

Social Impact Assessment

Draft Report

Land Acquisition for the Construction of Pattom Fly Over – Light Metro Project, Thiruvananthapuram



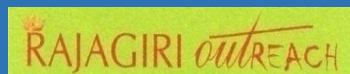
Requiring Body

Kerala Rapid Transit Corporation Ltd.
T.C.4/1636, Vellayambalam - Kowdiar Road
Thiruvananthapuram 695 003
Ph : 0471- 2720256



SIA Unit

Rajagiri Outreach
Rajagiri College of Social Sciences (Autonomous)
Rajagiri P.O Kalamassery
Kochi- 683104
Ph: 0484 2911330 – 332
rossrajagiri@gmail.com



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List of Abbreviations

SIA	Social Impact Assessment
KRTL	Kerala Rapid Transit Corporation Limited
SPV	Special Purpose Vehicle
GO	Government Order
RFCTLAR&R Act	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
RD	Revenue Department
PSC	Public Service Commission
LP	Lower Primary
UP	Upper Primary
PO	Post Office
SC	Scheduled Caste
OBC	Other Backward Communities
UG	Under-Graduation
PG	Post-Graduation
BPL	Below Poverty Line
APL	Above Poverty Line
GoK	Government of Kerala
GDP	Gross Domestic Product
KM	Kilometres
MM	Millimetres
Sq. M.	Square Meters
MSW	Master of Social Work
DSS	Diploma in Social Services
BA	Bachelor of Arts
MA	Master of Arts
B.Tech	Bachelor of Technology
M. Tech	Master of Technology
MBA	Master of Business Administration
INR	Indian Rupee

Chapter 1

Executive Summary

1.1 Project and public purpose

In the Pattom region of Thiruvananthapuram City, the traffic junctions of Plammoodu and Pattom are two of the most important road intersections. An ever-increasing number of vehicles and ensuing traffic congestions in the area, has lent the need for a flyover essential, for smooth and efficient mobility in the area. The present situation in the area renders widening of the road an unviable endeavour cause of the presence of busy commercial shops and other institutions of importance in either side of the road. Kerala Rapid Transit Corporation Limited (KRTL) is a government undertaking constituted as a Special Purpose Vehicle (SPV) of the Government of Kerala and has proposed to construct a Fly Over connecting Pattom and Plammoodu Junctions with a total stretch of 1.00 KM having two lanes with a width of 7.50 meters each. And for this, about 3,215 Sq. M. of land coming under the Block Nos. 21, 68, 69, and 72 in Pattom Village and Block Nos. 24, 28 and 78 in Kowdiar Villages have been identified.

For the construction of the Fly Over spanning 1.00 KM, an estimate report was prepared by KRTL for a total amount of INR 130 Crores including land acquisition, construction of road, and other allied public facilities etc.

1.2 Location

The project sits between Pattom and Kowdiar villages in the Thiruvananthapuram Taluk of Thiruvananthapuram district and connects two traffic intersections of the area. The project area is in an urban setting, with residential and commercial properties. The quality of living and other demographic dimensions is found to be positive in general.

1.3 Size and attributes of land acquisition

The proposed Fly Over covers a total stretch of 1.00 KM with a road width of 7.5 Meters for each lane and overall width of 18.80 Meters requires 3215 Sq. M. of land to be acquired from Pattom and Kowdiar villages of Thiruvananthapuram Taluk. This includes 840Sq. M. of land from Kerala PSC and 125Sq. M. of land from Kendriya Vidyalaya Sangathan, both owned by the government. The remaining land is aligned to be acquired from 54 affected families.

The proposed Fly Over between Pattom and Plamoodu Junctions in Thiruvananthapuram Taluk of Thiruvananthapuram District was initially proposed under the Light Metro Project in Thiruvananthapuram.

Land acquisition is expected to be with minimum objections and public including affected persons are generally affirmative for the project. However, fair compensation and other measures to mitigate impacts are to be adopted as per the concerned Act and Policies.

1.4 Alternatives considered

KRTL has proposed the construction of a Fly Over connecting Pattom and Plamoodu Junctions to ease the traffic in Pattom region of the Thiruvananthapuram city. Due to limited availability of land in the town, increased commercial vehicles and a large number of business units on both sides of the road, widening of the existing roads was found unviable and impractical. The alignment of the proposed Fly Over for 1.00 KM was made by avoiding residential dwelling to a minimum. Further, the fly overpasses mostly above the current wide road in the project area to ensure that the commercial activities are disturbed the least. The requiring body has also taken into account the principle of shortest route serving the maximum population, minimum drainage crossing etc. while identifying the land plots for acquisition.

1.5 Social impacts

As per the alignment for the acquisition of land for the Fly Over in Pattom, 55 affected persons will lose land and over 44 employees and 11 tenants will have a negative impact on their livelihoods; the same is understood to be the major impact. Apart from the loss of land, two-family will be displaced since the residence of the family is to be affected permanently. A summary of major impacts are as follows

Loss of Residence	: 2 Families
Loss of Land	: 55 Land Owners
Loss of Government Land	: 2 Plots (Kerala PSC and Kendriya Vidyalaya Sangathan) as well as some land inroads
Loss of Livelihood Opportunities	: 9 Families
Loss of Plants and Crops	: 3 Mango Trees, 1 Pepper Plant, Teak and Jackfruit Tree each, 2 Banyan Trees, 5 Coconut Trees and 3 Plantains

Despite the negative impacts, the proposed project is expected to be beneficial for the people in the region as it ensures safer transportation and better access with other regions in the city and district.

1.6 Mitigation measures

For affected persons whose land will be acquired, the Rehabilitation and Resettlement package as per the Policy issued by Revenue(B) Department, Government of Kerala vide G.O.(Ms)No.448/2017/RD dated 29/12/2017 for the rehabilitation and resettlement package for land acquisition in the state in lieu of RFCTLAR&R Act 2013 is expected to be appropriate. Further, the recreation of common properties and livelihood opportunities along with replanting of trees/plants will mitigate various impacts to an extent possible.

Chapter 2

Detailed Project Description

2.1 Background of the Project, including the developer's background and governance/ management structure

Transportation Sector of a nation plays a major role in Nation building. Quality and quantity of the transport infrastructure have a direct impact on the level of economic development in a country. An efficient and effective transport system renders positive economic and social opportunities and benefits like superior employment potential, better accessibility to markets, and improved and higher investments. Rail transportation is extremely crucial to the competitiveness of many industries and economies. Today's rail transport system has evolved into a modern, complex and sophisticated system of urban and cross-country networks that provides a stable and reliable system of alternate transport service which remains the least disrupted of the available transport systems. The urban rail system that got introduced way back in the year 1873 in India has transformed into a better and efficient system today. The Urban rail systems now have varying services like Tram systems, Suburban Rail or Commuter, Monorail, Light Rail and Rapid Transit Metro Trains, that ensure a comfortable and effective commute to its users.

The National Urban Transport Policy in 2006, had proposed the construction of metro rail systems in every city in India with a population of over 20 lakhs. And in 2014, the Union Government announced that it would support the implementation of metro rail systems in cities having a population of more than 10lakhs. The Union Urban Development Ministry's proposal to implement metro rail systems in 50 cities across the nation was approved in 2015. Majority of these projects are implemented through special purpose vehicles (SPVs) established as 50:50 joint ventures between the Union and respective State Governments.

Kerala is a well-connected state via road, rail and air transportation systems. The railway is the most important means of transport in Kerala. 13 railway routes with about 200 railway stations that stretch across 1,050 kilometres ensure that the state is well-connected Road infrastructure in the state stand as the second-best transportation method for the people of the state. About 8 national highways and 50 state highways crisscross through the entire state. Urban road infrastructure has been made inefficient and ineffective by the ever-increasing vehicles on the roads of the

state. Widening and putting allied and supporting infrastructure is crucial in turning these urban roads more effective and efficient in supporting the huge traffic.

Kerala Rapid Transit Corporation Limited (KRTL) is a government undertaking constituted as a Special Purpose Vehicle (SPV) of the Government of Kerala. It was set up for implementing and for the subsequent operation and maintenance of the Light Metro Rail Systems in the cities of Thiruvananthapuram and Kozhikode. Its Corporate Office is situated at Thiruvananthapuram and has a Regional Office at Kozhikode. Under the project, various support infrastructure was planned to make the urban commute smoother and efficient. A flyover of about one kilometre, that begins at the Plammoodu Junction of the PMG Road and ends in front of the PSC Building just after Pattom Junction has been proposed as a support infrastructure under the Light Metro Project.

Plammoodu Junction and Pattom Junction are two of the most important road intersections of the urban road infrastructure in the city of Thiruvananthapuram, Thiruvananthapuram district, in the state of Kerala. The ever-increasing number of vehicles and ensuing traffic congestions in the area, has lent the need for a flyover essential, for smooth and efficient mobility in the area. The present situation in the area renders widening of the road an unviable endeavour cause of the presence of busy commercial shops and other institutions of importance in either side of the road.

The new flyover proposed over Plammoodu and Pattom Junction that is to be constructed between Pattom and Kowdiar Villages was proposed as a supporting infrastructure under the Light Metro Project in Thiruvananthapuram City. The project is expected to bring about a smooth and effective commute in the area by unclogging the present congested traffic at both the junctions. The proposed flyover covers a total stretch of about a kilometre connecting the two junctions mentioned above. The Kerala Rapid Transit Corporation Limited (KRTL) is the proposing and implementing authority for the flyover connecting Plammoodu and Pattom Junctions. Subsequently, the Government of Kerala has conferred the project as for Public Purpose and identified about 3,215 Sq. M. of Land in Pattom and Kowdiar Villages to be acquired for the project.

Vide Kerala Gazette Order (Extra Ordinary) No. 752 dated 08.03.2019, the SIA Unit of Rajagiri outREACH, Kalamassery had been appointed to conduct Social Impact Assessment Study and to prepare a Social Impact Management Plan as per section 4

(1) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLAR&R) Act, 2013.

2.2 Rationale of the project including how the project fits the public purpose criteria listed in the act

Pattom Junction is a very important intersection in the urban road transport system of Thiruvananthapuram City. Plamoodu Junction is an adjacent intersection that is highly critical to the traffic flow to and from Thiruvananthapuram City. This section of the urban road system plays an important part in routing commuters to various governmental and health organizations of the city. The surrounding areas of the project house many of the bureaucratic as well as health systems of the Corporation and State. Due to the increasing density of vehicles and residential establishments in the region and the resulting increase of commercial entities in either side of the existing road, the transportation through the area has become highly congested and time-consuming. In such a scenario, it also has been understood that the widening of the present road is not viable; hence the requiring body (KRTL) has considered a flyover under their Light Metro Project to smoothen and make efficient the traffic flow between Pattom and Plammoodu Junctions.

The Government of Kerala has conferred the project as for Public Purpose and identified about 3,215 Sq. M. of Land in Pattom and Kowdiar Villages to be acquired for the project. And also, as per Section 2 b (i) of The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 (RFCTLARR Act), the project fits in for the public purpose.

2.3 Details of project size, location, capacity, outputs, production targets, costs and risks

The proposed construction of flyover connecting Plammoodu and Pattom Junctions aims to smoothen the transportation through and thereby improve the lives of the people living and commute in the area. The project is being planned in 3,215 Sq. M. of land covering Block No. 21, 68, 69, and 72 in Pattom Village and Block No. 24, 28 and 78 in Kowdiar Villages of Thiruvananthapuram Taluk in Thiruvananthapuram District of the state of Kerala.

The total distance of the planned flyover is estimated at 1.00 KM having two lanes with a width of 7.50 meters each. The total cost of construction of the Fly Over is

estimated to be 130.00 Crores. This includes Land Acquisition, Road Formation, Construction of Culverts/Drainages/Dividers/Side Protection, Road Widening and Surfacing, and other related civil works.

