

# **SOCIAL IMPACT ASSESSMENT STUDY**

## **Intake Well and Pump House Construction Project**

### **FINAL REPORT**

#### **Requiring Agency**



**Kerala Industrial Infrastructure  
Development Corporation**  
A statutory Body of Govt of Kerala

#### **SIA Unit**



Rajagiri College of Social Sciences  
Rajagiri P.O Kalamassery  
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**27<sup>th</sup> September 2017**

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## **Abbreviations**

BPCL	Bharat Petroleum Corporation Limited
CWC	Central Water Commission
CWRDM Management	Centre For Water Resources Development And Management
DPR	Detailed Project Report
DI	Ductile Iron
FACT	Fertilisers and Chemicals Travancore Limited
HT	High Tension
KEPIP	Kerala Export Promotion Industrial Park
KINFRA Corporation	Kerala Industrial Infrastructure Development Corporation
KITCO Ltd	Kerala Industrial and Technical Consultancy Organisation Ltd
KSEBL	Kerala State Electricity Board Limited
LA	Land Acquisition
LNG	Liquefied Natural Gas
MLD	Million LitresPer Day
MSW	Master of Social Work
MV	MegaVolt
NGO	Non-Governmental Organization
PVIP	Periyar Valley Irrigation Project
RLNG	Regasified Liquefied Natural Gas

RTFCTLARR	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act
SIA	Social Impact Assessment

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**CHAPTER 1  
EXECUTIVE SUMMARY****1.1 Introduction - Project and public purpose**

Urbanisation and industrialisation is being increasing in this era, which obviously increases the demand for potable water also. With the increasing infrastructure facilities envisaged near Kakkanad, water is bound to be a utility of vital importance. Water will be needed to meet the industrial as well as domestic uses of all the existing and upcoming projects. As per the reports of KITCO Consultants (2016-17), it is estimated that 45 MLD would be required in the area. The existing water supply scheme from Kadambayar will not be sufficient to cater to the upcoming demands. Due to the increasing pollution of the Kadambayar river being contributed by the nearby institutions, the dependency on this particular source is also difficult.

The project is envisaged to meet the water demands for the InfoPark Phase I, ongoing Phase II, Smart City, KEPIP and its expansion Phase II, KSEBL (Brahmapuram RLNG Power Plant) and Petro Chemical Industrial Park in 600 acres initiated by Government of Kerala through KINFRA using sub product from BPCL.

**1.2 Location**

The proposed area is located at Ernakulam District, Aluva Taluk, Keezhmad Village at Survey No 48/11 (Dryland) owned by P M Abdul Lahir and Saira Lahiras per the Notification Kerala Gazette, Extraordinary, No 1162 dated 10.03.2017 (Form No 4, Right to Fair Compensation and Transparency in Land

Acquisition, Rehabilitation and Resettlement Act, 2013 (Central Act 30 of 2013)).

### **1.3 Size and attributes of land acquisition**

As per the notification mentioned above, 0.1950 hectare land is proposed to be acquired.

### **1.4 Alternatives Considered**

KITCO consultants had conducted an examination of feasibility of alternatives including Kadambrayarriver, Muvattupuzha river, Canal diversion from Bhoothathankettu, LNG Petronet, Fact Canal and Periyar river.

#### ***1.4.1 Kadamprayar River***

Kadamprayar is a small stream having a total catchment of 115 sq km and a length of 50 km flowing abutting the park. Based on CWRDM report, the river shall be inadequate to meet the present and future water demand

#### ***1.4.2 Muvattupuzha River***

The river, major part is used for agricultural and related purposes has a total catchment area of 1110 sq km. The river is a source for several water supply schemes, to a large number of commercial and household users in the districts of Idukki, Ernakulam and Alappuzha.

#### **1.4.3 Canal Diversion from Bhoothathankettu**

An artificial reservoir need to be constructed and 25-30 km pipeline has to be laid, which will incur huge cost for the project.

