Designing Research Around Client Needs and Anticipated Impacts

Research and Development Models

The Participatory Process

Combining Research and Client Needs

- Case Study: Backstopping a NGO
- Case Study: Water Hyacinth Utilization

Dissemination/diffusion model

Supply-side dissemination

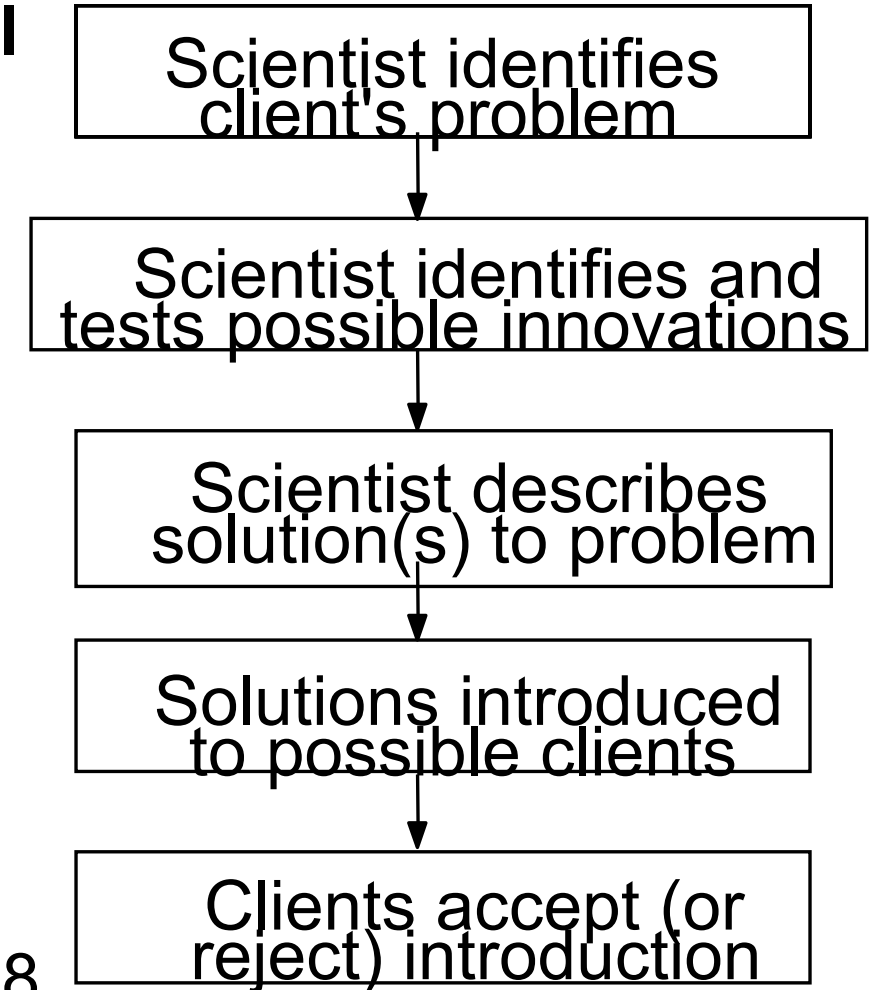
Top-down approach to problem solving

Successfully employed during "The Green Revolution"

