10. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

10.1. CONCLUSIONS

✓ The transfer processes in for example, demonstration projects, are usually teaching-centred. The TLPs propose transfer processes that are learning and knowledge centred.

✓ Legitimacy and autonomy are important concepts to strengthen human capacities. Autonomy increases when every person has the right to participate in a process and his/her opinion is respected and taken into account in the final decisions.

✓ Flexibility is an essential factor in any transfer process. Professor Perez, a CINARA adviser, says 'death is rigid, life is flexible'. Any procedure or regulation can be changed if a consensus exists that it needs to be changed.

✓ The TLPs influence each person as social human being and highlight the institutional missions and functions because, as Sabatini (1997) states, only people with identity can really participate in the solution of collective problems. A clear concept of identity leads to self-confidence and the recognition of roles that each person plays in society. A clear idea of identity also facilitates co-ordination between different disciplines and institutions in their work with the community.

✓ Real participation can only be based on horizontal relationships and relies on the participants having comparable knowledge as a basis for discussing the problems and solutions. In reality, there is no single truth because each person and group of people have valid arguments, which have to be analysed and discussed in order to reach a consensus that allow successful projects.

> *The engineer Ana Elvia Aristizabal of EMCALI noted: 'one of the project's purposes was to establish a methodology for working with the rural communities. We really learnt a lot and we can apply this methodology in our projects. In fact, we are now applying it.'*

Nelly Guapacha, a community leader in El Hormiguero said: 'We learnt to open the doors that were closed to us, we learnt to look towards the institutions for help, to work with them.'

✓ Children deserve special attention in WSS projects and can participate actively in some stages such as planning and design.

✓ Technological options have been traditionally selected on the basis of their initial cost, and sometimes, their O&M cost. Replacement cost is not usually included. However, in order for a project to be sustainable, the technology chosen must satisfy the needs of both the community and the environment. Once suitable technologies are identified, comparisons of the costs involved can help in the final choice of which to use (Duque, 1994).

✓ Information about WSS services should be used to make decisions at the local level. This is possible if an information system (IS) is organised to monitor the main indicators of service quality. Information produced at local level provides valuable feedback for programmes run by regional and national institutions.

✓ Many of the goals to be achieved can be defined by the users' administrative organisation based on existing guidelines and local patterns. Community-based committees can supervise service quality through the IS proposed. The IS is also a very useful tool for the administrative organisation because it helps managers to decide how to correct problems in the WSS systems before their sustainability is threatened.

✓ The institutional project cycle must be carefully analysed in order to adapt the proposed project cycle without the need to force abrupt changes. Such changes can result in violent reactions against the new concepts proposed. Changes have to be introduced gradually.

✓ The WSS situation will not change unless the institutional project cycle incorporates the principles of sustainability, participation, and learning.

10.2. FURTHER RESEARCH

Several subjects in the field of technology transfer need further research. These include:

Learning and understanding

- Co-operative learning in community development,

- Sense of ownership in WSS projects,

- Children's participation in WSS projects, and

- Institutionalisation of the findings of TLPs.

Technical aspects of WSS

- WSS in intermittent systems, and

- Community monitoring of on-site WSS systems.

Management aspects of WSS

- Community organisation for supporting on-site WSS systems,

- Control of the quality of WSS services by a community based-organisation,

- Control of the quality of WSS services by a local governmental organisation,

- WSS management in settlements with seasonal economic activities and management in settlements that do not manage cash,

- Legal frameworks in WSS management established by community-based organisations,

- Organisation schemes that fit in with the traditional methods of organisation in the community as the established national legal frameworks, and

- Community law vs. public and private law.

  <u>Sustainability in development projects</u>

- Sustainability indicators for WSS services, and

- Sustainability evaluations.