



GOVERNMENT OF KERALA

Abstract

Planning and Economic Affairs (RKI) Department – Project proposals of Kerala State Biodiversity Board -implementation -Administrative Sanction accorded – Orders issued.

PLANNING & ECONOMIC AFFAIRS (RKI) DEPARTMENT

GO (Rt.) No. 507/2019/P&EA

Thiruvananthapuram, Dated 02/12/2019

- 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. Minutes of the 6th HLEC meeting held on 11/10/2019.
5. G.O. (Ms) No. 28/2019/P&EA dated 15/11/2019.
6. Minutes of the 7th HLEC meeting held on 21/11/2019.

ORDER

In the aftermath of the flood of 2018, 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, 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 as follows:

- 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 Kerala State Biodiversity Board submitted the following project proposals to the tune of ₹500 lakh from the RKI.

Sl. No.	Project Name	Total Approved Outlay (in ₹ lakh)	Amount for 2019-20
1	Database of trade able/commercially potential bio-resources	100	100
2	Riverine Biodiversity Rejuvenation	200	200
3	Conservation of Agrobiodiversity	200	200
	• Grand Total	• 500	• 500

4. The proposal was placed before the HLEC in its meeting held on 11/10/2019. The HLEC, as per the minutes read as 4th paper above, approved the proposal, 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 5th paper above. The HLEC, in its meeting held on 21/11/2019, the minutes of which read as 6th paper above, accorded sanction to issue Administrative Sanction for the projects. (Details of the projects approved by the HLEC is attached as **Annexure** to this order).

5. In the circumstances, the Government are pleased to accord Administrative sanction for the implementation of the projects mentioned in *para 3* above, at an estimated cost of ₹500 lakh(Rupees Five hundred lakh only) under the Rebuild Kerala Initiative, by sourcing requisite funds from the Development Policy Loan. The expenditure shall be limited to ₹500 lakh during the financial year 2019-20. The expenditure in this regard will be debited to the head of accounts "5475-00-115-94-Post flood Projects under Rebuild Kerala Initiative (P)".

6. KSBB shall formulate an effective monitoring mechanism for the timely completion of the projects. All mandatory clearances from relevant departments shall be obtained wherever applicable . All procurements as part of implementation of the projects shall be done in a fair and transparent manner in accordance with the rules in force.

7. The projects shall be completed within a period of one year.

**By order of the Governor,
Dr. VENU V.
Principal Secretary to Government**

To:

The Chairman, Kerala State Biodiversity Board, Thiruvananthapuram.

The Member Secretary, Kerala State Biodiversity Board, Thiruvananthapuram.

The Principal Accountant General (A&E/ Audit), Thiruvananthapuram.

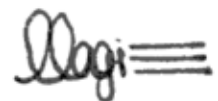
Finance Department.

Environment Department.

Information & Public Relations (Web & New Media) Department (for publishing in Government website)

Stock File/Office Copy [F.No.RKI2/120/2019-PLGEA]

Forwarded/ By Order,



Section Officer

Copy:

The Principal Secretary, Environment Department.

Special Secretary to Chief Secretary.

All members of HLEC and RKI-IC.

Introduction:

Biodiversity conservation is the key to a sustainable ecosystem. Kerala has a rich biodiversity as it is the home to numerous economically important plants and marine species. Indiscriminate exploitation of biodiversity, due to the increasing demand for the biological resources and the problem of bio-piracy. Thus a scientific study of the ecosystem services provided by multiple species, riverine biodiversity and conservation of agro-biodiversity are beneficial.

PROJECT 1:- DEVELOPING A DATABASE OF TRADABLE/COMMERCIALY POTENTIAL BIORESOURCES AND THEIR ECONOMIC VALUATION

The project would aim to document the information on traded bio-resources in the 14 districts of Kerala and aim to put in place an institutional framework for implementation of ABS in Kerala and regulation of unsustainable harvesting of bioresources.

Objectives:-

To estimate the current utilization of biological resources (plants, animals, microorganisms in marine, freshwater and terrestrial ecosystems) by industries (both domestic market and export) in Kerala and their threat status.

2. To examine the current Central and State regulations and policies relevant to commercial utilization of bioresources along with the details on the implementing agencies and their role.
3. To identify various local, regional, state level, national and international agencies involved undertaking biosurvey, bioresearch and commercial utilization of bioresources.
4. To propose species of commercial importance and of conservation value for notification under section 38 of Biodiversity Act in order to regulate collection
5. To delineate market linkage between primary harvesters, middlemen and value addition by industries for Species of Interest.
6. To propose necessary changes in the practices and regulatory mechanism in order to promote long-term sustainability of priority species
7. To develop mechanism to implement the Biological Diversity Act, 2002 and Access and Benefit Sharing Provisions in the sector.
8. Capacity Building for stakeholders

Study Area

The study area extends to all the districts of Kerala. Efforts will be made to capture the unique bio-resources found in various geographical regions. All the

industries/ traders using the wild as well as domesticated bioresources need to be surveyed and linkages have to be established for the bioresources which are being procured from the local bodies and vice versa. The major stakeholders include industries utilizing bio-resources; government sectors including agriculture, fisheries; the private sector; and academia.

