



# ACP-ACTAE Project

## Agroecological Crop Protection

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# ACP-ACTAE project

Nguyen Nam Hai  
Plant Protection Research Institute



Jean-Philippe Deguine

## Crop Protection : context and issues / in SEA

- 1) Increase of demands (increase in production, of food security, food safety, rapid changes, ...)
- 2) Climate change and natural resources management
- 3) Towards Agroecology
- 4) Crop Protection: chemical basis → not ecologically sustainable ; side effects & negative impacts
- 5) Reducing pesticides: main issue in SEA

### It's needed

- to answer to the current demands (socio-economic, ...)
- to anticipate answers to the future demand (ecology, socio-economic, environment, health, ...)

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## What is Agroecological Crop Protection?

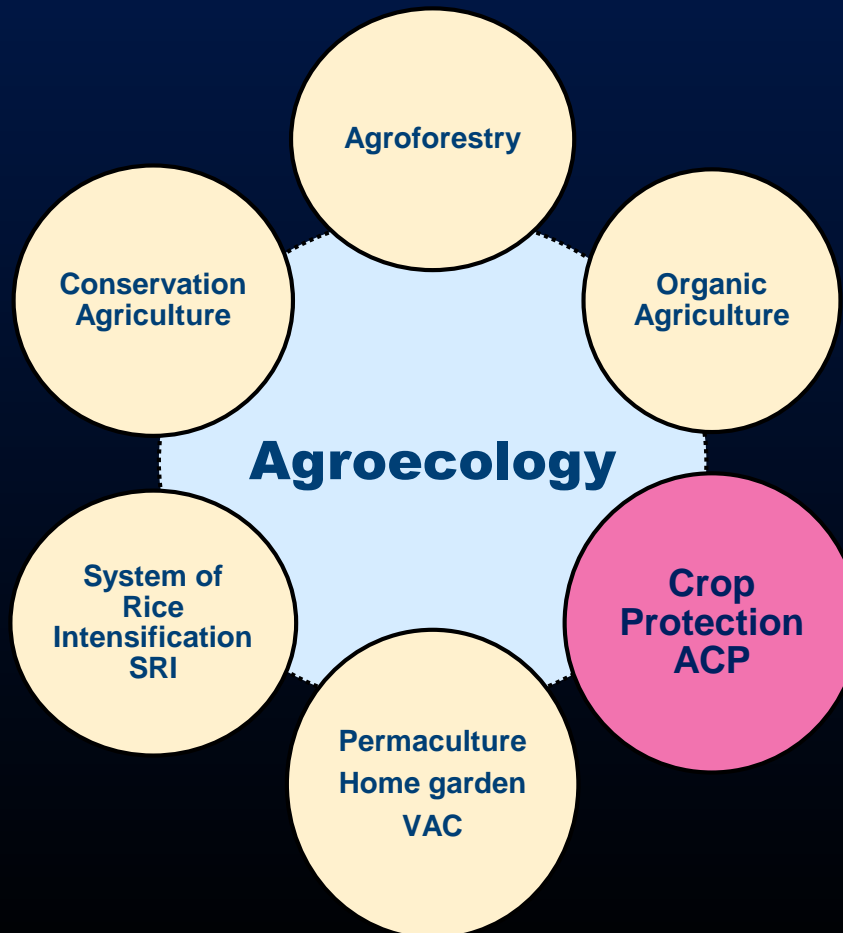
Agroecological Crop Protection =  
the declension of Agroecology to Crop Protection

