

SOCIAL IMPACT ASSESSMENT STUDY DRAFT REPORT

LAND ACQUISITION FOR CONSTRUCTION OF BRIDGE FOR THE CONNECTIVITY OF PIZHALA- MOOLAMPILLY BRIDGE AND APPROACH ROAD

**GOSHREE ISLAND DEVELOPMENT AUTHORITY
(GIDA)**

SIA Unit



RCSS
RAJAGIRI COLLEGE OF
SOCIAL SCIENCES
(AUTONOMOUS)

20th June 2019

**Rajagiri College of Social Sciences
Rajagiri P.O Kalamassery, Pin: 682 104
Ph: 0484 2911111 - 2555564**

www.rajagiri.edu

Email: rossrajagiri@gmail.com

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CHAPTER 1

EXECUTIVE SUMMARY

1.1. Introduction - Project and Public Purpose

The Pizhala island near Kochi, which has a population of over 40,000 people, is almost 9 kilometers away from Kochi city and 650 meters from Moolampilly, a well connected island in Ernakulam. For years, the residents of island have been depending on 2 make shift ferries to access Kochi city via Moolampilly. The 28th General Council of Goshree Islands Development Authority has decided to take up the Moolampilly - Chathanad road project as 4 independent projects and accordingly Moolampilly - Pizhala Bridge and approaches has been taken up as the 1st phase of the project. Hence the construction of Moolampilly - pizhala bridge and approach roads is the first phase of the approved project of Moolampilly - Chathanad Road Project. The Moolampilly - Chathanad Road would connect Ezhikkara and Kadamakkudy Panchayaths to the Vallarpadom NH Connectivity road at Moolampilly. When completed, this road would connect the isolated small islands in the Vembanad backwater system such as Moolampilly, Pizhala, Kadamakkudy in Kadamakkudy Panchayath and Chathanad in Ezhikkara Panchayath with each other and with the mainland. The people living in the islands depend on the mainland for all their basic requirements like their Medical Needs, Educational facilities, jobs etc. The road is expected to provide the required connectivity to the islands. The proposed connectivity of these Panchayaths to the National Highway is very important in view of their socio-economic development and management of any disaster. Once completed, the road will also enable to develop a direct link between NH 17 at North Paravur to the International Container

Transshipment Terminal (ICTT) link road, which will reduce the travel time between North Paravur and Ernakulam to 30 minutes. It will be the shortest road connectivity from the ICTT road to NH 17 at North Paravur. It also connects the islands such as Pizhala, Cheriyaakadamakkudy, Valiyakadamakkudy and Chathanad to the main land.

Construction of the Moolampilly-Pizhala bridge is almost completed. In the Moolampilly-Pizhala bridge, a traffic island has been provided at Pizhala side. From there a connectivity bridge has to be constructed for landing the bridge to Pizhala island. The proposed land acquisition is to construct this connectivity bridge between the traffic island at Moolampilly Pizhala bridge and Pizhala island. Without constructing this connecting bridge and approach roads Moolampilly Pizhala bridge will not be completed.

The Government has accorded AS & ES for the construction of Moolampilly-Pizhala Bridge and its approaches vide G.O.(Rt)No.1889/2013/LSGD dated 17/07/2013. Later, on the light of the Lr.No.GIDA/721/2016 dated 22.03.2017, 15.05.2018 from the Secretary, GIDA, the Government has accorded a revised administration sanction as GO(Rt)No.2574/2018/LSGD dated 6/10/2018 which including the construction of connection bridge. Government are pleased to accord revised Administrative sanction amounting to Rs.95.79 crores for the ongoing construction work of Moolampilly-Pizhala bridge including its connectivity bridge at Pizhala Island from the proposed traffic island of ongoing Moolampilly Pizhala bridge and land acquisition for it.

The proposed project of construction of bridge for the connectivity of Pizhala-Moolampilly bridge and approach road shall be considered for the public purpose as per section 2(1)b(i) of RTFCT in LARR Act, 2013 (30 of 2013).

1.2 Location

The affected area belongs to 10th ward of Kadamakudy Gramapanchayath in Kadamakudy Village, Kanayannur Taluk in Ernakulum District.

1.3 Size and Attributes of Land Acquisition

An extent of 22.91 ares of land from Survey Nos.282,283 and 284 of Kadamakudy village is required for the above project. The proposed land belongs to 9 individuals and a soil road owned by Kadamakudy Grama Panchayath. Except the panchayath road the whole land belongs to wet land category. The details of the land is given in the table below:

Table 1.3.1. Size and Attributes of the land to be acquired

| Sl.No. | Name of the Owner | Survey No. | Type of land | Proposed Extent of land |
|--------|-------------------------|------------|--------------|-------------------------|
| 1 | Jijimon Alex | 282/2 | Wetland | 16.24 Ares |
| 2 | Jojimon Mathew | | | |
| 3 | Jijo Jose (Jijo Antony) | | | |
| 4 | Benny | | | |
| 5 | Babu George | 283/3 | Wetland | 1.85 are |
| 6 | Mohan George | 283/6 | | 1.85 are |
| 7 | Hashim | | | |
| 8 | Jijimon Alex | 283/4 | Wetland | 0.44 are |
| 9 | Francis (Kunjumon) | 284/1 | Wetland | 0.99 are |
| 10 | John | 284/6 | Wet land | 0.78 are |
| 11 | Kadamakudy panchayath | 284/2 | | 0.76 are |
| Total | | | | 22.91 are |

1.4 Alternatives considered

Construction of Moolampilly-Pizhala Bridge has almost completed. The proposed project envisages only the construction of connecting bridge between the Moolampilly Pizhala bridge and the existing road at Pizhala traffic island. Hence, the consideration of alternatives at this stage is not relevant .