#### **1.4.4 LNG Petronet**

Considering the investment for storage, treatment and polishing of condensate water from LNG process, the

reliability of the source is questionable. Moreover, Vypin being an area of water scarcity, the condensate water if produced has to be utilised there itself.

#### **1.4.5 FACT Canal**

FACT is satisfying their water demands by drawing water from an artificial lake into which an irrigation canal from PVIP Canal has been diverted. Due to the scarcity of water, flow into the canal will be intermittent.

#### **1.4.6 Periyar River**

Based on the report prepared by Centre for Water Resources Development and Management (CWRDM) in 2008 the availability of water in Periyar is analysed as follows:

The Central Water Commission (CWC), Government of India has a stream gauging station at Neeleswaram in river Periyar. The already committed water withdrawal including current and future is found to be 1020 MLD. After taking this into consideration, the dependable daily discharge data shows a minimum of 1.37 Mm<sup>3</sup> (1370 MLD) and maximum of 35.74 Mm<sup>3</sup> (35740 MLD). Moreover during dry season there was a requirement to discharge about 1728 MLD to control the salinity intrusion in river Periyar.

Regulator cum bridges have already been constructed at Manjummel as well as in Pathalam and hence discharge can be saved and utilised. So 45 MLD drawal to KEPIP may not affect the ecology of river Periyar in any harmful way and also any hindrance to all the already committed water withdrawals both current and future. Hence, this source can be considered for the proposed scheme.

Among that Periyar river was considered for the project. Later detailed reconnaissance of two different plots at the banks

of Periyar was conducted in order to identify exact location of intake system.

**Plot A** - Thottumugham, Survey No 48/11 (48.16 cents) & **Plot B** - Thottumugham, Survey No 48/3 (33.19 cents) were the 2 plots from which Plot A was suggested for the project by KITCO consultants.

### **1.5 Social Impact**

While conducting the Social Impact Assessment, SIA team had observed that although there exists an old building in the proposed project area, no one is residing there. Whereas the owners of the property have attained building plan sanction from Keezhmad Grama Panchayat on 02.02.2017, to construct a 3 storied building in the area. Whereas prior to the said building plan sanctioning, Government of Kerala have issued an order vide G.O (Rt) No 149/16 RD dated 13.01.2016 for acquisition processing of the proposed land. In connection with the same, Special Tahsildar Aluva, (LA) NH No II had issued a notice (vide letter No A3-533/15 dated 15.03.2016) to the owners informing them about the acquisition process and directing them to produce documents on 22.03.2016 at Office of Special Tahsildar, (LA) NH No II, Aluva for the preparation of survey records and evidencing their ownership. Whereas the owners have filed a writ petition before the Honourable High Court against the acquisition processing vide WP(C) No 25267/2016 in which court had disposed off the writ petition.

Whereas, following the acquisition of the property, the affected family would not be able to construct their planned buildings. Apart from that there will be no other adverse impacts to ecology, agriculture or related aspects according to the report prepared by KITCO consultants.

### **1.6 Mitigation Measures**

*Social Impact Assessment - Intake Well and Pump House Construction for KINFRA*

Not Applicable

### **1.7 Assessment of Social Costs and Benefits**

It is assessed that there shall be no visible benefits for the project affected area or to the community. Whereas the project estimates that it shall meet the demand for water at industrial as well as domestic uses of existing and proposed projects at Kakkanad area. Loss of property for the owner is assessed as the impact, except the same, there shall be no other impacts.

