: Monthly Expenditure and Others for Structure Affected Households

	Description	No. of HHs	% of HH
Monthly Expenditure (Rs)	<4000	0	0.00
	4000 to 10000	18	69.23
	10000 to 15000	3	11.54
	>15000	5	19.23
	Total		26
Ration Card	White (BPL)	1	3.85
	Pink (APL)	25	96.15
	Total	26	100.00

20.6.3 Details of Indebtedness

The indebtedness pattern for the affected households shows that, of the total households surveyed, around 30.76 percent of the households have some outstanding loans taken for different needs. Of these households reported having outstanding loans, around 50% of them are having an outstanding loan upto Rs. 400000 and of the remaining households around 37.5 percent have an outstanding loan ranging between Rs. 400000 to Rs.600000. Details are given in Table 26.

Table 26: Details of Outstanding Loans of Structure Affected Households

	Amount	No. of HHs	% to Total
Outstanding Loans	Up to 100000	2	25.00
	>200000 to 400000	2	25.00
	>400000 to 600000	3	37.50
	>600000 to 1000000	0	0.00
	>1000000	1	12.50
	Total		8

20.6.4 Details of Major Health problems

Health is a major development challenge in any infrastructure development project in India. Given the epidemic nature of the problem, it may reverse country's achievements in health and development. The major health issues of the affected households along the project road shows that, of the total households surveyed, in 11.54 percent of the households, the household members are suffering with some major health problems. Details are given in Table 27.

Table 27: Major Health Problems of Structure Affected Households

	Description	No. of HHs	% of HH
Major Health Problem	Diabetes & BP	2	66.67
	Heart Problem	1	33.33
	Total	3	100.00

21. LEGAL POLICY FRAMEWORK & ENTITLEMENT MATRIX

21.1 Introduction

This section contains the resettlement plan for the potential social impact anticipated due to the proposed project. In this regard, a compatible Rehabilitation and Resettlement Policy has to be developed based on NHAI, Government of India and accordingly a full resettlement action plan (RAP) will be prepared for the project in the subsequent stages of project preparation as per the requirement.

All strategic interventions on human development, spread across all social issues, need directives of policies and legal support to operationalize the appropriate actions. These policies and legislations help to overcome the constraints and support administrator, implementer, community and individual in delivery of justice. This section includes the World Bank as well as National policies and Acts applicable to the proposed Project are detailed under in subsequent stages:

The main objective of the Legal and Entitlement Policy Framework is to appropriately identify, address and mitigate all adverse socio-economic impacts accrued to the communities, families or people due to the implementation of the Project within the purview of the existing law and regulations of the country and state those are applicable to the proposed project.

Road up-gradation/widening projects often result in acquisition of land, particularly in case when the existing ROW is not adequate to accommodate the proposed up-gradation/widening. In order to protect their interests, administrative, policy and legal frameworks are present. National Acts and policies applicable to this project include:

- National Highways Act (NH Act), 1956;
- Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, (New LARR 2013 Act)

The following provisions from the above mentioned policies are likely to applicable for the project.

21.2 Land Acquisition

Land acquisition in India refers to the process by which the Central or any State government, excepting the Government of Jammu & Kashmir, in India acquires private land for the purpose of industrialization, development of infrastructural facilities or urbanization of the private land, and provides compensation to the affected land owners and their rehabilitation and resettlement.

Land acquisition in India is now governed by the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR) and which came into force from 1 January 2014. The land acquisition in Jammu and Kashmir is governed by the Jammu and Kashmir Land Acquisition Act 1934.

In case where a State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for compensation of land and is higher than the provisions under the RCFTLARR Act 2013, the same may be adopted by the Competent Authority in determining the compensation for land.

Similarly, in case where a State Government through any Act or Gazette Notification or as approved by any authority of State Government (duly authorized for the purpose) as per their approved procedure has fixed a rate for resettlement and rehabilitation assistance and is higher than the provisions under the RCFTLARR 2013, the same may be adopted by the Executing Authority.

21.3 Objectives of Resettlement Policy

This RAP is project specific resettlement plan and has been prepared in the line of Government Policy. The RAP is based on the general findings of the census and socio economic survey, field visits, and meetings with various project affected persons in the project area. The primary objective of the RAP is to identify impacts and to chalk out plan to mitigate various losses along STRR (Phase-III) Section of NH-948A Project Road. The specific objectives are as follows:

- To minimize displacement and to promote least displacing alternatives
- To ensure adequate rehabilitation package and expeditious implementation of rehabilitation process with the active participation
- To provide better living conditions and making concerted effort for providing sustainable income to affected families
- Develop harmonious relationship between requiring body and affected families

The RAP outlines the details of the project, description of the project location, the magnitude of impacts based on the census, and spells out the necessary implementation procedures for resettlement and rehabilitation of the entire project affected families including the entitlement matrix as well as the legal framework and policies.

21.4 National Highways Act 1956:

Land for construction of a new highway or upgradation/widening is acquired using the NH Act 1956. Key provisions relating to acquisition are as follows:

3A. Power to acquire land, etc.

- (1) Where the Central Government is satisfied that for a public purpose any land is required for the building, maintenance, management or operation of a national highway or part thereof, it may, by notification in the official Gazette, declare its intention to acquire such land.
- (2) Every notification under sub-section (1) shall give a brief description of the land.
- (3) The competent authority shall cause the substance of the notification to be published in two local newspapers, one of which will be in a vernacular language.

Objections and Confirmation

Objections are invited from all persons interested in the land within 21 days from the date of notification under Section 3-A.

The objections will be valid on one or more of the following grounds:

- That the purpose for which the land is proposed for acquisition is not a public purpose.
- That the land is not or less suitable than another piece of land for the said purpose.
- That the area under acquisition is excessive.

- That the acquisition will destroy or impair historical or artistic monuments or will desecrate religious buildings, graveyards and the like.
- The CA after hearing the objections will submit his report to the Central government, who will finally declare the land for acquisition under Section 3-D of the Act.
- After notification the collector proceeds with the claim. He has the site marked out, measured and a plan of the same made vide Section 3-E.

3D. Declaration of acquisition.

- (l) Where no objection under sub-section (1) of section 3C has been made to the competent authority within the period specified therein or where the competent authority has disallowed the objection under sub-section (2) of that section, the competent authority shall, as soon as may be, submit a report accordingly to the Central Government and on receipt of such report, the Central Government shall declare, by notification in the official Gazette, that the land should be acquired for the purpose or purposes mentioned in sub-section (1) of section 3A.

3E. Power to take possession.

