**Transdisciplinary research partnering with rural people in developing world: co-creation of transformative knowledge on challenges and leverage points**

**Part 1:** November 16 (Sat) 13:00-17:00  
**Part 2:** November 17 (Sun) 9:00-17:00

**Venue:** JST Tokyo Headquarter (K’s Gobancho), Lecture Hall (1st floor)  
[https://www.jst.go.jp/EN/about/access.html](https://www.jst.go.jp/EN/about/access.html)

**Organizers:** TD-VULD project (Transdisciplinary Study of Natural Resource Management under Poverty Conditions Collaborating with Vulnerable Sectors)  
(funded by Research Institute of Science and Technology for Society, Japan Science and Technology Agency, as a contribution from Japan to the Future Earth initiatives.)

**Principal Investigator:** Tetsu Sato (Professor, Ehime University Faculty of Collaborative Regional Innovation)

**Language:** English

**Key words:** transdisciplinarity, community-based innovator, autonomous innovation, mutual learning, leverage point, causal network analyses
Aim and Scope of the Symposium:

Rural people in developing world depends on diverse natural resources to sustain and improve their livelihood under complexities and uncertainty of social-ecological systems. They also play critical roles to provide affordable food resources for people living under poverty conditions. Small-scale farmers, fishers, and other people engaging in various types of utilization of natural resources are often living under poverty and marginalized in their communities. These people have been a target of assistance, but have rarely been regarded as a partner of transdisciplinary research to co-design research agenda and co-produce knowledge to cope with challenges associated with dynamic changes of complex social-ecological systems.

In order to promote autonomous decisions and actions among these vulnerable actors to achieve co-management of natural resources for their well-being, we designed and applied theory and methodologies of transdisciplinary research partnering with marginalized people in 7 developing and emerging countries in Africa and Asia Pacific in the TD-VULS project. This TD research focuses on promoting dialogue and collective thinking among rural people and scientists by removing paternalism of scientists to build trust, reducing gaps of knowledge and values caused by deficit models, and coping with constraints of decisions and actions among marginalized people.

Through building mutual trust and co-designing research agenda by visualizing imminent challenges facing rural communities in developing world, we identified innovative and autonomous actions and community-based innovators responsible for these actions. These autonomous and transformative innovations (tools) include an innovative social system of fair water distributions along the irrigation channels, small-scale irrigation using limited water resources in dry season, community-driven creation of Sato-Umi type fishing ground to improve fishery resources, restoration and management of traditional salt-making systems by a women group, and creation of a local tour-guide association with a potential of community-based management of tourism resources. These tools are expected to provide options of plural livelihood activities and sustainable resource uses in diverse rural communities in developing world to improve well-being of people. Adaptive societal transformation toward sustainable futures would be leveraged by these tools, driven by small-scale users of natural resources in rural communities of developing world. And, of course, dialogue and collaboration with these community-based innovators provided ample opportunities of broadening eyes and learning from real world for us, the scientists.

This international symposium will provide a unique opportunity to have creative dialogue and collective thinking with community-based innovators from rural areas of developing world including Malawi, Fiji and Indonesia. Four community-based innovators and a residential researcher closely collaborating with an innovator will be with us throughout the symposium, with various setting to promote dialogue and collective thinking. Scientific knowledges derived from meta-analyses of development and application processes of each tool will be re-examined by the innovator who developed the tools, producing new insights on the processes and mechanisms of societal transformation toward sustainable futures using these innovative tools.

