

Towards Adaptive and Social Learning in a Science and Nature Center of Excellence

**Science and Technology
Professorial Chair Lecture**

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The Lecture

1. Main thesis
2. Adaptive and social learning, related concepts
3. UPLB's experience through *Isang Bagsak* SEA and ALL in CBNRM
4. Related initiatives
5. Recommendations for mainstreaming

Main Thesis

- UPLB - a center of excellence in science and nature
- Adaptive and social learning systems can best serve UPLB degree programs in pursuit of excellence and relevance

Adaptive learning

- Emphasizes the cycle of action-reflection-action to enable the stakeholders, as social learners, to apply their new learning and improve their decisions and actions

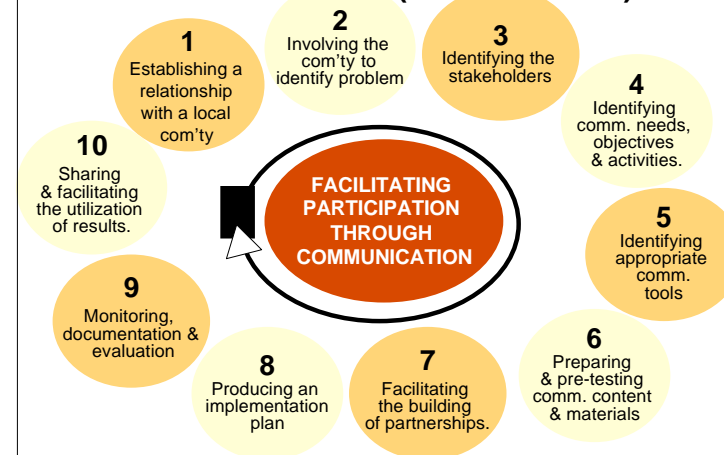
Isang Bagsak (One Bang/Clap)

Three Phases

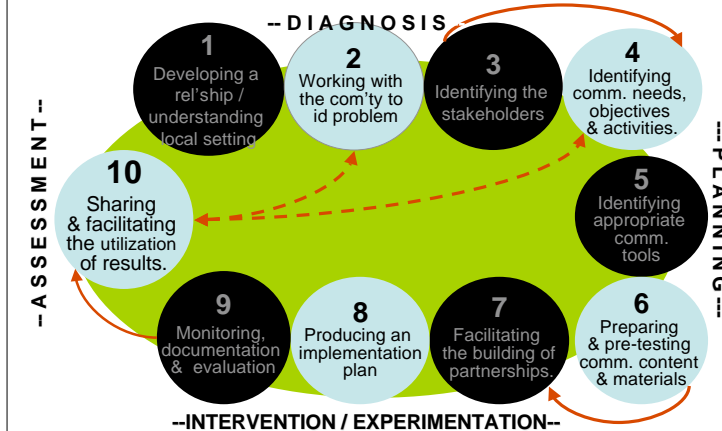
- 2001-2002 - Cambodia, Uganda, Vietnam teams
- 2003-2005 – Regional networks in Southeast Asia, Eastern and Southern Africa, and Western Africa
- 2006-2008 – ALL in CBNRM



Participatory Development Communication (Bessette 2004)

