CHESH

Nurturing Nature

An Alternative Agriculture
HEPA Eco-Farming in Up-Land Use & Watershed Forest Co-Governance Towards Livelihood Security & CO2JUSTICE

HEPA-SPERI April 10, 2025

Caritas France Secours Catholique

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farmer field school

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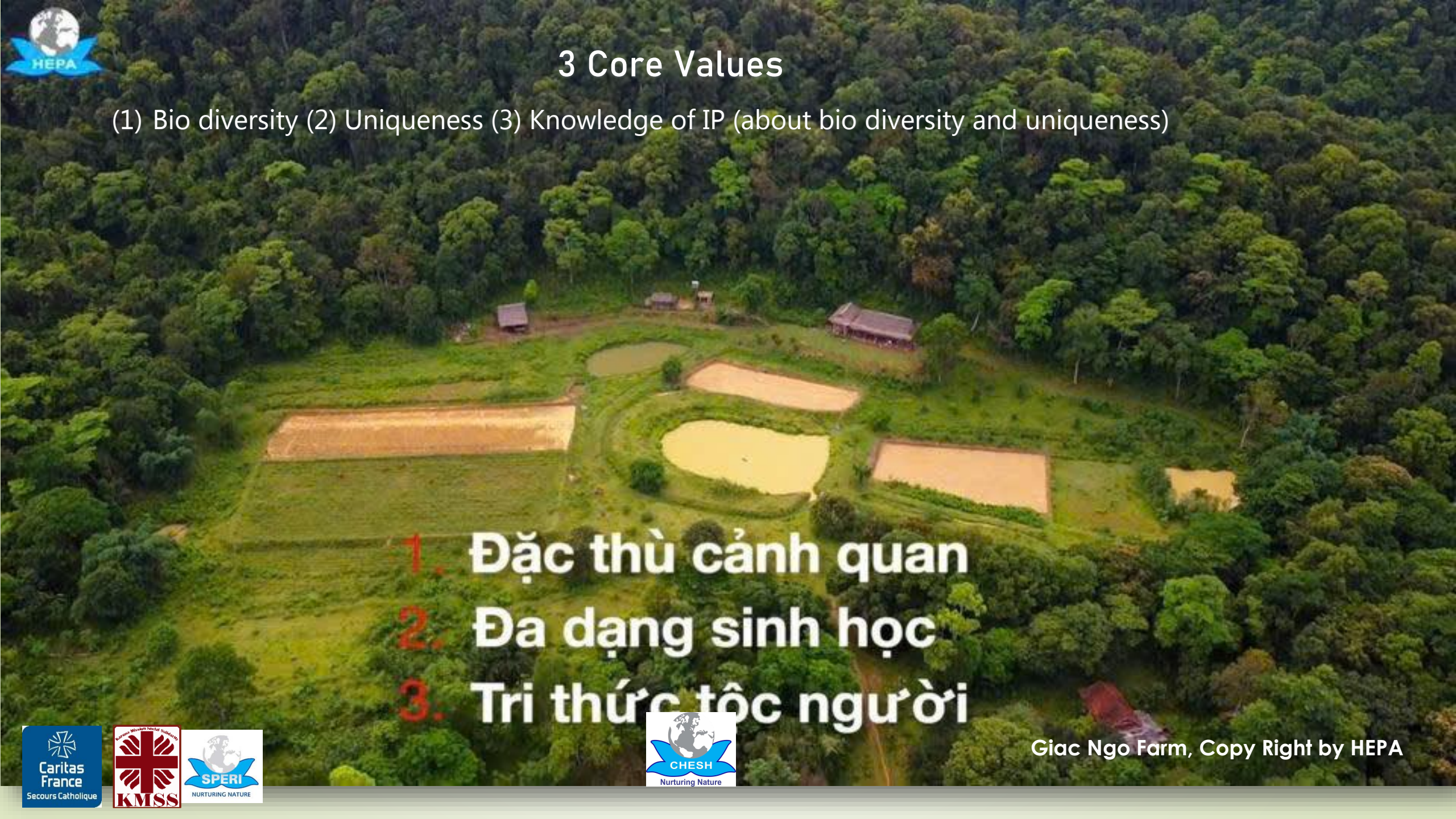
HEPA Huyen Vi Farm, Copy Right by HEPA

3 Core Values

(1) Bio diversity (2) Uniqueness (3) Knowledge of IP (about bio diversity and uniqueness)



Giac Ngo Farm, Copy Right by HEPA

5 Core Characteristics of an Ecosystem

(1) Bio diversity

(2) Uniqueness

(3) Interaction

(4) Adaptability

(5) Sustainability

HEPA Landcape, Copy Right by HEPA

5 Fundamental rights of a human system

(1) Legal rights to land
(2) Legal rights to worship nature
(3) Legal rights to enrich their wisdom, customs and knowledge
(4) Legal rights to sustaining local seeds
(5) Legal rights to co-govern their natural resources with neighbors

HEPA Pon Om village, Copy Right by HEPA

Five steps of observation in upland use master planning

(1) Holistic with a specific observation

(2) Finding the interdependence of trees and energy flow which reflects 5 core charecteristics of ecosystem

(3) Recognize the advantages & disadvanges, and opportunities & obstacles of ecosystem seasonality

(4) Realize the potential seasonality of the landscape

(5) Select best option for designing your land use

Mang But Landscape, Copy Right by HEPA

Seven principles

(1) Follow the interdependence and adaptation principle within five core charecteristics of ecosystem
(2) Apply energy flow (Sun, Water, Wind and Micro-organism)
(3) Understanding chemical geographical biology circle (C,O,H,N,P,K,Ca,Si,Mg + 7 elements/ 16 living involvement)
(4) None garbage, none waste)
(5) Respect and offer optimistic opportunities to any living beings in the lanscape (both positive and negative
(6) Nurture seasonal diversity
(7) No top down and bias in master landuse planning

9 Behaviors

(1) Listening & feedback
(2) Respecting all the living beings in the farm
(3) Facilitating and maximizing opportunities for micro-organisms
(4) Updating the habits and behaviors of any living being depending on different landscape layers
(5) Consolidating the adaptability and capacity of each layer
(6) Enriching all elements within landscape and neighbors
(7) Maintaining seasonal diary and documentation
(8) Governing the post harvest, package processing and confirm the 10 standards (HEPA 10 standard products)
(9) Socialization of nurturing nature behavior