- (l) Where any land has vested in the Central Government under sub-section (2) of section 3D, and the amount determined by the competent authority under section 3G with respect to such land has been deposited under sub-section (1) of section 3H, with the competent authority by the Central Government, the competent authority may by notice in writing direct the owner as well as any other person who may be in possession of such land to surrender or deliver possession thereof to the competent authority or any person duly authorized by it in this behalf within sixty days of the service of the notice.

3G. Determination of amount payable as compensation

The competent authority or the arbitrator while determining the amount under sub-section (1) or sub-section (5), as the case may be, shall take into consideration

- the market value of the land on the date of publication of the notification under section 3A;
- the damage, if any, sustained by the person interested at the time of taking possession of the land, by reason of the severing of such land from other land;
- the damage, if any, sustained by the person interested at the time of taking possession of the land, by reason of the acquisition injuriously affecting his other immovable property in any manner, or his earnings;
- if, in consequences of the acquisition of the land, the person interested is compelled to change his residence or place of business, the reasonable expenses, if any, incidental to such change.

Compensation is also payable when:

- Part of the property is proposed for acquisition in such a manner that the remainder depreciates in value.
- When the land notified for acquisition has standing crops or trees.

- If the person interested has to change his place of residence or business then the excess rent payable for the new premises is also considered for compensation.

Matters which are not taken into consideration for the purpose of land acquisition are:

- The degree of urgency which has led to the acquisition.
- Any disinclination of the person interested to part with the land.
- Any increase in the land value likely to accrue from the use to which it will be put when acquired.
- After necessary inquiries the collector declares his award showing true area of the land, total amount of compensation payable and apportionment of compensation if there are more than one owners or claimants.
- The collector has to make the award under section 11 within a period of two years from the date of notification.

Reference to Arbitrator

- Any person interested, to whom the award is not satisfactory, can submit a written application to the Arbitrator.
- This application should be made within six weeks from the date of declaration of the award.

Apportionment

- In apparent of the compensation each of the claimants are entitled to the value of his interest, which he has lost, by compulsory acquisition. Thus it is required to value a variety of interest, rights and claims in the land in terms of money.

22. RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT (RFCTLARR), 2013, GOVT. OF INDIA

The most relevant Indian regulation for facilitating resettlement and rehabilitation is the RFCTLARR, 2013. This Act is the principal document for procedures to be followed for acquisition of private land by the Government for public purposes and for determining compensation. The Act ensures that no person is deprived of land under this Act and entitles PAPs to a hearing before the actual acquisition. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 has been effective from January 1, 2014 has subsided all other prevailing Acts and Notification, in this regard, from January 1, 2015.

The key features of the new land acquisition act are as follows:

- Schedule I outlines the proposed minimum compensation based on a multiple of market value.
- Schedule II and III outline the resettlement and rehabilitation (R&R) entitlements to land owners and livelihood losers, which shall be in addition to the minimum compensation per Schedule I.
- The Schedules IV lists out other land acquisition acts, which will be repealed with 1 year after LAAR is effective.

The provisions of this Act Under Section 2(1) relating to land acquisition, compensation, rehabilitation and resettlement, shall apply, when the appropriate government acquires land for its own use, hold and control, including for Public Sector Undertakings and for public purpose. Under RTFCTLARRA, 2013

for land acquisition for various types of project, provisions of consent have been inbuilt to secure the interest of the stakeholders.

22.1 Resettlement & Rehabilitation Entitlement Framework

The R&R entitlement framework has been formulated based on the guiding principles outlined in the Policy. This R&R framework will be adopted to formulate the Resettlement Action Plan. The basic principles of R&R entitlement and compensation structure is provided in below **table 28**.

Table 28: Basic Principles Governing Compensation Structure

Sl. No.	Category of Impact	Eligibility for Entitlement	Relevant RTFCTLARRA 2013 Provisions	
			Entitlement	Provisions
1	2	3	4	5
1	Loss of Land	Titleholder	1. Market value of land. This will be determined as per Sections 26 to 29 of LARR Act 2013 by Collector.	<ul style="list-style-type: none"> ▪ Applicable as per RTFCTLARRA 2013. ▪ PAPs that have received the compensation on or before 31st December 2013 will be provided Additional compensation as per RTFCTLARRA 2013. ▪ This is as per Section 24 of RTFCTLARRA 2013 wherein it is mentioned: <i>... Provided that where an awarded has been made and compensation in respect of majority of land holdings has not been deposited in the account of the beneficiaries, Then, all beneficiaries specified in the notification for acquisition under section 4 of the said Land Acquisition Act, shall be entitled to compensation in accordance with the provisions of this Act.</i>
			2. Amount equivalent to current stamp duty and registration charges on compensation amount for replacement of lost assets.	
		Land Value factor	<ul style="list-style-type: none"> ▪ Scale 1 to 2 based on the distance of project from urban area, as may be notified by appropriate government. Illustrative scale (0-10 km=1), (10-20=1.20), (20-30 km=1.40), (30-40 km=1.80), and (40-50 km=2). 	
		Affected Family/Person	Land for land	<ul style="list-style-type: none"> ▪ Not applicable
2	Loss of other Immovable Assets	Titleholder	Value of Assets attached to land or building	<ul style="list-style-type: none"> ▪ This will be provided to affected families as per the RTFCTLARRA 2013 (provision under First Schedule Sl.No.2 (ref. Section 29 of the said Act).

Sl. No.	Category of Impact	Eligibility for Entitlement	Relevant RTFCTLARRA 2013 Provisions	
			Entitlement	Provisions
1	2	3	4	5
				<ul style="list-style-type: none"> This will be provided along with the loss of land and/or the structure which will be finalized by the Collector (revenue department).
3	Loss of Land, Structure and other immovable assets (1.2)	Titleholder	Solatum	<ul style="list-style-type: none"> As per RTFCTLARRA 2013 – Under section 30(1) of the said Act. The compensation is calculated for land, structures and such assets attached to the building or land as applicable and the total of all considered before considering the solatum.
4	Loss of Land and other assets	Titleholder	Additional 12% on market value of land.	<ul style="list-style-type: none"> In addition to the market value of land, additional 12% per annum to be paid on such market value commencing on and from the date of publication of notification of SIA u/s (2) of section 4 in respect of land, till award or date of taking possession of land whichever is earlier.
5	Land/ Structure	Titleholder	Stamp duty and registration fee.	<ul style="list-style-type: none"> The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body.

22.2 Other Allowances under RFCTLARR Act 2013

All monetary value (allowances) shall be entitled to be increased by 5% on the 1st January of each year unless the rate of inflation index is less than 5% for that year and presented in below **table 29**.

