Role of Universities to promote disruptive inclusive innovation: a perspective from ASEAN

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February 15, 2019

Presented at GRIPS Symposium, Tokyo

Questions to discuss:

- How can university contribute to disruptive inclusive innovation addressing SDGs?

- What kind of stakeholders are needed to be involved to enable above?

- What are the challenges and missing elements to make broader, cross boarder impact?

Basic concepts of inclusive innovation

- Inclusive innovation, in many senses is understood as Innovation for All and by All
- Innovation by the poor: barefoot innovators
- Innovation at grass root level, or grassroots innovation (UNESCO)
- Rural Innovation
- Responsible Innovation
- Social Innovation
- Frugal Innovation
- Many others

Role of universities in inclusive innovation

- Research Institutes/Universities (RIU): conducting research/ training and outreach activities (3 missions)

- Training and research on II, direct support/transfer/outreach for II actors

- *Training* programs on II subject and skills to students: new curriculum

- *Research* activities on II-related subjects: water, healthcare, ICT for the poor, ethnic minorities communities, etc. (SDG oriented)

- *Direct involvement* in II-related activities: working with farmers, disadvantages groups (BOP), etc.

- Participation in *policy advocacy* for II

SEA: some related activities (1)

Indonesia

- ▶ Research agenda covers II issues and themes, introducing them into national research plans and development programs

- ▶ Creation of organizations oriented to implement SDG (were MDG) such as Council of ethnic native people; Federal agency on land for the poor and landless farmers; Council of water resources development and use of clean water, etc.

- ▶ Bogor Agriculture University (IPB), Bandung Institute of Technology (ITB), others

- ▶ Professional Fieldwork (KKP): students going to live in villages for field work (1,000 students per year)

SEA: some related activities (2)

Philippines

- ▶ University Ateneo de Manila: creation of innovation center Ateneo to implement low cost water treatment technologies in remote areas and aquaculture technologies to deal with fish diseases.

- ▶ De La Salle university: micro hydro power station for poor communities in mountainous areas in Abra

- ▶ Lagundi low cost cough medicine developed by University of Philippines, Manila as pharmaceutical product for the poor

- ▶ Department of Science and Technology created national innovation strategy called *FilipInnovation*

- ▶ Initiative *Isang Litrong Liwanag (lighting bottle)* deployed by MyShelter Foundation in poor communities without electricity, with participation of MIT students.

SEA: some related activities (3)

Thailand

- ► Active participation of universities: Chiangmai University, Majo University, King Mongkut University, Kasetsart University

- ► Bridging universities with highlanders in Royal Project by Kasetsart University: development of new crop, agriculture, tourism activities in highland areas

- ► KMUTT and Rangsit university developed R&D for development purposes

- ► Role of Thailand National Research Management Network (TNRMN) is key in promoting and supporting initiative

# SEA: some related activities (4)

Malaysia

- ▶ Initiative of education for sustainable development implemented by some universities like University of Malaya

- ▶ Strategic Reform Initiatives (SRI): one is related to inclusive innovation targets

- ▶ Role of government agencies in supporting II agenda: Federal Land Development Authority (FELDA), Malaysian Palm Oil Board for agriculture activities; Community Innovation Fund; Low Intensity Tapping System Scheme

- ▶ Education/academic-knowledge transfer program (KTP) by Ministry of Education

Vietnam: some related activities

▶ Inclusive innovation is not totally new philosophy: development for society is always an existed philosophy since 1950s

▶ S&T program for the rural and mountainous areas run by MOST

▶ ICT development for rural and remote areas communities

▶ Development of herbal medical products for poverty reduction and hunger eradication