Essentials of Ecological Cultivation

3R Based Landscape Layers

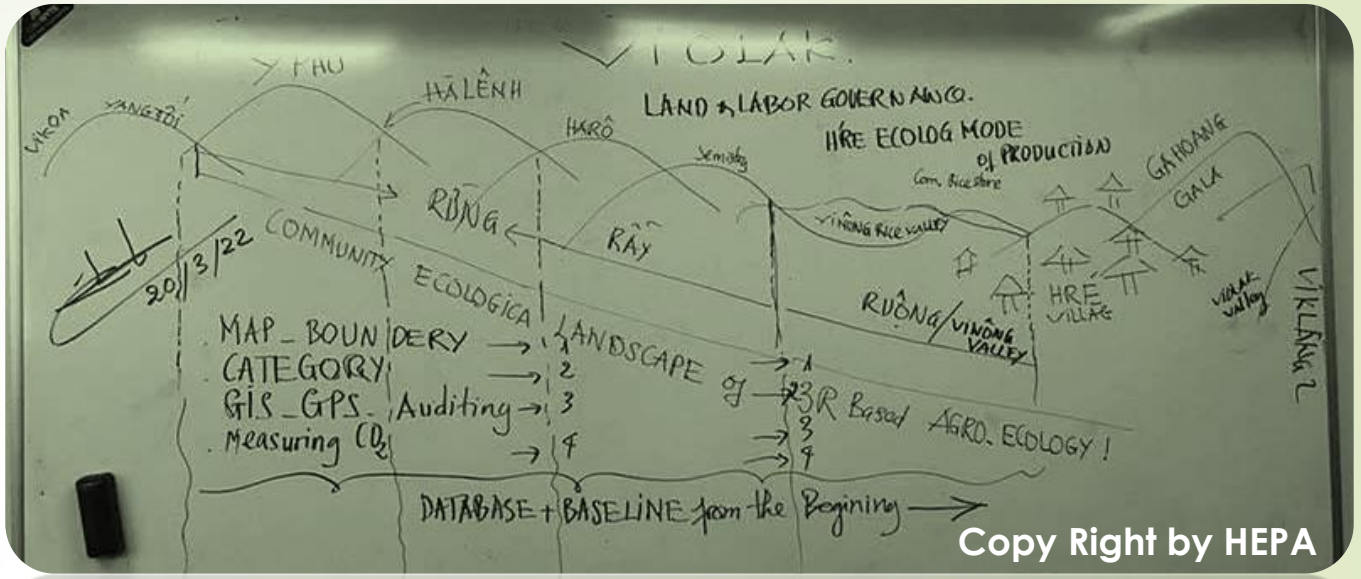
Copy Right by HEPA Cao Quang

Diagram & Landscape Transect Cutting

Essential points: 1) coordinates, 2) latitude, 3) longitude, 4) Sun light, 5) water, 6) windy 7) micro-organism (Topsoil humus)-5% of the earth carrying the whole living beings by photosynthesis

Topography

- **Height**
- **Slope**
- **Soil status**
- **Flora**
- **Fauna**
- **Management**
- **Challenges/ Difficulties**
- **Planning**



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Ví dụ: Mặt cắt sinh thái Vườn Sinh kế Sinh thái Giác Ngộ - HEPA
Hướng Tây – Đông và dòng năng lượng mặt trời

Hướng T → Đ Đường địa hình	Tây Khe Soong	Núi Thung lũng Giác ngộ Rừng sản xuất Gió Lào	Rừng phòng hộ	Nhà, chuồng trại	Đất sản xuất nông nghiệp	Sông Rào Àn	Đông Núi Ân Bún
Độ cao	150	258	253	90	85	78	250
Độ dốc		>25⁰	>25⁰	15⁰	3 - 8⁰		>25⁰
Đất đai		Sét pha màu nâu. Tầng dày >30cm	Sét pha màu nâu. Tầng dày >30cm		Cát pha, tầng dày >20cm		Sét pha màu nâu. Tầng dày >30cm
Thực vật		Lim, de, dổi, vàng tâm, táu, sến, cồng, vạng Thuốc nam	Lim, de, dổi, vàng tâm, táu, sến, cồng, vạng				Lim, de, dổi, vàng tâm, táu, sến, cồng, vạng Thuốc nam
ật	Cá	Lợn rừng, chồn, sóc, chim, rắn	Lợn rừng, chồn, sóc, chim		Chuột, rắn	cá	Lợn rừng, chồn, sóc, chim, rắn
	Người ngoài vào tận diệt	Người bên ngoài vào săn bắt thú	Người bên ngoài vào săn bắt thú			Người ngoài vào tận diệt	Người bên ngoài vào săn bát thú, chặt cây

