Tentative toeholds to scaling bureaucratic obstacles: a socio-technical analysis of the contestations constraining the institutionalisation of PCI in India

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Contested Agronomy 2016
Participatory Crop Improvement (PCI) Context

- Participatory Research & Gender Analysis (PRGA) programme has ended (1997-2011)
- The two key PCI evidence generating research groups are no more (Witcombe & Ceccarelli)
- Witcombe & Yadavendra (2014) – how much more evidence is needed?
- McGuire (2008) – path dependency in plant breeding and opening the institutional black box
Strategic Niche Management (SNM)

Multi-level Perspective (MLP):

Landscape (exogenous context)

Socio-Technical Regime – dynamically stable processes

Technological niches

Niche establishment, sustainability, and growth

Global niche-level (e.g., the emerging field of PV solar cells)

Global and local niches

... is carried by projects in different local practices

Increasing structuration of activities in local practices

Socio-technical landscape (exogenous context)

Socio-technical regime

Niche innovations

External influences on niches (via expectations and networks)

Market, user preferences

Policy

Cultures

Landscape developments put pressure on existing regime, which opens up opportunities for new niches.

New regime influences landscape

Socio-technical regime is ‘dynamically stable’

New configuration breaks through, taking advantage of ‘windows of opportunity’.

Elements become aligned and stabilise in a dominant design. Internal momentum increases.

Small networks of actors support novelities on the basis of expectations and visions. Learning processes take place on multiple dimensions (co-construction). Efforts to link different elements in a seamless web.

Technology A → Technological niche X → Market niche Y → Market niche Z

Regime

Technical niches

Market niches

Regime shift
SNM Applied to PCI & ‘Efficient PPB’

Knowledge Management

Policy & Regulations

User relations & accountability

Core narratives

Scientific praxis

Organisational structure

Source: Morris & Bellon, 2004
General Timeline of PCI Niche-Associated Programmes

- RNRRS Revised Strategy
- Plant Science Research Programme (PSP)
- WIRFP Phase I
- EIRFP
- WIRFP Phase II
- RIU Programme
- MPRLP Phase I
- MPRLP Phase II
- MPDPIP
- DPIP Phase II

PCI Niche Project(s)

- Multiple partners and goals (*cf.* David Mosse)
- Time bound
- Donor accountability issues – cultivating success
- Multiple SAU partners
  - Dilution of activities
  - Constrained by institutional structure
PCI: Working with the State

ICAR

SAU(s)

PCI Project

Consultant

NGO staff

Senior breeder

Post-grad

Farmers

Memorandum of Understanding (MoU)
A simplified view of plant breeding in the Indian NARS

Testing and Legitimising Process

Feedback
Demand Feedback Channels

1) Zonal Research Extension Advisory Committee (ZREAC) meetings

2) Krishi Vigyan Kendra (KVK) system

3) Breeders’ seed indents

4) Agriculture Technology Management Agency (ATMA) Programme → creation of district level Strategic Research Extension Plans (SREPs)
Key points

• Contestation of PCI arises within the NARS from:
  • Dominant productionist and modernist narratives re: breeding agendas imposed
  • Principle of client-orientation is easily co-opted in Indian NARS
  • Poor accountability mechanisms to end-users
  • Path dependence and economies of scale in physical infrastructure

• Limitations to project approach to PCI:
  • Time-bound
  • Agricultural research as part of development projects is not favoured by donors
  • Integration and sustainability of outputs needs seed system integration
  • Evidence-based informed policy alone is naïve idealism

• Possibility for weak (altering culture / ad hoc) and strong institutionalisation of PCI given current NARS structure

• Need for intermediaries / knowledge brokers to understand and support institutional engagement