



**Cuyahoga River Fire – Cleveland Ohio USA –
1969**



**Cuyahoga River Fire – Cleveland Ohio USA –
November 3, 1952**

- I. Community Based Natural Resource Management**
- II. Features of CBNRM**
- III. Trends in Fisheries Policy - Vietnam**
- IV. Co-Management of Natural Resources**

Assé, Rainer

REFERENCES CITED (Photos, Diagrams, etc.) – AVAILABLE
UPON REQUEST

Conservation - definition

The study & strategy to safeguard the planet's biodiversity by protecting species from extinction through preservation of habitats and ecosystems.

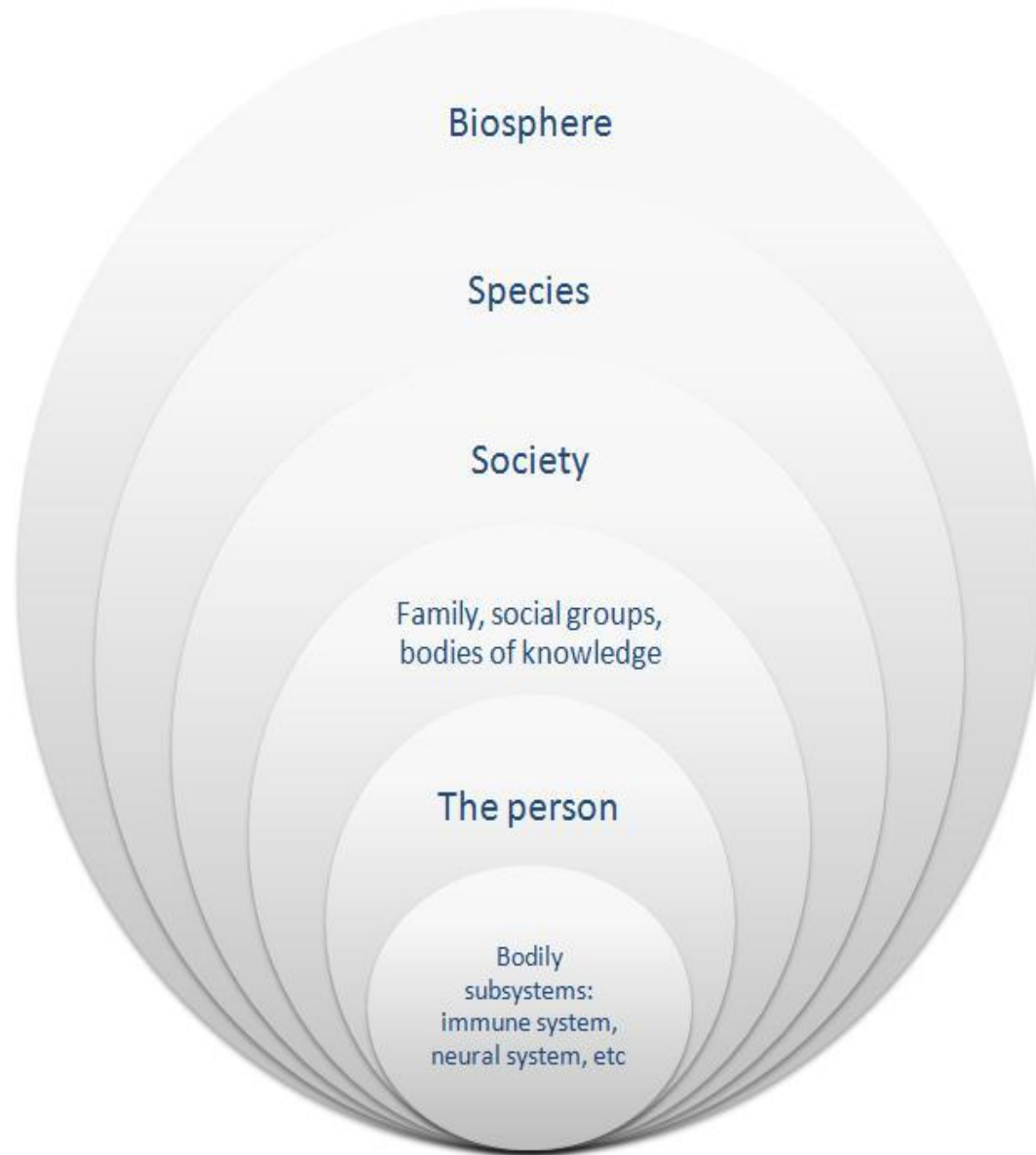
Community Based Natural Resource Management

