

**Social Impact Assessment  
Study of  
Access Resettlement of people affected by  
Augmentation of Kuttiyadi Hydro Electric  
Project  
(Banasurasagar (Thariyod) Reservoir  
Project)  
Kavumandam Village of Vythiri Taluk  
Wayanad Dist.  
(0.0852 Hectare)**

**Draft Report**

**Requisition Authority  
Kerala State Electricity Board**

By

**KERALA VOLUNTARY HEALTH SERVICES**

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## Abbreviations

APL	Above Poverty Line
BPL	Below Poverty Line
KSEB	Kerala State Electricity Board
DLPC	District Level Purchasing Committee
LA	Land Acquisition
NGO	Non - Governmental Organization
NTH	Non - Title Holder
MSW	Master of Social Work
PAP	Project Affected Person
PAF	Project Affected Family
TH	Title Holder
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
RTFCTLARR Act	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act



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## CHAPTER 1 EXECUTIVE SUMMARY

### 1.1. Introduction – Project and Public purpose

Banasurasagar Dam, which impounds the Karamanathodu tributary of the Kabini River, is part of the Indian Banasurasagar Project consisting of a dam and a canal project started in 1979. The goal of the project is to support the Kakkayam Hydroelectric power project and satisfy the demand for irrigation and drinking water in a region known to have water shortages in seasonal dry periods.

In the dam's reservoir there is a set of islands that were formed when the reservoir submerged the surrounding areas. The islands with the Banasura hills are in the background view. It is the largest earth dam in India and the second largest of its kind in Asia. The dam is made up of massive stacks of stones and boulders.

Banasurasagar is a multipurpose project, which includes a dam across Karamanathodu, a tributary of Panamaram River by the Kerala State Electricity Board and an irrigation project by Irrigation department. The dam has a capacity to store 6.70 TMC of water, out of which 5 TMC of water is to be directed to the Kuttiyadi Hydro Electric Project and the remaining 1.70 TMC of water is to be made available for this project. Water for irrigation will be released from a sluice, which is constructed in the dam.

The Banasurasagar dam was commissioned in 2004 with a full reservoir capacity. Many surrounding low line areas were submerged. The famous Thariyodu town was totally submerged. Main Government offices were shifted to Kavumandam. Peoples were supported for their resettlement. Hundreds of Tribal families were rehabilitated with the support of local bodies. A major portion of the Vythiri –Mananthavady road via Thariyod was submerged. The road traffic through the road was blocked. Government of Kerala and KSEB developed a rehabilitation plan for the residents in the area and many opted to the rehabilitation and shifted from the area. But few (Tribal) Adivasi families opted to continue in the area. Some families other than Tribes also continued in the area. These families are not having all seasonal road to reach their families. Certain portion of submerged road is fine for transportation during summer or at the time of low water level in the reservoir. But during the last two year the access problem of the families were mounded up due to the continuous flood. Now people are using a private road for accessing their houses. In the meantime Ms. Ammini who has approximately twelve acre of land and a residence in the area went to Hon. High Court for getting access. In its Judgment Court directed to KSEB





to address the issue and solve it. This is the background of the notification to acquire 0.0852 Hectare land for the access resettlement.

Therefore Government of Kerala give administrative and financial sanction for acquisition of an area 0.0852 hectare land for resettlement of the access to the project affected families of the Thariyod Reservoir of Banasurasagar Irrigation Project in Kavumandam village. The proposed project is seems to be in the characteristics of public purpose.

## **Rehabilitation and Resettlement of Banasurasagar Irrigation Project.**

Government of Kerala formulated a comprehensive rehabilitation and resettlement plan for the project affected families, individuals and institutions and implemented before commissioning of the project. Near about 700 families were rehabilitated in other part of Kavumandam village by providing alternative land and necessary compensation under the supervision of Local Bodies. But few were not willing to shift from their land. They were reminded there in their own risk. They were used the road made by a quarry unit which was operated in the area during heavy monsoon periods. Other seasons they used the old road which will be immersed during Monsoon period. The flood during the last two years worsened the situation. Therefore people lining in the banks of the reservoir (in the side of old Vythiri- Mananthavady road is demanding an all seasonal access. Initially Government was not addressed their demand in the ground of their voluntary decision to stay back in the area during the rehabilitation process of Government. But now Government of Kerala ie KSEB come forward to construct a road access by acquiring 0.0852 Hectare of land.

