

## Women in transdisciplinary research: interacting with citizen's science & innovation

**Ann Waters-Bayer**

*PROLINNOVA International Secretariat  
c/o Royal Tropical Institute (KIT), Netherlands*

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## Citizen's science

- Practised and owned by citizens
- Process of experimentation, knowledge creation and innovation in the real world
  - with or without formal scientists



Farmer in Tigray with her fuel-saving cooking dish  
(Photo: Ann Waters-Bayer)

Farmer in Tigray comparing her locally developed "modern" beehive with introduced one (Photo: Tesfahun Fenta)

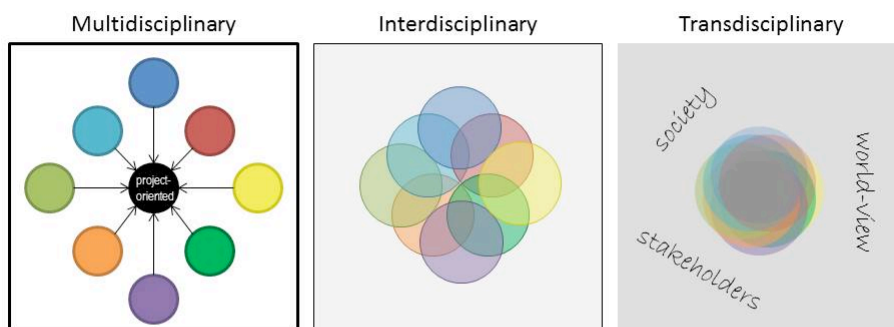


## Transdisciplinary research – “Mode 2”

- Knowledge production that involves numerous different social actors
- Context-driven: produced in process of interaction and application in real situations
- Subject to multiple accountabilities
- Transcends barriers between conventional and citizen’s science

Source: Helga Nowotny (2001)

## Multi- → Inter- → Transdisciplinary



- **Integration:** Separated → Integrated → “Become One”
- **Perspective:** ≥ 2 disciplinary → include stakeholders+
- **Team’s Goals:** Project → Learning, New Ideas → Problem Oriented
- **Leadership:** Varied Leadership → Rotating Leadership?

Source: NanoHub

## Making the flip

- **Students & teachers identify local innovation and engage in farmer-led participatory research**
- **Provide Local Innovation Support Funds (LISFs): local citizens decide how funds are used and how outsiders are drawn in to support farmer-led experimentation and innovation**



## Foci for institutions of higher education

- 1) **Create learning opportunities for students to gain the attitudes and skills needed for gender-responsive transdisciplinary research:**
  - ability to facilitate communication
  - openness
  - sensitivity
  - creativity and flexibility
  - courage
  - commitment
- 2) **Encourage especially women in social & technical disciplines to gain these attitudes and skills and to engage in such research**

## Some key activities to pursue

- ① Give priority to students wanting to engage in transdisciplinary research – especially female students
- ② Create spaces for female citizen scientists to present and discuss their work with students
- ③ Facilitate networks among people engaged in gender-responsive transdisciplinary research
- ④ Provide Local Innovation Support Funds for women innovators and become their research partners



Innovative beekeeper in Tigray  
(Photo: Ann Waters-Bayer)

**Overall objective of combining conventional and male and female citizen's science:  
to enhance system capacity to innovate**

Thank you, Mekelle University !

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