

Workshop synthesis and summary of discussions

The following are the main summary points which came out of the ATNESA/SANAT Workshop as derived from the participatory group discussions which followed the plenary sessions. For ease of reference they have been summarized according to appropriate topics.

Implements and tillage issues

- Do we need a lighter plough ?
- How can we promote improvements in the quality of locally-produced implements?
- However, we must also remember the role of tractors, positive as well as negative, and whether or not they can be improved for the small-scale farmer. If so, how ? Complementarity should not be ignored either.
- Appropriateness and proper setting of implements can impact on their effectiveness; should we think of improving rather than re-designing.
- Need to look at imports, especially those of poor quality and their impact on local users and manufacturers.
- The sourcing and appropriateness of materials may need to be reconsidered.
- Harnessing is still a problem for most users.
- What effects will the 'recycling' policy in Europe have in the supply of spares & tyres in Africa?
- Should we be reinventing the wheel - or strengthening the support services? Bicycles and trucks can be maintained in villages; why not carts?

Environment issues

- Do donkeys really make a significant contribution to habitat destruction? How do they compare with cattle (apart from living longer)?
- Need to be clear about Contil: when to use herbicides, when to use cover crops.
- In conservation tillage/water management the most exciting water harvesting techniques seem to be runoff capture to get over dry spells in the rainy season especially when they occur at times of crucial development of the plants.
- In reduced tillage impact can be through reducing the number of times an operation is done, rather than changing the practice altogether (e.g. land preparation for tef in Ethiopia).
- New multipurpose plants, such as 'bana' grass used to improve soils, also make good silage.
- If farmers see soil fertility as a problem, do they use manure and crop residues? If crop residues are part of animal nutrition, this could be a problem.

Economic issues

- How can we get bankers and farmers together?
- Where subsidies are concerned, elimination would not be a good idea at present. Since most farmers and entrepreneurs have limited resources, they benefit from a 'kick start' subsidy with clear entry and exit points. But these subsidies should be considered location specific.
- There is need to examine & identify when credit can promote DAP and its effectiveness in different situations.
- Should we leave manufacturers to do everything: manufacture, promote etc., (which they may not afford) or should extension services come in so that manufacturers can concentrate on making good quality equipment?
- Price is a problem with manufacture: what people can afford to buy can be different from what they want. Can we bridge the price gap?
- Manufacturers are receptive to innovative ideas. We could consider how a link between researchers and manufacturers can be promoted, to the benefit of both as well as users.
- In South Africa the potential for animal-powered forestry enterprises and logging by small-scale contractors needs to be exposed and developed.
- We must not assume that hand-weeding is unproductive.

Welfare and nutrition issues

- Timing of work with respect to eating is important, especially for donkeys for which, day-before or month-before nutrition is not enough; they must eat directly before working.
- The storage of high-quality forage is still a problem; utilization of silage helps. Millet straw treated with urea is one known strategy for cattle.
- Types and breeds of cows for multipurpose use in various situations need to be understood to minimize negative effects of work on milk production and calving intervals.
- Need to understand impact of diseases on the different draught species in an area. Some areas (e.g. humid ones) may enable cattle to survive better than donkeys, and the opposite for others, depending on disease profile. Stressed animals always fare worse.
- Use of cows so that reproduction demands do not compete with demand for work is different when breeding is not controlled as on communal lands. So management practices must make sure that peak time of work and reproductive demands do not clash.

- Feeding the multipurpose animal requires supplementation.
- The type of basal feed available will determine when it is fed in relation to work and rest periods. This means different messages for different areas should be produced, depending on whether animals are on grazing or cut-and-carry systems.
- Could understand work/disease interactions more fully, and widen the scope to other diseases than trypanosomosis.

Image, participation and transfer of technology

- Must not generalize, but consider individual situations when looking at interventions and innovations.
- Message must be appropriate to audience and situation.
- Must not ignore politicians or farmers, but need to consider how to improve image of DAP and confront myths.
- Sitting arrangements are important, and the involvement of local leadership structures.
- Gender issues are changing. Is there an economic incentive to overcome/ignore taboos/myths if only temporarily ?
- The role of elders as guardians of traditional DAP knowledge could be important.
- How can we access indigenous technology and knowledge (ITK) ? Having done this, what do we do next ? Cataloguing methods are only the start.
- Generalizing in gender issues can be dangerous: tasks can be interchanged when the need arises and in future a blurring of the edges is likely to occur as women and men share activities (not necessarily doing them together).
- Holistic training is the way ahead. Train the men not to let the donkeys stray; train the neighbour not to kill or damage the donkey when it strays, but chase it back to the owner.
- Different media are appropriate to different countries and situations. Rural farmers are often accessed through their children, and thus through schools.
- The printed word is the more permanent form of promotion, so can have wider and longer lasting effect, than TV or radio, for example.
- Training is important in empowering farmers through animal traction.