## **CHAPTER 2 DETAILED PROJECT DESCRIPTION**

### **2.1 Background of the Project**

The proposed project is designed to meet the water demand at Kakkanad area for the industrial and related requirements. The project envisages serving the increased demand of water for the existing as well as the proposed industrial projects. Presently many industries including InfoPark are depending on Kadambayarriver for their demands such 6.5 MLD is being supplied from the river. It is estimated that the demand will rise to 10 MLD on

implementation of InfoPark Phase II in 160 acres of land at Kunnathunadu Taluk. Proposed Smart City Kerala State's esteemed project which shall create employment opportunities for 90,000 people (as per contract by Government of Kerala) is estimated a demand of 5 MLD. Industries such as Petrochemicals is estimated a demand of another 5 MLD. KINFRA has allocated 25 acres of land for Electronics cluster with grant in aid of Government of India and International Convention Center in future, which are water intensive. Considering the same and also the future expansion of KEPIP, 10 MLD has been allocated. and another 15 MLD to KSEBL

**Table 2.1 Water demand of end users**

<b>Sl No</b>	<b>End User</b>	<b>Water Demand (MLD)</b>
1	Existing units of KEPIP, Infopark Phase I & II	10
2	Industrial corridor including Petrochemicals Park	5
3	Smart City	5
4	Future expansion of KEPIP, Infopark	10
5	KSEBL, Brahmapuram RLNG based Power Plant	15
	<b>Total</b>	<b>45</b>

Considering 23.5 hours pumping time and 5% transmission losses, it is proposed to draw 48.5 MLD water from the intake well site.

#### **Implementing Agency**

Kerala Industrial Infrastructure Development Corporation (KINFRA) is the implementing agency of the project as well as the requiring agency. Kerala Industrial Development Corporation (KINFRA) is a statutory body of Government of Kerala established for the basic infrastructure development aiming at the industrial growth in the state. It was formulated by the enactment of Kerala

Industrial Infrastructure Development Act, 1993 by the Kerala State Legislature.

Kerala Industrial Infrastructure Development Corporation, KINFRA aims at bringing together all the suitable resources available in the state and developing infrastructure to woo the industrial growth of the state. KINFRA is dedicated to catalyse industrial growth in Kerala by providing the best industry-specific-infrastructure.

KINFRA has spread its activities to various parts of the Kerala state including Mattannoor, Thalassery, Thaliparambu, Wayanad, Kakkanjery, Beypore, Ottapalam, Palakkad, Koratty, Kalamassery, Kakkanad, Mazhuvannoor, Kunnanthaanam, Adoor, Punaloor, Thumba, Kazhakoottam. Spread over between 30 acres to 800 acres at various places KINFRA develop, promote and maintain Industrial Infrastructure and create employment opportunities for a large number of people. In addition it propose to initiate Mega Food Parks at Vaalayar and Puzhakkalpadom. Petrochemical complex at 600 acres transferring from FACT, Ambalamugal; Electronics manufacturing cluster at Kakkanad are few another projects proposed. KINFRA implement the projects by receiving funds from Central and State Governments. Chief Secretary as Chairman, and Senior Secretaries of Government Department and MD KINFRA as members constitutes the administrative body of KINFRA. The project envisages production of 400 MV electricity which grounds for industrial production costs Rs 2000 crore and employment opportunity for 5 lakh personnel. Thus the proposed project shall be considered as a public purpose as per Section 2 (i)(b)(iii) of RTFCTLARR Act, 2013 (30 of 2013).

## **2.2 Rationale of the project**



The existing water supply schemes will be insufficient to meet the increased water demand for the existing and proposed projects at the Kakkanad area. Increased level of pollutants in the existing source, i.e., Kadambayar river, is another threat. Proposed project envisage to find a solution for all these problems.

### **2.3 Details of the project**

The proposed project is designed to meet the increased water demands of the existing and proposed industrial projects at Kakkanad area. For the construction of intake well and pump house, it is proposed to acquire the land located at Ernakulam District, Aluva Taluk, Keezhmad Village, at Survey No 48/11 an extent of 0.1950 hectare. The raw water abstracted from the intake well is proposed to be pumped to the treatment plant location at KEPIP. From the location of intake well, the pipeline is proposed to be routed through Thottumugham - Edayappuram - NAD - Thevakkal - Thengodu - Edachira- Kakkanad, totaling to around 15 km length.