1.5. Social Impacts

The affected area is not a residential land so there is no impact in the housing of the affected families. Paddy cum prawn farming (pokkali) have been undertaking in the whole affected land, except in the land owned by Mr.Babu George, Mohan George and Mr.Hashim. Besides 56 coconut trees should be cut down. The below table will give a clear picture on the impacts of the land acquisition.

Table 1.5.1. Analysis of the various possible social impacts and their proposed mitigation measures

| Sl.No. | Name of the Owner | Type of Impact | Proposed Mitigation Measure |
|--------|------------------------------------|--|---|
| 1 | Jijimon Alex | Loss of land, paddy cum prawn farming and 38 coconut trees | 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 RFCT in LARR Act 2013 |
| 2 | Jojimon Mathew | | |
| 3 | Jijo Jose (Jijo Antony) | | |
| 4 | Benny | | |
| 5 | Babu George | Loss of land, 18 coconut trees | |
| 6 | Mohan George | | |
| 7 | Hashim | | |
| 8 | Francis (Kunjumon) | Loss of land, paddy cum prawn farming, Loss of livelihood | |
| 10 | Mrs.Celine John Thomas & Mr.Roshan | Loss of land, paddy cum prawn farming | |
| 11 | Kadamakudy panchayath | Loss of 0.76 are concrete road | |

The land owned by Mr.Babu George, Mr.Mohan George and Mr.Hashim in survey No.283/3 is already acquired for approach road. So it should be considered as 2nd acquisition.

Note: The above data is arrived from the information provided by the respondents during the Survey. Supporting documents need to be verified.

1.6. Mitigation Measures

The Policy vide G.O.(MS)No.448/2017/RD dated 29/12/2017 issued by Revenue(B) Department, Government of Kerala for the rehabilitation and resettlement package for acquisition of land in the state in lieu of RFCT LARR Act 2013 will be applicable to the land acquisition for the construction of connectivity bridge to Moolampilly-Pizhala bridge.

CHAPTER 2

DETAILED PROJECT DESCRIPTION

2.1. Background of the Project including Developer's Background and Governance/Management structure:

GIDA was constituted for the integrated development of the islands of Kochi, as per GO (Ms)No. 114/94/LAD dt. 18.5.1994. The Authority was constituted as per the provisions of the Town Planning Act. The jurisdictional area of the authority covers part of Kochi Corporation and eight Grama Panchayaths, namely Elamkunnappuzha, Edavanakkad, Njarakkal, Nayarambalam, Kuzhuppilly, Pallippuram, Kadamakkudy, and Mulavukad having a total area of 100 Km². As part of the development of Islands, GIDA constructed Goshree Bridges. Government vide GO(Ms) 234/2001 dt. 22.8.2001 has given permission to GIDA to sell 25 hectares of reclaimed land for mobilizing funds for the project.

The 28th General Council of Goshree Islands Development Authority has decided to take up the Moolampilly-Chathanad road project as 4 independent projects and accordingly Moolampilly-Pizhala Bridge and approaches has been taken up as the 1st phase of the project. The Government has accorded AS & ES for the construction of Moolampilly - Pizhala Bridge and its approaches vide G.O.(Rt) No.1889/2013/LSGD dated 17/07/2013. Later, the Secretary, GIDA via Lr.No.GIDA/721/2016 dated 22.03.2017, 15.05.2018 informed the government that a bridge is urgently required for having a connectivity to the main land as the major bridge is in an elevated position and hence Pizhala island will be connected to the main land only by constructing this connecting bridge to the Moolampilly-Pizhala bridge and submitted the estimate of the connectivity bridge including soil investigation report and alignment plan of the bridge prepared by M/S.Kerala State Construction Corporation, the project implementing agency. GIDA requested AS & ES for an amount of Rs.14.5 Crore including LA charges and sanction to acquire an

extent of 24.39 Ares of land from Survey No.282, 283 and 284 of Kadamakudy village for the construction of bridge connecting Moolampilly-Pizhala bridge to the existing concrete road at Pizhala island. In the view of that letter Government has accorded a revised administrative sanction as GO(Rt)No.2574/2018/LSGD dated 6/10/2018 amounting to Rs.95.79 crore for the ongoing construction work of Moolampilly-Pizhala bridge including its Connectivity bridge at Pizhala island from the proposed traffic island of ongoing Moolampilly Pizhala bridge and its land acquisition for the connectivity bridge at Pizhala.