Non-adoption is considered resistance from clients

Does not consider adoption by clients

after Lacy, 1998



Induced Innovation Model

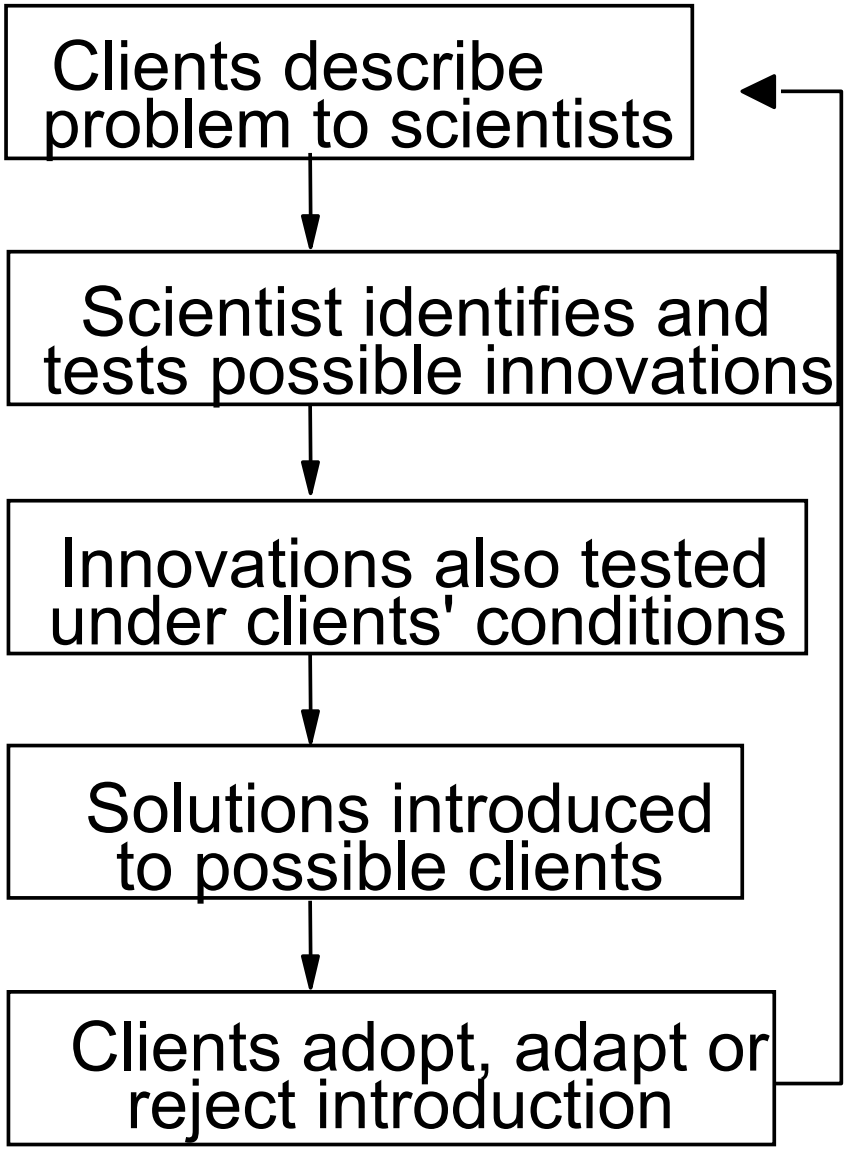
Demand-side problem identification (FSR&D)