### **2.4 Alternative Routes Considered**

The project is for creating infrastructure for abstracting 45 MLD raw water and for conveying to the Kakkanad area for use of employees engaged in the Industrial establishment situated there, for power generation and for industrial production in the Industrial establishments. For finalising the source for this 45 MLD raw water detailed studies regarding the various alternatives in the vicinity such as Kadambayar, Muvatupuzha river, Periyar, Bhoothathankette barrage, PVIP canal system, FACT canal etc were made which are elaborated in the DPR of the project. Finally it was established that Periyar river is the only sustainable source to meet the requirements.

Having finalised the source as Periyar eleven (11) alternate routes by utilising the existing road network were studied for bringing water to Kakkanad. On detailed analysis it was established that the Thottumgham Edayappuram-Asokapuram- NAD- Thevakkal- Thengode - Edachira- Kakkanad is the best suited route because being the shortest route to Kakkanad and less congested and with scarce traffic especially public transport system. Moreover the Water Resource Department in Govt vide GO(RT) No:317/2016/WRD dt 30.3.2016 have sanctioned drawal of water from Periyar river at Thottumgham for the project

Once the route was finally chosen the location for the intake well and pump house was considered in detail. The following aspects were also considered in the choice

- a. Nearness to the finalised route which enters Aluva-Perumbavoor route at Thottumgham
  - b. Minimum of 35 to 40 cents of river front land
  - c. Minimum of 25 to 30 meter river frontage preferably not in a curved reach.
  - d. The land has to be above general maximum flood level for construction of structure and access through out the year
  - e. Accessibility for lorries to the plot for bringing construction materials, equipments, etc
  - f. Easiness in taking out the 800 mm DI pumping main from the site to main road with less curves, gradients, etc
  - g. Nearness to HT power lines
  - h. Preferably vacant land so that no rehabilitation or resettlement is involved
  - i. With least project affected persons
  - j. It shall be sufficiently away from the existing water intake of Chowara and Aluva maintained by Kerala Water Authority
- With the above mentioned criteria in mind plots from Mahilalayam to Thottumgham such as Sy:50,73,74,75,93

48/11, 48/3 of Keezhmadu village were considered in detail. After eliminating all other plots on various negative grounds finally the two plots at Thottumgham, the Sy. No. 48/11 and 48/3 were short listed. While evaluating the two plots in further details, it was revealed that the land in Sy. no. 48/3 is having only 33.910 cents and it's river frontage is in a curved shape with 24.0 M and 9.3 M in length which can create silting in the river on long run if an intake well is constructed here. Moreover the owners of the plot have already started some construction activities in the plot. Therefore this plot was also not considered and the plot in Sy. No. 48/11 was finally chosen. The selection was based on technical reasoning's and to avoid maximum inconvenience to the land owners and adjacent residents.

### **Comparative analysis**

The area required for the project is 40 cents, whereas in Plot B only 33.91 cents are available which is inadequate. And its river frontage is in a curved shape with 24.0 meter and 9.3 meter in length which can create silting in the river on long run if an intake well is constructed.

Plot A has an extent of 48.16 cents which meets the requirements of the project. Moreover 25-30 meter frontage is available at Plot A. Considering the above facts KITCO consultants suggested Plot A for the project.

### **2.5 Applicable Legislations and Policies**

KINFRA is a statutory Government Body formulated as per Kerala Industrial Infrastructure Development Act 1993. Government of Kerala vide G.O (Rt) No.157/2013 I.D Dated 19/12/2013 have issued administrative sanction for the project which was revised vide G.O (Rt) No. 491/2017 I.D Dated 28/03/2017 of the industries (G Department) Also Government

vide G.O (Rt) No.317/2016/WRD Dated 30/03/2016 have issued sanction to KINFRA to draw up to a maximum of 50 MLD water from Periyar river at Thottumugham for the project. The proposed project and land acquisition are notified by Government of Kerala as per G O (Rt) No 149/16 RD for supplying water to the industrial area at Kakkanad.