### **1.2. Location**

The project area is located 28 km from Kalpetta, (district headquarter of Wayanad) and 16 km from Vythiri (Famous Tourist place in Wayanad) 7km from Banasurasagar dam. Before the commissioning of the Banasurasagar dam and augmentation of Kuttiyadi power project, the area was a famous tribal settlement. The affected tribal families were resettled in other part of the village except 5 to 6 families. Some tribal families were not accepted the land value fixed by the Government and they sold it to settlers from outside Wayanad or within Wayanad. After completion of Government's rehabilitation process these people constructed houses and cultivation in the area. The 5-6 tribal families also continued in the area. Now total 11 families are living in the area including 6 tribal families.





The project area is the bank of Banasura reservoir and very near to the FR line of the reservoir. A Quarry (Not functioning now) is situated nearby. The proposed project road was developed by the quarry owners for their transportation. It connects two portions of the Non immersed Vythiri-Mananthavady road. The proposed road is also has its links to Vythiri – Mananthavady new road. The location is very near to reserved forest area. Some part of project area is Government land.

### **1.3 Size and Attributes of Land Acquisition Land Acquisition Authority**

Thahasildar office, Vythiri is preparing the acquisition details including land sketch and extent of acquisition etc. Boundary stones are not placed. Alignment sketch was prepared by requisition agency. Deputy Collector (Land Acquisition) is monitoring the land acquisition process.

#### **Details of project affected families**

The social impact study finds that seven Land holders are affected by the project. No residential houses and commercial buildings affected. Only two affected families are residing in the area. Other affected holdings are with families who were running the Quarry before it stops mining. None of the title holders are economically vulnerable. One women headed family is residing near to the proposed road. One third of their land is affected.

#### **Details of the acquiring land**

The total land acquiring for the project is 0.0852 Hectare. The acquisition is for constructing a road access to families living in an isolated area due to immersing of road access due to augmentation of Kuttiyadi Hydro Electric project. The proposed acquisition aimed to widen a private road and develop it as public. No agricultural land affected. One third of the affected land belongs to Government.

#### **Socio Economic and Cultural Profile**

The analysis on Socio-Economic and cultural profile of the Title Holders shows that one third of affected Title Holders belongs to middle class community with primary occupation as agriculture. One third belongs to Business community. The remaining land belongs to Government. The average land holdings in the area are 3 Acre. No scheduled cast and scheduled tribe families affected by the project. All the THs are literate. The religious distribution shows that the all are Christians. The average family size of THs is 3.7. All title holders are having valued Title Deed.



#### 1.4. Alternatives

Sl.No	Alternatives proposed	Remarks
1	Road will construct near to FR line of the reservoir.	A culvert and rehabilitation of a residence is needed for the road construction.

#### 1.5. Social Impact

Losses of land to seven title holders are the primary impact of the project. No residential houses and other buildings are not affected. The project is one of the Government's responses to High Court direction on access resettlement which was affected by a development intervention. Banasurasagar irrigation project was commissioned in 2005. Thariyod town and hectares of agricultural land immersed due to the increase of water level. Several houses were displaced due to the project. Before the commissioning Government was completed most of the rehabilitation and resettlement measures with the support of local bodies. But few families are reluctant to move from the area. Six Tribal families remained in the area with their residence and property. Few people purchased the lands of tribal families who displaced from the area by giving more price than Government offered. One of the above land holders later constructed residence in the area. Some others sold their land to some business group who needs to develop land for business. The proposed project is largely benefited to the above tribal families who are still residing in the area. These families are living below poverty line and not having access to the public road. One of the title holder in the area offered 6 feet width road to these tribal families with certain conditions. Local body or KSEB will interfere in the matter and develop their access along with the proposed project.

No major impact except loss of land identified. If the proposed road developed as public it may affect the future operation of the quarry situated nearby. The distance between the road and the quarry may be less than the statutory requirement. The acquisition may form a bit land for a title holder. Acquisition of this useful land may mitigate the impact.

#### 1.6. Mitigation Measures

Sl.No.	Risk Assumed	Approach	Mitigation Strategy
1	Loss of part of Land	Compensation	Compensate the loss.
2	Formation of bit land.	Acquire the bit land portion.	Compensation
3	Loss of structure	Compensation	Compensate the loss.





4	Reduce the setback distance of a non-operated quarry.	If the quarry got sanction to function the setback license issue will be addressed by District Administration	Decision of district administration.
5	Involved in land acquisition process	Control	Ensure community participation in the whole process.
6	Grievance	Control	Functional grievance redressal committee at village and district level.

### 1.7 Assessment of Social Costs and Benefits

Since no residence and structures displaced or affected the impact of the project seems to be very minimum. The circumstances leads to the project is not shows its importance as public purpose. But addressing the access problem of tribal families will enhance the public importance of the project. So the aim of the project will redefined as to resettle the access of families who lost their access due to augmentation of Thariyod (Banasurasagar) reservoir.

