

**MINUTES OF THE 18th MEETING OF THE HIGH-LEVEL EMPOWERED
COMMITTEE (HLEC) OF REBUILD KERALA INITIATIVE (RKI) HELD ON 11th JULY 2022
THROUGH VIDEO CONFERENCE**

The meeting started at 3:30 PM with Chief Secretary in the chair. The Committee deliberated upon the agenda items one by one.

The RKI informed the Committee that the Implementation and Completion of Results (ICR) Report of the World Bank on the First Resilient Kerala Program Development Policy Operation (DPO-1) has been published, and that the Report has given a 'Satisfactory' rating for the program. The Committee appreciated the RKI and the participating departments for the achievement.

Agenda Item 1: Presentation of Action Taken Report on decisions of 16th HLEC Meeting held on 30th March and 17th HLEC Meeting held on 13th June 2022.

The Committee took note of the report on the actions taken in response to the decisions of its 16th and 17th meetings.

Agenda Item 2: PforR Status of achievement of Year 1 targets

The RKI briefly presented the status of achievement of Year 1 targets of PforR DLIs and the fund disbursement linked to it. The Committee was informed that out of 9 DLIs, 6 DLIs have been achieved. The State has already got the disbursements from the World bank and AIIB for two DLIs, viz., DLI 6 and 8, and disbursement claim w.r.t. the other DLIs which are achieved are being made to the respective banks. Year 1 targets of DLI 1,7 and 9 are yet to be achieved. It was reported that Year 1 target of DLI 1 and DLI 9 could be achieved soon, while that of DLI 7 may take some more time to achieve.

Agenda Item 3: KfW Accompanying Measures (AM) Grants for Technical Assistance (TA): Status of Procurement.

The RKI briefly presented the status of procurement for the TA activities under KfW AM Grants. The Committee was informed that the procurement under KfW AM Grants are in various tendering stages and are progressing well.

Agenda Item 4: Status of World Bank (WB) and AFD aid under process

The RKI briefly presented the status of AFD loan of 120 million USD as the co-finance of the existing PforR. The Committee was informed that the AFD Board has already approved the loan in December, 2021, and that the Bank has fixed the deadline for signing the agreement as 15th August, 2022.

The Committee was also informed that the PforR Additional Financing (AF) loan of 215 million USD for coastal protection and river restoration, and the loan for 200 million USD for the Kerala Economic Revival Programme (KERA) are in advanced stage of getting final approval from the DEA. The RKI is closely following up with the few line Ministries which are yet to offer their concurrence for the project proposals.

The Committee noted the matter.

Agenda Item 5: Detailed Project Reports of 9 Numbers of LSGD Roads in 5 Districts viz., Alappuzha, Pathanamthitta, Ernakulam, Idukki and Thrissur Districts in the State of Kerala.

The Project Director, LSGD – PMU submitted the DPRs of additional 9 roads, for an amount of Rs. 25.85 crore, from the list which is already approved in-principle as per G.O. (Ms.) No.25/2019/P&EA dated 13/08/2019. The RKI-IC considered the DPRs in its meeting held on 11/05/2022, and recommended to place the DPRs before the HLEC for its approval. Thus, the DPRs were presented before the HLEC.

Decision taken

The HLEC approved the DPRs of the 9 roads (total amounting to Rs. 25.85 crore) submitted by the LSGD – PMU, and directed the RKI to issue Administrative Sanction for the same. **[Action: CEO- RKI]**

Agenda Item 6: Establishment of Septage Treatment Plant for Cherthala Municipality – Approval for Tender Excess and Revised AS.

The Committee was informed that the IMPACT Kerala submitted a proposal for the approval of tender excess for the project of Establishment of Septage Treatment Plant for Cherthala Municipality. Administrative Sanction was accorded initially for the project as per G.O.(Rt.) No.286/2021/P&EA dated 06/07/2021 at a cost of Rs. 5.00 crore, and subsequently, based on revised estimate submitted by the Managing Director, IMPACT Kerala Ltd., revised Administrative Sanction was accorded to the project as per G.O.(Rt.) No.478/2021/P&EA dated 19/11/2021. Tenders were invited for the project on 03/12/2021 as DBO model with 10 years O&M, and the financial bids were opened on 11/05/2022 with the concurrence of Hon. Minister of LSGD. The amount quoted by the L1 bidder after negotiation is Rs. 7.35 crore (including GST), for the construction activities, which is in excess of the project cost by 20%. As per the 4th meeting of Tender Acceptance Committee held at IMPACT Kerala on 21/05/2022, the tender excess has been approved by ACS-LSGD, and it was decided to submit the proposal to the RKI

for approval. The revised estimate for the project, after taking into consideration the tender excess, comes to Rs.7.83 crore.