### In Crop Protection:

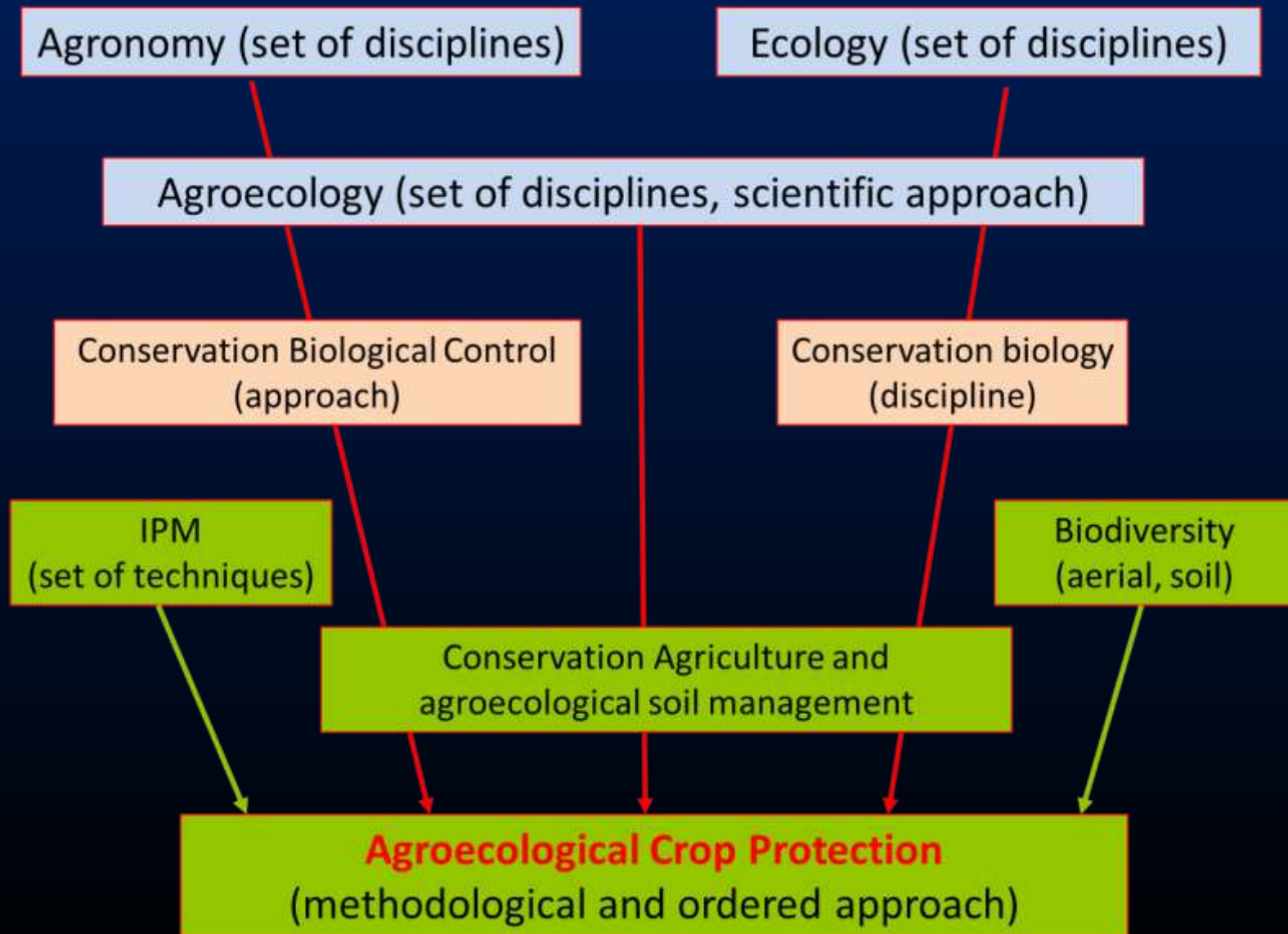
- a rational approach for ecosystem sustainability: to apply principles of Ecology
- a new orientation/paradigm: Agroecological Crop Protection
- Positive consequences for pesticide reduction, environment, health, socio-economic aspects...
- in some cases: a possible compatibility with OA