### **CHAPTER 3**

#### **STUDY APPROACH AND METHODOLOGY**

#### **3.1 Background**

As per the Notification No.C4-31211/2015 dated 01.12.2016, Ernakulam District Administration has selected RAJAGIRI outREACH as the SIA Unit to study the Social Impact Assessment on the land acquisition for construction of intake well and allied structures for pump house for improvement of water supply toKakkanadIndustrial area.

#### **3.2 SIA Team Members**

<b>Sl.N o</b>	<b>Name</b>	<b>Qualification and Designation</b>	<b>Experience</b>
1	Meena Kuruvilla Director Rajagiri outreach	MSW, Chairperson - SIA Unit	30 years in developmen t sector
2	Princy Jacob	MSW, Project Co-ordinator - SIA Unit	21 years in developmen t sector
3	Ranjith K U	DSS, Research Associate - SIA Unit	23 years in developmen t sector
4	Sujith Narayanan	MA Sociology, PGDHS	9 years in

		Research Associate - SIA Unit	development sector
5	Arun Mathews George	MSW, Research Associate - SIA Unit	9 months in development sector

### **3.3 Study Approach**

The land proposed to be acquired for the project is owned by Mr P M Abdul Lahir and Mrs Saira Lahir, Raziya Villa, Thainoth Road, Aluva. The said land an extent of 0.1950 hectares (48.16 cent) is located at Survey No 48/11 Keezhmad Village, Aluva Taluk. Since the owners are residing in a foreign nation, SIA team has conducted discussion with the legal representatives of the affected family. The representatives had intimated that the affected family is not willing to surrender their property.

### **3.4 Methodology & Tools**

The study team reviewed the relevant documents, reports and project alignment drawing. The team also carefully reviewed the Detailed Project Report prepared by KITCO consultants for the project as well as other SIA studies in development sector. SIA unit had also examined the records and documents including the alignment drawing of the proposed project. SIA team had also made a site visit along with the land revenue officials for information dissemination. SIA team had also conducted a discussion with the legal representatives of the affected family. Although SIA team had prepared a questionnaire for data collection, since the affected family was not willing to share information, the same was not used.

### **3.5 Sources of data collected**

- a) Office of the Special Tahsildar (LA), NH II, Aluva
- b) KINFRA Office, Kakkanad, Ernakulam

### **3.6 Process and Schedule of Activities**

*Social Impact Assessment - Intake Well and Pump House Construction for KINFRA*

- 01.12.2016 - District Collector, entrust RAJAGIRI outREACH to conduct the SIA study
- 03.06.2017 Publication of 4 (1) notification in Kerala Gazette
- 31.05.2017 - Discussion with legal representatives of affected family
- 01.08.2017 - Conducted Public Hearing

### **3.7 Public Hearing**

Section 5 of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, of 2013 envisages that whenever a SIA study is required to be prepared the Government shall ensure that a Public Hearing is held at the affected area to ascertain the views of the affected families to be recorded and included in the SIA Report. Rule 14 of the Rules, 2015, have prescribed detailed procedure for the conduct of the public hearing. The Rule requires that as soon as may be after the Public Hearing, the SIA Unit shall seek the remarks of the Requiring Body on the views or objections raised by the affected families or by any other person at the public hearing or received by it in writing. Sub rule 15.2 prescribes that on receipt of the communication from the SIA unit the Requiring Body shall answer each of the objection or views required to be answered by it.

