

ALiSEA general assembly workshop “Towards an Agroecology Transition”



Pedagogical resources in Agro-ecology & Conservation Agriculture

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Presented: by LAY Vichet



A 1st project: Innovative pedagogical Resources in Agroecology and Conservation Agriculture in South-East Asia (IPERCA)

- Funded by Agropolis Foundation - Jan. 2015 to June 2017
- Partners: RUA CIRAD, GDA, UBB, SupAgro and UEPG



E-LEARNING OF RUA

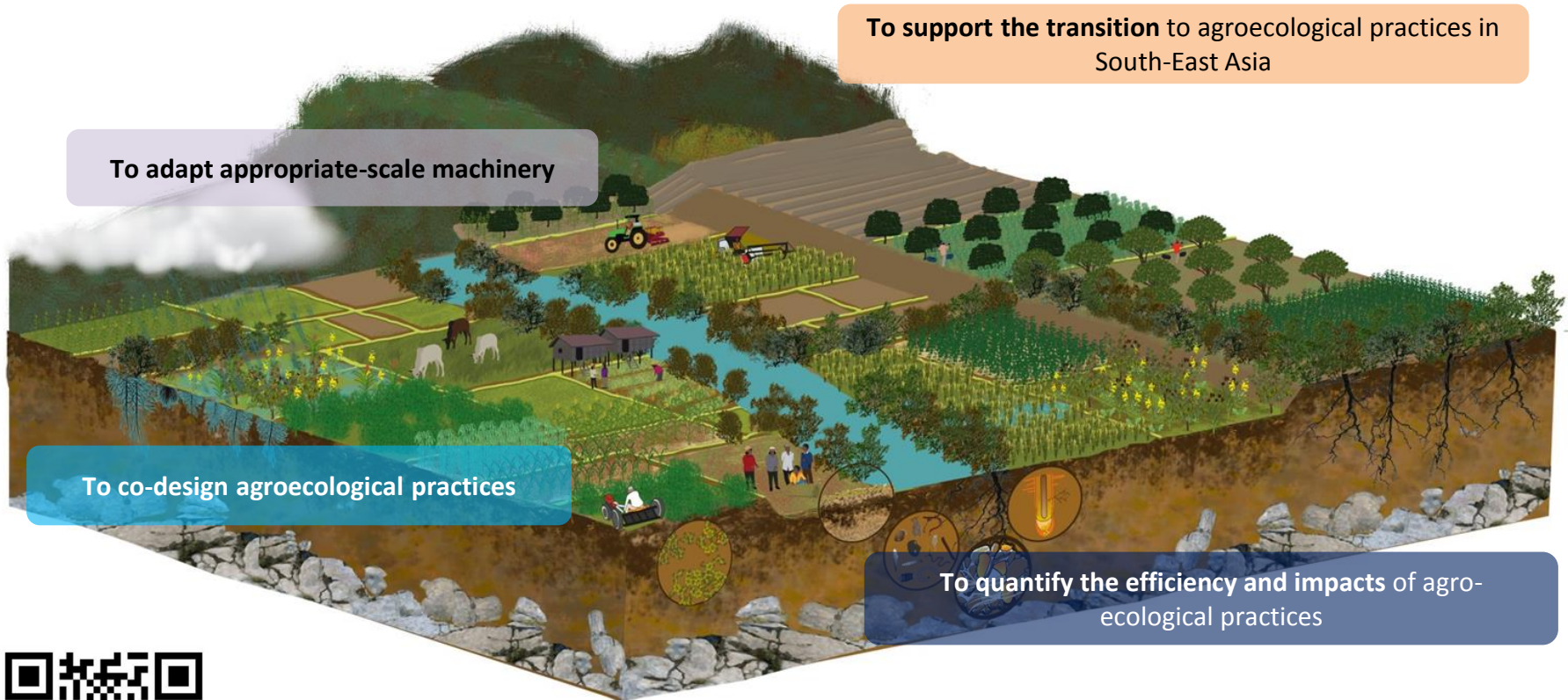
- The RUA E-learning Platform have established in November 2015.



