



TOWARDS A REGIONAL INITIATIVE TO DEVELOP E-LEARNING RESOURCES IN AGROECOLOGY



E-learning at the Royal University of Agriculture

First steps ... and way forwards

Malyne Neang (RUA/Ecoland), Dok Pheakdey (RUA), Vitchet Lay (RUA), David Wissocq (Pedagogical engineer), Lytour Lor (RUA), Sambo PHEAP (RUA), Morhousoth (RUA), Lyda Hok (RUA)

... with the support of Sarah Clerquin (SupAgro), Stéphane de Tourdonnet (SupAgro) and Florent Tivet (CIRAD)



TOWARDS A REGIONAL INITIATIVE TO DEVELOP E-LEARNING RESOURCES IN AGROECOLOGY

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: CIRAD, GDA, UBB, SupAgro, UEPG and RUA

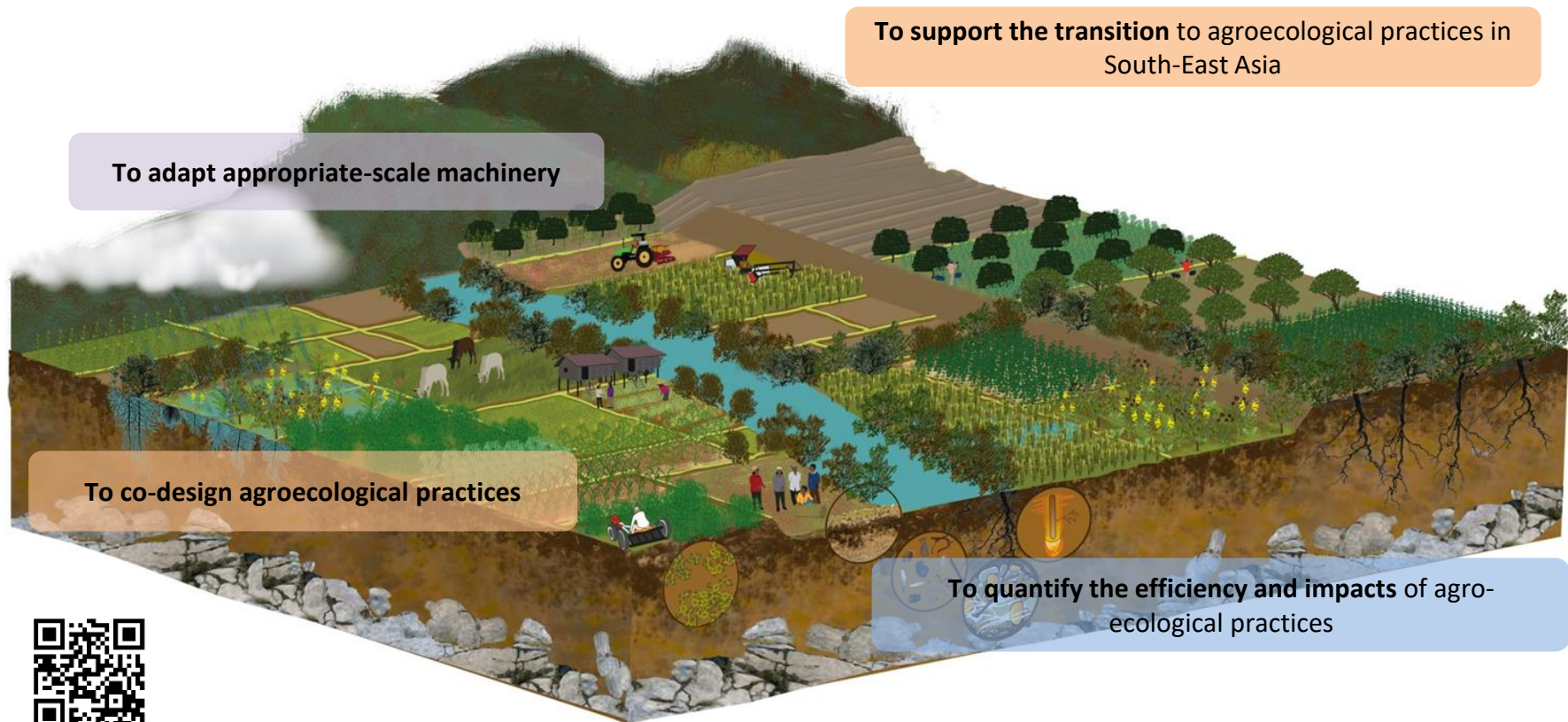




TOWARDS A REGIONAL INITIATIVE TO DEVELOP E-LEARNING RESOURCES IN AGROECOLOGY

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

4 main dimensions: 9 main courses, 25 lessons



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



TOWARDS A REGIONAL INITIATIVE TO DEVELOP E-LEARNING RESOURCES IN AGROECOLOGY

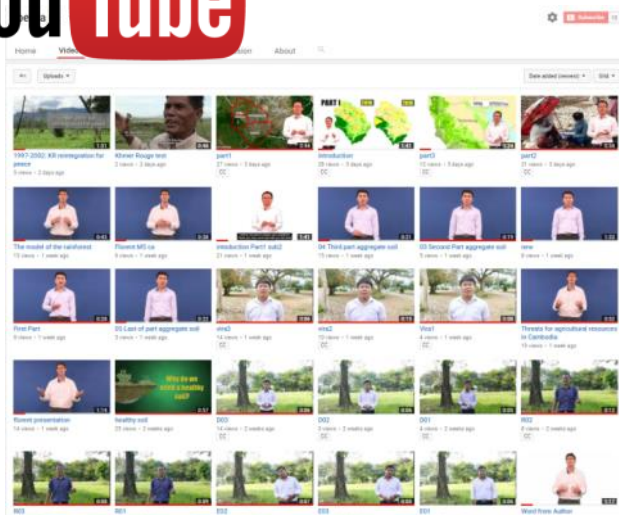
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

BUILD THE CONTENT

- **Scenarichain** as a authoring tool (open source)
- **Scenariserver** as collaborative authoring tool

MUTUALIZE PEDAGOGICAL CONTENT & ICT USES

- **Content Management System** (Wordpress) broadcasting e-learning courses & teaching content material (iperca.org)