Table 29: Allowances as per RFCTLARR Act 2013

Allowance	Amount in INR	Remarks
Transportation Allowance	50,000	One-time grant
Employment Allowance	500,000	One-time grant for each affected family with eligible candidate.
Subsistence Allowance	3,000	Per month till one year after displacement for each affected family
	50,000	additional for SC/ ST affected family
Grant for artisans and small traders	50,000	One-time grant for small traders

23. SCHEDULED CASTE AND SCHEDULED TRIBES ORDERS (AMENDMENT) ACT, 2002

The Act provides for the inclusion in the lists of Scheduled Tribes (ST), of certain tribes or tribal communities or parts of or groups within tribes or tribal communities, equivalent names or synonyms of such tribes or communities, removal of area restrictions and bifurcation and clubbing of entries; imposition of area restriction in respect of certain castes in the lists of Scheduled Castes (SC) and the exclusion of certain castes and tribes from the lists of SCs and STs.

24. RESETTLEMENT POLICY AND LAND ACQUISITION FRAMEWORK

The guidelines are prepared for addressing the issues limited to this project for resettlement and rehabilitation of the PAPs. This policy has been developed based on the National Highways Act 1956 and The Right to Fair Compensation and Transparency in LA RR Act, 2013.

24.1 R&R Benefits for Project Affected Families

- The resettlement and rehabilitation (R&R) benefits shall be extended to all the Project Affected Families (PAF) whether belonging to below poverty line (BPL) or non- BPL. The details are provided in the entitlement matrix. For tribal the following provisions will be adhered.
- Each Project Affected Family of ST category shall be given preference in allotment of land.
- Tribal PAFs will be re-settled close to their natural habitat in a compact block so that they can retain their ethnic/linguistic and cultural identity
- The Tribal Land Alienated in violation of the laws and regulations in force on the subject would be treated as null and void and-the R&R benefits would be available only to the original tribal land owner.

COMPARISON OF VARIOUS PROVISIONS UNDER RFCTLARR ACT-2013 AND NPRR-2007

Table 30: Comparison Between LAAR Act-2013 and NPRR-2007

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
1. LAND ACQUISITION	
<p>In case of land acquisition the amount of compensation to be determined is that of the value of the land as decided by the Collector + 100 percent Solatium + 12 percent additional market value from the date of notification to taking over the possession or award whichever is higher. Market value of land as mentioned under section 26 of LARRA Act-2013 needs to be multiplied by the radial factor (based on the distance of project from urban area as notified by the appropriate government - e.g Multiplication of 2 in Rural area and Multiplication of 1 in Urban area) plus value of assets attached to land or building (mentioned in section 29 of</p>	<p>Each affected family owning agriculture land in the affected area and whose entire land has been acquired or lost, or who has, as a consequences of the acquisition or loss of land, been reduced to the status of a marginal farmer shall be allotted, in the name of each person included in the records of rights with regard to the affected family, agricultural land or cultivable waste land to an extent of actual and loss by the affected family subject to a ceiling on hectare of irrigated land or two hectares of unirrigated land or cultivable waste land, if Government land available in the resettlement area.</p>

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
<p>LARRA Act-2013) Plus Solatium (solatium includes 100% market value multiplied by 2 plus value of assets in Rural area and multiplied by 1 in urba area) Example: Rural Area: If the Market of land is Rs. 200, the final award will be Rs.200 X 2 + Solatium (100% of Market value X 2) = 400+400=800 or 4 times of market value, i.e Rs.200X4=Rs.800</p> <p>Urban Area: If the market value of land is Rs. 500, the final award will be Rs.500X1 + Solatium(100% of Market value X 1) = 500+500=1000 or 2 times of market value, i.e Rs.500X2=Rs.1000</p>	
2. PROVISION OF HOUSING UNITS IN CASE OF DISPLACEMENT	
<p>If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq mts in plinth area. The benefits listed above shall also be extended to any affected family which is without homestead land and which has been residing in the area continuously for a period of not less than three years preceding the date of notification of the affected area which has been involuntarily displaced from such area: Provided that any such family in urban areas which opts not to take the house offered, shall get a one time financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees: Provided further that if any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house: Provided also that no family affected by acquisition shall be given more than one house under the provisions of this Act.</p> <p>Explanation- The houses in urban areas may, if necessary, be provided in multi-storied building complexes.</p>	<p>Any affected family owning house and whose house has been acquired or lost, shall be allotted land for house, without requiring him to pay the price for such land, to the extent of two hundred and fifty square metre of land in rural areas or, as the case may be, one hundred and fifty square metre of land in urban areas to each nuclear family within the affected family, subject to the actual area acquired or lost. Each below poverty line affected family which is without homestead land and which has been residing in the affected area continuously for a period of not less than three years preceding the date of declaration of the aggregated area and which has been involuntarily displaced from such area, shall be provided with a house having at least one hundred square metre carpet area in rural areas or, as the case may be, fifty square metre carpet area in urban areas, in the resettlement area.</p>
3. CHOICE OF ANNUITY OR EMPLOYMENT	
<p>The appropriate Government shall ensure that the affected families are provided with the following options:</p>	<p>The project authority shall, at their cost, arrange for annuity policies that will pay a pension for life to the vulnerable affected persons as specified in clause (v)</p>

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
<p>(a) where jobs are created through the project, mandatory employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or</p> <p>(b) one time payment of five lakhs rupees per affected family;or</p> <p>(c) annuity policies that shall pay not less than two thousand rupees per month per family for twenty years, with appropriate indexation to the Consumer Price Index for Agriculture Labourers.</p>	<p>of subsection (2) of section 21, such amount as may be prescribed by the appropriate Government subject to a minimum of five hundred rupees per month.</p>
4. SUBSISTENCE GRANTS	
<p>The appropriate Government shall ensure that the affected families are provided with the following options:Given monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award. In addition to this amount, the scheduled castes and the scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to fifty thousand rupees.</p>	<p>In case of project involving land acquisition on behalf of a requiring body, each affected family which is involuntarily displaced shall get a monthly subsistence allowance equivalent to 25 days minimum agricultural wages per month for a period of one year from the date of displacement.</p>
5. TRANSPORTATION COST	
<p>The appropriate Government shall ensure that the affected families are provided with the following options: Each affected family which is displaced shall get a one time financial assistance of fifty thousand rupees as transportation cost for shifting of the family, building materials, belongings and cattle.</p>	<p>Each affected family which is displaced shall get a one time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of ten thousand rupees as transportation cost for shifting of the family, building materials, belongings and cattle.</p>
6. CATTLE SHED/ PETTY SHOPS COST	
<p>Each affected family having cattle or having a petty shop shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees for construction of cattle shed or petty shop as the case may be.</p>	<p>Each displaced affected family having cattle shall get one-time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of fifteen thousand rupees for construction of cattle shed.</p>
7. ONE TIME GRANTS TO ARTISAN, SMALL TRADERS AND OTHERS	
<p>Each affected family of an artisan, small trader or self-employed person or an affected family which owned non-agricultural land or commercial, industrial or</p>	<p>One time grants to artisan, small traders and others: Each affected person who is a rural artisan, small trader or self-employed person and who has been</p>