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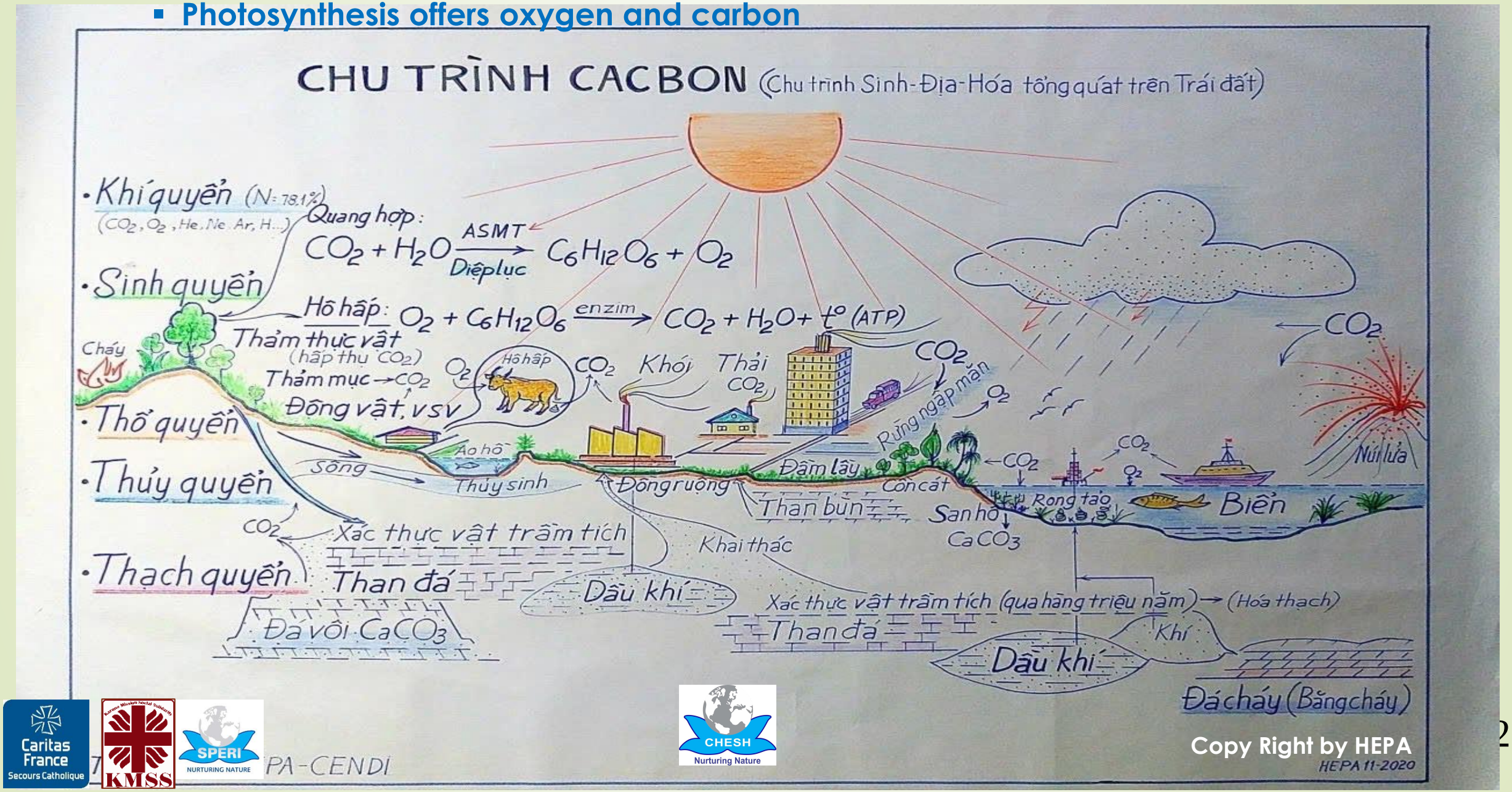
SUN Energy Flow

- Photosynthesis offers oxygen and carbon



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SUN Energy Flow

- Morning sunlight is ideal for trees and plants
- Afternoon heat from the west is often excessively intense for the trees and plants

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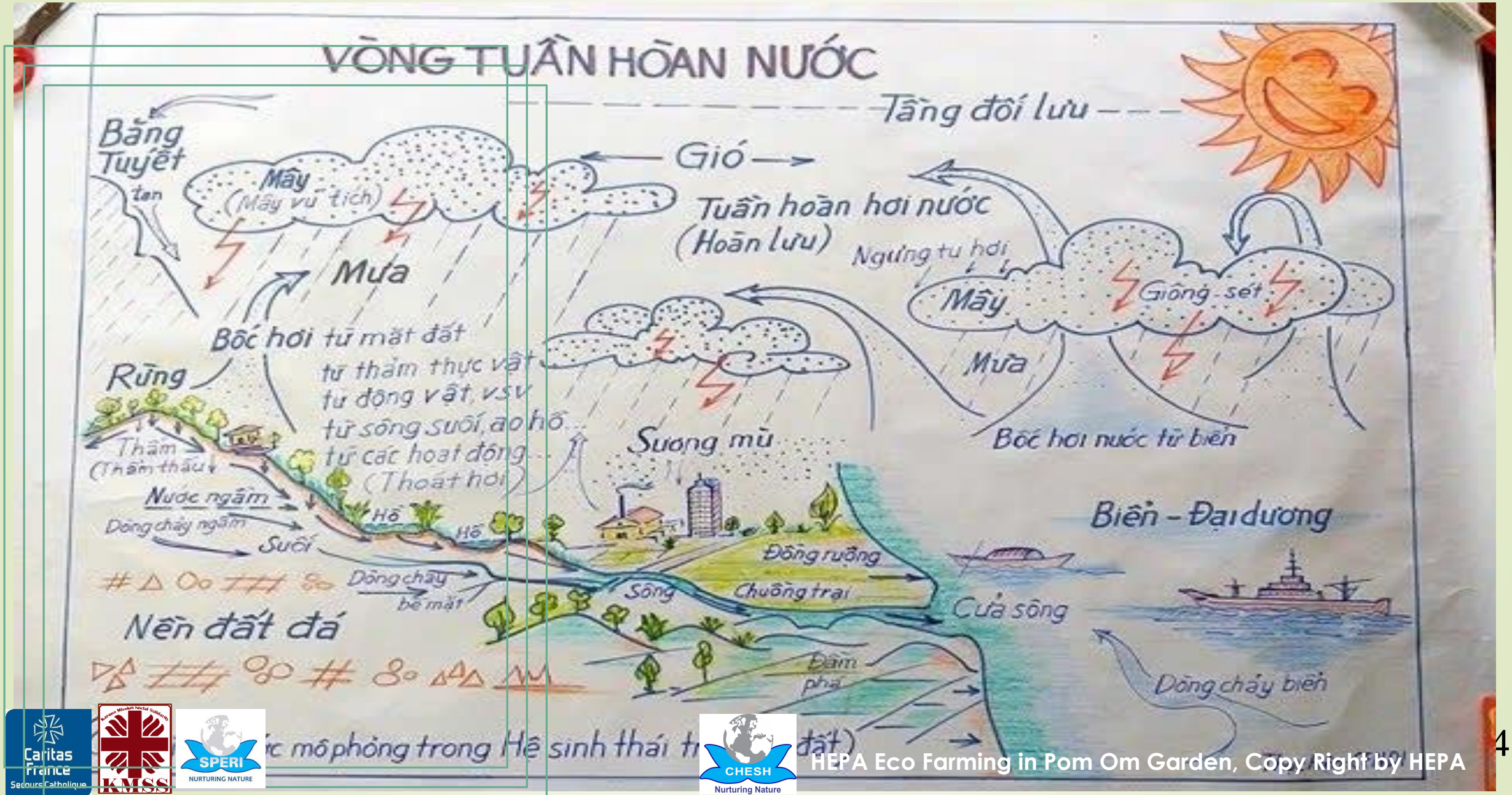
WATER Energy Flow



