

***SOCIAL AND SUSTAINABILITY SCIENCES FOR SDGS :
University Partnerships and Innovations Contributing to the
ASEAN Work Plan on Education, 2016-2020***

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Presented (28March 2017) to
**“Session 3 – Innovative approaches for developing multi-stakeholder
partnerships”**

**UNU-IAS/UNESCAP
Workshop on multi-stakeholder partnerships for the SDGs
implementation in Asia and the Pacific**

Meeting Room G, United Nations Conference Centre (UNCC),
Bangkok, Thailand

Overview

1. Global Contexts/**Sustainable Development Goals (SDGs), 2015-2030** (Mandate for Action, Monitoring and Assessment- Rationale for Improving Social and Sustainability Sciences and Partnerships – Why Important for SDGs and ASEAN? **Re Points #1 & 3 – Interlinkages/Science-Knowledge**)
2. **One Example of a multi-stakeholder partnership initiative and innovation** (engaging academic, governments, IOs and regional agencies). Conceiving and implementing a Project for the ***ASEAN Work Plan on Education, 2016-2020*** - An Idea for a Collaborative and Participatory Social and Sustainability Sciences Assessment (for SDG Action, Monitoring and Assessment)
3. **One Thematic Case: ASEAN Agri-Food System** Higher Education Research and Capacity Strengthening Assessment and Network – An example (among others) of Regional-Academic-government SDG Partnership Trends, Challenges and Collaboration Opportunities under *AWPE, 2016-2020*
4. **Conclusions/Next Steps** - Resource Mobilization, Innovative Collaboration Models and new Partnerships for SDGs in ASEAN/Asia-Pacific Needed)

SESSION 3 Discussion Questions #1 & 3 – FOCUS: Interlinkages, Universities and Science-Knowledge Roles (for SDG implementation, monitoring and evaluation)

Session 3 – Innovative approaches for developing multi-stakeholder partnerships (for SDG implementation, monitoring and evaluation)

1. What are the innovative approaches to build consensus in tackling **MULTIPLE GOALS AND INTERLINKAGES** across SDGs?
3. How do stakeholders overcome challenges in mobilizing and sharing resources and **WHAT ARE THE ROLES OF SCIENCE, KNOWLEDGE, EXPERTISE** and technology...?

1. Global SDG Contexts/Rationale for Doing/Improving Social and Sustainability Sciences

Global Contexts/Rationale

(for Documenting, Improving and Strengthening Social and Sustainability Sciences)

QUESTION:

- Why **Strengthen** Multi-disciplinary Sciences and Higher Education Institutions (HEIs) and **Partnerships** with governments in response to SDGs?

SIMPLE ANSWER(s):

- It can help us:
 1. Build Empirical and Analytical **Consensus** on **Problems and Solutions**
 2. Encourage Cross-Sectoral and Interdisciplinary Collaboration for **Innovation**
 3. Provide cost-effective **Data** and Science-based **Evidence** for Policy-Makers and Governments to Address **MULTIPLE GOALS & INTERLINKAGES across all SDGs**

Achieving SDGs impossible without better Data (and Analysis)

Research & Good/Comparable Data and Statistics for SDGs needed

- During the launch of the *Statistical Yearbook for Asia and the Pacific 2015* published by the United Nations Economic and Social Commission for Asia and Pacific (UNESCAP) the Executive Director of UNESCAP stressed that **“achieving the SDGs was impossible in the Asia-Pacific region without better data”**

Reference

Akhtar, Shamshad. 16 February 2016. **“Sustainable Development Impossible in Asia-Pacific Without Better Data”** Op-Ed (UNESCAP Executive Secretary)
(www.unescap.org)

SDGs and Overarching Themes – (Implicating Higher Education Institutions/HEIs with Multi-Disciplinary Sciences, Research and Policy Interfaces)

Multidisciplinary/cross-sectoral RESEARCH can provide Empirical DATA and EVIDENCE on different SDGs and relationships among them:

- Goal 1. No Poverty (and Sustainable Livelihoods)
- Goal 2. Zero Hunger (and Sustainable Agriculture/Agro-Food Systems)
- Goal 3. Good Health and Well-Being
- Goal 4. Quality Education (and Tertiary Education/Sciences for Sustainable Development)
- Goal 5. Gender Equality
- Goal 6. Clean Water and Sanitation
- Goal 7. Affordable and Clean Energy
- Goal 8. Decent work and Economic Growth
- Goal 9. Industry innovation and Infrastructure
- Goal 10. Reduced Inequalities
- Goal 11. Sustainable Cities and Communities
- Goal 12. Responsible consumption and production
- Goal 13. Climate Action
- Goal 14. Life Below Water (Marine and Riparian)
- Goal 15. Life on Land (Terrestrial ecosystems)
- Goal 16. Peaceful, just and Strong Institutions
- Goal 17. Partnerships

HEIs or university trained experts (from Natural, Social and Environmental Sciences) can help data-gathering, documentation and interpretation to help GOVERNMENTS and POLICY-MAKERS better Understand , Monitor & Evaluate SDG progress

Global Sustainable Development Goals (SDGs), 2015-2030

**(Targets/Preliminary Indicators are Imprecise/Need Refinement
and Assessment IN PARTNERSHIP WITH SCIENTISTS)**

SDGs have 169 targets and 230 Indicators

- (BUT) The (incomplete/unfinished) **IAEG indicator framework will need to continue over time,** including by **making use of... other related expert processes...**” (United Nations, 2016, p.9).