▶ Innovators-farmers, "barefoot" scientists and technologist

Case 1: Red Dzao traditional herbal medicine, Sa Pa, Lao Cai province (Source: Tran Van On, 2012)
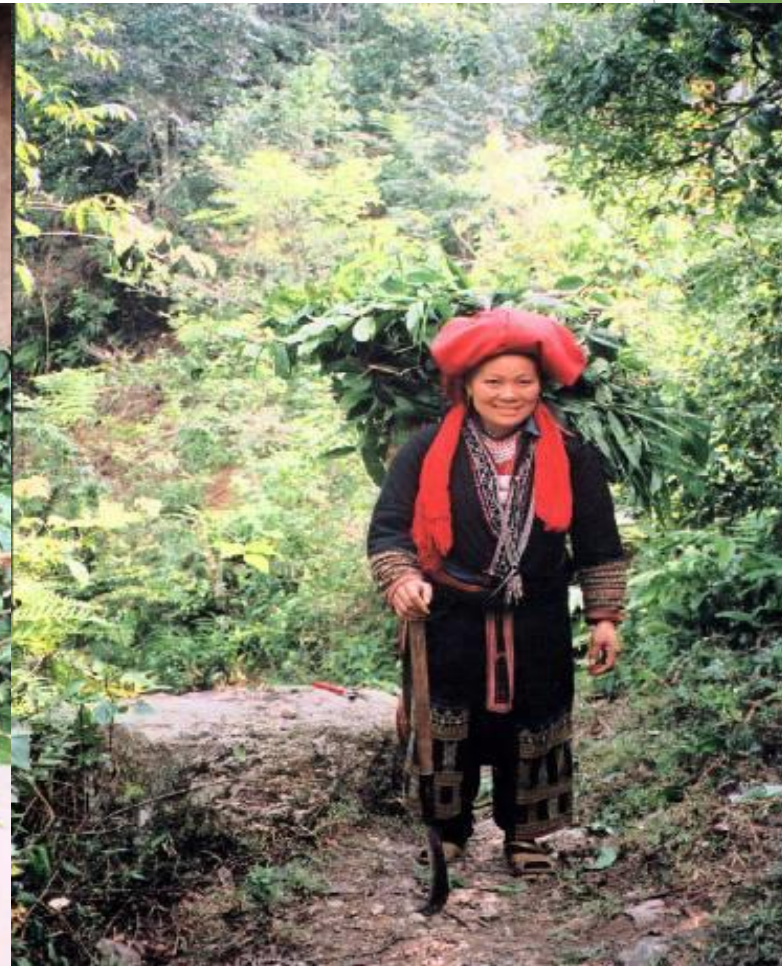
Problems: imitation and infringement of ownership

Hanoi Pharmaceutical University Solution for SDG 1, 3, 5, 8, 10, 11, 12: setting up community company