2.2. Rationale for Project, including how the project fits the public purpose criteria listed in the Act.

For years Moolampilly and Pizhala islanders had been faced isolation due to lack of connecting bridges and roads to the nearby towns. They have been depending on two makeshift ferries to access Kochi city from where they approach to meet all their basic needs. Hence they heaved a sigh of relief when the construction of Pizhala - Moolampilly bridge has been started. But due to the lack of approach roads and connections it has been lying unused. In the ongoing Moolampilly - Pizhala bridge, a traffic island at Pizhala island has been provided for connecting the bridge to Pizhala. The proposed project envisages constructing a connecting bridge from the end of the Moolampilly - Pizhala bridge to the existing concrete road in the Pizhala traffic island. Only through the construction of this connecting bridge the people can make use of the Moolampilly-Pizhala bridge.

The proposed project of constructing connectivity bridge for the Moolampilly-Pizhala bridge shall be considered for the public purpose as per section 2(1)b(i) of RTFCT in LARR Act, 2013 (30 of 2013).

2.3. Details of Project - size, location, production targets, Risks and costs

The affected area belongs to the 10th ward of Kadamakkudy Grama Panchayath which belongs to Kadamakudy Village in Kanayannur Taluk in Ernakulam district. The affected land belongs to survey Numbers 282,283 and 284.

As per the estimate submitted by Kerala State Construcion Corporation Ltd. (the project implementing agency) to GIDA, the length of the bridge comes to 104 m.

The total cost of estimated by Kerala State Construction Corporation Ltd is Rs.13.90 crores including LS for shifting of utilities, LS for lighting arrangements, LS for unforeseen items, consultancy charges, service tax etc. The government has accorded administrative sanction amounting to Rs.95.79 crore for the on going construction work of Moolampilly-Pizhala bridge including its Connectivity Bridge at Pizhala island fom the proposed traffic island of ongoing Moolampilly Pizhala Bridge and its land acquisition for the connectivity bridge at Pizhala.

The proposed site is in an island and it is impossible to carry the construction materials by lorry to the site which might be a reason to slow down the project implementation.

2.4. Examination of alternatives

The proposed project envisages only the construction of Connectivity Bridge from the traffic island provided in the ongoing Moolampilly Pizhala Bridge to the existing concrete road in Pizhala island. Hence, the consideration of alternatives is not relevant.

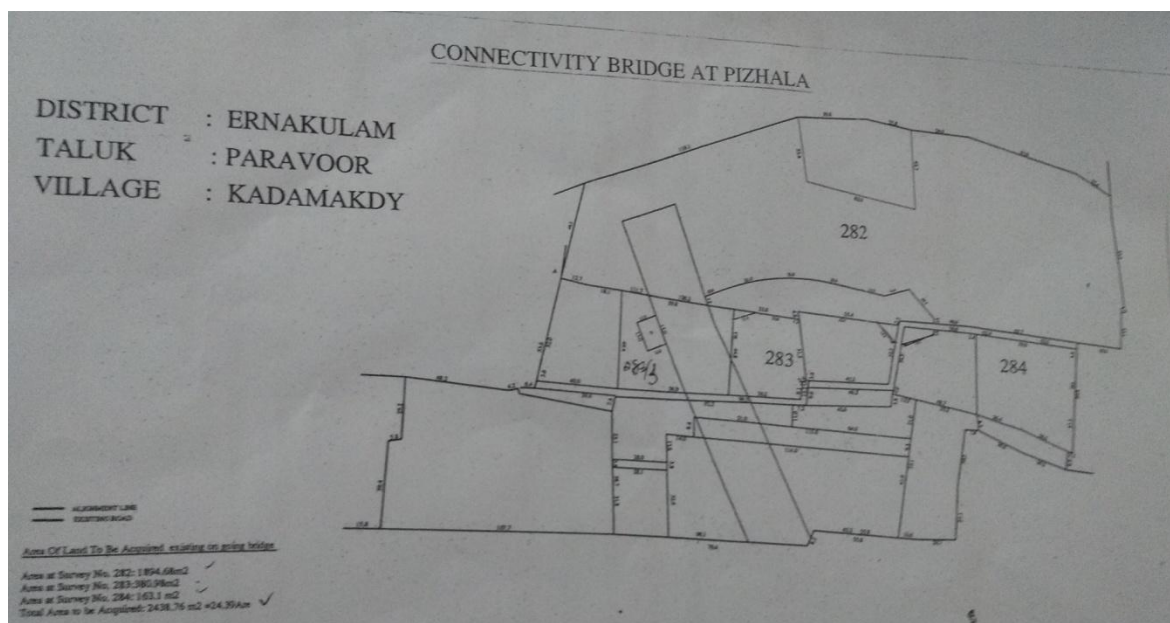
2.5. Phases of the Project Construction

The General Council of GIDA, in its 28th meeting held on 12/02/2013, decided to undertake the Moolampilly - Chathanad road project as four independent projects and decided to entrust the work to KSCC (Kerala State Construction Corporation). The “Construction of Moolampilly - Pizhala Bridge and its approaches” is taken at Phase I of the project. Construction of connecting bridge to Pizhala island is included in the 1st phase.

