Strengthening Technical and Vocational Education and Training (TVET) for Improved Skill Outcomes in the Asia-Pacific Region

(Asia-Pacific Conference on Education and Training (ACET), 3-5 August 2015)

**Snapshot of The Project:**

In the face of the rapidly changing world characterized by greater regional integration, demographic shifts, technological advances, persistent disparities and spiraling youth unemployment, it is widely acknowledged that more attention should be given to skills development, which is considered as a key instrument that can empower youth and adults with competencies and competitiveness to meet the challenges of the 21st century.

To strengthen the role of technical and vocational education and training (TVET) and skills development for socio-economic development, the Asia-Pacific Conference on Education and Training (ACET), "Making Skills Development Work for the Future", was held from 3 to 5 August 2015 in Kuala Lumpur, Malaysia, with around 1,000 participants in attendance. Ministers overseeing education and training in the region joined representatives from bilateral and multilateral organisations, the private sector, unions, youth organisations, and researchers in discussions on TVET-related issues such as Information, Communication and Technology (ICT) in TVET, greening TVET, partnerships, quality assurance mechanisms, TVET teacher training and TVET networks.

The Conference concluded with the adoption of the Kuala Lumpur Declaration, which was endorsed by ministers, and heads of delegations responsible for education from 26 countries. The Declaration puts forward concrete and actionable recommendations that are expected to contribute to transforming technical and vocational education and training in the region in the years to come.
**The Target Beneficiaries:**
- Ministers and high-level officials of UNESCO Member States in the Asia-Pacific region;
- Representatives of United Nations agencies, development banks and other multilateral organizations working in the area of TVET and skills development;
- Representatives of institutions, foundations and bilateral development partners active in the areas of TVET and skills development in the Asia-Pacific;
- UNEVOC Network members from the Asia-Pacific;
- Representatives of the private and corporate sector, non-governmental organizations, civil society organizations, youth organizations, unions and networks active in the areas of TVET and skills development in the Asia-Pacific;
- Individual experts from universities and research institutions involved in research on TVET and/or skills development.
- The project wished to acknowledge the kind support and collaboration of the Malaysian Government, in particular the Ministries of Education and Higher Education, in the organisation of ACET.

**Acknowledgement:**
Acknowledgment is due to several development partners including GIZ, BRAC, RAVTE, KRIVET, PEARSON, INTEL who were instrumental in organising some of the side sessions at ACET.

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**Project Description:**
As a follow up to the 2012 International Congress on TVET in Shanghai, China, as well as this year’s World Education Forum in Incheon, Republic of Korea, the Asia-Pacific Conference on Education and Training was organized by UNESCO with the support of the Malaysian Government and in collaboration with several development partners:
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ),
- BRAC,
- Regional Association for Vocational Teacher Education (RAVTE),
- Korean Research Institute for Vocational Education and Training (KRIVET),
- PEARSON, and
- INTEL.

The Conference concluded on 5 August 2015 with the endorsement of the Kuala Lumpur Declaration, a transformative vision of TVET in the region. Endorsed by ministers and heads of delegations responsible for education from 26 countries, the Kuala Lumpur Declaration outlines concrete, action-oriented recommendations to develop and strengthen TVET in Asia-Pacific. The recommendations read as follows:
- Enhance the quality of TVET and its relevance to the world of work;
- Ensure inclusive and equitable TVET;
- Expand lifelong learning opportunities through TVET;
- Integrate greening skills for sustainable development in TVET programmes;
- Adapt qualifications systems to facilitate learning and career pathways;
- Strengthen governance of and investment in TVET; and fostering regional integration and labour mobility;
- Leverage the potential of ICT for TVET;
- Foster regional integration and labour mobility.

To ensure effective and coordinated organization of the Conference, regular planning committee meetings were held in Bangkok and Kuala Lumpur prior to ACET. To identify qualified and experienced researchers with requisite expertise to conduct analytical work in preparation for ACET, UNESCO utilised its network of field offices and the UNEVOC Network to identify experts in the areas of TVET and skills development from the Asia-Pacific region.

**Scalability: Post-2015 Development Impact:**
The new education agenda includes more emphasis on technical and vocational skills while using the lifelong learning approach as the framework for broadening coverage of TVET policies and programmes to include adult continuing education and training, non-formal and informal learning and links with decent work and entrepreneurship. At the same time, the post-2015 education priorities, in particular skills for work and life are embedded in a broader agenda of global sustainable development.

To advance this agenda and ensure sustainability of the results of the project, ACET is conceived as the first regional TVET conference to be followed by the 2nd Asia-Pacific Conference on Education and Training in 2018. In terms of regional research conducted in preparation of ACET, studies will be the shared widely through UNESCO publications portal, newsletters, social media as well as at national and regional meetings and conferences.
Education for Sustainable Development in the Pacific Island Countries

Snapshot of The Project:

In accordance with priorities identified by the Pacific Island countries (Fiji, Niue, Palau, Tonga and Tuvalu) through situational analyses of Education for Sustainable Development (ESD) and workshops conducted in these countries, project activities were organized in line with the identified priorities. They include: developing a resource book on climate change and disaster risk management in Fiji, adaptation of indigenous language in the curriculum in Niue, integrating ESD elements into the secondary school curriculum in Tonga, publishing and distributing an ESD directory in Palau, and development of resource materials on climate change education in Tuvalu.

Achievements to date include the completion of Fiji's Resource Book on Disaster Risk Reduction and Climate Change Using Traditional Knowledge, which is currently being trialled in Year 7-8 classes, the completion of a Palau Vocabulary and Idiom book aimed at strengthening the ability of Year 9 & 10 students to speak pure Palauan language. It emphasizes on using a repetition style approach to capture the student's attention to realistically learn and constantly speak the proper vocabulary, and translating literacy and numeracy standards into the Niuean language in Niue.

Another important highlight in case of Tuvalu is that the climate change educational materials have been developed. They are relevant to the unique situation that Tuvalu continues to face due to climate change. The August 2015 workshop will build capacity for teachers from outer islands to learn how to properly use these materials in the classroom and will further strengthen sustainability efforts in this important project for Tuvalu.
The Target Beneficiaries:
The project is expected to take place in the following countries:

- Fiji
- Niue
- Palau
- Tonga
- Tuvalu

The target group and beneficiaries are:

- Primary and Secondary school students
- Teachers and principals
- Communities
- Government officials including curriculum development units and teacher trainers
- Partner organizations including the UNESCO National Commissions and teacher training institutions

Acknowledgement:
This project received funding support from the Government of Malaysia through the Malaysia Funds-in-Trust (MFIT) under the Malaysia - UNESCO Cooperation Programme (MUCP).

UNESCO Apia wishes to thank the UNESCO National Commissions and Ministries/Departments of Education in Fiji, Niue, Palau, Tonga and Tuvalu

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Project Description:
Although the Decade of Education for Sustainable Development (DESD) ended in 2014, many Pacific Island countries have requested additional follow up activities to expand and consolidate the work on ESD during the past decade to support them in moving forward. ESD is considered an educational priority in the Pacific Island countries due to the critical development issues affecting the Pacific such as climate change, non-communicable diseases and loss of cultural heritage.

The national activities are being implemented in accordance with priorities identified through workshops conducted in the targeted countries of Fiji, Niue, Palau, Tonga and Tuvalu in close consultation and collaboration with UNESCO Office in Apia. National Commissions and Ministries of Education have worked closely with UNESCO Office in Apia in coordinating and mobilizing communities and schools, line ministries and local partners in efforts to implement the activities in each country.

As mentioned above, activities include: developing resource book on climate change and disaster risk management in Fiji, adaptation of indigenous language in the curriculum in Niue, integrating ESD elements into the secondary school curriculum in Tonga, publishing and distributing an ESD directory in Palau, and development of resource materials on climate change education in Tuvalu.

Some of the obstacles that needed to be overcome included high travel cost (between USD3000 to USD6000 per trip), unstable and unreliable email and telephone connection with some of the countries as well as delayed communication which make it difficult for monitoring in timely manner.

Expected results are that resource materials developed throughout this project will be used in classrooms in the five target countries.

Scalability: Post-2015 Development Impact:

Background information to ESD in the Pacific
ESD is considered an educational priority in the Pacific Island countries due to the critical development issues affecting the Pacific such as climate change, non-communicable diseases and loss of cultural heritage. Many Pacific Island countries have requested additional follow up activities to expand and consolidate the work on ESD during the past decade to support them in moving forward. This is a clear indication that Pacific Island countries realize that ESD is an important platform to address some of the key challenges that they are currently facing in their daily life. Tuvalu is one of the LDCs in the Pacific that faces very serious challenges due to the impact of climate change and sea level rise. If the ESD platform is effectively promoted in schools and integrated carefully into curriculum/materials or through teacher education, ESD can lead to sustainable mechanisms that can make a real difference for the people of Tuvalu.

Scalability:
This initiative can be replicated in other Pacific Island countries with similar needs and priorities if countries request such assistance. It is important that a Monitoring and Evaluation Framework be developed so that results are measured and made known and a real impact on the countries is made as a result of the assistance being provided to the countries. This can create mutual benefits for both development partners and countries and a foundation for addressing other priority areas identified by countries through ESD related activities. There are other areas, identified by Pacific Island Countries, such as disaster risk reduction using traditional knowledge and strengthening Intangible Cultural Heritage (ICH) through developing educational materials that will help students sustain traditional knowledge.