HEPA Eco Farming in Pom Om Garden, Copy Right by HEPA

WATER Energy Flow

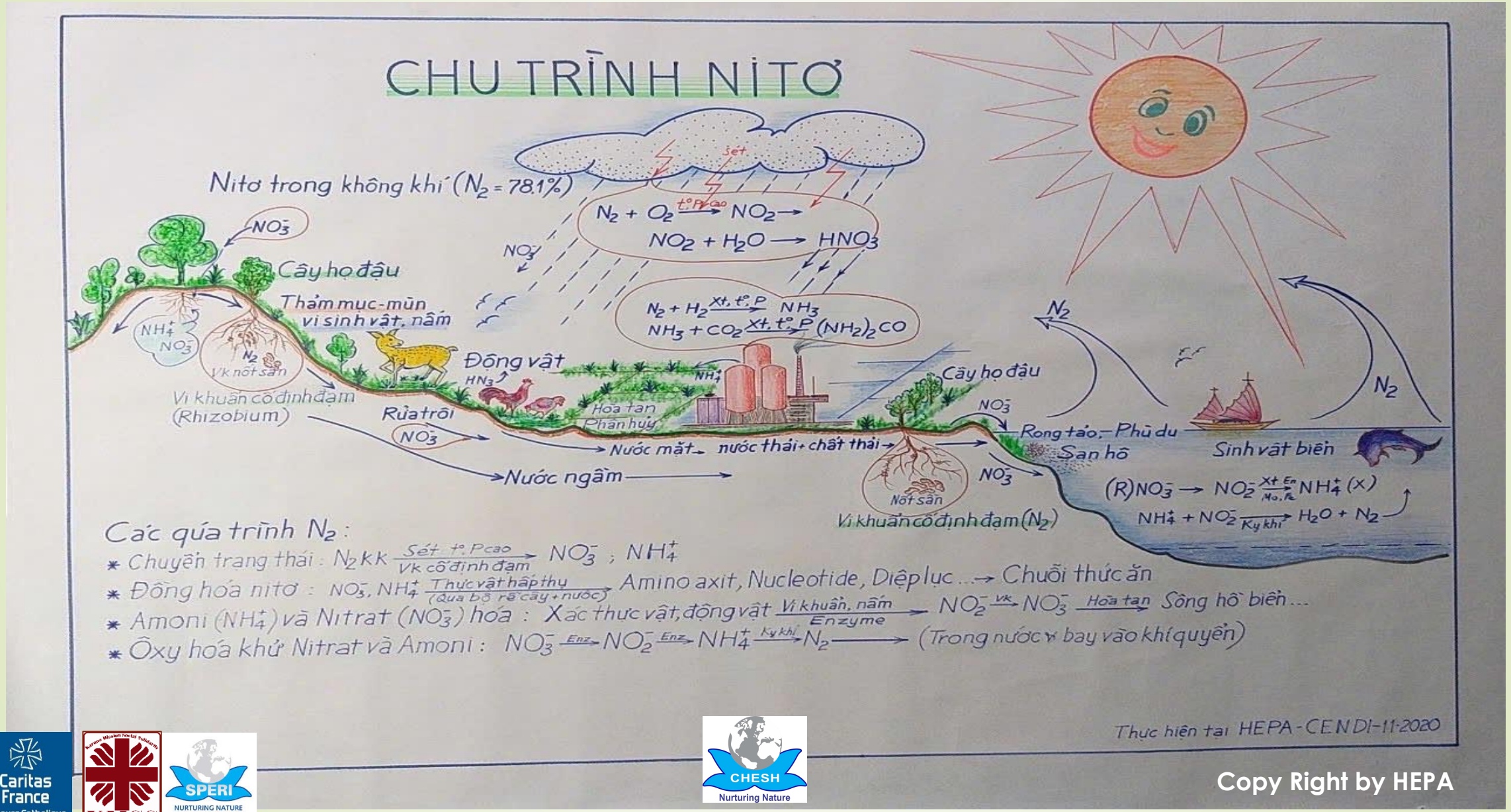
- Water Energy Governance System is the key principle
- Geographical core features are key conditions (contours and edges)
- Bed and pathway are proper designing systems

WIND Energy Flow

- Windbreak fence (strong wooden tree species)

HEPA Eco Farming in Linh Moc Farm, Copy Right by HEPA

MICRO-ORGANISMS Society



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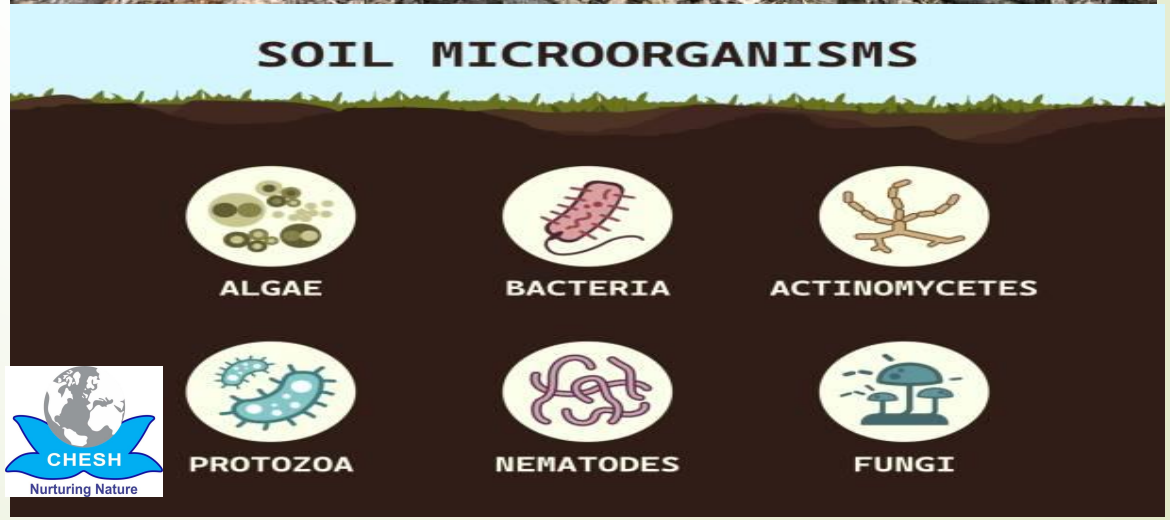
MICRO-ORGANISMS Society

- It is the top soil layer-most important for living beings (5% of the earth)



