



SYMPOSIUM

A history of world Agriculture: from Green Revolution to Agro-Ecology & Co -Governance of Forest Up Stream Toward CO2 JUSTICE

I. Introduction

Agriculture and agricultural products, which serve the survival needs of humankind, are inherently creations of human labor and nurtured by the Earth over thousands of years. William Petty in the 17th century encapsulated this into a philosophy of survival: “Land is the Mother, Labor is the Father”, and Karl Marx reiterated this during his lifetime in the 19th century to remind humanity that “Land is the Mother, Labor is the Father” is an immutable truth of human existence. However, the increase in population along with the endless demands of the mankind has pushed the Mother Earth from a healthy, peaceful and serene state into an agricultural space undergoing the continuous transformation from chemical agriculture to industrial agriculture, technological agriculture, and now increasingly prominent digital agriculture, requiring all components of the society to adapt in the style of the “era of rise and NetZero”!

The workshop “*A history of world Agriculture: From Green Revolution to Forest-Upland farm-Valley rice field ecosystem transformation*” introduces and reviews the forms of agriculture that humanity has experienced since the 1960s (chemical agriculture), 1970s (post-chemical and pre-industrial agriculture), 1980s (industrial and pre-technological agriculture), and 1990s (post-industrial and flat-pack agriculture). Accordingly, from 2000 to the present and with the vision towards 2050 the focus is on digital agriculture and NetZero, aiming for product-by-product

traceability and ethical, economic, social, and environmental responsibility of each actor involved in the socialist-oriented market economy in Vietnam.

The workshop offers participants a overview of the world agriculture from 1960 to the present, highlighting the ups and downs and challenges encountered by farmers on their path of development, where agriculture plays a pivotal role.

II. Workshop agenda

Presentation 1: *“A history of world agriculture: From chemical agriculture, industrial agriculture, organic agriculture to agroecology”* (Dr. Keith Barber, Social Anthropologist, University of Waikato, New Zealand).

Time: 9:30 AM – 10:00 AM, 10 April 2025 (Q&A session from 10:00 AM– 10:30 AM)

Presentation 2: *“Applying GPS/GIS technology and formulas for calculating carbon stock in Above-Ground Biomass”* to determine the carbon credits within the tropical rainforest area of the North-Central region, Ngan Pho River’s upper watershed of Huong Son district, Ha Tinh province (Mr. Truong Cao Hung, expert in cadastral, mapping, technology application for carbon stock calculation in the North-Central and Central Highlands regions).

Time: 10:30 AM – 10:45 AM, 10 April 2025 (Q&A session from 10:45 AM- 11:00 AM).

Presentation 3: *“Agro-ecology - a type of land use planning for the Mekong River's upper watershed towards livelihood security and soil health restoration”* (Mr. Aloy, Development Economist, Myanmar).

Time: 11:00 AM – 11:30 AM, 10 April 2025 (Q&A session from 11:30 AM-12:00 AM).

From 12:00 AM – 1:30 PM, 10 April 2025: Enjoy lunch at the HEPA eco-dinning space within the conservation area.

Participants

- Leaders of the Departments of Education and Training of Ha Tinh and Nghe An provinces;
- Leaders of the Departments of Agriculture and Environment of Ha Tinh and Nghe An provinces;

- Leaders of Quang Binh Province, Tuyen Hoa District and Cao Quang Commune;
- Leaders of the Departments of Education and Training of districts within Ha Tinh province and communes in the Ngan Pho River's upper watershed;
- Representatives from Ha Tinh Television, TheLeader Newspaper, Agriculture & Environment Newspaper;
- Representative of Ho Chi Minh Political Truth Publish House;
- Community Development Worker from India, Myanmar;
- Social Anthropologist from New Zealand
- Key farmers from the pilot communities in the buffer zone of Phong Nha - Ke Bang National Park under the development cooperation program of CHESH-CIRD-SPERI from 1995 to the present.
- The Director of the Agriculture and Environment Department of Ha tinh province (new merged department);
- The representative of Watershed Management Board
- The Forester of the Ha tinh province

III. Workshop arrangement and prospects for long-term cooperation

- CHESH is delighted to host the entire workshop program and the enjoyment of ecological cuisine at the Rao An eco-cultural dining space within HEPA.
- CHESH warmly welcomes inquiries, research topics, cooperation in training, experience and education of nature-friendly behavior and career development related to:
 - Research on the biodiversity of the upper watershed
 - Assessment of the potential of medicinal plant vegetation, identification of name, function, and usage value.
 - Assessment and calculation of carbon stock and annual water yield of the Ngan Pho River's upper watershed
 - Soil health assessment of the arable layer
 - Calculation of carbon stocks in Above-Ground Biomass and humus, conversion into carbon credits using current calculation formulas;
 - Planning of the Forest-Upland farm-Valley rice field landscape (also known as the 3R) and assessment of social, economic, and environmental impacts on the health of the 3R ecosystem based on Ecological Anthropology theory!.