Linkage to Post-2015 Development Agenda:
It is important to note that the above activities are all directly linked to the Post 2015 Development agenda or Sustainable Development Goals (SDGs) in accordance with SDG Target 4.7: By 2030 ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
Fostering Tsunami Preparedness, Response and Mitigation in the Indian Ocean Small Island Developing States and African Coast Countries

Snapshot of The Project:

The Intergovernmental Oceanographic Commission of UNESCO is leading a global effort to establish ocean-based tsunami warning systems as part of an overall multi-hazard disaster reduction strategy. With strong collaboration with Member States, other UN agencies and NGOs, the IOC Tsunami Unit is supporting the countries in assessing tsunami risk, implementing Tsunami Early Warning Systems (TEWS) and in educating communities at risk about preparedness measures. It operates through Regional Tsunami Warning Systems in all basins where SIDS are present. These regional warning systems are in operations in the Caribbean, Indian Ocean, North East Atlantic/Mediterranean and Pacific.

Through strong scientific basis research and expertise that are applied in this project, as well as adaptation to the local context, the benefiting countries would be able to develop their Tsunami Disaster Management Plan (TDMP), transfer their knowledge to their people and to other SIDS and African Coast Countries that share similarities on their social, economic and demographic conditions.

The Aims:
The aim of this project is to strengthen the capacity of Indian Ocean Member States in tsunami preparedness and response to the tsunami early warning. Strong capacity in preparedness and response will eventually contribute to the full implementation of the end to end tsunami early warning in the Indian Ocean that will save lives from a tsunami disaster in the future.

The Objectives:
- Build capacity of the relevant institutions and organization of Indian Ocean Small Island developing states and the African coasts developing countries to response to the tsunami warnings.
- Develop Indian Ocean tsunami educational and awareness rising materials based on the local context and need, especially on distance tsunami for the Indian Ocean small island developing states and the African coasts developing countries.
The Target Beneficiaries:
National Warning Centre, National and Local Disaster Management Offices of the Indian Ocean Small Island Developing States and African Coast Countries

Acknowledgement:
The Government of Malaysia via the Malaysia Funds-in-Trust (MFIT) under the Malaysia - UNESCO Cooperation Programme (MUCP), funds this project.

The project partners:
- Malaysian Meteorological Department - Malaysia
- Disaster Management Division, National Security Council - Prime Minister’s Department
- Secretariat for the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation Systems (ICG/IOTWS)
- Chair of Working Group 1 on Tsunami Awareness and Response of the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation Systems (ICG/IOTWS)

Project Description:
The partners for this project would be: the Malaysian Meteorological Department, Disaster Management Division of Malaysian Security Council, Secretariat for the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation Systems (ICG/IOTWS), and Chair of Working Group 3 on Tsunami Awareness and Response of the Intergovernmental Coordination Group for Indian Ocean Tsunami Warning and Mitigation Systems (ICG/IOTWS).

The output from the project will provide a clear guidelines for the relevant stakeholders of the Indian Ocean small island developing states and the African coasts developing countries on end to end tsunami early warning system; Recommendation on how the country could and/or should foster their end to end TEWS and the knowledge and knowhow for the country’s stakeholders of what they need to do to further develop, strengthen and sustain their end to end tsunami early warning system especially focusing on tsunami preparedness, response and mitigation. There are three activities that will be implemented in this project, including: Indian Ocean end to end TEWS stock taking survey, Training/workshop on effective tsunami preparedness, response and mitigation (on the subjects Tsunami Risk Assessment, Tsunami Risk Reduction Policy and Action Plan, Standard Operating Procedures for Tsunami Early warning and Emergency Response, and Guideline for Tsunami Exercise).

Obstacles and limitations
The obstacles that might need to overcome would be to maintain close relationship and coordination with the targeted countries partners and beneficiaries, since our implementing partners come from Indonesia and Malaysia. The knowledgeable on the situation in those countries as well as the sustainability and continuity of the project need to be well planned.

Another obstacle is in the development of the education and awareness rising materials in the English language since each member state has its own language(s) and writing system. Adaptation to local language and writing in the national language might be needed. Therefore, the project will work with the country stakeholders to assist in the translation and/or adaptation of the education and awareness rising materials to their local language.

Scalability: Post-2015 Development Impact:
This project can be a model for other SIDS and African Coast Countries since there are only few donor supports and initiatives given to these regions. The guideline and materials that will be applied in these regions are also adaptation from the Tsunami Risk Assessment and Tsunami Exercise that are used in Indian Ocean Countries resulted from previous project that were funded by UNESCAP.

In relation with the Post-2015, this project contributes to Goal 14 of the SDGs, which is to conserve and sustainably use the oceans and marine resources for sustainable development. Based on this goal, through the capacity building of each country government, it would be able to reduce vulnerability of coastal populations to ocean related risks through establishing early warning systems. It also contributes to Goal 11 - “to make cities and human settlements inclusive, safe, resilient, and sustainable” in which the tsunami educational and awareness rising materials that are developed based on the local context and needs; hence, are easily understood by the public communities in these countries.

For further scaling up of the project, the outputs include: clear guideline on end to end early warning system for SIDS and African Coast Country and recommendation for the improvement of countries tsunami preparedness, response and mitigation, will then be used as an up-to-date benchmark of the current status of each country's end to end TEWS. Each country is expected to work on a development plan to move forward and the progress will be a part of the country report at the biennial ICG/IOTWS sessions. From there, the lesson learnt can be shared with other Indian, Caribbean, Atlantic, Pacific, and Mediterranean Oceans.
Improving the Quality of Education Through Better Alignment of Assessment, Curriculum and Pedagogy

Snapshot of The Project:
The project supports the implementation of activities of the Network on Education Quality Monitoring in the Asia-Pacific (NEQMAP), a regional platform on learning assessment that is coordinated by UNESCO Bangkok. NEQMAP was established in 2013 and aims to improve the quality of learning in the region through enhancing the use of student learning assessment. At present, NEQMAP counts 34 members from 21 different countries/jurisdictions of the Asia-Pacific region. Members include assessment or evaluation units/divisions from Ministries of Education, examinations and testing bodies, universities and research institutes and NGOs.

This project, implemented by UNESCO Bangkok which serves as the Secretariat of the NEQMAP network, works with these members institutions, representatives of other countries/jurisdictions of the Asia-Pacific region and partner organizations and aims to improve the quality of learning through enhanced student learning achievement. In order to do so, the project focuses on knowledge sharing, research and capacity building. In this regard, the main achievements of the project thus far have been the following:

1. Establishment of a knowledge portal
2. Systematic review research piece on the use of learning assessment in terms of policy and practice
3. Organization of two regional capacity building workshops, on introduction to large-scale assessments of learning and design and development of large-scale learning assessments

The project is innovative because it leverages on an existing network, with dedicated members who are active participants in all project activities. The network was founded on the principle of promoting South-South (as well as North-South and North-North) cooperation, and this has been evidenced by the linkages formed between members in the course of project implementation. In terms of sustainability, the ongoing cooperation between the members over the last two years and the firm institutional grounding of the network imply that it will continue serving as a platform for implementation of activities in this area even after this project concludes. In addition, it is also worth noting that members of the network have been generous in terms of contributing both financial and human resources towards the implementation of the project activities, suggesting that the activities initiated under this project will continue even after the project’s end.
**Project Description:**
As noted above, the major accomplishments of the project thus far can be summed up as follows:

1. Establishment of a knowledge portal (http://neqmap.unescobkk.org)
2. Systematic review research piece on the use of learning assessment in terms of policy and practice

Looking to the next months of project implementation, two other research studies will be conducted, notably on the assessment of transversal competencies and on school-based assessment. At the same time, the knowledge portal will be further developed and disseminated.

The main partners involved in this project are the NEQMAP member institutions themselves. Among the most active members have been the Australian Council for Educational Research (ACER), which conducted the systematic review piece and the Annual Status of Education Report (ASER) Centre/Pratham India, Hong Kong Centre for International Student Assessment (HKPISA Centre) and Korea Institute for Curriculum and Evaluation (KICE). A number of partner organizations and experts have also played a key role in project implementation. For example, the workshop on introduction to large-scale assessments of learning, which was held in Bangkok in September 2014, included facilitators from the UNESCO International Institute for Education Planning (IIEP), the International Association for the Evaluation of Educational Achievement (IEA) and the Research Triangle Institute (RTI), in addition to the institutions noted above. The workshop on design and development of large-scale learning assessments, held in March 2015 in Bangkok, benefitted from the expertise of Professor Jim Tognolini of the Pearson Assessment Centre and Professor Esther Sui Chu Ho from the HKPISA Centre.

In terms of challenges the main one, which is not unique to this project but to much of UNESCO's work, is in relation to how we can truly measure the impact of activities such as this one. The overall goal of the project is to improve the quality of learning through enhanced student learning assessment. Given that the project activities are more upstream in nature (knowledge generation through the research studies, knowledge sharing through the portal, capacity development of policy-makers and officials through the workshops) and also given the sometimes challenging question as to the extent to which assessment itself can lead to better learning, it is difficult to address impact in terms of the ultimate stakeholders e.g. students/learners. To address this, we will strive to better understand and document how the project interventions have an impact on policy which in turn can enable improved learning.