2.4 Examination of alternatives

As per the present situation in the project area, widening of the road between Pattom and Plammoodu Junctions alone won't help in making traffic flow through the area congestion-free, and it is also found that such an endeavour won't be viable due to the presence of a large number of commercial units and institutions of importance. The proposed project plan of constructing a new flyover connecting Pattom and Plammoodu Junction is estimated to be the less impactful and feasible in comparison to other possible alternatives.

2.5 Phases of the project construction

The proposed flyover covering a stretch of 1.00 KM is to be executed at a go. The project may start at either point of both the Junctions and will finish once both sides get connected. Allied or ancillary works will also happen parallel, supporting a speedy and effective completion of the project.

2.6 Core design features & size and type of facilities

The project involves the acquisition of 3,215 Sq. M. of land. KRTL is the requiring body and they have proposed a two-lane flyover of 7.50 meters in width. The project would incorporate the construction of walkway for pedestrians. The project will have all the best support facilities. Widening of the road in the required areas also have been well planned into the project, ensuring best and smooth transit of vehicles. Bus stops, drainages, electrical and telecommunication systems, etc., will be reconstructed wherever necessary.

2.7 Need for ancillary infrastructural facilities

The proposed project needs to incorporate the construction of Culverts/ Drainages/ Dividers/ Side Protection, Bus Stop, Road widening and surfacing, and other related civil works as per the specific project parameters.

2.8 Workforce requirements (temporary and permanent)

The appropriated combination of the temporary and permanent workforce will be deployed along with the right set of machinery and equipment as to be decided by KRTL during the tendering process.

2.9 Details of social impact assessment/ environment impact assessment if already conducted and any technical feasibility reports

As per the available information, studies to assess the social or environmental impact of the project in consideration, have not been conducted in the past. Existence of any technical feasibility reports concerning this specific project is also not found from any possible sources as of now.

2.10 Applicable legislations and policies

The applicable laws on land acquisition, rehabilitation and resettlement for the proposed land acquisition for constructing the flyover connecting Pattom and Plammodu Junctions are:

- The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- Government of Kerala – Revenue (B) Department -State Policy for Compensation and Transparency in Land Acquisition vide G.O (Ms) NO.485/2015/RD dated 23/09/2015.
- Government of Kerala – Revenue (B) Department -State Policy for Rehabilitation and Resettlement Package for Land Acquisition in the State in lieu of RFCTLAR&R Act 2013 vide GO(MS)No.448/2017/RD dated 29/12/2017.
- Right to Information Act, 2005

Chapter 3

Team Composition, Approach, Methodology and Schedule of the Social Impact Assessment

3.1 Team Members

Vide Kerala Gazette Order (Extra Ordinary) G.O. (752 dated 08.03.2019, the SIA Unit of RajagirioutREACH, Kalamassery was appointed to conduct Social Impact Assessment Study of the project and to prepare a Social Impact Management Plan as per section 4 (1) of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013. Further, a team was constituted with experts who have engaged in similar projects and deployed them into the project with a set of specific roles and responsibilities.

Table (3.1)

Sl. No	Name	Qualification and Designation	Experience
1.	Dr Binoy Joseph	PhD, MA-PM&IR, LLB Consultant - SIA	22 years in research and training
2.	Meena Kuruvilla	MSW Chairperson-SIA	30 years in the development sector
3.	Maria Tency V S	MA, DSS Research Associate	27 years in the development sector
4.	Mr Biju C P	BA Development Officer	24 years in the development sector
5.	Mr Lenin G	MSW Research Associate	7 years in the development sector
6.	Mr Tony Babu	MSW Research Associate	2 years in the development sector
7.	Mr Gigin P. S	MSW Research Associate	2 years in the development sector
8.	Priyanka Prakash	MSW Research Associate	1 year in the development sector

3.2 Methodology and Rationale

As per the communication from the Requiring Body, Thiruvananthapuram dated 03.06.2019 and the list of 71 small and minor plots of land belonging to 55 owners was identified for the proposed construction of Pattom Fly Over. Among them, two of the owners are classified as government land and about 6 plots are roads. The SIA team tried to contact the remaining affected persons and were able to get responses from 20 of the directly affected. Apart from these, 11 tenants having commercial establishments in the affected area, were also participated in the study. Subsequently, a questionnaire survey was conducted to infer crucial information required to assess the impact and to prepare Mitigation and SIA Management Plan.

The findings and suggestions of this study in the following chapters are based on the Questionnaire Survey conducted among 20 affected families and 11 tenants.

Since the extent of land and degree of impact varies from one affected party to another, a population Socio-Economic Survey was conducted to collect the information. Further, Key Informant Interviews and Focus Group Discussion were also held to understand the depth of impact due to the implementation of the project.

To collect primary information directly from the landowners and other affected persons through Socio-Economic-Impact Survey, field investigators have visited households in the region through a structured questionnaire. Further, to collect the information and assess the impact of the affected parties whose residence are not in the vicinity, a telephonic survey was held with the same questionnaire schedule.

The published reports provided by the Land Acquisition Department, Government of Kerala, were also referred to understand the impact for affected persons.

3.3 Sampling

As the size of land to be transferred for the project by the affected person and extent of impact due to latter is unique for each, a population Socio-Economic-Impact Survey was found to be appropriate. Further, the project area covers only 1.00 KM and the extent of land affected comes to 3215 Sq. M., hence the population survey was adopted.

The research team has approached all the directly and indirectly affected persons and only 20 property owners and 11 tenants have participated and have to consider

this as limitation of the study. Interpretations of details collected from various sources and the affected persons who responded (20 owners and 11 tenants) to the survey are given in this report.

3.4 Overview of Data Sources

Both primary and secondary information was collected and analysed through a mixed-method by expert quantitative and qualitative researchers. Secondary information and published reports from concerned Government and Quasi-government organizations were collected/ referred by the field investigators at multiple stages.

A structured questionnaire was prepared, tested and validated to collect information from affected persons through Socio-Economic-Impact Survey. From the entire population, 20 affected persons have responded to the questionnaire interview. The survey contained questions aimed to collect information such as Demographic/ Economic/ Family/ Livelihood, details of performing/non-performing assets in the project land and the types/degree of impact. The response and data points were analysed through statistical software and findings are reported along with recommendations.

3.5 Schedule of Consultation Meetings/ Public Hearings

As part of the study, multiple meetings/interviews/discussions were held with important stakeholders.

Table (3.5)

Date	Activity/Event/Meeting	Venue
29-05-2019	Meeting with Land Acquisition Officer	Civil Station, Thiruvananthapuram
07-06-2019	Pilot Study	Pattom Junction
09-07-2019	Meeting with Requiring Body	KRTL Office
18-07-2019	Socio-Economic Survey and Key Informant Interviews	Pattom and Kowdiar Villages

Chapter 4

Land Assessment

4.1 Description with the help of the maps, information from land inventories and primary sources

The project is to construct a flyover connecting Plamoodu Junction and Pattom Junction in Pattom and Kowdiar Villages in Thiruvananthapuram District. The project area is understood to be a township and the affected land is mostly classified as commercial and residential properties. Covering Block Nos.- 21, 68, 69 and 72 in Pattom Village and 24, 28 and 78 in Kowdiar Village, a total land area of 3,215 sq. M. are projected to be acquired.

Exhibit 4.1.1 (Full Site Plan)



Exhibit 4.1.2 (Pattom Block No. 72)

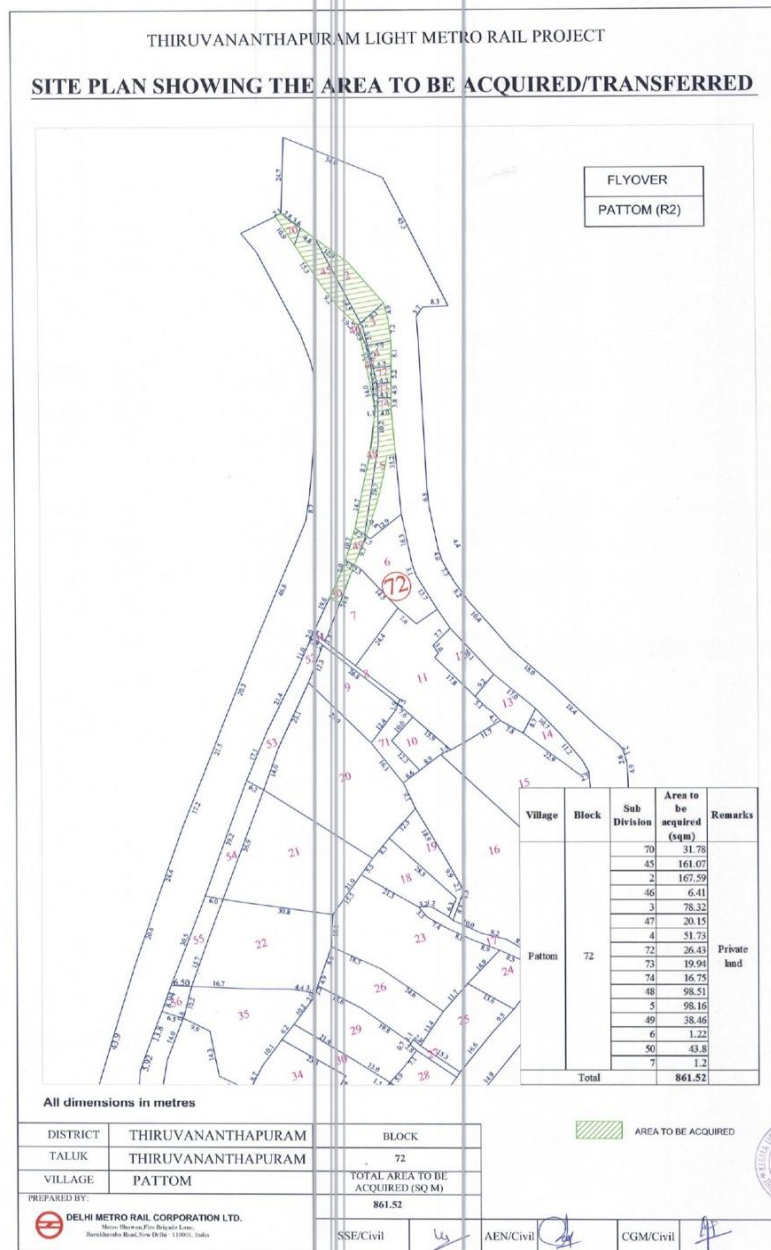


Exhibit 4.1.3 (Pattom Block No. 68)