The RKI-IC, in its meeting held on 21/06/2022, considered the proposal, and decided to recommend the same to the HLEC, subject to the condition that service of a technical consultancy service (Supervision Consultant, independent Consultant, technical agencies or AMRUT consultants) for the project shall be ensured before executing agreement with the contractor.

The Chief Secretary noted the need & importance of septage management projects and its alignment with the RKI priorities.

Decision Taken:

The Committee approved the proposal for revised Administrative Sanction for the project 'Establishment of Septage Treatment Plant for Cherthala Municipality' at a cost of Rs. 7.83 crore, and directed to place the matter before the Council of Ministers for approval of tender excess, subject to the condition that services of a technical consultancy service (Supervision Consultant, independent Consultant, technical agencies or AMRUT consultants) for the project shall be ensured before executing agreement with the contractor. **[Action: CEO - RKI]**

Agenda Item 7: Establishment of Project Implementation Unit (PIU) in LSGD for PforR DLIs 4 & 5

The Local Self Government Department (LSGD) and Kerala Institute of Local Administration (KILA) had jointly submitted a proposal to the RKI for an estimate of Rs.4.08 crore for supporting the Establishment of Project Implementation Unit (PIU), viz., *Planning Innovation and Capacity Development Hub*, along with an additional proposal to facilitate the deputation of 5 officers, viz., 2 Senior Town Planners, 2 Deputy Town Planners and 1 Assistant Town Planner in the PIU for expedition of achievement of targets as planned in the PforR DLIs 4 & 5. The RKI-IC in its meeting held on 21/06/2022 directed to revise the proposal by excluding those consultant positions which will be funded under the KfW AM Grant so that the overlapping is avoided. Consequently, the Department has submitted a modified proposal with a revised estimate of Rs. 2.96 crore. The proposal was placed before the HLEC for consideration.

The ACS-LSGD highlighted the significance of the comprehensive first-of-its-kind activities and strategic initiatives under this programme, ranging from policy-to-planning-to capacity development of the key sectoral institutions. The Committee was also informed about the critical requirement of establishing the PIU, considering that a large number of interconnected activities have to be completed in a time-bound manner, requirement for interdepartmental coordination

within the limited existing institutional system of the LSGD, complexity of the activities, requirement for involvement of senior officials due to their familiarity with the project requirements, etc. The ACS-LSGD emphasized on the PIU's role in providing continued assistance under the support of LSGD Planning Wing and KILA, for ensuring continued and timely efforts for the achievement of DLI 4 & 5 results.

Decision taken

The Committee approved the proposal for establishment of a PIU in LSGD at an estimated cost of Rs.2.96 crore, and recommended to place the proposal before the Council of Ministers for approval. **[Action: CEO-RKI]**

Agenda Item 8: Construction of Groynes at the Mouth of Thottapally Pozhy.

The Irrigation Department has submitted the project proposal "Construction of Groynes at the mouth of Thottapally pozhy" to avoid the accretion of sand within the pozhy mouth and to protect the southern side of pozhy which is heavily prone to sea attacks and for the purpose of flood management in Kuttanad. The RKI had earlier accorded in-principle sanction, as per G.O. (Ms.) No.27/2020/P&EA dated 05/11/2020, for the project for an amount of Rs.14.70 crore having components such as Construction of 150m Groynes on both sides of pozhy mouth, protection wall on both banks of pozhy mouth and for the investigation & model studies.

The IIT-Madras has now prepared the design based on the bathymetric study provided by the Irrigation Department to understand the underwater profile of the sea near pozhy, shoreline profile & wave modelling, and numerical modelling for shoreline evolution. Currently, the Irrigation Department has prepared the estimate at Rs 44 crore for the construction of the training walls/Groynes (500 m length) proposed on the southern & northern side of pozhy mouth with blasted granite stones and Tetrapods of weights 2T,4T and 6T (Five layers –Filter, Core, Toe Mound, Under and Armour layer with Tetrapods) to manage the future floods.