**Scalability: Post-2015 Development Impact:**
As previously noted, the activities being carried out under this project are highly sustainable because of their implementation through an existing network with dedicated member institutions who are committed to South-South cooperation. They have been actively participating in project activities, which are highly coherent with the proposed 2030 education agenda and its focus on quality of education and learning. It is worth noting that the knowledge that has been transferred via the project’s workshops has contributed to the development of a skilled “critical mass” of Ministry officials, researchers and assessment specialists in the Asia-Pacific region. Given the credibility of NEQMAP as a regional network managed by UNESCO, there are a number of experts on assessment who are willing and able to contribute to continued capacity development efforts and other activities, even beyond the life of this project. This suggests a strong potential for replicability and scaling up.
Knowledge Generation and Dissemination to Support Education Reforms for 21st Century

Snapshot of The Project:

As many countries in the Asia-Pacific region make progress in expanding access to education, issues of education quality, effectiveness, and efficiency remain critical. This project aims at supporting Member States in reforming their education systems to meet the demands of the 21st century.

More specifically, the project will facilitate:

1. knowledge generation and dissemination of innovative and effective education policies; and
2. capacity building and mutual learning in conducting technically-robust education policy research for government officials and researchers in the Asia-Pacific region.

At the end of the project, it is expected that the project will produce: 1) a knowledge-base on innovative policies to improve quality, equity and efficiency of education created by research institutes in the region and policy makers; and 2) comparative information on national education systems in the Asia Pacific Region, including their achievements and challenges, compiled and made available.

Project Description:

This project consists of three major activities. Under Activity 1, three regional studies are being conducted in the key policy areas. The topics of the studies are: (1) integrating transversal competencies (21st century skills) in education policy and practice; (2) generating knowledge on school-based finance; and (3) Learning Enablers for Asia Pacific (LEAP).

In the initial preparatory stage, these studies generated significant interest from potential partners. UNESCO Bangkok engaged in negotiations with various universities, institutes and networks and successfully agreed to establish partnerships for each of the regional studies. The first study on transversal competencies is being implemented with the Tokyo Institute of Technology (Japan) and the Asia-Pacific Education Research Institutes Network (ERI-Net), with additional support from Zhejiang University and Korean Educational Development Institute (KEDI). The study on school finance is being conducted with Kobe University (Japan) and UNESCO-IIEP. The third study, which focuses on analysing the assessment data to develop evidence-based policies for improved learning, is being implemented in collaboration with the Network on Education Quality Monitoring in the Asia-Pacific (NEQMAP).
Under Activity 2, UNESCO Bangkok’s online knowledge portal, National Education Systems and Policies in Asia-Pacific, NESPAP, was significantly improved and upgraded. Currently, NESPAP has six functions, including an interactive database of policy documents, a platform for online discussions, an online database for experts, job postings, and a conference management system.

Under Activity 3, UNESCO Bangkok published two education policy briefs as a pilot (a total of four policy briefs are planned to be published under this project). The first issue was on flexible learning strategy and the second issue was on skills development. The pilot policy briefs were distributed through UNESCO’s networks.

For such projects, ensuring sustainability is a major challenge. For this project, importance of partnership building and mainstreaming of the activities into UNESCO Bangkok’s regular programme activities have been emphasized in the implementation of the project. Sustainability of project activities depend on how much buy-in the project can generate from potential partners for supporting and continuing the activities after the project completion. Hence, most of the activities in this project are being implemented in partnership. For instance, regional studies under Activity 1 are being implemented in partnership with some of the key research institutes and networks of the region. The regional study on transversal competencies (21st century skills) is being financially and technically supported by Tokyo Institute of Technology, one of the most prestigious national universities in Japan. Similarly, the study on school finance is supported by Kobe University, another prestigious national university from Japan that is well known for its development studies. The study on learning enablers and use of assessment data is being implemented in collaboration with NEQMAP, the only regional network focusing on quality monitoring and assessment. Strong partnership is being established through this project and it can be expected that the project activities can be sustained after project completion through partnership.

Activity 2, development of the NESPAP knowledge portal, is also being implemented in collaboration with Tokyo Institute of Technology with additional funding from the Ministry of Education, Culture, Science and Technology of Japan (MEXT) which was raised by the Tokyo Institute of Technology. In addition, once NESPAP is well developed and tested through the MFIT project, it is planned that NESPAP will become the knowledge portal of the entire UNESCO Bangkok Office for education, managed and funded directly by UNESCO Bangkok. Similarly, the publication of policy briefs under Activity 3 will be integrated into the regular activities of UNESCO Bangkok after the completion of the project. The sustainability of NESPAP as well as the policy briefs will therefore be ensured.

Scalability: Post-2015 Development Impact:

The project is designed to support member states in reforming their education system to be ready for the 21st century through knowledge generation and dissemination of innovative effective education policies and capacity building and mutual learning in conducting technically-robust education policy research for government officials and researchers. The Project is highly replicable and/or adaptable among all countries in the Asia Pacific region. With technical and financial support, scaling up can be done by: 1) covering a larger number of countries in the region participating in research studies; 2) involving more policy makers and ministries of education in regional meetings to discuss and disseminate policy recommendations; 3) increasing the number of country profiles made available on portal and 4) identifying and collaborating with other research institutions and organizations to expand the reach and partnership and seek additional funding.

This MFIT project will directly contribute to UNESCO’s Main Line of Action on supporting Member States to develop education systems to foster high quality and inclusive learning opportunities for all. In relation with the Post-2015, this project contributes to Goal 4 of the SDGs, which is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

The Target Beneficiaries:
UNESCO Member States in the Asia Pacific Region, particularly the ASEAN + 6 countries

Acknowledgement:
This project acknowledges the generous funding and technical support from Malaysia Funds in Trust, Tokyo Institute of Technology, Kobe University, Zhejiang University and Korean Education Development Institute (KEDI).

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Promoting South-South Cooperation through Climate Change Education in Asia Pacific Small Island Developing States

Snapshot of The Project:

Small Island Developing States (SIDS) face a number of distinctive challenges to sustainable living and sustainable development, including severe vulnerability to Climate Change and sea-level rise, natural and environmental hazards, freshwater resources and energy as well as fragile economic and social structures. Climate Change Education (CCE), within the framework of Education for Sustainable Development (ESD), constitutes an essential element in the response to these challenges; it helps learners to understand and address the impact of environmental problems, encourages changes in their attitudes and behaviours, helps them adapt to climate change-related trends, improves their livelihoods, and increases economic security and income opportunities.

For small island societies in the Asia Pacific, a significant component of overcoming sustainability challenges will be to build bridges and networks that promote problem-solving actions that mobilize key actors and constituencies.

This project hopes to contribute to the enhancement of educational system of Small Island Developing States (SIDS) in Asia Pacific in the field of education for sustainable development and in particular climate change education. As such, it will be able to equip its citizens with knowledge and skills to be adaptable and resilient in the midst of changing climate. This initiative is unique in a way that the project output is adopted to the circumstances unique to Small Island Developing States in Asia Pacific. It is hoped that by training the trainers it will sustain the project especially in consideration of the teacher educators at the teacher training institutes.
The Target Beneficiaries:
Teacher Educators from Asia Pacific Small Island Developing States (SIDS): Tonga, Fiji, Palau, Tuvalu and Niue

Acknowledgement:
This project received funding support from the Government of Malaysia through the Malaysia Funds-in-Trust (MFIT) under the Malaysia - UNESCO Cooperation Programme (MUCP).

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Project Description:
The project main partner is the Malaysian Ministry of Education Educational Planning and Research Division (EPRD) and the implementing partner is Higher Education Leadership Academy, Ministry of Higher Education, Malaysia.

This project has three major expected outputs. First, the Climate Change Education needs and gaps analysis, second, Climate Change Education Training Material development and finally, Climate Change Education Training of Trainers. Having these project outputs, it is hoped to contribute to the enhancement of educational system of Small Island Developing States (SIDS) in Asia Pacific in the field of education for sustainable development and in particular climate change education. As such, it will be able to equip its citizens with knowledge and skills to be adaptable and resilient in the midst of changing climate. This initiative is unique in a way that the project output is adopted to the circumstances unique to Small Island Developing States in Asia Pacific. It is hoped that by training the trainers it will sustain the project especially in consideration of the teacher educators at the teacher training institutions.

The challenge that will be surmounted for this project is the logistical arrangements considering the air travel challenges to target beneficiaries.

Scalability: Post-2015 Development Impact:
Two MDG goals were primarily considered for this project, first, to ensure environmental sustainability. This is being addressed by having climate change education under the umbrella of Education for Sustainable Development (ESD). Second, to develop a global partnership for development and in this case it is being addressed by the south-south cooperation and with a particular focus on SIDS. The expected overarching objectives of poverty eradication and sustainable development for the Post-2015 Agenda had been highly considered in this project with inclusive and equitable quality education and lifelong learning for all and strengthened and revitalized global partnership. This project had been long overdue for the Small Island Developing States for most if not all ESD/CCE materials were partly if not totally applicable. This project is replicable and/or adaptable to other Small Island Developing States in the Pacific that has similar circumstances as well as in the Caribbean, Africa, Indian Ocean, Mediterranean and South China Sea. The all out support of the governments and financial support of international aid agencies are but crucial for the scaling up of the project.
Science Harnessed for Asean Regional Policy (SHARP)

Snapshot of The Project:

The Aims:
This project aims to support demonstration and synthesis of environmental sustainability best practices to underpin sustainable development policies across the ASEAN Member States.