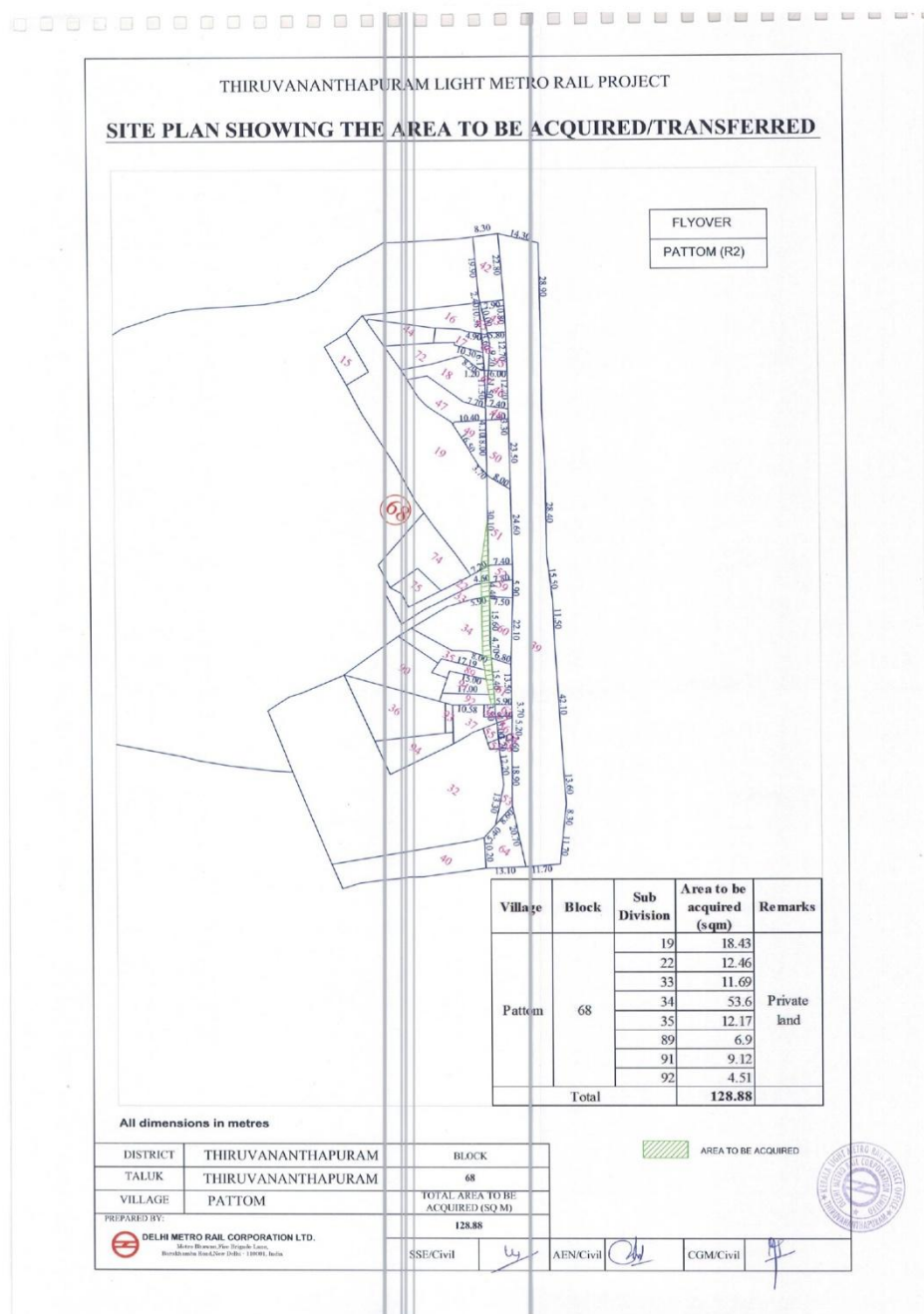
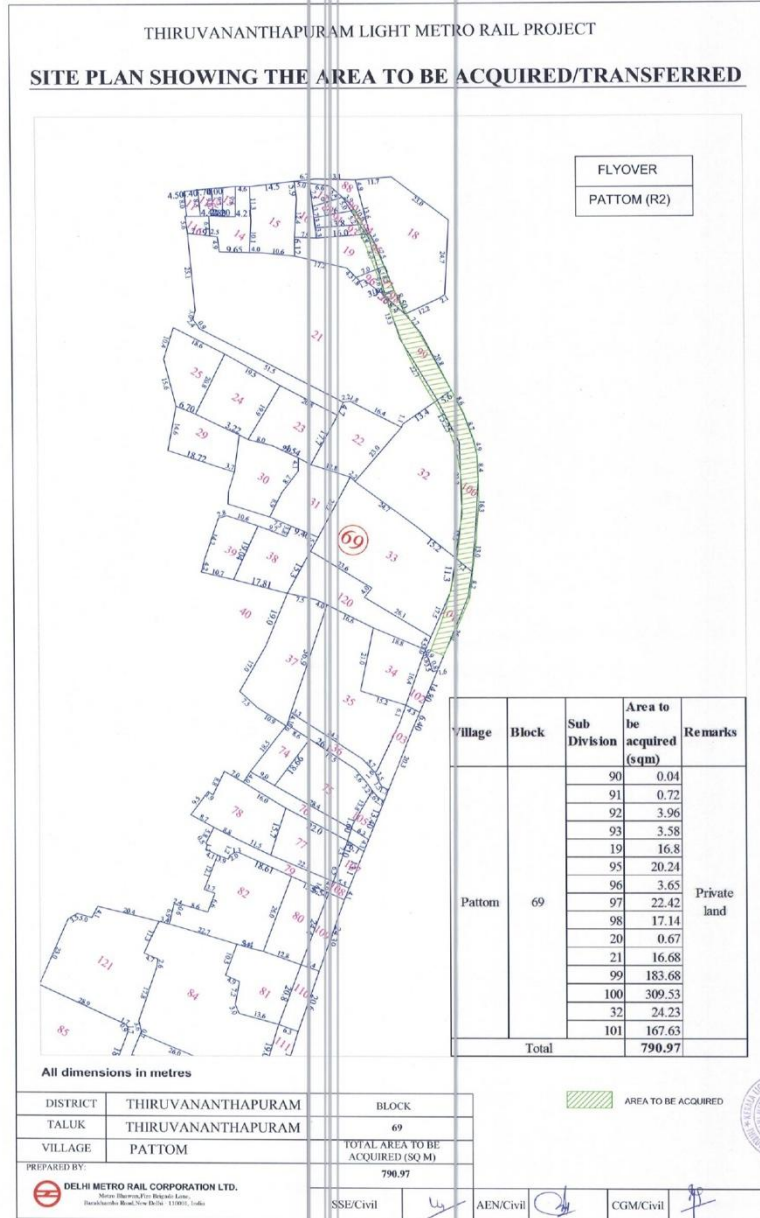


Exhibit 4.1.4 (Pattom Block No. 69)



THIRUVANANTHAPURAM LIGHT METRO RAIL PROJECT

SITE PLAN SHOWING THE AREA TO BE ACQUIRED/TRANSFERRED

Village	Block	Sub Division	Area to be acquired (sqm)	Remarks
Kowdiar	24		10	8.43
			45	22.48
			47	8.43
			48	9.96
			49	3.46
			50	19.56
			51	32.34
			52	5.7
			87	52.97
			89	46.18
			92	61.52
			93	75.54
			46 Road	
			88 Road	
Total			346.57	

All dimensions in metres

DISTRICT	THIRUVANANTHAPURAM	BLOCK	
TALUK	THIRUVANANTHAPURAM		24
VILLAGE	KOWDIAR	TOTAL AREA TO BE ACQUIRED (SQ.M)	346.57

PREPARED BY: **DELHI METRO RAIL CORPORATION LTD.**
Metro Division (Procurement) Centre
 Bhattacharya Road, New Delhi - 110001, India

SSE/Civil	AEN/Civil	CGM/Civil
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AREA TO BE ACQUIRED

Exhibit 4.1.6 (Kowdiar Block No. 78)

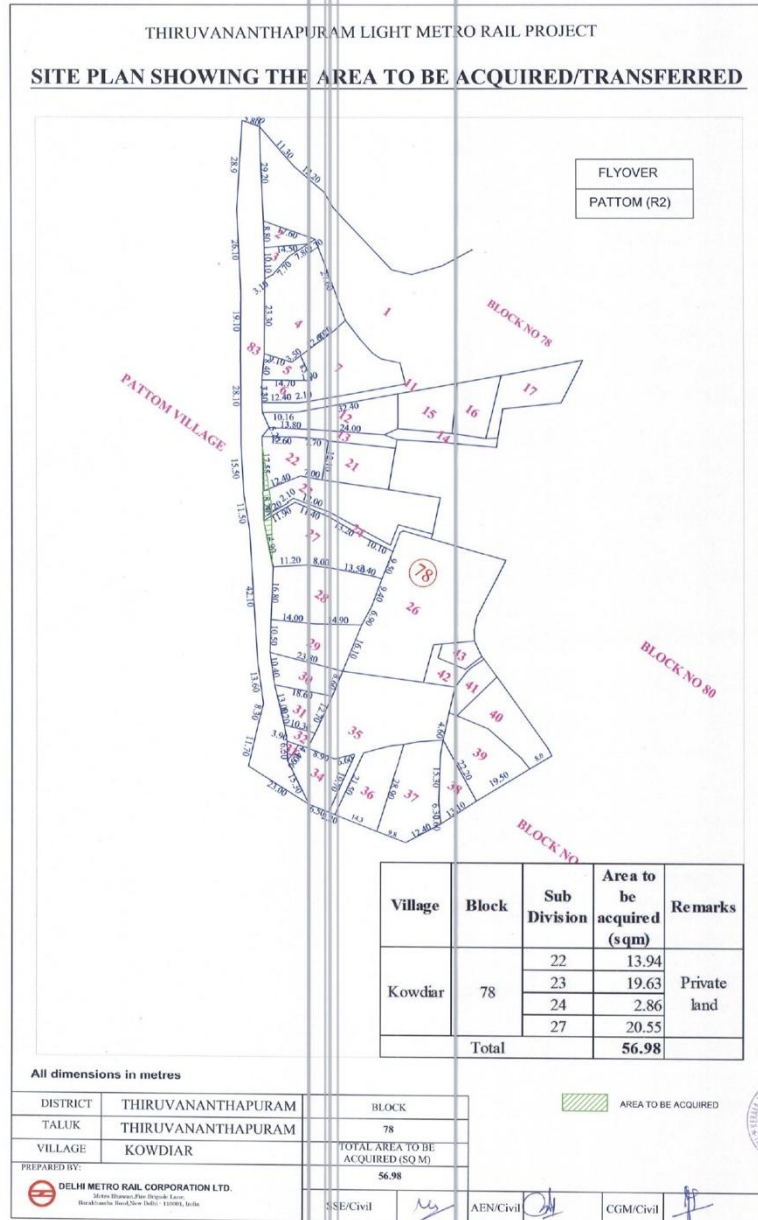


Exhibit 4.1.7 (Kowdiar Block No. 28)

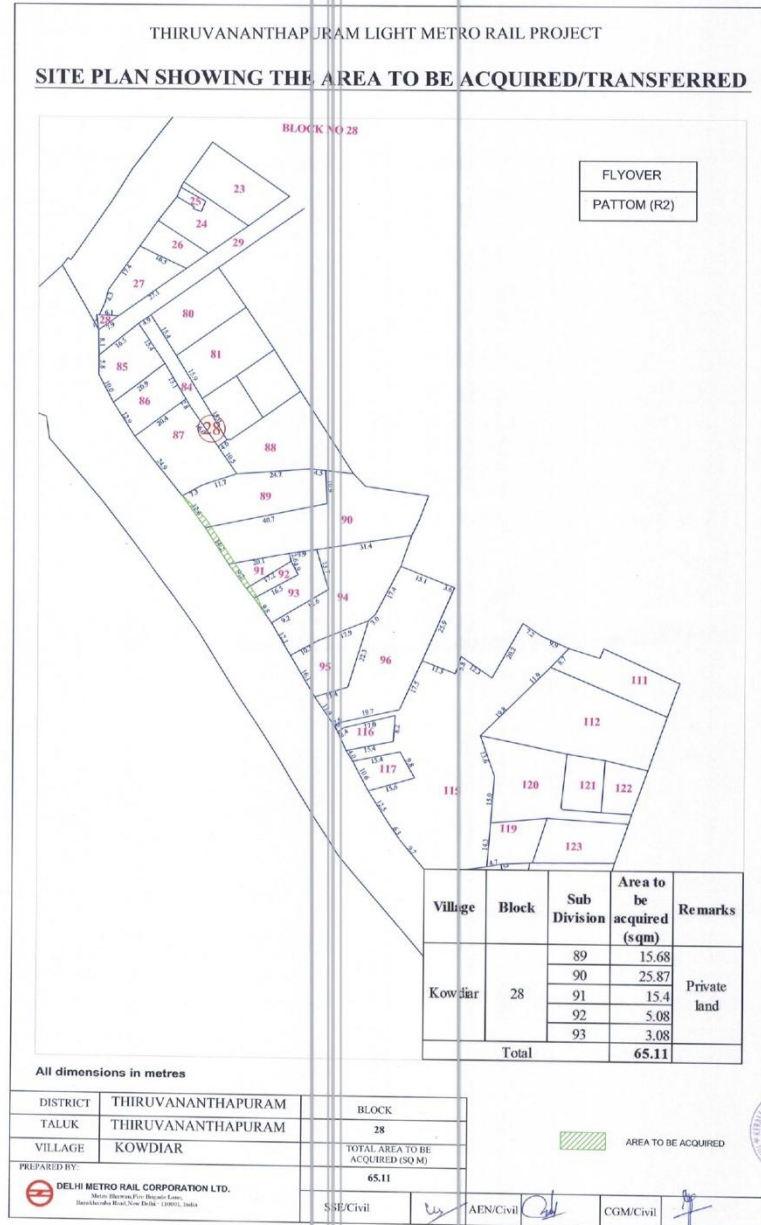


Exhibit 4.1.8 (Pattom Block No. 21 – Kerala PSC)

