Is he the farmer or the Farmer's Husband? Gender in Agricultural Research and Extension in Zimbabwe

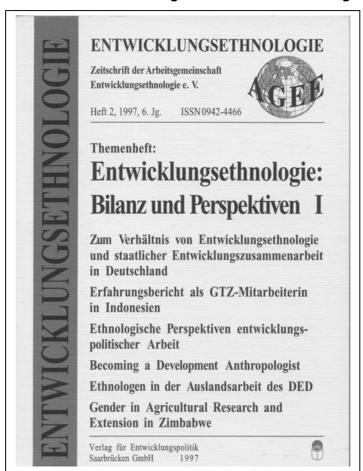
Ist er der Farmer oder der Mann des Farmers?

Gender-bezogene Perspektiven in der landwirtschaftlichen
Forschung und Vermittlung in Simbabwe

by

Jürgen Hagmann, Edward Chuma and Oliver Gundani

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Is He the Farmer or the Farmer's Husband? Gender in Agricultural Research and Extension in Zimbabwe

Ist er der Farmer oder der Mann des Farmers? Gender-bezogene Perspektiven in der landwirtschaftlichen Forschung und Vermittlung in Simbabwe

Jürgen Hagmann, Edward Chuma and Oliver Gundani

Abstract

The article reviews the learning process of the AGRITEX/GTZ project 'Conservation Tillage for Sustainable Crop Production Systems' in Masvingo/Zimbabwe with regard to gender issues in research/technology development and extension. The result of the learning process was an alternative approach for innovation development and extension, where the gender perspective is an integral element.

Intensive interaction with rural families has shown that decision making pattern and criteria in the families are highly complex and dynamic and that women have a much stronger influence on decisions behind the scene than assumed. This, and weak communication structures within the families necessitated new approaches, methods and tools in communication and learning in extension and innovation development. The main focus in the methodology was to increase the recognition of women's tasks, achievements and capabilities and thereby empower women through strengthening of their confidence and increase men's acknowledgement of the importance of women's roles in an action learning process.

The paper concludes that building of human capacity in terms of self-organisation, strengthening of confidence and strengthening of the ability to negotiate power and roles is the key issue. This includes specifically women's capacity as they are the backbone of agriculture in many societies. Therefore, it is not the question whether the gender perspective in development is needed, but it is an ultimate necessity to consider those people as farmers, who work the land. The gender perspective should be in-built in any serious development process. Promotion of gender as an isolated theme or component can be counterproductive.

Zusammenfassung

Der Artikel bietet einen Rückblick auf den Lernprozeß des AGRITEX/GTZ-Projektes "Conservation Tillage for Sustainable Crop Production Systems" in Masvingo/Simbabwe in Hinblick auf Gender-bezogene Fragen in Forschungs- und Technologieentwicklung und -ausweitung. Das Resultat dieses Lernprozesses war ein alternativer Ansatz in Innovationsentwicklung und -ausweitung, wobei die Gender-bezogene Perspektive ein wesentliches Element darstellt.

Eine intensive Interaktion mit bäuerlichen Familien hat gezeigt, daß Entscheidungsfindungsmuster und -kriterien innerhalb der Familien höchst komplex und dynamisch sind, und daß Frauen hinter den Kulissen einen wesentlich stärkeren Einfluß auf Entscheidungen haben als zuvor angenommen. Dadurch und aufgrund schwacher Kommunikationsstrukturen innerhalb der Familien waren neue Ansätze, Methoden und Werkzeuge der Kommunikation nötig sowie das Lernen von Ausweitungs- und Innovationsentwicklung. Die zentrale Zielsetzung der Methodik bestand darin, die Anerkennung der Aufgaben, Leistungen und Fähigkeiten von Frauen zu erhöhen und dadurch Frauen durch Stärkung ihres Vertrauens zu ermächtigen sowie in einem aktiven Lernprozeß den Männern die Wichtigkeit der Rolle, die Frauen einnehmen, vor Augen zu führen.

Der Artikel schlußfolgert, daß der Aufbau von menschlichen Fähigkeiten bzgl. Selbstorganisation, Stärkung von Vertrauen und die Fähigkeit, Macht und Rollen zu verhandeln, der Schlüsselaspekt sei. Dies impliziert ausdrücklich die Fähigkeiten von Frauen, die ja auch in vielen Gesellschaften das Rückgrat der Landwirtschaft bilden. Aus diesem Grund ist hier nicht die Frage relevant, ob Gender-bezogene Perspektiven in der Entwicklung gebraucht werden, sondern es besteht eine unbedingte Notwendigkeit darin, die Leute, die das Land wirklich als Bauern bestellen, zu betrachten. Die Gender-Perspektive sollte in jeden ernsthaften Entwicklungs-prozeß mit eingebaut werden. Gender als isoliertes Thema oder isolierte Komponente darzustellen, kann sich destruktiv auswirken.