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
institutional structure in the affected area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees.	displaced shall get one-time financial assistance of such amount as the appropriate Government may prescribe subject to a minimum of twenty-five thousand rupees for construction of working shed or shop.
8. ONE TIME RESETTLEMENT ALLOWANCE	
Each affected family shall be given a one-time "Resettlement Allowance" of fifty thousand rupees only.	Not Mentioned/Silent
9. STAMP DUTY REGISTRATION	
<p>(1) The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body.</p> <p>(2). The land for house allotted to the affected families shall be free from all encumbrances.</p> <p>(3). The land or house allotted may be in the joint names of wife and husband of the affected family.</p>	In case of project involving land acquisition on behalf of a requiring body, the stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the requiring body.
10. PROVISION OF INFRASTRUCTURAL AMENITIES	
<ol style="list-style-type: none"> 1. Roads within the resettled villages and an all-weather road link to the nearest pucca road, passages and easement rights for all the resettled families be adequately arranged. 2. Proper drainage as well as sanitation plans executed before physical resettlement. 3. One or more assured sources of safe drinking water for each family as per the norms prescribed by the Government of India. 4. Provision of Drinking water for cattle. 5. Grazing land as per proportion acceptable in the State. 6. A reasonable number of Fair price Shops 7. Panchayat Ghars, as appropriate. 8. Village level Post offices, as appropriate, which facilities for opening saving accounts. 9. Appropriate seed-cum-fertilizer storage facility if needed. 10. Efforts must be made to provide basic irrigation facilities to the agricultural land allocated to the resettled families if not from the irrigation project, then by developing a cooperative or under some Government scheme or special assistance. 	

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
<p>11. All new villages established for resettlement of the displaced persons shall be provided with suitable transport facilities which must include public transport facilities through local bus services with the nearby growth centres/ urban localities.</p> <p>12. Burial or cremation ground, depending on the caste communities at the site and their practices.</p> <p>13. Facilities for sanitation, including individual toilet points.</p> <p>14. Individual single electric connections (or connection through non-conventional sources of energy like solar energy), for each household and for public lighting.</p> <p>15. Anganwadi's providing child and mother supplemental nutritional services.</p> <p>16. School as per the provisions of the right of children to Free and Compulsory Education Act, 2009 (35 of 2009);</p> <p>17. Sub-health centre within two kilometers range.</p> <p>18. Primary Health Centre as prescribed by the Government of India.</p> <p>19. Playground for children.</p> <p>20. One community centre for every hundred families.</p> <p>21. Places of worship and chowpal/tree platform for every fifty families for community assembly, of numbers and dimensions consonant with the affected area.</p> <p>22. Separate land must be earmarked for traditional tribal institutions.</p> <p>23. The forest dweller families must be provided, where possible, with their traditional rights on non- timber forest produce and common property resources, if available close to the new place of settlement and, in case any such family can continue their access or entry to such forest or common property in the area close to the place of eviction, they must continue to enjoy their earlier rights to the aforesaid sources of livelihood.</p> <p>24. Appropriate security arrangements must be provided for the settlement, if needed.</p> <p>25. Veterinary service centre as per norms.</p>	

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
11. SPECIAL PROVISIONS FOR SCHEDULED CASTE AND SCHEDULED TRIBES	
<p>1) In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of the Scheduled castes or the Scheduled Tribes families, a Development plan shall be prepared, in such form as may be prescribed, laying down the details of procedure for settling land rights due but not settled and restoring titles of tribals on alienated land by undertaking a special drive together with land acquisition.</p> <p>(2) The Development Plan shall also contain a programme for development of alternate fuel, fodder and non-timber forest produce resources on non-forest lands within a period of five years sufficient to meet the requirements of tribal communities as well as the Scheduled castes.</p> <p>(3) The concerned Gram Sabha or the Panchayats at the appropriate level in the Scheduled Areas under the Fifth Schedule to the Constitution or , as the case may be, Councils in the Sixth Scheduled Areas shall be consulted in all cases of land acquisition in such areas, including acquisition in case of urgency, before issue of a notification under this Act, or any other Central Act or a State Act for the time being in force as per the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 (40 of 1996) and other relevant laws.</p> <p>(4) In case of land being acquired from members of the Scheduled Castes or the Scheduled Tribes, at least one-third of the compensation amount due shall be paid to the affected families at the outset as first instalment and the rest shall precede the taking over of the possession of the land.</p> <p>(5) The Scheduled Tribes affected families shall be resettled preferably in the same Scheduled Area in a compact block, so that they can retain their ethnic, linguistic and cultural identity.</p> <p>(6) The resettlement areas predominately inhabited by the Scheduled castes and the Scheduled Tribes shall get land, to such extent as may be decided by</p>	<p>In case of a project involving land acquisition on behalf of a Requiring Body which involves involuntary displacement of two hundred or more Scheduled Tribes families, a Tribal Development plan shall be prepared, in such form as may be prescribed, laying down the detailed procedure for settling land rights due but not settled and restoring titles of tribals on alienated land by undertaking a special drive together with land acquisition. The plan shall also contain a programme for development of alternate fuel, fodder and non-timber forest produce (NTFP) resources on non-forest lands within a period of five years sufficient to meet requirements of tribal communities who are denied access to forests.</p> <p>The concerned gram Sabha or the Panchayats at the appropriate level in the Scheduled Areas under Schedule V of the Constitution or as the case may be, Councils in the Schedule Vi Areas shall be consulted in all cases of land acquisition in such areas including land acquisition in cases of urgency, before issue of a notification under the Land Acquisition Act, 1894 or any other Act of the Union or a State for the time being in force under which land acquisition is undertaken, and the consultation shall be in accordance with the provisions of the panchayats.</p> <p>Further, in cases of involuntary displacement of two hundred or more Scheduled Tribes families from the Scheduled Areas, the concerned Tribes families from the Scheduled Areas, the concerned Tribes Advisory Councils (TACs) may also be consulted</p> <p>Each affected family of ST followed by SC categories shall be given preference in allotment of land-for-land, if Government land is available in the resettlement area.</p> <p>In the case of land being acquired from members of the ST, at least one-third of the compensation amount due shall be paid to the affected families at the outset as first installment and the rest at the time of taking over the possession of the land.</p> <p>In case of a project involving land acquisition on behalf of a requiring body, each ST affected family shall get</p>