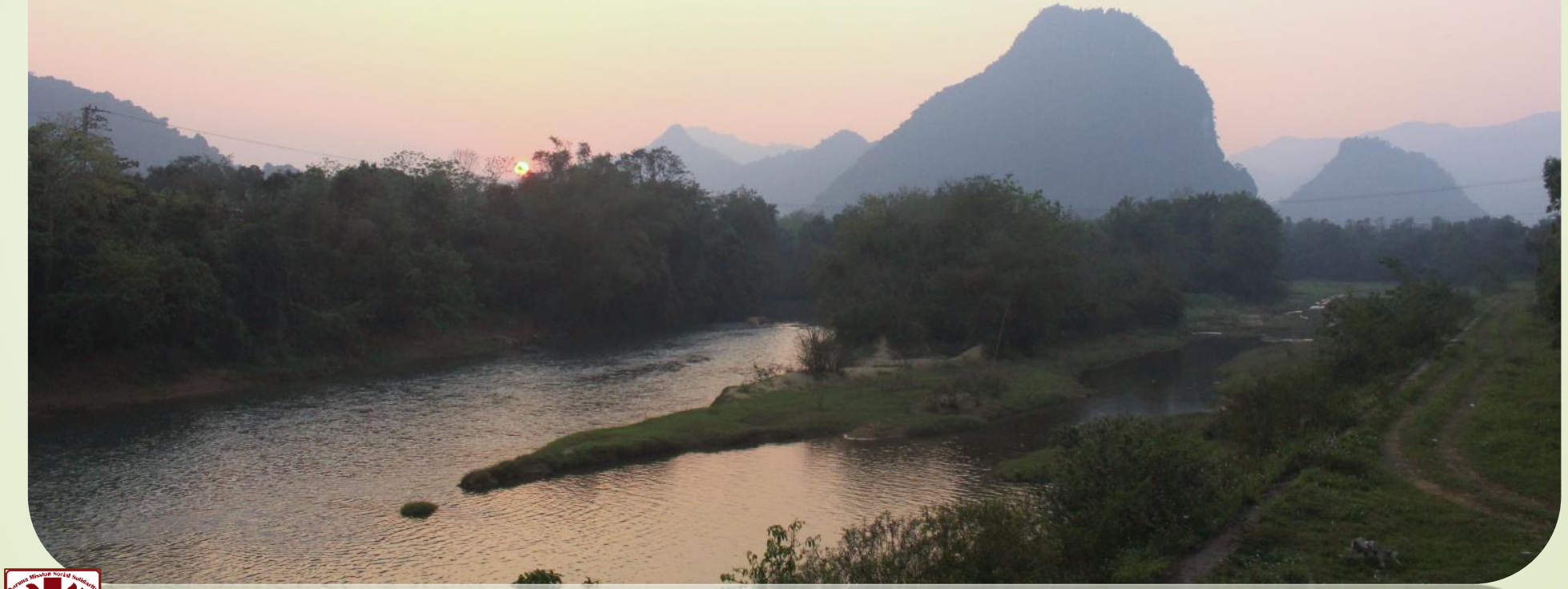
Contour Principle

HEPA Eco Farming in Quang Binh, Copy Right by HEPA

Thank You for Your Attention!
Nature Blessing Us!

HEPA Eco Farming in SIMACAI, Copy Right by HEPA

Co-governance of Natural Resources in Cao Quang



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1. Introduction

- **Community based groups (participatory need assessment for improving livelihoods) from 1994 to 1996**
- **Awareness Raising, capacity training, grassroots leadership (1997-2000)**
- **Community's need for land users' rights (2002)**
- Community based land allocation (2003) nearly completed

- Land allocation process was replaced by Cao Qung Forest Enterprise (End of 2003)
- **Cao Quang people organized negotiation with the government to get back their territory (2004-2005)**
- **#342/QD-TTg/2005 (resigned Cao Quang government's forest enterprise)**
- The land territory was returned to Cao Quang people(2006 – 2007)
- **Startup of a few land areas of Acacia plantation_700 Ha (2009-2014)**
- **Mushrooming of Acacia plantation throughout forest areas (2014-2025) 10% of total land territory (1100 ha) for mid-term household economy**
- Legal frameworks for land rights provided by the government (2017)
- **Community's needs aligning with the government's objectives**
  - In 2019, a pilot program was launched involving 42 households
  - The program was expanded in 2022 to include 525 households

2. Co-governance

- **A process : C**o-governance that involves various stakeholders, including community members, leaders, government authorities, and agencies
- **Effective management power sharing : S**tructure of horizontal and vertical governance

  Horizontal = household units, community leaders, and agencies

  Vertical = official community representatives, the executive committee, and local authorities

3. Process of co-governance

a. **Designation of rights and responsibilities**

b. Agro-Ecology based Landscape features/charecteristics

c. Management and Monitoring

a. Designation of rights and responsibilities

- **Demarcating the boundaries for community territories and forest landowners:** Enabled to manage their forests and lands, ensuring that no area is neglected
- **Allocation of forest areas along with clearly defined responsibilities:** Greater community's participation in bottom-up management respecting traditional rules and adhearing to national laws
- **Ensuring Rights to manage and use land** as well as **promoting resource security and sustainability**

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b. Agro-Ecology based Landscape design

- Master land-use planning based on landscape core features/charecteristics
- 3 designated layers with specific purposes: Upper layer, Middle layer and Lower layer (better management for environmental care and preservation)
- Beautiful natural environment ensuring effective and sustainable land use

b. Agro-Ecology based Landscape design

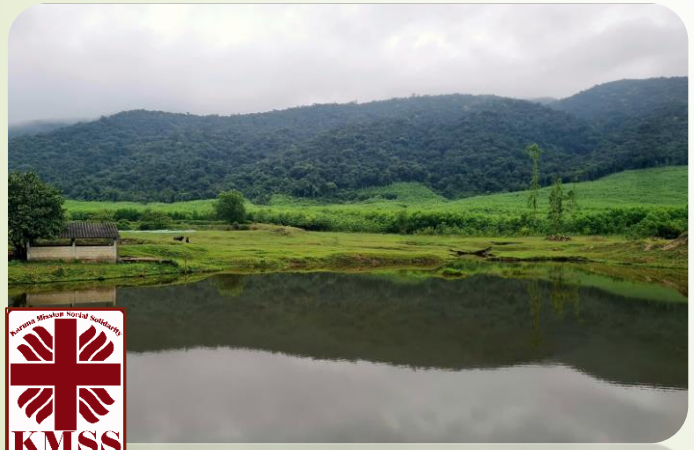
❖ **Upper Layer**

Natural Forest :

–Ecological genetic values: sustaining local flora and fauna plus water sources

– Non-timber products: for household needs, such as food, herbal medicines, and essential household materials

– Healthy Environment: improving air quality, providing abundant water sources, enriching the soil in the lower layers, mitigating climate change, preventing landslides, and protecting topsoil



❖ **Middle Layer**

Production Forest – Acacia forests: short-term and mid-term cash income, supporting various social, educational, and developmental needs of families