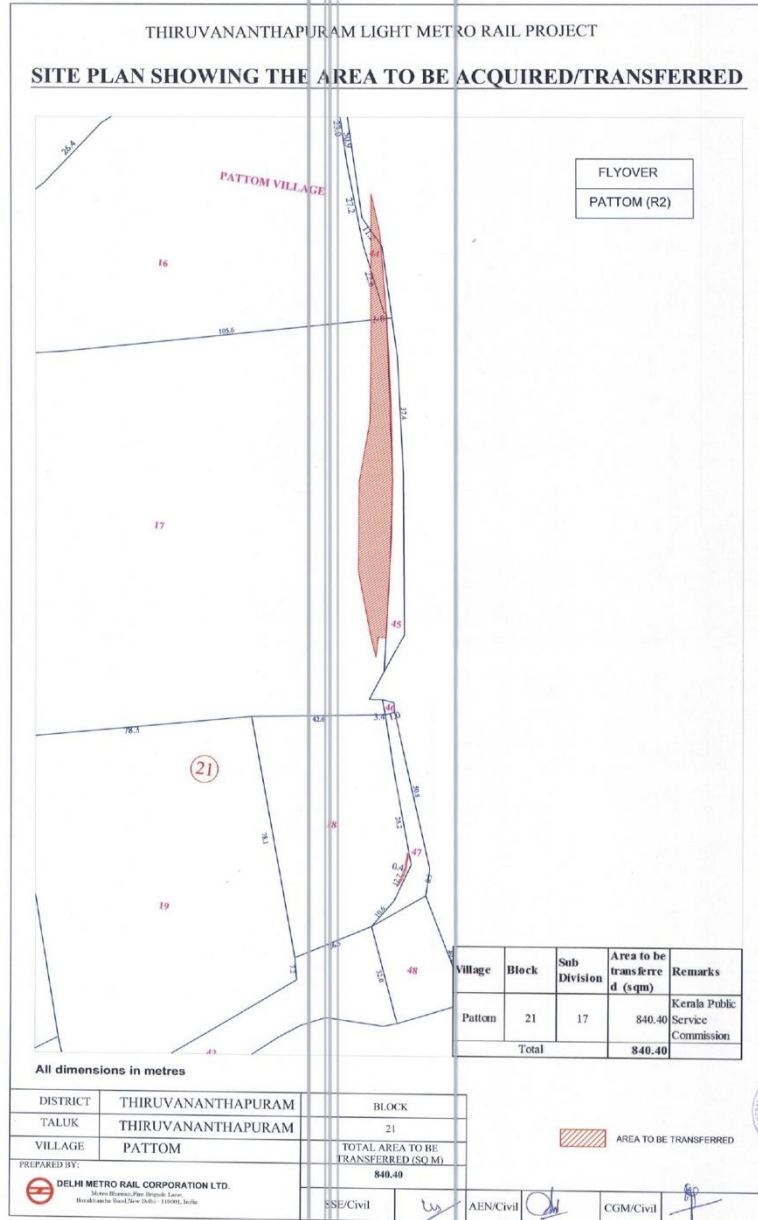
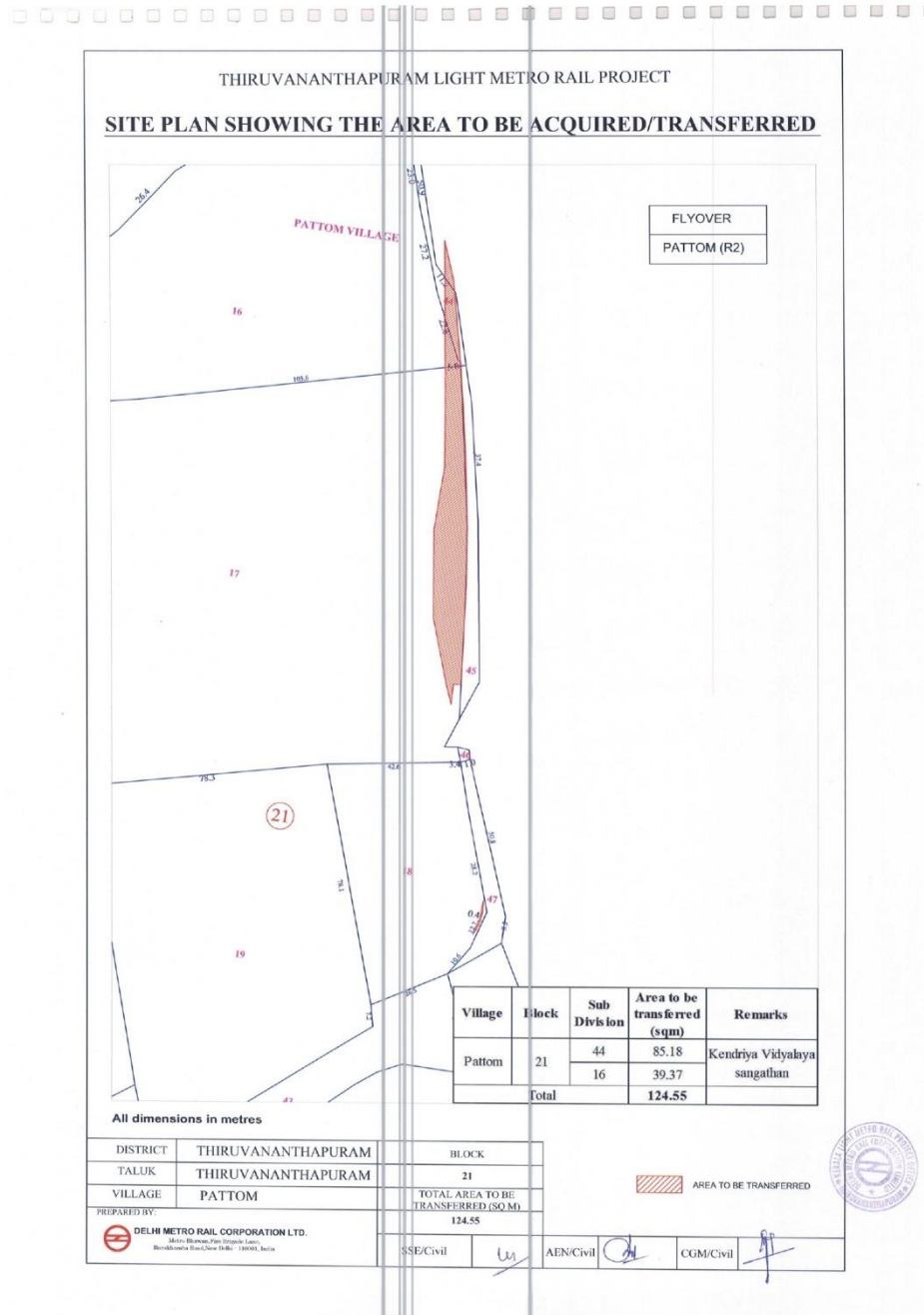


Exhibit 4.1.9 (Pattom Block No. 21 - Kendriya Vidyalaya Sangathan)



4.2 Entire area of impact under the influence of the project (not limited to the land area for acquisition)

The Pattom Fly Over Project involves the acquisition of land plots from the 55 affected entities in Pattom and Kowdiar Villages of the Thiruvananthapuram district. Pattom is a very busy commercial area of the Thiruvananthapuram City, with lots of educational, commercial, health and government-related organizations in the vicinity. While the majority of the land in the region is reported to be commercial properties, a few lands are being used for residential purposes also.

The project aims to reduce traffic congestion in the Pattom and Plamoodu area resulting in greater benefits to students, patients, customers, commercial shops and alike. Apart from the defined objectives such as easy and better transportation, the project is expected to be beneficial for the people residing in the vicinity of the project area by resulting in appreciation of land values and major economic development. Though the operational commercial entities are to be affected, better transportation through the region could boost further the commercial and service industry activities in the entire region.

4.3 Total land requirement for the project

The project is being implemented in 3,215 Sq. M. of land covering Block No.- 21, 68, 69 and 72 (Survey Nos. 70, 2 & 45, 3 & 46, 4 & 47, 72, 73, 74, 5 & 48, 6 & 49, 7 & 50, 22, 19, 33, 34 & 35, 89, 91, 92, 90, 91 & 92, 93, 19 & 95, 96 & 97, 20 & 98, 21 & 99, 32 & 100, 101, 128, 17, 16 & 44) in Pattom Village and 24, 28 and 78 (Survey Nos. 10, 45, 47, 48, 49, 50, 51, 52, 87, 89, 92, 93, 46, 88, 22, 23, 24, 27, 89 & 92, 90, 91, 93) in Kowdiar Village of Thiruvananthapuram Taluk in Thiruvananthapuram District. About 2,011.52 Sq. M. of the private land is classified as Purayidam and 238.51 Sq. M. of the private land is Nilam.

4.4 Present use of any public, utilized land in the vicinity of the project area

Under the block no. 21 subdivisions 17, 16 & 44 that comes to 965 Sq. M. falling in the village of Pattom, are utilized Public land held by Kerala PSC and Kendriya Vidyalaya Sangathan, which will be affected. And about 60 Sq. M. of the land to be acquired is inroads.