THE LAND ACQUISITION , REHABILITATION AND RESETTLEMENT ACT, 2013	REHABILITATION & RESETTLEMENT POLICY 2007
<p>the appropriate Government, free of cost for community and social gatherings.</p> <p>(7) In case of a project involving land acquisition on behalf of a requiring body, the affected families belonging to the Scheduled Castes and the Scheduled Tribes resettled out of the district of acquisition will get twenty-five percent. Higher monetary benefits under Rehabilitation and Resettlement Scheme.</p> <p>(8) Any alienation of tribal lands or lands belonging to members of the Scheduled Castes in disregard of the laws and regulations for the time being in force shall be treated as null and avoid; and in the case of acquisition of such lands, the rehabilitation and resettlement benefits shall be available to the original tribal land owners or land owners belonging to the Scheduled Castes.</p> <p>(9) The affected Scheduled Tribes, other traditional forest dwellers and the Scheduled castes families having fishing rights in a river or pond or dam in the affected area shall be given fishing rights in the reservoir area of the irrigation or hydel projects.</p> <p>(10) Where the affected Scheduled Castes and Scheduled Tribes are relocated outside of the district then they shall be paid an additional twenty-five percent. Rehabilitation and Resettlement benefits to which they are entitled in monetary terms along with a one-time entitlement of fifty thousand rupees.</p>	<p>an additional one-time financial assistance equivalent to five hundred days minimum agricultural wages for loss of customary rights or usages of forest produce. The ST affected families will be resettled as far as possible, in the same Scheduled Area in a compact block, so that they can retain their ethnic, linguistic and cultural identity. Exception would be allowed only in rare cases where the requiring body in case of a project involving land acquisition, or the State Government in other cases of involuntary displacement, is unable to offer such land due to reasons beyond its control.</p> <p>The resettlement areas predominantly inhabited by the Scheduled Tribes shall get land free of cost for community and religious gatherings to the extent decided by the appropriate Government.</p> <p>In case of a project involving land acquisition on behalf of a requiring body, the scheduled Tribes affected families resettled out of the district will get twenty-five per cent, higher rehabilitation and resettlement benefits in monetary terms.</p> <p>Any alienation of tribal lands in violation of the laws and regulations for the time being in force shall be treated as null and void. In the case of acquisition of such lands, the rehabilitation and resettlement benefits would be available to the original tribal land - owners.</p> <p>In the case of irrigation or hydel projects, the affected scheduled Tribes, other traditional forest dwellers and the Scheduled castes families having fishing rights in a river or pond or dam in the affected area shall be given fishing rights in the reservoir area of the irrigation or hydel projects.</p> <p>The scheduled Tribes and Scheduled Castes affected families enjoying reservation benefits in the affected area shall be entitled to get the reservation benefits at the resettlement area(s).</p> <p>The affected Scheduled Tribes families, who were in possession of forest lands in the affected area prior to the 13th day of December, 2005, shall also be eligible for the rehabilitation and resettlement benefits under this policy.</p>

25. PRINCIPLES AND POLICIES ADOPTED FOR THE PROJECT

The core involuntary resettlement principles for this project are: (I) land acquisition, and other involuntary resettlement impacts will be avoided or minimized exploring all viable alternative sub-project designs; (ii) where unavoidable, time-bound resettlement action plan (RAP) will be prepared and PAPs will be assisted in improving or at least regaining their pre-project standard of living;(iii) Consultation with PAPs on compensation, disclosure of resettlement information to PAPs , and participation of in planning and implementing sub-projects will be ensured; (iv) vulnerable groups will be provided special assistance (v) payment of compensation to PAPs for acquired assets at replacement rates; (vi) payment of compensation and resettlement assistance prior to the construction contractor taking physical acquisition of the land and prior to the commencement of any construction activities; (vii) Provision of income restoration and rehabilitation; and (VIII) establishment of appropriate grievance redress mechanisms.

26. ENTITLEMENT MATRIX

The broad entitlement matrix comprising the R & R compensation and assistance is presented below.

- The titleholder PAPs will receive compensation for land and assets, as decided by the competent authority.
- The titleholders are entitled to receive compensation for land/assets at replacement cost, R & R assistance and allowances for fees or other charges. They should be given advance notice to harvest non-perennial crops, or compensation for lost standing crops. They will have the right to salvage material from existing structures.

The RFCTLARR-2013, represents a significant milestone in the development of a systematic approach to address resettlement issues in India and closes significantly the gap between Indian national policies and operational policy of the World Bank. The National Highways Act, 1956 gives directives for the acquisition of land in the public interest and provides benefits only to titleholders.

Based on these, the following core involuntary resettlement principles are applicable:

- Avoid or minimize land acquisition and involuntary resettlement impacts by exploring all viable alternative designs;
- Where displacement is unavoidable, prepare time-bound RAP for PAPs so that they are not worse off than the present socio-economic condition after the implementation of the project. In other words, assist affected persons in improving their former living standards and income earning capacity with additional assistance to vulnerable groups;
- Ensure wide range of meaningful consultations with stakeholders including likely PAPs on compensation, disclosure of resettlement information, participation of PAPs in planning and implementation of the resettlement program in order to suitably accommodate their inputs and make rehabilitation and resettlement plan more participatory and broad based;
- Facilitate harmonious relationship between the Executing Authority and PAPs through mutual co-operation and interaction;
- Ensure payment of compensation and resettlement assistance prior to taking over the possession of land and commencement of any construction activities;

- Provision of rehabilitation assistance for loss of livelihood/income;
- Establishment of institutional arrangements such as grievance redress mechanism, NGO.
- Eligibility of different categories of PAFs will be as per the Entitlement Matrix shown in the section below.

Table 31: Eligibility for Compensation/Assistance

Sl. No.	Eligibility
1	The unit of entitlement will be the family.
2	Titleholder PAFs will be eligible for compensation as well as assistance.
3	In case a PAFs could not be enumerated during census, but has reliable evidence to prove his/her presence before the cut-off date in the affected zone shall be included in the list of PAPs after proper verification by the grievance redress committee.
4	PAFs from vulnerable group will be entitled for additional assistance as specified in the Entitlement Matrix.
5	PAFs belonging to BPL category will be identified at the time of disbursement of Compensation. They will get benefits as detailed in Entitlement Matrix.
6	PAFs will be entitled to take away or salvage the dismantled materials free of cost without delaying the project activities.
7	If a notice for eviction has been served on a person/family before the cut-off date and the case is pending in a court of law, then the eligibility of PAP will be considered in accordance with the legal status determined by the court and the PAP will be eligible for compensation/assistance in accordance with the RAP provisions.

