

Improving agroecological productivity



- The problem- agroecological yields are low- by almost half of conventional yields in arable production
 - Global population set to rise to 9.6 billion- increasing amount of food is important but systems are even more important. There is enough food globally to feed 10 billion now but still problems with hunger- 815 million hungry.
- Minimal R&D has been spent on improving agroecological yields through ecological intensification
- Resilience also important and should be balanced against yield gains.
- Productivity can be improved by increasing total yield, but also looking at overall farm system efficiency- layering outputs, reducing inputs and recycling waste.

Key areas R&D is needed

- Whole farm systems approaches
- Animal feed systems to reduce grain- safely feeding waste to pigs and chickens, pasture fed dairy
- Improving organic arable yields
- Blight resistant potatoes
- Agroforestry/Silvoculture
- Soil improvement systems particularly improving on farm nutrient cycling
- Legume rotations and intercropping
- Mixed farming systems
- Reducing nitrous oxide release- looking at tillage systems
- Carbon sequestration
- Integrated Pest Management



Supply chain innovations important



- Direct sales models combined with lowering input costs and waste recycling can improve farm viability
- Fair supply chains improve farm productivity
- Improved sales models can also integrate the community-improving public health



Knowledge transfer

- Guidance booklets and advisory linked to payments
- Demonstration farms
- Farmer to farmer networks
- Public money for research and development of systems approaches- can be co- developed with farmers to we all learn as we go
- A flexible new small farm productivity scheme
- Events such as Farm Hacks, Alternatives in dairy working groups, and the ORFC!