The beneficiaries of the project except the Tribal families are not economically vulnerable. More over their settlement in the area was happened after the commissioning of the project. So government investment for private benefit may not be considered as public purpose. But access problems of tribal families are public issues and need to be addressed by the project and solve it permanently. If other land owners in the area will made any contribution to address the issue and that could be compensated.

A non-operated quarry is situated near by the project area. If the project comes as per the setback rules the quarry could not able to operate in future. So Government could study the chances and feasibility of the quarry operation in the area and develop policy accordingly.

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 importance and interest the project is an inevitable need and the project is able to address the social impact of the project. Therefore the project has to be implemented.





## CHAPTER 2 DETAILED PROJECT DESCRIPTION

### **2.1 Background of the project, including developer's background and governance/ management structure.**

Banasurasagar Dam, which impounds the Karamanathodu tributary of the Kabini River, is part of the Indian Banasurasagar Project consisting of a dam and a canal project started in 1979. The goal of the project is to support the Kakkayam Hydroelectric power project and satisfy the demand for irrigation and drinking water in a region known to have water shortages in seasonal dry periods.

In the dam's reservoir there is a set of islands that were formed when the reservoir submerged the surrounding areas. The islands with the Banasura hills are in the background view. It is the largest earth dam in India and the second largest of its kind in Asia. The dam is made up of massive stacks of stones and boulders.

Banasurasagar is a multipurpose project, which includes a dam across Karamanathodu, a tributary of Panamaram River by the Kerala State Electricity Board and an irrigation project by Irrigation department. The dam has a capacity to store 6.70 TMC of water, out of which 5 TMC of water is to be directed to the Kuttiyadi Hydro Electric Project and the remaining 1.70 TMC of water is to be made available for this project. Water for irrigation will be released from a sluice, which is constructed in the dam.

The Banasurasagar dam was commissioned in 2004 with a full reservoir capacity. Many surrounding low line areas were submerged. The famous Thariyodu town was totally submerged. Main Government offices were shifted to Kavumandam. Peoples were supported for their resettlement. Hundreds of Tribal families were rehabilitated with the support of local bodies. A major portion of the Vythiri –Mananthavady road via Thariyod was submerged. The road traffic through the road was blocked. Government of Kerala and KSEB developed a rehabilitation plan for the residents in the area and many opted to the rehabilitation and shifted from the area. But few (Tribal) Adivasi families opted to continue in the area. Some families other than Tribes also continued in the area. These families are not having all seasonal road to reach their families. Certain portion of submerged road is fine for transportation during summer or at the time of low water level in the reservoir. But during the last two year the access problem of the families were mounded up due to the continuous flood. Now people are using a private road for accessing their houses. In the meantime Ms. Ammini who has approximately twelve acre of land and a residence in the area went to Hon. High Court for getting access. In its Judgment Court directed to KSEB





to address the issue and solve it. This is the background of the notification to acquire 0.0852 Hectare land for the access resettlement.

Therefore Government of Kerala give administrative and financial sanction for acquisition of an area 0.0852 hectare land for resettlement of the access to the project affected families of the Thariyod Reservoir of Banasurasagar Irrigation Project in Kavumandam village. The proposed project is seems to be in the characteristics of public purpose

### **2.1.1. Implementing Agencies**

#### **2.1.1.(a). The Kerala State Electricity Board**

The Kerala State Electricity Board, constituted by the Government of Kerala, by order dated 7 March 1957, under the Electricity (Supply) Act, 1948 is in the business of Generation, Transmission and Distribution of electricity and striving to provide quality electricity at affordable cost to all classes of consumers in the state of Kerala. As per section 172 (a) of the Electricity Act 2003 and as mutually decided by the Government of India and Government of Kerala, KSEB has continued as Transmission utility and Distribution licensee till 24 September 2008. In exercise of powers conferred under sub-sections (1), (2), (5), (6) and (7) of section 131 of the Electricity Act, 2003, State Government vide the notification G.O (Ms).37/2008/PD dated 25 September 2008 has vested all functions, properties, interests, rights, obligations and liabilities of KSEB with the State Government till it is re-vested the same in a corporate entity. Accordingly, KSEB has been continuing all the functions as a Generator, State Transmission Utility and a Distribution Licensee in the State. Kerala State Electricity Board commenced functioning on 31 March 1957 After Noon as per order no. EL1-6475/56/PW dated 7 March 1957 of the Kerala State Government. It had 5 members with Sri K.P Sreedharan Nair as chairman. All the staff belonging to the erstwhile Electricity Department was transferred to the Board. The 'Board' consisting of the chairman and the Members is the Supreme Governing Body. The State Government by their notification EL3-9345 dated 21 February 1958 constituted the State Electricity Consultative Council under section 16 of the Electricity Supply Act. The Council functions as consultative body and the Board is required to place before the council the annual financial statement and supplementary statements if any before submitting such statements to the State Government. The 'Board' consisting of the chairman and the Members is the Supreme Governing Body. The Board consists of seven members and is headed by the chairman. The Government of Kerala and KSE Board issued orders for the restructuring of KSE Board into profit centers in April 2002. Members head the profit





centers. There is a Corporate Office to co-ordinate and control the activities of the Board.

