

GOVERNMENT OF KERALA

<u>Abstract</u>

Planning and Economic Affairs (RKI) Department– Project proposals of Forest & Wildlife Department- Implementation- Administrative Sanction accorded– Orders issued.

PLANNING & ECONOMIC AFFAIRS (RKI) DEPARTMENT

G.O.(Rt.) No. 483/2018/P&EA Thiruvananthapuram, Dated 14/11/2019

Read: 1. G.O. (P) No. 16/2018/P&EA dated 09/11/2018.

2. G.O. (P) No. 19/2019/P&EA dated 23/05/2019.

3. Minutes of the 5th HLEC meeting held on 06/07/2019.

4. G.O. (Ms.) No. 25/2019/P&EA dated 13/08/2019.

5. Minutes of the 6th HLEC meeting held on 11/10/2019.

<u>ORDER</u>

In the aftermath of the flood of 2018, the Rebuild Kerala Initiative (RKI) has been entrusted with the task of planning and implementing a rebuilding strategy for the state as per the G.O. read as 1st paper above. As per the G.O. read as 2nd paper above, the Government had approved the Rebuild Kerala Development Programme (RKDP) which constitutes the State's strategic road map for a Green and Resilient Kerala. It encompasses cross-cutting and sector based recommendations on policy, regulatory and institutional actions as well as priority investment programmes that are critical for resilient and sustainable recovery and rebuilding of the state. The G.O. read as 1st paper above, also details the operational strategy and institutional framework which deals with deployment and utilization of funds for speedy execution of projects under RKI. The Institutional Framework of RKI is governed through:

- Council of Ministers
- Advisory Council
- High Level Empowered Committee (HLEC)

• RKI Implementation Committee (RKI-IC)

2. As per the operational guidelines and framework of RKI, it has been provided that the HLEC shall approve the project profiles submitted to it by the RKI-IC for placing before the Council of Ministers.

3. The Forest & Wild Life Department submitted the following project proposals with an estimated requirement of funds to the tune of ₹800 crore from the RKI. The proposals submitted by the Forest & Wild Life Department were placed before the HLEC in its meeting held on 06/07/2019. The estimated requirement of funds for the financial year 2019-20 is ₹130.40 crore.

| Project Name | Total Approved Outlay (in Rs. crore) | Amount for 2019-20 (in Rs. crore) |
|---|---|---|
| Relocation of private settlements from forests | 291.96 | 105.9176 |
| Acquisition of private estates from within forest areas | 385.31 | 18.8000 |
| Consolidation of mangroves | 120.00 | 5.14000 |
| Feasibility Study and Scoping studies | 5.98 | 0.54600 |
| Grand Total | 800.00 | 130.406 |

4.The HLEC, as per the minutes read as 3rd paper above, approved the project proposals and the same was placed before the Council of Ministers for consideration. As approved by the Council of Ministers, in-principle sanction was accorded for taking up of the project under RKI as per the G.O. read as 4th paper above. Consequently, the Forest & Wild Life Department submitted the Detailed Project Report in this regard.

5. Following are the salient features of the project.

Introduction:

There is enough evidence to show that Kerala is on the brink of a serious ecological crisis and urgent measures are needed to restore the situation. Consolidation of Kerala's forests and improving their functional capacity is going to be crucial in this regard. A well-preserved forests could retain excess rainwater, prevent extreme run-offs and reduce the damage from flooding. They can also help mitigate the effects of

droughts. They could regulate ecosystems, protect biodiversity, play an integral part in the carbon cycle, support livelihoods, and supply goods and services that can drive sustainable growth.

Forest fragmentation is a common consequence of human activities with impacts on habitat connectivity, tree dynamics, microhabitat conditions, and biodiversity. It results in changes in surface albedo, evapotranspiration and cloud cover, affecting the regional and global climate. Forest fragmentation also modifies canopy gap formation and dynamics. Forest habitat fragmentation resulted in critical loss of biodiversity affecting key ecosystem functions such as carbon and nutrient cycling, trophic interactions, and pollination which in-turn could result in altered hydrological cycle.