The Chief Secretary enquired the reasons for the revised estimates exceeding the in-principle sanction amount, and raised concern that unrealistic estimates were thus submitted by the Irrigation Department during the considerations for in-principle approval. The representative of the Irrigation Department reported that the current estimates are prepared on the basis of the interim study report submitted by IIT-Madras, and that the proposed design has been approved by IIT Madras; the increase in estimates is due to the increase in 500m of length on each side of training walls/Groynes with blasted granite stones and Tetrapods of weights 2T, 4T and 6T.

The CEO-RKI mentioned that, as per the decisions of the 13th HLEC meeting, it was decided that the Irrigation Department shall prepare the proposal based on the ongoing hydrodynamic

study for the Room for River Project by IIT-Madras, and highlighted that this project is very important for the flood management, and, hence, is among the priorities of the RKI. The Chief Secretary highlighted concerns about the preparation of non-realistic estimates for critical projects like this, and directed the Department to ensure adequate expertise in preparation of estimates, and that capacity enhancement programmes may be conducted, if required, for the engineers in the Irrigation Department.

Decision Taken:

The Committee recommended the proposal for Construction of Groynes at the Mouth of Thottapally Pozhy, at an estimated cost of Rs.44 crore, to be placed before the Council of Ministers. **[Action: CEO – RKI]**

Agenda Item 9: Eco-restoration of Degraded Forests with Special Focus on Eradication and Management of Invasive Alien Species from the Forests of Kerala.

The Department of Forest & Wildlife has submitted the project proposal “Eco-Restoration of Degraded Forests with Special Focus on Eradication & Management of Invasive Alien Species”.

The DCF- Forest Department presented the major features of the proposal. Invasive alien plants (IAP) are those which spread outside their normal distribution range and which become invasive in their new locations. IAPs have been invading natural forests, and threaten biodiversity and ecosystems globally which results in loss and destruction of forage and habitat for wildlife (both Carnivores & Herbivores), loss of available grazing land, reduced groundwater levels, soil degradation, increased risk of devastating wildfires and diminished recreational enjoyment. Among the 38 species of IAP identified in the forests of Kerala by Kerala Forest Research Institute, the most important species that are wide-spread are *Senna spectabilis* (മഞ്ഞക്കൊന്ന), *Lantana camera* (അരിപ്പെട്ട ചെടി), *Chromolaena odorata*, *Mikania micrantha*, *Mimosa diplotricha*, *Parthenium hysterophorus*, *Mucuna bracteate*, and these species have serious effect on the ecosystem. The present project is proposed for the eradication of all the above species from the key habitats/vulnerable ecosystems in the forests of Kerala are proposed in two phases, Phase 1& 2, at a total cost of Rs.100 crore.

Phase 1 is proposed for the eradication & maintenance of *Senna spectabilis*, which grows alone without even allowing the other IAP to thrive under their shade, in 1650 ha. area of North Wayanad (Sulthanbathery, Tholpetti etc.) & Wayanad wildlife division (Muthanga Forest), and the financial budget required for the phase is Rs.40 crore. In Phase 2, *Lantana*, which is widely spread across almost all Forest Divisions in Kerala, and other associated species (such as

Chromolaena, Mikania, Mimosa, Parthenium, Mucuna, etc.) are proposed to be eradicated, for which the budget estimated is Rs.60 crore.

The general goal of this proposal is to prevent further losses of biological diversity due to the deleterious effects of alien invasive species. The objectives of the project are to strengthen the management response by eradicating/controlling selected IAP that are wide-spread and cause severe degradation to key habitats/potential forest areas, to enhance the water availability to sustain the wildlife populations, to recuperate/improve the populations of indigenous species and improve the quality of the habitats suitable to thrive the mega-herbivores, to reduce human-wildlife conflict by reducing the causative factors of habitat degradation and fragmentation, to improve the understanding, and raise the awareness among stakeholders involved in the invasive issues/management as a major issue affecting native biodiversity, to encourage necessary research and monitoring programmes to ensure adequate knowledge base, and to address the problem of alien invasive species. The Forest Department has prepared a monitoring schedule for the implementation of this project, and a third-party evaluation is proposed for regular oversight and evaluation of the implementation of the project. The entire eradication and maintenance works will be carried out with the active support of tribal communities hailing from the respective Forest Divisions where the project is to be implemented, and it will be helpful for the creation of jobs for the tribal people. The Committee was informed that the Forest Department will ensure the involvement of tribal community in the eradication activities for the improvement of their livelihood, and explore the possibilities of convergence with MNREGA programme.