IMPLICATION

- **UN agencies** (UNESCAP in partnership with UNESCO, UNDP, UNU, UNEP, FAO, etc.) **and donors should work with governments to strengthen multi-disciplinary scientific capacities** in Asia-Pacific HEIs and Research institutes. **Academic-government policy-dialogues and partnerships** can help **deliver/assess SDGs** (drawing from all sciences – social, natural, environmental, etc.)

References (for Background)

United Nations Economic and Social Council (UNESCO). 19 February 2016. “Annex IV Final list of proposed SDG indicators” in ***Report of the InterAgency and Expert Group on Sustainable Development Goal Indicators. Note by the Secretary-General,*** E/CN.3/2016/2/Rev.1*, pp. 39-62.

United Nations. 2016. *Statistical Commission Report Supplement No 4*. United Nations Economic and Social Council (UNESCO), E/2016/24-E/CN.3/2016/34,8-11 March 2016, NY: UN

Cross-Cutting Dimensions of SDGs – An Imperative to INTEGRATE and Update Analyses/Responses

SDGs are Cross-Cutting with Evolving Indicators requiring Integrated Scientific Assessment(s)

- “there are deep interconnections and many cross-cutting elements across the new Goals and targets” (UNGA 21 October 2015. article 17/p. 6).
- “Actions to achieve progress in one SDG sector may enhance or diminish performance in other sectors” and “**INTEGRATED ASSESSMENT MODELS** can serve as experimental platform for **testing the effectiveness of proposed interventions for achieving the SDGs** (UNDESA, 2016, pp. 48, 77- 78).
- A “Stronger **Bridge** between **Science** and **Policies** is Needed **to Achieve SDGs**” (UN-DPI, 12 July 2016).

References:

United Nations General Assembly (UNGA). 21 October 2015. ***Transforming our world: the 2030 Agenda for Sustainable Development***, A/RES/70/1. Resolution adopted 25 Sept 2015.

United Nations Department of Economic and Social Affairs (UNDESA). 2016. *Global Sustainable Development Report 2016*, New York, UNDESA.

United Nations Department of Public Information (UN-DPI) 12 July 2016. “New Report Finds that Stronger Bridge between Science and Policies is Needed to Achieve Sustainable Development Goals.”
<https://sustainabledevelopment.un.org/>

RECOGNIZE VALUE of SOCIAL SCIENCES for Implementing and Assessing SDGs (*World Social Science Report, 2013*)

Post Rio+20 (and Post 2015/SDGs) Interdisciplinary Science Contexts and Policy Dialogue/Planning Imperatives for SDGs

- “Social sciences will have a key role to play in designing and assessing critical pathways to achieve the goals...”
- The social sciences and universities have a moral and practical imperative to take on the problem-solving mantle more actively. **Universities** are **critical** and unique aggregations of the cross-disciplinary knowledge needed for sustainable development solutions (Jeffrey Sachs, p. 79)

In Sum the WSSR and UNESCO Recommend

- A new kind of social science is needed ...to infuse social science insights into real-world problem-solving;
- There is a need to change the way the **social sciences** think about and do science - theories, assumptions, methodologies, institutions, norms and incentives, to help meet vexing interdisciplinary and cross-sectoral challenges
- **Universities** can and should play an important role in sustainable development and **implementing** and **analyzing** SDGs



Reference

ISSC and UNESCO, Eds, *World Social Science Report 2013, Changing Global Environments*, Paris
OECD Publishing and UNESCO Publishing

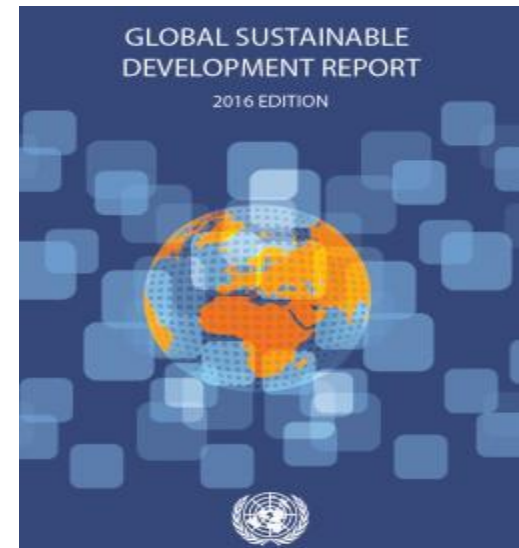
1st United Nations *Global Sustainable Development Report*, 2016 Edition

Science Essential for Understanding and Achieving SDGs

12 JUL 2016 – “Understanding of the scientific basis for action will be needed to achieve the ambitious and transformative goals of the 2030 Sustainable Development Agenda....”