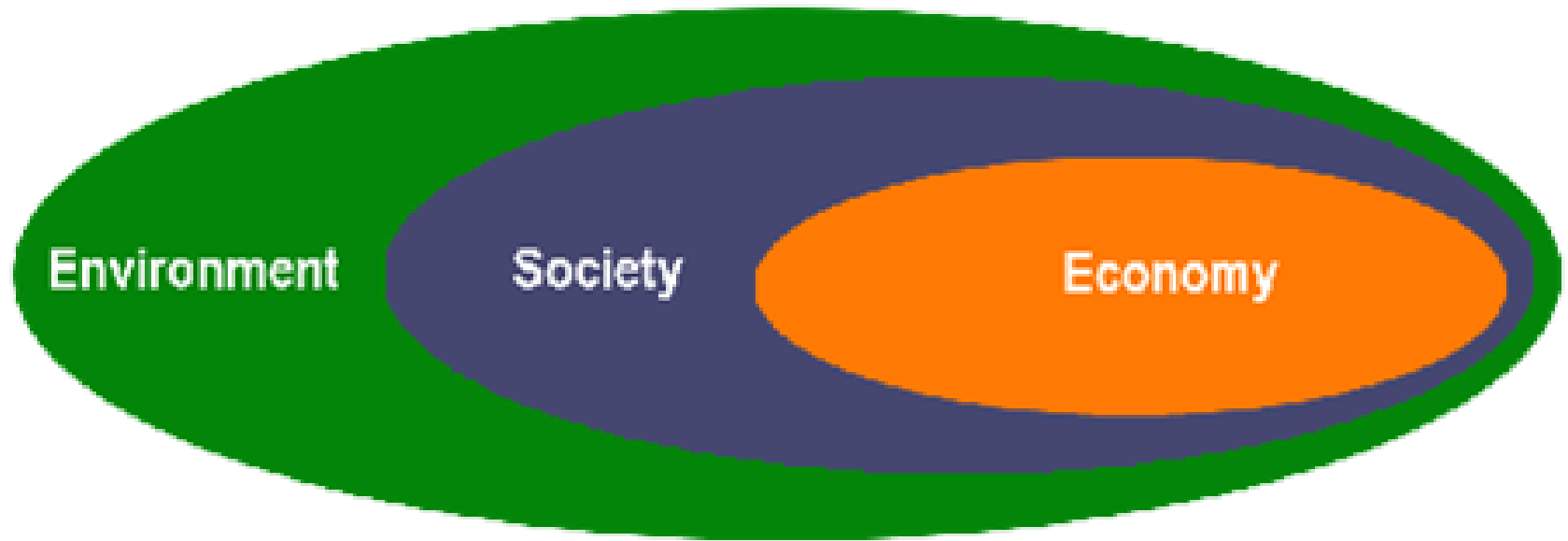
CBNRM - definition

Strategies designed and implemented by natural resource users to use and conserve specific natural resources.

Community Based Natural Resource Management - features

- Embedded in local cultural landscapes (e.g., sacred forests)
- Embedded in local knowledge
- Nested in social-ecological and socioeconomic systems of users
 - e.g., in local rules/conventions on resource use
 - usufruct rights - rights to access natural resources





Nested systems

Community Based Natural Resource Management - features

- ✓ Embedded in local knowledge
 - Site specific environmental or agroecological knowledge held by local people
 - Accessed via ethnographic & participatory action-research methods such as:
 - Participatory Transect Walk/Community Mapping
 - Decision trees
 - Rapid Rural Appraisal (RRA)
 - Participatory Rural Appraisal (PRA)