The major components of Phase 1 (Eradication of Senna) for Rs.40 crore are:-

- Eradication of Invasive Alien Plant Species – Matured trees, seedlings/saplings of Senna & follow up maintenance of weeded area of Senna .
- Ecological restoration of weed-free landscapes (Planting indigenous species (including cost of raising in nursery, planting and maintenance of planted seedlings).
- Temporary fencing for protecting planted seedlings (50 km).
- Conducting awareness campaign.
- Conducting Research and Monitoring.
- Preparing and printing field guides, documenting the eradication and restoration processes, etc.
- Third party evaluation of project implementation.

The Committee was informed that, in the 15th HLEC meeting held in December, 2021 & in the CEO review meeting held in March, 2021, it was decided that the Forest Department shall explore the prospects for alternative/replacement proposals on Establishment of International Biodiversity Institute, Coastal Bio-Shield projects & Eco-restoration of Degraded forests, management of Invasive Alien Species from the Forests etc. while ensuring that the overall project cost shall be limited within the approved AS amount.

The CEO-RKI mentioned that the project on the “Establishment of International Biodiversity Institute” cannot be taken up under the RKI as it cannot be aligned to its priorities. The Chair agreed to the same.

The Chief Secretary sought the reasons for dropping of the 2 projects – (i) Acquisition of Private Estates, and (ii) Consolidation of Mangroves. The Principal Secretary-Forests reported that the acquisition of private estates has not yet been initiated due to the delay in obtaining legal opinion as directed by the SLEC. Regarding the project for consolidation of mangroves, he informed that the government have taken policy decision against acquisition of mangroves under private ownership and that the department’s request to alter the decision was not agreed to.

The Committee was informed that the RKI-IC, in its meeting held on 11/05/2022, considered the proposal, and decided to recommend the proposal with the following directions:-

- The Forest Department shall ensure the full eradication of IAPs (*Senna spectabilis*), and take necessary steps to prevent the germination of seeds of *Senna spectabilis* in the soil by planting natural grass species in the managed area.
- Forest Department shall ensure the third-party evaluation of the proposed project in each stages and involvement of local tribal community in the eradication activities for the improvement of their livelihood.
- The Department shall explore the possibilities of convergence with MNREGA programme wherever possible.
- Forest department shall prepare the GIS Map on the various stages of project, i.e., before & after the implementation.

Decision Taken:

The Committee recommended the proposal for Phase 1 of the project to the Council of Ministers at an estimated cost of Rs.40 crore, in lieu of dropping the projects, viz., (i) Acquisition of Private Estates, and (ii)Consolidation of Mangroves. The RKI shall issue Administrative Sanction to the project, subject to the approval of the Council of Ministers. The Forest Department shall comply with the directions of the RKI-IC mentioned above during the implementation of the project.

[Action:CEO-RKI; PCCF & HoFF]

Agenda Item 10: Rejuvenation of Streams in Highland Regions of Kerala-Mapping of Streams

The Harithakeralam Mission has submitted a proposal for the mapping of streams using GIS & GPS technologies in 230 LSGs in the highland regions of Kerala with the support of IT Mission & public participation for an amount of Rs.1.31 crore.

The Consultant-Water Resources of the Harithakeralam Mission presented the major features of the proposal. The Harithakeralam Mission had already initiated a campaign “*Ini njan ozhukatte* (ഇനി ഞാൻ ഒഴുകട്ടെ)” for rejuvenation of streams in all the local bodies of the State with public participation. A total of 2034.49 km of streams were cleaned and free flow of water ensured, with the participation of 1,62,295 volunteers. Many local bodies followed this up by protecting the stream banks with coir geo-textiles, using the streams for irrigation and also set up Stream Committees to ensure sustainability. The Western Ghats of Kerala contribute with important hydrological & watershed functions, and acts as the drainage divide between West and East flowing rivers. Stream network on the slope of the Western Ghats is closely knitted, and Western Ghats have the larger drainage network with lower-order streams up to the third-order streams. Intense and sustained rainfall in the highlands of Kerala leads to saturation of the slopes, increases pore pressure, and decreases the internal friction of slope-forming material resulting in landslide & floods. Thus, the disrupted drainage system acts as one of the causes of landslides. Therefore, it is important to have the drainage system up to third-order streams mapped accurately for planning any intervention.