The Objectives:
The project is designed to achieve the following objectives by mobilizing related Malaysian expertise:

1. Showcasing and synthesizing best environmental management principles and practices through demonstration projects in the ASEAN member states within the framework of ASEAN-UNESCO FAC to demonstrate rational science principles and applications with a clear pathway to regional science policy;

2. Promotion of ASEAN-UNESCO environmental science policy networks for harnessing science for peace, sustainability and social inclusion in ASEAN science policies for the attainment of the Internationally Agreed Development Goals, including the Millennium Development Goals, by addressing the impacts of climate change on natural resources.

Responding to the ASEAN needs, the project develops strategies to protect the environment and the sustainable use and management of natural resources essential to the long-term economic growth and social development of ASEAN member states. It is aligned with the ASEAN-UNESCO Framework Agreement of Cooperation (FAC) and associated Indicative Joint Programme of Action (2014-2018) and UNESCO Regional Bureau’s Science Support Strategy: Meeting Society’s Needs with Science-based Solutions. "Environmental Sustainability" is one of the seven priority areas in the ASEAN – UNESCO FAC which builds upon the ASEAN Vision 2020, calling for "a clean and green ASEAN", with fully established mechanisms to ensure the protection of the environment, sustainability of natural resources, and high quality of life for people in the region.
The Project Description:
In cooperation with international experts from ASEAN communities and UNESCO's networks, the project is developed and delivered under three components:

**Component 1: Policy Linkages Review and Analysis**
This component provides policy basis for future cooperation on environmental sustainability among ASEAN countries and UNESCO's network as well for developing stronger links between science and society by the following activities:

- ASEAN-UNESCO Environmental Sustainability Committee meeting to develop strategies for policy paper
- ASEAN-UNESCO workshop on science-policy-society interface to develop policy paper and strategy to introduce it to the next ASEAN Plan of Action on Science and Technology 2016-2020
- Introduction of policy paper on science-policy-society interface to the ASEAN Plan of Action on Science and Technology – Implementation Framework 2016-2020

**Component 2: Establishment of Environmental Sustainability Demonstration Pilot Projects**
UNESCO demonstrates innovative science, best management practice and participatory process by closely engaging with Malaysian and ASEAN universities, research institutes and other governmental institutions. It will develop and establish three pilot projects in Cambodia, Malaysia and Philippines as follows:

- Demonstration site on "Restoring and Enhancing Angkor World Heritage Site by Improving Water Management at Siem Reap City and Tonle Sap Biosphere Reserve" in Cambodia
- Demonstration site on "Water and Environmental Sustainability Education Linked with Ecotourism in Langkawi Geopark" in Malaysia
- Demonstration site on "Enhancing Resilience to Disasters of Urban Water Systems of Mindanao" in Philippines

**Component 3: Establishment and Promotion of Environmental Sustainability ICT Knowledge Platform for Science-Society-Policy Interface**
This component develops frameworks and techniques that can manage natural resources management in a more integrated package by:

- Conducting needs assessment for environmental sustainability knowledge platform consisting of knowledge management system, e-learning courses through the COMPETENCE;
- Developing ASEAN – UNESCO environmental sustainability knowledge platform using ICT based on the needs assessment;
- Organizing workshop to launch the ASEAN – UNESCO environmental sustainability knowledge platform; and
- Establishing partnerships between environmental sustainability research projects and regional communities in ASEAN countries.

**Scalability: Post-2015 Development Impact:**
The project will provide a substantial contribution towards the attainment of the Sustainable Development Goals (SDGs) by:

- Ensuring inclusive and equitable quality education and promote life-long learning opportunities for all (SDG 4)
- Building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (SDG 9)
- Strengthening the means of implementation and revitalize the global partnership for sustainable development (SDG 17)
Skills Development through Technical and Vocational Education and Training (TVET)

Snapshot of The Project:

With greater regional integration, technological advancement, and globalization, young people are currently confronted with rapidly changing and competitive labour markets which favour technically-skilled workers who can successfully deal with a range of non-technical challenges in their daily working lives. Skills development is a key tool that can help young people adjust to these changing trends and help them benefit. Through its Strategy for TVET, UNESCO endeavours to boost the role of technical and vocational education and training in addressing issues of youth unemployment and deep-rooted social inequalities. UNESCO’s TVET Strategy (2010-2015) supports Member States through three core areas: (i) provision of upstream policy advice and related capacity development; (ii) conceptual clarification of skills development and improvement of monitoring; and (iii) acting as a clearinghouse and informing the global TVET debate. By adopting this approach, UNESCO Bangkok is leveraging Malaysia’s experience and expertise in TVET to support other Member States in strengthening their education and training systems through this project.

The Project consists of the following three components:

- In-country technical support on TVET in two LDCs in Asia-Pacific;
- Conceptual clarification and in-depth study of transversal skills in TVET;
- Establishment of an information base on National Qualification Frameworks (NQFs) in Asia-Pacific and support to the establishment of the ASEAN Qualifications Reference Framework;

The upstream policy advice, collaborative regional research and the establishment of the knowledge base in TVET are expected to have a direct and profound impact on the formulation and implementation of transformative TVET policies in the Asia-Pacific region.

Project Description:

The Project is expected to increase relevance of TVET systems and to contribute to stronger alignment of learning outcomes in TVET with labour market needs in Member States in Asia and the Pacific through its three main components.

1. In-country technical support on TVET in two LDCs in Asia-Pacific;

A review of the Pacific TVET framework (2012 – 2015) has been conducted in 9 countries of the Pacific region (Tonga, Tuvalu, Fiji, Vanuatu, Kiribati, the Republic of the Marshall Islands, Samoa, Solomon Islands and Palau) by an Australian research team. A result of a collaboration between UNESCO and the Secretariat of the Pacific Community (SPC), the Pacific TVET framework review evaluates the relevance and impacts of the TVET framework’s implementation modalities; identifies policy gaps, challenges, progress...
The Target

Beneficiaries:

- Policy makers of UNESCO Member States in Asia and the Pacific;
- Stakeholders involved in research on TVET and/or skills development in the Asia-Pacific region

Acknowledgement:

Acknowledgement is due to our collaborating partners: the Secretariat of the Pacific Community (SPC); the Office of the Vocational Education Commission (OVEC), Thailand; UNEVOC International Centre for TVET.

The project has been made possible through funding support from the Government of Malaysia via the Malaysia Funds-in-Trust (MFIT) under the Malaysia-UNESCO Cooperation Programme (MUCP).

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Scalability: Post-2015 Development Impact:

To ensure the sustainability of the project, collaborations, which are often more cost-effective and can be continued beyond the duration of the project, have been established for all three components of the project.

The TVET Pacific framework review has been conducted in collaboration with the Secretariat of the Pacific Community (SPC) that leads the sub-regional TVET committee composed of the Pacific Island Forum Secretariat, the University of the South Pacific, Fiji National University and Australian Pacific Technical College. SPC has been instrumental in identifying and engaging a research team from the Pacific region to conduct the review.

Given its collaborative nature, the research on transversal skills in TVET is expected to contribute to strengthening research capacities of national researchers and therefore contribute to a sustainable outcome. A discussion group has been established on UNESCO Bangkok's NESPAP Open Platform to facilitate discussion and knowledge-sharing between researchers involved in this study.

The Asia-Pacific NQF database, to be incorporated in UNESCO Bangkok's NESPAP Open Platform, is being prepared with support and collaboration of the UNEVOC International Centre for TVET that hosts the World TVET Database. To ensure sustainability, the NQF country profiles are being prepared utilising information contained in the UNEVOC's database. Desk research for this project component will thus feed both into the UNEVOC database as well as the Asia-Pacific NQF database for a long-term impact on a wider scale.
South-South Cooperation for Enhancing Science, Engineering and Technology Standards In Asia and the Pacific

Snapshot of The Project:

The Aims:
The aim of the project is to harness science, engineering and technology as a way to equip individuals and communities with the knowledge, skills and attitudes to live, work and act within the framework of sustainable development.

The Objectives:
The project objectives are:

- To equip individuals and communities with the knowledge, skills and attitudes to live, work and act within the framework of sustainable development through south-south cooperation;
- To enhance science, technology and engineering literacy through modular curricula on varying levels and topics and adapted to a virtual (e-learning) mode of delivery;
- To mobilize the tools made possible by advances in information and communication technology for the collaboration and exchange of scientific, technical and policy relevant information through collaboration between Asian and African category-2 and UNESCO Chair networks.

Responding to the needs for interdisciplinary expertise in areas of applied sciences as well as strengthening learning in the basic sciences, the project is implemented within the science and engineering human resource developmental and research institutions addressing both traditional, formal ways of teaching and learning science and technology. The modular curricula will be on varying levels and topics and adapted to a virtual (e-learning) mode of delivery. The project is in line with the strategic programme objectives as articulated in the draft Medium-Term Strategy 2014-2021 (37 C/4).
The Target
Beneficiaries:
The foremost beneficiaries are members of Malaysian Research & Education Network (MYREN) linked to a number of researchers, academicians and students all over the world. Other beneficiaries influential in the project include government, relevant authorities and site managers, local communities, general public, universities/research institutes and International Centre for South-South Cooperation for Science, Technology and Innovation (ISTIC).

