

SUMERNET "RESEARCH 4 ALL" PODCAST SERIES

SUMERNET Young Professionals miniseries

EPISODE 11 - How young professionals in the Mekong can be agents of change through research

Full transcript

[00:23 – 00:36]

Bouanong: Hello, welcome everyone to the SUMERNET Young Professionals miniseries podcast. In this first episode, we aim to highlight how young professionals in the Mekong region contribute to make a difference.

[00:37 – 00:53]

Bouanong: It's a pleasure to welcome our guest speaker today, Dr. Preeyaporn Muenratch. Dr. Preeyaporn joins us with extensive experience as a young researcher specializing in groundwater governance and particularly in the context of the Mekong region.

[00:54 – 01:07]

Bouanong: Today, she will share insights from her research and provide recommendations for sustainable groundwater management. Please join me in giving a warm welcome to Dr. Preeyaporn Muenratch. Hi Dr. Preeyaporn welcome!

[01:08 – 01:12]

Dr. Preeyaporn: Hi everyone, thank you for having me today.

[01:13 – 01:22]

Bouanong: Of course. Before we hear about your research experience, could you tell us a bit about your backgrounds for us Dr. Preeyaporn?

[01:23 – 01:56]

Dr. Preeyaporn: Of course, I'm a faculty member in the Department of Geography, Faculty of Arts in Silpakorn University, Nakhon Pathom, Thailand. Human geography is the focus area of my teaching and research. In the last three years, I have been the research assistant under the Groundwater Integrated Regional Assessment Project, or GIRA project, funded by SUMERNET, SEI. This was a part of my PhD thesis when I was studying doctoral degree at the Asian Institute of Technology (AIT).

[01:57 – 02:08]

Bouanong: Wow. Dr. Preeyaporn I've heard that you've done a lot of research contributing to sustainability. I want to know, what does sustainable development mean to you?

[02:09 – 02:25]

Dr. Preeyaporn: In my perspective, it means that the world of new generation decision and the way forward to a good relationship between human and environment. The development pathway should include everyone in the decision-making process.

[02:26 – 02:31]

Bouanong: That is very meaningful. How did you become interested in sustainable development?

[02:32 – 03:04]

Dr. Preeyaporn: Actually, throwing back to AIT PhD coursework. Once, I studied a course named Natural Resource Management in Asia. It talks about the Satoyama concept in Japan. This concept tried to harmonize humans and nature staying together by reducing water pollution and other harmful activities in the communities. This lecture made me interested in the ways to balance human activities and the environment following Japan's local community practices.

[03:05 – 03:20]

Dr. Preeyaporn: There are many opportunities to learn more about sustainable development. These sources made me interested in and excited about developing research proposals and reviewing articles related to sustainable development goals.

[03:21 – 03:28]

Bouanong: I see. Could you share what motivates you to contribute to the sustainability efforts?

[03:29 – 04:06]

Dr. Preeyaporn: The environmental problems made me motivated to change people's behavior in terms of human or demand side to pro-environmental behavior in terms of environmental conservation in the transition toward a sustainable development pathway because we cannot only increase the supply side of natural resources, we need to control demand sides by changing their unsustainable behavior to sustainable practices for balancing economic development, environment, and social inclusion.

[04:07 – 04:27]

Bouanong: Yes, absolutely. I could definitely hear your passion in that answer. Now shifting the question a little bit towards your research. Could you share some examples or some instances of how you have contributed to sustainable development, drawing from the research work that you've done?

[04:28 – 05:14]

Dr. Preeyaporn: In the past, I have conducted research related to groundwater governance issues in the lower Mekong Basin. It is a research project that focuses on integrated studies by a team of researchers from the Water Engineering and Management Department (WEM) and, the Department of Development and Sustainability from the Asian Institute of Technology (AIT). The study area consists of 4 cities in 4 countries in the Lower Mekong Basin: Khon Kaen Province, Thailand; Vientiane, Laos; Siem Reap, Cambodia; and the last one, Can Tho, Vietnam. These cities are selected due to rapid urbanization and higher groundwater demand for economic and social development.