After the enactment of Electricity Act, 2003, KSEB has been functioning as the State Transmission Utility (STU) and a distribution licensee w.e.f 10 December 2004 under section 172(a) of the Electricity Act, 2003. The Central Government had approved the continuation of KSEB as a State Transmission Utility & Licensee only up to 24 September 2008. In exercise of the powers conferred under sub-sections (1), (2), (5), (6) and (7) of section 131 and section 133 of the Electricity Act 2003 (Central Act 36 of 2003) the Government of Kerala had issued notification vide G.O. (MS) No.37/2008/PD, Dated, Thiruvananthapuram, 25 September 2008 for the purpose of vesting of functions, properties, interests, rights, obligations and liabilities of the Kerala State Electricity Board in the State Government on such terms as agreed to by the Kerala State Electricity Board and the State Government and re vesting thereof by the State Government in a Corporate entity and also for the transfer of Personnel of the Board to the Corporate entity and for determining the terms and conditions on which such transfers and vesting shall be made. Accordingly, with effect from 25 September 2008, all the functions, properties and all interests, rights in properties, all rights and liabilities of the Board are vested in the State Government. The Kerala State Electricity Board Limited has been incorporated under the Companies Act, 1956 on 14th January 2011 and started operations as independent company with effect from 1st November-2013. As per the Central Electricity Act 2003, KSEB was converted to Kerala State Electricity Board Limited in 2014. The original KSEB was dissolved and its assets and liabilities transferred to the government initially and then transferred to the newly formed company KSEB Limited

### **Kerala State Electricity Board, Research & Dam Safety Division Office, Banasurasagar, Wayanad**

Research & Dam Safety Division Office, Banasurasagar, Wayanad is the requisition agency of the project. Executive Engineer is the head of the division office. Assistant Executive Engineer and Assistant Engineer are the other implementing officers. Assistant Executive Engineer Office, Banasura is the field level implementation office of the project.

#### **2.1.2. Land Acquisition Authority**

Thahasildar office, Vythiri is preparing the acquisition details including land sketch and extent of acquisition etc. Boundary stones are not placed. Alignment sketch was prepared by requisition agency. Deputy Collector (Land Acquisition) is monitoring the land acquisition process.





## **2.2. Rationale for project including how the project fits the public purpose criteria listed in the Act.**

Banasurasagar is a multipurpose project, which includes a dam across Karamanathodu, a tributary of Panamaram River by the Kerala State Electricity Board and an irrigation project by Irrigation department. The dam has a capacity to store 6.70 TMC of water, out of which 5 TMC of water is to be directed to the Kuttiyadi Hydro Electric Project and the remaining 1.70 TMC of water is to be made available for this project. Water for irrigation will be released from a sluice, which is constructed in the dam.

The Banasurasagar dam was commissioned in 2004 with a full reservoir capacity. Many surrounding low line areas were submerged. The famous Thariyodu town was totally submerged. Main Government offices were shifted to Kavumandam. Peoples were supported for their resettlement. Hundreds of Tribal families were rehabilitated with the support of local bodies. A major portion of the Vythiri -Mananthavady road via Thariyod was submerged. The road traffic through the road was blocked. Government of Kerala and KSEB developed a rehabilitation plan for the residents in the area and many opted to the rehabilitation and shifted from the area. But few (Tribal) Adivasi families opted to continue in the area. Some families other than Tribes also continued in the area. These families are not having all seasonal roads to reach their families. Certain portion of submerged road is fine for transportation during summer or at the time of low water level in the reservoir. But during the last two year the access problem of the families were mounded up due to the continuous flood. Now people are using a private road for accessing their houses. In the meantime Ms.Ammi who has approximately twelve acre of land and a residence in the area went to Hon. High Court for getting access. In its Judgment Court directed to KSEB to address the issue and solve it. This is the background of the notification to acquire 0.0852 Hectare land for the access resettlement.

Since no residence and structures displaced or affected the impact of the project seems to be very minimum. The circumstances leads to the project is not shows its importance as public purpose. But addressing the access problem of tribal families will enhance the public importance of the project. So the aim of the project will redefined as to resettle the access of families who lost their access due to augmentation of Thariyod (Banasurasagar) reservoir.

