

JOINT RESEARCH PARTNERSHIP TO ADVANCE ECOSYSTEM-BASED ADAPTATION IN THE THAI WATER SECTOR



THE JOINT RESEARCH PARTNERSHIP

The **Joint Research Partnership (JRP)** is an initiative of the **Office of the National Water Resources (ONWR)**, five Thai universities – **Chulalongkorn University, Naresuan University, Mahidol University, Prince of Songkla University, and Walailak University** – and the German international cooperation agency, the Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, **to generate more evidence and greater knowledge of the benefits of Ecosystem-based Adaptation (EbA)** measures in the Thai water sector.

The JRP was formally established on 7th January 2020. On 15th September 2020 the mutual commitment of all Parties of the JRP to cooperate was formalized in a Letter of Intent.

ECOSYSTEM-BASED ADAPTATION

To help tackle the impacts of climate change, Thailand's water sector is enhancing its focus on adaptation to climate change. Ecosystem-based approaches to climate change adaptation, or **Ecosystem-based Adaptation (EbA)**, makes use of varied services nature provides to adapt to the impacts of climate change. In the water sector, EbA helps to **reduce and better manage flood and drought risks** complimentary to conventional water management measures.



“ The JRP works towards the **common goal of advancing the application of Ecosystem-based Adaptation (EbA)** in the Thai water sector. ”

The specific objective is to **develop a methodology** for the Monitoring and Evaluation (M&E) of the impacts and benefits of EbA measures.

The Joint Research Partnership aims:

1

to **provide evidence** on the impacts and benefits as well as the limitations of EbA measures for reducing flood and drought risks and increasing water security;

2

to **use digital-based methods** for data collection and monitoring (i.e. UAV's, remote sensing, citizen science), and **include local communities** and local wisdom in the application of the M&E approach;

3

to link technological skills, M&E knowledge, and data products to **river basin, national water data management and climate change reporting** frameworks.

PILOT PROJECTS



As a first step of work under the JRP, **two 18 months pilot projects** until December 2021 will develop prototype methodologies for the M&E of two commonly used nature-based water management approaches in Thailand.

Floodplains

M&E project

will develop an **M&E methodology for natural and semi-natural floodplains** in Yom river basin in northern Thailand. The project will be implemented under the lead of Chulalongkorn University, together with Naresuan University and Mahidol University.

Living Weirs

M&E project

will focus on the **M&E of the impacts and benefits of living weirs**. Pilot sites are located in Nakhon Si Thammarat and Songkhla Provinces in southern Thailand. The project will be implemented under the lead of Prince of Songkla University together with Walailak University.



Key elements of the M&E approach tested in the pilot sites will be

1. The design of **two prototype methodologies** for the two different types of EbA measures (floodplains and living weirs).
2. **Community involvement:** Local communities and local wisdom shall be enabled to engage in the application of the M&E. The Monitoring and Evaluation (M&E) framework will actively engage river basin communities.
3. **Use of digital solutions:** Digital-based methods will be used for data collection and monitoring (i.e. UAV's, remote sensing, citizen science).

After developing the prototypes for these two different types of ecosystem-based measures, the methodologies will be combined to create a single **M&E framework that is flexible to be applied to a variety of water-related EbA solutions.**

QUALITY CHECKS



The JRP follows an **inclusive consultation approach** to support the exchange of information and ensure the quality of the results developed under the JRP. For this purpose, the JRP invited representatives of water-related national agencies as well as government authorities at provincial and local levels to be part of the **JRP Working Groups**. The members will regularly be informed about the progress and results of the EbA M&E methodology development under the JRP and will be invited to give feedback and recommendations.