“According to the *Global Sustainable Development Report 2016*, **key elements of the 2030 Agenda** –such as what it will take to ensure that no one will be left behind **have yet to be thoroughly scientifically researched...** The Report finds that the new Agenda requires asking different questions, many that have not yet been answered...”

“Science is needed more than ever to inform the implementation of the ambitious new Agenda. In turn, science needs to be responsive to the questions that this new Agenda puts forward....”



References

PRESS Launch: <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=2328&menu=1515>

United Nations Department of Economic and Social Affairs (UNDESA). 2016. *Global Sustainable Development Report 2016*, New York, UNDESA.

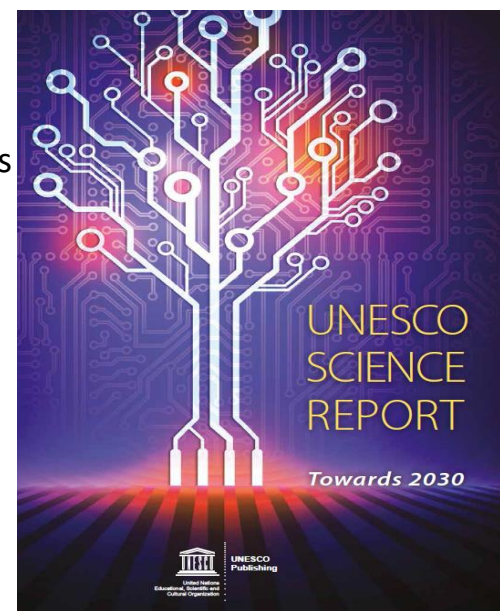
Federated Science(s) for SDGs:

UNESCO Science Report Towards 2030

“There can be no Sustainable Development without Science”

BUT: “...The transition to Sustainable Development cannot rely solely on engineering or technological sciences...The social sciences and humanities play a vital role in the adoption of sustainable lifestyles.

- “They also **identify** and **analyze the underlying reasons behind decisions** made at the personal, sectorial and society levels as reflected in SDG 12 on responsible consumption and production.”
- “They also offer a **platform for critical discourse** about societal concerns aspirations and for discussions on the **priorities and values** that determine political processes, the focus of SDG 16....”
- “The **artificial division of Agenda 2030’s Goals** based on **disciplinary approaches**, maybe necessary for comprehension, resource mobilization, communication and public awareness raising. Nevertheless... Governments should acknowledge the potential of science to **federate different knowledge systems, disciplines and findings**, and its potential to contribute to a **strong knowledge base in the pursuit of SDGs...**”



Reference

Scientific Advisory Board of the Secretary General of the United Nations. 2015/2016, revised.

“Science will Play a Key Role in Realizing Agenda 2030” in *UNESCO Science Report, Towards 2030*. Paris: UNESCO Publishing, pp. 9-11.

***2. ASEAN Work Plan on Education, 2016-2020 –
(One EXAMPLE of PARTNERSHIP Leading to ACADEMIC/SCIENCE POLICY
INNOVATION and INTEGRATED SDG Assessment)***

ONE EXAMPLE of

Academics-Government-International/regional agency partnerships

Leading to a Policy/Project supporting an INTEGRATED Assessment of SDGs

in

ASEAN Work Plan on Education, 2016-2020

One Innovative Multi-Stakeholder Partnership:

(ASEAN Regional Policy/Planning to implement/assess SDGs)

Three CORE PARTNERS (in 2015) LEADING, COLLABORATING & INNOVATING

(Co-Organization of First Regional Research **Symposium** and Academic Policy Dialogue on “**Social and Sustainability Sciences in the ASEAN Community**” 19–21 Aug 2015, Bangkok)

- ACADEMIC - Chulalongkorn University (with other partners)
- REGIONAL ORGANIZATION - ASEAN University Network (AUN)
- INTERNATIONAL ORGANIZATION - UNESCO

POLICY IMPACTS/OUTPUTS (in 2016) FROM INITIAL PARTNERSHIP

- Dialogue/Collaboration with ASEAN Secretariat Education, Youth and Training Division
- ASEAN Education Ministers adopt PROJECT 45 (on “*Social and Sustainability Sciences*” in ***ASEAN Work Plan on Education, 2016-2020***)

IMPLEMENTATION (in 2017) to Plan PROJECT 45

- Inaugural Regional meeting 6-7 March 2017, on “***ASEAN Way Forward for SDGs and COP21 thru Social and Sustainability Sciences***” hosted by Office of the Higher Education Commission (OHEC), Thai Education Ministry

ASEAN Work Plan on Education, 2016-2020

(Project #45 Text - Approved by Education Ministers)

THE ASEAN WORK PLAN ON EDUCATION 2016 – 2020

For consideration and endorsement of 11th ASEAN SOM-ED and 9th ASEd, 23 and 25 May 2016, Malaysia

SUB-GOAL 5: Complement the efforts of other sectors in meeting the objectives of Education for Sustainable Development (ESD)

