



Greater Mekong  
Subregion  
Sustainable  
Agriculture & Food  
Security Program



# ADB TA-9916: GMS Sustainable Agriculture and Food Security Program

## Workshop “Operationalising the Water-Food-Energy Nexus in the context of Climate-smart Agriculture”

### Background and agenda

Thursday, 24 November 2022 / 9:00 – 12:00 (BKK time, GMT+7) / Virtual (via internet)

#### Background

The Greater Mekong Subregion (GMS) Working Group on Agriculture (WGA), at its 16<sup>th</sup> Annual Meeting held in Luang Prabang, Lao PDR, in June 2019, identified “Adapting agriculture to climate change in the context of the water energy food security nexus” as one of six themes for Asian Development Bank (ADB) support. The Sustainable Agriculture and Food Security Program – TA9916 (SAFSP) will contribute to ADB assistance on the Nexus and assist to promote GMS-wide cooperation on efforts to reduce Nexus trade-offs.

Click [here](#) to register in advance for the workshop.

After registering, you will receive a confirmation email containing information about joining the meeting.

Passcode: 1234

The expected impact of SAFSP is: ‘**GMS vision of being a leading supplier of safe and climate-friendly agri-food products realized**’. The outcome of the TA is: ‘**GMS investments in and capacity for climate-friendly, safe, and sustainable agri-food value chains increased**’. The program has three outputs: (i) COVID-19, Climate-friendly, inclusive, and gender-responsive agri-food value chains and agribusinesses strengthened; (ii) Harmonized crop and livestock safety and quality systems adopted; and, (iii) Climate-adaptive agriculture in the context of the water-energy-food security nexus enhanced. The GMS WGA, in collaboration with relevant departments of the Ministry of Agriculture and other ministries (e.g., commerce, environment, finance, industry, science and technology, trade), is overseeing the implementation of the technical assistance.

#### First webinar: March 2022

A first webinar on the Water-Food-Energy (WFE) nexus was conducted on 24 March 2022 to introduce the Nexus concept and discuss the relevance of Nexus trade-offs – these define trade-offs between water, food, and energy security – for stakeholders in GMS countries. The latter confirmed that the Nexus is of high relevance for decision makers and planners in all GMS countries as traditional processes have occurred in sector silos often triggering substantial unintended cross-sector trade-offs.

#### 19<sup>th</sup> GMS WGA Annual Meeting June 2022

A session during the 19<sup>th</sup> WGA Annual Meeting on 21 June 2022 focused also on the WFE nexus and challenges and opportunities in the GMS agri-food sector. This session presented experiences agencies had with Nexus-focused solutions, including solutions to monitor trade-offs between hydropower development and fish populations in Lao PDR, incentive mechanisms to advance the uptake of IoT solutions in climate-smart agriculture in Thailand, and water storage optimisation to improve food and energy security in Viet Nam.

## Second webinar: October 2022

The purpose of the second Nexus webinar is to introduce approaches to operationalise Nexus thinking. While the Nexus concept is still considered novel, a range of methods and tools have been developed to guide decision makers and planners by revealing trade-offs and synergies. The workshop will present a few methods and tools ranging from simple approaches that can be swiftly deployed during investment planning processes to complex systems models.

Dr Alex Smajgl will present Nexus Systems Mapping (NSM) as a simple approach to support planning processes by identifying quickly likely Nexus trade-offs and synergies. He will also present a complex systems model focused on revealing Nexus trade-offs the Mekong Region Futures Institute (MERFI) developed for the MRC.

His presentation will be followed by four additional examples for Nexus management tools. The first one is an approach the MRC developed to track trade-offs across the lower Mekong basin. The second approach will be presented by AIT and will be focused on a Nexus assessment tool currently tested in the GMS. The third one is an approach the ADB developed for the GMS aiming at optimising investments considering Nexus trade-offs. The fourth Nexus management tool is a model that is being developed at the University of New South Wales for the Ma/Ca basin, which is a transboundary basin shared by Viet Nam and Lao PDR.