The ill-effects of forest fragmentation can be reduced by managing the issue in a flexible manner, adapted to local circumstances and would be approached as a social, as well as a technical issue, since natural disasters negatively affect human safety, and at a broader level with social, economic and political implications. Even though, the project per se may not be a revenue generating one, the indirect non-tangible outcomes would have far-reaching positive impacts on the social and economic implications of Kerala and the region in the years to come. The project would be addressing the larger issue of arresting forest fragmentation and consolidating the forest cover by focusing on the following activities.

- 1. Relocation of private settlements from forests
- 2. Acquisition of private estates from inside the forests
- 3. Consolidation of mangroves
- Feasibility study on swapping the habitations of Forest dwelling Communities as a Strategy for Mitigating Human-Wildlife Conflict, Disaster-Risk Reduction and Improving Access to Livelihoods & Welfare Measures.

Apart from the above four components, as part of the initiative, two scoping studies viz. (a) "Scoping Study to Develop People-Inclusive Livelihood- Based Governance Strategy for the Long-Term Conservation of Mangrove Forests of Kerala", and (b) "Scoping Study to Assess the Hydrological Services Provisioned by the Forest Ecosystems of Kerala" are also proposed.

Goal: The overall goal of the project is to consolidate the forested habitats of Kerala through relocation of private settlements inside forest areas to outside, acquisition of private estates within forest areas, consolidation of mangroves so as to arrest forest degradation and maximize the effectiveness of forest management and increased provisioning of ecosystem goods and services while alleviating human-wildlife conflict, improving climate resilience and disaster risk reduction for people living in such enclosures, at the same time providing better opportunities for fulfilling the developmental aspirations of people outside forest areas.

Objectives of the project are given under:

1. To reduce disaster-risk vulnerability and increase climate resilience for people living inside forest enclosures by relocating them to outside forest areas or to the periphery.

2. To increase the development prospects for people living inside forest enclosures (who have been deprived of development opportunities) by relocating them to outside forest areas or to the periphery.

3. To improve quality of intact, fragment-free, forest habitats for wild animals by vacating forest enclosures (human settlements/villages/private estates/leased out areas) and rationalizing Protected Areas' boundaries.

4. To reduce human-wildlife conflict in forest enclosures by relocating them to outside forests or rehabilitating them from the core to the periphery.

5. To understand the feasibility of swapping of habitations of forest dwelling communities as a strategy for mitigating human-wildlife conflict, disaster-risk reduction and improving access to livelihoods & welfare measures.

6. For increased shoreline stabilization, ground water recharge, flood and flow control, sediment and nutrient retention, habitat protection and biodiversity biomass and carbon sequestration, acquisition and consolidation of mangroves would be carried out.

COMPONENTS PROPOSED IN THE PROJECT:

Component 1 - Relocation of private settlements:

The relocation of settlements from inside forests to outside entails payment of adequate compensation. This compensation shall be the on the lines of the relocation package approved by NTCA for the voluntary relocation from Tiger Reserves.

For "Relocation of private settlements from forests", it is proposed to have voluntary relocation, wherein an amount of ₹15 lakh would be given to each eligible family, as is being carried out in the Central Government approved NTCA model of voluntary relocation projects. (At present, the NTCA model provides ₹10 lakh per family whereas in the present scenario, an additional ₹5 lakh is also proposed considering the cost escalation. Further, the norm of eligible family would as per the relocation currently being done in Wayanad Wildlife Sanctuary).

The details of the human settlements proposed for relocation are as given under:

"Family includes a person, his/her spouse, minor sons and daughters, minor brothers, sisters, father, mother and other relatives residing with him/her and dependent on him/her for their livelihood".

The following persons will be treated as separate families, even if they currently live together with other relatives.