2.6. Core design Features, size and Type of Facilities:

As per the estimate submitted by Kerala State Construction Corporation Ltd. to GIDA, the length of the connectivity bridge comes to 104 m. with 5 spans. Out of these 2 spans are with post tensioned girders and balance 3 spans are with RCC deck slab. At landing side of connectivity at concrete road a, a round median is proposed for smooth movement of vehicles from different sides. Necessary provisions for approach road for a length of 25m are also included in the estimate. The carriage way of the proposed bridge is 7.6m and with 0.75m wide footpath on either side.

Figure 2.6.1. Sketch of the project



2.7. Need for Ancillary Infrastructural Facilities

Presently no ancillary infrastructural facilities requires for the project.

2.8 Workforce Requirements:

The work force is equipped with modern machineries and planned man power in various range in terms of skilled, semi- skilled, and unskilled labours.

2.9 Details of Social Impact Assessment/Environment Impact Assessment if Already Conducted and any Technical Facility Reports

Since the construction is within the coastal zone, a detailed study of the coastal ecosystem and morphology was necessary. GIDA entrusted the above task to the Centre for Earth Science Studies (CESS), Thiruvananthapuram. Accordingly, CESS conducted a detailed study and prepared a CRZ (Coastal Regulation Zone) status report for the Moolampilly - Chathanad Road Project with their recommendations. Government vide GO (Rt.) No. 87/2014/ENVT dated 22/05/2014 have granted wet land clearance for the project.

The 20th general council meeting of GIDA held on 26/12/05 had entrusted the work of evaluating the feasibility of the Moolampliyy - Chathanad road project to the Kerala State Housing Board. An MOU also was signed between GIDA and KSHB on 18.01.06. As per the MOU, KSHB has carried out:

- The Detailed Topographical survey of the alignment
- Preparation of the General Alignment Drawing
- Structural Design
- Design Calculation
- Estimate of the Project. Etc.

The Housing Board has examined the various alternatives and feasibility of the project. On the basis of the above mentioned studies, the existing alignment of Moolampilly - Pizhala Bridge and approach road project was arrived upon.

Besides Rajagiri College of Social Sciences, Kalamassery has conducted a Social Impact Assessment study of the land acquisition for construction of approach road to Moolampilly - Pizhala bridge and submitted the report to Ernakulam district administration.

2.10. Applicable legislations and policies

The applicable laws on land acquisition, rehabilitation, and resettlement for the proposed construction of Connectivity bridge from Moolampilly-Pizhala Bridge to Pizhala island :

- 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 RFCTLARR 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

As per the Kerala Gazette Notification No.C5-11565/18 dated 19/03/2019, Ernakulam District Administration has entrusted Rajagiri College of Social Sciences, Kalamassery as the SIA Unit to conduct the Social Impact Assessment of land acquisition for construction of connectivity bridge between the traffic island provided at Pizhala-Moolampilly Bridge and the existing concrete road in Pizhala island.

The objective of a Social Impact Assessment (SIA) is to enumerate affected land and structures, affected families and persons, to identify social impacts, and to prepare Social Impact Management Plan (SIMP). In order to capture data for the present exercise, both primary as well as secondary sources were systematically tapped. As a part of SIA, a census socio-economic survey has been conducted by experienced members of the SIA Unit in the proposed site at Pizhala to assess the adverse impacts of the project.

3.1. List of all Team Members with Qualifications:

The study team headed by the Principal of Rajagiri College of Social Sciences who is the Chairman of SIA Unit. A team of 6 members having experience in conducting Social Impact Assessment Study and Socio-economic Surveys were assigned for field level data collection, monitoring of data collection and co-ordination of the study. Representatives from Revenue Department supported the investigators to identify the affected families. Details of the study team are given in the table below:

Table 3.1.1. SIA Team Members

| Sl.No | Name | Qualification and Designation | Experience |
|-------|-----------------|--|---|
| 1 | Dr.Binoy Joseph | MA(HRM), LLB, Ph.D. Chairman - SIA Unit | 23 years in teaching, research and training |
| 2 | Meena Kuruvilla | MSW, Consultant- SIA Unit | 31 years in development sector |
| 3 | Maria Tency.V.S | MA, DSS, Research Associate – SIA Unit | 26 years in development sector |
| 4 | Ranjith K U | BA,DSS, Research Associate – SIA Unit | 24 years in development sector |
| 5 | Biju C.P | B.A,Phil. – Development Officer -SIA | 24 years in development sector |
| 6 | Tony Mathew | MSW Research Associate | 1 year in development sector |

3.2. Description and Rationale for the Methodology and Tools Used to collect Information for the Social Impact Assessment

Before preparing the Draft SIA study report the study team acquired maximum information about the project with the support of requiring body. The team visited the affected area and studied the socio-economic background of the affected families. Various impacts of land acquisition were assessed in detail. The primary

data was collected from the affected families through a census model socio-economic survey for which a pretested questionnaire was used. Legal framework for land acquisition and compensation as per RTFCTLARR Act 2013 were also studied.

Various steps taken for the study are as follows:

- Study of relevant documents, reports and project alignment drawing.
- Site visits and information dissemination about the project
- Socio-economic survey and enumeration of affected properties
- Analysis of socio-economic survey data

3.3. Sampling Methodology Used

As the Social Impact assessment Study requires the data of the entire affected family and the individual and no affected person can be left behind Therefore no sampling methods are used instead all the affected individuals are taken into consideration during the survey.