The presentations will be followed by a podiums' discussion to understand the selection of Nexus management tools to support decision making and planning in the GMS. The podiums will also discuss knowledge-focused questions and how a variety of decision makers, ranging from farmers to provincial planners to central decision makers can learn with such tools. The podiums' discussion will be followed by a plenary discussion, which will allow participants to ask questions.

### Objectives

1. National agriculture sector policy makers to be more aware of Nexus management solutions to mitigate Nexus trade-offs;
2. Increase donor partner awareness of solutions to mitigate Nexus trade-offs and consider these Nexus management tools in sector planning and investment projects;
3. Facilitate dialogue between Government officials and donor partners to support Nexus planning and develop the basis for a policy platform; and,
4. Identify the role that TA 9916 and its consultants can play to assist GMS stakeholders with successfully applying the Nexus approach in their work.

### Target participants

- WGA representatives;
- Technical department representatives from the GMS agriculture ministries responsible for food security, water use (e.g. irrigation), and energy related issues;
- Departments from other Ministries involved with water, food, and energy focused planning;
- Private sector (agribusiness) representatives involved with Nexus programs;
- Development partners' representatives;
- Regional organisations;
- ADB;
- TA 9916 consultant team.

## Expected outputs

1. The national agriculture sector policy makers are more aware of the Nexus management tools;
2. Donor partners increase awareness of the needs for supporting GMS stakeholders to apply Nexus management solutions in GMS agriculture investment projects and, thereby, to mitigate Nexus trade-offs; and
3. TA 9916 project and consultants proactive engagement to assist GMS stakeholders with their efforts to apply the Nexus approach;
4. Nexus policy and management issues for further dialogue are identified.

## Agenda

The virtual workshop will be conducted in **English**. The workshop program is as follows:

Time (GMT+7)	Subject	Presenter / TA / Country
09:00 – 09:05	Welcome and meeting guidelines	<b>Dr Alex Smajgl</b> <i>TA9916 WFE Nexus Specialist</i>
09:05 – 09:10	<b>Water-Food-Energy Nexus: ADB perspective</b>	<b>Dr Srinivasan Ancha</b> <i>Principal Climate Change Specialist, ADB</i>
09:10 – 09:20	<b>Opening remarks by GMS WGA 2022 chair</b>	<b>Nguyen Thanh Dam</b> <i>Head of Multilateral Cooperation Division, International Cooperation Department, Ministry of Agriculture and Rural Development (MARD)</i>
09:20 – 10:00	<b>Keynote Presentation:</b> Operationalising the Nexus: Nexus management solutions ranging from simple processes to complex decision support models	<b>Dr Alex Smajgl</b> <i>TA9916 WFE Nexus Specialist</i> <b>Dr Bui Le Vinh</b> <i>TA9916 WFE Nexus Specialist</i>
10:00 – 11:40	<b>Nexus Management Tools: Examples from the GMS</b>	
		Lao PDR: <b>(TBC)</b>
		Thailand: <b>(TBC)</b>
	Indicator-based approach to assess WEF nexus: Concept and application to the Ping River Basin in Thailand	<b>Mr. Kaushal Chapagain</b> and <b>Prof Dr Mukand Babel</b> <i>Asian Institute of Technology (AIT)</i>
	System dynamics modelling for implementing the Water-Energy-Food Nexus	<b>Jack Lodge</b> <i>University of New South Wales</i>
	Adapting to salinity intrusion – Understanding Nexus trade-offs in the transition from rice to dragon fruit	<b>Dr Lam Noi</b> <i>SIWRR, MARD, Viet Nam</i>
11:40 – 12:20	<b>Q&amp;A session</b> Steps to operationalise the Nexus in the GMS	Facilitated by <b>Dr Alex Smajgl</b> and with the participation of all previous speakers  Questions from the plenary
12:20 – 12:30	<b>Next steps</b> TA 9916 support to Nexus-focused coordination in the GMS	<b>Mr Stewart Pittaway</b> <i>TA 9916 Team Leader</i>