Traditional wisdom and permaculture knowledge towards agro-ecology transition for *Landscape and Ecosystem's Sustainability*

case study on the FFS efforts of empowerment and development for & by indigenous ethnic minority youths

(SPERI, 2016)

Outline

- Conceptual level
  - Conventional versus alternative
- Practical level
  - Why focus traditional wisdom and permaculture knowledge towards agro-ecology transition?
  - Why ***processes of learning-by-doing/hands-on practices*** is important for sustaining?
- What have been our efforts? What are challenges?

Sustainability issue!

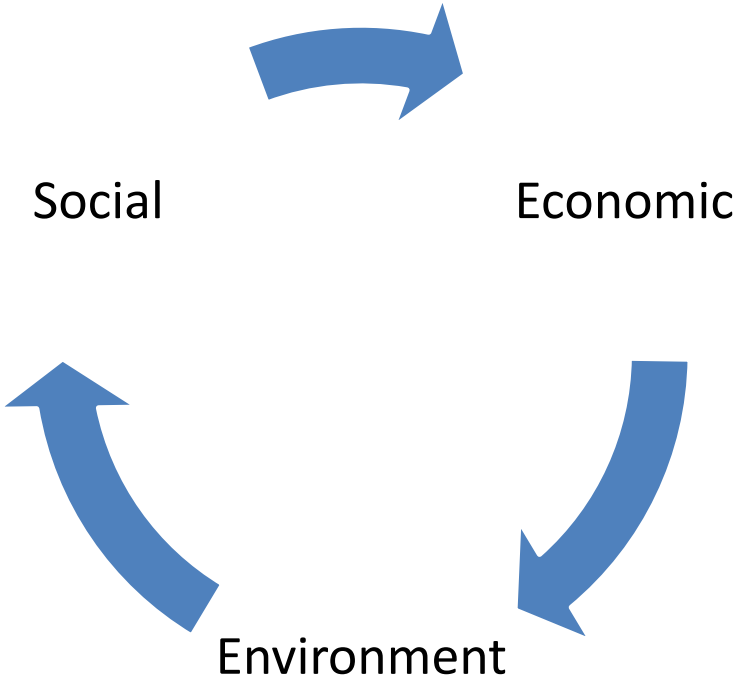
Conventional SDG

BUT

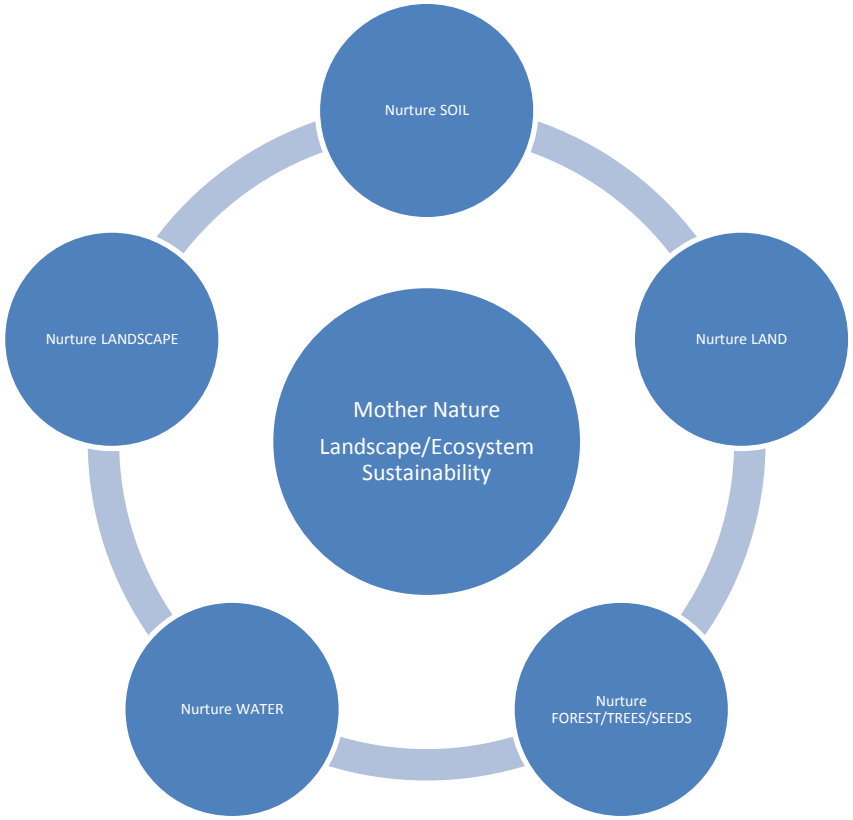
- ***Why landscape & ecosystem's sustainability <u>is not explicitly</u> on the list.***
- Why care?
  - We have **<u>ONLY</u>** a Mother Nature to continue sustaining
  - In order to address extreme poverty among rural populations, extreme pressure on our natural resources, extreme climate change impacts more visible daily - ***<u>we still need to ensure the vitality and resilience</u>*** of the soil, the land, the forest, the river, and hence the landscape and entire ecosystem.