# What is Agroecological Crop Protection?

FAO: the ways to develop Agroecology



# What is Agroecological Crop Protection?



# What is Agroecological Crop Protection?

2 axis : enhance biodiversity (vegetal/animal)  
and soil health

→ communities management  
~~.(pesticide management)~~

## 1. Biodiversity



## 2. Soil health

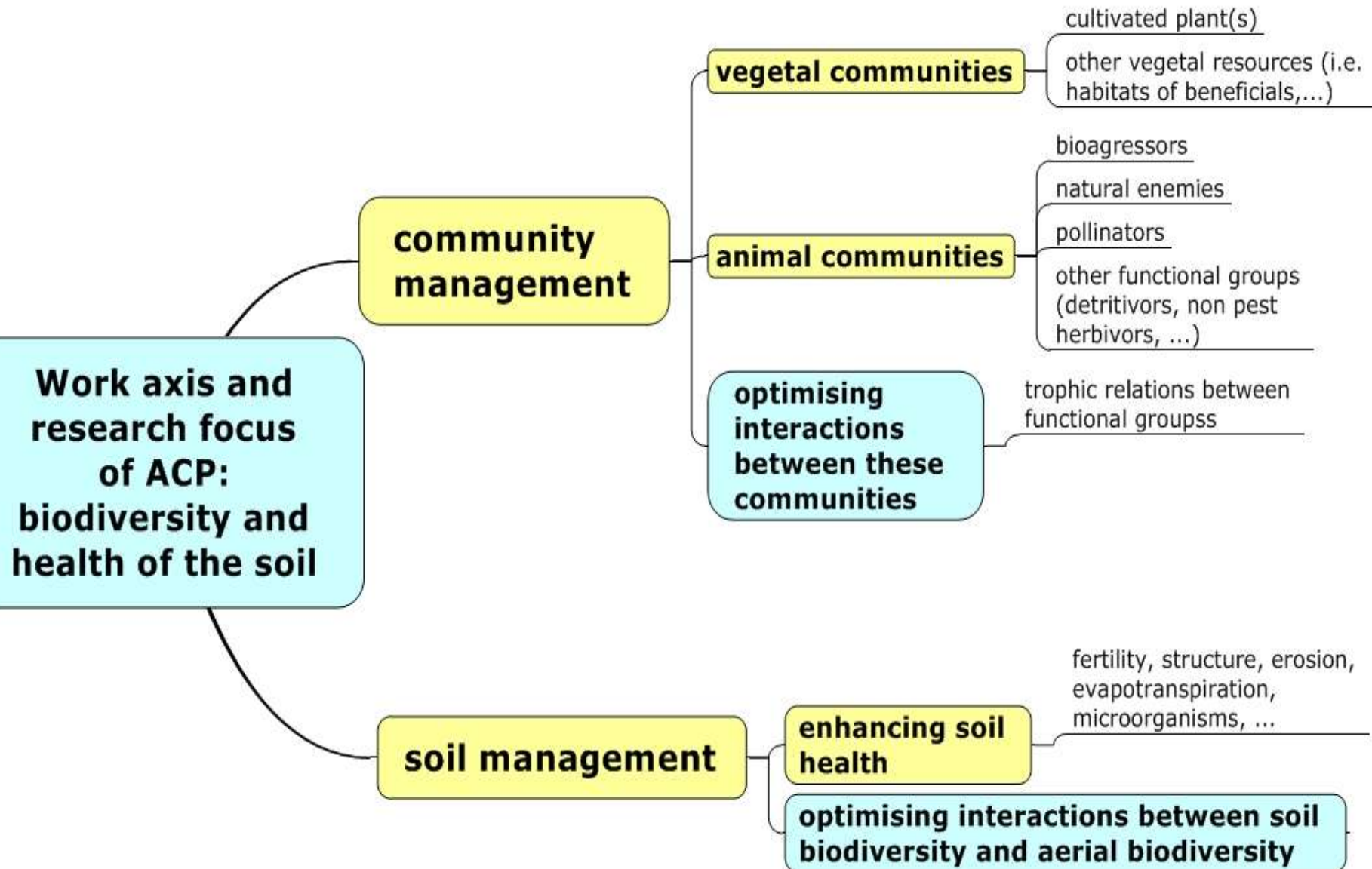


- compatibility and coherence with CA





# ACP → community management (~~pesticide management~~)





# What is Agroecological Crop Protection?