Acknowledgement:
This project is funded by the Government of Malaysia via the Malaysia Funds-in-Trust (MFIT) under the Malaysia - UNESCO Cooperation Programme (MUCP).

The Target
Beneficiaries:
The foremost beneficiaries are members of Malaysian Research & Education Network (MYREN) linked to a number of researchers, academicians and students all over the world. Other beneficiaries influential in the project include government, relevant authorities and site managers, local communities, general public, universities/research institutes and International Centre for South-South Cooperation for Science, Technology and Innovation (ISTIC).

Project Description:
The main activities of the project consist of setting up an innovative, large-scale, comprehensive cross-sectoral programme for science, engineering and technology literacy, through design and development of meta-knowledge platform, mapping of UNESCO south-south learning alliances and modular curricula that could be adopted by professional bodies and universities.

Specifically, the project is implemented under three components:

Component 1: Meta-knowledge platform in making available tools and resources for engineering, science and technology human resource development for sustainable development
The regional and international workshops were organized to raise the standard of engineering qualifications to international standards in universities and institutions of tertiary education in association with the engineering bodies through south-south cooperation. This component involves regional stakeholders from diverse backgrounds with government agencies and units, industries, academia and research institutes.

Component 2: Modular curricula that could be adopted by professional bodies and universities for certified training of professionals
UNESCO has developed a roadmap on engineering qualification standardization in Asia and the Pacific. The Federation of Engineering Institutions of Asia and the Pacific (FEIAP) Engineering Education Guidelines are being updated jointly though this project.

Component 3: Mapping of UNESCO centres and chairs for establishing south-south learning alliances
The component is for mapping and networking of UNESCO's Natural Sciences related Category 2 Centres and Chairs in Asia-Pacific region, linking with Africa on issues related to the post-2015 development agenda.

Scalability: Post-2015 Development Impact:
The project responds to the Sustainable Development Goals (SDGs) particularly by:

- Ensuring access to affordable, reliable, sustainable and modern energy for all (SDG 7)
- Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8)
- Building resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (SDG 9)
- Reducing inequality within and among countries (SDG 10)
- Making cities and human settlements inclusive, safe, resilient and sustainable (SDG 11)
- Strengthening the means of implementation and revitalize the global partnership for sustainable development (SDG 17).

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Strengthening ASEAN Community 2015 Through South-South Cooperation, Foresight and Capacity Building on Inclusive Policy Development

Snapshot of The Project:

The Aims:
The aim of the project is to strengthen national capacities to assess and reform social policy and regulatory frameworks to increase their inclusiveness and ensure the equal enjoyment of human rights by all, including the disadvantaged and vulnerable segments of population.

The Objectives:
The project will achieve three inter-related objectives:

1. Enhanced capacity and collaboration among the national government and academic stakeholders on promoting inclusive policy assessment and design [Policy Assessment]

2. Establishment of better data practices for inclusive social policies [Policy Data]

3. Improved availability and accessibility of concrete and tested policy documents, regulatory frameworks, tested models and practices in the areas of social inclusion and the reduction of social inequalities [Policy Innovation Lab]

This project is a unique initiative to advance in the ASEAN region the Sustainable Development Goal 16: to “Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”

It is based on the evidence-based idea that social inclusion can be attained through public policies that are designed with this specific objective in mind. To do so, policymakers must have the capacity to assess a policy proposal from the angle of social inclusion, and revise it to maximize the benefit of the policy to all.

This is an ongoing project with activities in three countries. The activity in Malaysia was launched in June 2015 with the Policy Initiation Workshop. Two national working grounds are currently working on the assessment of two policy areas – social innovation and higher education. In two other countries – Timor-Leste and Cambodia, UNESCO has been working with the national stakeholders to prepare ground for the launch of the Policy Initiation Workshop in November 2015.
The Target Beneficiaries:
Policymakers and civil society in Malaysia, Cambodia, Timor-Leste

Acknowledgement:
The project wishes to generously acknowledge the Government of Malaysia through the Malaysia-UNESCO Cooperation Programme for the support. In addition, the Social Inclusion activities are also supported by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Trinity College Dublin as well as the National Implementing Partners team of Malaysia, Cambodia and Timor Leste.

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Project Description:
Two groups of partners are engaged in project implementation in each country: (1) International Policy Partners (capacity-building providers) and (2) National Implementing Partners (national stakeholders and project beneficiaries).

The International Policy Partners are:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Overall Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNESCO Field Office</td>
<td>Overall Coordination</td>
</tr>
<tr>
<td>UNESCO HQ</td>
<td>Provision of expertise on inclusive policy framework (in-country) Development of Policy Innovation Lab based on the outcomes of the project (out of country)</td>
</tr>
<tr>
<td>United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)</td>
<td>Capacity-building on data: application of assessment framework and development of action plans to address the identified data gaps (in-country) Development of data gaps and quality assessment framework, including as a web platform (out of country)</td>
</tr>
<tr>
<td>Trinity College Dublin</td>
<td>Capacity-building on policy: introduction of the Inclusive Policy Process model and the application of EquiFrame policy analysis tool for assessing the degree of inclusiveness</td>
</tr>
</tbody>
</table>

Together, the International partners follow and monitor the progress in policy improvement exercise carried out by the national implementing team and their subgroups – quality circles. Each international partner will focuses on the relevant component under their responsibility (e.g. data, policy assessment, policy revision).

The composition of the National Implementing Partners team is different in each country. The Lead National Implementing Partner facilitates and coordinates the work within the national team throughout the project, and will be the main interlocutor for the international partners.

The project design is based on Action Research ethos, where all participants are co-investigators in the process of policy assessment and revision, contributing to and benefiting from a structured group learning experience.

Scalability: Post-2015 Development Impact:
The project will work through existing institutional channels, in particular those of the UNESCO Management of Social Transformations (MOST) programme, and will also support the development of specific innovative mechanisms. In particular, the project and its outcomes will inform the discussions at the MOST Ministerial Forum to be held in the region on the topic of social inclusion.

The sustainability of gains attained through this project will be further ensured by the UNESCO Head-Quarters by designing and operationalizing an online tool with open access bringing together the various outputs of the project as a convenient one-stop-shop for policy practitioners. It will contain:

- Analytical framework for inclusive policy making and planning contextualized and adapted to the regional needs.
- Concrete policy documents, regulatory frameworks, tested models and practices in the areas of social inclusion and reduction of social inequalities from global experience in general and from previous initiatives on social inclusion carried out under MOST programme framework in particular
- Other relevant material, tools and documents for policy practitioners working on social inclusion and reduction of inequalities.

The project wishes to generously acknowledge the Government of Malaysia through the Malaysia-UNESCO Cooperation Programme for the support. In addition, the Social Inclusion activities are also supported by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Trinity College Dublin as well as the National Implementing Partners team of Malaysia, Cambodia and Timor Leste.
The Aims:
The development goal of the project is to increase female knowledge and engagement in STEM through strengthening gender-responsive STEM education for Member States in Africa and Asia and the Pacific.

The Objectives:
Overall objective
Strengthen the regional and national capacities of Member States in Africa and Asia and the Pacific for the development and implementation of gender-responsive STEM curricula.

Specific objectives
• Ascertain the competencies required for STEM fields in order to design and develop quality, inclusive and holistic curricula for STEM education.
• Create safe, enabling and gender-responsive learning environments for girls, aimed at eliminating discrimination within STEM education.
• Mainstream gender into STEM curriculum development and teacher education.
• Build national capacities for the counselling of adolescent girls to continue learning in STEM subjects and enter into STEM careers.
• Foster information exchange and promote South-South cooperation in girls' education, especially with respect to STEM and computer science curricula, pedagogy and assessment.
• Mobilize resources and develop co-financing opportunities towards Phase II of the project which will focus on the development of regional curriculum guidelines and teacher training.

Project Description:
Main partners involved throughout Phase 1: The Ministry of Education Divisions of Educational Planning and Research (EPRD) and Curriculum Development (CDD) in Malaysia; Division for Gender Equality; Multi-sectoral regional bureaus; Regional Southeast Asian Ministers of Education Organisation - Centre for Education in Science and Mathematics (SEAMEO-RECSAM) in Malaysia/Penang; Africa Network of Science and Technology Institutions (ANSTI); International Institute for Capacity Building in Africa; National ministries of education of the beneficiary countries; Global partnership for girls' and women's education; other regional partners advancing science education in Asia and the Pacific and Africa.

The project started on June 8th with a one-day meeting "Strengthening STEM Curricula for Girls in Africa, Asia and the Pacific" (Phase I) organized by the Ministry of Education of Malaysia. It gathered 20 participants from the MOE Divisions of Educational Planning and Research (EPRD) and Curriculum Development (CDD) and the Performance and Delivery Unit (PADU) as well as staff from the SEAMEO Regional Centre for Education in Science and Mathematics. All parties - MOE/CDD, SEAMEO-RECSAM and IBE-UNESCO - agreed upon an action plan - including goals, expected outcomes and deliverables, planned activities and agencies involved - to implement the project.
The Target Beneficiaries:
The project is expected to take place in four beneficiary countries: the Kingdom of Cambodia, Kenya, Indonesia and Nigeria.
The target groups and beneficiaries of the project are: policymakers; curriculum developers/specialists; teacher educators; teachers; administrators; inspectors/supervisors; school leaders; academics and research communities; parents; community-based educational providers; NGOs; national media outlets; and other partners specializing in STEM education.
The indirect beneficiaries of the project are the Malaysian Ministry of Education; national education systems and learners in Asia and the Pacific and Africa; curriculum design institutes; teacher education institutes; and civil society.