3.4. Overview of Information/Data Sources Used

The primary data were collected through the face to face interview by visiting the all affected families. A pretested questionnaire was used for the face to face interview with the affected people. The questionnaire included both the closed and the open ended questions. Their basic demographic details, the after effects of land acquisition, etc. were collected through the house visit .

The secondary information was collected from the Requiring Body and the Revenue department. RCTLARR Act and the Policy and Rule framed by the State Government in lieu of the Act also were referred.

3.5. Schedule of Consultations with Key Stakeholders:



As per Form 5 of Rule 14(1) of the Kerala Right to Fair Compensation and Transparency in Land Acquisition and Resettlement Rules 2015, a public /community consultation (Public Hearing) is proposed to be held on 29/06/2019, Saturday 11 am at St.Francis Xavier Church Parish hall, Pizhala for which the notices are given to the affected parties.

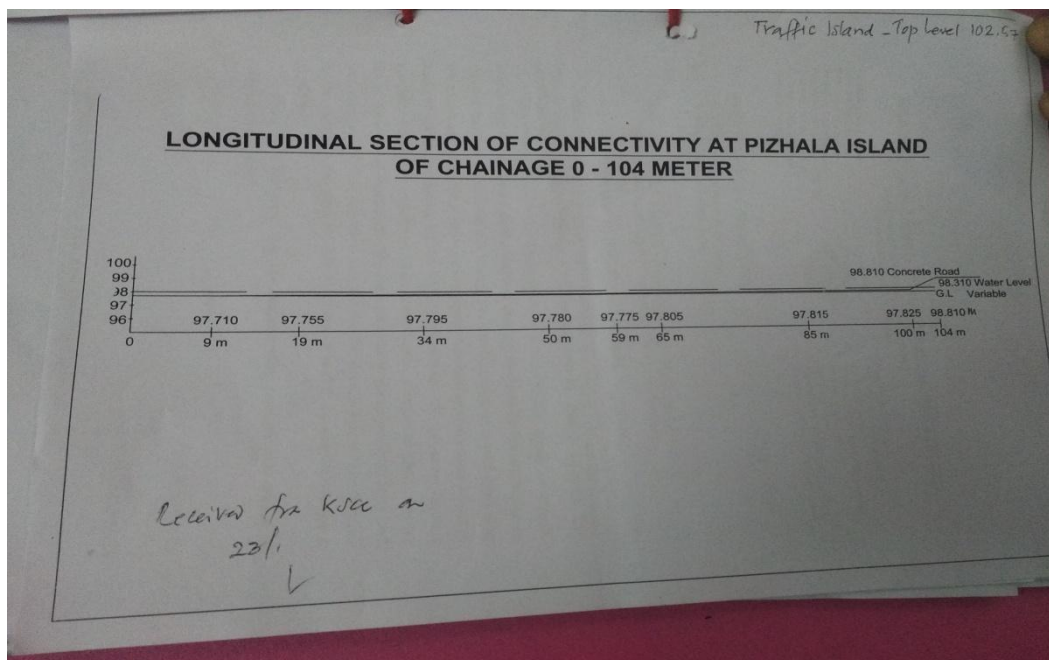
CHAPTER 4

LAND ASSESSMENT

4.1 Land Description with the help of Maps, Information from Land Inventories and Primary Sources

Pizhala, one among the islands belongs to Kadamakudy village in Ernakulam district situated very near to Kochi city ie around 14 k.m. The proposed project area is the joining point of the Moolampilly - Pizhala bridge (under construction) at Pizhala island. These affected land is paddy fields where once the Pokkali cum prawn cultivation was active.

Figure 4.1.1. Longitudinal section of the project area



4.2 Entire area of impact under the influence of the project

An extent of 22.91 ares of land from Survey Nos.282, 283 and 284 of Kadamakudy village is required for the above project. The proposed land belongs to 9 individuals and a part of concrete road owned by Kadamakudy Grama Panchayath. Paddy cum prawn farming have been undertaking in the whole

affected land, except in the land owned by Mr. Babu George, Mohan George and Mr. Hashim. Besides 56 coconut trees in the affected land should be cut down. The family of Mr. Francis shared that the agriculture in acquired land was their main earning hence their livelihood is affected due to the project.

The debris and waste water of the construction of Moolampilly - Pizhala bridge and its approaches reaches to some of the nearby fields which are not included in acquisition. These fields are presently in unused stage because of this and that should also be considered as an impact of this project.

4.3 Total Land Requirement for the Project:

For the construction of connectivity bridge to Pizhala - Moolampilly bridge requires 22.91 Ares of land which belongs to survey Numbers 282, 283 and 284 in Kadamakudy Panchayath, Kanayannur Taluk in Ernakulam district. The proposed land is owned by 9 individuals and a concrete road owned by Kadamakudy Grama Panchayath.

4.4. Present Use of any Public, Utilized land in the Vicinity of the Project Area:

A panchayath road under survey No.284 is included in the acquisition. This is a presently used road but the acquisition may not cause hindrance to the way of the public .

