

# Some models for capacity building in agriculture education and research: experiences from international cooperation projects



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# World changing

- World population increase I Demand for food increase
  - Means to support it decline: Oil, Land, Water I Imbalance between demand and supply I Price of food and fuel increase
  - Climate change, globalization I make imbalance more serious
  - Action now but what direction in capacity building in agriculture education and research? New approaches in research and education?
- € *A strong agricultural sector: key to economic development, and, in turn, agricultural productivity dependent upon a broad-based system of education and research in the agricultural sciences. I Education in the agricultural sciences: a priority. (Recommendations to Vietnam Govt made by group from Harvard University 2008)*

# Sareck-Mekarn project

## Background and justification

- Current post-grad training still often focused on large-scale industrial systems (single species, feed is grain-based concentrates)
- Not sustainable (based on fossil fuels, effects on global warming, high grain prices, pollution, social problems etc)
- Most livestock producers in developing countries are still resource-poor, subsistence farmers, whose
- Livestock (different species, often local- or cross-breeds) are integrated with crops, multipurpose trees, aquaculture, local agro-industries

# Objectives

- Create a number of young teachers and researchers at collaborating institutions dedicated to developing **integrated**, livestock-based smallholder systems focused on **sustainable use of renewable natural resources**
- Improve **research** and **teaching** facilities at the collaborating institutions

## How project organising

**Regional master courses (2 years: one year and half for course work, 6 month for research).** Courses held at different institutions in the collaborating countries.

**SanwichPhD courses (4 year)**

**Open funds for research in collaborating countries and training courses when needed**

# Courses (systems approach):

- Biometrics / Mini-projects
- Participatory Rural Appraisal Methodologies
- Biological Basis of Biomass Production and Utilization by Livestock
- Farming Systems Research Methodology
- Upland Farming Systems
- Agro-forestry
- Animal Traction
- Small Ruminant Production Systems
- Range Management
- Large Ruminant Production Systems
- Pig and Poultry Systems
- Aquaculture Systems
- Soil-Plant-Animal Interactions
- Renewable Energy

# Management of Sareck Mekarn project

**Steering committee: 10 persons**

**North coordinator**

- **South coordinator**
- **National coordinators**
- **Consultants**

**Scientific committee: 6 persons**

## Priorities for research and human resource development (Preston, 2008)

- Max biomass yield from available resources (soil, water, people)
- Optimum use of biomass for diverse purposes
- Recycle all waste
- Innovations for sustainable agriculture

# Second phage?

Management:

- Regional master program

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**Participating countries: Vietnam, Laos, Cambodia**

**Research institutions and Universities**