<http://e-learning.rua.edu.kh>

An E-learning platform

4 main dimensions: 10 main courses, 37 lessons



Learning, sharing knowledge, building connection with grassroots level, fostering synergies with development operators, NGOs and others research teams

E-learning 10 Courses

1. Building a healthy soil
2. Soil Organic Matter
3. Soil Aggregation
4. Conservation Agriculture and Direct Seeding Mulch Based Cropping Systems
5. Land use and land cover changes, Northwestern uplands of Cambodia
6. Laser land leveling
7. Agrarian system analysis and diagnosis
8. Power tiller, a versatile machine
9. Agrarian transition and opportunity windows for agro-ecological innovation
10. Cover crops



The screenshot displays the E-learning platform interface. At the top, there is a navigation bar with links: HOME, COURSES (highlighted), TEACHERS, Login, and Register. Below the navigation bar, there are filters: Filter by (All), Choose Category (All), and Choose Class (All). There are also buttons for ALL, PAID, and FREE. The main content area shows a grid of 10 course cards, each with a thumbnail image, title, description, duration, and rating.

Course Title	Description	Duration	Rating
COVER CROPS	Agronomy, Co-design agroecological practices 4 Lessons	02 : 45	5 stars (1 votes, average 5.00 out of 5)
BUILDING A HEALTHY SOIL	Agronomy, Co-design agroecological practices 5 Lessons	03 : 10	5 stars (1 votes, average 5.00 out of 5)
CONSERVATION AGRICULTURE AND DIRECT SEEDING MULCH BASED CROPPING SYSTEMS	Agronomy, Co-design agroecological practices 4 Lessons	03 : 00	5 stars (1 votes, average 5.00 out of 5)
SOIL ORGANIC MATTER	Agronomy, Quantify the efficiency and impacts of agroecological practices 3 Lessons	01 : 30	5 stars (1 votes, average 5.00 out of 5)
LAND USE AND LAND COVER CHANGES, NORTHWESTERN UPLANDS OF CAMBODIA	Agricultural Economics and Rural Development, Support the transition to agroecological practices 3 Lessons	01 : 10	5 stars (1 votes, average 5.00 out of 5)
AGRARIAN SYSTEM ANALYSIS AND DIAGNOSIS	Agricultural Economics and Rural Development, Support the transition to agroecological practices 4 Lessons	02 : 30	5 stars (2 votes, average 4.00 out of 5)
USE SOIL LAND FERTILITY LAOS CONSERVATION TESTIMONIES LIVELIHOODS			
LASER LAND LEVELING	Adapt appropriate scale machinery,		
POWER TILLER, A VERSATILE MACHINE			
AGRARIAN TRANSITION AND OPPORTUNITY WINDOWS FOR AGROECOLOGICAL			

MEET OUR EXPERT TEACHERS



MEET OUR EXPERT TEACHERS

[HOME](#) [COURSES](#)

[TEACHERS](#)

[Login](#) | [Register](#)



SOPHEAK NOUN



HOK LYDA

Lecturer



LYTOUR LOR

Acting Dean



PHEAP SAMBO

Lecturer



**GUILLAUME
LESTRELIN**

Researcher



NEANG MALYNE

Lecturer-researcher



HONG SOTH

Agricultural Engineer



KONG RADA

Researcher



FLORENT TIVET

Researcher

Behind teacher

- **RUA IT Team**

Ms. Chanphakdey DOK
Mr. Vichet LAY

- **Outside assistants**

Mr. David WISOCQ
Ms. Hortense JACQUEMAIN
Ms. Camille GIRAUDET

- **Technical Support from Montpellier Sup Agro**

Prf. Stephane DETOURNEDOT
Ms. Sarah CLERQUIN

- **Technical Support from ITC – Cyber University team**

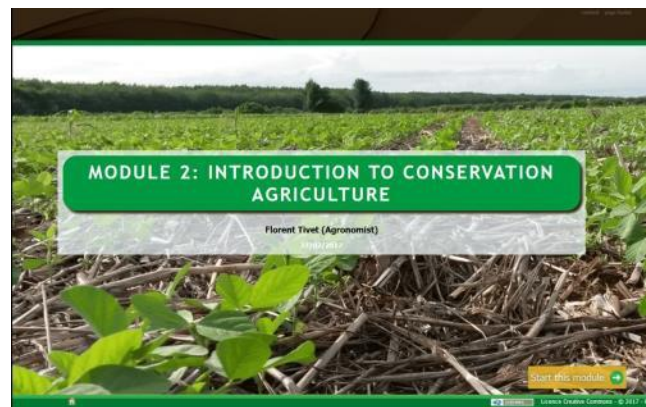
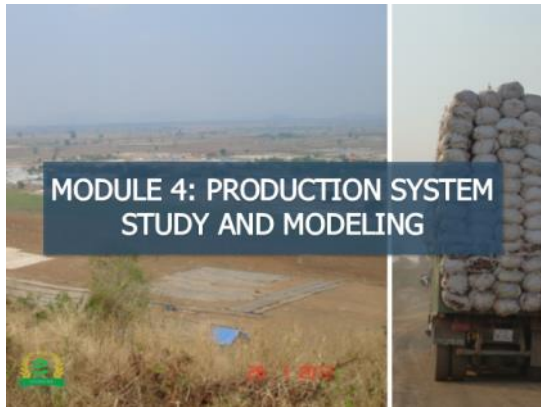
Dr. Samboeurn HEAN
Mr. Heng LAY
Ms. Leng SEAK

USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

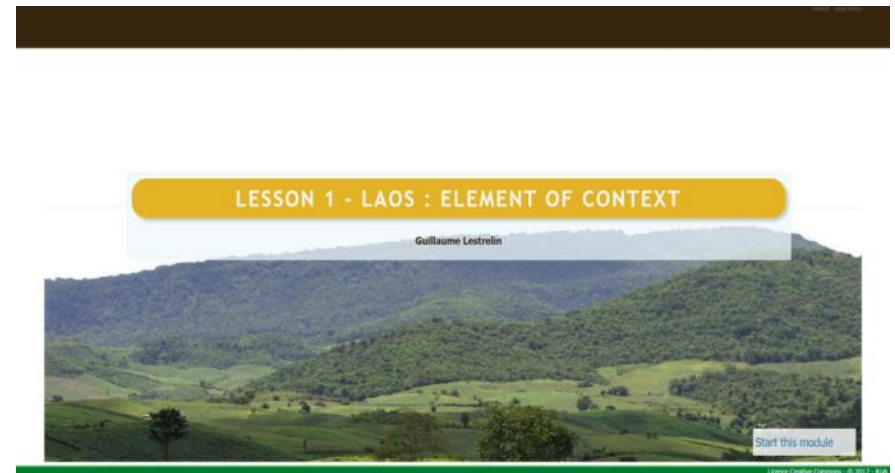
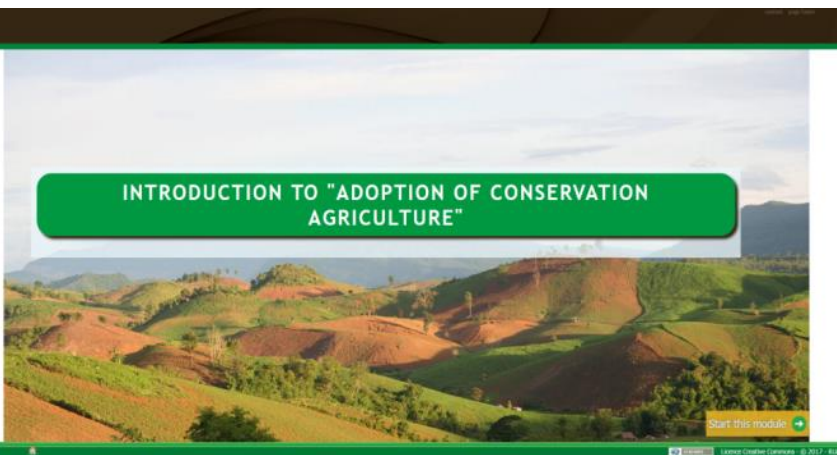
BUILD THE CONTENT

- **Scenarichain** as a authoring tool (open source)
- **Scenariserver** as collaborative authoring tool
- **And** Get ITC collaboration





FOCUS ON COURSES DESIGN



E-learning: course's interface

OBJECTIVES

INTRODUCTION

COURSE MENU

REQUIREMENTS

LEARNING TIME

LAND USE AND LAND COVER CHANGES, A CASE STUDY FROM NORTHWESTERN UPLAND

6/10 Study Case description



Pre-requisite

- There is no any specific pre-requisite for this case study. We welcome all students who are interested to know land use and land cover changes in the Northwestern uplands of Cambodia, former Khmer Rouge stro

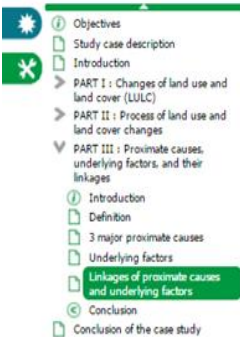
Required time

The case study is divided into three parts with below required time for learning.