- 1. Major son/daughter (over 18 years) irrespective of his marital status
- 2. Sister more than 18 years of age
- 3. Physically and mentally challenged person irrespective of age and sex.
- 4. Minor orphan who has lost both his/her parent
- 5. A widow or a woman divorcee

The details of the human settlements proposed for relocation are as given under:

| SI. No | Division | Name of settlement | Total Extent (Ha.) | Total Number of families | No of eligible families | Total amount required (in lakh) | Remarks | | |
|-----------|------------------------|---------------------------|--------------------------|--------------------------------|-------------------------------|--|--|--|--|
| Α | | Protected Area | | | | | | | |
| 1 | Shenduruny Wildlife | Rosemala | 99.15 | 204 | 344 | 5160.00 | The total area of the settleme nt is 169.90 ha and total eligible families are 344 who are willing to move out (Proporti onate area of 99.15 ha). | | |
| | | Kattilappara | 11.60 | 33 | 54 | 810.00 | | | |
| | | Total | 110.75 | 237 | 398 | 5970.00 | | | |
| В | | Outs | side Pro | tected Are | a | - 4 | | | |
| 2 | Marayoor | Puthuvettu | 5.30 | 15 | 23 | 345.00 | | | |
| | | Edakkadu SC Colony | 11.40 | 17 | 26 | 390.00 | | | |
| | | Edakkadu Colony | 1.86 | 21 | 32 | 480.00 | | | |
| | | Karadi china para | 45.66 | 12 | 18 | 270.00 | | | |
| | | Punavayal | 13.09 | 20 | 30 | 450.00 | | | |
| | | Kundakkadacu | 1.41 | 7 | 11 | 165.00 | | | |
| | | Total | 78.72 | 92 | 140 | 2100.00 | | | |
| 3 | North Wayanad | Pancharakolly | 0.81 | 1 | 2 | 30.00 | | | |
| | | Maniankunnu | 1.37 | 1 | 2 | 30.00 | | | |
| | | Kalliyottukunnu | 1.21 | 1 | 2 | 30.00 | | | |
| | | Kalliyottukunnu | 0.81 | 1 | 2 | 30.00 | | | |
| | | CRP Kunnu | 6.86 | 47 | 70 | 1050.00 | | | |
| | | Muriyanthadam | 0.81 | 1 | 2 | 30.00 | | | |
| | | Total | 11.87 | 52 | 80 | 1200.00 | | | |
| 4 | Kasargod | Kaneri | 2.25 | 1 | 2 | 30.00 | | | |
| | | Karadukka, Kottamkuzhy | 0.30 | 3 | 5 | 75.00 | | | |
| | | Adoor | 1.10 | 2 | 3 | 45.00 | | | |

| SI. No | Division | Name of settlement | Total Extent (Ha.) | Total Number of families | No of eligible families | Total amount required (in lakh) | Remarks |
|-----------|----------|-----------------------|--------------------------|--------------------------------|-------------------------------|--|---------|
| | | Muchaamthully | | | | | |
| | | Ottamala | 1.25 | 4 | 6 | 90.00 | |
| | | Thumbadukka | 2.00 | 4 | 6 | 90.00 | |
| | | Kamballur | 5.00 | 16 | 24 | 360.00 | |
| | | Vallakkadu | 2.70 | 3 | 5 | 75.00 | |
| | | Balavathadukka | 2.43 | 5 | 8 | 120.00 | |
| | | Total | 17.03 | 38 | 59 | 885.00 | |

Abstract of the Relocation of Private Settlements from Forests is given under.

| SI No | Division | Extent (Ha) | Total number of Families | Eligible families | Total Amount required (in Rs. lakh) |
|----------|---------------------------|----------------|--------------------------------|----------------------|--|
| Α | Protected Areas | | | | |
| | Shenduruny | 110.75 | 237 | 398 | 5970.00 |
| В | Outside Protected Area | | | | |
| | Marayoor | 78.72 | 92 | 140 | 2100.00 |
| | North Wayanad | 11.87 | 52 | 80 | 1200.00 |
| | Kasargod | 17.03 | 38 | 59 | 885.00 |
| | Total | 218.37 | 683 | 677 | 10155.00 |
| | Restoration cost @Rs.2.00 | lakh/ ha | | | 436.76 |
| | | | | Grand Total | 10591.76 |

Component 2 - Acquisition of private estates from within forest areas:

