

Integrated Natural Resource Management: linking knowledge to action Or: when half a brain is not enough

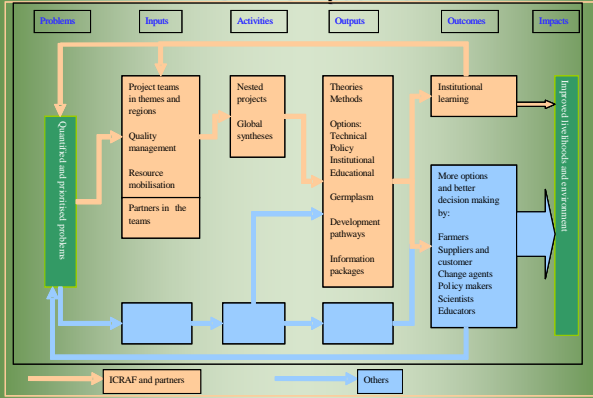


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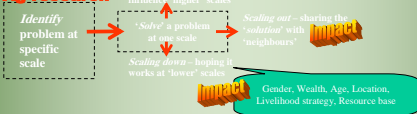
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Increased knowledge ==> improved action ??

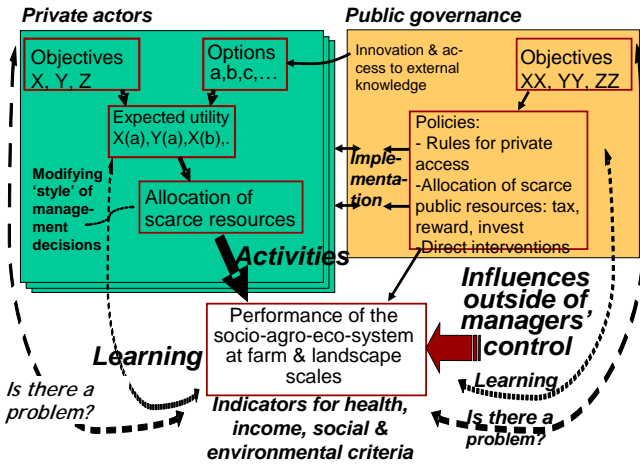
Measuring Our Impact ICRAF's impact model



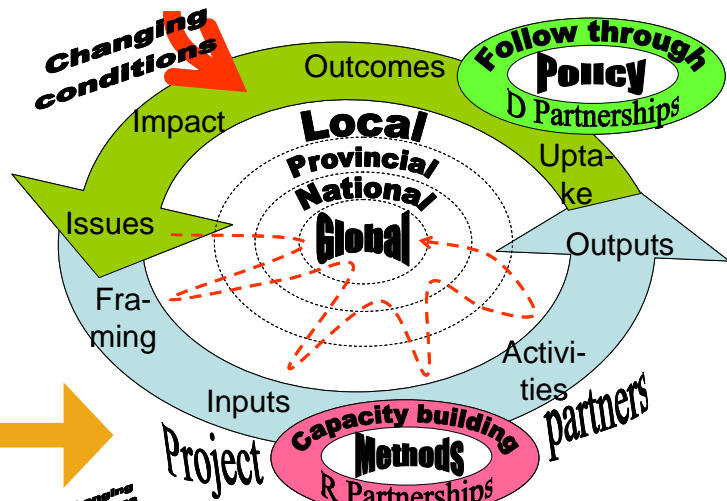
Conventional focus in Ag research



In stead of 'scaling up': Multi-scale learning

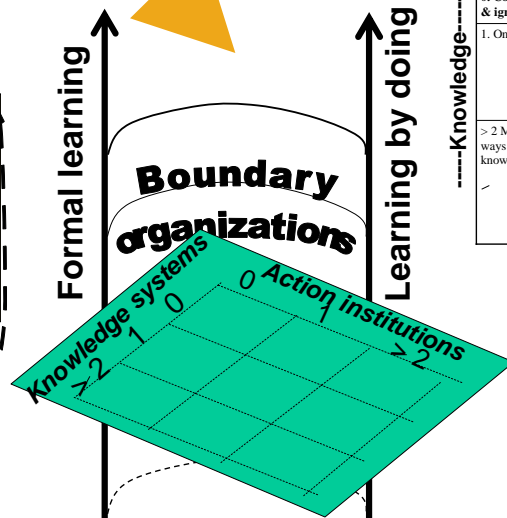


- Contrasting actual performance of the system with the objectives ('is there a problem?')
- Adjusting the expectations about 'utility' of interventions to the recent experience
- Modifying the way management decisions are made and fine tuning the implementation of activities
- Adding to the pool of options through 'innovation'
- Trying to get more control over the 'influences outside of managers control'
- Understanding the complex system for what it is and adjusting the objectives to what is 'realistic'