PRIORITY AREA 5.1: *Strengthening collaboration between the education and other sectors related to ESD*

(Performance Indicator: Increased number of initiatives and opportunities for cross-sectoral collaboration on ESD in ASEAN)

Projects/Activities	Performance Indicators	Expected Outputs	Lead Country	Partners	Timelines (2016-2020)				
					2016	2017	2018	2019	2020
44. Strengthen cross-sectoral collaboration and synergies for ESD between environment (ASOEN) and education sectors (SOM-ED) CROSS-SECTORAL	By 2016, all AMS have implemented the ASEAN Environmental Education Action Plan (AEEAP) 2014-2018.	Support the conduct of ASEAN Eco-Schools Award Programme and ASEAN Environmental Education Forum for eco-/sustainable/green schools under the auspices of ASOEN.	Philippines	UNESCO, AWGEEz (under ASOEN), SEAMEO RECSAM					
45. Conduct multi-disciplinary research on social and sustainability sciences for understanding social, environmental and economic issues and impacts of ASEAN integration including analyses of significant policy implications for governments	Establishment of an ASEAN Scholars Network on Social and Sustainability Sciences to facilitate knowledge exchange, cross-disciplinary learning and collaborative policy-relevant research	Publication of ASEAN State of Social and Sustainability Sciences Report	Philippines and Thailand	UNESCO					

ASEAN Work Plan on Education, 2016-2020

PROJECT #45 Draft Concept

PROJECT #45 Concept

- Sub-goal 5 of the ***ASEAN Work Plan on Education, 2016-2020*** is to “Complement other sectors to meet **Education for Sustainable Development**” (ESD) objectives
- **ACTIVITY/PROJECT. 45.** “Conduct multi-disciplinary research on social and sustainability sciences for understanding social, environmental and economic issues and impacts of ASEAN integration including analyses of significant policy implications for governments.”
- **LEAD COUNTRIES:** Thailand and Philippines (Both named in AWPE)
- **PARTNERS:** Principally UNESCO (also named in AWPE)

Potential Framing/Implementation of Project 45 (to be further discussed with partners & potential donors)

- Initiative will support partnerships for collaborative research and capacity strengthening to inform a regional policy dialogue lead to one major output, **SUB-PROJECT 5.1: *Report on State of Social and Sustainability Sciences in ASEAN.***
- Potential Chapters (of Report) Framed according to available funding and partner interest/leadership
- Work can contribute to a broad, systematic multi-sectoral, regional effort in meeting UN agreed, and ASEAN Member State endorsed *SDGs, 2015-2030* as well as the COP 21 Paris climate change agreement

“ASEAN Way Forward for SDGs and COP21 thru Social and Sustainability Sciences”

Panel Themes Discussed 6-7 March 2017, Bangkok

REGIONAL Dialogue about SDGs in *ASEAN Work Plan on Education, 2016-2020*

- **ASEAN Government Representatives, Academic Experts and International Participants** (Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand with Canadian Scholar and EU Thailand delegation)
- Hosted by Office of the Higher Education Commission (OHEC), Ministry of Education, Bangkok, THAILAND

AGENDA Topics Covered 6-7 March

- UN Sustainable Development Goals
- Theme I: Health and risk management
- Theme II: Urban life, sustainable city, and people mobility
- Theme III: Energy and transformative change
- Theme IV: Agri-food systems, rural sustainability, and green consumption
- Potential Sources of Funding and Partnerships

Framing PROJECT #45

Combine ASEAN Research, Higher Education Capacity Strengthening and South-South/Triangular Cooperation to Implement/Assess SDGs

NOT Just a Commissioned Technical Report

BUT a Regional Collaborative Learning, Knowledge Sharing, Policy Dialogue and Capacity Building Process

AND a South-South/Triangular Cooperation approach within and across South East Asia with ASEAN Plus partners to build and strengthen Social and Sustainability Sciences in ASEAN universities and Research Institutes in collaboration with government partners while monitoring, assessing and contributing to SDGs

HOWEVER, the project and process is not yet Funded.

AT A MINIMUM the two promised indicators and outputs are:

1. “Establishment of an **ASEAN Scholars Network on Social and Sustainability Sciences** to facilitate knowledge exchange, cross-disciplinary learning and collaborative policy-relevant research “
2. “Publication of ***ASEAN State of Social and Sustainability Sciences Report*** “

AWPE, 2016-2020 Project 45:

Potential Activities and Targeted Outputs

(DRAFT CONCEPT – to Be Further Elaborated/Agreed with Partners and Donors)

This proposed initiative aims (subject to further consultation among Members States and partners, as well as adequate donor support) could result seven **principal sets of outputs (by 2020): (Subject to Donor support)**