The symposium will be divided into two parts. Part 1 (Nov 16) will highlight the theory, methodologies and outcomes of the transdisciplinary research with marginalized people as genuine partners of knowledge co-production in transdisciplinary processes. Part 2 (Nov 17) features interactive discussions inviting local innovators from rural communities, scientists working in close collaboration with these innovators, and the entire floor. Collective thinking among diverse participants of the symposium will be facilitated to co-produce new visions and ideas of TD research to create transformative knowledge for solutions of complex social-ecological challenges toward sustainable futures.
Program

November 16 (Sat)
Part 1. Overview of the TD-VULS project and Tool Box analyses

13:00-13:10: Opening of the symposium

13:10-14:00: Co-creation of transformative knowledge with community-based innovators: The overview of the TD-VULS project. (Tetsu Sato)

14:00-14:45: Introduction of community-based innovators by transdisciplinary scientists partnering with them, and quick comments from innovators.
- Chembe, Malawi: John Banana Matewere (Cape Maclear Tour Guide Association) and Brighten Ndagala (Synthana project), by Tetsu Sato
- Jeneberang, Indonesia: Ilyas (Federation of Water Users Association), by Agnes Rampisela (Hasanuddin Univ.)
- Lomawai, Fiji: Anareta Dokai (Salt Making Committee), by Satoru Nishimura

14:45-15:00: Coffee Break

15:00-15:40: System analyses of narratives on innovations: How can we understand the process and mechanisms of autonomous innovation emerged from rural communities. (Hidetomo Tajima, Shion Takemura, Juri Hori, Mitsutaku Makino, Tetsu Sato)

15:40-16:20: Identify challenges and leverage Points: How can we find transformative potentials toward sustainable futures. (Shion Takemura, Hidetomo Tajima, Juri Hori, Mitsutaku Makino, Tetsu Sato)

16:20-16:50: General discussions inviting entire floor initiated by brief comments from innovators and scientists partnering with them.

16:50-17:00: Wrap-up of Part 1 and way forward to Part 2. (Tetsu Sato)

17:30-19:30: Banquet
November 17 (Sun)

Part 2. Dialogue and collective thinking with community-based innovators

9:00- 9:15: Overview of Part 2: Guiding principles for collective thinking (Tetsu Sato)

9:15- 9:45: Linking pre-school education with small-scale irrigation and permaculture in Sinthana project. (Brighten Ndawala) (with Q&A)

9:45-10:15: Discussions based on causal network and leverage point analyses in Sinthana case.
(introduction by Shion Takemura and Hidetomo Tajima, followed by response of Brighten and Tetsu Sato, and discussion with the floor)

10:15-10:45: Innovative system of water distribution along irrigation channels in Jeneberang. (Ilyas) (with Q&A)

10:45-11:15: Discussions based on causal network and leverage point analyses in Jeneberang case. (introduction by Shion Takemura and Hidetomo Tajima, followed by response of Ilyas and Agnes Rampisela, and discussion with the floor)

11:15-12:30: Lunch

12:30-13:00: Reconstruction of traditional salt making systems by a women group in Lomawai (Anareta Dokai) (with Q&A)

13:00-13:30: Discussions based on causal network and leverage point analyses in Lomawai case. (introduction by Shion Takemura and Hidetomo Tajima, followed by response of Anareta Dokai and Satoru Nishimura, and discussion with the floor)

13:30-14:00: Tour-guide association, beach cleanup and Cape Maclear clean-up project to manage tourism resources (John Banana Matewere) (with Q&A)

14:00-14:30: Discussions based on causal network and leverage point analyses in Tour Guide Association case. (introduction by Shion Takemura and Hidetomo Tajima, followed by response of John Banana Matewere and Motoko Shimagami, and discussion with the floor)

14:30-14:45: Coffee break

14:45-15:15: Co-creation of artificial Chirundu, a Sato-Uni type fishing ground, by Madothi Beach Village Committee (Tetsu Sato and John Banana Matewere) (with Q&A)

15:15-15:45: Discussions based on causal network and leverage point analyses in Madothi case, (introduction by Shion Takemura and Hidetomo Tajima, followed by response of John Banana Matewere, Shin Kakuma and Hiroyuki Matsuda, and discussion with the floor)

15:45-16:45: Round Table Discussion with innovators: What is the key of emergence of autonomous innovations toward sustainable futures?

16:45-17:00: Wrap up of the symposium and the way forward