Help with R&D, product development, production and commercialization

Setting up shops and sales network

Helping production, business planning

Help with seeds, planting technologies

Case 2: Ta Phin community house, Lao Cai province (Source: Hoang Thuc Hao, 2012) Problems: lack of facilities for ethnic minority
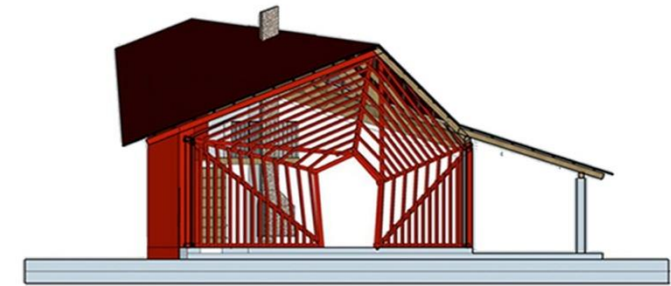
Hanoi Architecture University
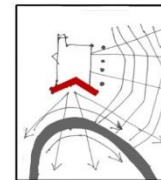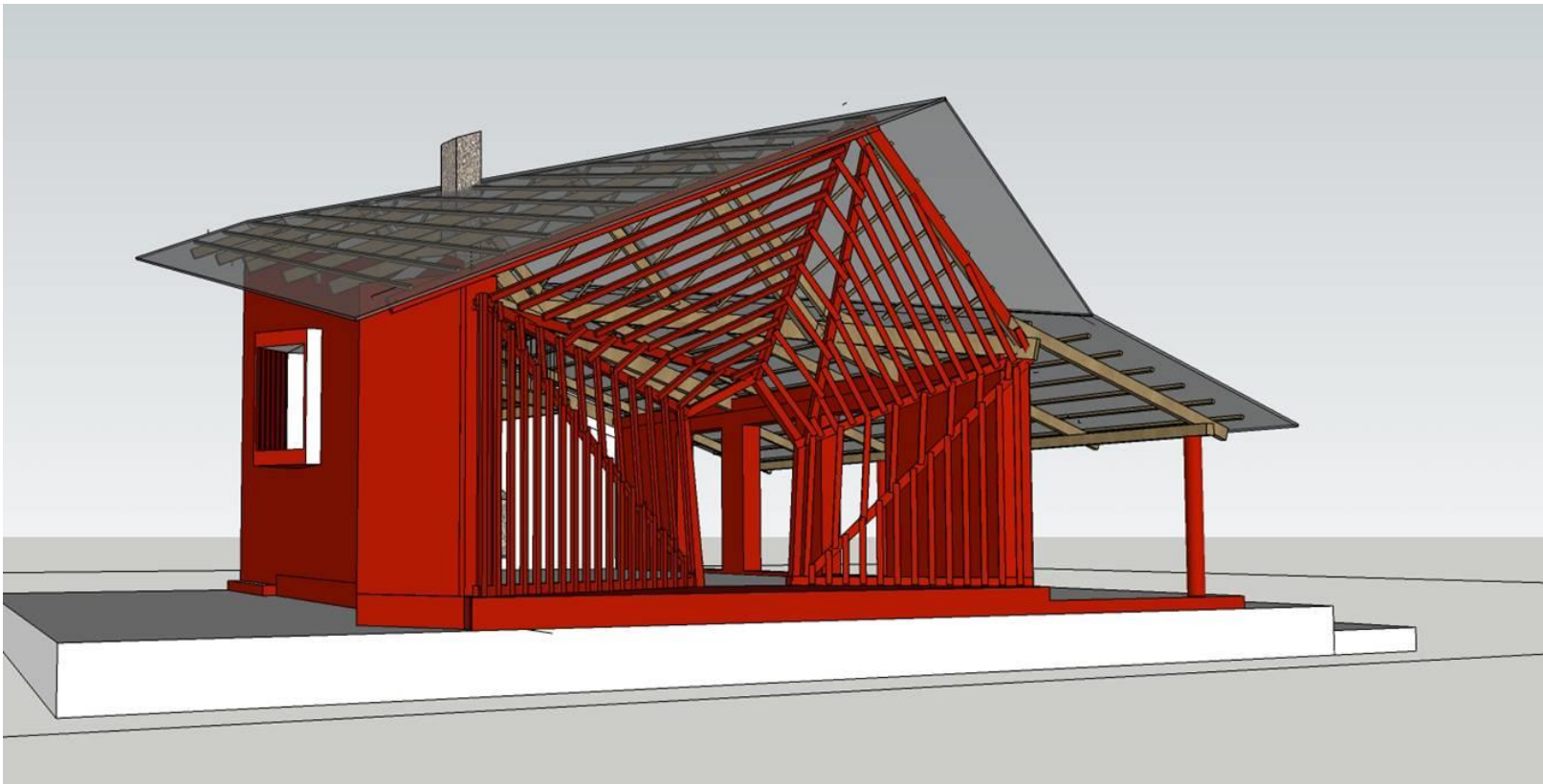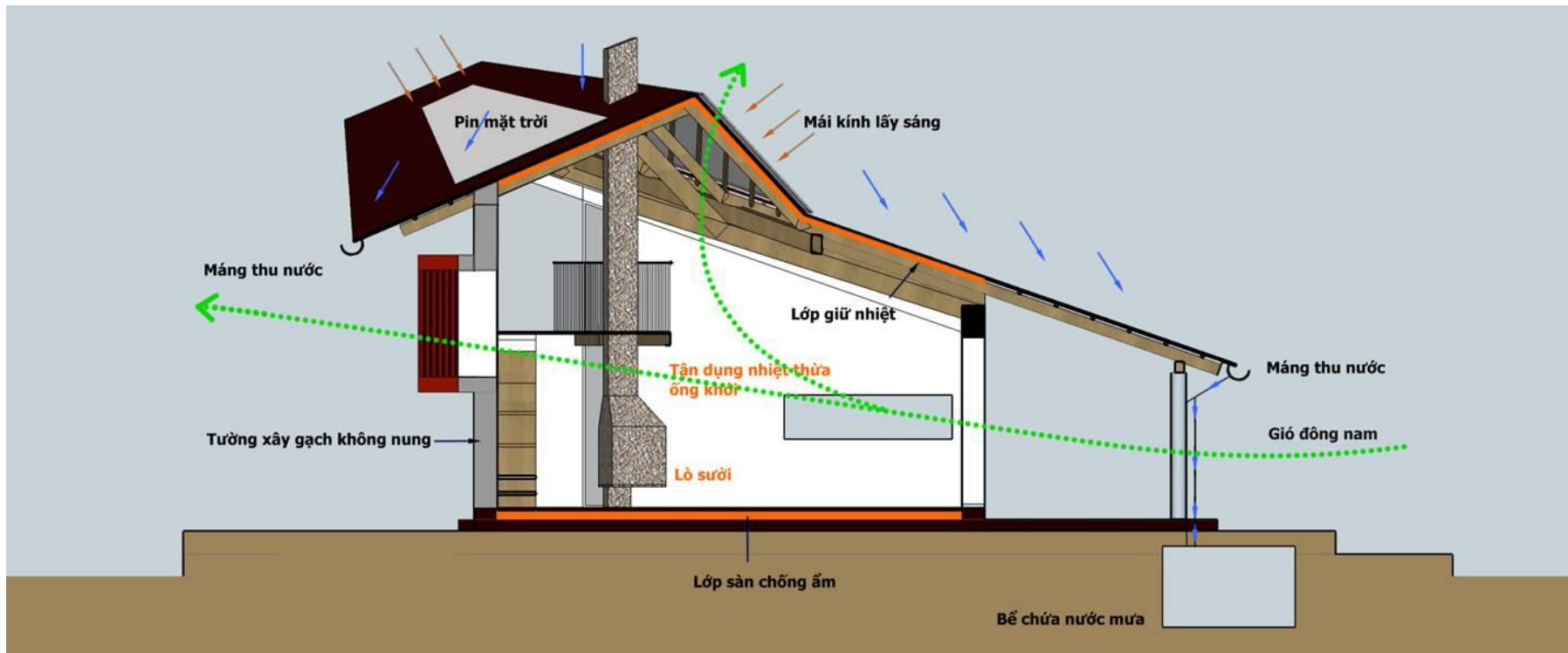# Solution for SDG 5,7,8,10,11: design and construction of new community house