Acknowledgement:
UNESCO IBE is particularly grateful to the generous support of the Malaysia Funds-in-Trust (MFIT) and the Ministry of Education of Malaysia.
UNESCO IBE also wishes to thank the partners making this project possible: the CDD MOE Malaysia; Division for Gender Equality; Multi-sectoral regional bureaus; Regional Southeast Asian Ministers of Education Organisation – the Regional Centre for Education in Science and Mathematics (SEAMEO-RECSAM) in Penang/Malaysia; Africa Network of Science and Technology Institutions (ANSTI); International Institute for Capacity Building in Africa; National ministries of education of the beneficiary countries; Global partnership for girls’ and women’s education; other regional partners advancing science education in Asia and the Pacific and Africa.

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The project will consist of the following activities:

1. Needs Assessment workshop:
Country teams will carry out the needs assessment (situational analysis) based on the guidelines provided by CDD and IBE. Gender and STEM experts suggested by Bangkok will be invited to the workshop. Coordinated by CDD, a data collection rubric template prepared by MOE, in consultation with IBE and RECSAM, will be sent to each country to be filled in and brought to the workshop.

Expected results/output: The Needs Assessment Report of each country. The report findings will provide inputs and insights to the Malaysian counterparts and IBE with regard to the objectives, contents and strategies of the capacity-development workshop and the customized country interventions.

2. Capacity-Development workshop:
The workshop should address, among other issues: (i) the crossroads between STEM and girl education from an international comparative perspective; (ii) mapping trends in the STEM disciplines; (iii) the Malaysia case study addressing issues relating to policy, curriculum/ pedagogy, teacher education and professional development (packaged into a document) and (iv) school visits to analyse the implementation of the curricula. A STEM resource pack will be developed as training material for the capacity-development workshop profiling from IBE expertise in developing and using the Curriculum Resource Pack (CRP). Staff from UNESCO Bangkok will be invited as well Gender and STEM experts suggested by them.

Expected results/output: 1) Each country develops its own roadmap and strategic plan to strengthen participation of girls in STEM along three dimensions (policy, curricula/ pedagogy and teacher education / professional development). 2) Country teams enhance and refine their skills in formulating national policies to strengthen participation of girls in STEM, analyzing curriculums, and developing gender-responsive curriculums, materials, and assessments.

3. Field country work:
Mainly with the support of Malaysia and UNESCO expertise, each beneficiary country will work in the implementation of the strategic plan to strengthen participation of girls in STEM along the three dimensions above mentioned.

Expected results/output: 1) Policy frameworks on STEM with a focus on girls’ participation are refined engaging key stakeholders. 2) STEM curricula and pedagogy as well as teacher education and professional development are strengthened with the view to support the development of STEM policy frameworks.

Scalability: Post-2015 Development Impact:
This initiative is not only scalable but also crucial to contribute to the Sustainable Development Goals and the 2030 Education Agenda (Incheon Declaration) towards ensuring inclusive and equitable quality education and promoting lifelong learning for all. As globalization intensifies, equipping individuals, communities and societies with skills and knowledge about STEM is not only crucial to fulfilling basic human rights, but also to addressing critical aspects of sustainable development and participatory citizenship. In this regard, curriculum plays a crucial role as a concrete/operational mechanism (articulating the type of competencies required) to give effect to national development aspirations and efforts.

Still, across the world, women are undeniably more likely to be uneducated or undereducated than men, and statistics show particularly low levels of participation of girls in STEM throughout all levels of schooling (UNESCO, 2010). Despite decades of science and technology-related development interventions, the gender gap in STEM fields continues to widen. Therefore, any countries experiencing such gap could be demanding and participating in policy/technical dialogue and capacity-development training that can serve to rethink educational policies, curriculum and pedagogy, as well as teacher education and professional development. In fact, curriculum reforms that emphasize the practical, social, environmental and global objectives of STEM, in addition to the technical aspects – altering pedagogy to allow for hands-on engagement of students, self-learning and collaboration, and offering varied examples across gender, race, culture and class lines – have demonstrated positive effects on female engagement with STEM.

In Phase I, the project will lay the foundations, strategies and content (around the what and the how) to support other countries in Africa and Asia and the Pacific, and in other regions, to foster/strengthen STEM under a holistic vision of inclusive and sustainable development of education and learning and of the education system.
Malaysia Funds-in-Trust
United Nations Educational, Scientific and Cultural Organization

Strengthening the Ministry of Education Leadership in the Implementation of Education Policy and Reforms

Snapshot of The Project:

During the past 50 years South and East Asia witnessed massive demographic changes, resulting mainly from falling fertility rates and migration. Other trends impacting on the provision of education services include urbanization that has contributed to reduce densities in rural areas, thus increasing the costs of reaching the remaining rural school age population. Counterbalancing these trends have been the massive increases in participation in schooling, most countries in the region achieving universal basic education.

While the education sector has been relatively well served in terms of resource allocation in past decades changes in the populations' age structure across the region as well as a slowing global economy are likely to contribute to changes in resource allocations. Education may not be treated as generously in the future. At the same time it is important to recognize the institutional challenges associated with reorganizing education service provision. The redeployment of education personnel for example is an issue likely to yield high political costs for any government, and school closures remain difficult as local schools are seen by rural communities as a core component for a viable community life.

For these reasons it is vital for education policy makers and planners to understand the directions and assess the impact of demographic changes, migration and urbanization in their country. This assessment underpins the planning of future education services and resource allocation decisions. The Malaysian Government-UNESCO/IIEP project aims at providing Ministries of Education with an analytical framework and an information base needed to reflect these crucial dimensions in plans and guide education policy, investment decisions and institutional reforms.

The Aims:
Strengthen the capacity of education policy makers and planners to analyse the implications of demographic and social changes on education service provision in their country, and respond to them with adapted policies, plans and allocation of resources.

The Objectives:
The project’s main objectives relate to the following:

1. In a cooperative approach with national experts from ANTRIEP institutions prepare a regional comparative policy study on the implications of demographic and social changes on education service provision
2. Identify barriers and enabling factors for addressing challenges for education service provision and resourcing, and make recommendations for policy
3. Develop a knowledge base, on an IIEP portal, providing up-to-date information, data, analytical tools and resources for policy makers, education officials and experts from research and training institutions
4. Prepare materials for training sessions that can be used or adapted by ANTRIEP institutions and other national training institutions
The Target Beneficiaries:
The immediate beneficiaries will be education policy makers, planners and experts from education training and research institutions involved in analysing and/or formulating policies and plans. The final beneficiaries are school age populations in project countries that benefit from improved education service provision and renovated financing strategies devised by their governments.

Acknowledgement:
IIEP gratefully acknowledges the financial support received from the Government of Malaysia to implement this project, the technical inputs received from the Malaysian Institute Aminuddin Baki in the preparation of the project as well as the cooperation from experts from ANTRIEP institutions in the process of developing the analytical framework.

Project Description:
The project involves national experts from Ministries of Education, Planning and Finance at national and sub-national levels as well as from national research and training institutions from up to 12 countries involved in the Asian Network of Training and Research Institutions in Educational Planning (ANTRIEP). The latter includes the Institute Aminuddin Baki (IAB), Malaysia, which is IIEP’s main partner institution in the implementation of the project as well as a number of highly qualified ANTRIEP partner institutions such as National University for Education Planning and Administration (NUEPA) or Korean Educational Development Institute (KEDI).

Currently IIEP in consultation with IAB completes the methodological framework for the country-based policy research and collects country data. A methodology paper will be circulated among ANTRIEP expert teams. Around November 2015 a technical consultation with ANTRIEP institutions will take place (possibly a small expert meeting hosted by IAB in Malaysia), to jointly plan the research and knowledge base-development and agree on roles and responsibilities.

Policy research will be implemented in two countries, one of them being Malaysia, between December 2015 and April 2016. An ANTRIEP seminar will take place around April/May 2016 to review findings; share country experiences; and complete information collected by ANTRIEP using instruments prepared by IIEP with IAB.

In parallel, IIEP in cooperation with IAB will identify contents and design the structure for a portal dedicated to education reform challenges and practices. Publications, other secondary information sources and data will be explored. The concept for the portal and materials will be discussed at the ANTRIEP seminar in April/May 2016. The portal will be launched in early 2017. It will provide up-to-date information relevant for national policy analysis and formulation by Ministries of Education.

IIEP and IAB will jointly prepare a set of training materials using the findings and conclusions from country research as well as information collected and analyzed in the process of the portal development in early 2017. The training materials will be shared for adaptation by training institutions within ANTRIEP and beyond.

Scalability: Post-2015 Development Impact:
This first project of relatively short duration (2 years) has a pilot character. Regarding Objectives (i) and (ii), the project creates an analytical framework and tools for country-based policy research and tests them in two (2) countries in Asia, including Malaysia. Related activities will involve national experts from Ministries of Education and ANTRIEP institutions. They will work alongside IIEP undertaking country-based policy research and/or contribute to ANTRIEP seminars for a sharing of country experiences and further information collection. The analytical approach and instruments used are expected to be applicable in other country contexts. The involvement of national experts enriches the reflection and information base while strengthening national capacities.