1. Ten national **Baseline Surveys** in each ASEAN country providing comparable uniform data-sets on the scope, types and quality of Social and Sustainability Sciences from the 6500 or more HEIs;
2. Ten **Country Reports** (drafted by Multi-disciplinary Scientific Committees) from consultations and policy dialogues on state of Social and Sustainability Sciences in each ASEAN member state;
3. Ten **National Policy Briefs** published in English for regional dialogues and communications, translated into the domestic language of each ASEAN country to be more readily used for national planning, media and education
4. A final **Synthesis Report** (integrated Multi-disciplinary Scientific Assessment) on **State of Social and Sustainability Sciences in ASEAN Report (2020)** (committed **in AWPE**) – Could include thematic reviews, national surveys, discipline based reviews and policy/programme recommendations;
5. Ten **National Research and Capacity Strengthening Plans** to be part of an **ASEAN Regional Action Plan** on Social and Sustainability Sciences endorsed by member states.
6. An **Online Learning Platform and Data-base** to exchange knowledge and post scientific papers, curricula, data-bases or links to ASEAN Social/Sustainability Sciences policies, plans and research
7. Establishment of **ASEAN Social and Sustainability Sciences Experts Network** (committed **in AWPE**)

3. Global SDG and Regional Contexts for Framing a new ASEAN Agri-Food System/SDG Activity under AWPE Project 45

3. Framing a New Agri-Food System and SDG Education Research, Assessment and Capacity Strengthening Project

**Build on other collaborative research partnerships and Networks
To Complement or Implement/Assess SDGs in
*ASEAN Work Plan on Education (AWPE), 2016-2020***

**(Agri-food System/Rural Sub-theme of
AWPE PROJECT #45)**

Sustainable Agriculture (SA), Research and Farmer Extension Education in SDG 2

Sustainable Agriculture (SA) and Extension in new SDGs

Zero Hunger SDG 2

- SDG 2 - “End hunger, achieve food security and improved nutrition and **PROMOTE SUSTAINABLE AGRICULTURE**”
- Target 2.a **Increase investment**, including through enhanced **INTERNATIONAL COOPERATION**, in rural infrastructure, **AGRICULTURAL RESEARCH** and **EXTENSION SERVICES**, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

But...

- SDG 2 **does NOT define Sustainable agriculture** creating many policy and practical problems for measuring outcomes and indicators or how SDG2 implicates other SDGs (university experts and others can play a role)
- Also **no mention of AGRICULTURE EDUCATION**, sciences, or university roles in SDG 4 (yet there are also significant investment needs)

SDG 4 Education

(Higher/Tertiary and ESD References)

SD4 re Tertiary Education and ESD

- Goal 4. **Ensure** inclusive and equitable **QUALITY EDUCATION** and promote lifelong learning opportunities for all
- Target SDG 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and **TERTIARY EDUCATION**, including university
- 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 non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development
- 4.b By 2020, substantially expand... enrolment in **HIGHER EDUCATION**, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.

But...

- **No mention of farmer extension or AGRICULTURE EDUCATION or university/higher tertiary roles** in SDG 2 or how education implicates SDG 2 (e.g. “education for sustainable agriculture” or ESA as a dimension of ESD) especially. Yet significant needs and **cross-cutting issues/practical challenges** exist.
- **SDG 4 is weak** in addressing **agriculture/food education, research and farmer extension**, or responding to broader complex and urgent agro-environmental and development challenges implicated in other SDGs

BUILD APWE PROJECT ON OTHER COLLABORATIVE RESEARCH PARTNERSHIPS:

One Example: Higher Education for Sustainable Agriculture (HESA) and Food Security in Southeast Asia Project - CHULA PROJECT (2015)

PROJECT - “SIANI Expert Group on Higher Education for Sustainable Agriculture (HESA) in Southeast Asia”

DONOR: Swedish International Agricultural Network Initiative (SIANI) with funding from the Swedish International Development Cooperation Agency (Sida)

HOST/COORDINATOR: Chulalongkorn University School of Agricultural Resources (CUSAR)

OVERVIEW

“This group will assess challenges, capacities, best practices and policy options on Higher Education for Sustainable Agriculture (HESA) in the Association of Southeast Asian Nations (ASEAN) region while exchanging knowledge, and exploring interdisciplinary curriculum reform, teaching and **research-extension** needs as a contribution to **strengthening regional poverty reduction, food/nutritional security and environmental protection.**”

ACTIVITIES

- National Consultations & Academic-Government Dialogues
- Laos, Philippines and Thailand - pilot countries
- “Write-shops” & Policy Brief Drafting

WEBSITE (Home Page) www.siani.se/expert-groups/hesa (See “**Resources**” page, with Document Repository)

SIANI Expert Group on Higher Education for Sustainable Agriculture (HESA) and Food Security in Southeast Asia” (Summative Regional Symposium -18 Aug 2015 Chulalongkorn University)

HESA Pilot countries/Comparative Analysis - Laos, Philippines and Thailand
(Pre-Conference Workshop to First Chula-UNESCO-AUN “*Regional Regional Research Symposium and Academic Policy Dialogue on “Social and Sustainability Sciences in the ASEAN Community*”