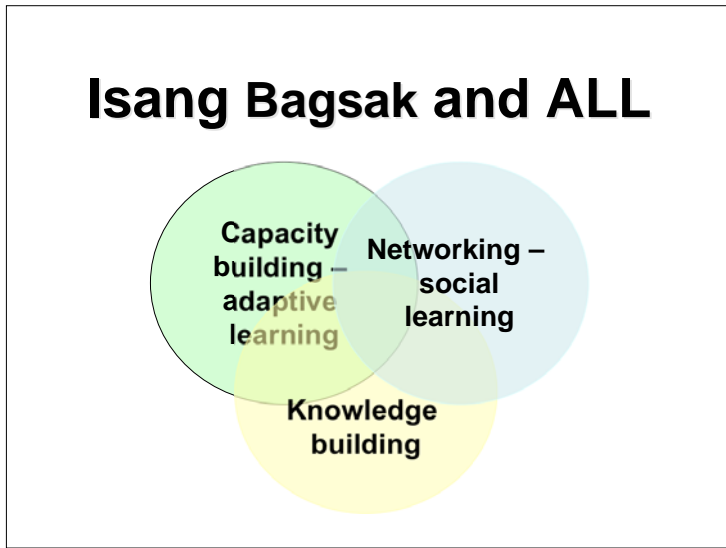
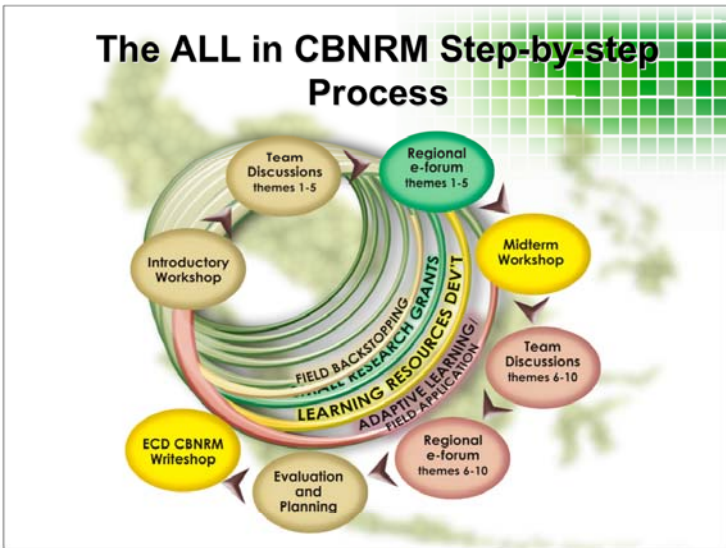
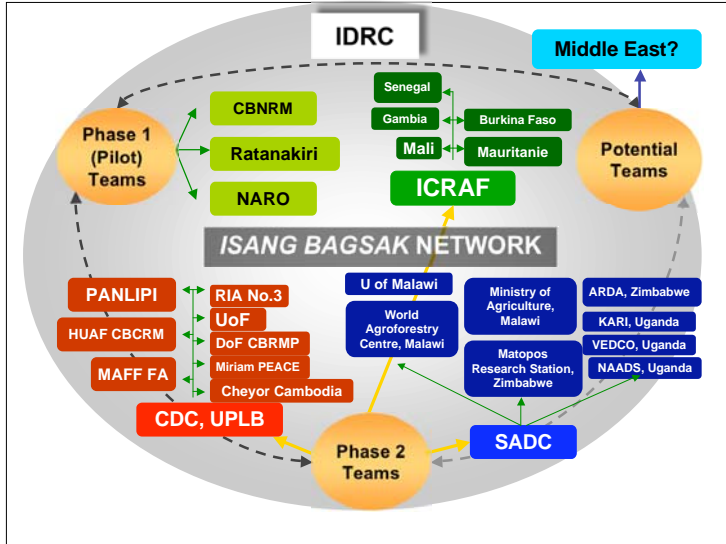
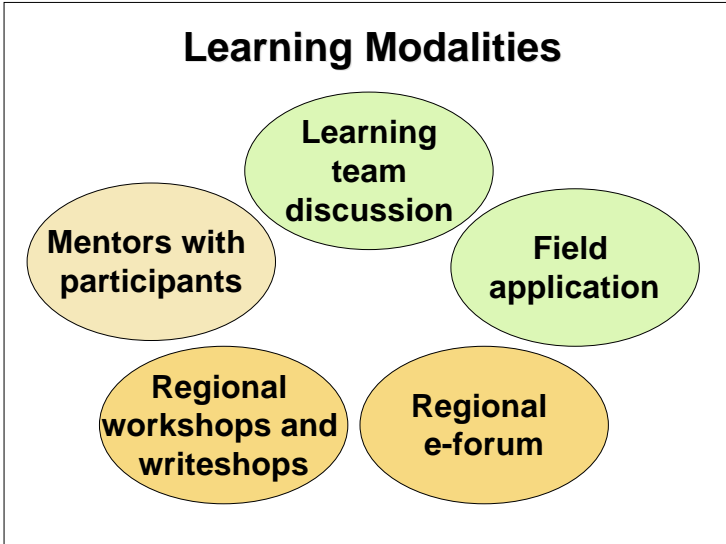