Therefore Government of Kerala give administrative and financial sanction for acquisition of an area 0.0852 hectare land for resettlement of the access to the project affected families of the Thariyod Reservoir of Banasurasagar





Irrigation Project in Kavumandam village. The proposed project is seems to be in the characteristics of public purpose.

### **2.3 Details of project size, location, capacity, outputs, production targets, cost, and risks.**

Sl.No.	Risk Assumed	
1	Loss of part of Land	6
2	Formation of bit land.	1
3	Loss of structure	0
4	Reduce the setback distance of a non-operated quarry.	1
5	Involved in land acquisition process	6
6	Grievance	N A

#### **2.3.1. Project Location**

The project area is located 28 km from Kalpetta, (district headquarter of Wayanad) and 16 km from Vythiri (Famous Tourist place in Wayanad) 7km from Banasurasagar dam. Before the commissioning of the Banasurasagar dam and augmentation of Kuttiyadi power project, the area was a famous tribal settlement. The affected tribal families were resettled in other part of the village except 5 to 6 families. Some tribal families were not accepted the land value fixed by the government and they sold it to settlers from outside Wayanad or within Wayanad. After completion of Government's rehabilitation process these people constructed houses and cultivation in the area. The 5-6 tribal families also continued in the area. Now total 11 families are living in the area including 6 tribal families.

The project area is the bank of Banasura reservoir and very near to the FR line of the reservoir. A Quarry (Not functioning now) is situated nearby. The proposed project road was developed by the quarry owners for their transportation. It connects two portions of the Non immersed Vythiri-Mananthavady road. The proposed road is also has its links to Vythiri – Mananthavady new road. The location is very near to reserved forest area. Some part of project area is Government land.

#### **2.4. Phase of project construction**

Not Applicable

#### **2.5. Core design features and size and types of facilities.**

Not Applicable



**2.6. Need for ancillary infrastructural facilities.**

Not Applicable

**2.7. Work force requirements (temporary and permanent).**

Not Applicable

**2.8. Details of Social Impact Assessment / Environment Impact Assessment if already conducted and any technical feasibility reports.**

Not Applicable

**2.9. Applicable law and policies.**

Sl.No.	Laws & Policies	Area of Application
1	The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013.	Mitigation of Impact
2	Land Acquisition Act 1893, Land Acquisition Act (Kerala) Rules 1990, Kerala Land acquisition Act 1961, Kerala Land Acquisition Act rules	Land acquisition





**CHAPTER 3**  
**STUDY APPROACH AND METHODOLOGY**

**3.1 Background**

Government of Kerala give administrative and financial sanction for acquisition of a compact area 0.0852 hectare land for augmentation of Thariyod (Banasurasagar) reservoir in Kavumandam Village of Wayanad District through GO(MS) NO.11/2019/power dated 01/06/2019& GO(RT) NO.1436/2019 RD dated 07/06/2019.

The District Collector, Wayanad, invited proposal from district level expert groups to conduct social impact assessment and selected Mr.Saju.V.Itty, Executive Director, Kerala Voluntary Health Services to conduct the Study.

**3.2. Social Impact Assessment Team – Profile of Team Members**

Sl.No.	Name & Address	Designation in the SIA Team	Profile
1	Saju V. Itty	Team Leader	26 years experiences in social work, social survey including R&R experience in KSTP & Tsunami Rehabilitation. Conducted social research study on health child rights and rehabilitation & resettlement. Conducted SIA study for five sub projects of Kannur International Airport, Kanjirappally Bypass, Kochi Metro Extension, Mattannur Industrial Park, Perambra Bypass, Railway Over Bridge Chettippady Malappuram and Kuttothu – Attakundu road Kozhikodu etc.
2	Rakesh.R Nair	R & R Specialist & Social Investigator	11 years experiences in social work including social research, R & R activities and community mobilization. Team Member in SIA study for five sub projects of Kannur International Airport, Kanjirappally Bypass, Kochi Metro Extension, Mattannur Industrial Park, Perambra Bypass, Railway Over



			Bridge Chettippady Malappuram and Kuttothu- Attakundu road Kozhikodu etc.
3	Smitha R	R & R Specialist & Social Investigator	16 years experiences in social work including social research, R & R activities and community mobilization. Team Member in SIA study for five sub projects of Kannur International Airport, Kanjirappally Bypass, Kochi Metro Extension, Mattannur Industrial Park, Perambra Bypass, Railway Over Bridge Chettippady Malappuram and Kuttothu -Attakundu road Kozhikodu etc.
5	M.Ibrahim kutty	Sociologist	Rtd. Joint Director, Social Welfare Board. 36 years of experience in social work.
6	Sheeba Johnson	Data Analyzer & Data entry	26 years experiences in social work and data entry operation. Team Member in SIA study for five sub projects of Kannur International Airport, Kanjirappally Bypass, Metro Extension, Mattannur Industrial Park, Perambra Bypass, Railway Over Bridge Chettippady Malappuram and Kuttothu - Attakundu road Kozhikodu etc.
7	N.Vijayakumar Pilla	L.A. Consultant	Rtd. Revenue Inspector
8	O.C.Chandi	L.A. Consultant	Rtd. Village Officer