[05:15 – 05:51]

Dr. Preeyaporn: This research project attempts to study groundwater use in each sector and collects data from marginalized and vulnerable groups as well such as poor people, ethnic groups, women's groups, etc. to analyze research results contributed to Sustainable Development Goals (SDGs), especially SDG 6: clean water and sanitation. This project has organized meeting activities with stakeholders from 4 countries to discuss together on groundwater management issues in each lower Mekong Basin country. Then, we present research findings from this project and [also] policy recommendations.

[05:52 – 06:06]

Bouanong: It's impressive to hear about your involvement and it's really fascinating to see so many cities that you work with across the Mekong region countries and the different minority groups that you involved them with in this project as well.

[06:07 – 06:25]

Bouanong: I read from your background a little bit and there was one particular research you did on groundwater governance and policy responses. What are the challenges that you found affected groundwater management efficiency in the province where you did your research?

[06:26 – 07:11]

Dr. Preeyaporn: Firstly, I will talk about the 1st paper naming "Governance and policy responses to anthropogenic and climate pressures on groundwater resources in the Greater Mekong Subregion urbanizing cities". This research article has analyzed the trends of groundwater use in 3 sectors: agriculture, business, and domestic consumption. It was found that the trend of groundwater use in all three sectors has tended to increase during the past 20 years. In the past 2 decades (2000-2019), the

amount of groundwater from the monitoring wells of the Department of Groundwater Resources (DGR) has tended to decrease in Khon Kaen Province.

[07:12 – 07:36]

Dr. Preeyaporn: It is also associated with the use of groundwater in the business sector. However, based on the analysis of past groundwater policies, it is found that the policy of decentralization plays a key role in controlling the amount of groundwater use in the domestic consumption and agricultural sectors. But the control is only for a certain period.

[07:37 – 08:01]

Dr. Preeyaporn: There are also problems with the capacity of local agencies such as municipalities and sub-district administrative organizations or Tambon Administrative Organization (TAO). They are still unable to manage groundwater as efficiently as they should. Therefore, the amount of groundwater use has increased again.

[08:02 – 08:26]

Bouanong: Right, so this research seems to be focusing a lot on the challenges that you found in Khon Kaen province regarding the groundwater management. There was one other research. I think that research was on determinants of water saving behavior toward sustainable groundwater management. You shed light on the determinants of groundwater saving behavior among different user groups.

[08:27 – 08:35]

Bouanong: Could you elaborate on how your findings suggest actionable strategies to promote more sustainable groundwater use practices?

[08:36 – 08:57]

Dr. Preeyaporn: Well, this research article uses The Theory of Planned Behavior (TPB) to test the hypothesis that this theory presents to be developed as a policy tool from the role of behavioral factors to change the behavior of people in the community to use groundwater more economically to control groundwater demand.

[08:58 – 09:23]

Dr. Preeyaporn: This article is divided into 2 models, using the Probit Regression Model and Structural Equation Modeling (SEM) to analyze the determinants behind self-perceptions of current groundwater-saving behavior. It was found that agricultural groundwater users tend to have the lowest perception of water-saving.

[09:24 – 09:37]

Dr. Preeyaporn: Key suggestions from the research results include firstly, increasing the price of groundwater will make agricultural groundwater users aware of using groundwater more economically.

[09:38 – 10:02]

Dr. Preeyaporn: The second is that increasing awareness of the adverse effects of groundwater exploitation can increase water savings for water users. The third one is about information about the groundwater status in the community that should be provided and disseminated in the local community.

[10:03 – 10:25]

Dr. Preeyaporn: The fourth one is family and community campaign activities to save water are important and make water users save more water, further creating a network of groundwater users in the local community and cooperation between stakeholders are the key interventions to save groundwater as well.

[10:26 – 10:47]

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Bouanong: Your suggestions and the solutions to take the actions are very critical to the challenges in groundwater management. I know that considering that this is very important for the community to foster the practices together, how do you propose creating effective networks and cooperation among stakeholders to implement these strategies?