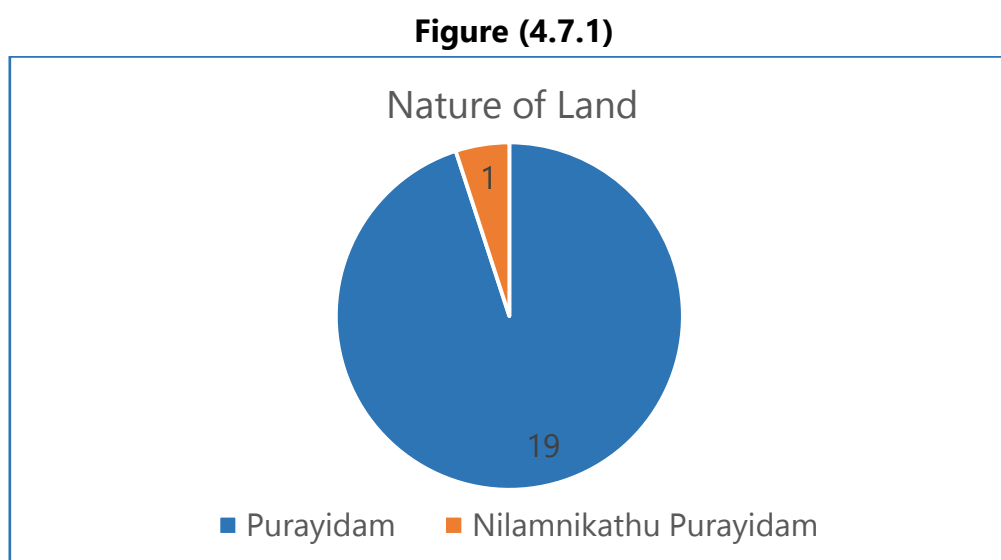
4.5 Land (if any) already purchased, alienated, leased or acquired, and the intended use for each plot of land required for the project

To construct a flyover connecting Plamoodu Junction and Pattom Junction in Pattom and Kowdiar Villages in Thiruvananthapuram District and to develop ancillary infrastructure, 3,215 Sq. M. of land is proposed to be acquired. As per the available information from the concerned departments, no land has been either leased or purchased for the project yet.

4.6 Quality and location of land proposed to be acquired for the project

The project land is located at Pattom- Kowdiar Villages of Thiruvananthapuram Taluk in Thiruvananthapuram District. The project area and its surroundings are known commercial areas with rising residential projects and also the locality has many governmental and health sector organizations. The project area consists mostly of dry land. Most of the landowners have built commercial spaces and established their businesses or have given them for rent/lease. Only a few residential plots have any crops or plants in the project area. The land is deemed highly suitable for the project and support infrastructure.

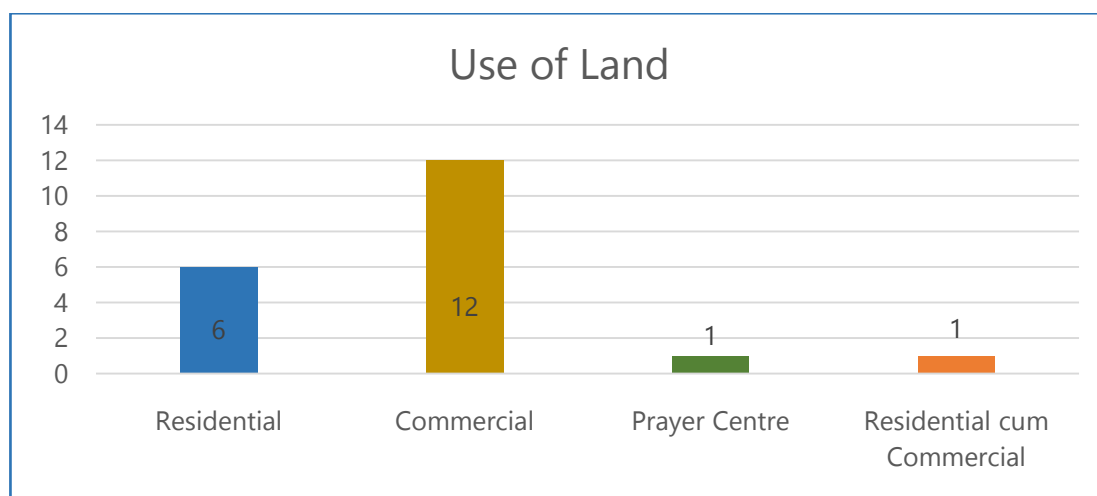
4.7 Nature, present use and classification of land and if agriculture land, irrigation coverage and cropping patterns



The land owned by the affected respondents (20) is classified based on its nature. As illustrated in Figure 4.7.1, 90 % of the land is categorised as Purayidom and only one land is reported as Nilamnikathu Purayidam.

While analysing the present use of land by the 20 affected owners (Fig. 4.7.2), it is found that the majority of the land is used for commercial purposes (12). Whereas 1 plot is used to construct an establishment for a spiritual purpose, the rest (7) is used for residential purposes, of which 1 is used for residential cum commercial purpose.

Figure (4.7.2)

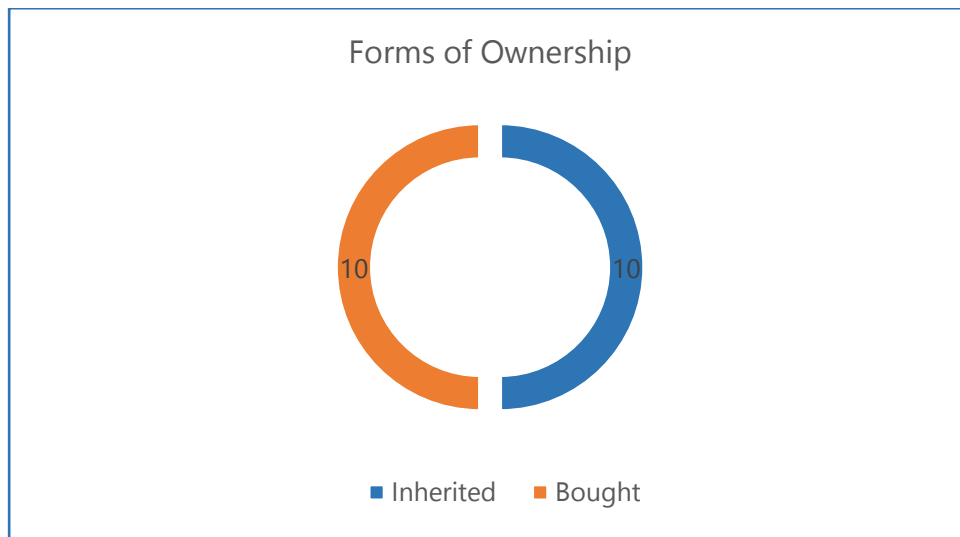


The project area is predominantly a commercial area with few residential properties and other establishments in between.

4.8 Size of holdings, ownership patterns, land distributions and number of residential houses

A total of 80.24 Cents (3,215 Sq. M.) land of 55 affected entities is mapped to be acquired. Of them, two land plots are owned by the government which holds a combined land of 964.95 Sq. M. (24.08 Cents) being proposed to be acquired under the project. Civilian owners hold about 54.65 Cents (2190 Sq. M.) of land. About 1.51 Cents to be acquired are inroads. While most of the civilian owners will be affected by losing less than a cent of the land on average, the largest area owned by a single owner getting acquired is 8.33 Cents.

Figure (4.8)



Among the respondent owners, ten (10) have bought the affected land plots from a third party and the remaining (10) have inherited the land. Further, the majority (18) of the affected persons have been holding the land for more than three years. 2 of the respondents have come to own the land in the project area within the last three years. The average year of holding the land is 34 years.

Five respondent owners will be displaced and the rest of the respondents will not be displayed but will be affected in one way or another depending on the activity undertaken in their lands.

4.9 Land prices and recent changes in ownership, transfer and use of lands over the last three years

The market value of the land per cent as reported from the project area falls between INR 2,500,000 and 3,000,000 per cent and will vary based on the proximity to the road. As per the information collected through the survey, three affected persons have acquired the land and another affected person has inherited ancestral land in the last three years in the project area.

Chapter 5

Estimation and Enumeration (Where Required) of Affected Families and Assets

5.1 Estimation of families

As per the communication from the Requiring Body, Thiruvananthapuram dated 03.06.2019 and the list of 71 small and minor plots of land belonging to 55 owners was identified for the proposed construction of Pattom Fly Over. Among them, two of the plots are classified as government holding and about 6 plots are roads. The SIA team tried to contact the remaining affected persons and were able to get responses from 20 of the directly affected. Apart from these, 11 tenants having commercial establishments in the affected area, were also contacted.

5.1.1 Families which are directly affected (own land that is proposed to be acquired)

The list of the affected persons as per the communication from the Requiring Body is as follows.

Table (5.1.1)

S #	Name and Address of the Affected Person	Village	Block	Survey No.	The extent of Acquisition (Square Meter)	Nature of Land
1	Doris David (wife of David) / Elizabeth Villa, TC No. 12/28 185, Plamoodu, Pattom, Trivandrum	Pattom	72	2 & 45	328.66	Purayidam
2	Mani M / TC No. 12/2910 Madathuvilakam Muri, Maruthankuzhy, Trivandrum			3 & 46	84.73	Purayidam
3	Suresh R / TC No. 2/1387/1, Mangennorkonam, Pattom, Trivandrum			4 & 47	71.88	Purayidam
4	P Suresh, S/O Velappan and Lakshmi, Madathuvilakam Muri, Plamoodu TC 12/30, Pattom, Trivandrum			72	26.43	Purayidam
5	Suresh, S/O Ramadas, TC 2/1387 (1), Mangannurkonathu House, Madathuvilakam Muri, Pattom, Trivandrum			73	19.94	Purayidam
6	Shamla Beegum, D/P Suhara Beevi, TC.12/155, Madathuvilakam Muri, Plamoodu, Pattom, Trivandrum			74	16.75	Purayidam

7	Sapna Maria Gomez, D/O Hester William Gomez, Kannamoolavarambathu, TC 13/1187 (1), Madathuvilakam Muri, Plamoodu, Pattom, Trivandrum		5 & 48	196.67	Purayidam
8	Shamira Said, W/O Shajahan, Mohammed Kundu, Vadakedathu 13, Palakkal North, Thevalakara Village, Kollam		6 & 49	39.68	Purayidam
9	Sudheer Antony Joseph, S/O Ivan Joseph, TC 12/36.20 No, Peace Lodge, Vallivitu Muri, Kowdiar Village		7 & 50	45	Purayidam
10	Mariyamma (Jo Paul George) / Paul & Sons, TC No. 12/404, M N Lane, H No. 29, Plamoodu, Trivandrum		19	18.43	Nilam
11	Jaya M C (Late Mohan Kumar) / Manjari, TC No. 12/128, Plamoodu, Pattom P. O., Trivandrum		33	11.69	Nilam
12	George (Jo Paul George) / Paul & Sons, TC No. 12/404, M N Lane, H No. 29, Plamoodu, Trivandrum		34 & 35	65.77	Nilam
13	Sunilkumar, S/O Gopinathan Nair, TC 12/123, Seevilasath House, Madathuvilakam Muri, Plamoodu, Pattom, Trivandrum		89	6.9	Nilam
14	Vijayakumar, S/O Gopinathan Nair, TC 12/123, Seevilasath House, Madathuvilakam Muri, Plamoodu, Pattom, Trivandrum	68	91	9.12	Nilam
15	(1) Deepa, D/O Sumangaladevi, TC 6/769, Appura House, Madhavamangalam, Vattiyoorkavu (2) Deepthi, D/O Sumangaladevi, Umagiri, Perumbazhuthoor Village, Neyyatinkara Taluk and (3) Kasthuri G. Nair D/O Gopinathan Nair, TC 12/123, Seevilasath House, Madathuvilakam Muri, Plamoodu, Pattom, Trivandrum		92	4.51	Nilam
16	Giridharan, S/O Sreedharan, Sudharma Vilasam, TC 3/70, Marappalam, Karunganoor Muri, Kowdiar Village		90	0.04	Purayidam
17	Thulasidharan, S/O Sreedharan, Sudharma Vilasam, TC 3/70, Marappalam, Karunganoor Muri, Kowdiar Village		91 & 92	4.68	Purayidam
18	(1) Rajani G. Nair, D/O PG Gopalan Nair, Nallambarakkulathil House, Muthukurishi, Mannarkadu, Palakkad, (2) K. K Yousaf, S/O Soopi Haji, Kandi House, Chathur Kuravayal, Javakundu P.O., Kunnothu Parambu Village, Thalassery, Kannur and (3) Ms. Siksu Ramathu, D/O Ramachandra Kurupu, Ramathu House, Ponmary Parambu, Vilyapalli P.O., Ayanchery Village, Vadakara, Kozhikode	69	93	3.58	Purayidam
19	Meeran Pilla, S/O Noohukannu, Hameeda Mansil, TC 49/572, Kalippankulam, Iranimuttam Village, Thiruvananthapuram		19 & 95	37.04	Purayidam