Essentially remains a top-down approach to problem solving

Clients are expected to learn from scientists

Non-adoption and adoption offer information to scientists

"Begins and ends" with clients



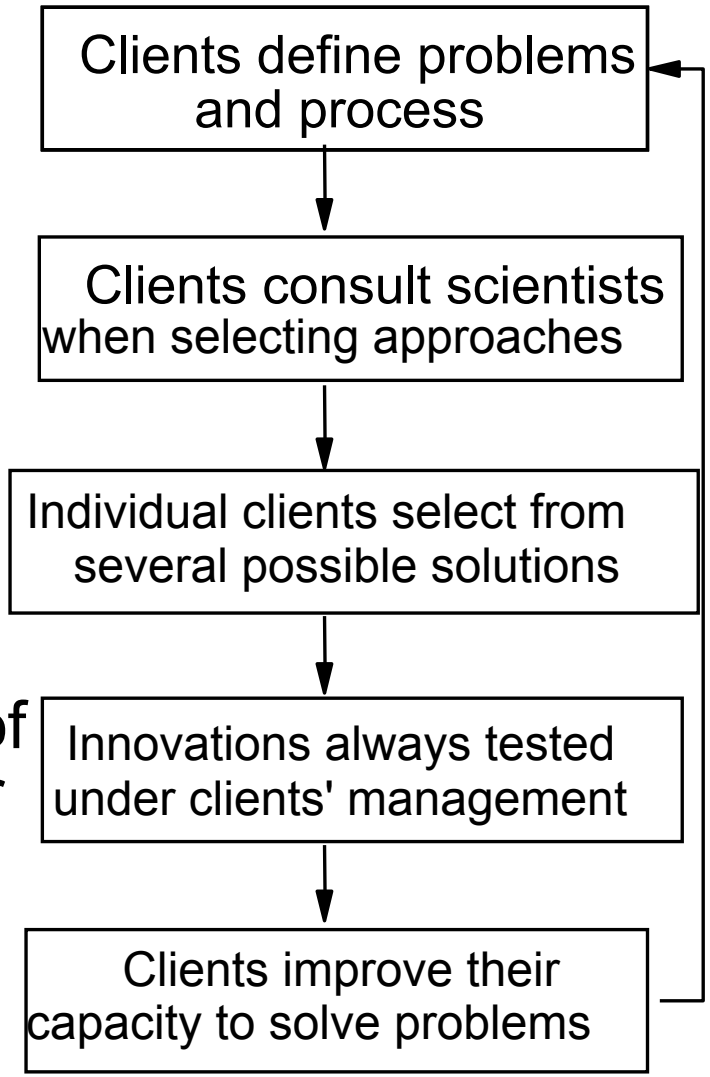
Participatory Model

Clients define problems and possible solutions through consultation with scientists

Indigenous technical knowledge strongly features within the research process

Based upon empowerment of clients and allows for greater site-specificity

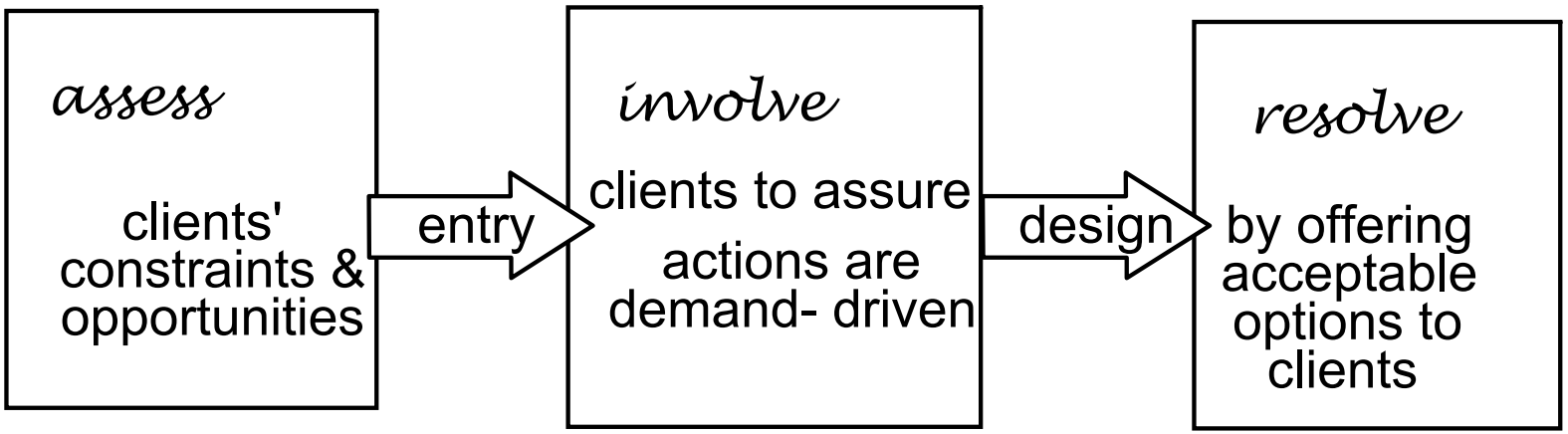
Clients evaluate impacts, scientists learn from clients



Leadership within the phases of three different Research and Development models

	Diffusion	Innovation	Participatory
Problem ID	Researcher	Both	Client
Treatment ID	Researcher	Researcher	Client
Process	Researcher	Both	Client
Evaluation	Researcher	Researcher	Client
Purpose	Publish	Validate	Empower

A participatory approach to solving resource management problems



Agents: design survey and compile findings

Clients: summarize experience and provide information

Agents: identify options and offer support

Clients: select and field test interventions

Agents: evaluate impacts and processes

Clients: adopt, adapt or reject intervention

Objective: assess farmers' constraints and opportunities through formal and informal survey approaches