Table 32: Entitlement Matrix

Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
Loss of Land and structures - (Titleholder/customary/usufruct right holders)				
1	Loss of Agricultural Land	Titleholder	Compensation at replacement cost or actual market value or as decided by the Competent Authority	<ul style="list-style-type: none"> • Direct purchase at negotiated price (or) compensation for land at replacement value • If the residual plot (s) is (are) not viable, the affected person becomes a marginal farmer any of the following two options are to be given to PAP, subject to his/her acceptance: • The PAP remains on the plot, and the compensation and assistance paid to the tune of required amount of

Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
				land to be acquired <ul style="list-style-type: none"> • Compensation and assistance are to be provided for the entire plot including residual part, if the owner of such land wishes that his/her residual plot should also be acquired NHA will acquire the residual plot and pay the compensation for it. • Reimbursement of registration and stamp duty charges
2	Total loss of home sted/commercial land and structure	Titleholder	Compensation at replacement cost Special Provision for Vulnerable	<ul style="list-style-type: none"> • Direct purchase at negotiated price (or) compensation for land at replacement value • Compensation for loss of affected structural area will be paid at the replacement cost to be calculated as per latest prevailing basic schedules of rates (BSR) without depreciation. • Shifting assistance of Rs 50000 • Right to salvage material from the demolished structure and frontage, etc • Reimbursement of registration and stamp duty Charges • For vulnerable groups losing residential/commercial structures and do not have any other Housing units within limit of the local bodies, shall be given preference to allot a house under any housing scheme at cost under IAY/RAY
Livelihood Losses				

Consultancy Services for preparation of DPR for Development of Economic Corridors, Inner Corridors, Feeder Routes and Costal Roads to Improve the Efficiency of Fright Movement in India Under Bharatmala Pariyojana - Lot 3/Andhra Pradesh, Karnataka, GOA & Kerala /Package 1 (STRR Phase-III)

Sl. No.	Category	Unit of Entitlement	Details	
			Entitlement	Entitlement as per Policy
3	Income/Livelihood Losses	Titleholders losing income through business	Rehabilitation Assistance	<ul style="list-style-type: none"> • Subsistence grant of Rs. 3000 per month for one year from the date of Award. • One Time grant for artisans, small traders Rs. 25000
		Titleholders losing income through agriculture	Rehabilitation Assistance	<ul style="list-style-type: none"> • Title holders loosing their primary source of income due to displacement will be provided one time grant of Rs. 500000 • One Time Resettlement Allowance Rs. 50000 • One Time grant for artisans, small traders Rs. 25000 • Employment opportunity forPAPs in the subproject works, if available and if so desired by them.
Loss of Trees and Crops				
4	Loss of Trees	a)Land holders b)Sharecropper c)Lease holders	Compensation at Market value to be computed with assistance of horticulture department	<ul style="list-style-type: none"> • Advance notice to PAPs to harvest fruits and remove trees • For fruit bearing trees compensation at average fruit production for next 15 years to be computed at current market value • For timber trees compensation at market cost based on kind of trees
	Loss of Standing Crops at the time of acquisition , if any	a)Land holders b)Sharecropper c)Lease holders	Compensation at Market value to be Computed with assistance of agriculture department	<ul style="list-style-type: none"> • Advance notice to PAPs to harvest crops • In case of damage to standing crops, cash compensation at current market cost to be calculated of mature crops based on the current production.
Other Impacts				
5	Cattle Shed		Special Assistance	<ul style="list-style-type: none"> • Affected Families having Cattle Shed or petty shop shall be given Rs. 25000 for the construction of cattle shed/shop

27. Stakeholders' Consultation

27.1 Introduction

Consultative procedures have been a critical but important front in the entire social assessment process. Public consultations in social impact assessment facilitates to make a rapport with the villagers in the project villages and provide basic inputs. In this regard, the social assessment ensures the involvement of local communities through participatory planning through structured consultations would endorse and integrate important resettlement issues in the project cycle.

For the purpose of preliminary stakeholder's consultation, a team of social experts visited the total stretch of STRR (Phase-III) section of NH-948A. In the process of information dissemination, collecting relevant data and to acquaint with social requirements of the project, government officials, key informants & knowledgeable person and other stakeholders were consulted. The preliminary consultation meetings were conducted in most of the villages during carrying out of Social Surveys. As the magnitude of impacts is more in most of the villages, primary importance was given in all these villages.

The preliminary consultations were undertaken with various stakeholders at village levels for sharing the information about the alignments and widening of existing two-lane into four-laning configuration. Prior intimation was given to the villagers and the local public representatives of the respective village to participate in the preliminary consultations. The village wise issues and concern were discussed and suggestions made by the participants were recorded. The range of discussion includes perception, attitude, benefit, problem, suggestions recommendation and solution on social, economic, engineering viability of the project.

27.2 Issues Discussed

- The social team explained the need and technical details of the STRR road to the participants in terms of its length, characteristics of the paved shoulder and need of bypass/ realignment, the proposed improvements in terms of safety improvements and road side amenities etc.
- For a better understanding about the road the social team also explained in detail the proposed cross sections of the road and need of geometric correction.
- The land requirements for the improvements and the probable impacts to the road side people was also discussed.
- The project's efforts at minimizing land acquisition and promoting safety measures were also discussed.
- Special attention for the weaker section of the society in general and women in particular were also discussed.
- The broad principles and R & R mechanisms as per RFCTLARR Act-2013 was also presented in detail.

The main objectives of undertaking these consultations were:

- Dissemination of information on the proposed alignments

- To make affected persons aware of the project impacts and broad provisions of the R&R policy.
- Dissemination of information to build awareness among likely to be affected people and inform them about the objective of the project.
- Discuss about the training requirements to enhance their skills & restore the livelihood.

28. REHABILITATION & RESETTLEMENT BUDGET

28.1 Cost and Budget

The budget is an indicative of outlays for the different expenditure categories. These costs will be updated and adjusted to the inflation rate as the project continues and in respect of more specific information such as additional number of project affected people during the implementation, unit cost will be updated if the findings of the district level committee on market value assessment justify it.

The estimated budget for resettlement action plan for the project which include land acquisition cost, structures cost and contingency is prepared as per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act-2013. The resettlement cost estimate for this project includes eligible compensation as per entitlement matrix and support cost for RAP implementation. Contingency provisions of about 1% of the total cost of R & R component is considered in the budget mainly to meet the inflation and also to meet the cost of additional land acquisition if required. The valuation of losses has been considered on the basis of consultation with the revenue officials as well as with the project affected population. Some of the major items of this R&R cost estimate are outlined below and the R&R budget is presented in below Table.