'*Sustainability*' in Vietnam

Conventional sustainability approach in Vietnam (agenda 21)



But, SPERI envisions and acts upon sustainability *differs*



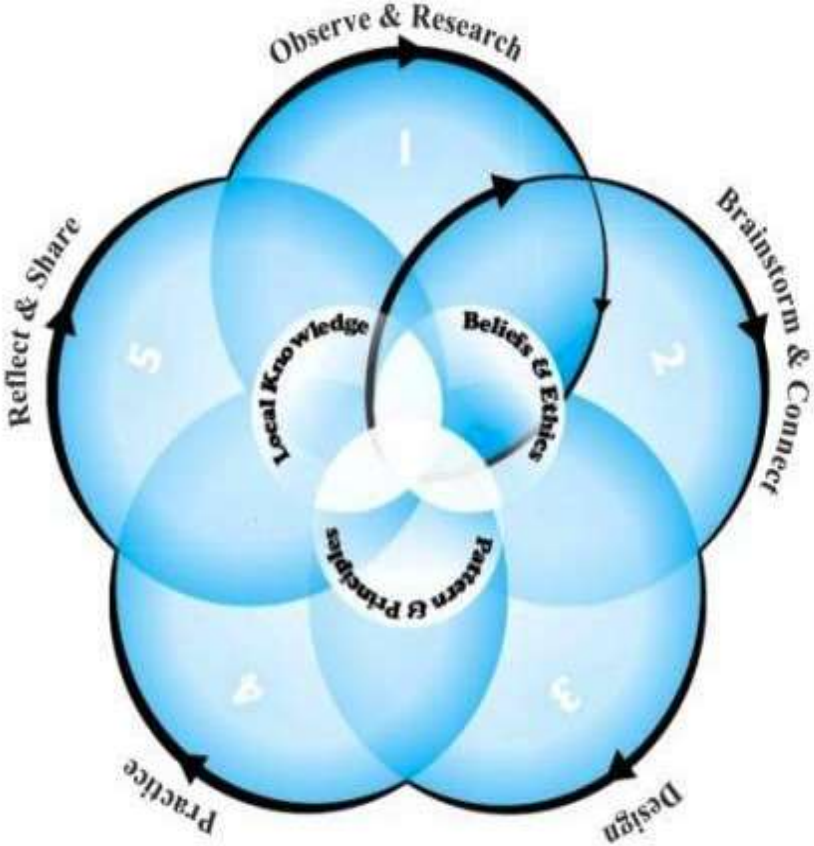
Current situation in central VN 2012-5

The consequence **when the soil is considered as ‘dead matter**, just for exploitation, planting more plantations for quick profits-making

Current situation in northern VN
2014-5-6

Current situation in central highland VN 2016

Why traditional wisdom and permaculture knowledge for landscape and ecosystem sustainability?