[10:48 – 11:06]

Dr. Preeyaporn: Countries in the Lower Mekong Basin still lack cooperation in managing cross-border groundwater or Transboundary Aquifer Management which is important for controlling the shared use of water in the same aquifer between countries to conserve groundwater resources for sustainable use.

[11:07 – 11:24]

Dr. Preeyaporn: There is also a lack of information on enforcement of laws and regulation on groundwater use in easy-to-understand language. As a result, people in the community have a low level of perception of this information.

[11:25 – 11:49]

Dr. Preeyaporn: In addition, it was found that there is not enough monitoring well stations to monitor groundwater levels and quality. As a result, it cannot monitor the low water level in many areas. People who use groundwater from the village water supply system reflected that groundwater is very low quality.

[11:50 – 12:25]

Dr. Preeyaporn: There is red [colour of water] mixed with sediment, which has not yet been resolved by the relevant agencies. In addition, the groundwater policy at the local scale is not clear. There is a lack of policy for using surface water together with groundwater or someone called “Conjunctive Water Management Policy” to maintain a balance between types of water resources. And there has been no involvement of vulnerable and marginalized groups in the preparation of policies related to groundwater.

[12:26 – 12:46]

Dr. Preeyaporn: Although the Department of Groundwater Resources has promoted the creation of a network of groundwater users in Khon Kaen Province, there has not yet been a concrete establishment right now. As a result, people in the community still lack cooperation in managing groundwater together.

[12:47 – 13:09]

Dr. Preeyaporn: There must be community rules and regulations for managing groundwater to control its use effectively. To be able to develop into a groundwater user organization in that community to have a strong network and be able to manage groundwater on their own.

[13:10 – 13:33]

Bouanong: This is definitely something that is a critical issue. It's quite clear that there's a need for better dissemination of information and enforcement of regulations to address the issues that you mentioned, such as the low water quality and the inadequate monitoring so these are very interesting research [topics] and thank you so much for sharing.

[13:34 – 14:07]

Bouanong: I think we have learned quite a lot from the critical groundwater issues from you and your research, and there is that absolutely an urgency for collaboration effort to develop among the policies and the strategies for a sustainable groundwater management in the region.

So we're on our last question of the day here Dr. Preeyaporn. Building on your experiences and recommendations, what advice would you give to other young researchers who aspire to contribute to sustainable development?

[14:08 – 14:52]

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Dr. Preeyaporn: I got the opportunities from my advisor when I studied PhD at AIT and SUMERNET network while studying there. Then, I got several invitations from the institutions to participate in many activities. The first activity that I joined last year is the research workshop at Chiang Rai by Stimson Center, U.S. to discuss how to contribute sustainable Mekong River basin. The second activity is Mekong Academic Consortium Conference by Mae Faluang University funded by US Embassy, to share the ways forward to sustainable development in the Mekong River basin.

[14:53 – 15:10]

Dr. Preeyaporn: I would recommend young professionals to actively participate in SUMERNET activity and join any programs or apply for the research funding offered by SUMERNET to expand their knowledge and network to contribute to the sustainable development in the Mekong River basin.

[15:11 – 15:31]

Bouanong: There you go. That's the road map of how Dr. Preeyaporn has achieved her successful work and research so far and so it's really inspiring to hear the journey that you took, especially you joined the opportunities that were offered to you from SUMERNET and also from other programs.

[15:32 – 15:59]

Bouanong: So that was our last question Dr. Preeyaporn. I really appreciate once again for your valuable insights and your expertise in discussing groundwater governance and sustainable development in the Mekong region. I do believe that your contributions have shed the light on the challenges and opportunities that we face in managing this vital resource which is the water governance in the region effectively.

[16:00 – 16:24]

Bouanong: I want to express our gratitude for your time and your knowledge you've shared with us, your research and experience serve as an inspiration for us all, particularly the young researchers out there. We really look forward to continuing collaboration and learning from your ongoing work in this important field Dr. Preeyaporn so thank you very much for joining this podcast.

[16:25 – 16:26]

Dr. Preeyaporn: Thank you so much.