**Sacred tree
Chiang Mai, Thailand**





Mong Celebrate Forest God Festival – Yen Bai, Vietnam - 2013



**Monks ordain a tree as monk – Cambodia 2010
Alliance of Religions & Conservation**



**Hung Kings' Festival – Nghia Linh Mountain
Phu Tho – Vietnam**

Community Based Natural Resource Management - features

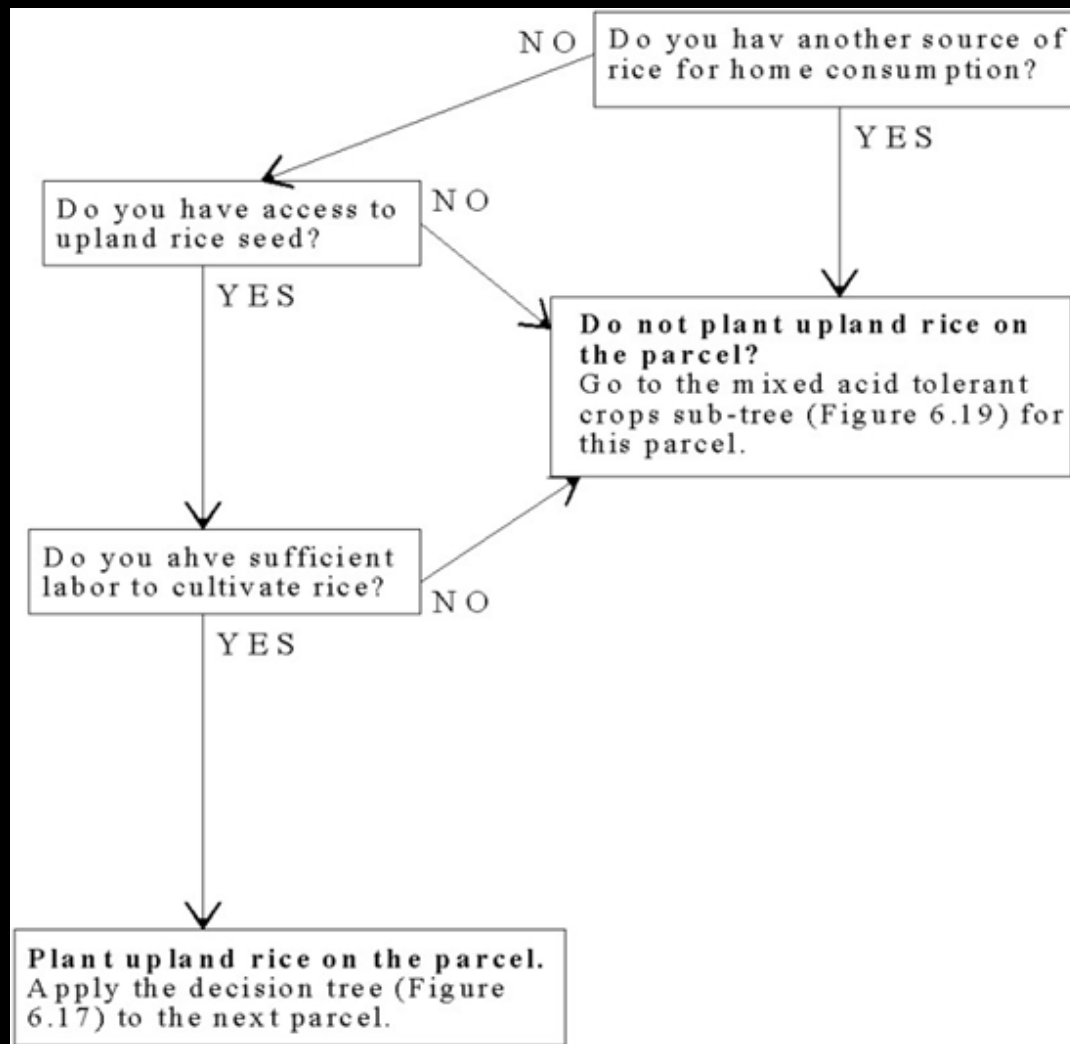
- ✓ Embedded in local cultural landscapes (e.g., sacred forests)
 - Cultural-political legitimacy
 - The right to rule, own, use, steward (watch over) natural resources
 - First settler rights – traditional/customary land tenure systems