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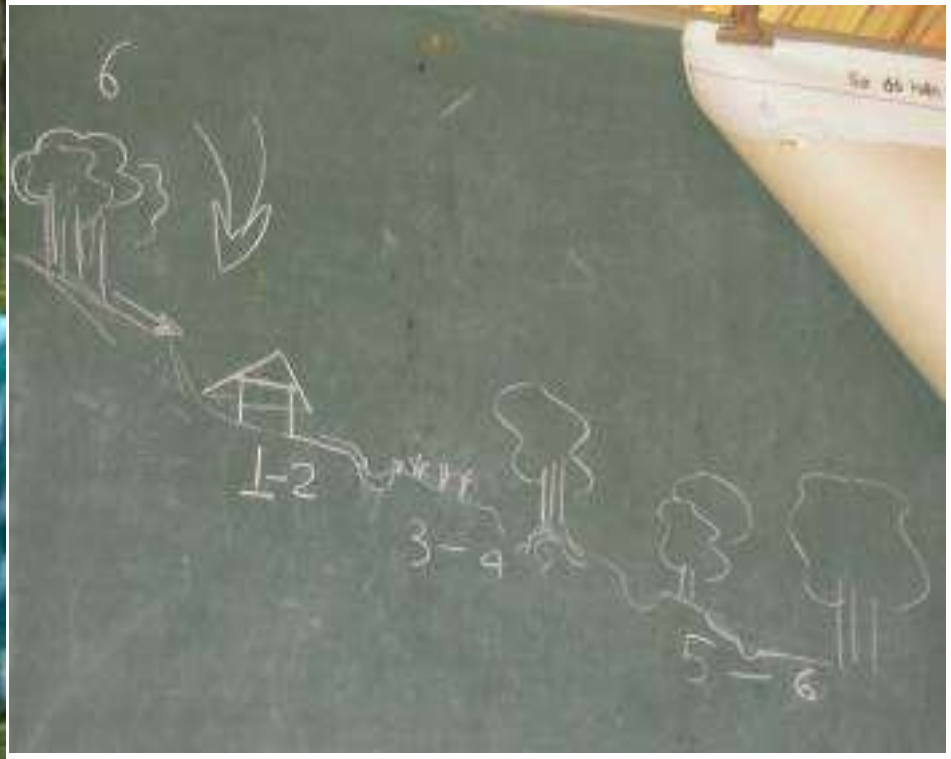
Examples of traditional wisdom on forest uses

- Identify edible plants and herbal plants increase value for conservation as daily uses

Permaculture knowledge on eco-farming and farm design system



Contour designing

Eco-farming/permaculture designed for nurturing the soil, mulching fruit crops

Making composts

Hands-on practices

- Spiritual practices for tree spirits
- Soil/water erosion control by terracing system.
- Forest watershed management
- Water Management – Banana circle and reed bed system.
- Waste Management – Banana circle.

- Worm-Farms
- 18 days compost
- Mulching
- Bio-Fertilizer
- Natural Soap
- Herbal Tea

- Garden Bed Design
- Animal Systems*
- Fruit Trees
- Multi-Functional Plants
- Handicrafts

Support students to collect seeds at home village

Building nursery in FFS-Simacai region

Support students/alumni to planting native woody trees in Simacai region

Support more plantings of native woody trees in FFS-HEPA, central region

Supports nursery development in FFS-HEPA, central region

Development of Farmers Field School in Lao PDR

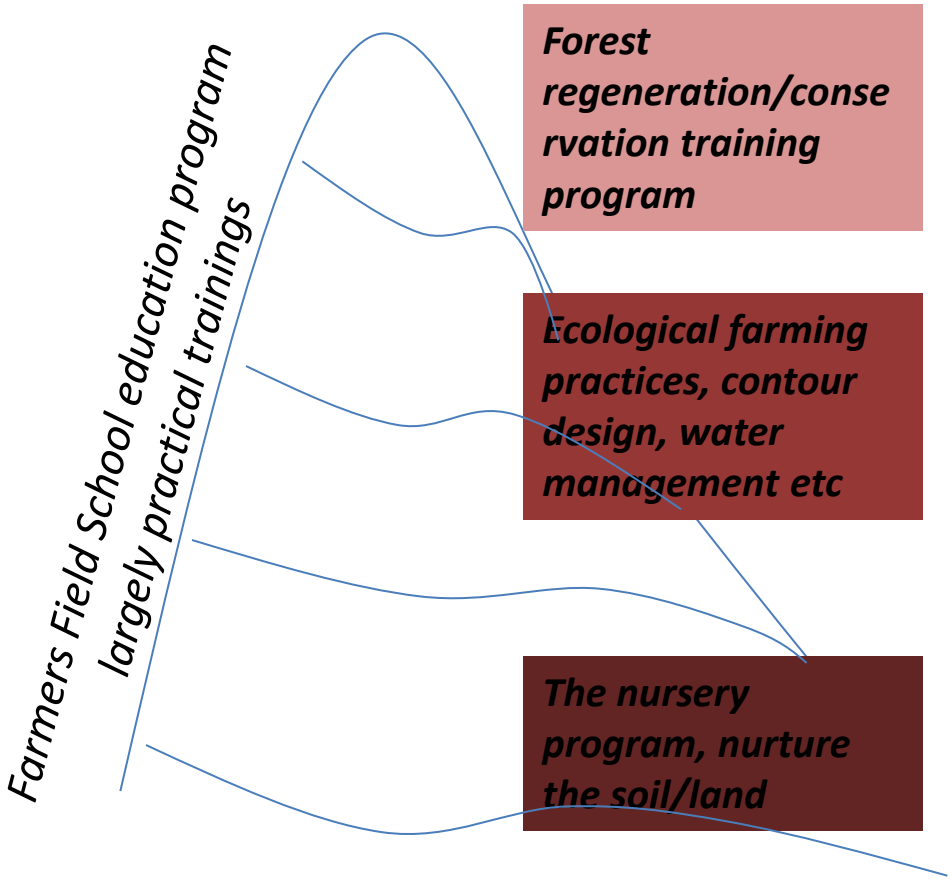
Support students to raising local chickens at home village