Common shortcomings include:

- Non-hypothetical basis, poorly defined objectives, non-holistic approach
- No follow-up, viewed as an ends-in-itself
- Ends-justifies-means, approach leads to overly-prescriptive diagnosis
- Non-quantitative stratification and sampling

A few guidelines

- Avoid "marathon" interviews, every query should either serve to stratify the sample or provide testable evidence for claims
- Collect physical samples for later quantitative analysis, do not rely entirely upon clients' frequency of response
- Trust your instincts, insight is more valuable than hindsight, survey design and interviews should be dynamic and iterative

Objective: involve clients in assess ⇨ involve ⇨ resolve ***planning on-farm research to ensure that subsequent actions are demand-driven***

- Clients must be provided options concerning the treatments evaluated within their own enterprises and encouraged to improvise in "satellite plots"
- Clients' impressions of management requirements must be considered as important experimental results
- Researchers must be prepared to compensate clients for losses incurred through collaboration
- Information on the costs and returns to management actions must be provided to cooperating clients

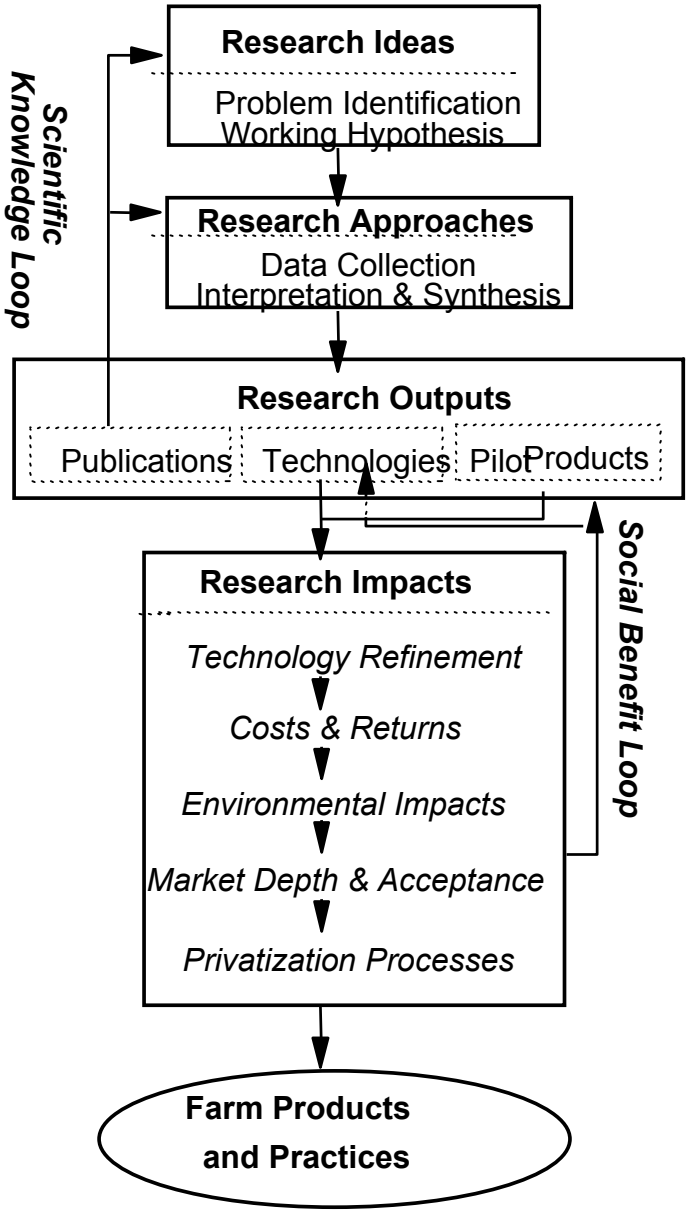
Participatory Perspective: Off-station vs On-farm

feature	off-station	on-farm
purpose	explore, define	validate, introduce
treatments	many, by researcher	few, by farmer
replicates	3 – 5 at each site	1 w/ farm as replicate
measurement	controls on yield	costs and returns
analysis	combined ANOVA	stratified RCB
impacts	strategic, ID options	empower farmers
outputs	publication	refine package