Concerning Objective (iii) a structure for an on-line knowledge portal will be designed; secondary information sources explored; and findings and conclusions from the country-based policy research used to furnish main sections of the portal.

Concerning Objective (iv) the training materials to be produced at the end of the project will translate findings from the country research and from secondary sources into training session of about 1 to 2-days duration. They are expected to become part of, or an update for, different types of existing training programmes on education policy analysis, planning and management offered by several ANTRIEP institutions.

Upon the successful completion of this pilot in 2017, a follow-up project will be formulated. The follow-up project will draw lessons from the pilot project. It will allow the present project to go scale. This may imply, for example, expanding the policy research to more countries around Asia to compare a larger range of national and sub-national experiences, compare policy responses and evaluate solutions applied. Lessons learnt from the present pilot project will feed into the formulation of a strong proposal in 2016 for going to scale, enrich and validate findings for education policy and reform practice.
Support in Preparation of Bhutan School Education Sector Blueprint

Snapshot of The Project:

Bhutan currently offers free education up to Class 10 and the public expenditure on education as percentage of GDP is 4.7% in 2011. Putting education as top priority, the Royal Government of Bhutan (RGB) has succeeded in boosting the Gross Enrolment Ratio of the secondary education from 27% to 70% and the Net Enrolment Rate (NER) of the primary education from 56% to 89% in-between 1999 to 2011. The Gender Parity Ratio (GPI) is in favour of girls at both primary and secondary levels (UIS online data accessed in March 2014). The survival rate of grade 5 is 97% with an average repetition rate at primary level of 6% in 2011. However, there are still 19,958 out of school children at primary and lower secondary levels.

The Royal Government of Bhutan continuously embarked upon numerous initiatives and reforms to improve the teacher quality and create high performing schools. However, due to rise in expectations as well as the general concerns regarding the system's ability to adequately prepare the young Bhutanese for the challenges ahead, the education system has not only come under increased public scrutiny and debate but also come to acknowledge that there exists a real concern about the overall quality of education system.

Given the nature of the education system and its complexity as a public sector undertaking with multifaceted stakeholders, unless an ambitious and practical yet far-reaching corrective approach is urgently put in place, it is going to take several years, if not decades, for fundamental changes to be felt. It is only through continuous education reforms to improve quality and relevance of learning that national challenges like youth unemployment and economic development can be addressed effectively both in the medium and long-term period. The comprehensive review will provide critical and insightful elements to prepare a time bound Blueprint for a rapid and systematic reform of the education system of the country is expected to further boost the education system improvement.

The Aims:
The overall purpose of the project is to reform the Bhutanese education system in convergence with the international standards through development and implementation of the Education Blueprint 2014-2024 based on the education sector review and enhancing capacity of education officials of Bhutan for implementation of the Blueprint.

The Objectives:

Overall objective
The overall objective of the project is to develop the Education Blueprint 2014-2024 based on the education sector review. The Education Blueprint will provide time bound reform actions for a rapid reform of the entire education system of Bhutan to achieve high level of student competencies equivalent to OECD average.

Specific objectives
1. Review the current education performance and challenges;
2. Develop a vision for the education system to meet both national development challenges and student aspirations to face the challenges of the 21st century;
3. Develop an Education Blueprint- a time bound roadmap to reform the entire education system in 10 years; and
4. Develop capacities of MOE on education planning to design, implement, and monitor an Education Blueprint.
**Project Description:**

This project was to support the Royal Government of Bhutan to conduct education review and prepare a School Education Sector Blueprint to achieve an ambitious goal of enhancing student learning and competencies equivalent to OECD average by 2020. The proposed activities of this project are guided by the Bhutanese Vision 2020. More specifically, the project will support in: (a) reviewing the current education performance and challenges; (b) developing a vision for the education system to meet national development requirements and student aspirations to face the challenges of the 21st century; and (3) developing an Education Blueprint- a roadmap to reform the entire education system in 10 years.

The main partners to prepare the Blueprint are UNESCO- New Delhi, Jakarta, Bangkok and UNESCO Headquarters, Paris.

The Malaysian experience on conducting the education reviews and preparing the Education Blueprint enriched the project implementation.

**Scalability: Post-2015 Development Impact:**

The Blueprint was developed for the period of 2014-2024 that addresses the issue of quality and equity of Post 2015 education agendas. In relation to Post 2015 agenda, this project contributes to Goal 4 of the SDG, which is to ensure inclusive and equitable quality education and promote life-long learning opportunities for all.
The Power of Culture: Supporting Community-Based Management and Sustainable Tourism at World Heritage Sites in Malaysia and Southeast Asia

Snapshot of The Project:

The Power of Culture: Supporting Community-Based Management and Sustainable Tourism at World Heritage Sites in Malaysia and Southeast Asia

The Aims:
The project aims to support sustainable tourism at WH sites (and sites on the tentative lists) in SEA through support to site managers and key stakeholders in community-based management incorporating sustainable tourism management.

The Objectives:
• To help each site develop a sustainable tourism strategy in order to enhance broad stakeholder engagement in planning, development, management of sustainable tourism, and provide WH stakeholders with the capacity and resources to manage tourism efficiently, responsibly, and sustainably based on the local community context and needs;
• Ensure the engagement of local communities including residents, indigenous people, and traditional landowners in the management and decision-making process and sharing of benefits;
• To create networks strengthening sub-regional cooperation (particularly at site manager’s level) in the implementation of the World Heritage Convention, while identifying and sharing best practices of community involvement and development in WH tourism management.

In order to support sustainable tourism at World Heritage sites, this project will introduce the UNESCO World Heritage and Sustainable Tourism (WH+ST) Programme developed by the UNESCO World Heritage Centre (WHC) which has been adopted by the World Heritage Committee in 2012. The WH+ST Programme enables site managers and other key stakeholders to make positive changes to the way they proactively manage tourism for sustainable development. A successful implementation of this project will provide support to the national ministry of tourism and culture, the regional and local government, and site managers to manage the tourism at their sites more sustainably together with the communities and other stakeholders for a more holistic approach towards tourism, benefitting from having a network among other WH sites to strengthen the sub-regional cooperation.

Project Description:
Partnering with the National Commission, Ministry of Culture, and Ministry of Tourism, it is expected that the WH properties in SEA are better managed with high involvement of community stakeholders and opportunities for sustainable development increased. The second expected result is to have experience and lessons learned from the pilot sites to be widely shared with other sites in the region/world.
The Target

Beneficiaries:
The target beneficiaries are the Ministry of Culture, Ministry of Tourism, National Commission for UNESCO, site managers, local communities (including residents, indigenous people, and traditional landowners), as well as other stakeholders (including from the private sector) around the targeted WH sites in Malaysia, Indonesia, and the Philippines.

Acknowledgement:
This project is realised through funding support from the Government of Malaysia via the Malaysia Funds-in-Trust (MFIT) under the Malaysia-UNESCO Cooperation Programme (MUCP) as a regional effort in the implementation of the UNESCO WH+ST Programme developed by the WHC, initiated by the UNESCO Office Jakarta.

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The objective of the project will be achieved through four main activities:

Activity 1: Sub-regional project inception workshop
The sub-regional workshop is conducted within the ‘World Heritage and Sustainable Tourism’ framework initiated by the UNESCO World Heritage Centre which aims to ensure tourism to protect the Outstanding Universal Value of a World Heritage site as well as to benefit local communities. Attended by participants from Indonesia, Malaysia, and the Philippines, there are three World Heritage sites represented in the event, namely Cultural Landscape of Bali Province: the Subak System as a Manifestation of the Tri Hita Karana Philosophy, Melaka and George Town, Historic Cities of the Straits of Malacca, and the Rice Terraces of the Philippine Cordilleras. The workshop covers theoretical, hands-on and on site sessions which are delivered by Mr. Peter Debrine from the World Heritage Centre and Ms. Cecilie Smith-Christensen as the facilitator.

The participants are expected to develop a project plan that will serve as a basis for developing strategic foundations for a sustainable tourism strategy. As this workshop is an inception, there will be follow up workshops at the national level which will engage more stakeholders to discuss deeply about specific issues and needs in each participating site and country.

Activity 2: Piloting of the ‘How To’ guides for sustainable development at the 3 SEA World Heritage sites
UNESCO World Heritage and Sustainable Tourism Programme (WH+ST Programme) have developed a ‘How To’ guides that will be piloted at the three selected sites. This activity will include in-depth training for site managers and stakeholders.

Activity 3: Sub-regional workshop with national representatives and site managers to share outcome and experience of improving sustainable tourism at their sites
This component will allow site managers to provide feedback for further improvement, especially in the context of Asia.

Activity 4: Development of publication (online and hardcopy) of best practices and lessons learned on sustainable tourism initiatives at the 3 World Heritage sites involved in the project
The publication will include examples of innovative site management and tourism strategies from all three pilot sites and will be distributed to key stakeholders (World Heritage site managers, national and local officials, community representatives at World Heritage sites in SEA). This publication will also be made available on the UNESCO website.