Linear log frame logic
=> Learning cycles and spirals

| | 0. None | 1. Decision | > 2 Collective action |
|------------------------------|---|--|---|
| 0. Conjecture & ignorance | Daily life of U&Me @ | A (ignorant decisions) | A ₁ ↔ A ₂ (corrupt politics) |
| 1. One truth | K (Science, Knowledge for own sake) | (K ↔ A) (Technology Transfer; Scientific policy advice such as IPCC; Decision Support Systems - DSS) | A ₁ ↔ A ₂ (Joint fact-finding) |
| > 2 Multiple ways of knowing | K ₁ ↔ K ₂ (interdisciplinarity, tacit + scientific knowledge) | K ₁ ↔ A (Integrated Assessments such as MEA) | K ₁ ↔ A ₁ ↔ A ₂ (Negotiation Support Systems - NSS, RUPES) |



RUPES boundary objects

- Scoping: K ↔ K**
 - Words (articulation of existing land use and effects on products and services, such as 'kebab landing')
 - Icons/Images
 - Maps of space and lateral flows
 - Representation of historical roots of the present situation
 - Explanatory models used by various stake-holders for local system dynamics
- Stakeholder identification: A ↔ A**
 - Stakeholder typology based on concerns and preferences
 - Maps of 'rights and resources'
 - Negotiation table ('neutral')
 - Workable bounds in the tradeoff between an 'all stakeholder' paradigm, leakage ('external impacts') concerns and transaction cost
- Negotiation: (K ↔ K) ↔ (A ↔ A), aiming for (unified K ↔ unified A) provision**
 - Tradeoff matrix as 'agreement to disagree' and baseline of current ES provision
 - Scenario analysis based on all major stakeholder concerns and plausible change
 - Assessments of additionality, leakage and permanence
 - Project Design Document (PDD) in the Clean Development Mechanism cycle
 - New use of existing legal opportunities for 'community based forest management'
 - Standards of service delivery respecting multiple 'ways of knowing'
 - Contracts: conditional service delivery agreements with realistic rewards and voluntary 'buy in'
- Implementation, Monitoring and Learning, unified K ↔ unified A (or reverting to (K ↔ K) ↔ (A ↔ A))**
 - Operational indicators for monitoring aligned with the main criteria for success
 - Certificates of compliance to agreed standards

RUPES boundary work

- Scoping: K ↔ K**
 - Participatory landscape analysis to appraise the logical relations perceived
 - Reconstruction of recent history of land use and its socio-ecological impacts
 - Local land use options and tradeoffs
 - Mapping of terrain and boundaries of jurisdiction and applicable rules
 - Rapid Hydrological/Agrholdiversity/ Carbon stock/ Tenure Claim appraisal
 - Develop local monitoring tools & skills
- Stakeholder identification: A ↔ A**
 - Trust/confidence building
 - Support key individuals with (potential) leadership roles in local organization
 - Presence at site level to be 'on call' for events initiated by stakeholders
 - Transparent handling of resources
 - Enhancement of negotiation and mediation skills
 - Nomination for environmental/social reward (recognition)
- Negotiation: (K ↔ K) ↔ (A ↔ A), aiming for (unified K ↔ unified A)**
 - Formalize plans in Project Design Document (PDD) for participation in C market
 - Negotiate contacts under Community Based Forest Management rules
 - Auctions of contracts for improving watershed services
 - Auctions of contracts for conserving agro/biodiversity
- Implementation, Monitoring and Learning, unified K ↔ unified A (or reverting to (K ↔ K) ↔ (A ↔ A))**
 - Monitoring protocols for the key environmental service of interest (I)
 - Monitoring protocols for land cover as proxy for environmental service provision (II)
 - Compliance monitoring tools at 'activity' levels (III)
 - Compliance monitoring tools at community scale 'resource use planning' level (IV)

RUPES as multi-scale boundary organization (B.O.)