LAOS, PHILIPPINES & THAILAND

3 Pilot Studies 2015 – Publications (2016) *Policy Briefs*

HESA-SIANI Policy Briefs/Published Online

For Laos -- Philippines -- Thailand

<http://www.siani.se/expert-groups/higher-education-sustainable-agriculture-hesa-southeast-asia/resources>



SIANI
Swedish International Agricultural Network Initiative

Higher Education for Sustainable Agriculture: Working for food and nutrition security in the Philippines

Policy Brief
March 2016

This Policy Brief describes the state of the art in agriculture education in the Philippines, provides an overview of the environmental concerns linked to agriculture in the country and the implications for higher education, and makes recommendations on how to resolve national agro-environmental issues and improve higher education in order to increase the sustainability of agriculture. The Brief contains recommendations by the SIANI Higher Education for Sustainable Agriculture (HESA) Philippines Experts Group, made at a two-day dialogue and 'write-shop' held at the University of the Philippines, Diliman Campus, on 22–23 July 2015.

Background and Rationale

Higher education institutions in the Philippines must undertake better research, improve their teaching and support enhanced extension services in order to provide a more effective response to the many environmental and agriculture- and development-related concerns in the country. The current state of higher education is not adequate to the task of addressing the many environmental, economic and social problems associated with mainstream approaches to industrial agriculture. The Philippines faces many complex global and national environmental problems linked to its agriculture.

The widespread and indiscriminate use of chemical fertilizers, hybrid seeds and pesticides, for example, leads to various environmental and health-related hazards and socio-economic problems. Worldwide food and agricultural trends are exacerbating the global ecological crisis. It has been estimated that 56 per cent of greenhouse gas emissions are linked to food production. Soils are also being degraded and eroded or made more acidic, decreasing the supply of nutrients for crop uptake. Farmers must then apply more fertilizers and pesticides to maintain or increase yields, while pests develop resistance. Pesticide residues in the food chain and ecosystem also threaten human health, ranging from increased incidence of cancers to food poisoning. Not all such health problems can be attributed to agriculture alone, but some connections to various types of disease are suggestive. There is substantial evidence of well documented problems, such as the ingestion of toxic pesticides in food in the Philippines and elsewhere in Asia.

As the population of the world increases, the amount of grain being grown per person is declining. The Green Revolution of the 1960s was a package of technological innovations designed to increase agricultural yields. It consisted of the use of high yielding varieties, fertilizers and pesticides, and was initially focused on rice growing in the humid tropics of Asia in order to address a predicted rice shortage. The strategy was later expanded to all crops, including aquaculture. Agricultural crop and livestock yields increased, averting 'Malthusian' concerns about an impending food crisis.

Today, however, at least 800 million people still go hungry, and about 150 million children under the age of five are severely undernourished. Such problems could intensify if the world population increases as predicted from the current 6.7 billion to 9.2 billion by 2050.

At the same time, the widespread adoption of sustainable agricultural practices in the Philippines, across the ASEAN region



Winnowing Rice by Hand – Rice Preparation in Philippines. Photo by Daniel Redkham via Flickr CC BY-NC-SA 2.0

and worldwide could help to increase resilience to climate change and improve climate change mitigation and adaptation measures. It is essential to promote and support truly sustainable agriculture based on local soil and climate conditions, as well as local traditions and culture. Agro-ecological systems and practices should reflect these too.

However, a shift to sustainable agriculture will require local government entities, community-based family farms and cooperatives to have access to more information, and better education and communication on sustainable agriculture, as well as support to get access to technology and best organic farming and manufacturing practices. There is also a need to operationalize comprehensive agricultural extension and training support services for small-scale family farms.

The Need for a Response from Higher Education Institutions

In response to such environmental, health- and agriculture-related development challenges, the SIANI Higher Education for Sustainable Agriculture (HESA) Philippines Experts Group held a two-day dialogue and write-shop in July 2015. The dialogue was facilitated by SIANI-HESA and the Food Security in Southeast Asia Experts' Group Project. The dialogue aimed to ascertain the status of courses on sustainable agriculture and food security in higher education institutions (HEIs) and state universities and colleges (SUCs) across the Philippines.

SIANI.se

Chulalongkorn University School of Agricultural Resources (CUSAR)

ASEAN Extension Research Project

(June 2016 – May 2017)

Small New Project concluding - Mainly linked to SDGs 2 and 4 but implicating other SDGs

- UNISEARCH Fund approved “ASEAN Cluster” Project on ***“Mapping and Assessing University-based Farmer Extension Services in ASEAN through an Agro-ecological/Organic Lens”***
- **FOCUS:**
 - > **Tier1:** Indonesia, Laos, Philippines, Thailand and Viet Nam; and
 - > **Tier 2** Cambodia, Malaysia and Myanmar (added with supplementary funding)
 - > Now **Representing:** 8 countries with strong agriculture economies in ASEAN.