4.5. Land Already Purchased, Alienated, Leased or Acquired, and the intended Use for Each Plot of Land:

The land is already acquired for the construction of approach road to Moolampilly - Pizhala bridge. The present acquisition is for the construction of Connectivity Bridge from Moolampilly - Pizhala Bridge to the already existed concrete road at Pizhala traffic island. In total 22.91 Ares land is proposed to be acquired and the whole land is to use the construction of connectivity.

4.6. Quantity and Location of Land Proposed to be Acquired for the Project:

In total 22.91 Ares land is proposed to be acquired for the project. The land in survey numbers 282,283 and 284 belongs to Pizhala island in Kadamakudy Panchayath in Kanayannur Taluk in Ernakulam district.

4.7. Nature and Present use and classification of Land and if Agricultural Land, Irrigation Coverage and Cropping Patterns

Except one land in survey No.284/2 ie. the road owned by Panchayath, the whole land belongs to wet land as per the records available from the Land acquisition office. The affected areas are paddy fields where once Pokkali cum prawn cultivation was active. 56 coconut trees are also there in the affected land.

4.8. Size of Holding, Ownership Pattern, Land Distributions and Number of Residential Houses

The one land in survey No.284/2, is a road owned by Kadamakudy Grama Panchayath. Two lands belong to 283/3 and 283/6 are jointly owned by 3 individuals and the other lands are owned by 6 individuals separately.

The land in survey Nos.284/1, 283/3 and 283/6 are purchased by the present owners and land in survey numbers 282/2, 283/4 and 284/6 are hereditarily occupied by the owners.

Nobody is residing in the affected land.

4.9. Land prices and recent changes in ownership, transfer and use of lands over the last 3 years

The land in survey No.283/6 is purchased by the owners in 2016. No other transactions were done in the land to be acquired for the last 3 years as per the information received from the respondents.

CHAPTER 5

ESTIMATION AND ENUMERATION OF AFFECTED FAMILIES AND ASSETS

This chapter comprises of the details of the families that are directly and indirectly affected by the project and extend of impact.

5.1 Estimation of families

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

The 9 families who will lose their land due to the acquisition are the directly affected families of the project. In total 7 properties including a Panchayath road will be acquired for the project. Among the 7 properties, 3 are jointly owned, 3 are individually owned and 1 is Panchayath road.

Table 5.1.1. Directly affected families

| Sl.No. | Survey No. | Name of the Owners |
|--------|------------|--|
| 1 | 282/2 | 1. Jijimon Alex 2. Jojimon Mathew 3. Jijo Jose (Jijo Antony) 4. Benny |
| 2. | 283/3 | 1. Babu George 2. Mohan George 3. Hashim |
| 3 | 283/6 | 1. Babu George 2. Mohan George 3. Hashim |
| 4 | 283/4 | Jijimon Alex |
| 5 | 284/1 | Francis (Kunjumon) |
| 6 | 284/6 | John |
| 7 | 284/2 | Kadamakudy panchayath |

5.2. Family of Scheduled Tribes and other Traditional Forest Dwellers who have lost any of their Forest Rights

Not Applicable

5.3. Families which depend on Common Property Resources which will be Affected due to Land Acquisition for their Livelihood

Not Applicable

5.4. Families which have been assigned Land by the State Government for the Central Government Under any of its Schemes and such Land is Under Acquisition

Not applicable

5.5. Families which have been Residing on any land in the Urban Areas for Proceeding three years of more prior to the acquisition of land

Not applicable

5.6. Families which have depended on the Land Being Acquired as a Primary Source of Livelihood for three years prior to the acquisition

Except the Panchayath road, the whole land proposed to be acquired were pokkali cum prawn cultivation fields. During the social impact assessment survey the owner of the land in survey No.284/1 shared that the family had been depended on the agriculture in the affected land for their livelihood.

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

The site of Moolampilly - Pizhala bridge approach road and Connectivity Bridge are fields where pokkali cum prawn cultivation was active before the project construction. The fields near to the project site which are not included in acquisition now remain idle since the debris and waste of the construction flows to it. That should be considered as the indirect impact of the construction of Moolampilly - pizhala bridge approaches and connectivity.

5.6.2 Inventory of productive assets and significant lands

- 2 coconut trees in survey No.283/3 and 8 coconut trees in survey No.283/6
- 46 coconut trees in survey No.282/2

CHAPTER 6

SOCIO-ECONOMIC AND CULTURAL PROFILE

This chapter contains information about the socio-economic and cultural aspects of the affected families. It includes the demographic details, economic status, vulnerability among the affected families, local economic activities in the area, enumeration of the livelihoods of affected families, socialization pattern of the project affected persons, and other related information.

6.1. Demographic Details of the Population in the Project Area

Nobody is staying in the affected area. The demographic details of the project affected families are explaining in the table below

Table 6.1.1. Age Group and Gender

| Age in years | Gender | | Total |
|--------------|-----------|-----------|-----------|
| | Male | Female | |
| 0-18 | 7 | 5 | 12 |
| 19-30 | 6 | 3 | 9 |
| 31-45 | 2 | 3 | 5 |
| 46-59 | 6 | 7 | 13 |
| 60 and above | 2 | 2 | 4 |
| Total | 23 | 20 | 43 |

Table 6.1.1 reveals the age group distribution of the affected persons of the project. 4 family members ie 2 male and 2 female are above 60 years of age. Seven female members and six male members are in the age group of 46-59. Two male members and 3 female members belong to the age group of 31-45 years. Nine family members, including 6 male and 3 female belong to the 19-30 age group, and twelve members – 7 boys and 5 girls, belong to the age group of 0-18 years.