- Part I: Changes of land use and land cover (LULC): 20mn
- Part II: Process of land use and land cover changes: 30mn



Interactive learning: Drag and drop: a pedagogical usage of ICT



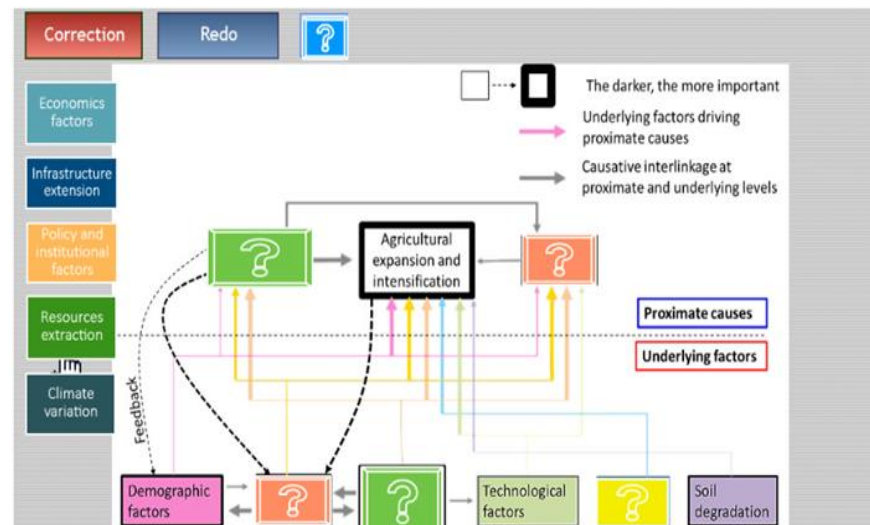
Linkages of proximate causes and underlying factors

The past studies on deforestation in the tropical regions showed that there are not multiple proximate causes and underlying factors, but also in most cases the interactions of multiple underlying factors drive multiple proximate causes.

- In this case study, **political and territorial strategies** to integrate Khmer Rouge to end the long standing civil wars in Cambodia, the need for socio-economic development for the demobilized military families, and populated poor families with saturated paddy lands drove agricultural expansion and intensification and the improvement of **roads infrastructure** in the Northwestern regions.
- Access to **agricultural technologies** such agro-chemicals and machineries, high variation of rainfall and **soil degradation** led to the changes of land use for instance shifting from annual upland crops such as maize and cassava to fruit trees like mango and Pailin longan. These two kinds of fruit trees sustain very well with depleted soil and drought. Furthermore, it could be stimulated the production using agro-chemicals to schedule the harvest at premium price.

Method

Based on previous contents, select a colored box on the left side and drag it to its right location on the graphic. Once you've finished, click on the "correction" button at the bottom of the graphic.



This is an assessment. Fill the following quiz and get a score.



Total	10
Skipped	0
Correct	9
Wrong	1

TIME TAKEN
23:45:39

1 The combined underlying factors drove the agricultural expansion and intensification include:



Your Answer

- ☐ Policy, institution and technology
- ☐ Demography and economy
- ☒ Demography, economy, policy, institution, and technology
- ☐ Policy, institution, and economy

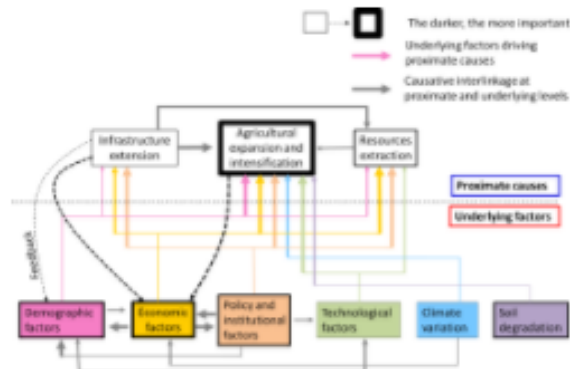


Correct Answer

- ☐ Policy, institution and technology
- ☐ Demography and economy
- ☒ Demography, economy, policy, institution, and technology
- ☐ Policy, institution, and economy



Answer Explanation :