❖ **Lower Layer**

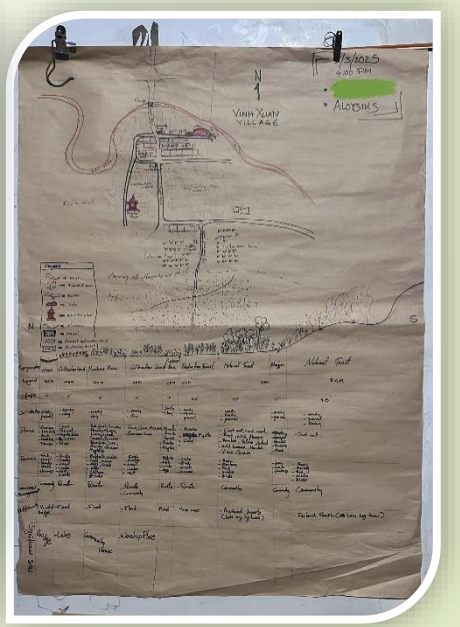
Seasonal agriculture and agro-ecological garden: daily livelihood source, goods and income for the immediate needs of the families

c. Management and Monitoring

- **Diagram mapping and landscape transects cutting:** Better land management planning from the family level to the community level
- **Resource monitoring and auditing** (systematic calculations and documentation of resources according to category, name, type, quantity, volume and usefulness):

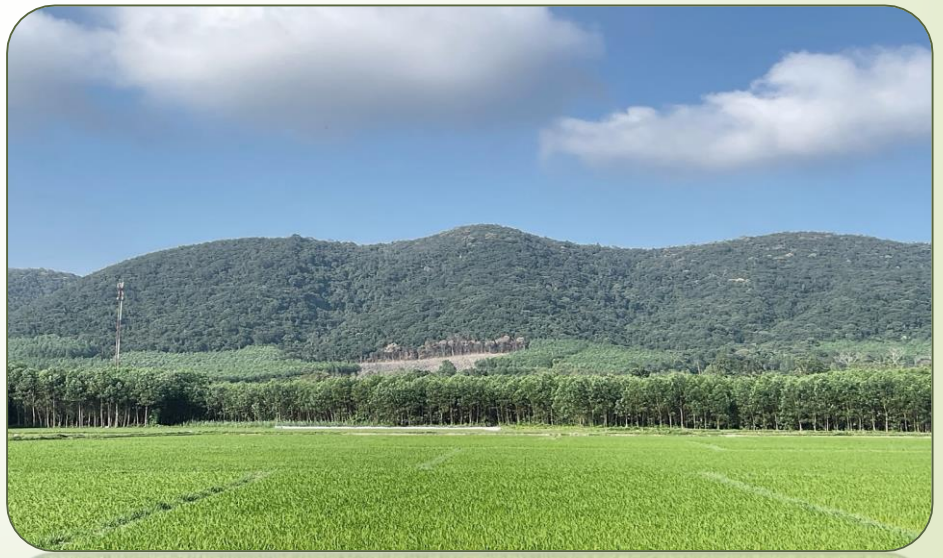
  -better decision making for resource use, preservation and enhancement

  -helps mitigate the global impact of carbon credits in a fair and equitable manner
- **Digital maps:** Quick access to essential geographic information and facilitating effective resource management and oversight



4. Achievements/Results of Co-governance in Cao Quang

- ***Transitioning from community-based groups to community-based institutions:*** Strong leadership
- ***Transforming Barren Lands into Forested Areas:*** Barren lands to forested areas (case of Vinh Xuan)
- ***Co-governance as part of political, economic and livelihood system:*** Addressing political, economic, and livelihood challenges necessitates considering co-governance in land use
- ***A concrete model of successful co-governance:*** Attention and interest from both national and international observers, as well as development organizations; Two key supportive elements of community-based institutions and agro-ecology-based landscape design
- ***From individual responsibilities to communal accountability:*** rights and responsibilies of individual person are interconnected for the common good of the community as a whole



5. Summary

- A powerful example of how grassroots leadership and co-governance can harmonize environmental sustainability with community empowerment and socio-economic development

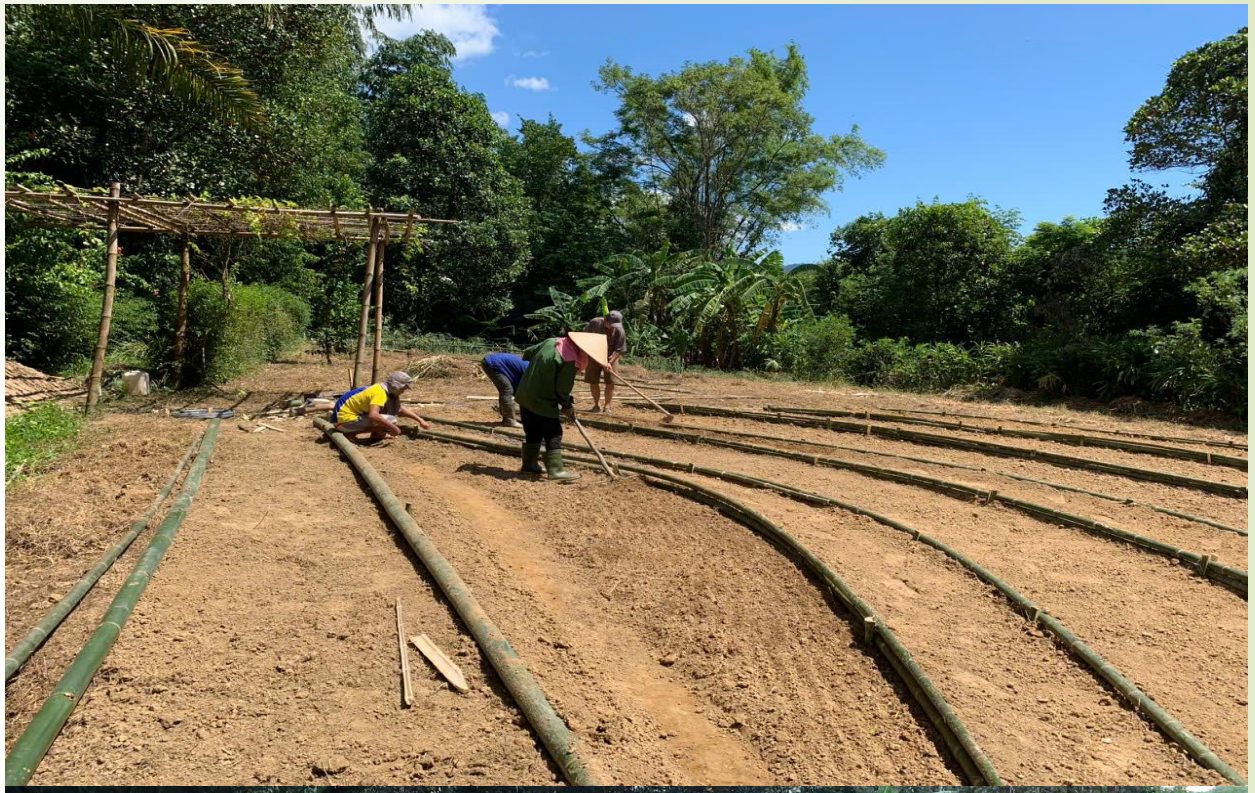
Thank you for your attention!