Table 6.1.2 Religious Group

| Religion | No of families | Percentage |
|----------|----------------|------------|
|----------|----------------|------------|

| | | |
|--------------|----------|------------|
| Muslim | 1 | 11.1 |
| Christian | 8 | 88.9 |
| Total | 9 | 100 |

Table 6.1.2 indicates the distribution of project affected families on the basis of religious group. Out of the 9 affected families, eight (88.9%) follows Christian religion and one family (11.1%) follow Muslim.

Social Group

5 affected families are belonging to OBC group and all others include in General category.

Family Pattern

All the affected families are nuclear families.

6.2. Income and Poverty Level of the Affected Families :

Based on the classification by *Public Distribution System* 6 families possess white ration card. Pink and blue cards are possessed by 1 and 2 families respectively .

Table 6.2.1 Family Monthly Income

| Description (Amount in Rs) | No of families |
|-----------------------------------|-----------------------|
| 26,000/- | 1 |
| 50,000/- | 1 |
| 1,00,000/- | 2 |
| Information not revealed | 5 |
| Total | 9 |

Out of the nine affected families, two families are earning monthly income upto Rs.1,00,000/-, one family earns Rs.50,000/- and another one family earns Rs.26,000/-. The rest of the five families have not revealed information about their income.

Table 6.2.2. Earning members and dependants ratio

| Number of Families | Number of Earning Members | Number of dependants |
|--------------------|---------------------------|----------------------|
| 1 | 5 | 2 |
| 1 | 3 | 4 |
| 3 | 2 | 3 |
| 2 | 1 | 1 |
| 2 | 1 | 4 |

Out of the total 43 affected population 18 are earning members and 25 are dependants. In one affected family the ratio of earning members and dependants are 5:2 and in another 1 family it is 3:4. The ratio is 2:3 in 3 families, 1:1 in another 2 families and 1:4 in the remaining 2 families.

6.3. Vulnerable Group

Out of the total affected family members 12 children below 18 years of age and 4 members who are above 60 years of age and 2 of them are widows should be considered as vulnerable group.

6.4. Land Use and Livelihood

Except in the land owned by Mr.Babu George, Mr.Mohan George and Mr.Hashim all other families are doing Paddy cultivation cum prawn farming in the affected land. Besides 56 coconut trees are there in the affected land.

The families will lose the income from agriculture and from the yield of coconut trees. One family opined that the income receives from the affected land is their main livelihood earning

6.5. Local Economic Activities & Factors that Contribute to Local Livelihoods:

Pizhala is an island where most people are depending on paddy cum fish/prawn farming and other agricultural fields for their livelihood. The affected land is an agricultural land so the project may badly affect the agricultural activities of the area. Recently due to the reducing agricultural activities people are being shifted to other jobs

6.6. Factors that Contribute to Local Livelihood

Since agriculture was the main livelihood factor in the area and the affected land is paddy fields, there is a negative impact in it.

6.7. Kinship Patterns and Social and Cultural Organisation:

All the affected families are nuclear families. No social and cultural organizations in the community are affected because of the project.

6.8. Administrative & Political Organisation:

A concrete road owned by Kadamakudy Grama Panchayath is included in the acquisition. Other than that none of the administrative and political organization's properties are included in the land acquisition.

6.9. Community Based Civil Society Organisation:

No such organizations are affected due to the project.

6.10. Regional Dynamics & Historical Change Process:

Pizhala was an isolated island but now it is in developmental stage because of the the construction of Moolampilly - Pizhala bridge and approaches. So the project cause positive impact on the dynamics and change process of the region.

6.11. Quality of the Living Environment:

The project may improve the mobility of the people and transportation in the area. So the project will bring positive impact on the quality and living environment of the people of the region.

CHAPTER 7

SOCIAL IMPACT MANAGEMENT PLAN

7.1 Approaches to Mitigation

- 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 RFCTLARR Act 2013 shall be provided to the affected land owners.
- Comply rules and regulations for the developmental activities in wetlands, Mangroves, agriculture fields including paddy etc.
- The families who face 2nd acquisition should be treated with priority.
- Reinstall livelihood opportunities for the affected families or give reasonable compensation.
- Consider and compensate the loss of the families who are not included in acquisition but hindering the agricultural activities during project construction period.

7.2 Measures to avoid mitigate and compensate impact

Consider the suggestions given in 7.1.

7.3. Measures those are included in the terms of Rehabilitation and Resettlement

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 RFCTLARR Act 2013

7.4. Measures that the Requiring Body has stated it will introduce in the Project Proposal

Sufficient fund has been reserved for payment of compensation to the affected title holders.