- Compensation for Land
- Compensation for structures and other immovable assets at their replacement cost
- RAP implementation cost

28.2 Compensation for Land

The total land need to be acquired for the proposed project is 318.178 Ha. For development of proposed project road. The agricultural land price has been calculated as an average of the Circle/Guidance Value in the respective villages. While calculating the cost irrespective of type and usage, we considered the cost of all structures/buildings and other assets to avoid any further issues in future. The details of village wise Land Rates as per the prevailing Circle/Guidance rate derived from Department of Stamps and Registration, Government of Tamilnadu is attached in **Annexure-I**.

The valuation of losses has been considered on the basis of prevailing Circle/Guidance rate derived from Department of Stamps and Registration of Government of Tamilnadu. While calculating the Land cost for each village, average of the all types of lands in that particular village was considered. Further, as the Land rates are not available for some of the villages, land rate in nearby village was considered for the same. However, the compensation for the other assets (Bore well/Well/Hand Pumps etc.) likely to be affected was obtained from the local public. The detail land account along the project road in Tamilnadu section is appended in below **Table 33**.

According to RFCTLARR Act-2013, the market value of land as mentioned under section 26 of act needs to be multiplied by the radial factor (based on the distance of project from urban area as notified by the appropriate government- e.g multiplication of 2 in Rural area, 1.5 in semi-urban area and Multiplication of 1 in Urban area) plus value of assets attached to land or building (mentioned in Section 29 of RFCTLARR Act-2013) Plus Solatium (solatium includes 100% market value multiplied by 2 plus value of assets in Rural area and multiplied by 1 plus value of assets in urban area). However, in Tamilnadu state the multiplication factor was fixed as 1.25 irrespective of distance.

Since the proposed alignment passes through all types of lands being used for various purposes and mainly for agricultural purposes the compensation for land is derived by considering the average Circle/Guidance rate of Agricultural lands in that particular villages irrespective of their type and calculated as per the RFCTLARR Act 2013. According to circle rate, the total amount of towards the acquisition of land stands at Rs. 143.42 Crores needs to be compensated.

Table 33: Land Acquisition Cost along STRR (Phase-III) Section of NH-948A

Sl. No	Name of District	Name of Mandal	Name of Village	Average Land Cost (Rs.)/Acre	Area to be Acquired (Ha.)	Area to be Acquired (Acres)	Mult. Factor	Total Land Cost (Rs.)	Solatium @ 100%	Interest @ 12% PA	Total Land Compensation as per RFCTLARR Act 2013	Avg. LA Cost/Acre (As per RFCTLARR Act 2013)
1	Krishnagiri	Hosur	S. Mudhuganapalli	382,644	12.511	30.902	1.25	14,780,680	14,780,680	3,547,363	33,108,722	1,071,404
2			Mugalur	139,583	13.034	32.194	1.25	5,617,265	5,617,265	1,348,144	12,582,674	390,833
3			Gopanapalli	281,879	18.366	45.363	1.25	15,983,496	15,983,496	3,836,039	35,803,032	789,260
4		Denkenikottai	Hosapuram	99,383	16.971	41.919	1.25	5,207,576	5,207,576	1,249,818	11,664,971	278,273
5			Kundhumaranapalli	283,410	7.024	17.350	1.25	6,146,462	6,146,462	1,475,151	13,768,074	793,548
6			Biramangalam	302,109	34.401	84.970	1.25	32,087,939	32,087,939	7,701,105	71,876,984	845,905
7		Hosur	Thorapalli Agraharam	1,395,275	37.075	91.575	1.25	159,715,390	159,715,390	38,331,694	357,762,474	3,906,770
8			Mornapalli	1,999,168	34.212	84.504	1.25	211,172,486	211,172,486	50,681,397	473,026,368	5,597,671
9			Allur	814,823	18.756	46.328	1.25	47,185,963	47,185,963	11,324,631	105,696,558	2,281,505
10			Attur (H/o Muthalli)	518,357	1.845	4.557	1.25	2,952,786	2,952,786	708,669	6,614,241	1,451,399
11			Muthali	258,429	2.058	5.082	1.25	1,641,676	1,641,676	394,002	3,677,353	723,600
12			Pathamuththali	593,322	18.054	44.593	1.25	33,072,255	33,072,255	7,937,341	74,081,850	1,661,302
13			Karupalli	236,510	17.798	43.961	1.25	12,996,611	12,996,611	3,119,187	29,112,408	662,228
14			Nandimangalam	394,094	11.637	28.744	1.25	14,159,862	14,159,862	3,398,367	31,718,091	1,103,463
15			Attur (H/o Paduthepalli)	518,357	4.061	10.031	1.25	6,499,331	6,499,331	1,559,839	14,558,501	1,451,399
16			Paduthepalli	210,380	17.670	43.644	1.25	11,477,193	11,477,193	2,754,526	25,708,912	589,064
17			Thummanapalli	582,900	8.806	21.751	1.25	15,848,551	15,848,551	3,803,652	35,500,755	1,632,120
18			Mallasandram	253,260	7.096	17.526	1.25	5,548,335	5,548,335	1,331,600	12,428,271	709,128
19			Pattavarapalli	304,850	6.096	15.057	1.25	5,737,516	5,737,516	1,377,004	12,852,035	853,580
20			Alasapalli	300,160	19.163	47.333	1.25	17,759,195	17,759,195	4,262,207	39,780,597	840,448
21			Deeviripalli	411,380	11.545	28.515	1.25	14,663,209	14,663,209	3,519,170	32,845,589	1,151,864
TOTAL					318.179	785.899		640,253,777	640,253,777	153,660,907	1,434,168,461	1,824,876