Scalability: Post-2015 Development Impact:
This project is designed to be replicated and scaled up for implementation in other countries in the region and beyond. This initiative marks the first time this cutting edge WH+ST Programme will be implemented in Southeast Asia with the Historic Cities of the Straits of Malacca in Malaysia, the Cultural Landscape of Bali Province in Indonesia, and the Rice Terraces of the Philippines in the Philippines as pilot sites. In order to scale up the project, successful implementation of community-based management and sustainable tourism at these sites, including the safeguarding of the cultural heritage and local communities engagement to promote local cultures and products, will be featured in the WH+ST platform as lessons learned and experience sharing with other sites in the world. A feature in this platform as part of the World Heritage Centre website will generate bigger impact and visibility to the MFIT as the donor to piloting this programme in Asia. Scaling up the project by extending it to other World Heritage sites of the three pilot countries including Malaysia, to increase south-south cooperation, would require a second phase to this initiative.

In relation to the Post 2015 agenda, the project contributes to highlight the power of culture in sustainable development through the conservation and promotion of tangible and intangible heritage, the management of sustainable tourism and city development. The project will provide a substantial contribution towards the attainment of the following Sustainable Development Goals (SDGs):

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 12. Ensure sustainable consumption and production patterns
Towards Economic Resilience in the Pacific and Southeast Asia: Reducing Risk of Loss & Damage in the Tourism and Agriculture Sectors from Extreme and Slow-Onset Events through Improved Assessments and Education

The Aims:
It aims to generate and share new knowledge, improved understanding, and awareness on loss and damage due to adverse impacts of climate change and climate extremes. It will also provide new insights into how to enhance tools and approaches to address loss and damage in the tourism and agriculture sectors in the Pacific and Southeast Asia countries.

The Objectives:
- To showcase loss and damage realities, experiences in the Pacific and Southeast Asia regions;
- To present best experiences and lessons learned as well as new insights into how to strengthen existing/new tools for reducing risk to loss and damage;
- To assess capacity needs on loss and damage in the agriculture and tourism sectors;
- To carry out capacity-building and training as well as share information on reducing risk of loss and damage;
- To build-up networks, share new knowledge, and provide relevant technical, policy and strategic recommendations regarding how to integrate improved knowledge and tools (risk information and EWSs) into planning and development process in the key economic sectors of the respective countries. This will also include providing scientific insights/advice to SIDS on loss and damage negotiations.

The Intergovernmental Panel on Climate Change (IPCC) Special Report on Managing the risk of extreme events and disasters to advance climate change adaptation (CCA) (IPCC 2012) as well as recent disasters, such as Cyclone Evan in Samoa and Fiji in December 2012 all underscore the necessity to revisit and enhance knowledge and understanding on how to reduce and prevent the risk of loss and damage (L & D).

The project will provide a systematic and in-depth review and evaluation of best practices and lessons learned for reducing risk of L & D due to key drivers namely climate change and urbanization related trends. The project will develop and strengthen measures and priority DRR (e.g. risk assessments, Early Warning Systems (EWS), institutional capacities) and CCA tools for reducing climate change associated risk under different adaptation and development pathways.
**The Target Beneficiaries:**

This project is designed for the benefit of the following groups in the Pacific region:

- Government ministries and subordinate agencies at regional, national and, where applicable, sub-national levels;
- Scientific communities (social and natural sciences research institutions);
- Policy and decision makers working on both in-government and outsourced policy analysis and planning in a given jurisdiction;
- Climate change/DRM negotiators/advisors
- Pacific regional universities and students (e.g. University of the South Pacific)

**Acknowledgement:**

This project is funded by the Government of Malaysia via the Malaysia Funds-in-Trust (MFIT) under the Malaysia - UNESCO Cooperation Programme (MUCP).

**Project Description:**

The key partners include the University of the South Pacific (USP) and the Secretariat of the Pacific Regional Environment Programme (SPREP).

The main expected results are:

i. Improved understanding of loss and damage realities, experiences in the Pacific and Southeast Asia regions achieved;

ii. New knowledge and awareness of best practices, lessons learned; as well as innovative insights into how to strengthen the tools and methods for reducing risk of loss and damage generated;

iii. Capacity needs for reducing loss and damage in the agriculture and tourism sectors assessed;

iv. Improved understanding, knowledge sharing and capacities to deal with reducing risk of loss and damage achieved. This also includes empowering climate change negotiators with new insights/information from loss and damage in the agriculture and tourism sectors from climate change.

v. The main obstacles to this end include identifying a suitable implementing partner that will support the sustainability of the project.

**Scalability: Post-2015 Development Impact:**

The project initiative is being implemented in four Pacific countries only, namely Cook Islands, Solomon Islands, Fiji and Samoa. The results and recommendations should be of benefit to the whole Pacific region. However, each country and sector has its own particular challenge in addressing the negative impacts of climate change. The agenda of loss and damage is raising a lot of interest in the region, particularly at SPREP, thus the project can be duplicated in other Pacific Island countries not currently covered by the MFIT project. Additionally, there is a need to scale up certain activities particularly in regard to advancing the new innovative solutions, which is to be identified in the project to address loss and damage from climate change.

Regional organizations and national countries and experts on behalf of their local communities and sectors where they operate are demanding solutions to address loss and damage from climate change (see also UN 3rd SIDS Outcome document on loss and damage).

Moreover, there is a need to broaden the participation and involvement of stakeholders, sectors and communities affected from climate change and climate extremes. It is estimated that the duplication and up scaling in the Pacific alone over a period of two to three years time frame will need a minimum of 500,000 USD.

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MALAYSIA - UNESCO COOPERATION PROGRAMME

Upscaling Water Security to Meet Local, Regional, and Global Challenges

Snapshot of The Project:

The Aims:
The project is aimed at strengthening responses to global water security challenges by advancing in innovative tools and approaches through strong scientific cooperation.

The Objectives:
The main objective of the project is to up-scale the existing approaches in water management with scientific collaborations and tools to support, design and implement Ecohydrology and HELP strategies and policies for sustainable water resources management. The specific objectives include:

a. Providing innovative storm water and water quality management technologies, best management practices and policy options to counter negative effects of urbanization;

b. Promoting and enhancing Ecohydrology and HELP approaches, knowledge and implementation on the ground;

c. Creating a platform for the collaboration and exchange of scientific, technical and policy relevant information through collaboration between Asian and African category-2 water

The project provides solutions to the current global water challenges requiring upscaling of existing local approaches and knowledge of the interrelations between environment conditions and the state of waters. UNESCO’s International Hydrological Program’s Ecohydrology Demonstration Projects and Hydrology for Environment, Life and Policy (HELP) river basins networks are two innovative approaches, which involve engineering-based tools that integrate basin-wide human activities and changes in the hydrological cycle. This project will contribute to HYD 37/C5 Expected Result 11 on Responses to local, regional and global water security challenges, strengthened links with IHP VIII as well as UCPD Programme 4: International Hydrological Programme, as well as the 10th Malaysian Plan (2011-2015): “Developing a Long-Term Strategy for Water Resource Management to Achieve Water Security”.
Project Description:
The project strengthens the local scientific collaboration between Humid Tropics Centre Kuala Lumpur (HTCKL) and Institute for Environment and Development (LESTARI) as well as regional collaboration with Asia Pacific Ecohydrology in Indonesia as the Category II Water Centre, the Regional Centre for Integrated Water resources Management (RC-IRBM) Kaduna, Nigeria and Capital National University Beijing, China through the UNESCO Chair on Ecohydrology and Hydroinformatics.

Under this network, this project is being implemented through three components:

1. **Demonstration sites of Ecohydrology biotechnologies in Langat River and Putrajaya Lakes (Research Component)**
   This component provides more efficient and sustainable storm water management strategies and best practices and mitigation measures to counter negative effects of urbanization. The study includes rehabilitation works for the slope degradation of riverbank to improve the river water quality, quantity and riverbank rehabilitation in developed areas depending on constructed wetlands, porous pavements as well as bio retention solutions. To support this, an assessment has to be conducted to determine the economic values of the ecosystem in order to strengthen the sustainable management.

2. **HELP and Ecohydrology training (Education Component)**
   The main purpose of this component is to develop modular curricular for IWRM and Ecohydrology in Asia-Pacific and Africa related to watershed management including river basin, lake and wetland and science curricular based on UN-Regional Centre of Expertise on Education for Sustainable Development. The modular curricula will be customized based on the IWRM Guidelines for River Basin management for training of watershed managers.

3. **Workshops on comparative studies of applying water footprints, Ecohydrology and IWRM in Asia and Africa through UNESCO category-2 water centres in Asia and Africa (Water Management Component)**
   The workshop promotes Ecohydrology as a cost-efficient technological approach for IWRM and introduces the concept of water footprint assessment and its methodology. To further promote south-south-north cooperation, this activity will link category II centres and category I centre in Asia and Africa into a collaborative platform on Ecohydrology and IWRM.

Scalability: Post-2015 Development Impact:
The project will contribute to the achievement of the four specific areas of post-2015 sustainable development goals, which are to:

- Ensure inclusive and equitable quality education and promote life-long learning opportunities for all (SDG 4);
- Ensure availability and sustainable management of water and sanitation for all (SDG 6) particularly on target 6.5 specifically related to IWRM and also two targets (6a and 6b) relevant to the implementation of the water goal;
- Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (SDG 15);
- Strengthen the means of implementation and revitalize the global partnership for sustainable development (SDG 17).