20	Ajith Kumar V S / TC No. 11/777, Sree Padmam, Nandancode, Trivandrum			96 & 97	26.07	Purayidam
21	Thankam, W/O Karunakaran, TC 11/3, Nandankode, Valluveetu Muri, Madathuvilakam, Pattom, Trivandrum			20 & 98	17.81	Purayidam
22	Superior General, Carmelites Sisters of St. Teresa, Ernakulam			21 & 99	200.36	Purayidam
23	(1)Susamma, W/O K.C Chacko, Kottanadu, Kuttingandathil Madathil Chalil, Ezhumatoorpakuthi, Tiruvalla and (2) K.C Chacko, S/O K.J Chacko, Kottanadu, Kuttingandathil Madathil Chalil, Ezhumatoorpakuthi, Tiruvalla			32 & 100	333.76	Purayidam
24	For Jesus Calls Trust, 16 Greenways Road, Chennai- 600028 (S Jaya Paul, Director- National Affairs, M 46/4 Ist Main Road, Besant Nagar, Chennai-600090)			101	127.17	Purayidam
25	Dr Vinitha Prasad, D/O Raghuprasad, Patmashree House, No.8, TC 12/321, M N Lane, Plamoodu, Pattom Village			128*	40.46	Purayidam
26	(1) Satheesh Kumar, S/O Soma Sundaran Pillai, Sumalayam, Arunootimangalam Desom, Mangadu Village, Kollam and (2) Santhosh Kumar, S/O Soma Sundaran Pillai, Sumalayam, Arunootimangalam Desom, Mangadu Village, Kollam	Kowdiar	24	45	22.48	Purayidam
27	Jobin Baby, Kalaykadu Tharayil, Changanassery Village, Kottayam			47	8.43	Purayidam
28	Prasannakumari, W/O Muraleedharan, Neelima, TC No. 3/2287 (1), Pattom P.O., Kowdiar Village, Trivandrum			48	9.96	Purayidam
29	(1) Jayaprakash, S/O Janardhana Pillai, Jyotsna, TC 3/802, Kesavadasapuram, Madathuvilakam Village, Thiruvananthapuram, (2) Ranjith, S/O Janardhana Pillai, Jyotsna, TC 3/802, Kesavadasapuram, Madathuvilakam Village, Thiruvananthapuram and (3) Jyotsna, D/O Sharadama, Jyotsna, TC 3/802, Kesavadasapuram, Madathuvilakam Village			49	3.46	Purayidam
30	(1) Priyakumari, D/O Jyotsna, TC 3/2287, Pattom P.O., Kowdiar Village and (2) Preetha J, D/O Jyotsna, TC 3/2287, Pattom P.O., Kowdiar Village			50	19.56	Purayidam
31	Jose P A, S/O Antony P.O., Jose Gold Traders and Jewellers			51	32.34	Purayidam
32	Sugunan K Das, S/O Kumara Das, Banes Compound, Nanthancode, Madathuvilakam			52	5.7	Purayidam
33	Lakshman Sreenivas, S/O Nagarajalu, Parthas, TC 5/2352 (2), Golf Links Road, Sastamangalam Village, Thiruvananthapuram (For Parthas Infopark Pvt. Ltd.)			87	52.97	Purayidam

34	(1) Anitha Elisabeth, (2) Varsha Elsa Thomas and (3) Vaniya Lis George, Puliyel, TC 3/2170, LIC Lane, Pattom		89	46.18	Purayidam
35	Gowthaman S, S/O Chembaka Moorthy, TC 2/2155 (11), AN-234, Adarsh Nagar, Pattom (For QRS Retail Ltd.)		92	61.52	Purayidam
36	(1) Sujathadevi Saradamani, Saradavilasam Bungalow, Pattom Valluweetumuri, (2) S Krishna Kumar, MD, Nikunjam Constructions Pvt. Ltd., TC 4/2554-3, Indraprastham, Pattom, Kowdiar and (3) Thomas John Muthoot, MD, Muthoot Fin Corp Ltd., Muthoot House, TC 4/1241, Kuravankonam Village, Kowdiar		93	75.54	Purayidam
37	Anil Kumar, S/O Ramachandradas, TC No. 25/1124, Usha Bhavan, Plamoodu, Trivandrum		22	13.94	Nilam
38	(1) George K G, S/O Joseph George, Karukathara House, Madathuvilakathu Muri, Pattom and (2) Raju George, S/O George K K, Karukathara House, Madathuvilakathu Muri, Pattom	78	23	19.63	Nilam
39	Anjaleena Florence Isaac, D/O Dr. Edward M, TC 10/1579, Badhani Bhavan, Valluweetu Muri, Kowdiar Village		27	20.55	Nilam
40	Sivaprasad, S/O Vidyadharan, MD, Condor Properties Pvt. Ltd., TC 2/2421, Pattom, Palace P.O.		89 & 92	20.76	Nilam
41	Sivakala, D/O Pankajakshi, AalumMootu House, MadathuvilakAM Muri, Pattom Village	28	93	3.08	Nilam

5.2 Family of scheduled tribes and other traditional forest dwellers who have lost any of their forest rights

The construction of proposed Fly Over connecting Pattom and Plamoodu Junctions requires the acquisition of mostly commercial dry lands from an urban area. Neither any Scheduled Tribes nor any other community with special forest rights is reported to be affected by the project.

5.3 Families which depend on common property resources which will be affected due to the acquisition of land of their livelihood

In regards to the public land being acquired from government ownership, no common resources are there that will affect the livelihood of anyone. Some public land that is commonly used being taken over are few of the roads in the area, but this acquisition won't affect the daily life or livelihood of anyone.

5.4 Families which have been assigned land by the State Government or the Central Government under any of its schemes and such land is under acquisition

No families in recent years were assigned land by any government and no such land will be affected.

5.5 Families which have been residing on any land in the urban areas for the preceding three years or more before the acquisition of the land

One of the respondents have reportedly come to be the owner of the land due to the transfer of ownership within the family and three other persons have brought the land that will be affected by the project, within the last three years.

5.6 Families which have depended on the land being acquired as a primary source of livelihood for three years before the acquisition

Income from commercial establishments in the form of rent and or profit from the business is the major livelihood opportunities for 9 affected families and they are reported to be affected. As per the survey feedback, these affected families have been in business for more than three years in the project area.

5.6.1 Families which are indirectly impacted by the project (not affected directly by the acquisition of own lands)

There are about 11 tenants who run their businesses in the buildings that are being affected by the project. About 17 employees (Male – 15 and Female – 2) who work in these commercial establishments, will lose their livelihood or income in salaries. And another 27 employees (Male – 22 and Female – 5) from the family-run businesses in the project area to gets indirectly affected by losing their income from wages/salaries. Average Monthly Salary/Income of employees in the establishments run by Tenants is INR 17,823/- and in case of employees of the family-run businesses, it is INR 16,555/-. The average age of employees of the tenants is 27 years and in the case of a family-run business, it is 39 years. On average the years of employment with these establishments is 6 years in the case of tenants and 5 years for family-run businesses. Bakery, Mobile Shop, and Textile are the major business units that get affected by the project.

5.6.2 Inventory of productive assets and significant lands.

The proposed project is in an urban area with good commercial and governmental presence. There are few residential and many commercial establishments in the area. The significant land plots in the project area are owned by the Government. As per the information collected from the project area two of the affected families will be at loss of residence and the adjacent land, whereas one another landowner will compound wall in the affected area. Only about 7 commercial buildings are affected and from it, only 3 need complete relocation. Being a prominent commercial area, the loss of crops and plants are minimal considering residential plots are a few. Affected crops are 3 Mango Trees, 1 Pepper Plant, Teak and Jackfruit Tree each, 2 Banyan Trees, 5 Coconut Trees and 3 Plantains.

Chapter 6

Social Economic and Cultural Profile (Affected Area and Resettlement Site)

Plammoodu Junction and Pattom Junction are two of the most important road intersections of the urban road infrastructure in the city of Thiruvananthapuram, Thiruvananthapuram district, in the state of Kerala. The ever-increasing number of vehicles and ensuing traffic congestions in the area, has lent the need for a flyover essential, for smooth and efficient mobility in the area. This has led to the proposal of the project in question between Plammoodu Junction and Pattom Junction in the villages of Kowdiar and Pattom. The project will have a varied impact on the people and the socio-economic profile of the 55 affected entities. Interpretations of details collected from various sources and the affected persons who responded (20 owners and 11 tenants) to the survey are given here.

6.1 Demographic details of the population in the project area

As per the details are given in the Figure 6.1.1, the most prevalent religion in the area is Hinduism with twelve (12) families following this religion; Christianity is the second majority with six (6) families believing in it and two of the families belongs to Islam.

While 10 families belong to Other Backward Community (OBC), 9 families fall in the General category and one family belongs to SC category (Table 6.1.1).

Analysing the age of the members of the affected respondent families (71 individuals), it has been found that adult in the age group of 26-45 is the majority group with 18 of them; followed by 15 persons falling in 46-60 age group. Similarly, the presence of senior citizens in the families is significantly high with 11 persons beyond the age of 61. The third major age group is 6-15 with 14 individuals in the group (Figure 6.1.2).

Figure 6.1.3 explains the Gender specifics of the respondent group. As per the primary information through the questionnaire survey, there are 32 male and 34 female members in the respondent families.

37 persons are married and 26 are reported as unmarried. It was found that there are 3 widows among the respondent families Table (6.1.2).

With regards to the education background of the affected persons, the majority have undergone some kind of formal education. This is in line with the state wide scenario of education levels. 25 of them have gone to schools, of which 14 have completed High School level education. When 11 have passed UG, Post Graduates are 9. There are family members of the respondents who have attended the professional course; 6 of them have honoured in B.Tech and 2 in M.Tech (Table 6.1.3).

Four of the respondents have not cooperated with the survey team in providing their demographic details.