The members of the Working Groups include

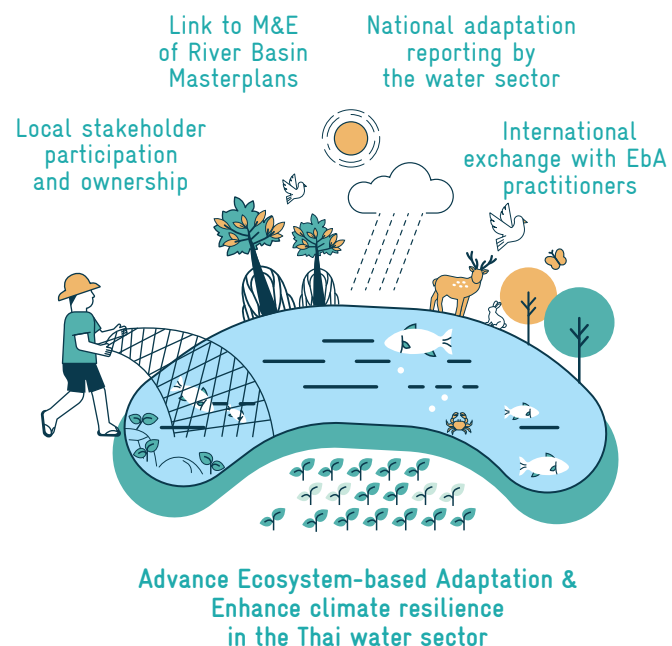
- Office of the National Water Resources, ONWR
- Department of Water Resources, DWR
- Royal Irrigation Department, RID
- Office of Natural Resources and Environmental Policy and Planning, ONEP
- Department of Groundwater Resources, DGE
- Geo-Informatics and Space Technology Development Agency, GISTDA (Public Organization):
- Department of Fisheries, DOF
- Department of Agricultural Extension, DOAE
- Land Development Department, LDD
- Office of the National Water Resources, Regional Office 1
- Office of the National Water Resources, Regional Office 4
- Governor of Nakhon Sri Thammarat Province (Representative)
- Governor of Songkla Province (Representative)
- Governor of Phitsanulok Province (Representative)

The development of the M&E methodology for the Thai water sector will be supported by an international team of experts that coordinated the development of the international **"Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions"**. The hands-on experience from Thailand will be fed back into the international community of EbA practitioners who face similar challenges to build evidence on the benefits of EbA

EXPECTED OUTCOME



By developing a **systematic M&E approach**, the Joint Research Partnership will allow stakeholders in the water sector to better understand the benefits and limitations of EbA measures and make **well-informed decisions to manage water resources** more effectively. At the same time, it will provide decision makers for river basin policy and planning with scientific data on the hydrological, ecological and livelihood benefits. Thus providing the needed **evidence to promote and invest in EbA measures** for sustainable water resource management and climate resilience. The use of satellite imagery and drones along with the long-term involvement of local communities in the M&E approach will help to further the concept of EbA. Documented benefits will enhance local ownership and facilitate the promotion of EbA on the policy level.





Mr. Pradab Kladkempetch
Deputy Secretary-General
of ONWR for the Signing
Ceremony of Letter of Intent (LOI),
On Tuesday 15th September 2020.

“ We are convinced that the work under the Joint Research Partnership will enable us to assess the benefits of EbA measures and help us to make well-informed decisions on applying EbA all over Thailand in the future. This is in line with our national goal to reach water security, as well as with our international goals to achieve SDG6 and implement Thailand’s climate change targets under the Paris Agreement. ”

“ To make the best possible investments we need to know which impacts ecosystem-based solutions have. The Joint Research Partnership can be a powerful and long-lasting initiative to strengthen the evidence base on EbA and increase climate resilience in Thailand’s water sector. ”



Mr. Jan Scheer
Deputy Head of Mission
and Head of Economic Affairs
at the German Embassy in Bangkok



Mr. Reinhold Elges
GIZ Country Director
of Thailand and Malaysia

“ What makes the Partnership strong are its stakeholders: the Partnership gathers the leadership of the ONWR, the profound knowledge from leading universities in Thailand, and the process management know-how from GIZ. ”

Contact

Mrs. Unchureeporn Kokird, Economist, Director of Economic and Social Analysis sub-division

onwr.eco@gmail.com

Office of National Water Resources (ONWR)

89/168-170 Juthamard Building 7th Floor, Vibhavadi Rangsit Road, Talad Bangkhen Sub-district,
Lak Si District, Bangkok 10210, Thailand

<http://www.onwr.go.th/>

Ms. Lisa Hunsinger, Advisor

lisa.hunsinger@giz.de

German International Cooperation (GIZ)

giz-thailand@giz.de

193/63 Lake Rajada Office Complex (16th floor) New Ratchadapisek Road, Klongtoey Bangkok 10110 Thailand

www.thai-german-cooperation.info/en_US/