Community Based Natural Resource Management - features

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**Villagers doing transect walk & participatory community mapping
FAO - 2003**



Decision Tree Modeling

Decision Support Systems in Agriculture: Some Successes and a Bright Future -
 Russell Yost et al. 2011



**Participatory community mapping – Palawan , Philippines
- 1999**



Participatory Rural Appraisal - PRA

Jhalokhati, Bangladesh – 2013 - Worldfish

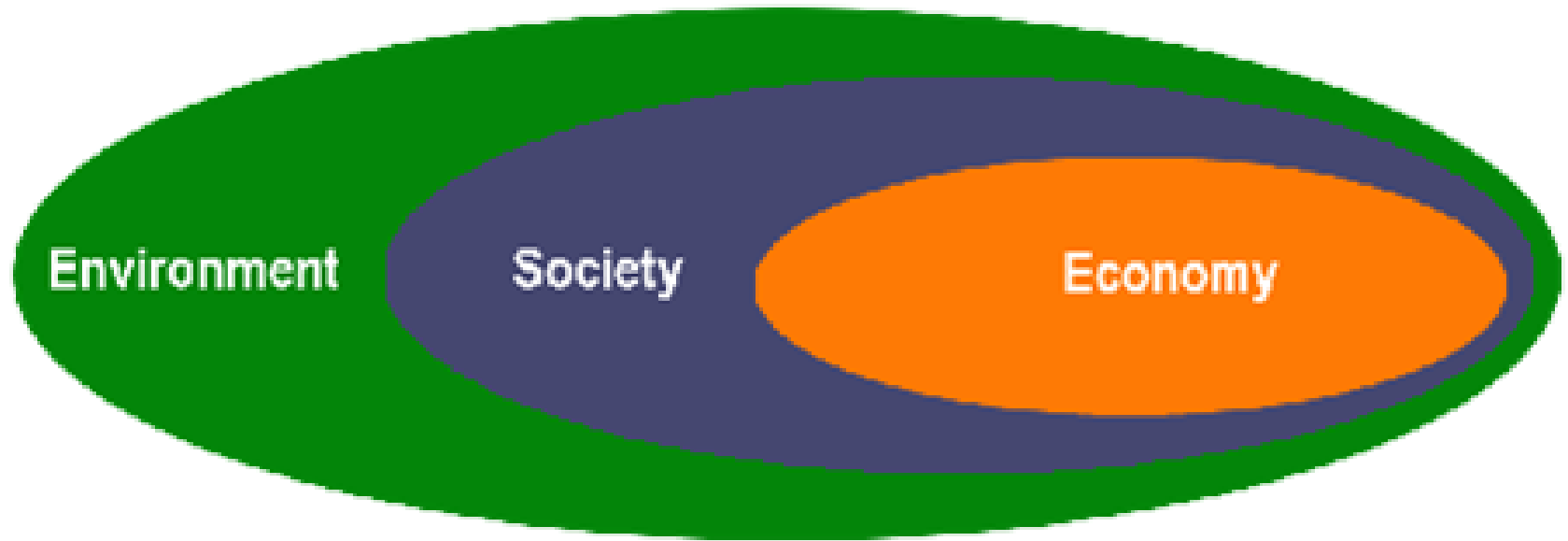
Knowledge Generation

Action research uses participatory methods for knowledge generation to

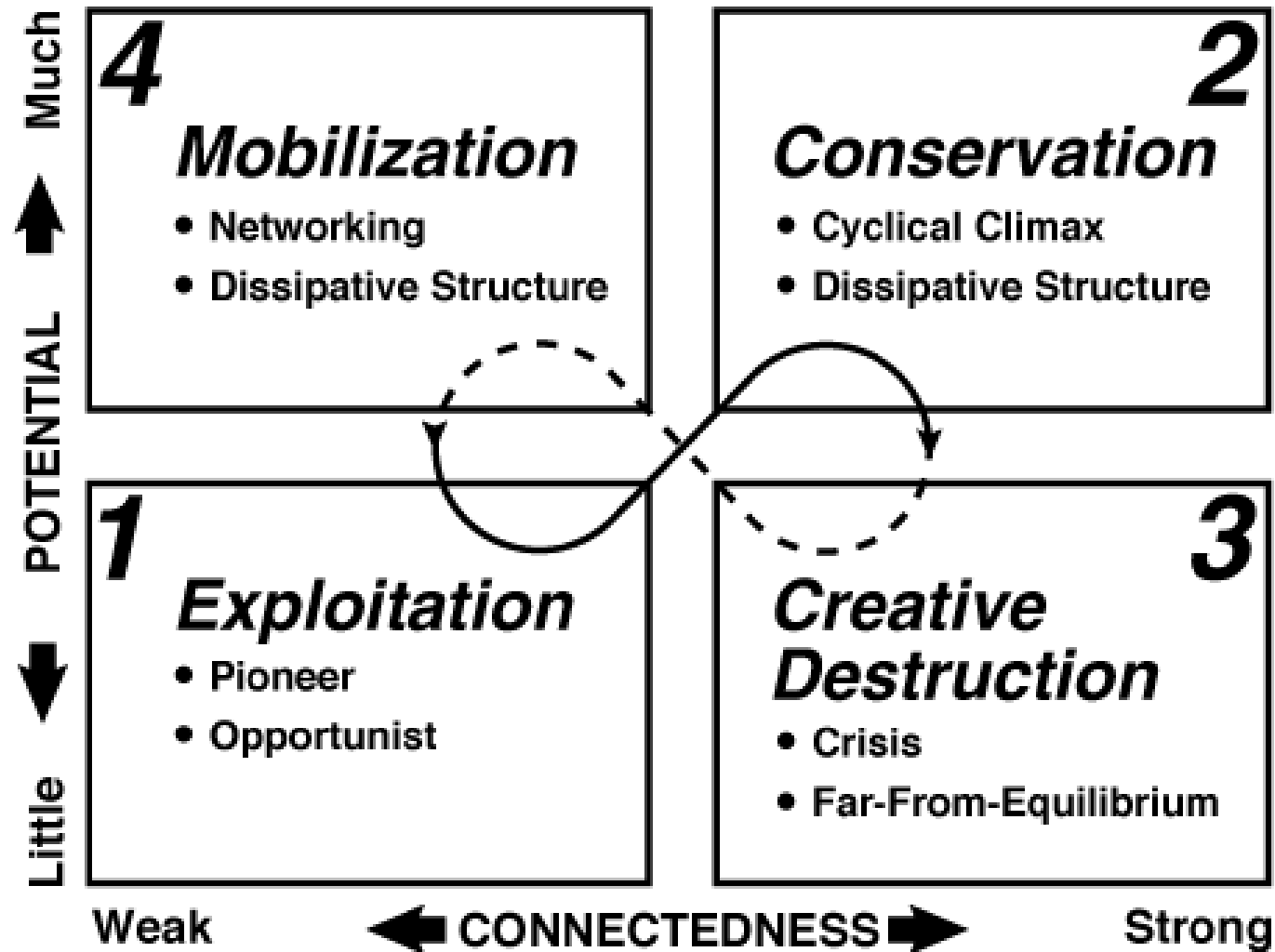
- integrate local knowledge within science knowledge
- democratize knowledge generation & science-making
- include the excluded
- connect knowledge & action of all actors
- build understanding & solutions on integrated knowledge

Vietnam Marine Policy

- Pre 1945
- 1945 – 1954 – local demand
- 1955-1975 – North: collectivization + state
South: market, mechanization
- 1975- 1985 – Central planning
- 1986 – Doi Moi – renewal & open to free market & exporting
- 1989 – open access seen as a problem + devolution of responsibilities to provincial departments & Peoples Committees
- 1990 – laws recognize management = conservation + co-management/traditional systems – Van Chai
- 1997 – rational exploitation to counter overcapacity & overfishing – Masterplan
- 2003 – attempts at ecosystem approaches + decentralized management



Nested systems



Adaptive cycle of Complex Systems –
Hollings 2001