1. Introduction

Agricultural research and extension are often male-dominated domains. The introduction of the gender perspective are issues frequently taken as a fashion rather than as a substantial contribution to rural development. The reality in many societies in Africa south of the Sahara, however, is such that male labour migration into towns has resulted in a situation where more female-headed than male-headed households prevail in the rural areas. In addition, even in the male-headed households women often carry out the main work in agriculture so that one can raise the question whether men are the farmers or the farmers' husbands. For research and extension to be successful, they will have to address the people who work on the land, be they men or women.

The objective of this paper is to review the experiences of the AGRITEX/GTZ Conservation Tillage Project (ConTill) in Zimbabwe with regards to gender issues in research, technology development and extension. The factors which made the project adopt a gender perspective, the methodology applied and the impact which was achieved will be elaborated on the basis of practical and concrete examples.

2. Background: The Framework of the ConTill Project

The project 'Conservation Tillage for Sustainable Crop Production Systems' (ConTill) started in 1988 as a research project with two research stations, one near Harare and one near Masvingo (300 km south of Harare). The project was based in the 'Institute of Agricultural Engineering' (IAE) of the 'Department of Agricultural, Technical and Extension Services' (AGRITEX), the national agricultural extension service. The goal of the project was to test different conservation tillage techniques for their conservation and production merit. After testing on the research station the sound or proven techniques were to be disseminated to smallholder farmers by the extension service in order to halt the alarming rates of soil erosion. So, the direct target group of the project was the extension service (AGRITEX) for whom the project should develop extension messages and the indirect target group were farmers. The approach taken reflected the thinking of the department and was a classical 'Transfer of Technology' approach, where researchers develop technologies, extension hands them down to farmers who are left as recipients of 'proven' technologies and who are expected to adopt these technologies (see for example Scoones/Thompson 1994).

In 1990 during a planning workshop, the project decided to embark on an on-farm trial programme. Adaptive on-farm trials in which farmers were encouraged to test and adapt one of the researchers' techniques were implemented. The project did not carry out a gender analysis and did not consider gender specific issues at that time. For the purpose of maximum integration of the activities into the extension department, the selection of smallholder farmers who wanted to participate in the trial programme was largely left to the extension worker. They selected male-headed households in most cases.

During the first year of working with farmers in on-farm trials gender and participation revealed as major issues. Farmer participatory research, where male and female farmers were actively involved, revealed that the 'Transfer of Technology' model can hardly work under smallholder conditions and different extension approaches have to be taken into consideration. The dynamics, more insights and analysis during the work with farmers made the on-farm component of the project develop into an action learning process based on interactive farmer participation. In 1994 the experience of the action learning process was

synthesised into an approach for participatory innovation development and extension and practised as a new extension approach in seven intervention areas (Hagmann et al. 1997, 1996b). This approach is presently being institutionalised into the extension department. Although the project concept and approach changed considerably (from on-station research to adaptive on-farm research to participatory research to participatory innovation development and extension) the planning framework of 1992 did not change until mid 1995. It was handled flexibly under considerations of the new insights and requirements which revealed in the action learning process.

3. The Lessons Learnt: Revelation and Acknowledgement of the Gender Perspective

Intensive interaction and dialogue with farmers enabled the project to get an insight into the social set-up of rural communities and families which had not been possible with a quantitative survey. The real issues like power and social organisational problems only came out due to the intervention of the action learning process when individuals in the system reacted pro or contra change. This process showed the true roles the various actors play and their interests, be it women, men, local leaders, businessmen, government field workers and bureaucrats. The gender perspective was one important issue which strongly revealed.

3.1 The Missing Link: Weak Communication between the Actors

Communication within the families, within the communities and between farmers and extension workers turned out to be weak. This causes considerable potential for conflicts and makes any development effort cumbersome unless they are specifically addressed.

3.1.1 Communication in the Families

The extension workers chose mainly male farmers who often were also members of the farmer club and extension training. The project stressed partnership and invited these selected and interested (male) farmers and the extension worker to the research station and explained everything in detail to them. It was thought to

be natural that although the women did not come with them, these farmers would inform their wives. The farmers were all interested and eager to test a tillage system called 'tied ridging'. A visit to farmers' fields and a method demonstration was agreed upon and a date planned. At the end of the visit to the research station, both the extension worker and researchers were sure to have successfully initiated the programme in participatory manner. The reality proved the opposite:

Box 1a: Information Flow: Where is the Blockage?