## 3 pillars to implement in the field

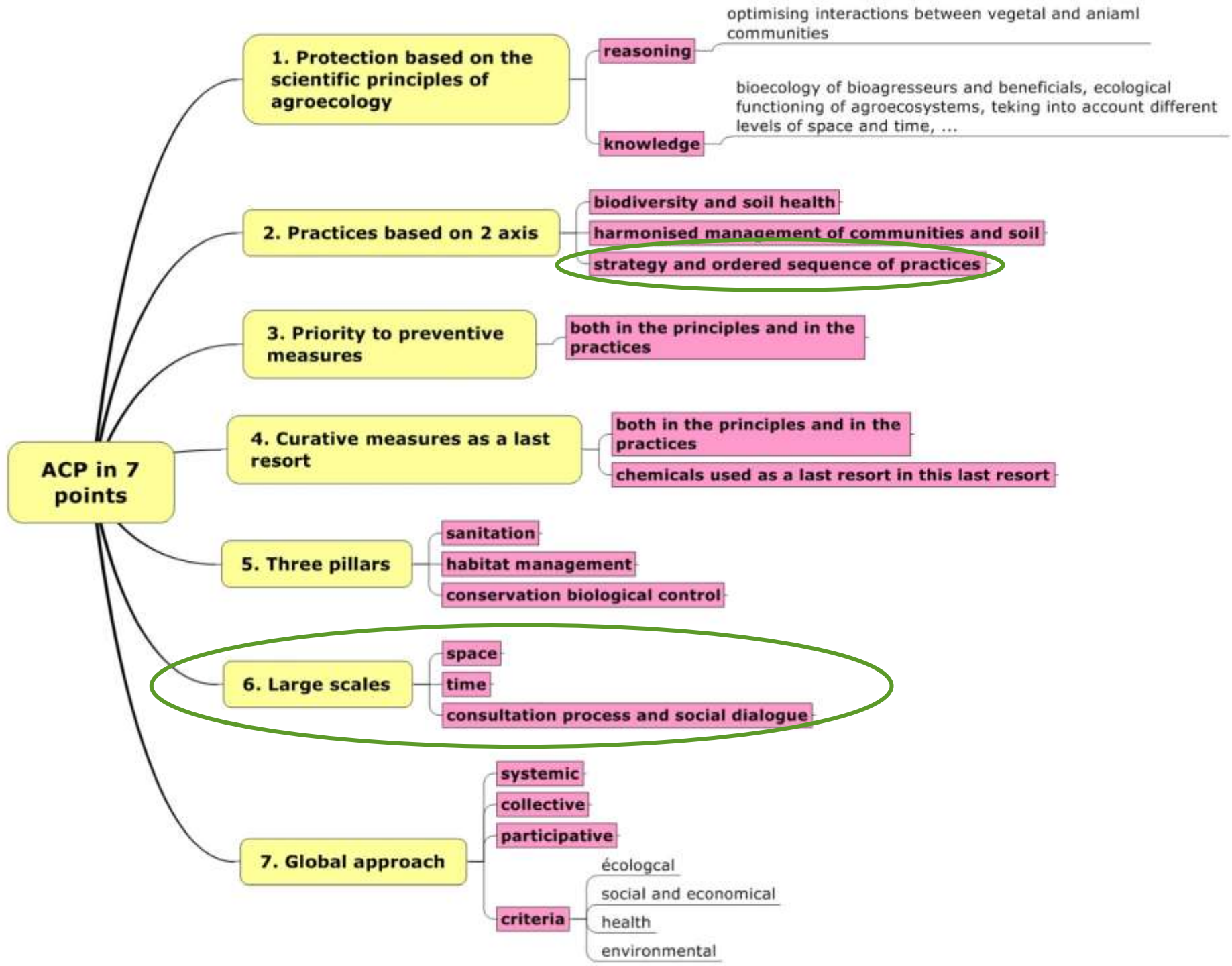
### The three pillars of AMCP

Sanitation

Conservation  
Biological  
Control

Habitat  
management

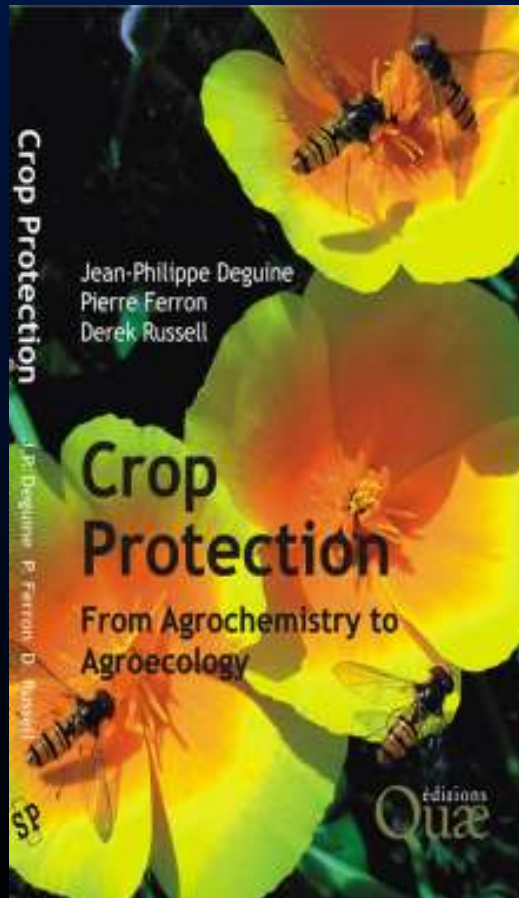




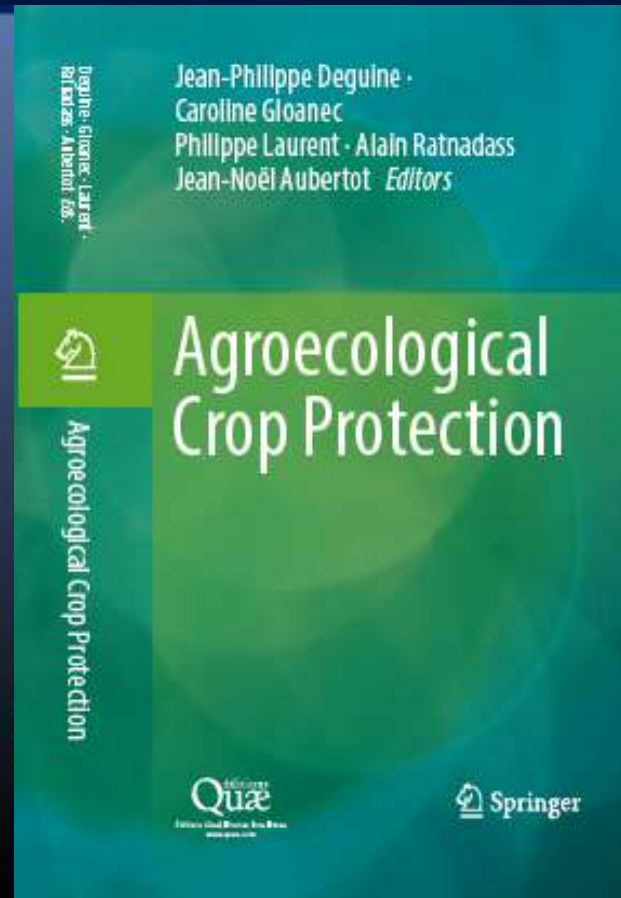
# What is Agroecological Crop Protection?