Figure (6.1.1)

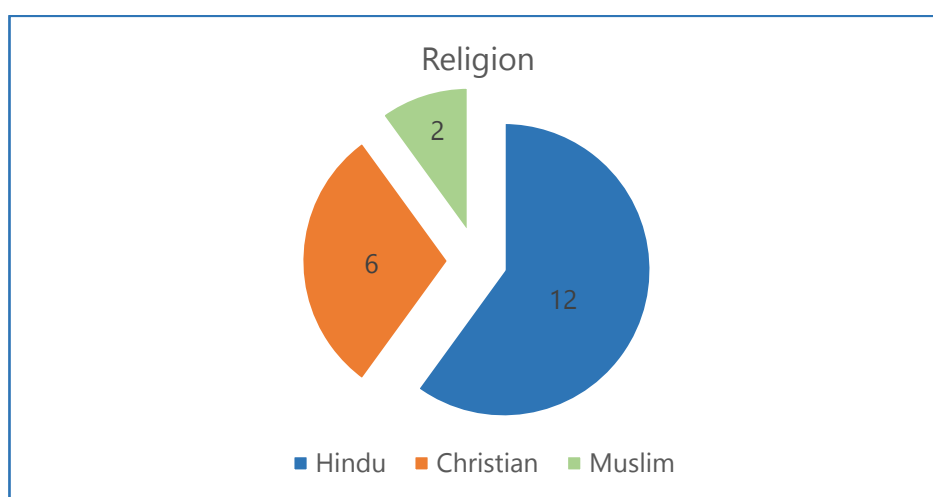


Table (6.1.1)

Social Group	No. of Families
General	9
OBC	10
SC	1

Figure (6.1.2)

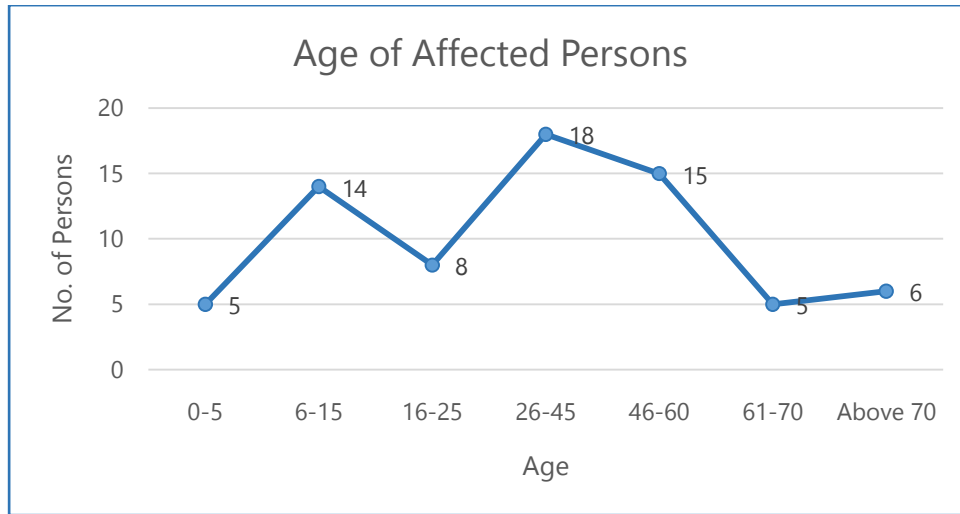


Figure (6.1.3)

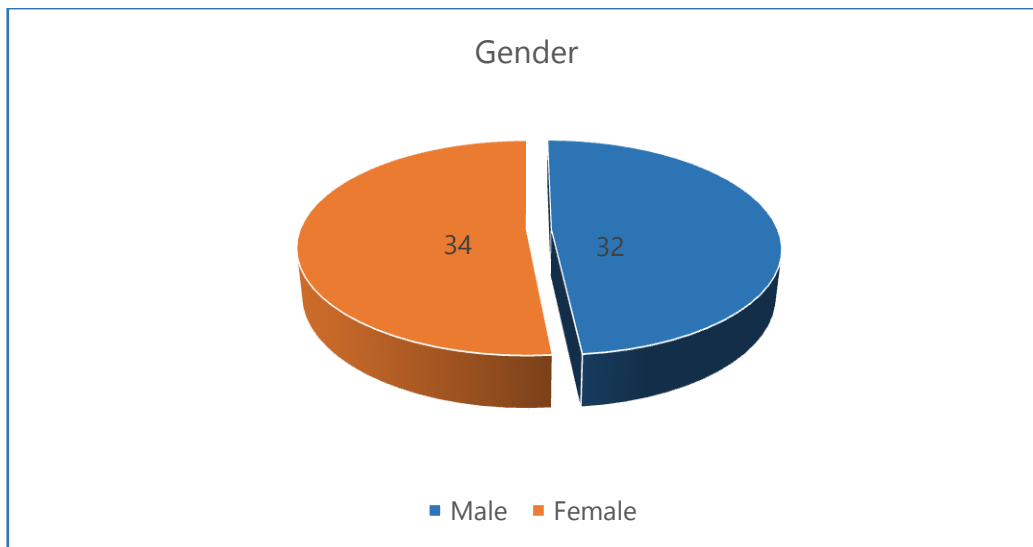


Table (6.1.2)

Marital Status	No.of Persons
Married	37
Unmarried	26
Widow	3

Table (6.1.3)

Level of Education	No. of Persons
LP School	4
UP School	4
High School	14
Senior School	3
UG	11
PG	9
B. Tech	6
M. Tech	2
Others	6

6.2 Income and poverty levels

As furnished in Figure 6.2.1, the monthly income of the affected families is more or less equally distributed under different levels of income. Under the category of 40,000-50,000, there are three (3) respondent families, in the case of 30,000-40,000 and 50,000-60,000 income levels, there are two (2) each as reported in the survey. While the income of the two(2) of the affected families is recorded below INR 10,000 per month, another of the two (2) families earn an income more than 70,000. Four of the respondents have kept away from giving income details to the survey team.

The monthly spent of the affected families is known to be high as the average monthly spent is reported to be INR 29,950. Among the respondent families, a total of 19 are earning members. A total of 35 family members are dependent on the earning members of their families, for their daily needs. Six of the respondents have not shared details in this regard, with the survey team.

Figure 6.2.2 provides a glimpse into the poverty level of the affected families of the project. None of the affected family reportedly holds Yellow ration card which indicates that the most economically backward community doesn't exist among the affected families. The income level of one family is the least among the affected families as they hold Pink ration card and fall under Below Poverty Line (BPL). As 5 and 10 families hold Blue and White Ration card respectively, it is understood that the majority of the population of the project area are in the Above Poverty Line (APL) category. Four (4) families have not disclosed information about ration cards.

Figure (6.2.1)

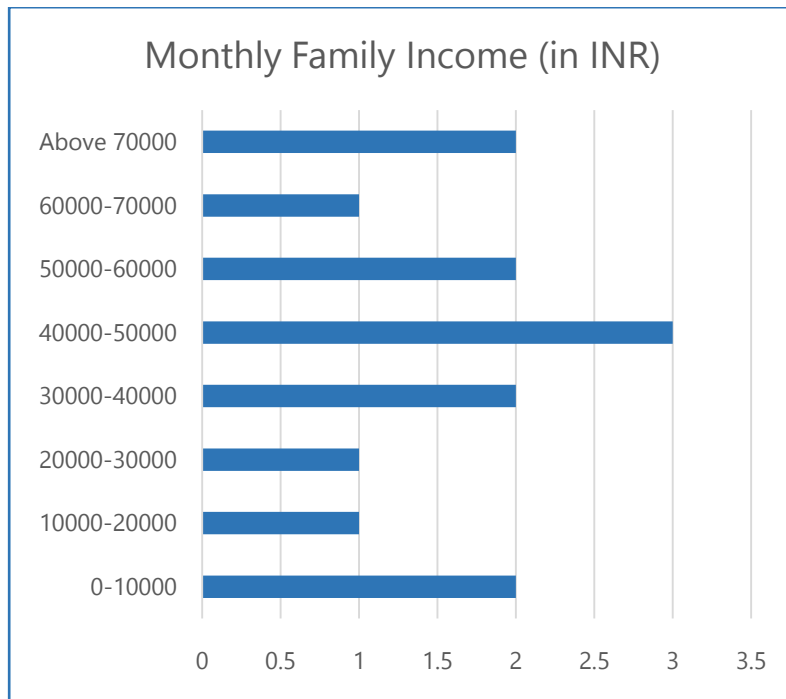
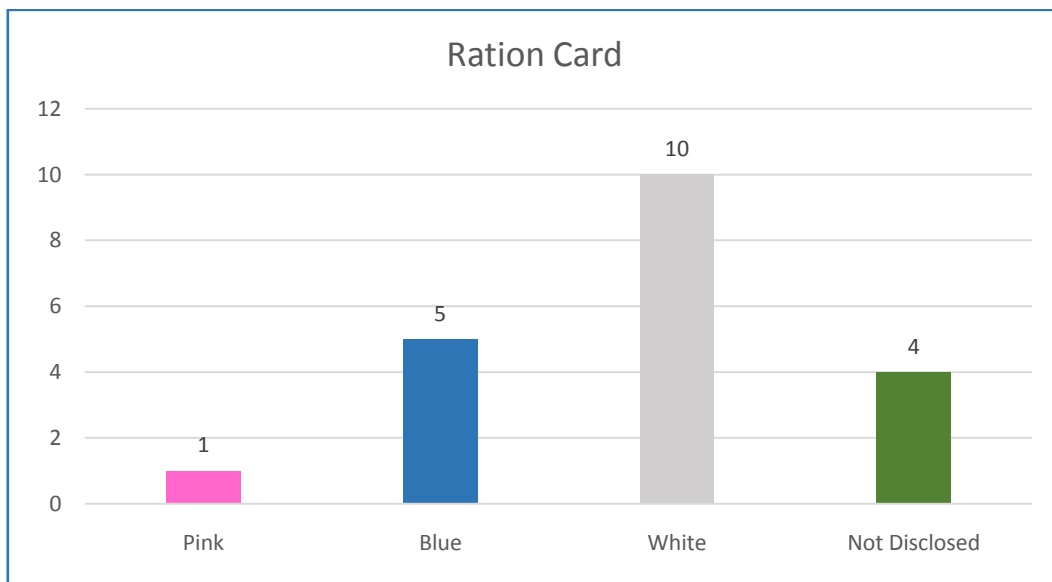


Figure (6.2.2)



6.3 Vulnerable groups

The project spreads across a 1.00 KM stretch in Pattom and Kowdiar villages of Thiruvananthapuram district. Though major aspects of Human Development Index such as education, income, health etc. are found to be positive, certain vulnerable groups would require special attention while implementing the project. No. of Children under 5 years of age is 5 and elders (11) whose age is above 60 years would make a major part of the surveyed population. And there are 3 widows among the respondent families, who require special consideration. All these categories are qualified to be amongst vulnerable groups.

One of the affected owners has taken a housing loan against the land being acquired for the project. 5 respondent families are to be displaced of their livelihood or residence permanently. Along with all of these affected persons, another vulnerable group that needs special attention is the 40 odd employees who depend on these respondents and their tenants for their livelihood.

6.4 Land use and livelihood

As furnished in Figure 4.7.1, 90 % of the land to be acquired is dry land. Two (2) of the plots in the affected area owned by the government are used by Kerala PSC and Kendriya Vidyalaya Sangathan establishments. Some of the public lands have been used to build roads leading to the residential and commercial plots of the affected entities.

Majority of the private plots are used to run commercial establishments and to be rented for commercial purposes. No one in the project area relies on agriculture for their livelihood.

6.5 Local economic activities

Entrepreneurship and rental/lease returns constitute the main sources of income for the affected parties in the project area. Salary/wages is the other biggest source of income for the rest of the affected persons in the project area. Bakery, Footwear, Textiles, Mobile Store, Sale of Fish, Nutrition products, Food, Pet Shop, etc. are the few varieties of businesses you will get to see in the project area. Since the project area is in an urban setup with residential properties, no agricultural or industrial activity is present.

6.6 Factors that contribute to local livelihoods

The project falls in one of the prominent urban centres of the city. Many of the administrative and bureaucratic setups of the district and the state are situated in the nearby localities. Thiruvananthapuram has one of the major IT Parks of the nation and the city hosts various other corporate houses and industries. Most of the affected persons rely on the returns/income from entrepreneurship for their livelihood. Salary or wages from working in the governmental machinery or the various IT and other companies in and around the city is an equally important source of income for many respondents.

6.7 Kinship patterns and social and cultural organization

As observed by the expert team of SIA, people generally live in harmony and work together for the development of the region. A school of the Kendriya Vidyalaya Sangathan is presently functioning in the project area. The region is reported to have residential associations and other such social organizations to promote civil harmony in the region.

6.8 Administrative organization

Pattom village and Kowdiar village that come under the Thiruvananthapuram taluk administration are the major administrative organisation present in the project area.

6.9 Political organization

The Fly Over is planned in such a way that the individual and common properties are affected least possibly. No political organisation is observed to be located in the vicinity of the project location.