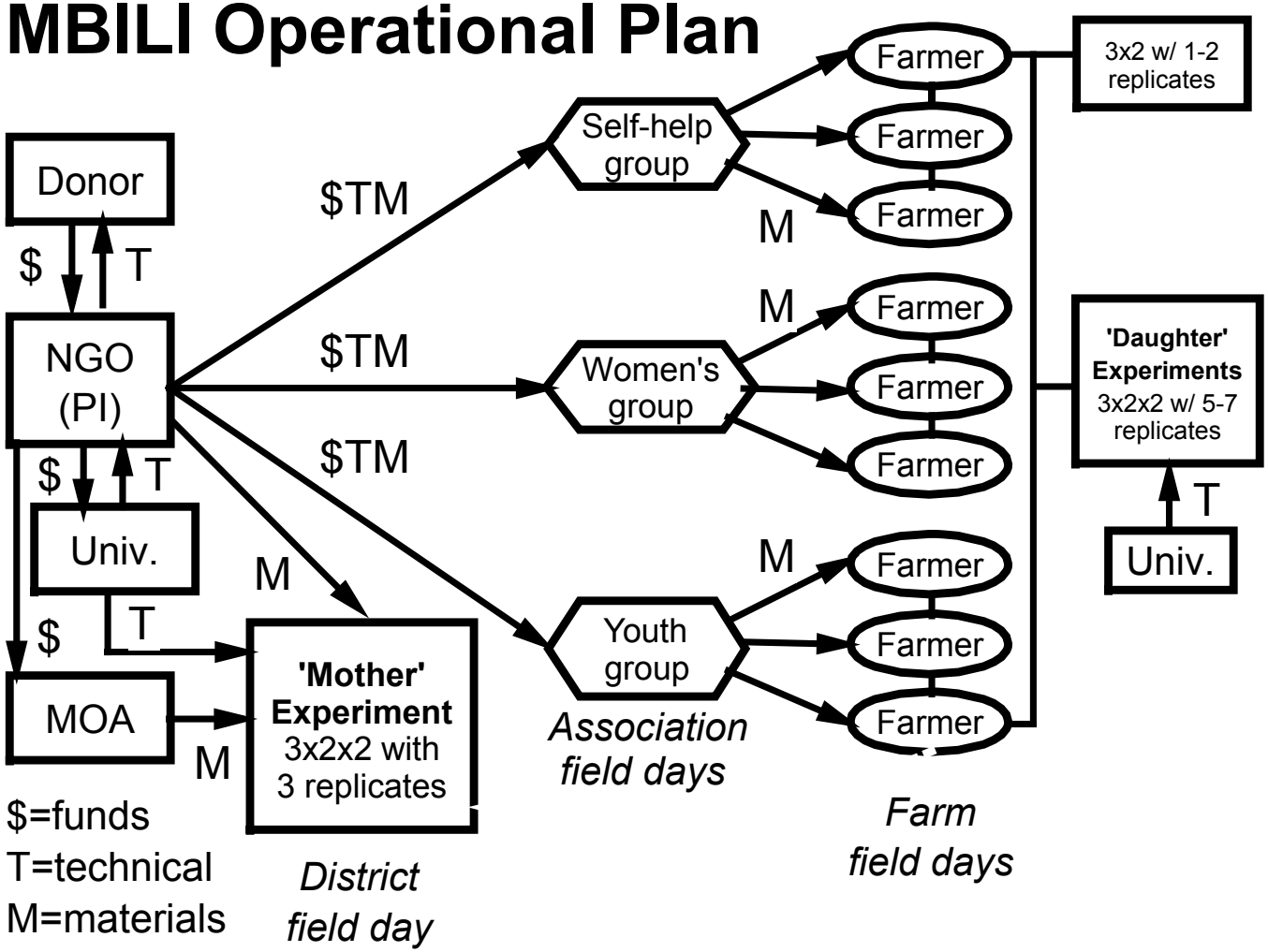
Resolution of farmers' problems requires more than publication as a research output.