### **3.3. Study Approach**

The land which proposed to be acquired for the project is owned by 6 land Holders and 1 Government property of Kavumandam Village of Vythiri Thaluk of Wayanad District. Stake holder analysis was conducted and find out key stake holders and their interest and involvement in the proposed acquisition process. After the secondary data collection Social Impact Assessment Unit developed a questionnaire for social survey and visited all Title Holders and collected opinion, family details, Socio-Economic details and suggestions. Apart from this SIA team has conducted discussion and consultation with Local Body Representatives and local public and recorded their suggestions and opinion. In continuation of it a focus group consultation of Project Affected Persons' was conducted on 27<sup>th</sup> and 28<sup>th</sup> October 2019 and noted their suggestions and opinion. Special Case studies were prepared for selected cases. The study also used transit walk and observation visit to crosscheck the suggestions and grievance which were recorded.

### **3.4. Methodology & Tools**

The study team reviewed the relevant and available documents in Research & Dam Safety Division Office, Banasurasagar, Thahasildar office, Vythiri and Deputy Collector LA, Wayanad. SIA unit had also examined the records and documents and made a site visit along with the land revenue officials for area identification and information dissemination on 2<sup>nd</sup> November 2019. SIA team had also conducted a one to one discussion and consultation with all Land Holders. All land holders were contacted and collected their land and family details. Although SIA team had collected details by using pre-prepared questionnaire. SIA team also had discussion and consultation with Members of Legislative Assembly; Local Body Representatives requisition agency officials and local public. Group work was conducted on 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> October, 2019. Transit walk was conducted on 30<sup>th</sup> along with PAPs Special Case studies were prepared for selected cases.

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

- a) Office of the Tahsildar, (Vythiri)
- c) Research and dam safety sub division office, Thariyode north
- d) Village Office Kavumandam.
- e) Project Affected Families and Land Holders.



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

- 26/09/2019 District Collector entrusted Mr.Saju.V.Itty, Executive Director, Kerala Voluntary Health Services to conduct the SIA study
- 22/10/2019 to 24/10/2019 - Secondary Data Collection.
- 25/10/2019 to 26/10/2019 – Mapping of Stake Holders
- 26/10/2018 to 01/11/2018- Social Survey for Social Impact Assessment Study.
- 27/10/2019 and 28/10/2019 - Public Consultation/ Discussion with Project Affected Title Holders.
- 1<sup>st</sup> & 2<sup>rd</sup> October-2019- Transit Walk, Observational Study and Case Studies
- 18/11/2019- Draft Report Submission.

### **3.7. Points Raised during Individual and Group Discussion with Tittle Holders**

- 1) Time bound acquisition process will mitigate the impact.
- 2) The present level of Access to be resettled during and after the implementation of the project.
- 3) Reasonable compensation will provide for land.
- 4) Regular information will provide on progress of acquisition.
- 5) Rehabilitation and Resettlement process will be well informed and ensure community participation and consultation.





## **CHAPTER 4 LAND ASSESSMENT**

### **4.1 Description of the land**

The total land acquiring for the project is 0.0852 Hectare. The acquisition is for constructing a road access to families living in an isolated area due to immersing of road access due to augmentation of Kuttiyadi Hydro Electric project. The proposed acquisition aimed to widen a private road and develop it as public. No agricultural land affected. One third of the affected land belongs to Government.

### **4.2. Entire area of impact under the influence of the project.**

The proposed project improves the access to peninsula area of Kavumandam village. Due to Augmentation of Thariyode reservoir around 20 hectares area of peninsula was isolated. Six tribal residences one non tribal residence are situated in the peninsula landscape.

### **4.3. Total land requirement for the project.**

Government of Kerala give administrative and financial sanction for acquisition of a compact area 0.0852 hectare land for augmentation of Thariyod (Banasurasagar) reservoir in Kavumandam Village of Wayanad District through GO(MS) NO.11/2019/power dated 01/06/2019 & GO(RT) NO.1436/2019 RD dated 07/06/2019.

### **4.4. Present use of any public utilized land in the vicinity of the project area.**

One Government land is under the project area.

