The challenge of organic seed systems, a farmers view

Widely or specifically adapted genotypes? (Ceccarelli, 1994; Ceccarelli et al., 1992)

Modern varieties bred by conventional plant breeding

Uniform the environments

Organic agriculture

Different environments

Locally Adapted Varieties

Because of the great diversity among organic farms, a small number of varieties that are universally adapted may not be a realistic goal. (Grube, 2007)

Organic

Mountains, hills

Quality of the produce

Local market

Cultural values

Water

Fertilizers

Pesticides

Modern varieties

Local, old varieties

Not only yield! Overall convenience of growing the variety

Organic farmers

Conventional farmers

Who are organic farmers??

The problem of today regulation:

Organic farmers have less choice and possibilities than conventional ones

Is market the only solution?

A new approach is needed

market

exchange

cultivation

on-farm research

seed systems

sustainable use of PGRFA

Seed Systems

informal

formal

breeding

seed selection

production

multiplication

marketing

diffusion

genetic resources

breeding research
Why informal seed systems?

Informal seed systems are particularly important in the case (i) farmers prefer varieties with specific adaptation to local conditions or tasting/cooking quality that cannot be obtained from the formal sector; (ii) formal seed systems are inefficient or expensive; (iii) an acceptable seed quality could be easily produced (Louwaars, 2007); (iv) it is difficult to having access to improved seed (Lipper et al., 2010).

The keywords of the new seed systems
- decentralized
- Farmer-oriented
- A new role for farmer in breeding and innovation
- Participatory plant breeding
- Sustainable use of PGRFA

Questions to be addressed

- How to finance PPB in a trend of decreasing of public investment in agricultural research?
- How to promote an informal organic seed system with good quality, without opening the room to unfair competition amongst seed industries?
- How to deal with VCU systems for varieties for alternative farming systems? (voluntary??)

How to guarantee quality?

Certification  Registration  Marketing  Quality of seeds  How to guarantee quality?

Financing research and innovation
- IPRs
- Registration
- Royalties
- How to finance PPB or evolutionary plant breeding?

Thanks for your attention!