- **Youtube** as a tool for tutorial (21) and video/testimonies used in the courses (45 for a total of 250 published)



A CMS to mutualize and broadcast teaching materials – clips and pictures

Numeric learning contents to teach Agroecology and Conservation Agriculture

[PROJECT](#) [ABOUT E-LEARNING](#) [CONTACT US](#)

[WELCOME TO IPERCA.ORG](#)
[RUA E-LEARNING NEWS](#)
[E-LEARNING PLATFORM](#)
[E-LEARNING COURSES](#)
[TEACHING MATERIAL](#)
[MOBILE LEARNING](#)
[SHORT FILMS](#)
[LAB ZONE](#)


STAY TUNED

Name

Email *

[SUBSCRIBE](#)

COPYRIGHT



HAVE BEEN SAID


NEWS

E-LEARNING PLATFORM

03/17/2017 [LEAVE A COMMENT](#) [IPERCA.ID@GMAIL.COM](#)

A Learning Content Management System (LCMS or CMS) is currently setting up at RUA Computer Center.




Most the e-learning courses (around 12 courses and thirty module). The platform features a range of services such as an Agrological online library, forum, competition, e-learning news, and content about experience leading on the campus (digital campus). More than connection between Royal University of Agriculture from Penh and University of Battambang will be set up platform in order to promote the soil digital museum Battambang, and on the other hand to promote online courses for University of Battambang students. We hope numerical initiative will strengthen knowledge in agroecology, agriculture in general, for both universities.



WHO IS ONLINE ?