A week after the visit to the research station we made a follow-up visit to these farmers. We assumed that after the visit the farmers would have discussed their exciting impressions with their families and explained to them what they wanted to do and they had agreed upon. Mr. Mapuranga was one of the farmers who was invited to the research station. Unfortunately he was not at home when we came to his homestead. Assuming that his wife is in the picture, we asked her about how far the household had gone in implementing what was discussed at the research station. To our surprise, Mrs. Mapuranga was in total ignorance of her husbands visit to the research station. In her surprise, she even went to the extent of stressing that not knowing anything about all that, she would refuse to implement any trial.

The reaction of other wives also surprised us. Whenever the husband was not around, they simply tended to say that we can leave a message. Hardly any of them appeared interested.

Communication in the families revealed to be weak, in particular between husband and wife. The information flow appears to orientate at the hierarchical structure. The male head of household is not obliged to inform the other household members, whereas the wives and the children etc. are accountable to the male head and therefore information flows smoothly in this direction. The same applied to communities, when farmers complained that their leaders never report back from meetings and courses they attend. It was also realised that communication among female members of the household is better than the flow between the sexes:

Box 1 b: Information Flow: Where is the Blockage?

Three years later, when again a visit to the research station was desired by the farmers, lack of sufficient transport only allowed to take one person per household. We stressed that it would be preferable to balance between women and men. A week after the visit we assessed the information flow by asking the person (husband or wife) who did not take part in the visit what the other person told him or her about the visit. To our surprise, in all except one household where the women visited the research station, were the husbands very well informed about the technical details which were seen. In the households where the husbands went, in only two out of 16 cases were the women well informed. In the other 14 cases women simply mentioned that he said 'the visit was interesting' and did not explain any details to her. It appeared as if it were better to take the women only to the research station as then the husbands would ensure to get the information and both would be well informed.

3.1.2 Problems of a Male-Dominated Extension

Another part of the learning process in the project showed that male domination in extension limits the attraction of extension for women. The low attendance of women in extension meetings can be explained by several factors:

- ♦ Suspicion and jealousy make it difficult for de-facto female heads of household to attend extension meetings as their husbands in town often do not allow them to go there. In areas where the male extension worker is known to have relationships with female farmers their attendance is almost nil. At present, only approximately 10% of the extension workers are female.
- ♦ Male-dominated extension focuses on the main (cash) crops, whereas women are generally more interested in 'women's crops', food security and diversity in nutrition.
- Extension training focuses on the master farmer programme to obtain a certificate, which requires a certain degree of literacy. Due to the education system, women are generally less educated (Lacher/Dikito 1991) and therefore can easily feel excluded and as a result withdraw.
- ♦ The workload of women (caring for children in particular) limits their availability for meetings.

Extension meetings and training sessions are mainly based on teaching through oral communication. Hardly any written or visual material which would enable a better information flow in the family are utilised and given out to farmers. Therefore women who do not attend the meetings are solely dependent on the verbal information which is provided by the husband. If he has misunderstood or

forgotten parts of the lessons, it is easy to imagine that the women who carry out most of the field work and who should finally implement this knowledge are lost and become sceptic about new ideas.

3.2 Who Decides? or: 'Although the Cock Crows to Announce that it Is Daylight it Does not Mean that the Hen Hasn't Realised it' (African Proverb)

Decision making processes and rationales in the farming families are the most determining factors for innovation development and extension. They are highly complex and can only be assessed through close monitoring and a trustful relationship with individuals. In our case often men and women stressed that the husband makes most of the decisions in the family and in farming, but it turned out to be the opposite:

Box 2: 'leading from behind' Who has the Power?

Mr. Mambama, who was introduced to us as influential and being the best cotton grower in the area, insisted to hold demonstrations on his farm. This however, was without the knowledge of his three wives. All preparations for the demonstration were made and other farmers as well as the researchers went to his farm only to find that Mr. Mambama was not around. His three wives told us that the demonstrations could not be carried out since the head of household was not at home. Attempts on two more occasions were made, but both times Mr. Mambama could not be found. Later we found out that the three wives had decided not to have any demonstrations. So, the famous and respected cotton grower did not want to loose face and felt ashamed to tell us that his wives had made their decision and boycotted him. Therefore he hid away whenever he saw us coming....

Whose Priorities count?

