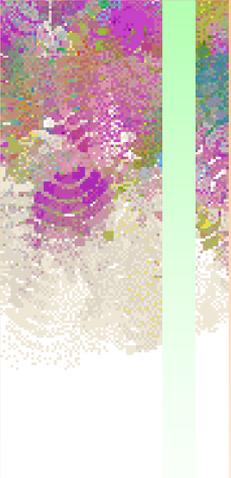




An Assets-Based Approach to Sustainable Use of Land and Water



**Contribution to “*Presentation on Sustainable
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www.fao.org/ag/agl/swlwpnr/reports/u_g/doc/abappfao.ppt

Five Assets of Rural Systems (livelihoods, communities, economies)

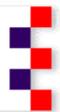
Natural Capital:
nature's goods and services
(waste assimilation, pollination, storm
protection, water supply, leisure, wildlife)

Social Capital:
cohesiveness of people
and societies -
trust, reciprocity,
rules and norms,
networks and institutions

Human Capital:
the status of individuals -
health, skills, knowledge

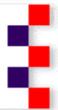
Physical Capital:
infrastructure

Financial Capital:
money, savings



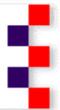
Three agricultural options

- **expand the area of agriculture, by converting new lands to agriculture, but losing forests, grasslands and other areas of important biodiversity**
- **increase per hectare production in agricultural exporting countries, mostly industrialised, so that food can be transferred or sold to those who need it**
- **increase total farm productivity in developing countries which are going most to need the food**
 - **by purchasing inputs/technologies?**
 - **by using locally-available assets and resources?**



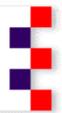
Best options for the poorest?

- Which work best for the poorest
 - great success in past... but still 790 million people food poor
- Key questions:
 - to what extent can farmers improve food production with low-cost and locally-available technologies and inputs?
 - What impacts do these methods have on environmental goods and services, and the livelihoods of people relying on them?



Natural Capital

- food, wood and fibre;
 - water regulation and supply;
 - waste assimilation and treatment; nutrient cycling and fixation;
 - soil formation;
 - biological control of pests;
 - climate regulation and carbon sequestration;
 - wildlife habitats;
 - storm protection and flood control;
 - pollination;
 - recreation and leisure
-
- Value of world's natural capital - \$33 trillion (equivalent to twice the size of the world's formal economy)



Social Capital

- Fundamental basis for sustainable development
 - lowers the costs of working together
 - facilitates co-operation between people
- Relations of trust that lubricate co-operation
- Common rules, norms and sanctions for behaviour
- Reciprocity and exchanges
- Connectedness and social institutions

Assets - inputs and outputs

- Agriculture transforms:
 - natural capital (functional biodiversity, soil health)
 - social capital (connectedness, cooperation, trust)
 - human capital (knowledge, skills)
 - together with physical and financial capital
- But it also indirectly affects all three renewable assets
 - some forms of agriculture increase the asset base
 - other forms decrease assets, and leave less for future generations

Summary of recent progress

- Technologies and social processes for local level sustainable agriculture are well-established
- Social and institutional conditions for spread are less well-known, but have been established in several contexts;
- Political conditions for the emergence of supportive policies are least well established, with only a very few examples of real progress

Policies out of step?

- Much evidence of transformed thinking
 - everyone in favour of “sustainability”
 - some willing to change words alone
 - some willing to change practices
- Most policy structures still encouraging ‘old’ modernist agriculture
 - Need to go beyond ‘*greening the edge*’ to ‘*greening the middle*’ of farming
- Supportive policies
 - Core challenge for next decade

What is a good policy for sustainable land and water?

- Integrated across sectors
- Promotes multifunctionality
 - enhances positive externalities and reduces negative externalities
- Knowledge-based and nature-based
 - builds renewable assets
- Participatory
 - links up different stakeholders
 - bottom-up
- Mixture of instruments
 - economic, advisory, regulatory

Marcus Cato (200 BC)

author of *Di Agri Cultura*

“And when our ancestors would praise a worthy person, their praise took this form: good husbandman, good farmer (*bonum agricolam bonumque colonum*); one so praised was thought to have received the greatest commendation”