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

Not Applicable

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

The total land acquiring for the project is 0.0852 Hectare. The acquisition is for constructing a road access to families living in an isolated area due to immersing of road access due to augmentation of Kuttiyadi Hydro Electric project. The proposed acquisition aimed to widen a private road and develop



it as public. No agricultural land affected. One third of the affected land belongs to Government.

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

Sl.NO.	Nature of land	Present Use of Land	Irrigated / Non irrigated	Cropping Pattern	No.of Holdings
1.	Dry	Residential	Irrigated	NA	2
2.	Dry	Vacant Land	Irrigated	NA	4
	<b>Total</b>				<b>6</b>

**4.8 Size of holding ownership pattern land distribution and number of residential houses.**

Land holding size in the project area is above the state average. The following figure shows the pattern of holding.

Size of Holdings	No. of Holdings
50cent <sub>≤</sub>	2
50 cent- 1Acre	2
Above 1 Acre	2
Total	6

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

Not Applicable





## **Chapter 5**

### **Estimation and Enumeration of affected family and assets**

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

The social impact study finds that seven Land holders are affected by the project. No residential houses and commercial buildings affected. Only two affected families are residing in the area. Other affected holdings are with families who were running the Quarry before it stops mining. None of the title holders are economically vulnerable. One women headed family is residing near to the proposed road. One third of their land is affected.

#### **5.2. Families which are indirectly affected by the project.**

The proposed project improves the access to peninsula area of Kavumandam village. Due to Augmentation of Thariyode reservoir around 20 hectares area of peninsula was isolated. Six tribal residences one non tribal residence are situated in the peninsula landscape.

#### **5.3. Inventory of productive assets and no significant lands.**

All affected land holdings under the project is productive and significant.



## Chapter 6 SOCIO ECONOMIC AND CULTURAL PROFILE

### 6.1. Demographic Details

The analysis on Socio-Economic and cultural profile of the Title Holders shows that one third of affected Title Holders belongs to middle class community with primary occupation as agriculture. One third belongs to Business community. The remaining land belongs to Government. The average land holdings in the area are 3 Acre. No scheduled cast and scheduled tribe families affected by the project. All the THs are literate. The religious distribution shows that the all are Christians. The average family size of THs is 3.7. All title holders are having valued Title Deed.

### 5.3. Age wise distribution of Land Holders

Age of THs	No of THs
20-30	0
31-40	0
41 - 50	2
51 - 60	3
61 - 70	1
N A	1
Total	7

### 6.3. Family size of Land Holders

Family Size of THs	No of Families
1-2	0
3-4	5
5-7	1
N A	1
Total	7

### 6.4. Educational Qualification of Land Holders

Educational Qualification	No of THs
Below SSLC	1
SSLC	2
PDC	1
DEGREE	2
N A	1
Total	7





#### 6.4. Religious Distribution of Land Holders

Religion of THs	No. of THs
Hindu	0
Muslim	0
Christian	6
N A	1
Total	7

#### 6.5. Economic Distribution of Land Holders

Economic Status of THs	No. of THs
APL	5
BPL	1
N A	1
Total	7

#### 6.6. Occupational Distribution Land Holders

Major Occupation of THs	No of THs
Agricultural	2
Business	4
Government service	0
N A	1
Total	7

#### 6.7. Income distribution of THs

Monthly Income of THs	No of THs
Below 10000	1
Abow10,000	5
N A	1
Total	7

#### 6.8. Socio Economic Profile of Project Affected Family Members.

##### 6.8.1. Age wise distribution of PAF Members

Age of PAF Members	No of PAF Members
<10	2
11-20	4
21-30	4
31-40	2
41 - 50	3



51 - 60	8
61 - 70	2
Above 70	1
Total	26

### 6.8.2. Educational Qualification of PAF Members

Educational Qualification	No of PAF Members
Below 10 <sup>th</sup>	3
10 <sup>th</sup>	7
+2	6
Degree	4
PG	4
Professional	1
Other	1
Total	26

### 6.8.3. Occupational Distribution of PAF Members

Major Occupation of THs	No of THs
Business	9
Private	4
Other	6
Unemployed	7
Total	26





**CHAPTER 7**  
**SOCIAL IMPACT MANAGEMENT PLAN**

Losses of land to seven title holders are the primary impact of the project. No residential houses and other buildings are not affected. The project is one of the Government's responses to High Court direction on access resettlement which was affected by a development intervention. Banasurasagar irrigation project was commissioned in 2005. Thariyod town and hectares of agricultural land immersed due to the increase of water level. Several houses were displaced due to the project. Before the commissioning Government was completed most of the rehabilitation and resettlement measures with the support of local bodies. But few families are reluctant to move from the area. Six Tribal families remained in the area with their residence and property. Few people purchased the lands of tribal families who displaced from the area by giving more price than Government offered. One of the above land holders later constructed residence in the area. Some others sold their land to some business group who needs to develop land for business. The proposed project is largely benefited to the above tribal families who are still residing in the area. These families are living below poverty line and not having access to the public road. One of the Title holder in the area offered 6 feet width road to these tribal families with certain conditions. Local body or KSEB will interfere in the matter and develop their access along with the proposed project.