Mekong Native Species Nursery

Ecological Landscape of 3R Co-governance & Enrichment

Site Identification

- Right site for best energy flow
- Do diagram and transect cutting before preparing the site
- Environment that balances sunlight, wind and water
- Receives ample morning sunlight, sheltered from heavy winds and protection from afternoon sun heat
- Easy access to water source



Preparation of the site

- Essential for maintaining adequate ground water
- On a slope or uneven land, contour principles are to be applied to manage water flow effectively
- Prevent water from flowing downhill in a way that causes flooding or soil erosion/ floating

Bed & Pathway

-To be constructed at a zero-level of the surface to promote even water distribution

-The width of each bed should allow for easy access of hand reach from both sides

-The space between beds should be as wide as a person's shoulders to facilitate comfortable movement

-Prepare well the layers of humus and air within the top inches of soil

-The beds should be bordered using soil and materials like bamboo or banana trunks

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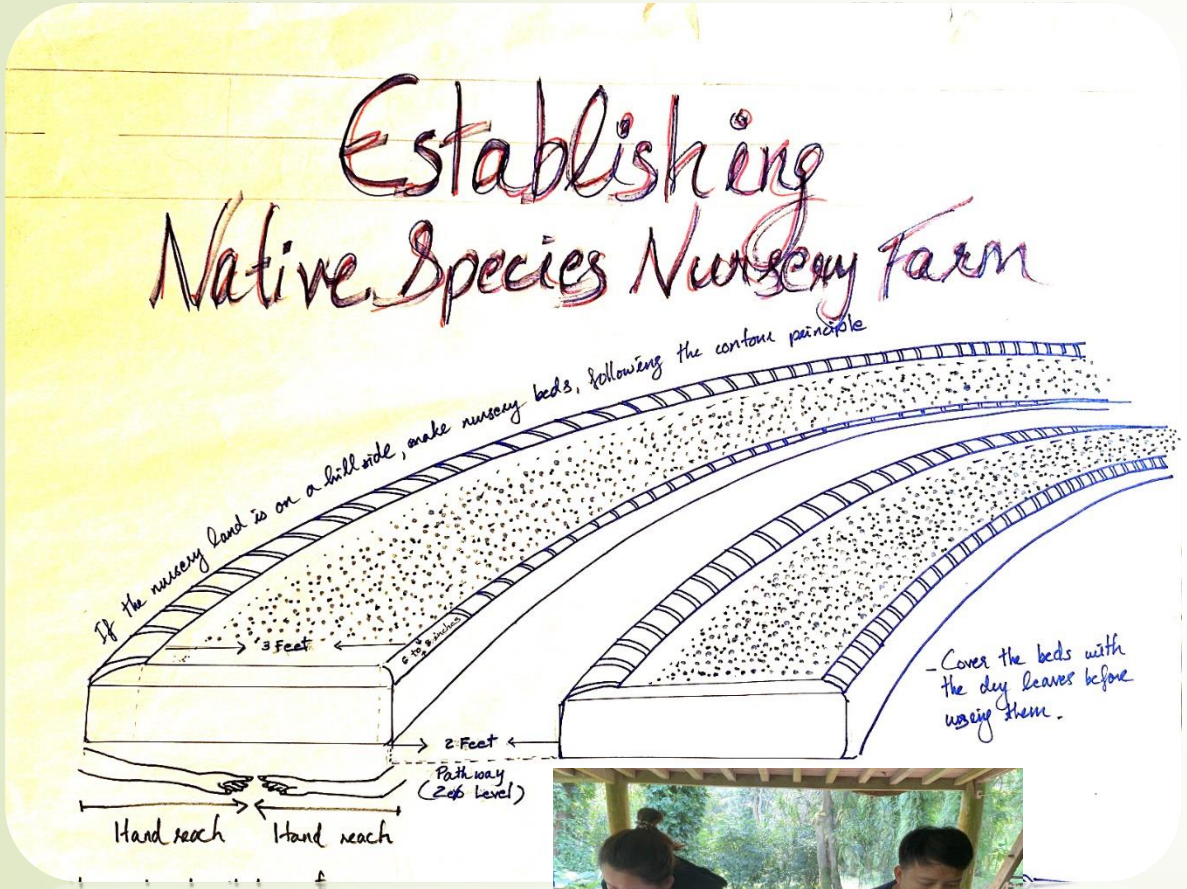
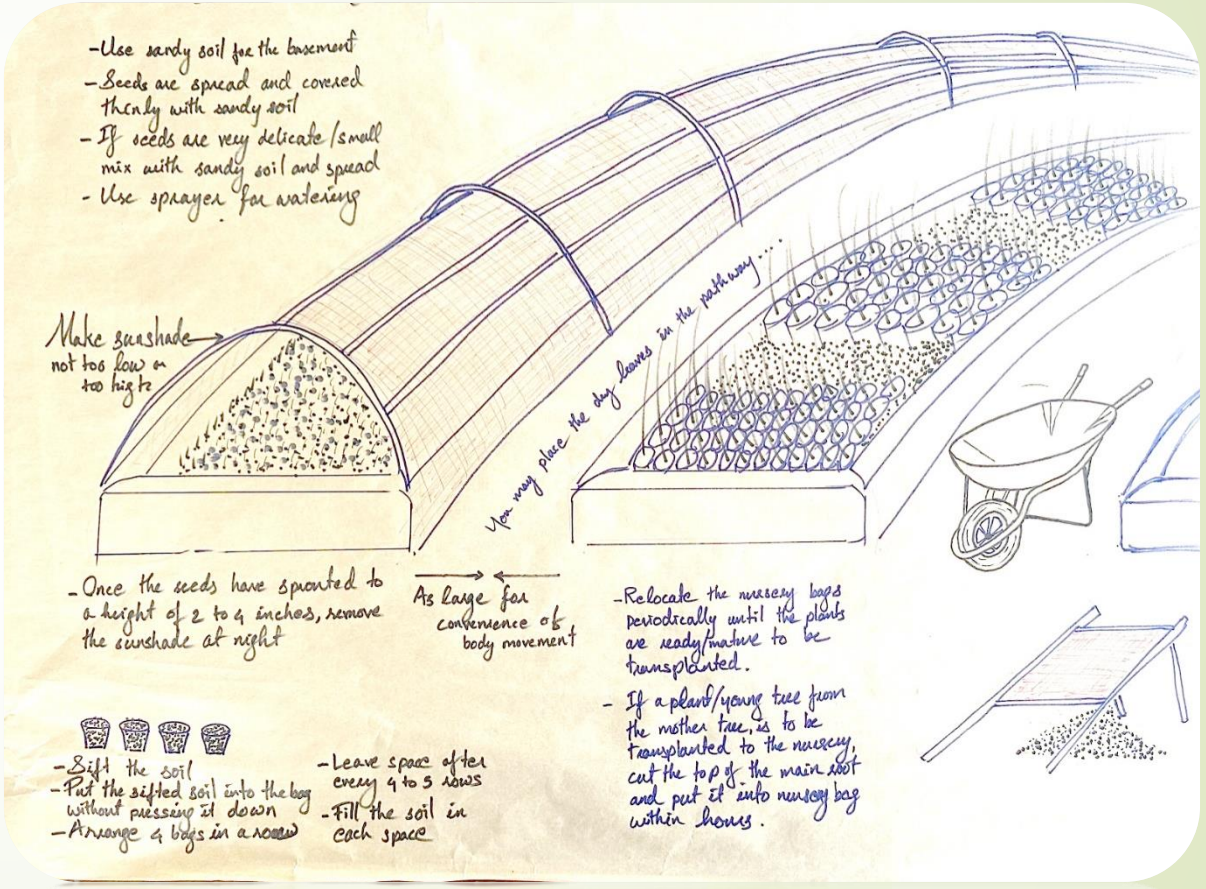
Bed & Pathway Adjustment & Reflection