VISIT US:

WWW.IPERCA.ORG

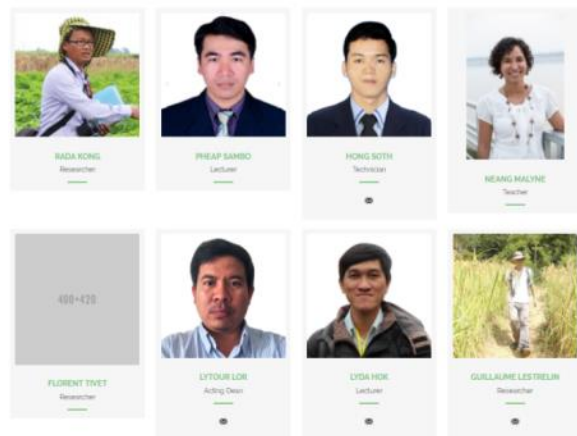
	Visit Yesterday : 156
	This Month : 3619
	Who's Online : 1

PICK UP A TOPIC !

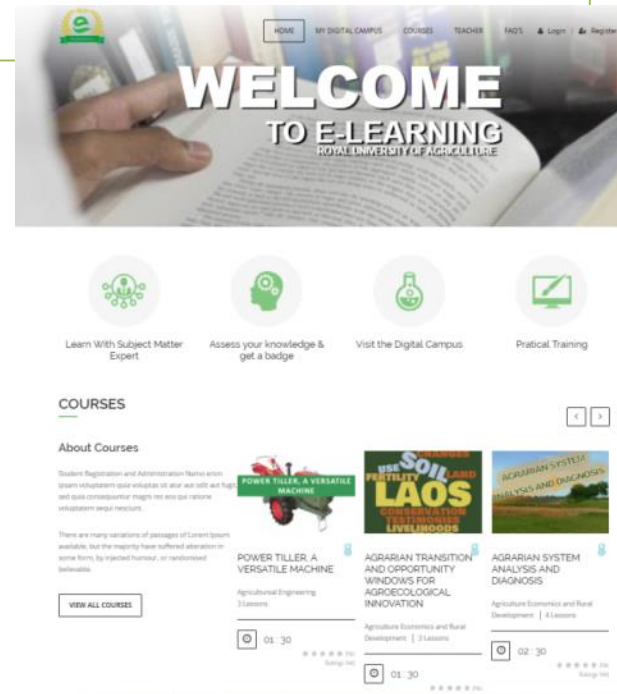
biomass cambodia cassava
Chisel Conservation Agri-
culture corn cover crop
degradation diversification
e-learning ecological intensifi-
cation erosion farmer fertility fodder
forest grain herbicide infertile landscape
legume Lowland rice market migration mollusc

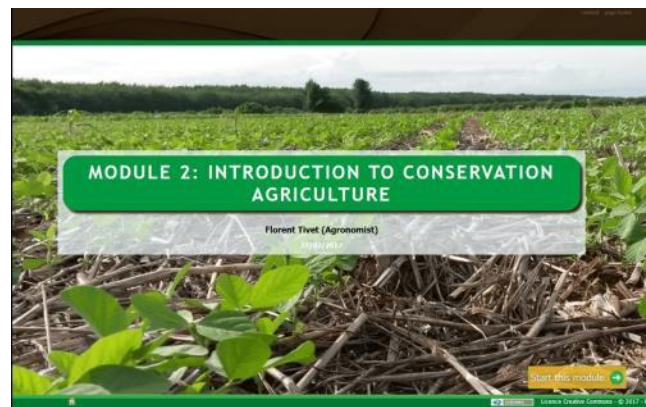
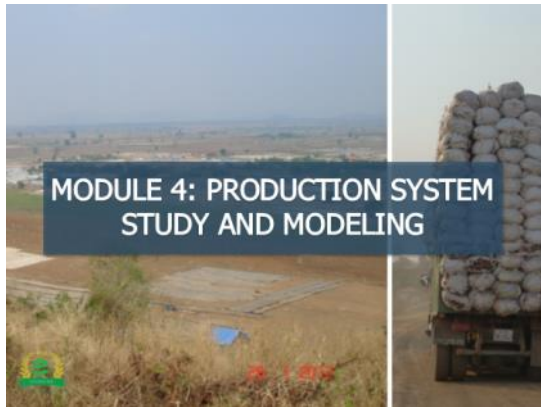
TO DISSEMINATE RESOURCES

- LCMS E-learning platform: e-learning.rua.edu.kh
- Social network: Facebook (RUA online course & CA service center groups)
- QR code on technical leaflets and signs on the campus