The PDC model integrated with the research for development process



Social learning

- Various stakeholders learn together and from each other, and collectively work at addressing complex issues



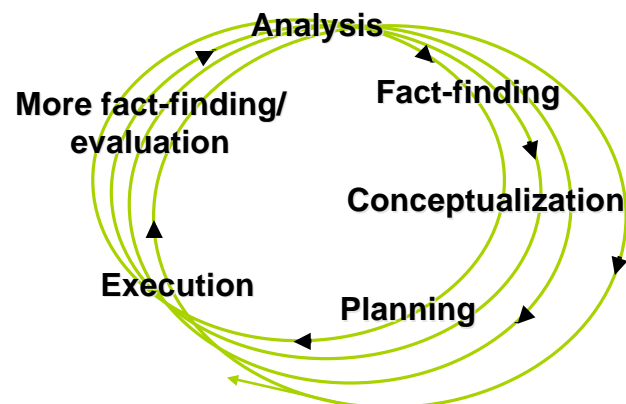
Adaptive learning is about CHANGE

- In program organization
- In curriculum/learning content
- In learning modalities
- In knowledge, skills, mindsets, decisions, actions, systems with all learners (mentors as co-learners)

Adaptive learning is about CHANGE

- In tracking and evaluating change
- In development outcomes
- In bodies of knowledge, organizations/ institutions, communities of practice

Action research/ (Lewin, 1946) science (Argyris and Schon, 1990)



Related concepts

- Learning organizations
- Learning communities
- Social constructivist learning
- Action science and action research
- Alternative education in SA
- Participatory learning and communication
- Service learning
- E-learning/flexible learning solutions

Assumptions

- Decision and action as grounded on views (constructs, meanings)
- Knowledge as meaning making/ construction in a social context
- Multiple realities

Principles

- Problem/issue based: scientific method in action
- Multidisciplinary and interdisciplinary
- Holistic
- Transformational, personal growth
- Cycle of action/practice-reflection/ theory
- Teachers as co-learners
- Team learning, co-learning

Mainstreaming CBNRM in China's universities

Vernooy et al., 2008



Mainstreaming CBNRM in China's universities

Vernooy et al., 2008



Alternative seed training/ education for SA Fernandez 1999

- Transformational (attitudes along with knowledge and skills)
- Teacher as facilitator and development agent, as role models
- Holistic, integrative, value-laden, mass-oriented, nationalist and people-oriented education (Not: “colonial”, individualistic, competitive, grade-centered, reductionist, unquestioning, Western and elitist psyche)

Master’s in CFSC **Communication for Social Change**

- A program of course work and practicum with
 - Intensive, four-week retreat (may include field trips/exposure) where students and teachers are a learning community:
 - ♣ Engage with actual social & cultural conditions in the field
 - ♣ Present their experiences and competencies and develop a community
 - ♣ Set goals for their own program collectively
 - ♣ Set directions for final project or thesis (by team or individual)
 - A regular interactive seminar per semester
 - A special project/thesis

Visions and Values

- Commitment to principles of communication for social change
- Teachers and students as a critical learning community
- Commitment to experiential learning, team teaching, and collective learning
- Active, ongoing formal and informal research

Pedagogical Approaches

- Learning through dialectic between theory and practice/reality
- Learning through case study/problem-based approach
- Learning from one another
- Learning through qualitative and process-oriented evaluation

Evaluation and Follow-up

- Formal program concludes with one-week mutual evaluation and reflection seminar
- Website set up for cohort networking, mutual support, and archiving of implementation problems and solutions
- Sharing, synthesis, reflection, and direction-setting after five years

Evaluation Guidelines

- Final output: Project or scholarly production + a reflection thesis report
- Components: students' performance, teachers' performance, the program itself, cohort evaluation, tracking graduate real world activity after 5 years, external evaluation