Support students to fish raising at home village

Facilitate farmer trainer, sourced seeds/seedlings from family nursery

Learning from model of diversity garden (i.e. garden market) at home village

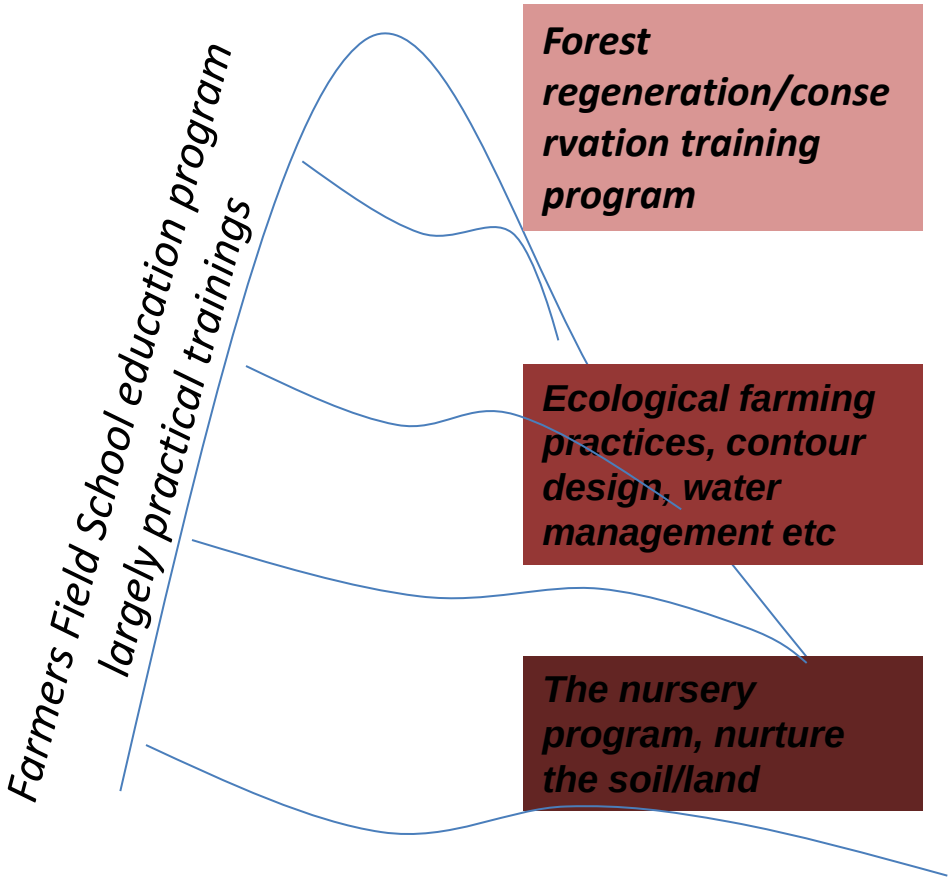
What FFS efforts of empowerment



Empower indigenous minority youths to

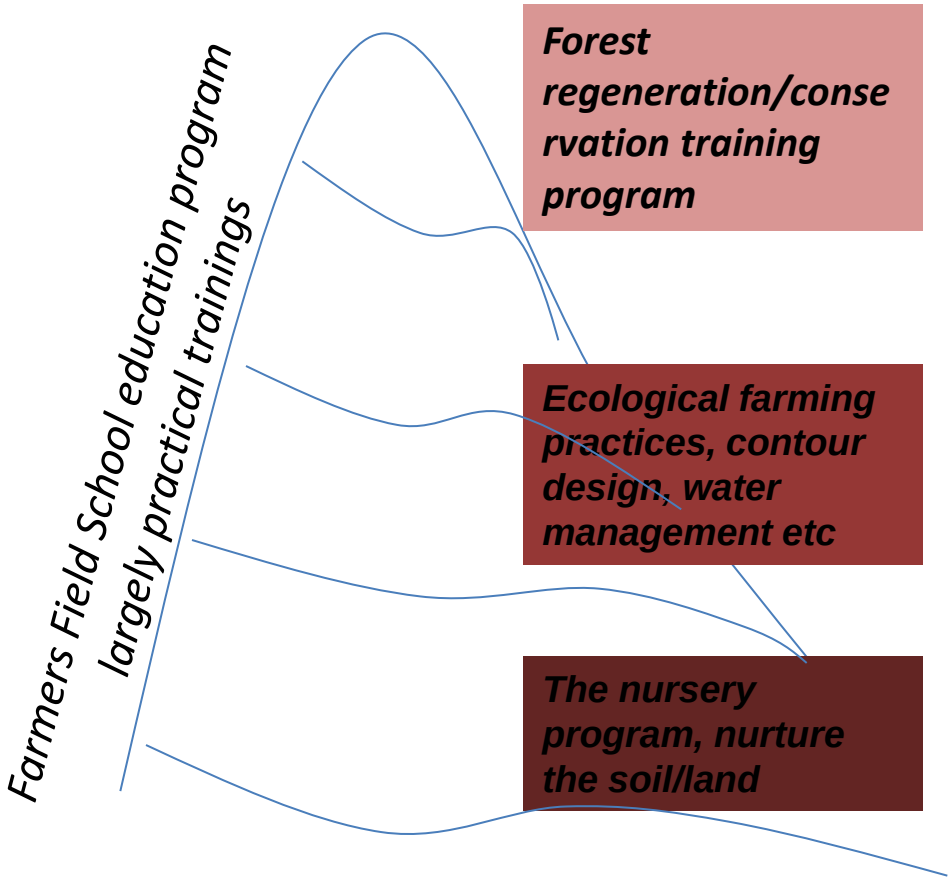
- *Nurturing forests*
- *Nurturing water*
- *Nurturing land*
- *Nurturing the soil*
- *Nurturing landscape*

FFS contributes to social empowerment



- ***By social production:***
  - ***Students' knowledge***
  - ***Awareness and behavioral change***
  - ***Stakeholder engagement***
  - ***Application of knowledge***

FFS contributes to ecological production



- ***By ecological production:***
  - ***Regenerate degraded forest landscape***
  - ***Return of biodiversity***
  - ***Production of ecological vegetables (commented!) but this is initial and also only sufficient to FFS internal use (only 76%)***

Our efforts in empowerment of indigenous minority youths

- Since 2006, train more than 200 disadvantaged ethnic minority youths
- Since 2006, receive nearly 200 visitors groups
- Regenerate ***degraded*** forest landscape
- Expanding eco-farming to regional (TOA)
- ***Banana circle*** as a cheap/affordable solution to deal with *organic waste/grey water management for rural towns in* Vietnam, Laos, Thailand, Myanmar, and Cambodia).

Table 2: Number of students trained at Farmers Field Schools (SPERI, 2013).

FFS courses included HEPA, Simacai sites and number of students

Long courses

· Course (2006-2008) on eco-farming foundation: 29 students

· Course (2007-2009) on eco-farming foundation: 14 students

. Course (2006-2010) on eco-farming foundation and intermediate: 57 students

· Course K Lao 1 (2010-2011) on eco-farming foundation: 7 students

· Course K Lao 2 (2012-2013) on eco-farming foundation: 7 students

· Course (2011-2012) on advanced eco-farming: 5 students

· Course (2012-2013) on advanced eco-farming: 7 students

Short courses

· Permaculture in 2007: 50 people (including farmers and students)

