Managing water resources in an equitable and sustainable manner in the context of climate change can be arduous in the Mekong region, especially in times of water scarcity. Governments often lack systematic ways to involve local communities and other stakeholders, like academia or the private sector in decision making. As part of the third phase of the Sustainable Mekong Research Network (SUMERNET 2014-2018), a regional assessment was undertaken to support water scarcity management. Two main advisory bodies were created: an expert group, comprising of different stakeholders to provide scientific advice, and a policy group involved with planning processes. Different scenarios were analyzed through the lens of a robust decision support (RDS) framework. The RDS system can help policymakers and key stakeholders determine the durability and sustainability of policy options related to drought and water scarcity management and improve management under uncertainties, such as floods and droughts due to climate change.

Relevant stakeholders were gathered at a workshop, to be able to share their views, express their concerns, gain a better understanding on the participatory process in addressing water scarcity and co-design solutions for water management. All key stakeholders were part of the decision making to identify the scope of the study, depict the challenges and success indicators to be used as a basis to judge the performance of policy options, and discuss the feasibility of different policy options. The Stockholm Environment Institute (SEI) has led the technical work and also introduced the Water Evaluation and Planning System (WEAP) model, a water resources planning tool to identify different management options under water scarcity conditions. Among all policy options that were discussed throughout the consultations, groundwater development was found to be the most robust. This has also been supported by augmented funding from Khon Kaen provincial government for groundwater development to supply water during time of scarcity for the farmers in the area.

The application of the RDS framework has helped forge a sense of ownership and increase participation levels. Furthermore, it has reinforced local communities’ confidence about the usefulness of sharing their experience and express any concerns they might have. Water scarcity has decreased, with increased supply of groundwater. The farmers can use the groundwater for cropping organic vegetables, which they can sell at a good price.

Stockholm Environment Institute (SEI)  
http://www.sumernet.org  
Chayanis Krittasudthacheewa, SEI: chayanis.k@sei.org