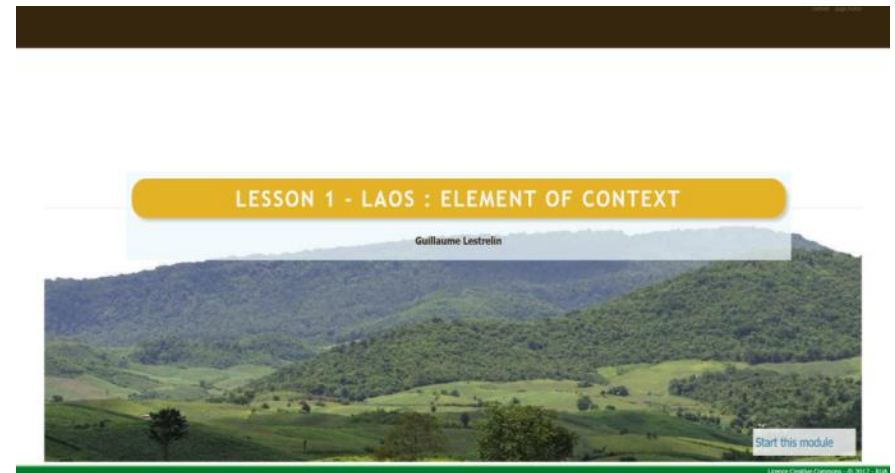
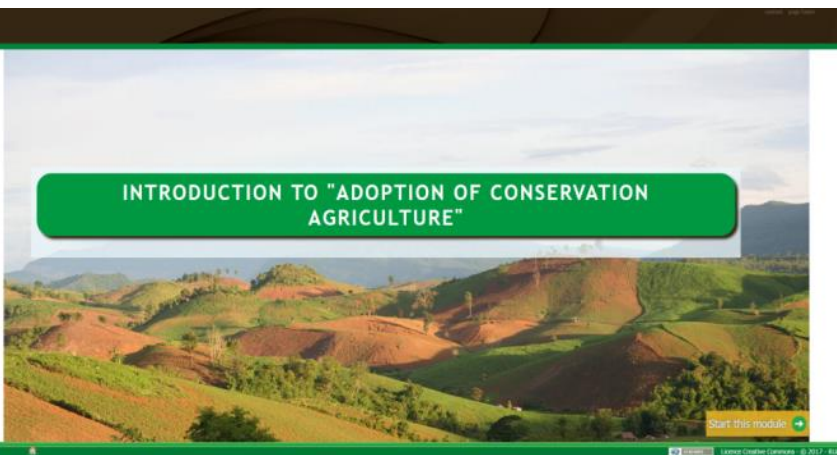