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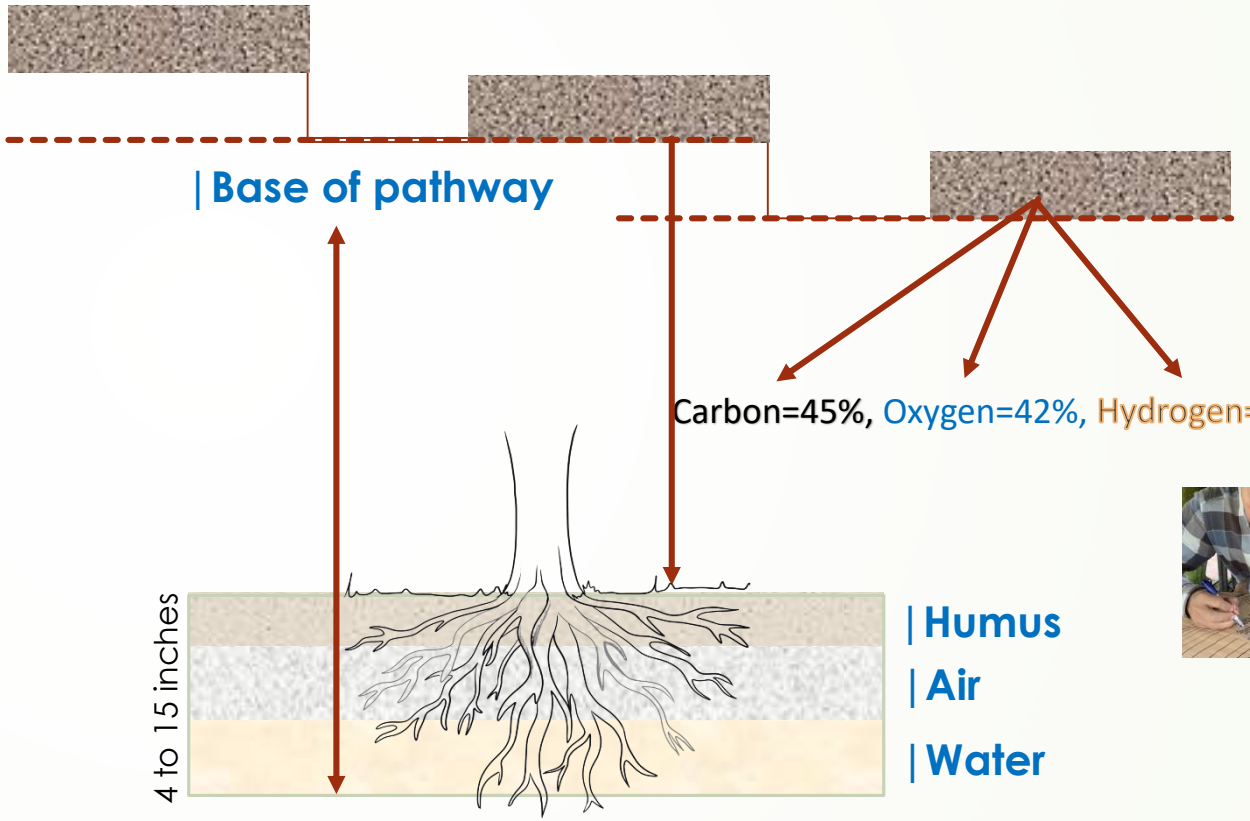
Essential elements of topsoil layer

The space between the beds should be at the same level as the zero base of the lower bed.



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4. Collecting the mother seeds

- Look for the mother trees/plants
- Record the location using GPS
- Record date , the name of the tree/plant and the person collecting seeds
- If the seeds or flowers are found, record the season
- If the small plants are found, look for the mother trees around or upward the hill
- Young plants can be transplanted into the nursery

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Caring the young plants

- Seedlings in their bags should be positioned under a higher sunshade
- Remove the cover in the morning to expose them to sunlight, but replace it in the afternoon to protect them from direct sun heat
- Relocate them periodically to control/slow down their growth rates (if they plants are not yet scheduled to be transplanted)
- Arrange the bags accoding to the height of the plants (placing the lower plants in the middle)
- Cut the roots that extend beyond the bags to strengthen the plants and support their maturity

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