UPLB Today

- One of the premier tertiary educational and research institutions in the nation
- But: has lost considerable ground when compared with peer institutions in the Asian region
- Decline in funding in real terms

Some UPLB students speak

- Problems or limitations of learning at UPLB
 - “Teacher” factor
 - Limited learning facilities
 - Problems in design of courses

“Teacher” factor

- Too junior
- Dysfunctional idiosyncrasies
- Poor teaching competence and lack of “heart for teaching”
 - Starting with students’ understanding
 - Rote, mechanical, bookish teaching
 - Lack of interaction, slide-focused
- Irrational evaluation of student performance

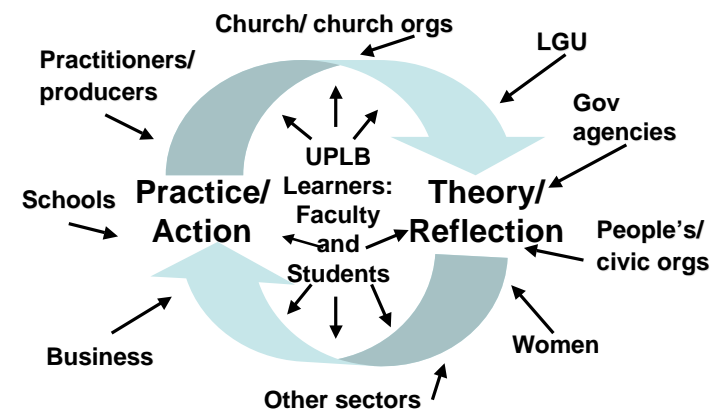
Students suggest:

- Link with industry, e.g., internships
- Integrate group and people skills with technical subject matter
- More open curricula allowing choice of some courses
- General admission, selection of curriculum within first year

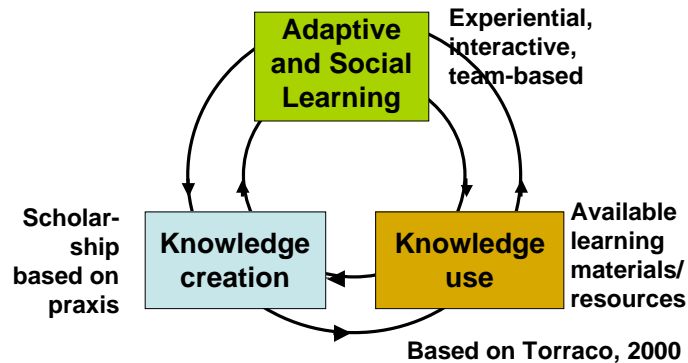
Strategizing@UPLB

- Towards becoming a global center of excellence in tropical agriculture
 - with niches in food security/food safety, alternative energy systems, water resources, and pollution/waste management
- Environment and ecosystems-focused educational framework
- Focus on graduate education

Proposed adaptive/social learning at UPLB



Extend to Knowledge Management (KM)



UPLB disciplines where relevant

- Agriculture – agricultural systems, SA and NRM in A
- Applied nutrition
- Applied social sciences
 - Agribusiness
 - Community development
 - Development communication
 - Development management
 - Applied arts and humanities

UPLB disciplines where relevant


- Environmental Science
- Extension Education
- Forestry
 - Forest Resources Management
 - Social Forestry
- Natural Resources Conservation

UPLB disciplines where relevant

- Public Affairs
 - Education management
 - Local Governance and Development
 - Strategic Policy and Public Policy
- Veterinary Medicine (applied aspects)

Environment and ecosystems-focused adaptive and social learning (educational) framework				
FACUL-TIES NICHES	BIO SCIENCES	PHY SCIENCES	SOCIAL SCIENCES	ARTS & HUMS
Food security/safety	-----▶			
Alternative energy systems	-----▶			
Water resources	-----▶			
Pollution/waste mgt	-----▶			

Let's talk it over...



Maraming salamat po!

- Dean Cleofe S. Torres at College of Devcom
 - UPLB at UPLBFI
 - UPLB Grange Association
 - SEARCHA