6.10 Community based and civil society organizations

Though the project area has the presence of all major religions, Hinduism is the dominant religion. There are two Christian spiritual centres in the project area. Besides, a Hindu Worship Stone has been found at Plamoodu junction in the project area. The location is near the various major religious centres of the city.

6.11 Regional dynamics and historical change processes

The project spreads across a 1.00 KM stretch in Pattom and Kowdiar villages of Thiruvananthapuram district. Pattom is one of the important urban localities of the city of Thiruvananthapuram. The entire area was ruled and controlled by the erstwhile Kingdom of Thiruvithamkoor before independence and the residence of the King and Queen of the erstwhile Kingdom, is situated in the Kowdiar village, currently under the protection of the Government.

It has always been a semi-urban locality and an important bureaucratic centre since the erstwhile Kingdom had its seat in the Kowdiar village. With the economy and administrative scenario developing, now the area has become a full-blown urban centre. Since the development of road infrastructure of the city, that connects the area to the various important locations of the district, the project locality has emerged to be an important corridor for the commercial vehicles.

6.12 Quality of the living environment

Majority of the population in the project area live Above Poverty Line with access to facilities such as Schools, Hospitals, Civil Organisations, Social Groups etc.. Due to its proximity to the central part of the Thiruvananthapuram City, the State's capital, the facilities in the city are well equipped and available for use of the community in the project area. Major health, religious, educational, commercial and administrative systems are close by. The distance to major Railway Station and Bus Station (Thambanur) and Airport (Trivandrum International Airport) is with an hour travel only.

Chapter 7

Social Impact Management

7.1 Approach to mitigation

To assess the mitigation, the expert research team of SIA Unit has adopted an approach that is spanned in three phases. In the first phase, the team visited the project location to physically observe the specialities associated with the area and then a pilot study was conducted to understand major risks and opportunities involved with the project. Through a structured questionnaire, detailed dynamics of risks of each affected person is collected and analysed. Further, to understand generic and common risks involved with the project, in-depth interviews were held with selected key persons and stakeholders of the project. A public hearing is being scheduled for a comprehensive measurement of risk and to mitigate it in the third phase.

7.2 Measures to avoid, mitigate and compensate the impact

The proposed construction of the Pattom Fly Over covering a distance of 1.00 KM is planned by the requiring body by minimising the risk in the most possible manner. Two residential buildings are being affected completely and most of the commercial establishments in the area will be affected in one way or another. 55 affected owners will have to face some adverse effects and the following measures may be taken to avoid, mitigate and compensate the impact

- Reinstall common facilities and way to residential/ other properties which are expected to affect due to the implementation of the project
- The sewage system and other public amenities like water supply, electricity lines, should be reworked and rebuilt, to alleviate problems and benefit the community in their daily requirements.
- Distribute saplings or take initiatives to replant plants/trees which will be lost due to the project
- Recreate livelihood opportunities as far as possible for the affected persons whose income is dependent on the commercial units in the project area
- Safety of the people while constructing the road and healthy disposal of wastages arise out of construction, should be ensured.

7.3 Measures that are included in terms of Rehabilitation and Resettlement and Compensation as outlined in the Act

The Rehabilitation and Resettlement package as per the Policy issued by Revenue(B) Department, Government of Kerala vide G.O.(Ms)No.448/2017/RD dated 29/12/2017 for the rehabilitation and resettlement package for land acquisition in the state in lieu of RFCTLAR&R Act 2013 shall be provided to the affected landowners.

7.4 Measures that the Requiring Body has stated it will introduce in the project proposal

The requiring body has stated enough measures in the project proposal for mitigating issues that may arise due to the project and also sufficient fund has been reserved for compensating the affected people/entities.

7.5 Alterations to project design and additional measures that may be required to address the extent and intensity of impacts across various groups as identified during SIA

Not Applicable

7.6 Detailed Mitigation Plan including detailed activities to be carried out for each mitigation strategy, timelines for each mitigation strategy

The Rehabilitation and Resettlement package as per the Policy issued by Revenue(B) Department, Government of Kerala vide G.O.(Ms)No.448/2017/RD dated 29/12/2017 for the rehabilitation and resettlement package for land acquisition in the state in lieu of RFCTLAR&R Act 2013 shall be provided to the affected landowners.

Table (7.6)

S #	Mitigation Strategy	Activities	Timeline
1	Compensation and Resettlement	Assessing the impact	
		Calculation of Compensation	
		Acquisition of land and Disbursement of Compensation	
2	Recreation of Common Facilities	Construction of common facilities along with road & flyover construction	
3	Livelihood Impact Mitigation	Recreate livelihood opportunities as far as possible for the affected persons whose income is dependent on the commercial units in the project area	
4	Environmental Mitigation	Distribute saplings or take initiatives to replant plants/trees which will be lost due to the project	
5	Mitigation to ensure safety and continuous transportation	Plan and implement safety measures and develop a plan of action for uninterrupted transportation and to dispose of construction wastages	

7.7 The SIA plan indicating which measures the Requiring Body has committed to undertake and those that have been proposed, but not committed to being undertaken by the Requiring Body

Not Applicable

Chapter 8

Social Impact Management Plan Institutional Framework

8.1 Description of institutional structures and the key person responsible for each mitigation measures

The project for constructing the Fly Over connecting Pattom Junction and Plamoodu Junction in Thiruvananthapuram district is proposed by KRTL, the Requiring Body. Government of Kerala has appointed various key persons through formal order with clear roles and responsibilities following the Right to Fair Compensation and Transparency in Land Acquisition, Resettlement and Rehabilitation (RFCTLARR) Act, 2013.

RTFCTLARR Act, 2013 defines the Administrator appointed by the State Government would be the person responsible for Preparation of Rehabilitation and Resettlement Scheme for affected families of Land Acquisition. Subject to the superintendence, directions and control of the appropriate Government and the Commissioner for Rehabilitation and Resettlement, the formulation, execution and monitoring of the Rehabilitation & Resettlement Scheme shall vest in the Administrator.

As per G.O. (Ms) No.485/2015/RD, dated 23/09/2015, The Kerala State Policy for Compensation and Transparency in Land Acquisition, the District Level Fair Compensation, Resettlement and Resettlement Committee comprising:

- District Collector, Administrator for resettlement and rehabilitation,
- Land Acquisition officer
- Finance Officer
- Representatives of the requiring body to take financial decisions on its behalf
- Representatives of Local Self Government Institution to monitor the Rehabilitation Action Plan

8.2 Specify the role of Non-Governmental Organizations

Not applicable

8.3 Indicate capacities required and capacity building plan, including technical assistance if any

The Kerala Rapid Transit Corporation Limited(KRTL) will plan and build the resources and capacities that are required to complete the project successfully.

8.4 Timelines for each activity

The timeline will be finalized as per the Kerala Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015.

Chapter 9

Social Impact Management Plan Budget and Financing of Mitigation Plan

9.1 Costs of all resettlement and rehabilitation costs

For the construction of new Fly Over of 1.00KM as defined in the project plan, satisfactory compensation as per the prevailing rules and regulations will be brought in for the land acquisition by KRTL, Thiruvananthapuram.

9.2 Annual budget and plan of action

Not Applicable

9.3 Funding sources with break up

Not Applicable

Chapter 10

Social Impact Management Plan Monitoring and Evaluation

10.1 Key monitoring and evaluative indicators

The New Fly Over Project between Pattom and Plamoodu Junctions will affect fifty-two (54) individual land owners and two (2) government plots. The key monitoring and evaluative indicators are

- Fair compensation and resettlement measures as per RFCTLAR&R Act, 2013
- Timely disbursement of funds to the affected families
- Implementation of the proposed project in the timeframe defined
- Safety and environmental measures
- Recreate livelihood opportunities

10.2 Reporting mechanisms and monitoring roles

Rehabilitation and Resettlement procedures as stated in the Kerala Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules 2015 will be applicable.

10.3 Plan for independent evaluation

Not Applicable

Chapter 11

Analysis of Costs and Benefits and Recommendation on Acquisition

11.1 conclusions on the assessment of public purpose, less displacing alternatives, minimum requirements of land, the nature and intensity of social impacts, and viable mitigation measures will address costs

The proposed Fly Over between Pattom and Plamoodu Junctions in Thiruvananthapuram Taluk of Thiruvananthapuram District was initially proposed under the Light Metro Project in Thiruvananthapuram. The project is expected to ease the traffic congestion and smooth out the traffic flow in the Pattom region as well as at Plamoodu Junction. The proposed flyover covers a total stretch of 1.00 KM with a road width of 7.5 Meters for each lane and overall width of 18.80 Meters. 3,215 Sq. M. of land spread across Pattom and Kowdiar villages have identified and aligned by KRTL and is deemed fit to be categorised for a public purpose.

With the current land mapping done for the project, only two residences will be fully affected. Livelihoods of businesses that run in the affected plots in the project area and their employees will be affected. Besides, some of the commercial establishments along with land used for public purposes such as road, transportation, drainage, water connection, electricity lines, bus stops, etc. are reported to be affected. Suitable Resettlement/Rehabilitation/Compensation measures should be taken to mitigate the impact of the affected.

For a span of 1.00 KM, 3,215 Sq. M. of land is identified to be acquired from 54 private owners and the government. The alignment of the road was made in such a way as to avoid residential dwelling coming under the proposed fly over to a minimum and further, the principles of shortest route serving the maximum population, minimum drainage crossing, minimum impact to the commercial establishments etc. have been followed.

The nature of the impact varies from one to another. Displacement of families/commercial establishments and loss of employment is understood to be the most intense impact. Reduction in ownership and possession of land etc. have also emerged as other major impacts to mitigate. Fair compensation and R & R Package based on RFCTLAAR Act, 2013 and recreating livelihood opportunities are expected to be the major mitigation measures. In general, the affected persons are positive on the proposed construction of the flyover as it is expected to reduce traffic, improve connectivity with other locations and is likely to appreciate the commercial value for land and other assets.

11.2 The above analysis will use the equity principle as a framework of analysis for presenting a final recommendation on whether the acquisition should go through or not.

Based on the analysis and assessment of the positive and negative impacts of the Fly Over project in between Pattom and Plamoodu Junctions, SIA Team recommends the project to implement with the existing land mapping and acquisition plans. The project is expected to improve the quality of living in the region especially in case of transportation and the same is empathised by many of the affected persons despite the negative impact the project brings. The following are recommended to mitigate the impact

- The Rehabilitation and Resettlement package as per the Policy issued by Revenue(B) Department, Government of Kerala vide G.O.(Ms)No.448/2017/RD dated 29/12/2017 for the rehabilitation and resettlement package for land acquisition in the state in lieu of RFCTLAR&R Act 2013 shall be provided to the affected landowners.
- Reinstall common facilities and way to residential/ other properties which are expected to affect due to the implementation of the project
- The sewage system and other public amenities like water supply, electricity lines, should be reworked and rebuilt, to alleviate problems and benefit the community in their daily requirements.
- Distribute saplings or take initiatives to replant plants/trees which will be lost due to the project
- Recreate livelihood opportunities as far as possible for the affected persons whose income is dependent on the commercial units in the project area
- Safety of the people while constructing the road and healthy disposal of wastages arise out of construction, should be ensured.

References

1. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
2. Rehabilitation and Resettlement Package for the acquisition of land in the State in lieu of RCFTLAR&R Act, 2013 G.O. (Ms) No. 448/2017/RD dated 20/12/2017
3. Proposed General Arrangement Drawing for the construction of Pattom Fly Over
4. Proposed Site Plan for the construction of Pattom Fly Over
5. List of land plots to be acquired with the extent and survey numbers –KRTL, Thiruvananthapuram dated 03-06-2019
6. Kerala Gazette Order (Extra Ordinary) No. 752 dated 08-03-2019
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