Methodology

Random sampling, bioresources traded by different organisations will be collected, information gathered through focussed discussions with elderly people, medical practitioners, youth, women and middle men, interaction with traditional healers, visits will be made to market places at various levels and interactions with middle men, traders, and representatives of registered companies buying identified bio-resources and various stakeholders (during data collection).

Also, product-wise procurement data related to NTFP/MAPs/ Agriculture produce/ Marine bioresources etc. will be collected. In addition to this, visits will be made to market places at various levels and interactions with middle men, traders, and representatives of registered companies which are:

- i. District level officers of the departments associated with promotion and management of bio-resources (like agriculture, horticulture, fishery, animal resources, forestry etc.)
- ii. Trade bodies and some representative traders in the districts
- iii. Industry representatives
- iv. Representatives of the relevant Directorates and various state level Councils/Promotion Agencies.
- v. Individuals and experts for gathering and also validating information received from other sources

Major Activities

I. Developing database on biological resources of commercial importance

In order to make the collection of Non-Wood Forest Produce in a more authorised manner and to ensure the equitable sharing of benefits with the collectors as envisaged in Biodiversity Act 2002, data on trade network and value chain is necessary.

The major activities under this component are:

1. Identify various bioresources / plants/ animals/ microorganisms etc which are traded/ utilized for commercial purposes and their threat status based on primary and secondary data.
2. Identify various local, regional, state level, national and international agencies involved undertaking biosurvey, bioresearch and commercial utilization of bioresources.

3. Identification of the nature of trade , market within India or export, or both and assess trade volumes and values.
4. Documenting the manner of utilization of bioresource, eg direct use, value added product, used in manufacturing process for development of a product or combination of all these.
5. Identification of the value chain.
6. Document the ABS potential of tradable bioresources such as plants, animals, microbes, insects etc., their products and their possible commercial use.

II. Prioritizing species of conservation value and benefit sharing

For determining real value of biodiversity/ecosystem goods is a fundamental step towards determining the real value of bio-resources, and operationalizing the ABS provisions focus is given to the following components:

1. Development of tools, methodologies, guidelines, frameworks for implementing ABS provisions of the Biological Diversity Act.
2. Delineate market linkage between primary harvesters, middlemen and value addition by industries for Species of Interest.
3. Develop database of bioresources of conservation value utilized commercially

Scope of the Project

Major resources to be covered under this process of documentation are:

- 1) Agricultural crop plants including trees under farm forestry
- 2) Fruit plants
- 3) Fodder crops
- 4) Medicinal plants,
- 5) Ornamental plants
- 6) Microbial diversity
- 7) Wildlife
- 8) Livestock
- 9) Fish
- 10) Any other bioresources and their products available in the district.

Sl. No	Components	Budget (₹ in lakhs)
1	Creation of Database of tradable/ economically potential marine and coastal bioresources with special focus on important bioresources accessed from different coastal areas	60.00
2	Database of tradable / economically potential bioresources of fresh water ecosystem with special focus on important bioresources accessed from specific panchayats	15.00
3	Database of tradable / economically potential	20.00

	bioresources of terrestrial ecosystem with special focus on important bioresources accessed from specific panchayats	
4	Project monitoring cost including review meetings/field visits/ contingency	5.00
Total		100 .00

Deliverables

The deliverables of the study are:

A detailed plan of action with a detailed framework of activities, methodology to be applied, schedule etc on award of the study; a half-yearly report of the study (6 months); final report along with outputs generated on project completion; other relevant document in digital and/or hard copy as appropriate, printed matter, training materials, handbooks, publications, datasheets with related analysis, etc.

PROJECT 2:- CONSERVATION OF AGRODIVERSITY

Introduction

In Kerala, a wide range of local landraces of crops is available showing variability for different characters such as duration (long, medium and short), grain size (big, medium and slender), season, landscape (lowland, upland and marshy land) etc. Indigenous-crop diversity of Kerala includes: Traditional cultivars (landraces, primitive cultivars, folk varieties, farmers' varieties) wild relatives, weedy relatives.

Objectives

KSBB is implementing a long term project starting from 2019-20 with the following objectives:

1. Empowerment of custodian farmers in the State as 'Local Genome Saviour' through cross learning, training and exposure visits, seed fests, etc.
2. Peoples Biodiversity Register with Agrobiodiversity mapping of the area along with associated knowledge and traditional practices. This will function as a sui generis system of protecting the traditional varieties and associated knowledge.
3. Identification of Agrobiodiversity rich areas especially community conserved areas and declaring as Agrobiodiversity heritage sites.
4. On farm conservation : Conservation of the selected varieties in ex situ conservatories and in situ in the farmer's field also. Transfer of genetic material stored in seed banks to custodian farmers will also be encouraged
5. Community gene banks for ensuring seed sovereignty of farmers at village level with support of BMC.
6. Market linkages is an important aspect of sustainability and it is proposed to initiate mobile Ecoshops at strategic places as bus stops, railway station etc. by