No major impact except loss of land identified. If the proposed road developed as public it may affect the future operation of the quarry situated nearby. The distance between the road and the quarry may be less than the statutory requirement. The acquisition may form a bit land for a title holder. Acquisition of this useful land may mitigate the impact.

**7.1. Approach to Mitigation/ Measures to avoid, mitigate and compensate impact**

Sl.No.	Risk Assumed	Approach	Mitigation Strategy
1	Loss of part of Land	Compensation	Compensate the loss.
2	Formation of bit land.	Acquire the bit land portion.	Compensation
3	Loss of structure	Compensation	Compensate the loss.
4	Reduce the setback distance of a non-operated quarry.	If the quarry got sanction to function the setback license issue will be addressed by District	Decision of district administration.



		Administration	
5	Involved in land acquisition process	Control	Ensure community participation in the whole process.
6	Grievance	Control	Functional grievance redressal committee at village and district level.

**7.2 Measures those are included in the terms of Rehabilitation and Resettlement**

Not Applicable

**7.3 Measures that the Requiring Body has stated it will introduce in the Project Proposal**

Not Applicable

**7.4 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 the Social Impact Assessment Process.**

Not Applicable

**7.5 Detailed Mitigation Plan**

Potential Impact	Positive/ Negative	Likely hood	Magnitude	Pre- Mitigation Level of Impact	Post - Mitigation Level of Impact	Mitigation Measures
Loss of part of Land	Negative	Possible	Moderate	Medium	Low	Compensate the loss.
Formation of bit land	Negative	Possible	Minimum	Minimum	Low	Compensation
Loss of structure	Negative	Possible	Minimum	Minimum	Low	compensation
Reduce the setback distance of a non-operated quarry	Negative	Possible	Minimum	Minimum	Low	Consultations





Involved in land acquisition process	Positive	Possible	Minimum	Minimum	Low	Maximum consultation will minimize the impact
Grievance	Negative	Possible	Low	Minimum	Low	Functional grievance redressal committee at village and district level.



## CHAPTER 8

# SOCIAL IMPACT MANAGEMENT PLAN AND INSTITUTIONAL FRAMEWORK

### 8.1- Institutional structure for key personal

<b>Key persons responsible for mitigation</b>	<b>Role in mitigation</b>
District Collector	Compensation & Grievance redress
Deputy Collector (L.A)	Compensation
Special Tahasildar (L.A)	Compensation
District Forest Officer	Compensation measurement for trees
Requisition Authority	Resettlement of access and structure valuation





## CHAPTER 9

### SOCIAL IMPACT MANAGEMENT BUDGET AND FINANCING OF MITIGATION

#### 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 Monitory and Evaluating Indicators

- Participation of THs and Land Holders in DLPC meeting
- Number of direct purchase happened.
- Methodology of fixing compensation
- No. of affected access resettle
- Amount of compensation paid for land/structure
- Entitlement of PAPs-land/cash
- Utilization of compensation
- Formation of Grievance Redressal Committee
- Number of time GRC met
- Number of appeals placed before grievance redressal cell
- Number of grievances referred and addressed by GRC
- Number of cases referred and addressed by arbitration
- Number of PAPs approached court
- Women concern

#### 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 residence and structures displaced or affected the impact of the project seems to be very minimum. The circumstances leads to the project is not shows its importance as public purpose. But addressing the access problem of tribal families will enhance the public importance of the project. So the aim of the project will redefined as to resettle the access of families who lost their access due to augmentation of Thariyod (Banasurasagar) reservoir.

The beneficiaries of the project except the Tribal families are not economically vulnerable. More over their settlement in the area was happened after the commissioning of the project. So government investment for private benefit may not be considered as public purpose. But access problems of tribal families are public issues and need to be addressed by the project and solve it permanently. If other land owners in the area will made any contribution to address the issue and that could be compensated.

A non-operated quarry is situated near by the project area. If the project comes as per the setback rules the quarry could not able to operate in future. So Government could study the chances and feasibility of the quarry operation in the area and develop policy accordingly.

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 importance and interest the project is an inevitable need and the project is able to address the social impact of the project. Therefore the project has to be implemented.

#### Annexures

1. Photographs – Field Investigation
2. List of PAFs.
3. Gazette Notification regarding SIA study.