Annexure-I
Village wise Land Rates along STRR (Phase-III) section of NH-948A

Sl. No.	Phase/Package Number	Name of the District	Name of the Taluk	Name of the Village	Dry Special Type - I	Dry Special Type - II	Dry Special Type - III	Wet Special Type - I	Wet Special Type - II	Wet Special Type - III	Dry Maanavari Lands Type - I	Dry Maanavari Lands Type - II	Dry Maanavari Lands Type - III	Dry Well Irrigation Type - I	Dry Well Irrigation Type - II	Dry Well Irrigation Type - III	Wet Lake Irrigation Single Crop Type - I	Wet Lake Irrigation Single Crop Type - II	Wet Lake Irrigation Single Crop Type - III	Wet well Irrigation Single Crop Type - I	Wet well Irrigation Single Crop Type - II	Wet well Irrigation Single Crop Type - III	Dry Abutting Other Roads and Railway lines Type - III	Dry Abutting Other Roads and Railway lines Type - II	Dry Abutting Other Roads and Railway lines Type - I	Wet Channel Irrigation Single Crop Type - I	Wet Channel Irrigation Double Crop Type - II	Wet Abutting other Roads and Railway lines Type - I	Wet Abutting other Roads and Railway lines Type - II	Dry Abutting National Highways Type - I	Dry Abutting National Highways Type - II	Dry Abutting National Highways Type - III	Wet Abutting Residential Areas Type - I					
1	Phase-III/Package-1 (from Km. 144.480 to Km. 179.969)	Krishnagiri	Hosur	S. Mudhuganapalli	603000	536000					261300			268000			167500			201000			335000	402000	670000													
2				Mugalur									134000			134000	100500		167500	134000								167500										
3				Gopanapalli									234500	217750	207700	268000			355100	348400	341700																	
4			Denkenikottai	Hosapuram									120600	107200		134000			87100	80400	67000																	
5				Kundhuranapalli	536000	469000							160800	147400	120600	207700			167500		134000	448900	442200															
6				Biramangalam		636500	603000						254600	241200	234500	301500	281400		201000	187600	167500	214400																
7				Hosur	Thorapalli Agraharam	1507500							254600	247900		335000	301500	268000	207700	201000	194300	214400				4690000	5025000	5360000	234500		1675000	1608000						
8					Mornapalli	6700000	2680000							670000	538010		938000			536000			536000						804000				4020670	3350000	2680670	536670		
9					Allur	6030000		2010000						368500	301500	214400		187600	107200	268000	201000	160800	261300	234500						247900								
10			Attur (H/o Muthalli)			603000	519250			619750	522600		415400	345050	268000	479050	375200	324950					529300	428800	402000			1005000			938000							
11			Muthali										268000	201000		234500			201000								268000	335000									301500	
12			Pathamuththali		1675000	536000							227800	221100		241200	214400						348400						1675000	201000								
13			Karupalli		536000	268000							174200	160800	154100	201000							214400	187600				241200			227800							
14			Nandimangalam		603670								670000		187600	308200			201000																			
15			Attur (H/o Paduthapalli)			603000	519250			619750	522600		415400	345050	268000	479050	375200	324950					529300	428800	402000			1005000			938000							
16			Paduthapalli		227800							174200	234500	207700		227800	201000		174200				201000					268000	187600									
17			Thunmanapalli		1340000	804000		1072000					335000	301500		335000			201000				536000					321600										
18			Mallasandram		536000								174200			154100							187600					214400										
19			Pattavarapalli										214400			335000				335000							335000											
20			Alasapalli		469000								227800			201000				201000								402000										
21			Deeviripalli			469000	348400						341700	268000		301500				301500							542700	670000									536000	
Total																																						

28.3 Compensation for Structures

The replacement cost of structure is estimated based upon the average of prevailing market value (collected during site visits from local public) of the structure from Stamps and Registration department of respective state governments. Most of the existing structures are either pucca or kutcha. As per topographical data a total number of 283 structures including 190 private structures are estimated for the social budget. Maximum numbers of the private structures which are likely to be impacted are Semi-Pucca (48.54%) followed by pucca (44.17%) and Kutcha/Movable (7.29%). However, while calculating compensation for structures we considered all structures as pucca in nature irrespective of their usage. Apart from private structures; religious and govt. structures are also considered for R&R compensation. The solatium of 100 percent of the rate of affected structures is included for final compensation. The estimated budget calculation details are appended in below **Table 34**.

Table 34: Impact on Structures along STRR (Phase-III) Section of NH-948A

Sl. No.	Typology	No. of Structures	Approx. Affected Area of the Structure		Avg. Unit Rate Rs./(Sq. Ft.)	Total Structure Cost (Rs.)	Compensation as per RFCTLARR Act 2013
			Sq. Mtrs	Sq. Feet			
1	Pucca	91	4946.55	52433.43	2500	131,083,575	262,167,150
2	Semi Pucca	100	9288.85	98461.81		246,154,525	492,309,050
3	Kutcha	15	2803.05	29712.33		74,280,825	148,561,650
TOTAL		206	17038.45	180607.57		451,518,925	903,037,850

28.4 Compensation for Other Minor Assets

The replacement cost of other minor assets is estimated based upon the actual cost incurred by the affected persons which was collected from the public during site visits. As per topographical data and estimation a total number of 329 other minor assets are likely to be affected which includes Wells, Bore Wells, Hand Pumps, Pump Houses, Sump, Pits, Taps etc. The estimated budget calculation details are appended in below **Table 35**.

Table 35: Impact on Other Minor Assets along STRR (Phase-III) Section of NH-948A

Sl. No.	Type of Asset	Number Affected	Unit Cost (Rs.)	Total Cost (Rs.)
1	Well	9	800,000	7,200,000
2	Bore Wells	10	200,000	2,000,000
3	Water Tanks	14	75,000	1,050,000
4	Pump House (Incl. Connection)	5	100,000	500,000
5	Overhead Tanks	8	75,000	600,000
6	Sump	5	100,000	500,000

Sl. No.	Type of Asset	Number Affected	Unit Cost (Rs.)	Total Cost (Rs.)
7	Pits	30	20,000	600,000
8	Taps (Incl. Connection)	12	10,000	120,000
TOTAL		93		12,570,000

A total of Rs. 236.23 Crores has been estimated for compensation towards Land, structures and other minor assets which are likely to be affected due to proposed project road. The NHAI guidelines recommend that the compensation for the lost land and structures be paid through the competent authority. For structures valuation, the concerned government department may be requested to assess the value. The details of estimated LA budget is presented in below **Table 36**.

Table 36: Estimated LA Cost and R & R Budget

Sl. No	Item	Unit	Quantity	Total Land / Structure Cost (Rs.)	Compensation as per RFCTLARR Act 2013
A. Compensation for Land					
1	Compensation for Land	Acre	785.89	640,253,777	1,434,168,461
B. Compensation for Structures					
1	Compensation for Structures and Other Assets	Number	206	451,518,925	903,037,850
C. Expenditure for Project Implementation					
1	Hiring of NGO for Resettlement Plan Implementation (If Necessary)	Number	1	500,000	500,000
2	Printing of Policy and ID Card	Lumpsum		300,000	300,000
3	Updating of Survey Data	Lumpsum		1,000,000	1,000,000
Sub Total (A+ B+ C)					2,339,006,311
D. Contingency					
1	Contingency at 1 % of the Sub Total				23,390,063
TOTAL (A+B+C+D)					2,362,396,374

For loss of structures, all PAPs will be compensated for their affected structures at replacement cost, for which provision has been kept in the Entitlement Matrix. All the squatters with structures and only vulnerable encroachers will be eligible for assistance for loss of their structures.