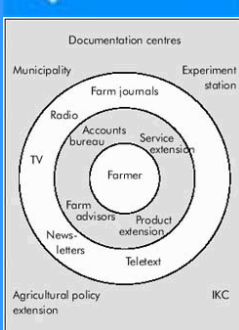
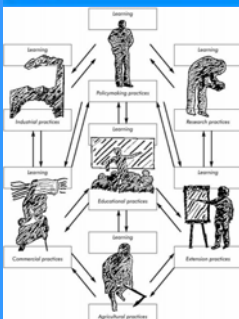




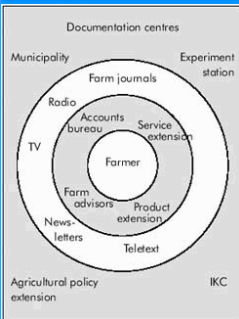
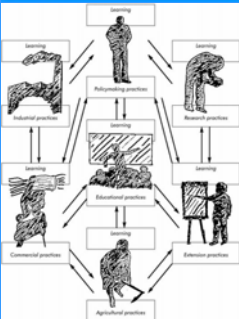
Instruments for inquiry and learning into the *complex dynamics* of knowledge systems



"When the centipede was asked in which order he moved his hundred legs, he became paralysed and starved to death because he had never thought of it before and had left his legs to look after themselves".

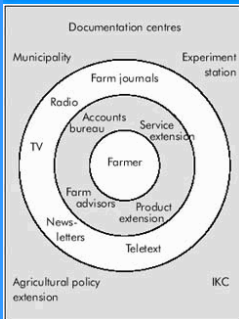
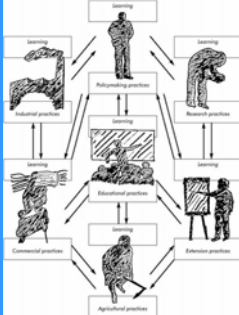
Koestler, 1968

Instruments for inquiry and learning



- ✓ Outlining a domain of inquiry...
- ✓ Soft systems thinking...
- ✓ Participatory action-research...
- ✓ Facilitating innovation for development

Outlining a domain of inquiry...



- ✓ Actors: Who are we talking about?
- ✓ Intentionality: What do they (intend to) do? Individually and/or jointly?
- ✓ “Technology”: How do they (intend to) do it?
- ✓ Beneficiaries/victims: Who are/will be most affected by it?
- ✓ Owners: Who can make or break the effort?

Source: free after Peter Checkland's “Root Definition” (1990).

Soft systems thinking

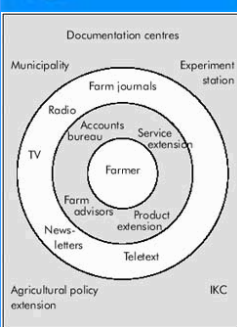
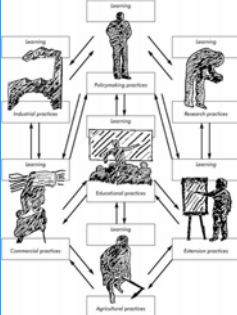


Hard systems thinking:

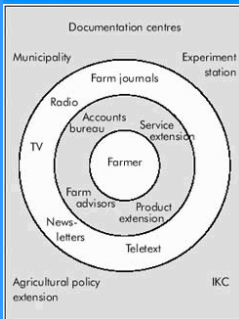
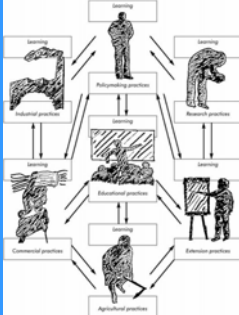
- ✓ The world (W) is systemic or can be taken as if...
- ✓ Systemic images are used to represent (part of) the world...
- ✓ Hard systems thinking aims at improving our knowledge by constructing better models...
- ✓ System images are concerned with processes, inputs and outputs...
- ✓ Processes are functionally articulated in a goal-seeking whole; goals are inherent to the whole...

Soft systems thinking:

- ✓ Sometimes it is useful to take the world as if ...
- ✓ System images are used to construct windows to study the world...
- ✓ Soft systems thinking aims to improve human performance through debate and reflection...
- ✓ System images concern social actors, their practices and relationships...
- ✓ Social actors may choose to act as a whole; if they want to and know how to do it; goals and boundaries are permanently (re-)negotiated...

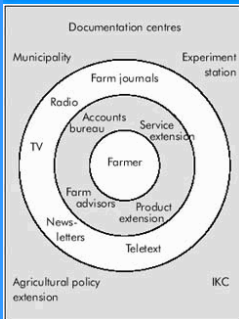
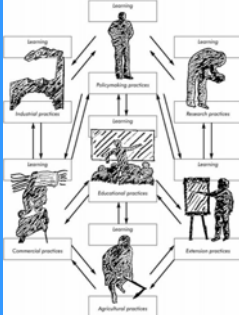


Different types of research for development...(1) conclusive



R&D type	Principal objectives	Characteristic methods	Verification	Environment
Experimental research	To verify hypotheses To manipulate independent variables	Experimental design Instruments Experimental statistics	Objective	Full control or compensation
Descriptive research Quantitative or qualitative	To search for correlation between variables To verify hypotheses	Qualitative research/ Surveys Analytical/ descriptive statistics	Objective Inter-subjective	Semi-controlled, or Compensated

Different types of research for development...(2) exploratory

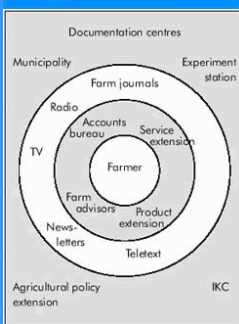
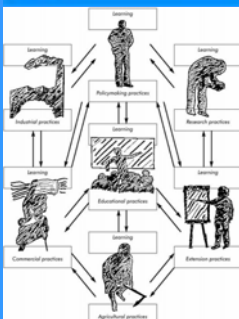


Type	Principal objectives	Characteristic methods	Verification	Environment
Exploratory research	To formulate hypotheses To articulate concepts	(Group) interviews (Participant) observation Focal groups	Inter-subjective	Non-controlled; Sometime partially compensated
Participatory action-research	To formulate hypotheses To design proposals for action To achieve commitment for action	(Group) interviews (open or semi-structured) Interactive workshops	Inter-subjective; Triangulation ; Emerging alliances	Interactive complex, mostly unknown social env



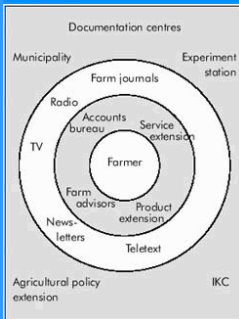
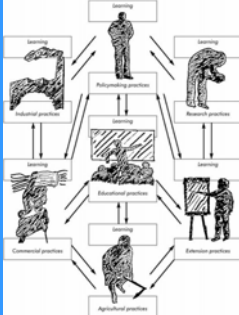
Quality in participatory action research...

- ✓ Stakeholders are involved as co-researchers...
- ✓ A context-specific field methodology has to be agreed upon in advance...
- ✓ Multiple analytical perspectives are to be used...
- ✓ Open-ended inquiry and debate characterize group work
- ✓ Inquiry builds upon diversity rather than representative-ness...
- ✓ Inquiry leads from appreciation to action...



Not anything goes...

Facilitating innovation for development



- ✓ To create opportunity and space for joint inquiry and learning among stakeholders
- ✓ To focus inquiry on the actors' social organization for innovation
- ✓ To identify and follow-up on ideas, propositions and opportunities...