SIA Unit took special care to inform the affected people in the area about Public Hearing by taking various steps like Notification for conducting public hearing as per Form 5 Rule 14 (1) of the RTFCTLARR Act, 2013. The notification was published in two Malayalam News Papers - Madhyamam and Deshabhimani Newspaper on 19.07.2017. A registered notice has been served to the affected family for informing about the public hearing. The copy of notice was served to Grama Panchayat Office (Keezhmad), Ward Member (Ward 2), Village Office (Keezhmad), Special Tahsildar office-NH II Aluva, Taluk office-Aluva, Deputy

Collector (LA, Ernakulam). Adequate copies of the SIA draft report and summaries were made available on the day of the public hearing. The major highlights of the study were presented in local language through Power Point Presentation by Project Coordinator, SIA Unit.



**Photograph - Public Hearing held on 01.08.2017 at  
Keezhmad**



**Response of Requiring Body KINFRA under rule 15(3) on points raised during Public Hearing conducted on 1.8.2017**

<b>Points raised</b>	<b>Response by KINFRA</b>
<p><b>A(1) Not willing to offer the land for acquisition</b></p>	<p>The land is required for an urgent public purpose. The land under acquisition is for construction of an intake well and Pump house for abstracting 45MLD raw water from Periyar river and conveying it to Kakkanad area for the Industrial needs and for the consumption and use of employees for the already existing establishments of</p> <ol style="list-style-type: none"> <li>1. KINFRA Export Promotional Industrial Parks Kakkanad (KEPIP)</li> <li>2. InfoPark Phase I</li> <li>3. InfoPark Phase II</li> <li>4. Kochi Smartcity</li> </ol> <p>And for proposed establishments of</p> <ol style="list-style-type: none"> <li>5. Electronic manufacturing cluster and International Convention Centre being developed in KEPIP phase II with the grant in aid of Govt. of India</li> <li>6. 400 MV RLNG based power station proposed by KSEBL at Bramahapuram</li> <li>7. and Petrochemical Complex proposed in the 600 acres of vacant plot of FACT Cochin Division using the downstream products of BPCL</li> </ol> <p>The project when completed will</p> <ol style="list-style-type: none"> <li>a. Cater to the needs of nearly 5 lakhs employees in these establishments</li> <li>b. Produce 400MV power for KSEBL and to the state</li> <li>c. and will produce nearly Rs 2000 crore per annum, worth Industrial products every year</li> </ol>



	<p>The proposed land is unoccupied for years together and when compared to the benefits that may accrue to the Nation as a whole, the negative impact to the owners is meagre and negligible. As such the unwillingness of the owners worth no merits and consideration. There is no dislocation to the owners occupation or livelihood due to the acquisition of this land.</p>
<p><b>A(2) find out other alternative land for acquisition</b></p>	<p>Before proposing this land for acquisition all the other alternatives such as source for the water route for conveyance of water, location for the point of abstraction and construction of intake well and Pump house have been scientifically studied and these studies and their final outcome have been elaborated and detailed in the Detailed Project report of the scheme</p> <p>This land is the most suited site for construction of the intake well and pump house both in terms of technical and financial viability. Any alternative site will necessitate</p> <ol style="list-style-type: none"> <li>a. displacement of more project affected personnels</li> <li>b. Rehabilitation and resettlement of project affected personnels including demolition of dwelling houses.</li> <li>c. increase in capital cost of the project</li> <li>d. increase in the recurring operation cost of the project</li> <li>e. Negative impacts on the existing users like Kerala Water Authority if location is selected downstream or upstream</li> </ol>
<p><b>A(3) Maximum land value estimated by</b></p>	<p>KINFRA is a statutory body of Govt. of Kerala formulated by the enactment of Kerala Legislature for establishment of Industrial areas and for organisation of Industrial growth centres in the State of Kerala and for setting up infrastructure</p>

