

UNESCO Project Sheet

Sustainability Transformation Across the Region – STAR

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| What is it? | A UNESCO project funded by Japanese Funds-in-Trust, and planned with time frame 15 September 2013 – 31 December 2014, but it extended with no cost until 30 June 2016. The objective of this project is to integrate “Sustainability Science” concepts into natural resources management frameworks and processes that serve and align well with regional research and management challenge while supporting opportunities for more sustainable and resilient futures”. |
| Why? | As a new academic discipline, “Sustainability Science” promotes as such cross-disciplinary coordination, and requires global cooperative effort to advance understanding of human-environment interactions and systems. Due to its broad economic, social and environmental interactions in managing interventions in water and the environment, Sustainability Science is expected to address economy-environment interactions and contribute to sustainable development in the Asia-Pacific Region. |
| What is technical assistance? | The technical assistance was provided by the partners of this project which consist of researchers, experts, or universities: <ol style="list-style-type: none"> 1. Collecting and collating baseline of qualitative and quantitative information in the field, for example information of hydrology, pollution sources, ecosystem; 2. Workshop held by partner with local stakeholders and practitioners to gain information on socio-environmental issue; 3. An assessment of environment impact due to agriculture change, urban degradation, or climate change; 4. Identify the potential sustainability indicators; 5. Develop policy recommendations for sustainable management in demonstration sites. |
| Beneficiary countries | UNESCO Office Jakarta demonstration sites have the specificity to include: <ol style="list-style-type: none"> 1. World Heritage Site: Angkor site in Cambodia and Ifugao rice terraces in the Philippines 2. Biosphere Reserve: Tonle Sap in Cambodia 3. Hydrology for Environment, Live and Policy: Langat river basin in Malaysia |
| How does it work? | The main steps of the Sustainability Science framework can be described in five main steps: <ol style="list-style-type: none"> 1. Co-realization of a common problem Sustainability science claims to be problem-driven with the purpose to co-create and apply actionable co-produced and co-designed knowledge by and with all practitioners and stakeholders for decision making in sustainable development 2. Co- Envisioning of the future society This step is specific to Sustainability Science approach as these visions for the future as it determines the subsequent steps and settles the backbone of the sustainable social transformation and social learning to be undergone. 3. Co-shaping into envisioned future society This step encompass, measuring the selected indicators and proposing solutions and/or strategies to reach the agreed benchmarks. This measurement is usually performed by a variety of methods, including aggregating economic data or questionnaires, remote-sensing data, experimental data, and so on. Agreement by selecting a strategy |

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| | <p>4. Co-Implementation This step is the execution of the co-designed and agreed plan with all stakeholders and practitioners)</p> <p>5. Monitoring and Evaluation This step is the time for neutral and objective assessment on the progress and the way targets have been reached and solutions implemented with or without collateral impacts, unexpected and/or adverse effects.</p> |
| Duration | 33 months, from 15 September 2013 – 30 June 2016 |
| Expected results | <ul style="list-style-type: none"> • Development of regional knowledge platform, tools and framework to encourage regional research committees to own and manage the research outputs adding to their own local program of activities and also set in place a process that allows this to continue beyond the life of the project; • Demonstration of the sustainability science approach across three demonstration projects working closely with natural and social science research disciplines and with the regional committees receiving the research outputs; • Liaise extensively with governments, regional professional bodies, industry associations and regional communities to secure and integrate program outputs that meet research needs and outcomes; • Establish and encourage where necessary appropriate business arrangements between sustainability science research and regional communities to facilitate positive change for a more resilient environment, prosperous livelihoods and better futures; • Assist selected regional communities to build their capacity to move to a sustainable and resilient future utilizing sustainability frameworks. |
| Main activities undertaken | <p>In order to demonstrate the sustainability science approach, UNESCO proposes to test the frameworks and models developed through a multilevel (community, pilot area and national level) participatory process, involving several UN agencies, universities, research institutes and other governmental institutions. Three proposed pilots are:</p> <ul style="list-style-type: none"> • Angkor World Heritage Site and Siem Reap City Water, on Sustainability of Natural Heritage and a Biosphere Reserve linked with Social System. • Restoring and Managing Langat River, Malaysia for Future, Ecohydrology, Hydrology for Environmental, Life and Policy (HELP) and IWRM aspects. • Rice Terraces of the Philippines Cordilleras, Cultural and Natural World Heritage management linked with Natural Resources Management. |
| Current status of the project | <ul style="list-style-type: none"> • This project will be end on 30 June 2016. • Sustainability Science implementation framework for Asia Pacific region is under development by the UNESCO Jakarta Office. A related abstract has been presented at the International Symposium "Integrated Actions for Global Water and Environmental Sustainability" in conjunction with the 23rd IHP RSC SEAP meeting. • Progress project on 3 pilot sites: <ol style="list-style-type: none"> 1. Siem Reap: "Establishment of Sustainable Science Demonstration Project on Restoring and Enhancing Angkor World Heritage Site and Siem Reap City Water Systems": This activity is implemented through UNESCO Phnom Penh office with close collaboration of Jakarta office. A water data secretariat has been established with APSARA in order to centralize all water/groundwater resources and uses data on one common platform. A local consultant (hydrologist) has been contracted by PNP to support the activity and liaises APSARA. The activity has been presented |

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| | <p>at the 24th Technical Session meeting of the International Coordinating Committee for the Safeguarding and Development of the Historic Site of Angkor (ICC-Angkor) last June 2015 in Siem Reap.</p> <ol style="list-style-type: none"> 2. Ifugao Rice Terraces, Phillipines: “Establishment of Sustainable Science Demonstration Project on Rice Terraces of the Philippines Cordilleras”. This project is under implementation with a local partner. Three workshops including all local stakeholders and field surveys (July, August and November) were conducted in Ifugao. Workshops in the activity are conducted as focus group discussion with local government, practitioner, and local communities, to gather data for study. After some delays for the last workshop due to typhoon season in October/November in the Philippines, the final draft report is currently under revision. 3. Langat river basin: “Establishment of Sustainable Science Demonstration Project on Restoring and Managing Langat River, Malaysia for Future”. IPA for this project has approved and implement by a local partner. Baseline of qualitative and quantitative data was submitted and workshop with local stakeholder will be held on March 2016. |
| <p>Link to culture and development</p> | <p>In response to the emerging global sustainability challenges, UNESCO is putting into practice integrated science for sustainable development, or sustainability science highlighting the interconnectedness of various development challenges. The demonstration sites identified by UNESCO are some of the examples of partnerships, signifying the urgency to integrate economic, social, cultural and environmental aspects of sustainable development. It also highlights that sustainable development needs to be inclusive, working with practitioners of natural and social sciences as well as with communities and local governments that remain a key in various policy making and implementing processes. In all these conversations communities and environment remain crosscutting themes linking all dimensions of sustainable development.</p> |
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| <p>Photo(s)</p> |  <p>Fig 1: Farmers from Brgy Mapawoy (Ifugao, The Philippines) engaged in a focus group discussion with the research team.</p> |



Fig 2: In August 2, 2015 the research team in Ifugao, The Philippines held a focus group discussion among 17 high school students aged 14-16 (15 girls, 2 boys) enrolled in Assumption Academy to elicit young people' perceptions and attitudes about the rice terraces, as well as their aspirations for their future careers.