QR code by hWWiT.com

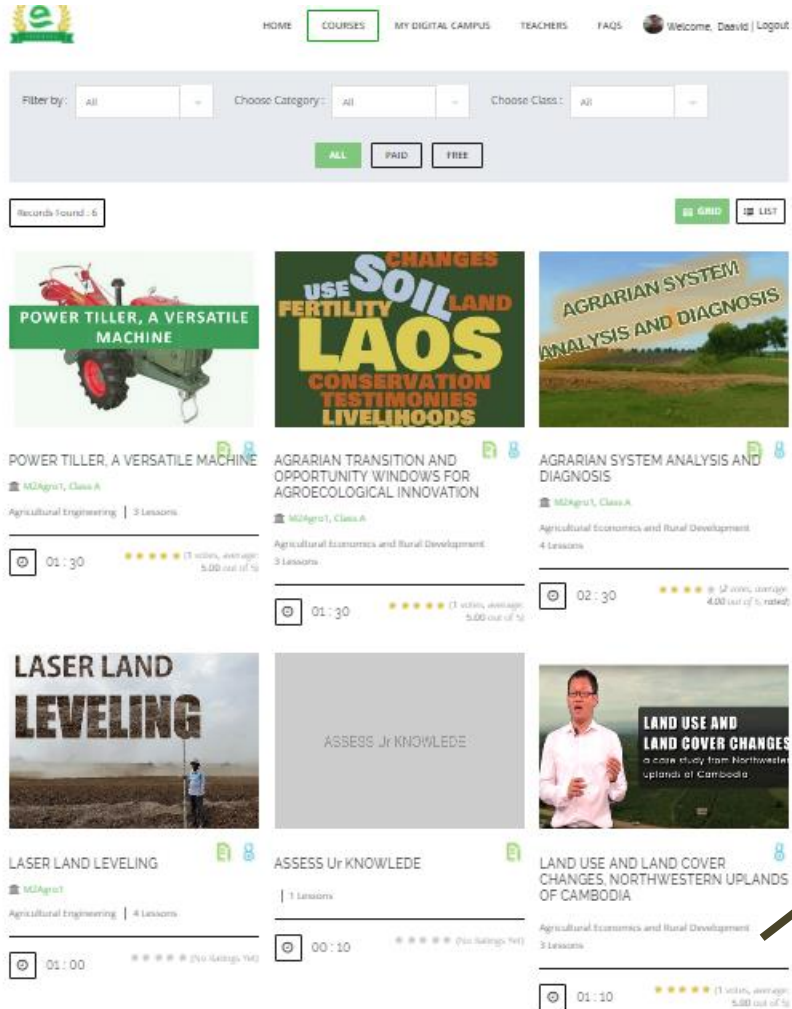




FOCUS ON COURSES DESIGN



Example of E-learning course: Land Use and Cover Change



The screenshot shows a web interface for an e-learning platform. At the top, there is a navigation bar with links: HOME, COURSES (highlighted), MY DIGITAL CAMPUS, TEACHERS, and FAQs. A user profile icon and the text 'Welcome, David | Logout' are on the right. Below the navigation bar is a filter section with 'Filter by:' (set to 'all'), 'Choose Category:' (set to 'all'), and 'Choose Class:' (set to 'all'). There are buttons for 'ALL', 'PAID', and 'FREE'. Below the filter section, there are two tabs: 'GRID' (selected) and 'LIST'. The main content area displays a grid of course thumbnails. Each thumbnail includes a title, a brief description, a duration, a rating, and a category. The courses shown are: 'POWER TILLER, A VERSATILE MACHINE' (01:30, 5.00 out of 5), 'AGRARIAN TRANSITION AND OPPORTUNITY WINDOWS FOR AGROECOLOGICAL INNOVATION' (01:30, 5.00 out of 5), 'AGRARIAN SYSTEM ANALYSIS AND DIAGNOSIS' (02:30, 4.00 out of 5), 'LASER LAND LEVELING' (01:00, 5.00 out of 5), 'ASSESS Jk KNOWLEDGE' (00:10, 5.00 out of 5), and 'LAND USE AND LAND COVER CHANGES, NORTHWESTERN UPLANDS OF CAMBODIA' (01:10, 5.00 out of 5). An arrow points from the 'LAND USE AND LAND COVER CHANGES, NORTHWESTERN UPLANDS OF CAMBODIA' thumbnail to a larger view of the same course on the right.

POWER TILLER, A VERSATILE MACHINE
01:30
5.00 out of 5
Agricultural Engineering | 3 Lessons

AGRARIAN TRANSITION AND OPPORTUNITY WINDOWS FOR AGROECOLOGICAL INNOVATION
01:30
5.00 out of 5
Agricultural Economics and Rural Development | 3 Lessons

AGRARIAN SYSTEM ANALYSIS AND DIAGNOSIS
02:30
4.00 out of 5
Agricultural Economics and Rural Development | 4 Lessons

LASER LAND LEVELING
01:00
5.00 out of 5
Agricultural Engineering | 4 Lessons

ASSESS Jk KNOWLEDGE
00:10
5.00 out of 5
Agricultural Engineering | 1 Lesson

LAND USE AND LAND COVER CHANGES, NORTHWESTERN UPLANDS OF CAMBODIA
01:10
5.00 out of 5
Agricultural Economics and Rural Development | 3 Lessons



LAND USE AND LAND COVER CHANGES, NORTHWESTERN UPLANDS OF CAMBODIA

Agricultural Economics and Rural Development

3 Lessons

01:10
5.00 out of 5 (1 votes, average: 5.00 out of 5)

LEARNING PATH: FROM E-LEARNING PLATFORM TO COURSE

E-learning: course's interface

OBJECTIVES

INTRODUCTION

COURSE MENU



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

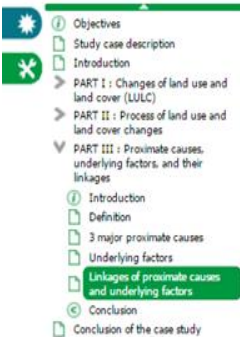
The case study is divided into three parts with below required time for learning.