<b>KINFRA</b>	facilities for Industries through Kerala Industrial Infrastructure Development act 1993. The land acquisition for KINFRA's Projects is undertaken by the Revenue Dept. of Govt. of Kerala through the District Collectors of the locality. The land value for the land to be acquired is to be fixed by the District Collector Ernakulam and not by KINFRA.
<b>B. Technical details and the rational for acquisition of this land and rejection of other plots considered</b>	<p>The project is for creating infrastructure for abstracting 45 MLD raw water and for conveying to the Kakkanad area for use of employees engaged in the Industrial establishment situated there, for power generation and for industrial production in the Industrial establishments. For finalising the source for this 45 MLD raw water detailed studies regarding the various alternatives in the vicinity such as Kadambayar, Muvattupuzha river, Periyar, Bhoothathankettu barrage, PVIP canal system, FACT canal etc were made which are elaborated in the DPR of the project. Finally it was established that Periyar river is the only sustainable source to meet the requirements.</p> <p>Having finalised the source as Periyar eleven (11) alternate routes by utilising the existing road network were studied for bringing water to Kakkanad. On detailed analysis it was established that the ThottumghamEdayappuram-Asokapuram- NAD- Thevakkal- Thengode - Edachira- Kakkanad is the best suited route because being the shortest route to Kakkanad and less congested and with scare traffic especially public transport system. Moreover the Water Resource Department in Govt vide GO(RT) No:317/2016/WRD dt 30.3.2016 have</p>

sanctioned drawal of water from Periyar river at Thottumgham for the project

Once the route was finally chosen the location for the intake well and pump house was considered in detail. The following aspects were also considered in the choice

- k. Nearness to the finalised route which enters Aluva- Perumbavoor route at Thottumgham
- l. Minimum of 35 to 40 cents of river front land
- m. Minimum of 25 to 30 meter river frontage preferably not in a curved reach.
- n. The land has to be above general maximum flood level for construction of structure and access through out the year
- o. Accessibility for lorries to the plot for bringing construction materials, equipments, etc
- p. Easiness in taking out the 800 mm DI pumping main from the site to main road with less curves, gradients, etc
- q. Nearness to HT power lines
- r. Preferably vacant land so that no rehabilitation or resettlement is involved
- s. With least project affected persons
- t. It shall be sufficiently away from the existing water intake of Chowara and Aluva maintained by Kerala Water Authority

With the above mentioned criteria in mind plots from Mahilalayam to Thottumgham such as Sy:50,73,74,75,93 48/11, 48/3 of Keezhmad village were considered in detail. After eliminating all other plots on various negative

	<p>grounds finally the two plots at Thottumugham, the Sy. No. 48/11 and 48/3 were short listed. While evaluating the two plots in further details, it was revealed that the land in Sy. no. 48/3 is having only 33.910 cents and its river frontage is in a curved shape with 24.0 M and 9.3 M in length which can create silting in the river on long run if an intake well is constructed here. Moreover the owners of the plot have already started some construction activities in the plot. Therefore this plot was also not considered and the plot in Sy. No. 48/11 was finally chosen. The selection was based on technical reasoning's and to avoid maximum inconvenience to the land owners and adjacent residents.</p>
<p><b>C. the maximum extent of land that would be acquired</b></p>	<p>The present proposal of KINFRA is to acquire the entire plot considering of 48.16 cents. However considering the apprehension raised by the land owner during the public hearing, KINFRA will expedite suitable measure to reduce the extent of land to be acquired to an optimum level.</p>

## **CHAPTER 4 LAND ASSESSMENT**

### **4.1. Information about affected area**

The land proposed to be acquired for the project is owned by Mr P M Abdul Lahir and Mrs Saira Lahir, Raziya Villa, Thainoth Road, Aluva. The said land an extent of 48.16 cent is located at Survey No 48/11 Keezhmad Village, Aluva Taluk. Although an old structure is situated at the area, the same is not occupied.



**Photograph of proposed project area**

### **4.2. Area of impact**

The proposed land acquisition shall affect the property owner losing of their property extending 0.1950 hectares (48.16 cent).

### **4.3. Land requirement for the project**

For accommodating the intake well cum pump house, transformer and other related facilities approximately 40 cents of land is required, preferably at the banks of Periyar with 25-30 meter water frontage. The writ petition filed by land owners wide WP(C) No 25267/2016 were disposed by honorable High Court.