Objectives

1. Explore what **roles universities play in either exacerbating or mitigating environment, food security, poverty reduction and agricultural development challenges in ASEAN and contribute to social or rural transformation.**
2. Understand through quantitative empirical evidence combined with good qualitative analysis, how, why and to what degrees Southeast Asian universities inhibit or support agro-ecological and organic approaches in teaching, research and extension services.
3. Provide policy, program and curricular recommendations for future education, research and extension services and rural development planning in response to perceived knowledge and capacity gaps **(including reference to SDGs)**

UNISEARCH Fund “ASEAN Cluster” Project

Activities with Partners (2016-2017)

Chula-led Research Project on *“Mapping and Assessing University-based Farmer Extension Services in ASEAN through an Agro-ecological/Organic Lens”* (Expanded with ALiSEA, UNESCO and ASC supplementary support and from many other national/institutional partners)

Extension Research Project Workshops

- **Viet Nam** (16 June 2016) Hosted by International Center for Tropical Agriculture (CIAT/CGIAR) Asia Regional Office, Hanoi
- **Philippines** (7 July 2016) Hosted by University of the Philippines Los Baños (UPLB);
- **Laos** (14 July 2016) hosted by ALiSEA/GRET, Vientiane
- **Indonesia** (21 July, 2016) Hosted by Bogor Agricultural University,
- **Thailand** (24 August, 2016) Hosted by CUSAR/Chula Bangkok
- **Viet Nam** (13 Dec 2016) Hosted by Can Tho University (Southern Viet Nam)
- **Cambodia** (21 Dec 2016) Hosted by Royal University of Agriculture (RUA), Phnom Penh,
- **Myanmar** (25 Jan 2017), Hosted by Yezin Agricultural University (YAU), Naypyitaw

Summative Regional Research Workshop (23 Feb 2017), Bangkok

- Reports & Data Exchange from all national workshops by focal point teams
- Full Papers (on national surveys and analysis) presented
- Revised Papers submitted for Proceedings (Forthcoming/In Press)

Research Symposium Proceedings (in Press/2017)

ASEAN Organic/Agro-Ecological University-based Farmer Extension Services



PROCEEDINGS: (Selected Full Papers & Rapporteurs' Summary)

from

REGIONAL SYMPOSIUM

on

*"Mapping and Assessing University-based Farmer Extension Services in ASEAN
through an Agro-ecological/Organic Lens"*

Chulalongkorn University, Bangkok
Main Auditorium, 2nd Floor

Thursday, 23 Feb 2017,
8:30 am to 5:00 PM



SIANI Expert Group (PARTNERS' NETWORK) on HESA and Food Systems in Southeast Asia – PHASE 2 (2017-2018)

New SIANI Expert Group on “Higher Education for Sustainable Agriculture (HESA) and Food Systems in Southeast Asia” - PHASE 2 (2017-2018)

- Begin 1 April 2017 (contract pending) - Chula's HESA Southeast Asia Project, Phase 2 (2017-2018) funded by a grant from Swedish International Agricultural Network Initiative (SIANI) – Through Swedish Sida

Proposed Principal Activities and Outputs: (details to be developed)

- Three Sub-Regional Workshops and reports in 2017 and 2018 with policy, curricular and farmer extension operationalization recommendations proposed with SDG implications for national governments and regional organizations: 1) Mekong Institutions, 2) Philippines (SEAMEO-SEARCA and others); and 3) Indonesia (ASEAN Secretariat, Jakarta).
- Final Report (Feb-March 2018) with Summary for Policy-Makers

Targeted Outcomes:

- Useable sustainable agricultural education knowledge and research-extension linkages and needs identified by/for rural farmers in cooperation with university partners
- Targeted planning and investments in future sustainable agriculture university teaching, research and extension services (also as a means to reach/report on, and surpass SDGs).

SDG 2 & 4 Linkage Policy Dialogues Planned

SIANI Expert Group (Academic NETWORK) on HESA and Food Systems in Southeast Asia – PHASE 2 (2017-2018)

Our New HESA Phase 2 Expert Group will:

- Collaborate with national governments, academic institutions, farmer networks and local authorities on agriculture education policy dialogue
- Engage ASEAN Secretariat, SEAMEO-SEARCA and Mekong regional organizations (while also aiming to include UNESCAP, FAO, UNESCO, UNEP and others) re:
 - **SDG 2** FAO Lead (links to Agriculture Ministries)
 - **SDG 4** UNESCO Lead (links to Education/Science Ministries)
 - **Other SDGs** (many cross-cutting linkages/implications)
- Encourage cross-sectoral and inter-agency policy dialogue and concrete planning on HESA within and among education, agriculture and environment ministries.
- Align HESA goals and recommendations with **SDG targeting, monitoring and reporting**, in government planning processes and capacity strengthening.

Mapping/Linking Needed - Regional Agri-food Systems Education & Research Projects, Networks or Institutions for APWE, 2016-2020

RESEARCH PROJECTS (quasi or Proto-Networks) – Launched with Chulalongkorn University School of Agricultural Resources (CUSAR) initial funding support supplemented by other partners (AliSEA, UNESCO, etc.)