BMC and local community organizations/ women self help groups as Kudumabsree

Project Activities

1. Identify potential custodian farmers using existing available information (Through Focal group discussions at BMC level with involvement of Agriculture dept, Research Institutes, NGO etc, Genome saviour award winners).
2. Collection of Baseline information of selected farmers/location and field validation.
3. Identify the unique or specific traits maintained, adapted and promoted by farmers and their field verification in collaboration with Agriculture university and Agrobiodiversity mapping.
4. Support to custodian farmers in the form of establishment of centralized nursery to maintain seedlings/ grafts etc, name boards for identifying genetic resources, market support, awareness programmes, training for development of value added products, training for home processing technology, farm tourism, developing farm schools etc.
5. Identification and documentation of at least 100 case studies of Best Agrobiodiversity Management practices and the motivation behind these.
6. Support for Recognition in the form of PPVRF/ GI registration or other sui generis system of protection in collaboration with Agriculture university.

Implementation

The project will be implemented in a phased manner by KSBB with the support of the Agriculture department, Regional centers of Kerala Agricultural University, and local NGOs in the project sites and Biodiversity Management Committee. A state level project steering committee with key functionaries of relevant departments as Agriculture department, Fisheries Department, KVKs, Agriculture Universities, etc will be set up. The project will be implemented at regional level by a joint committee consisting of elected representatives from the LSGs, BMCs, ensuring public participation from different user groups including experts in the field from Agriculture department, educational institutions, NGO etc at all levels of planning, implementation and monitoring phase of the project.

Sl. No	Components	Budget (₹ in lakhs)
1	Developing Agrobiodiversity index/ mapping through Agriculture university and other agriculture institutions	50.00
2	Establishing community seed bank one in eight districts	128.00
3	Peer to Peer visit and exposure visit to other states	12.00

	for custodian farmers, BMC members, Agriculture officers and KSBB officials	
4	Documentation of Best Agro biodiversity Management practices	5.00
4	Project monitoring and review through Field visits/ Stationery & Miscellaneous	5.00
Total		200.00

PROJECT 3:- RIVERINE BIODIVERSITY REJUVENATION

The river banks of the major rivers of Periyar, Pamba, Chalakudy, Bharathapuzha, Achencovil, Meenachil, Kabini were affected by the floods. Landslides occurred inland from the rivers in the upper stretch and the resulting boulders and debris got deposited in the rivers. It happened mainly due to soil being soaked, soil piping, soil erosion and unscientific construction activities. The unprecedented floods demonstrated the need of scientific management of rivers and its flood plains.

The major recovery needs identified in the action plan proposed by majority of BMCs are:

- (1) restoring natural river ecosystems and riparian vegetation along the banks,
- (2) protecting river banks from soil erosion
- (3) land use planning especially in hill slopes, wetlands, flood plains
- (4) disposing of silt, sand and debris deposited due to the floods and landslides
- (5) Species recovery programmes by suitably augmenting native species

Objectives

1. Restoration of riparian vegetation on degraded river banks.
2. Ensure sustainable livelihood for the local people through providing support for microenterprises.
3. Enhanced livelihood opportunities through theme based and sustainable eco-tourism and interpretation centres.
4. Develop a sustainable community based management and production model of aquatic ecosystems.
5. To create awareness and sensitize local population and students for promotion of riparian ecosystem services.

Major Activities

To build resilience of the ecosystem, it is necessary to support the restoration of degraded river banks and buffer zones. The objective is to conserve the natural flora of the area, ecosystem restoration of the river banks and provide a green space for academic, research and recreational purposes. In view of the above, the

following step-wise approach for planning and implementation of riparian vegetation restoration along the banks is planned.

1. Taxonomic exploration,
2. Orientation programmes for LSG/BMC,
3. Skill development activities with special focus on Nursery Raising, organic manure, vermin composting, bee keeping etc.,
4. Protecting river banks and conservation of riparian vegetation using locally available plants,
5. Training on Participatory Natural Resource Mapping and Ecological Monitoring,
6. Information, Education and Communication (IEC) programmes and infrastructure for sustainable management. IEC programmes would be organised across the project area highlighting the importance of riparian ecosystems, economic value of biodiversity and ecosystems services, and implications of climate change and adaptation measures, and
7. Documentation of best practises and replication strategies

Implementation arrangements

The project will be implemented through reputed agencies selected through a transparent process based on expertise. The project will be implemented at regional level by a joint committee consisting of elected representatives from the LSGs, BMCs, ensuring public participation from different user groups including experts in the field from educational institutions, NGO etc.

Budget

SI No	Components	Budget (₹ Lakhs)
1	Participatory sustainable management of Riverine ecosystem (including Riverine Biodiversity Rejuvenation/ institution building for awareness /capacity building of LSG/BMC and other stakeholders/Entrepreneurship training to self help groups / start ups/ kudumbasree/ Consultancy/ Consultative workshops/peer to peer visits	180.00
2	Project monitoring cost including review meetings/traveling expenses/ procurement / hiring of vehicles for field visits	20.00
Total		200.00

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