Other important research outputs are pioneering technologies and pilot products.

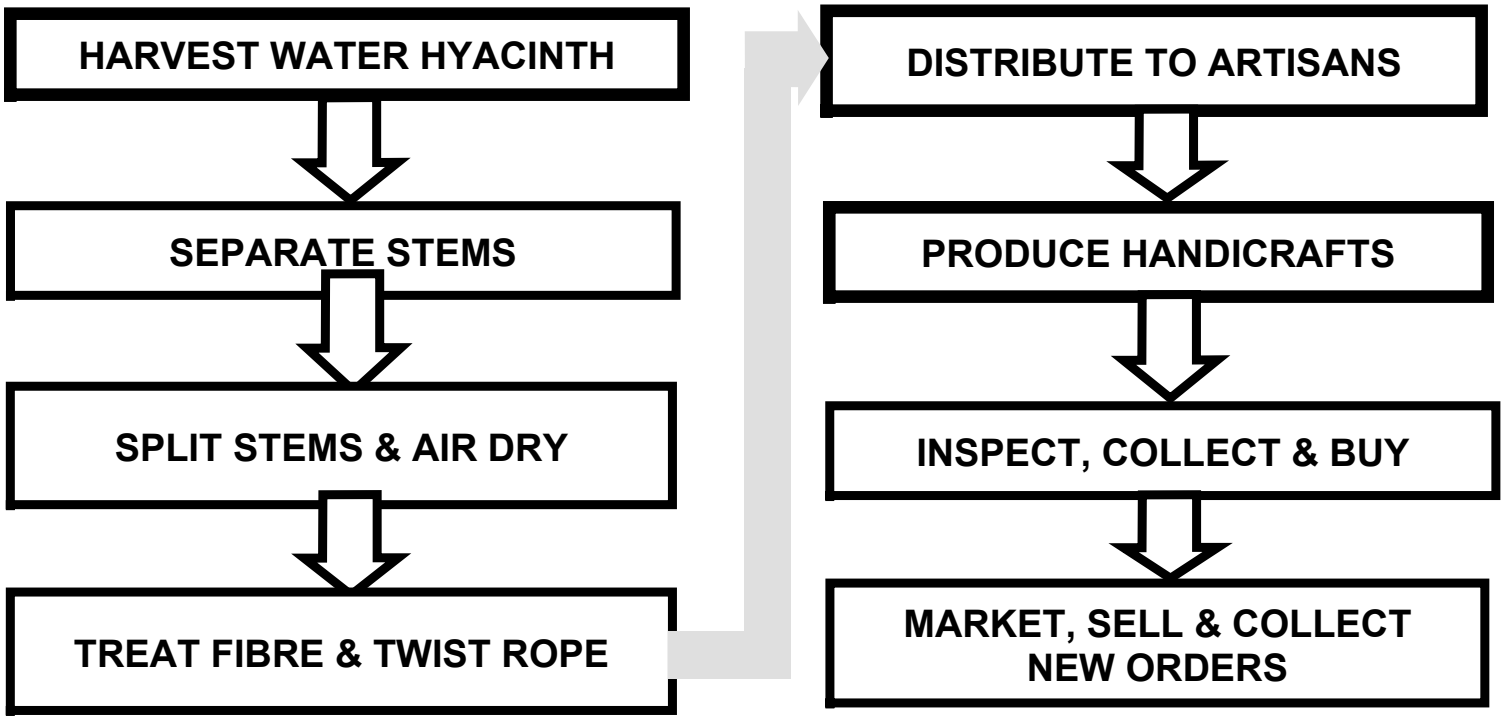
Researching the impacts of promising technologies results in social benefits and may lead to improved farmer practices and products.