- SIANI-Sida supported Chula's HESA Southeast Asia Pilot Project, 2015, and now **HESA Phase 2 beginning (2017-2018)**
- "Mapping and Assessing University-based Farmer Extension Services in ASEAN through an Agro-ecological/Organic Lens" (also CUSAR- Chula based), 2016-2017

EXISTING or PLANNED NETWORKS (Mostly informal, semi-formal or loose alliances)

1. ASEAN Agriculture University Network (AAUN), founding meeting (22 Feb 2017) Maejo University
2. Agroecology Learning alliance in South East Asia (ALiSEA)
3. Asia Pacific Agricultural Extension and Outreach Network (APAEON), founded by Asia-Pacific Association of Agricultural Research Institutions (APAARI)
4. Asia-Pacific Agro-ecology Research Network (Called for at FAO 2015 Agro-ecology meeting/Never established)
5. Global Forum for Rural Advisory Services (GFRAS) with Asia Pacific Island Network for Rural Advisory Services (APIRAS) sub-regional grouping, based at UPLB
6. GMS Universities Network (Deans of Environmental Studies)
7. Mekong Extension Learning Alliance (MELA)
8. Others (informal or formal ???)

MEMBERSHIP INSTITUTIONS or AGENCIES (NGOS, Regional/Intergovernmental)

- Asia Pacific Association of Educators in Agriculture and Environment (APEAEN);
- Asian Association of Agricultural Colleges and Universities (AAACU), based at UPLB
- Global Universities Partnership on Environment for Sustainability (GUPES) under UNEP Auspices, with some Agriculture or Food System partners/projects (?????)
- Promotion of Sustainability in Postgraduate Education and Research Network ("PROSPER-Net," under UNU auspices) with some Agriculture/Food System Education/Research partners activities in Regional Centres of Expertise (RCEs) on ESD (?????)
- SEAMEO- SEARCA (Regional Center for Graduate Study and Research in Agriculture) since 1965/1966

4. Conclusions/Next Steps

**(Linking a Social-Sustainability Sciences Assessment with SDGs
in AWPE Outputs)**

4. CONCLUSIONS/NEXT STEPS

Linking an ASEAN Social-Sustainability Sciences Network and Assessment
to Resource Mobilization, Innovative Collaboration Models and new
Partnerships
for
SDG Implementation, Monitoring and Evaluation

CONCLUDING SUMMARY – Chula LESSONS and AWPE Potential

Re: Innovative Multi-stakeholder (Academic) Partnerships

Concluding Summary re Session 3 – Innovative approaches for developing multi-stakeholder partnerships (Possible Lessons for SDG implementation, monitoring & evaluation in or beyond ASEAN)

1. What are the innovative approaches to build consensus in tackling **MULTIPLE GOALS AND INTERLINKAGES** across them?
 - Focus on academic-government policy dialogue and mutual learning about applied sustainability options for national development, HEI planning and SDG Reporting– in PRSPs, UNDAFs, etc.)
 - Engage different sectors on overlapping SDG challenges (e.g. for Agri-food system sustainability ASEAN Education Plan, Education Ministries should dialogue with Agriculture and Environment Ministries to better support partnerships (and joint funding) for related applied research and learning with rural communities, farmers.
2. How do stakeholders overcome challenges in mobilizing and sharing resources and **WHAT ARE THE ROLES OF SCIENCE, KNOWLEDGE, EXPERTISE** and technology...?
 - Establish partnerships with **integrated assessment models** (called for by UNDESA in first *Global Sustainable Development Report 2016*,) to address key information gaps in ASEAN and HEIs Sustainability, and to facilitate SDG knowledge sharing, data gathering and regional documentation
 - Stress importance of **science-based policy dialogue** (government and HEI decision-making based on facts/evidence rather than politics or ideology)
 - Underline that **multi-disciplinary science-based approaches** to sustainability can be **cost-effective** and can save/better target government budgets. But support must also be provided to researchers to demonstrate (building on Ecological economics)

POSSIBLE COMPLEMENTARY PARTNERSHIP INNOVATION?

An Integrated SDG Assessment Multidisciplinary Platform for ASEAN or Asia and the Pacific

Elements of Possible New SDG Partnership Innovation Model

PROPOSED: *ASEAN Integrated Multidisciplinary SDG Assessment Platform* which could

1. Engage Education, Agriculture and Environment Ministries/Officials in Dialogue, **Partnership** and collaboration for **Policy Coherence** in a cross-cutting SDG agenda.
2. Utilize University Expertise from many sciences/fields/disciplines
3. Be a Complementary To - Partly Modeled after ***Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)*** e.g. co-founded by **UNEP, UNESCO, FAO and UNDP** - Multi-disciplinary scientific committees in each ASEAN (smaller) or Asia-Pacific Country (larger if scaled-up)
4. Provide **COST-EFFECTIVE** regional and sub-regional SDG science, expertise and reporting in **partnership** with Asia-Pacific academic experts, HEIs, and ASEAN Plus partners
5. Be independent from but support/complement the Social and Sustainability Science Assessment Project 45 ***ASEAN Work Plan on Education, 2016-2020***

Discussion - END

**Other/discussion
Questions-Comments?**

END

Thank you