The current proposal involves following major activities:

1. Field mapping of stream/drainage network using GPS (15 days/ LSG);
 - Identifying potential streams using publicly available digital elevation data & identify potentially unmapped areas & planning field mapping.
 - Data Collection Phase: With the support of field volunteers using GPS supported modern smart phones, GIS expert & Technical consultant.
2. GIS mapping of drainage network and validation (3 days/LSG); and
3. Final approval of the GIS maps by the community.

The Committee was informed that the RKI-IC meeting held on 18/03/2022 had considered the proposal and decided to recommend the proposal to the HLEC.

The Chief Secretary enquired the benefits of drainage maps which shall be prepared as part of this project, and the Consultant-Water Resources of Harithakeralam Mission clarified that it is

important to have the drainage maps so that the drainage systems can be mapped up to third-order streams; and this is important for planning any intervention for the implementation of river conservation/protection works. Also, the Mission will provide capacity building programs to the LSGs for using the maps. The Chief Secretary directed the Harithakeralam Mission to ensure that the drainage network maps prepared as part of this project will be made useful by the LSGs for their spatial planning and disaster mitigation activities.

Decision Taken:

The Committee recommended the proposal for 'Rejuvenation of Streams in Highland Regions of Kerala-Mapping of Streams', at an estimated cost of Rs.1.31 crore, to the Council of Ministers for consideration. **[Action: CEO - RKI]**

Agenda Item 11: Water supply scheme to Kottarakkara LAC

The Kerala Water Authority has submitted the project proposal "Water Supply Scheme to Neduvathoor & Kottarakkara Municipality Phase 1 & 2". This proposal is for a water supply scheme (WSS) which covers 8 wards of Kottarakkara Municipality and 4 wards of Neduvathoor Panchayath benefiting a population of 59,682. About 7,872 Functional Household Tap Connections (FHTCs) are proposed for Kottarakkara Municipality. The proposed project involves *two phases*;

(a) Phase-1 Production component (Intake Well- 9m diameter, raw water pumping main, raw water pump sets, 16 MLD WTP, Master OHSR-18 lakh litre; and

(b) Phase-2 Distribution component (Clear water gravity main, zone reservoirs, distribution network & FHTCs) to be proposed for Kottarakkara Municipality. For this scheme, Administrative Sanction has been accorded as per G.O.(Rt.) No.134/2022/WRD dated 23/02/2022 for implementing the production component of Neduvathoor panchayath (apportion cost Rs.18.53 crore) and distribution component including FHTCs under rural Jal Jeevan Mission project.

The KWA has submitted the proposal for the two phases, having an estimate amount (excluding land acquisition component) of Rs.159.49 crore (i.e., Phase-1 at Rs.29.4 crore & Phase-2 at Rs.130.09 crore).

The MD-KWA presented the key highlights of the proposal and informed that the above production components will be beneficial to both Kottarakkara Municipality & Neduvathoor panchayath, and reported that KWA has requested to take up the distribution component of Kottarakkara Municipality (Phase 2) having project cost of Rs.130.09 crore under AMRUT project. The CEO-RKI mentioned that the financing of the Phase 2 is not possible using RKI

funds at this stage due to the shortage of funds. He added that it will be considered in future after completing the Phase-1 of project, however, subject to availability of funds.

The Chief Secretary enquired whether the Phase-1 component is being proposed for RKI funding because of its rejection under Jal Jeevan Mission (JJM). The MD KWA clarified that the production component of Kottarakkara municipality was not included in JJM proposals. He also enquired whether the proposed added capacity of treated water would be under utilized in the event of non drawing up the distribution lines under RKI. The MD assured that the augmented capacity would be fully utilized.