- Concepts
- Applications in the fields
- Keys of the adoption of innovations
- Keys of the agroecological transition

2008



2017



# ACP-ACTAE project

## 2 phases for ACP dynamics in ASE

ACP-ACTAE project

2017-2018: to exchange, to be on the same level of information and knowledge, to take into account SEA context and issues, to build a scientific dynamics, to prepare mid-term activities

> 2019: to implement actions in partnership, in order to answer:

- to the scientific objectives
- to the issues of the Development

# ACP-ACTAE project

## ACP-ACTAE: collective paper and brochures / 2017-2018

### 1. Collective exercise

- state of the art and current situation of Crop Protection
- perspectives to develop agroecology in Crop Protection in a scientific review ; Vietnam - Myanmar

### 2. Brochures and flyers

- In English
- In National languages

And other proposals (booklets...)

# ACP-ACTAE project

ACP-ACTAE: collective paper and brochures / 2017-2018



Agro-ecology >> Using functional biodiversity  
to boost agrosystem performance



## Agro-ecological crop protection Applying the principles of agro-ecology to crop protection



*Diversinervus* sp., a parasitoid of *Saissetia hemispherica* on a custard apple  
© A. Franc/GIRAD

Agro-ecological crop protection (ACP) is an innovative, ordered approach that stems directly from applying the principles of agro-ecology to crop protection, in which ecological aspects are truly centre-stage. ACP aims to reconcile efficient crop protection against pests and diseases with the socioeconomic, ecological, environmental and sanitary sustainability of agro-ecosystems. It is also intended to make a substantial contribution to the switch from agrochemical-based practices to agro-ecological practices within cropping systems.

### >> Crop protection lies at a crossroad

In the field of crop protection Integrated Pest Management (IPM) has been the prevailing paradigm since the 1950s, based on a concept devised by Californian entomologists. IPM has contributed to the positive changes in crop protection since the 1950s. However, without questioning the reasoning behind the concept, it is now appropriate to wonder about the coherence between current concerns about crop protection, notably with a view to promoting the principles of agro-ecology, and current practice in the field, which often centres on using agrochemicals, in both North and South.




Agro-ecological crop protection (ACP) lies at the crossroads between several research and management concepts and fields:

- agro-ecology, which can be seen as both a scientific discipline in its own right (it involves integrative studies relating to agronomy, ecology, sociology and economics, on various scales) and an agro-ecosystem management method,
- integrated crop protection, which has meant pooling the efforts of researchers and practitioners for the past 50 years or more, but which is now showing its limitations in the field;
- biodiversity management within agro-ecosystems, which for both research and management purposes draws on conservation biology within natural ecosystems.




# ACP-ACTAE project

## Minutes of the ACP-ACTAE: ACP Workshops / 2017



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ACP- ACTAE Project



Agroecological Crop Protection

Action 3. Minutes of the ACP Workshop



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Hanoi, Agricultural Genetic Institute (AGI), Pham Van Dong Str.


April 25-26, 2017



Agroecological Crop Protection - ACTAE - Project / Workshop, Hanoi, 25-26 April, 2017 Page 1



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ACP- ACTAE Project

Agroecological Crop Protection

Action 3. Minutes of the ACP Workshop

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Nay Pyi Taw, Myanmar (3<sup>rd</sup> and 4<sup>th</sup> May, 2017)



Agroecological Crop Protection - ACTAE Project Workshop, Nay Pyi Taw, Myanmar, 3-4 May 2017 1

# ACP Regional Workshop, My Tho, Vietnam, 29-31, August 2017



Regional Summer School  
12-16 March, 2018  
Can Tho, Vietnam  
Agroecological Crop Protection

Co-organized by  
Can Tho University  
& CIRAD



# ACP-ACTAE project

Summer School « ACP in SEA » (12-16 March 2018)

*For invited participants only*

## One week – Objectives

to know about and jointly exchange the principles of ACP and to understand the concepts, methods and tools for their implementation.

## Participants (30, SEA):

advanced-level graduate students, junior faculty, along with senior researchers and teachers in SEA willing to improve their skills with regards to Agroecological Crop Protection. Agricultural advisors are also welcome, provided that they have a solid scientific background

THANKS FOR YOUR ATTENTION