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

REQUIREMENTS

LEARNING TIME

Drag and drop: a pedagogical usage of ICT



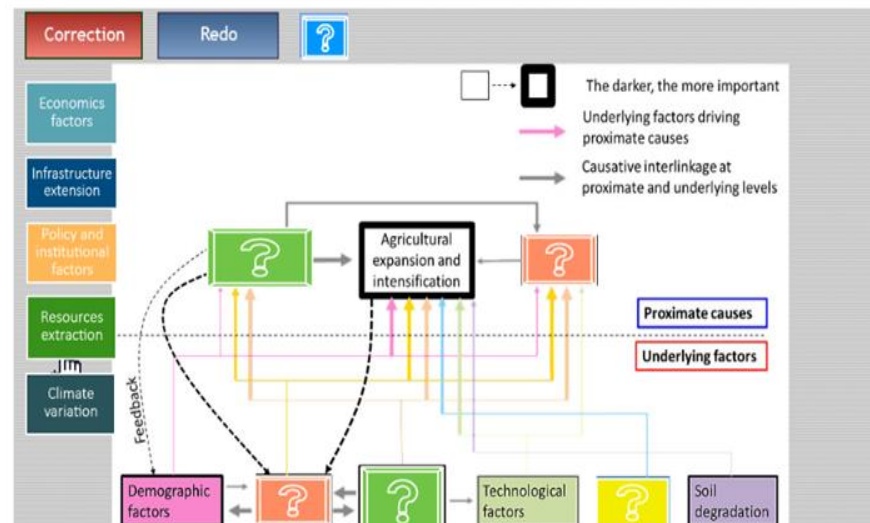
Linkages of proximate causes and underlying factors

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

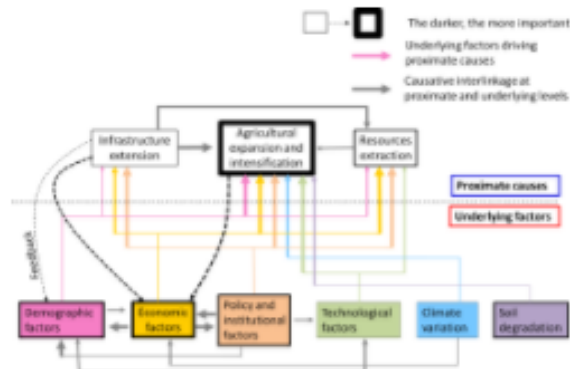


Correct Answer

- ☐ 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

A REFLECTION ON THE USE OF E LEARNING

- What could be our strategy:
 - To engage a broader community of professors/lecturers?
Only few were involved on this first step.
 - To use the E-learning: blended-learning, complementary to face-to-face teaching...
 - Which added-value? E-learning and credit?
 - To co-design the ressources between professors/lecturers and pedagogical engineers?
 - To strengthen the capacity of IT staff from RUA
 - To have access to regular support from the Cyber University of ITC (LMS management; RUA is part of the network of national universities receiving support from the Cyber University)

OUR CONTRIBUTION TO A NATIONAL AND REGIONAL DYNAMIC ON GROECOLOGY

- 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.
- The Faculty of Agronomy implements studies through grants from ACTAE (ALISEA & CANSEA) and ECOLAND through different projects: such studies can be translated into e-learning content.
- RUA teaches the new generation of researchers.

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 LAOS 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 :

E-learning platform admin: vichet.rua@gmail.com

Director of RUA ITC center : admin@rua.edu.kh
nmalyne@rua.edu.kh