The Committee was informed that the RKI-IC, in its meeting held on 11/05/2022, considered the proposal, and decided to recommend to the HLEC for issuing in-principle sanction for Phase-1 of the project at a cost of Rs.29.4 crore, and directed the following:-

- KWA shall provide the documents related to the commitment from local bodies to ensure the Administrative availability of land.
- KWA shall ensure the inclusion of automation systems (For Pumping & Treatment etc.), sensors and SCADA systems in order to reduce the Non-Revenue Water (NRW) component in the proposed DPR.
- KWA shall ensure the yield/water availability of source/intake well for the proposed project.

Decision Taken:

The Committee recommended the proposal for Phase-1 of the project, viz., Water supply scheme to Kottarakkara LAC as recommended by the RKI-IC as mentioned above, at an estimated cost of Rs 29.4 crore to the Council of Ministers for consideration. Subject to approval of the Council, the RKI shall issue AS to the project, subject to compliance of the directions of the RKI-IC mentioned above. **[Action: CEO- RKI]**

Agenda Item 12: Energy optimization and replacing inefficient pumping systems- Implementation of Recommendations of Energy Audit Phase 1 & Phase 2

The Committee was informed that the RKI has accorded in-principle Administrative Sanction as per G.O. (Rt.) No.28/2019/P&EA dated 15/11/2019 for an amount of Rs.7 crore for the KWA's project "*Energy optimization and replacing inefficient pumping systems*", and that, consequently, the WRD had accorded Administrative Sanction as per G.O (Rt) No.164/2021/WRD dated 26/02/2021 for an amount of Rs.30 lakh to the KWA for conducting the energy audit of 16 pumping stations as part of the project. The KWA has submitted an estimate (Phase 1 & Phase 2) for the implementation of recommendations of energy audit in

16 water supply projects (HT connections) for an amount of Rs.6.80 crore. For the current proposal, the KWA has submitted the DPR for the replacements and installations based on the recommendations in the energy audit report. The implementation of the recommendations, viz., supply & erection of transformers, replacement of pump set having low discharge, replacement of damaged valves, replacement of capacitors, installation of solar panel, installation of new IE 3 energy efficient motors and installation of LED lamps are suggested in 16 HT pumping stations under this project. By implementing the project, existing capacitors can be replaced, and this is expected to improve Power Factor (PF) to 0.98. Hence, the pump house will generate sufficient cost savings through incentives at a rate of 0.05% of energy charges for every 0.01 increase PF from the base 0.95. The implementation of this project will help to improve the performance (energy efficiency as per BEE standards) of 16 pumping stations of KWA, thereby improving KWA revenue as well as energy management.

The MD-KWA presented the key highlights of the proposal. He reported that the KWA has created a Electro-Mechanical (EM) Unit having a project cost of Rs.1 crore with a team of Energy Auditors certified by Energy Management Centre (EMC), and carried out the energy audits, and, as a result, an amount of Rs.15 lakh savings has been incurred per month. The Chief Secretary sought the reasons for the inefficient pump systems under the KWA; the MD-KWA attributed the lack of proper maintenance & monitoring in terms of energy efficiency for the situation.

The MD-KWA reported that the proposed project is worthwhile for achieving considerable savings in energy consumption, and that the KWA's in-house EM team with trained engineers is concurrently monitoring the efficiency and performance of the pumping systems. The MD-KWA reported that the revenue of KWA has increased, and data of the operations & efficiency of all pump-houses, treatment plants, etc. have been published in the KWA website.

The CEO-RKI noted that the proposed pumping system/investments/replacements as per the energy audit reports shall proactively maintain and monitor the efficiency of the system in a concurrent manner. The Chief Secretary directed the KWA to ensure proper maintenance & monitoring of investments proposed in the project for maintaining the energy efficiency as determined in the energy audits.

Decision Taken:

The Committee approved the proposal for Energy optimization and replacing inefficient pumping systems in 16 HT connections (Phase 1 & Phase 2) as part of implementation of recommendations of Energy Audit, at an estimated cost of Rs. 6.80 crore. **[Action: CEO- RKI]**

Agenda Item 13: PforR DLI 7 Flood Forecasting & Integrated Reservoir Operation System (FFIROS)- Consultancy Services (Additional Scope for the Pamba & Periyar river basins)