7.5. Alterations to project design and additional measures that may be required to address the extend and intensity of impacts across various groups as identified during the Social Impact Assessment process

Not Applicable

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

To mitigate the social impact of the proposed land acquisition, R&R package should be provided to the families 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 RFCTLARR Act 2013 by strictly following the time plan stated in the Kerala Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2015

7.7. The Social Impact Management Plan indicating which measures the Requiring Body has committed to undertake and those that have been proposed, but not committed to be undertaken by the Requiring Body

Not Applicable

CHAPTER 8

SOCIAL IMPACT MANAGEMENT PLAN

INSTITUTIONAL FRAMEWORK

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

RFCTLARR 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 / control of the appropriate Government and the Commissioner for Rehabilitation and Resettlement, the formulation, execution and monitoring of the Rehabilitation & Resettlement Scheme shall vest with the Administrator.

In the proposed land acquisition for the construction of connectivity bridge from the ongoing Moolampilly-Pizhala bridge to Pizhala island, the major mitigation measures from the acquisition can be handled by providing the appropriate compensation under the RFCTLARR Act, 2013.

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 will monitor the Rehabilitation Action Plan. (No rehabilitation is required for this project)

8.2 Specify the Role of Non Governmental Organization, if any

Not applicable

8.3 Indicate Capacities Required and Capacity Building Plan, Including Technical Assistance, if any

Not applicable

8.4 Timelines for Each Activity

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 BUDGET AND FINANCING OF
MITIGATION PLAN

9.1. Costs of all resettlement and rehabilitation costs

Not Applicable

9.2. Annual budget and plan of action

Not Applicable

9.3. Funding sources with breakup

Not Applicable

CHAPTER 10

SOCIAL IMPACT MANAGEMENT PLAN MONITORING AND EVALUATION

10.1 Key Monitoring and Evaluative Indicators

- Fair compensation
- Resettlement procedures

10.2 Reporting Mechanisms and Monitoring Roles

As per the State Policy issued by the Revenue(B) department as G.O.(MS)No.485/2015 RD dated 23/09/2015

10.3 Plan of Independent Evaluation

Not Applicable

CHAPTER 11

ANALYSIS OF COSTS AND BENEFITS AND RECOMMENDATION ON ACQUISITION

11.1. Analysis of Costs:

An extent of 22.91 Ares of land from Survey Nos.282,283 and 284 of Kadamakudy village will be acquired for the project. The proposed land belongs to 9 individuals and a part of the concrete road owned by Kadamakudy Grama Panchayath. Except the Panchayath road the whole land belongs to wet land category. Paddy cultivation cum prawn farming have been undertaking in the whole affected land, except in the land owned by Mr. Babu George, Mohan George and Mr. Hashim. Besides some paddy fields near to project area which are not included in acquisition also affected due to the project construction. The area is having 56 coconut trees which have to be destroyed for the project. One family shared that income from the agriculture in the affected land is their main earning hence their livelihood shall be affected due to the land acquisition.

11.2 Analysis of Benefits:

Construction of Moolampilly - Pizhala bridge and its approaches is the 1st phase of Moolampilly - Chathanad road Project. The Moolampilly - Chathanad Road would connect Ezhikkara and Kadamakkudy Panchayaths to the Vallarpadom NH Connectivity road at Moolampilly. When completed, this road would connect the isolated small islands in the Vembanad backwater system such as Moolampilly, Pizhala, Kadamakkudy in Kadamakkudy Panchayath and Chathanad in Ezhikkara Panchayath with each other and with the mainland. The people living in the islands depend on the mainland for all their basic requirements like their Medical Needs, Educational facilities, etc. The road is expected to provide the required connectivity to the islands. The proposed connectivity of these Panchayaths to the National Highway is very important in view of their socio-economic development and management of any disaster. Once completed, the road will also enable to develop a direct link between NH 17 at North Paravoor to the ICTT link road, which will reduce the travel time between North Paravoor and Ernakulam to 30 minutes. It will be the shortest road

connectivity from the ICTT road to NH 17 at North Paravoor. Construction of Moolampilly - Pizhala bridge is almost completed. In the Moolampilly - Pizhala bridge, a traffic island has been provided at Pizhala side. From there a connectivity bridge has to be constructed for landing the bridge to Pizhala island. The proposed land acquisition is to construct this connectivity bridge between the traffic island at Moolampilly - Pizhala bridge and Pizhala island. Without constructing this connecting bridge and approach roads the construction of Moolampilly - Pizhala bridge will not be completed.

Since no persons are residing in the project affected area, there will not be any rehabilitation necessary for the project.

The proposed project of construction of bridge for the connectivity of Pizhala - Moolampilly bridge and approach road shall be considered for the public purpose as per section 2(1)b(i) of RTFCT in LARR Act, 2013 (30 of 2013).

11.3 Recommendation

- 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 RTFCTLARR Act 2013 shall be provided to the affected land owners.
- Comply rules and regulations for the developmental activities in wetlands, Mangroves, agriculture fields including paddy etc.
- The families who face 2nd acquisition should be treated with priority
- Reinstall livelihood opportunities for the affected families or give reasonable compensation.
 - Consider and compensate the loss of the families who are not included in acquisition but hindering the agricultural activities during project construction period.