House that reflects nature and ethnic characteristics

And with modern features

Construction by local material

Consultation with local people

Begin to take shape of a scarf

Local people participation

Red color to reflect Red Dzao minority feature

Finished house

Standing in the forest

A community house for the village in action

Research Institutes/Universities: challenges and missing elements

► Stakeholders involved:

  ► Government central and local

  ► Academia: universities and GRI

  ► Companies

  ► Communities and social actors (crowd funders/facilitators/actors)

  ► Credit/financial schemes and organizations

► Low awareness or lack of knowledge and appropriate conceptual and methodological skills/tools for II

► Tend to work more in research and/or outreach activities (second and third missions) for II, lack of closed linkages (mistrust); not much yet on training for II (first mission)

► Lack of resources required and weak incentive mechanism

► Unsuitable policies or approaches

► Not very up-to-date or clear about SDG

Implications

▶ New orientations for policies in development in general and STI in particular: think SDG, act locally for VSDG

▶ Need to change mentality and practices of research funding, and policy design for STI

▶ Considering more suitable policies

▶ Need to create new style of mechanisms and linkages system

▶ Role of various players: enforcing linkages Academia-Government-enterprises (industry)/private sector-communities PPCP (Public-Private-Community Partnership); 4 actors (Quadruple Helix), 5 actors, etc.

Thank you