The Committee was informed about the status of the Year 1 target of PforR DLI 7 of WRD and reported that the development of flood forecasting & integrated reservoir operation systems (FF&IROS) for Pamba basin and its institutionalization through a web dashboard system is very critical. This is to be completed within the deadline of 30/06/2022 such that verification by Independent Verification Agency (IVA) can be undertaken and fund disbursement from the donor partners can be facilitated. In view of the above, IDRB and KSDMA have conducted discussions on additional scope with the firm which is already working on Periyar FEWS and IDRB has submitted the proposal for the activities viz, (i) Automated modules for weather, inflow forecast, reservoir integration and inundation module along with an interactive web dashboard for Pamba FFEWS based on the hydrologic and hydraulic model framework already developed in-house by IDRB Engineers, (ii) Integration of the Flood Modules for Pamba and Periyar (FFEWS) as an additional module in Kerala WRIS, (iii) GIS based near real time flood map sharing and alert in Common Alert Protocol (CAP format) through API for both Periyar and Pamba FFEWS, for integration with KSDMA, which is essentially required for ensuring effectiveness of the forecasting system and pushing its results for disaster operations, (iv) Creation of a Modeller Dashboard for Capacity Building, which is necessarily required for hosting inventory of models for any basin, for its commissioning and push to production, for an amount of Rs.1.79 crore as additional scope. The value of services in the current agreement for Periyar basin flood forecast model is Rs.2.10 crore, and the estimated contract value for the additional scope of services for Pampa basin is Rs.1.79 crore.

The Secretary-WRD briefly explained that IDRB has developed a flood forecasting model in Periyar river basin under National Hydrology Project of World Bank, and a similar approach and same platform are required to be established for the Pampa basin as well, as suggested by KSDMA for the forecast data for public dissemination. The Secretary reported that the IDRB has developed a model for Pampa basin & completed the hydrological modelling of the basin, and upgradation is required in the developed model as part of this project proposal.

The Chief Secretary sought the status of implementation of the flood forecast model which has already been developed for Periyar basin, and asked about the benefits/advantages to the public in terms of dissemination of flood-related warnings. The Chief Secretary mentioned that the forecast data generated from the theoretically developed model should be helpful in practical situations during the monsoon seasons.

The Member Secretary, KSDMA reported that the validation of Periyar flood forecasting system /model is in progress. He explained the hydrological data processing procedures in the flood forecasting system, and the dissemination of flood forecast data (on inundation, geographical spread, peak hours, etc.), and validation of the forecast data for at least two hydrological years/seasons/scenarios for ensuring the efficiency of the model developed. The Member Secretary, KSDMA highlighted that this is the first time that a flood forecast model is being developed for the State, and that the model will be very helpful for early warnings and timely dissemination of flood-related information to the general public.

The CEO-RKI directed to undertake an internal validation of data from the Periyar FF in the current/upcoming monsoon season to confirm that the data is accurate and can be put to practical use. The Member Secretary, KSDMA clarified that the in-house validation of Periyar FF model is in progress, and it is being verified by an Expert Committee already constituted for the purpose.

The Chief Secretary directed to conduct an in-house validation of data from the already developed Periyar FF model at least for the current or upcoming monsoon season, and get it subsequently verified by the Expert Committee. Based on the findings of the data validation exercise, the current project proposal for FF model for the Pampa basin may be considered subsequently. The Chief Secretary also directed WRD & KSDMA to ensure that the theoretically developed model shall be put to practical use in such way that it is beneficial to the general public.

Decision Taken:

The Committee directed IDRB & KSDMA to conduct the validation of the work done by the agency using actual data (in the current/upcoming monsoon season) in the flood forecasting model, which is already developed for Periyar basin, and ensure that it is vetted by the Expert Committee, after which the matter may be resubmitted to the HLEC for consideration. **[Action: Secretary WRD, Chief Engineer IDRB & Member Secretary, KSDMA]**

Agenda Item 14: Independent Verification Agency (IVA): Contract extension for PforR AF

The Committee was informed about the requirement for extending the scope of services of the PforR IVA so as to include the verification of results pertaining to revised DLI 7 under ongoing PforR, and DLI 10 & DLI 11 under the Additional Financing (AF) programme, which is now in pipeline. The Committee was also informed about the revised proposal submitted by IVA after the contract negotiations meeting held on 25/05/2022.