The details of the private estates proposed for acquisition with the extent and valuation by Revenue Authorities in Silent Valley NP and North Wayanad Divisions are given below:

| Division | Name of the Estates/ enclosures | Extent (Ha) | Survey Number | Total number of Owners | Market value / Are (lakh) | Total value (lakh) |
|------------------|--|----------------|-------------------------------------|---------------------------------|------------------------------------|--------------------------|
| Silent Valley | Noor Acre EP Estate | 40.469 | 1959/pt (Palakkaya m Village) | 8 | 0.08 | 323.7520 |
| | Mannarkkad Rubber Estate | 101.174 | 185/1 (Mannarkkad) | 1 | 0.13832 | 1399.1908 |
| North Wayanad | Malanthottam- Thirunelli Estate | 6.8804 | | | | 118.9600 |

| Division | Name of the Estates/ enclosures | Extent (Ha) | Survey Number | Total number of Owners | Market value / Are (lakh) | Total value (lakh) |
|----------|--|----------------|------------------|---------------------------------|------------------------------------|--------------------------|
| | Edayoor Thirunelli Estate Bit-1 | 0.226 | | | | 13.9900 |
| | Edayoor Thirunelli Estate Bit-2 | 2.9293 | | | | 21.7000 |
| | Edayoor Thirunelli Estate Bit-3 | 0.3561 | | | | 2.6387 |
| | Sub Total | 141.643 | | | | 1880.2315 |

Component 3 - Consolidation of mangroves:

Mangrove forests are vital coastal ecosystems dotting the seascape-landscape interphase which is the primary barrier against rising storm surges, coastal erosion, absorption of flood waters etc. They are also the major breeding grounds of marine fishery stock and hence play key role in regional economy. At the beginning of the 20th century, Kerala had extensive area under mangroves (100 km²) which is now reduced to just 21.12 km² in ten districts. So far, government has accorded legal protection for 4.40 km² area of mangroves only. The ownership of the remaining mangroves is with revenue, other departments, panchayats and private individuals. There is a need to protect them too.

Financial outlay required for the financial year 2019-20 - 35.14 crores. The details are as follows:

| SI No | District | Taluk | Village | Locatio n | Sy. No. | Appr ox. Exte nt in Ha | Cost Propo sed (In Iakhs) |
|----------|------------|-------|----------|-------------------|------------|------------------------------------|---------------------------------------|
| 1 | | Tirur | Mangalam | Pullooni Bit 1 | 111/ 1 | 1.46 | 14.60 |
| 2 | Malappuram | | Mangalam | Pullooni Bit 2 | 111/ 1 | 1.62 | 16.20 |

| SI No | District | Taluk | Village | Locatio n | Sy. No. | Appr ox. Exte nt in Ha | Cost Propo sed (In Iakhs) |
|----------|----------|------------------|---------------------|-------------------|--|------------------------------------|---------------------------------------|
| 3 | | | Mangalam | Pullooni Bit 3 | 112 | 1.18 | 11.80 |
| 4 | | | Mangalam | Pullooni Bit 4 | 112 | 1.18 | 11.80 |
| 5 | | | Mangalam | Pullooni Bit 5 | 112 | 1.42 | 14.20 |
| 6 | | | Vallikkunnu | Anayara ngadi | 263/ 3 | 1.21 | 12.10 |
| 7 | | | Vallikkunnu | Heros Nagar | 25/3 | 0.81 | 8.10 |
| 8 | | | Vallikkunnu | Keezha yil | 264/ 4 | 0.4 | 4.00 |
| 9 | | Kannur | Eezhom | | | 0.35 | 3.52 |
| 10 | Kannur | Kannur | Eezhom | | 66/3, 66/2, 65/4, 65/3, 68/3 | 0.33 | 3.324 |
| 11 | | Kannur | Kannadippa rambu | | 16/1 | 1.00 | 10.00 |
| 12 | | Kannur | Cherukunn u | | 80/1 | 2.00 | 20.00 |
| 13 | | Kannur | Cherukunn u | | 434/ 1 | 0.36 | 3.642 |
| 14 | | Kannur | Panninisser i | | 206/ 1 | 1.05 | 10.521 |
| 15 | | Thalass ery | Dharmada m | | 66/1 | 1.00 | 10.00 |
| 16 | | Thalass ery | Dharmada m | | 66/1 | 1.00 | 10.00 |
| 17 | | Thalass ery | Dharmada m | | 66/1 | 1.00 | 10.00 |
| 18 | | Kannur | Narathu | | 190/ 1 B1 | 0.10 | 1.0117 |
| 19 | | Payyan nur | Eezhom | | 63/1 4 | 0.22 | 2.2257 |
| 20 | | Talasser y | Talassery | | 17/2 A | 0.05 | 0.48 |
| 21 | | Talippar ambu | Talipparam bu | | 80/3 | 2.50 | 25.00 |
| 22 | | Talippar ambu | Mayyil | | 234/ 5 | 0.14 | 1.416 |