MBILI Operational Plan

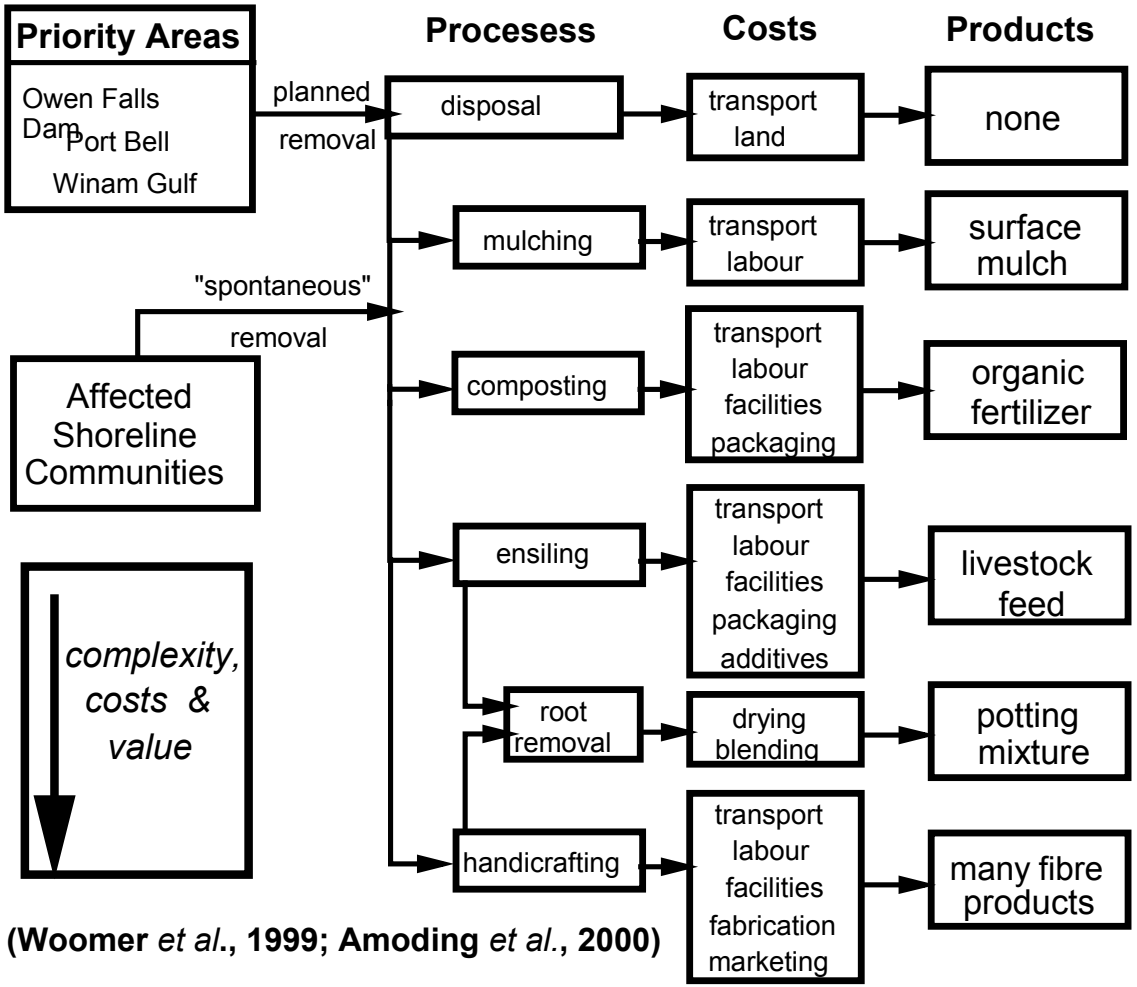


Processing water hyacinth into handicrafts

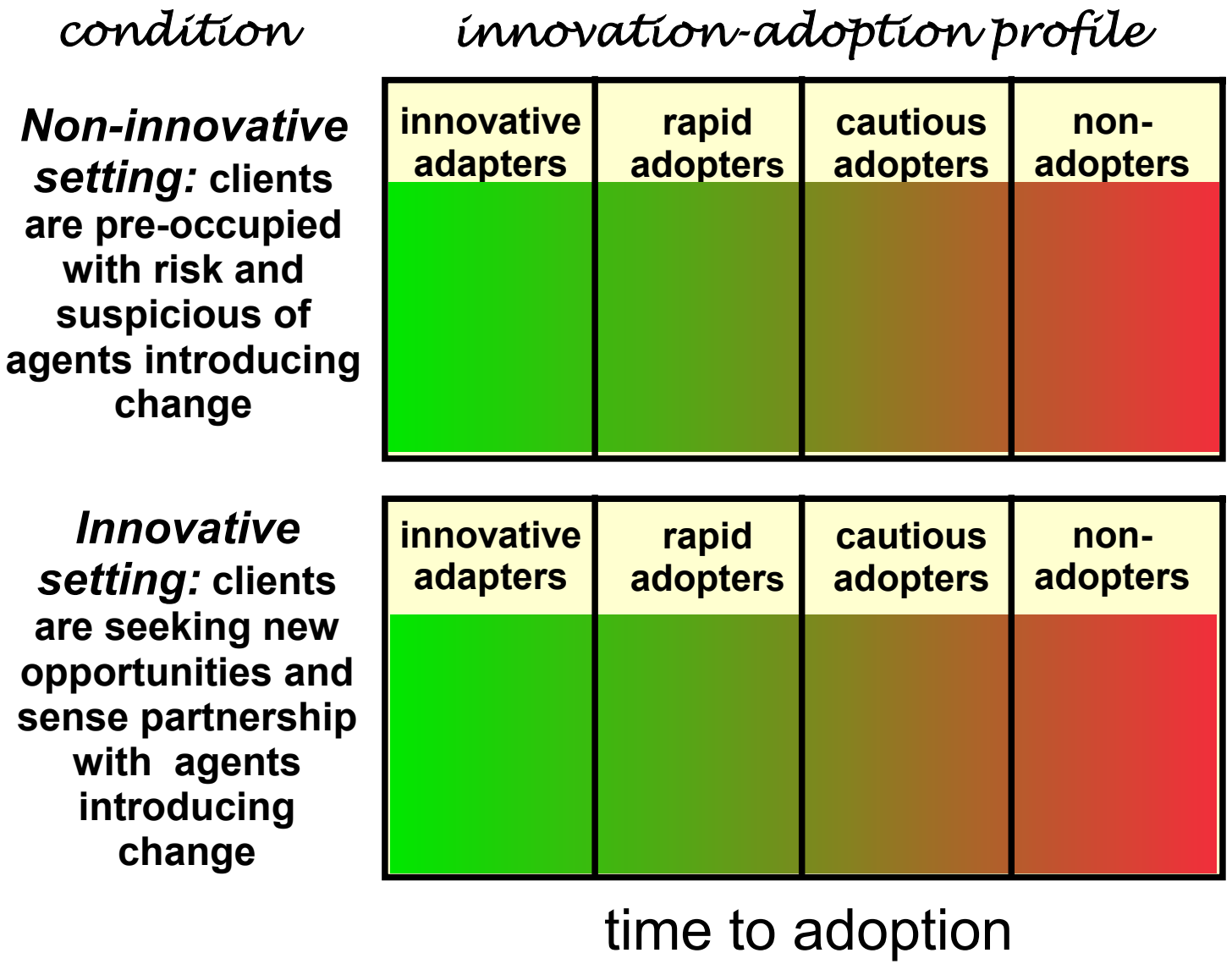


A more intensive use of water hyacinth wastes resulted in higher value products allowing for greater returns to stakeholders

Operational Strategy: Integrated Water Hyacinth Control and Utilization



(Woomer *et al.*, 1999; Amoding *et al.*, 2000)


condition
innovation-adoption profile
Non-innovative setting: clients are pre-occupied with risk and suspicious of agents introducing change
innovative adapters
rapid adopters
cautious adopters
non-adopters
Innovative setting: clients are seeking new opportunities and sense partnership with agents introducing change
innovative adapters
rapid adopters
cautious adopters
non-adopters
time to adoption

Conclusons

Moving Target: African society is in transition for the better (economic diversification) and the worse (environmental degradation) and this movement must be anticipated in researchers' project and experimental planning.

Nesting: Effective research actions should reside within larger operational strategies directed toward problem resolution that span many single experiments or individual projects

Multiple benefits:

Developmental research must not solely target publication as an output but also be directed toward the generation of pioneering technologies and pilot products and the empowerment of clients