# Appendix 13: Final report

**(1) Final report**

| **C:\Users\Administrator\Desktop\New_MKCF LOGO.pngMekong – ROK Cooperation Fund (MKCF)****Final Report** |
| --- |
|  |
| **A. Brief Project Information** |
| 1.1. Project title | Promotion of Innovative Rainwater For Drinking (RFD) system as a sustainable water supply in rural Health Care Facilities (HCFs) and/or Schools |
| 1.2. Country (ies) / region | Cambodia, Laos, Myanmar, Thailand and Vietnam (CLMTV) |
| 1.3. Project area |
| □ Culture and Tourism□ Human Resources Development□ Agriculture and Rural Development□ Infrastructure□ Information and Communication Technology (ICT)□ Environment □ Non-traditional Security Challenges |
| 1.4. Implementation start/end date |
| Implementation start dateImplementation end dateProject lifespan | 01/01/202228/02/20242 years 2 months |
| 1.5. Approved project budget (USD) | 500,000 (USD) |
| 1.6. Date of 1st and 2nd installments |  |
| 1st installment2nd installment | 18th Jan 202203rd May 2023 |
| **B. Prepared by** |
| Name:Title:Department:Name of the Implementing Agency:Signature:Date: | -Mooyoung Han-Professor--Seoul National University- - 28/02/2024 |
| **C. Project outputs** |
| The primary aim of this project is to construct five rainwater harvesting and treatment systems, each with a capacity of 20 m3, within schools in 5 Mekong countries (C,M,L,T,V). These systems are intended to provide drinking water that adheres to the National Drinking Water Quality Standard of each respective country.Successfully, five Rain Schools have been established in V,C,T,L and V (instead of M) accompanied by the development of a sustainable maintenance system that involves engaging stakeholders within the community. Additionally, an extra outcome of this project is the establishment of the Rain School Initiative, which has gained endorsement within the UN Water Action Agenda.For each site, a comprehensive project report has been compiled, detailing the design and maintenance procedures implemented. These reports are attached herewith for reference. |
|  |
|  | **Indicator** | **Achieved** | **Remarks** |
| **Project output 1.One Rainwater For Drinking (RFD) system is constructed and maintained in Vietnam** | -Field application: 1 case; capacity: 20 ton; Beneficiary: 500 people.-Water quality and quantity monitoring.-O&M manual-Education and training development program | o |  |
| **Project output 2. One Rainwater For Drinking (RFD) system is constructed and maintained in Cambodia** | same as above | o |  |
| **Project output 3. One Rainwater For Drinking (RFD) system is constructed and maintained in Thailand** | same as above | o |  |
| **Project output 4. One Rainwater For Drinking (RFD) system is constructed and maintained in Laos** | same as above | o |  |
| **Project output 5. One Rainwater For Drinking (RFD) system is constructed and maintained in Myanmar** | same as above | o | Myanmar Site is Switched to another Vietnam site (after consultation with MI) |
| **Project output 6 (Additional). Rain School Initiative as the UN Water Action Agenda**  | -International Rain School conference -International Rain School Camp  | o | Additional Outcome of the project |
|  |  |  |  |
|  |
| **D. Project outcomes** |
| *- Briefly describe the project outcomes that were achieved.*The project has effectively established and maintained five Rainwater For Drinking (RFD) systems in Mekong Countries: Vietnam, Cambodia, Thailand, Laos, and Vietnam (instead of Myanmar). These five RFD systems produce clean drinking water meeting National Drinking Water Standards of each country. Maintenance systems involving community stakeholders were developed for each school. Detailed reports on design and maintenance were compiled for each site. Overall, the project has successfully provided clean drinking water and promoted sustainable practices in the region. |
|  |
|  | **Indicator** | **Achieved** | **Remarks** |
| **Project outcome 1. RFD system for HCFs and/or schools at 5 Mekong Country producing clean drinking water which meets National Drinking Water Standard** | Total number of RFD system that can produce clean drinking water which meets National Drinking Water Standard | o |  |
| **E. Contribution towards developing the Mekong Countries and deepening the Mekong-ROK cooperation** |