| SI No | District | Taluk | Village | Locatio n | Sy. No. | Appr ox. Exte nt in Ha | Cost Propo sed (In Iakhs) |
|----------|----------|------------------|------------------|------------------|------------|------------------------------------|---------------------------------------|
| 23 | | Talippar ambu | Morazha | | 22 | 2.15 | 21.538 |
| 24 | | Talippar ambu | Morazha | | 72 | 0.30 | 3.035 |
| 25 | | Talippar ambu | Morazha | | 22 | 0.17 | 1.68 |
| 26 | | Talippar ambu | Morazha | | 30/3 | 0.76 | 7.648 |
| 27 | | Talasser y | Andalloor | | 46 | 2.50 | 25.00 |
| 28 | Kollam | Kollam | Mandroturut h | Pattamt uruth | | 15.70 | 157.00 |
| 29 | | Chavak kad | Venmanadu | | 2/1 | 2.36 | 23.576 |
| 30 | | Chavak kad | Venmanadu | | 3 | 3.48 | 34.80 |
| 31 | | Chavak kad | Venmanadu | | 4/1 | 0.75 | 7.466 |
| 32 | | Kodung alloor | Pullut | | 388/ 4 | 0.86 | 8.60 |
| 33 | Thrissur | Kodung alloor | Pullut | | 388/ 5 | 0.57 | 5.747 |
| 34 | | Kodung alloor | Pullut | | 388/ 7 | 0.11 | 1.052 |
| 35 | | Kodung alloor | Pullut | | 388/ 16 | 0.48 | 4.755 |
| 36 | | Kodung alloor | Pullut | | 388/ 16 | 0.42 | 4.249 |
| 37 | | Kodung alloor | Pullut | | 388/ 19 | 0.40 | 4.04 |
| | | TOTAL | | | | 51.41 | 514.13 |

Component 4: Feasibility studies:

Following studies are proposed to be taken up as part of the project.

| No | Name of the study | Total cost (Rs. In crores) | Estimate for 2019-20 (Rs Crore) |
|----|---|----------------------------------|---------------------------------------|
| 1 | Feasibility study on Swapping the Habitations of Forest-Dwelling Communities as a Strategy for mitigating Human-Wildlife Conflict, Disaster–risk reduction and improving access to livelihoods & welfare measures | | 0.221 |
| 2 | Scoping study to Develop people inclusive livelihood-based governance strategy for the long-term conservation of mangrove forests of Kerala | 1.64 | 0.164 |
| 3 | Scoping study to access the hydrological services provisioned by the forest ecosystems of Kerala: | 1.61 | 0.161 |
| | Total | 5.98 | 0.546 |

- Feasibility study on Swapping the Habitations of Forest-Dwelling Communities as a Strategy for mitigating human-wildlife conflict, Disaster – risk reduction and improving access to livelihoods & welfare measures: Objectives:
 - 1. To map the geographical location of all the tribal settlements of Kerala.
 - 2. To assess the impact of flood and other climate change induced natural disasters on the tribal settlements of Kerala along with suggestive measures to mitigate it.
 - To map the current status of demography and Human Development Indices (HDI) of all the tribal settlements of Kerala with focus on their access to health, education, justice, development and other welfare measures, status of implementation of the Forest Rights Act.
 - 4. To understand the current level of human wildlife conflict (WHC) in the tribal settlements of Kerala.
 - 5. To understand and document the willingness of tribal communities for swapping the interior dwelling places to more suitable areas within the forests as a strategy to mitigate HWC, disaster risk-reduction and improving access to development & welfare measures.