· Refresher course on permaculture in 2009 and 2010: 30 students

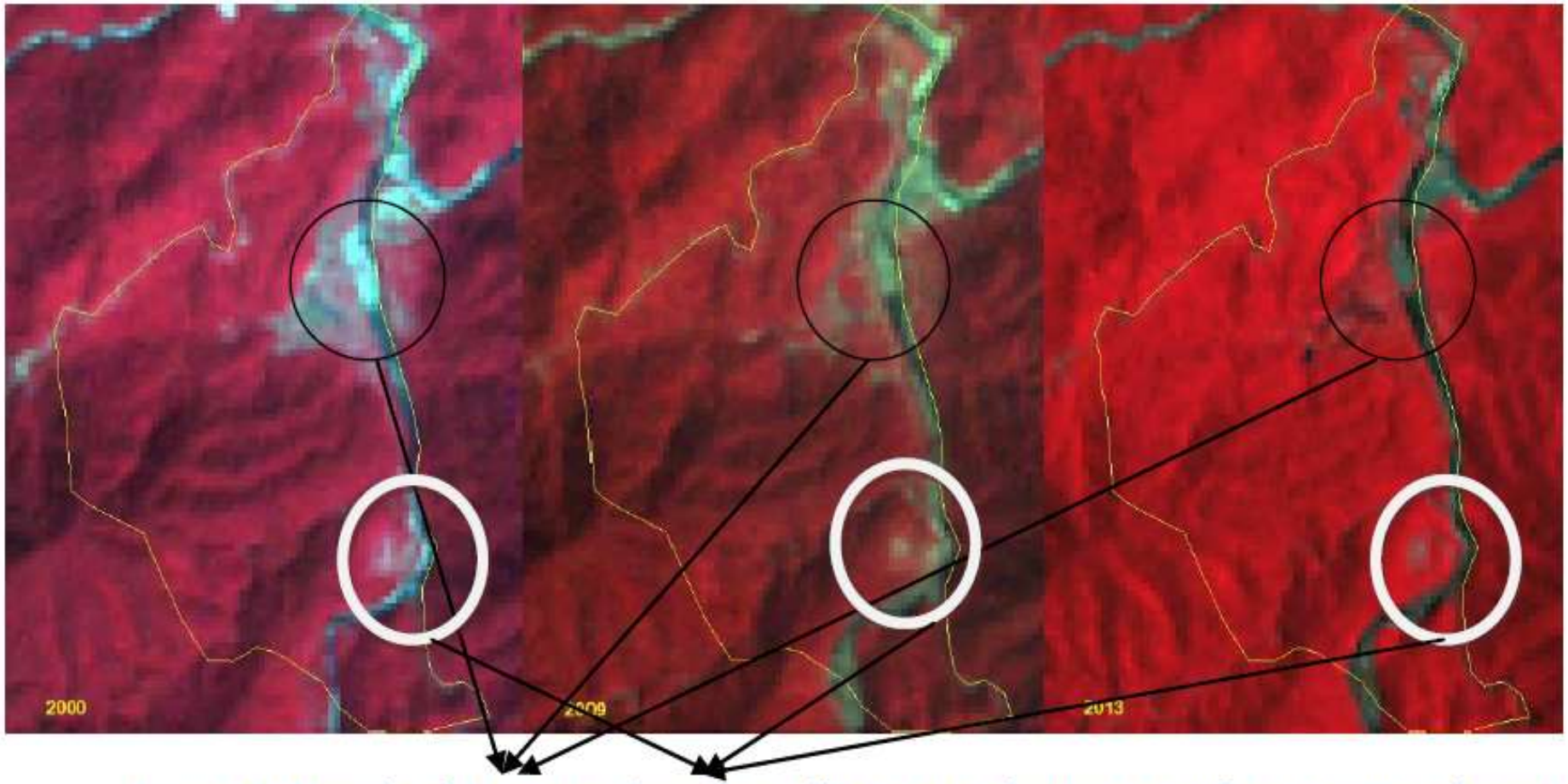
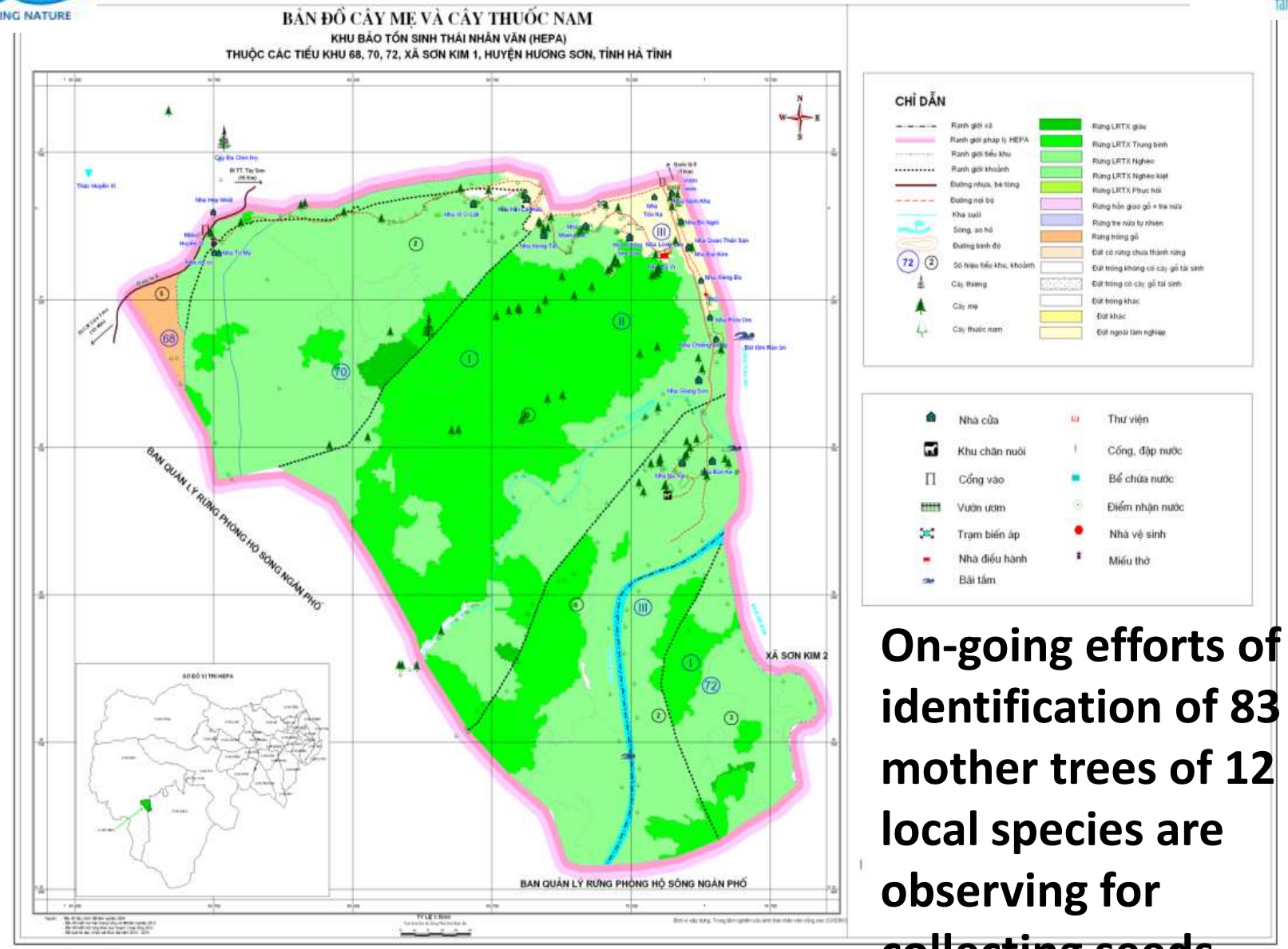


Figure 15: Example of two areas through satellite images showing a significant positive change in forest coverage. 2000 indicated barren land, 2009 showed more green coverage, 2013 indicated much wider forest coverage.

So, efforts on forests & landscape & ecosystem regeneration over 15 years

A huge improvement and increase of forest coverage areas and quality of forests



On-going efforts of identification of 83 mother trees of 12 local species are observing for collecting seeds.

Birds species are coming back

Other species are also coming back

Other FFS results extension to ASEAN

Banana Ring and an engagement between organic garbage and dark water

Banana circle in Vietnam

Hình 9: Thu hoạch phân và chuối từ VTC mô hình Linh Mộc, xã Sơn Kim 1, tỉnh Hà Tĩnh. 2014.

Other FFS results

In Laos

In Myanmar

In Thailand

Still many challenges

- Forest/resources conservation, landscape/ecosystem restoration and practicing sustainable farming still very low level amongst the mass population
- Forest related: mono-plantations are priority (acacia, rubber, cassava as 1 million $ crop) outweigh ecosystem/landscape sustainability
- Eco-farming challenged by mainstream mechanics agriculture, chemical agriculture
- Young people move to cities to seek cheap job
- Few supports to address landscape resources fragility or working the landscape restoration for alumni students when back home villages.