Decision taken:

The Committee, having considered the matter, gave its approval for executing contract with IVA for extended scope of services under revised DLI 7 in the ongoing PforR, and DLI 10 & DLI 11 in the PforR AF. **[Action: CEO RKI]**

Agenda Item 15: Extension of term of Contract of RKI Project Management Support Services (PMSS)

The RKI has entered in to a contract in June, 2020 with M/s.KPMG through a competitive bidding process and observing due procedure, as per which the firm will provide Project Management Support Services (PMSS) to the RKI for a period of 2 years from the date of commencement of services. A 16 member PMSS team was envisaged in the contract; however, in view of the Covid-induced circumstances, certain positions were not on-boarded. The firm on-boarded the required personnel, and commenced the services on 01/07/2020. The firm had been providing the PMSS services satisfactorily for the last 2 years. The present tenure of the PMSS ended on 30/06/2022. As per the contract, the term of the PMSS will be for a period of 2 years, which can be extended by another 2 years, if required.

The matter of availing continued support by an expert team was considered by the RKI-Implementation Committee on 11/05/2022, and the Committee directed the RKI to assess the requirements for the PMSS in light of the new engagements too, and to modify the scope of services and ToR, if required. Accordingly, a *tentative* structure of the new PMSS team was drawn up taking into consideration of the requirements in hand as part of the ongoing PforR, and which might also come as part the ensuing programmes like the PforR Additional Financing, Kerala Economic Revival Programme (KERA Project), Low Carbon and Resilient Development Pathways etc. The proposed composition of the new PMSS team (say, PMSS-2) was approved by the RKI-IC in its meeting held on 21/06/2022, and directed to take further steps towards extension of the contract with the proposed composition. Based on the favourable decision of the RKI-IC, in order to ensure continuity of services, the RKI directed M/s. KPMG to provide services of 7 resource persons at various positions as an extension of the present PMSS contract, till the expiry of three calendar months from 01/07/2022 or till the extension of the PMSS contract is formalized, whichever is earlier. The firm was asked to submit a detailed proposal along with CVs for the positions to be on-boarded as part of PMSS-2.

The matter was placed before the HLEC for consideration and approval of extension of term of the contract with M/s.KPMG invoking the related provision in the present PMSS contract.

Decision taken:

The HLEC, having considered the necessity of continued PMSS support to the RKI and the related provision in the existing contract, approved the extension of term of the existing contract with M/s. KPMG for PMSS by 2 years w.e.f. 01/07/2022, with the team composition approved by the RKI-IC.

The meeting concluded at 4:30 PM.

List of Participants

Sl. No.	Name	Designation
List of HLEC Members		
1.	Dr. V.P. Joy	Chief Secretary & Chairman, HLEC
2.	Sri. Rajesh Kumar Singh	Addl. Chief Secretary, Finance Dept.; CEO, RKI & Member, RKI- IC.
3.	Smt. Sarada Muraleedharan	Addl. Chief Secretary, LSGD
4.	Sri. Pranabjyothi Nath	Secretary, Water Resources Department
List of Other Officials		
1.	Sri. Rajesh Kumar Sinha	Principal Secretary, Forest Department
2.	Sri. Pranabjyothi Nath	Secretary, Water Resources Department
3.	Sri. S Venkitesapathy	MD, KWA, Water Resources Department
4.	Sri. Biju K	Commissioner, Land Revenue
5.	Sri. Mohammed Y. Safirulla	Deputy CEO, RKI
6.	Sri. Seeram Sambasiva Rao	Director, Survey & Land Records (SLR) & Project Director, PWD – KSTP
7.	Sri. Snehil Kumar	Director, IT Mission
8.	Sri. Alex Varghese	Member, Mullaperiyar Supervisory Committee & Registrar, Co-operative Societies
9.	Sri. K. Sunil Kumar	Additional Secretary, RKI
10.	Dr. Joy Elamon	Director General, KILA
11.	Dr. Sekhar L Kuriakose	Member Secretary, KSDMA
12.	Smt. Preetha KS	Joint Secretary, LSGD
13.	Sri. Harikumar	Project Director, IMPACT Kerala

14.	Sri. Saby Varghese	Deputy Conservator of Forests
15.	Sri. Vishnu Kumar G	Project Director, RKI-PMU, LSGD
16.	Sri. Sreedevi P	Deputy Chief Engineer, Irrigation & Administration
17.	Sri. Rajesh PN	Senior Town Planner, LSGD-Planning
18.	Sri. Abraham Koshy	Consultant-Water Resources, Harithakeralam Mission