- 6. To prepare a list of tribal settlements where there is willingness and requirement to move from interior to more suitable areas within the forests as a strategy to mitigate HWC, disaster risk-reduction and improving access to development & welfare measures.
- 7. To identify suitable alternate habitations inside the forests for those tribal communities who are willing to shift and where there is a need to do so.
- 8. To work out the modalities of appropriate rehabilitation package (financial, legal, infrastructural, administrative requirements etc.) for those settlements which are willing to move from interior to other suitable forest areas.
- 9. To prepare a strategy for post-rehabilitation hand-holding of tribal settlements.
- 10. To prepare detailed settlement-wise rehabilitation plans wherever the communities wish to move out and where there is a requirement.
 - 11. To carry out detailed settlement-wise social, ecological, cultural and financial impact assessment of swapping the habitations of forest dwelling communities in Kerala as a strategy for mitigating human wildlife conflict, disaster-risk reduction and improving access to livelihoods & welfare measures and suggest measures to mitigate any potential risks and threats.

| SI No | Component | Unit cost | Total Cost (Rs in lakh) |
|----------|--|------------------------|----------------------------|
| 1 | Professional fees to Consulting | 1. Professionals – | |
| | Agency (Team include Team | Rs.4.00 lakh x 24 | |
| | Leader, | months - Rs.96.00 lakh | 186 |
| | Sociologists, Economists, | 2. Field Workers – | 100 |
| | Ecologists, GIS specialists, Field | 50 No x Rs.15000 x 12 | |
| | Workers etc.) for two years | months – Rs.90.00 lakh | |
| 2 | Conducting Inception workshop (1 | 1. Workshops at HQ – | |
| | No), six monthly review | 5 No. x Rs.1.00 lakh | |
| | workshops | – Rs. 5.00 lakh | |
| | at HQs (3 no), Final workshop (1 | 2. Regional and | 55 |
| | no.), Regional and settlement | settlement-wise | - 55 |
| | wise meetings (1000 no.) | meetings – 1000 | |
| | | no. x Rs.5000 – | |
| | | Rs.50.00 lakh | |
| 3 | Travel cost | Rs. 25.00 lakh | 25 |
| 4 | Preparation and Printing of Reports | Rs.7.00 lakh | 7 |
| | Grand Tot | al | 273.00 |

Financial forecast of the study will be as given under:

Financial cost for the current year (2019-20) will be ₹22.10 lakh

2. Scoping study to Develop people inclusive livelihood-based governance strategy for the long-term conservation of mangrove forests of Kerala:

Objectives of the proposed study are as given under:

- 1. To map the geographical location of mangrove forests of Kerala in GIS domain.
- 2. To assess the role of mangroves in mitigating flood and other climate change induced natural disasters along Kerala coast.
- 3. To assess the total economic value of ecosystem services the mangroves of Kerala.
- 4. To work out a detailed institutional arrangement for the long-term conservation of mangrove forests of Kerala in particular and coastal and marine environment in general.
- 5. To carry out detailed region-wise social, ecological, cultural and economic impact assessment of acquisition as a strategy for conserving mangroves and suggest measures to mitigate any potential risks and threats.
- 6. To estimate the carbon sequestration potential of mangroves of Kerala
- 7. To document the current status of mangrove forests (species composition, threat perspective, ownership status etc.) of mangrove forests of Kerala.
- 8. To understand and document the social, ecological, cultural, economic, climate change mitigation and livelihood services provided by mangroves in Kerala.
- 9. To prepare a categorized inventory of various tenurial systems (government owned, Forest department owned, private owned etc.) of mangroves forests of Kerala.
- 10.To suggest potential areas and strategies of eco-restoration of mangrove forests in Kerala.
- 11.To develop appropriate livelihoods strategies for people living in and around the mangroves.
- 12.To prepare a compendium of best practices on resource-based conservation of mangrove forests from across the world that has potential replication value for Kerala.