IV. Weather & Accommodations

- The workshop will take place in an ancient house in the deep HEPA forest. The path is wide enough for a 10-seat car to reach the stone steps of the house, which are quite rough. Therefore, wearing flat shoes are strongly recommended to avoid falling and inconvenience.
- It is also recommended to bring umbrellas.
- Use of toilet paper is prohibited within HEPA for the upper watershed environment protection.
- Simple and modest menu will be served with fresh vegetables and plants naturally growing along the Rao An River to ensure food safety. Dessert with local Tien banana of Huong Son and HEPA green tea brewed with Rao An river water is another specialty. Especially, participants will have a unique and distinguish experience when enjoying wild banana wine “Made in HEPA” and ecological snacks from HEPA forest.

V. HEPA tour (as desired, after lunch time)

- Nurseries of indigenous tree varieties, Indochina nursery – start up with tropical rainforest seeds collected from Mekong River’s countries, Bhutan, Amazon, etc.)
- Huyen Vi spiritual area;
- Natural swimming pool
- 23-year old ironwood tree garden built up and managed by HEPA from 17 June 2002

VI. Invitation Letter (see Annex)

VIETNAM UNION OF SCIENCE AND
TECHNOLOGY ASSOCIATIONS

**CENTER OF HUMAN ECOLOGICAL
STUDY OF HIGHLAND (CHESH)**

No /BM – CHESH

Sub: Attending workshop

“A history of world agriculture: From Green
Revolution to Forest-Upland farm-Valley rice
field ecosystem transformation”

THE SOCIALIST REPUBLIC OF VIETNAM
Independence– Freedom – Happiness

HEPA, April 10th, 2025

INVITATION LETTER

To:

The Center of Human Ecological Study of Highland (CHESH) is a science and technology organization under the Vietnam Union of Science and Technology Associations (VUSTA). CHESH’s main mission is to research the harmonious relationship between humans and tropical forest ecosystem within the upper catchment of the Mekong River. CHESH applies the results of its practical research to develop Green Circular Ecological Livelihood models based on local knowledge and specific characteristics of the watershed ecosystem. Accordingly, CHESH compiles these findings into curriculums and training methods, and develops young ecological farmers alongside with a strategy of experiential and socialized practical training, knowledge enhancement, organization of workshops, experience sharing, and especially the application of technology and scientific and technical advancements in the field of sustainable co-management of natural resources.

On 10 April 2025, CHESH will organize a Workshop “***A history of world agriculture: From Green Revolution to Forest-Upland farm-Valley rice field ecosystem transformation***” in the case of Vietnam and countries in the Mekong River watershed. The workshop features presentations by:

A history of world agriculture:

From Green Revolution to Forest-Upland farm-Valley rice field ecosystem transformation

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Dr. Keith Barber, Social Anthropologist, Department of Anthropology,
University of Waikato, Hamilton, New Zealand.

Mr. Aloy, Development Economist from Myanmar.

Mr. Truong Cao Hung, Independent Consultant on cadastral, mapping
technology and digitalization in application of formulas for calculating timber and
carbon stock in Above-Ground Biomass of natural forests in the North Central's and
Central Highlands' tropical rainforests.

CHESH respectfully invites the leader of the Department:

Ms/Mr:.....

To attend and deliver a speech (if possible) at the Workshop.

Time: 9:00 AM to 12:00 PM on 10 April 2025.

Location: Human Ecology Practical Area (HEPA), Son Kim 1 Commune,
Huong Son District, Ha Tinh Province.

For your attendance confirmation, please kindly contact Ms. Le Thi Huyen
Trang, Deputy Director of CHESH at mobile 0945.343.996, or email
chesh@cheshglobal.org

Thank you!

Yours sincerely,

Recipients :

- As mentioned above
- .Office for filing

**On behalf of DIRECTOR
DEPUTY DIRECTOR**

Signed

Le Thi Huyen Trang