#### **4.4 Previous transactions in the area**

Information regarding the same is not available

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

Not Applicable

#### **4.6 Quantity and location of land proposed to be acquired for the project**

The Plot is at a distance of approximately 110 meters away from Thottumugham Bus Stop in Aluva - Perumbavoor Road. The extent of the plot is 0.1950 hectares (48.160 cents) with Survey no 48/11 part.

#### **4.7 Nature, present use and classification of land and if agricultural land, irrigation coverage and cropping patterns**

The proposed land is Dry land, not used for agricultural or related purpose.

#### **4.8. Size of holding, ownership patterns, land distributions and number of residential houses**

The extent of land is 0.1950 hectares (48.16 cents), information regarding ownership pattern are not available. Although an old building exists in the area, the same is not used for residential purpose.



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

Information regarding the same is not available.

### **CHAPTER 5 ESTIMATION AND ENUMERATION**

#### **5.1 Families which are directly affected**

Mr P M Abdul Lahir and Mrs Saira Lahir, land owners of the proposed project area shall be considered as directly affected by the project.

#### **5.2 Families which are indirectly impacted by the project**

There are no families indirectly affected by the project. KINFRA propose to use most modern technologies in the project, so that there shall not be any adverse impacts for the nearby structures. Also the machines and other equipments used for water intake and pumping are also noise pollution less so that the same would not affect the nearby residents.

#### **5.3 Inventory of productive assets and significant lands**

No economic activities are being held at the affected area.

## **CHAPTER 6**

### **SOCIO ECONOMIC AND CULTURAL PROFILE**

#### **6.1. Demographic details**

No one is residing or operating in the proposed project area. Detailed information about the land owners is not available.

#### **6.2. Income and poverty level**

Affected family of P M Abdul Lahir is a Non Resident Indian, detailed information is not available.

#### **6.3. Vulnerable groups**

Not Applicable

#### **6.4. Land use and livelihood**

Not Applicable

#### **6.5. Local economic activities**

Not Applicable

#### **6.6. Factors that contribute to local livelihoods**

Not Applicable



## **CHAPTER 7**

### **SOCIAL IMPACT MANAGEMENT PLAN**

#### **7.1 Approach to Mitigation**

Not Applicable

#### **7.2 Measures to avoid, mitigate and compensate impact**

Not Applicable

#### **7.3. Measures that are included in the terms of Rehabilitation and Resettlement**

Compensation as outlined in the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 shall be provided to the affected family.

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

A provision of Rs 2 crore has been reserved as compensation to the affected family.

#### **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**

Not Applicable

## **CHAPTER 8 SOCIAL IMPACT MANAGEMENT PLAN INSTITUTIONAL FRAMEWORK**

### **8.1 Institutional Structures and Key Persons**

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.

In the proposed Intake Well and Pump House Construction Project, the major mitigation measures from the acquisition can be handled by providing the appropriate compensation under the RTFCTLARR 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, Rehabilitation 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.

Since no one is residing at the project affected area, rehabilitation does not seem to be necessary.

## **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**

Not Applicable

**10.2 Reporting mechanisms and monitoring roles**

Not Applicable

**10.3 Plan of independent evaluation**

Not Applicable

## **CHAPTER 11**

### **ANALYSIS OF COSTS AND BENEFITS AND RECOMMENDATION ON ACQUISITION**

Since no persons are residing /operating in the project affected area, there shall not be any rehabilitation necessary for the project. The project when completed will cater to the needs of nearly 5 lakhs employees in industrial establishments, produce 400MV power for KSEBL and to the state and will produce nearly Rs 2000 crore worth Industrial products in a year. The project is treated as framed for a

public purpose under the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (30 of 2013) Section 2 (i)(b)(iii). It is in this base, Government of Kerala notified to initiate acquisition procedure. Considering the public advantage and interest and treating as an inevitable need, the project has to be implemented.