- 13.To work out a detailed institutional arrangement for the long-term conservation of mangrove forests of Kerala in particular and coastal and marine environment in general.
- 14.To carry out detailed region-wise social, ecological, cultural and economic impact assessment of acquisition as a strategy for conserving mangroves and suggest measures to mitigate any potential risks and threats.

Financial forecast of the study will be as given under:

| SI No | Component | Unit cost | Total Cost (Rs in lakh) |
|-------|--|--|--------------------------------|
| 1 | Professional fees to Consulting Agency (Team include Team Leader, Sociologists, Economists, Ecologists, GIS specialists, Field | Professionals – Rs.4.00 lakh x 24 months - Rs.96.00 lakh Field Workers – 20 no xRs.15000x 12 | 132 |
| | Workers etc.) for two years Conducting Inception workshop | months – Rs.36.00 lakh 1. Workshops at HQ – 5 No. x Rs.1.00 lakh – Rs. 5.00 | |
| 2 | (1 No), six monthly review workshops at HQs (3 no), Final workshop (1 no.), Regional and settlement wise meetings (100 no.) | lakh 2. Regional and settlement-wise meetings – 100 No. x Rs.5000 – Rs.5.00 lakh | 10 |
| 3 | Travel cost | Rs. 15.00 lakh | 15 |
| 4 | Preparation and Printing of Reports | Rs.7.00 lakh | 7 |
| | | Grand Total | 164 |

Financial cost for the current year (2019-20) will be ₹16.40 lakh

3. Scoping study to access the hydrological services provisioned by the forest ecosystems of Kerala:

Objectives of the proposed study will be as given under:

1.To quantify the hydrological services (water yield, retention, sustained supply etc) provided by various forest types of Kerala (evergreen, semi evergreen, moist deciduous, dry deciduous, shola-grasslands, Myristica swamps, mangroves etc.).

2. To assess and quantify the hydrological services provided by the forests of Kerala under varying degrees of disturbance (intact forests, plantations, fire-affected forests, degraded forests, grazing prone forests etc.).

3. To assess and quantify the hydrological services provided by the forests of Kerala under various governance arrangements (Protected Areas, Territorial forests, Community Conserved Areas, areas under the Joint Forest Management etc.) Financial forecast of the study is as follows:

| SI.No. | Component | Unit cost | Total Cost (Rs lakh) |
|--------|--|---|-------------------------|
| 1 | Professional fees to Consultants for three years | 3. Professionals – Rs.2.00 lakh X 36months - Rs.72.00 lakh 4. Field Workers – 10 No X Rs.15000 X 24 months – Rs.36.00 lakh | 108 |
| 2 | Conducting Inception workshop (1 no), six- monthly review workshops at HQs (5 no), Final workshop (1 no.) | 3. Workshops at HQ – 7 No. X Rs.1.00 lakh – Rs.7.00 lakh | 7 |
| 3 | Cost of equipment (GPS, GIS Software, Computers etc.) | 1 Unit – Rs.15.00 lakh | 15 |
| 4 | Travel cost | Rs. 25.00 lakh | 25 |
| 5 | Preparation and Printing of Reports | Rs.6.00 lakh | 6 |
| | | Total | 161 |

Fund requirement for the current year (2019-20) -Rs.16.10 lakh

Out of the above studies, those mentioned at SI.No.1&2 above will be awarded to an agency with requisite qualifications and expertise through an open, competitive evaluation process through the PMU. The monitoring and evaluation shall also be undertaken by the PMU through a competent agency. The overall period of the study shall be two years from the date of signing the contract.

With respect to the study at SI.No.3, the study will be carried out through Centre for Water Resources Development and Management (CWRDM), Calicut (under the

Kerala State Council for Science, Technology & Environment) which has the requisite domain expertise to carry out this study.