10
Mark(s)

Online assessment on the platform

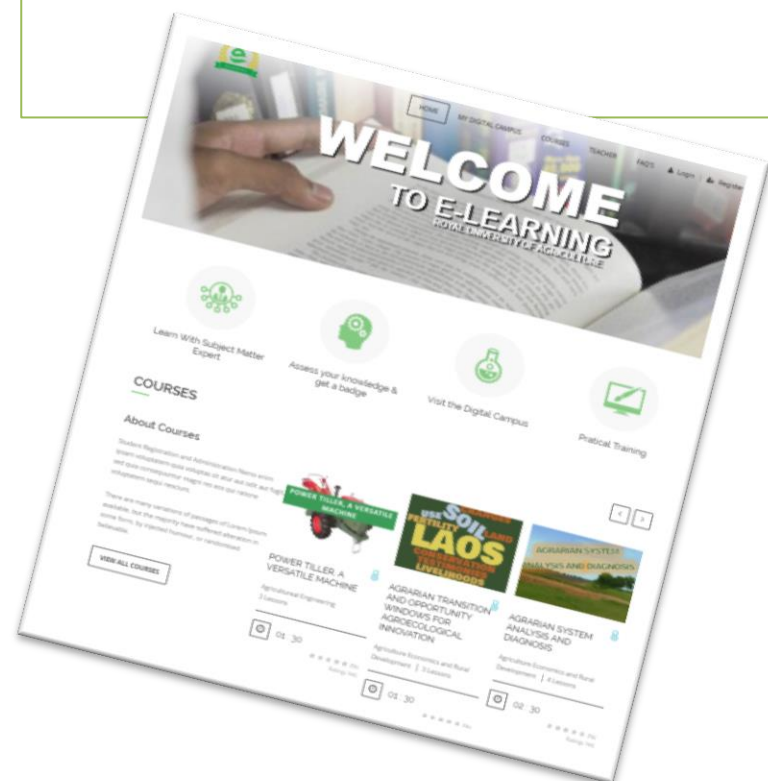
The score is saved on the platform. Students can have access to their scores by their personal dashboard.

Teacher have access to the score of students

After assessment, the correction of the quizz gives a feedback related to the answer

TO DISSEMINATE RESOURCES

- LCMS E-learning platform: <http://e-learning.rua.edu.kh/>
- Lecturer: Encourage lecturer in course developing
- Social network: Facebook (RUA online course & CA service center groups)
- QR code on technical leaflets and signs on the campus



OUR CONTRIBUTION TO A NATIONAL AND REGIONAL DYNAMIC ON AGROECOLOGY

- Almost all faculties from RUA can develop theoretical content that can be connected with agroecological principles. Win-win process for professors that will develop their own courses that can also be used within this AE dynamic.
- Case studies can also be used to illustrate and bring 'life' to the courses.
- RUA teaches the new generation of researchers.
- Students get opportunity to learn in different, combined and integrated ways. We propose to present this dynamic and the main challenges that need to be addressed.
- Produce the pedagogical resources accessible for farmer

Several challenges need to be addressed to go further

- Need University policy support to develop **Blended learning**: encourage the lecturers to use the existing courses for their students complementary to face-to-face teaching...
- Improve the existing resources: (Upgrade the LMS platform to be more powerful management).
- Build our own capacities within the e-learning Center of RUA to help and give support to the professors and lecturers to design e-learning content.
- Improve the existing resources: (Upgrade the LMS platform to be more powerful management).
- There is the need to attract more beneficiaries such as professors and lecturers.
- Development E-learning for Language Center – possibility to use IPERCA resources as English for Agricultural Skill.

Platform e-learning of RUA
<http://www.e-learning.rua.edu.kh/>

WELCOME TO E-LEARNING
ROYAL UNIVERSITY OF AGRICULTURE

Learn With Subject Matter Expert Assess your knowledge & get a badge Visit the Digital Campus Practical Training

COURSES

About Courses

Student Registration and Administration Nemo enim ipsam voluptatem quia voluptas sit atur aut odit aut fugit, sed quia consequuntur magni res eos qui ratione voluptatem sequi nesciunt.

There are many variations of passages of Lorem Ipsum available, but the majority have suffered alteration in some form, by injected humour, or randomised believable.

VIEW ALL COURSES

POWER TILLER, A VERSATILE MACHINE
Agricultural Engineering | 3 Lessons | 01:30

USE SOIL FERTILITY LAND CONSERVATION TESTIMONIES LIVELIHOODS
Agriculture Economics and Rural Development | 3 Lessons | 01:30

AGRARIAN SYSTEM ANALYSIS AND DIAGNOSIS
Agriculture Economics and Rural Development | 4 Lessons | 02:30

Thank you for
your
attention!

CONTACT :

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