| **1. Unleashing the Potential of Rainwater as a Climate Change Adaptation Solution**Rainwater, deeply ingrained in the cultural and traditional fabric of the Mekong Countries, serves as a vital resource, particularly in regions blessed with abundant rainfall, countering the challenges posed by seasonal irregularities in monsoon areas. The contribution of this project are twofold: firstly, to revive the traditional wisdom in rainwater management prevalent in the Mekong Countries and Korea, and secondly, to showcase the efficacy of Community-Based Rainwater for Drinking (CBRD) Systems in delivering safe drinking water to remote and underserved areas, utilizing locally available resources, while also demonstrating that sustainable maintenance can be achieved through the involvement of students. By fostering confidence and self-reliance, this project empowers communities to address their local water challenges autonomously.**2. Mekong-ROK Collaboration: Pioneering Rainwater Solutions for Global Adoption**The technical and social innovations emerging from this collaborative endeavor offer potential solutions for climate change adaptation. The Rain School Initiative, endorsed within the UN Water Action Agenda, holds promise as an effective strategy. The proposed International Rain School Network, originating from the Mekong region, could serve as a platform for disseminating these solutions globally. |
| **F. Overall Project Assessment** |
| * Two key findings/lessons learnt from the process of implementing the project include:
1. Community-Based Rainwater for Drinking (CBRD) System could serve as a great water supply source for remote villages in the Mekong region; and
2. By engaging and motivating young students, sustainable maintenance of the system could be achieved.
* During the process of project implementation, the biggest adjustment was site selection. Originally, it aimed to implement the CBRD System in all five Mekong countries. However, due to the complicated political and social situation in Myanmar as was announced by ROK MOFA, the project site was switched from Myanmar to Vietnam to guarantee its final success.
* For future outlook, our guidance are suggested as follows:
1. **The key issue is maintenance:** Voluntary participation of school teachers and students is essential. Rain School activities should be included in the curriculum. The Mekong school network will attract interest.
2. I**nternational collaboration and knowledge sharing is essential**: To ensure the success of Rain Schools and efficient CBRD System, collaboration at both national and international levels is essential. The establishment of a Rain School Network would facilitate knowledge sharing and capacity building. This Rain School Network could showcase the best practices by incorporating state-of-the-art rainwater harvesting systems equipped with IT-based monitoring infrastructure.
3. **Enhancing efficiency by applying technology**. Efficient operation of CBRS is pivotal in optimizing their impact. To achieve this, technological solutions such as IT-based data monitoring and artificial intelligence (AI) should be harnessed. These technologies would continually analyze data on precipitation patterns, water demand, and storage capacity. By doing so, they enable automatic adjustments in system settings to ensure the efficient utilization of rainwater resources. The application of IT and AI in CBRS would significantly contribute to alleviate water scarcity by maximizing the utility of available precipitation. Another potential technological advancement is Social Digital Twin technology, which could play a pivotal role in monitoring the habits and cultural context of communities. By gaining insights into local practices and preferences, rainwater harvesting initiatives could be tailored to suit the specific needs of each community. Moreover, this technology could help dispel misconceptions by providing concrete evidence of the benefits of rainwater harvesting within the community’s own social and cultural context.
4. **Overcoming misconceptions through education**: One of the biggest challenges in promoting rainwater harvesting is countering misconceptions about its effectiveness and safety. To address this, innovative social approaches should be employed, particularly by involving young students into the process through Rain Schools. Rain Schools should be integrated into the education system, where students learn about the significance of rainwater harvesting, climate change adaptation, and water conservation. Beyond academic instruction, cultural activities should be organized to actively engage students in these critical issues.
 |
| **G. Financial Analysis** |
| xxx |
| **H. Project Completion Check List** |
| xxx |
| **I. By Mekong Institute** |
| xxx |
|  |
| Name xxx |
| Title xxxTIFMekong Institute |
| Signature |
| Date |

**(2) Financial report**

- excel file is attached.