PROJECT MANAGEMENT ORGANISATION :

(Institutional Arrangements for implementing the projects)

A 3-tier structure viz. a State Level Empowered Committee (SLEC), Project Monitoring Unit (PMU) and Regional Committees (RCs) with appropriate staffing will be put in place to monitor the implementation of the projects. In case of acquisition of private estates and mangroves from private owners the normal land acquisition procedure or Section 4(1) of EFL Act, 2003 shall be followed.

CONTRACT MANAGEMENT STRATEGY

The project components will be implemented following all relevant rules and procedures. No variation from the standard procedures and as approved by the HLEC/SLEC is envisaged. However, if there is any unforeseen deviation during the implementation phase, necessary orders from competent authorities would be taken before proceeding further. The institutional arrangement shall be as per the three tier structure approved in the DPR.

IMPLEMENTATION SCHEDULE & WBS

The project would be implemented in three phases.

Phase 1: **Year 1 (1 Year) -** Initiation Phase consisting of detailed study of the area, formation of various committees at different levels, interaction with beneficiaries etc.

The proposed activities during Phase 1 are as follows:

A baseline data collection would be carried out during Phase 1 (Initiation Phase). This could include a re-check and a reconnaissance Ground survey, collection of flora/fauna diversity details in the areas proposed for acquisition, a re-check on Socio-economic assessment of the people in project area, preliminary scrutiny of the legal status of land to be acquired and consolidated, securing permission/ consent from land owners/villagers and conduct basic study and prepare report for follow-up course of action on how to recuperate the area.

There could be an overlapping of activities proposed in Phase I and Phase II and acquisition procedures could be initiated in the first year itself, since this project is implemented in a fast track mode.

Phase 2: Year 2 to Year 4 (3 Years) - Implementation Phase

The proposed activities during Phase 2 are as follows:

Fixing price/ suitable package for each parcel of land, acquisition procedures including payment, title transfer mutation etc., taking over the secured land and issuing reserve notification

Phase 3: Year 5 to Year 7 (3 Years)- Follow up Action The proposed activities during Phase 3 are as follows:

Follow-up steps to recuperate the area, monitoring the secured land, assessing the socio-economic conditions of relocated villagers, if any and conduct study on changes in wildlife movement in secured areas, a comparison study on wildlife movement and changes in flora/fauna before and after acquisition of land and protecting the area.

| Phase | Duration | Year of Implementation |
|--------------------------------|----------|------------------------|
| Phase 1 (Initiation Phase) | 1 year | 2019-20 |
| Phase 2 (Implementation Phase) | 3 years | 2020-21 to 2022-23 |
| Phase 3 (Follow-up Phase) | 3 years | 2023-24 to 2025-26 |

STATUTORY CLEARANCES:

Statutory clearances/approvals, price fixation and acquisition procedures (as per relevant Acts and rules) will be followed regarding acquisition/relocation of private settlement and acquisition of private estates/mangroves. Apart from this, all mandatory clearances from relevant departments would be obtained as per rules in force.

6. The HLEC of RKI in its meeting held on 11/10/2019 has approved the Detailed project Report as detailed above and accorded sanction to issue Administrative Sanction for the same.

7. In the circumstances the Government are pleased to issue Administrative sanction for the implementation of the Project with the components as detailed in the above mentioned paras under the Rebuild Kerala Initiative by sourcing funds from the World Bank's Development Policy Loan. The expenditure shall be limited to ₹130.406 crore (Rupees One Hundred and Thirty Crore Forty Lakh only) during

the financial year 2019-20. Expenditure in this regard will be debited to the budget provision under H/A 5475-00-115-94-Post flood Projects under Rebuild Kerala Initiative (P).

By order of the Governor, Dr. VENU V. PRINICIPAL SECRETARY

То

The Principal Chief Conservator of Forests & HoFF The Principal Accountant General (A&E/ Audit), Thiruvananthapuram Information & Public Relations(Web & New media) Department (for publishing in the Govt. Website) Forest &Wild Life Department Finance Department SF/Office Copy [File No.RKI1/120/2019-PLGEA]

Forwarded/ By Order,

Section Officer

Copy to:

Additional Chief Secretary, Forest & Wild life Department Special Secretary to Chief Secretary. All members of HLEC and RKI-IC.