After a good harvest we were interested on how the income from crop sales will be spent and who decides upon these issues. Mr. Tiri and his wife had a very good harvest. Knowing them for more than two years we asked Mr. Tiri during one of the visits informally about the number of bags he is going to sell and how the money will be spent. Mr. Tiri hesitated on the number of bags and said 'about two cart loads' and quickly added that he would buy roofing material for the house with the money. He particularly stressed that it is him who makes such decisions and not anybody else in the household. A week later, we were still interested in the same issue, Mr. Tiri was not at home but Mrs. Tiri worked in the field. In an informal discussion we asked her about the crop prices, the grading and the usual problems. Mrs. Tiri mentioned that she was satisfied with the prices, but that they had not yet bought anything for the money and hesitantly added "I think we are going to buy a cow, but it is baba (the head of household) who decides on such issues anyway". Three weeks later we came back to Mr. Tiri's homestead again and Mr. Tiri proudly announced that he had bought a cow.... Whose decision was it?

Unexpected Criteria for Adoption of Innovations

Mr. Kutadzaushe is one of the most respected and knowledgeable elders in the district. He was the first one who obtained an Advanced Master Farmer certificate. One day we came to his field and found him and his two wives planting groundnuts. We were surprised that they were not planting in rows which is the normal practice for farmers like Mr. Kutadzaushe, who sometimes even use ropes to ensure that the crop rows are straight and precise. Soon we started a discussion on row planting as we wanted to find out why he would not adopt this recommended practice. Mr. Kutadzaushe highlighted that he knows that by planting in rows he achieves the required plant population and does not waste seeds and that weeding and harvesting is much easier. So, we wondered even more why they planted at random. When asking the wives, one said that they save seeds when planting at random, the other disagreed and said that they use more seeds... until after long probing the wives explained that when planting in rows 'one can not relax'. What they meant was the fact that row planting (one row per person) will make it easy to identify the person who works slower than the others as he or she will remain behind. As they obviously did not want this competition, the women were not comfortable with row planting and although it was a shame for such an advanced farmer not to practice the modern technology he could not force his wives to plant in rows as otherwise they would not have worked at all....

Analysing these examples, it appears that the status and the power of women in decision making is much higher than perceived from an outside position. Proverbs like: 'if you want something from father go to the mother' highlight women's position in the cultural tradition. Extension however, is based on the outside perspective and does not consider the real power relations. The examples with investments and with adoption of technologies (Box 2) reveal that the decision making criteria can hardly be modelled as they depend on the power relations in the household and on spontaneous, situation specific parameters which are highly dynamic and gender specific. Purely economic rationales have a rather low priority.

3.3 The Lessons Learnt

These practical experiences and pitfalls were an eye opener to the Conservation Tillage project and forced the (male) researchers to learn what gender in reality means. Realising the biases and the related problems, the conventional 'norms' in research and extension were more and more questioned. This action learning process with regard to gender resulted in a number of insights which were identified as crucial for success of the project. These are:

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- ♦ Outside interventions normally interact with community or family representatives, which are mainly men. This is a trap as power relations and decision making competence in the families and in the communities indicate that women have a great influence on the decisions announced by men. Therefore, an intervention should not be satisfied to interact with representatives but try to include the hidden decision makers and strengthen their confidence to express themselves.
- ◆ The weak communication and information flow necessitates to make the facilitation of communication between the various actors a major focus of the project intervention. A platform, methods and tools for negotiation at community-level have to be developed.
- ♦ Whom to address, the farmer or the farmers' husband? The focus should not be women or men separately as the distribution of tasks is not homogenous but highly variable and situation specific in each household. In agricultural research and extension, the persons who work the land should be addressed, be they men or women. This definition of a farmer should be clarified and both sexes should be addressed together and equally as farmers. Addressing male and female farmers separately in agricultural extension can worsen communication and the information flow in the families.
- ♦ The implication for extension would be to facilitate the problem and needs identification with the presence of both, men and women, rank the priorities together and according to gender and then develop the extension programme together. A choice of technological options should be developed together in order to correspond to farmers (male and female) criteria which are very diverse and situation specific.
- ♦ All farmers, but female farmers in particular, have a wealth of knowledge based on experience. Extension, however, is based on formal knowledge which is communicated orally. To value farmers' knowledge, a shift towards experiential learning is necessary. Extension has to build on farmers' knowledge system and not impose scientific knowledge as it intimidates illiterate people in particular. This shift will increase women's confidence and position.

4. Changing Perspectives: The Response of the Project and the Impact

The 'lessons learnt' were iteratively built in the process. Methods and tools to address the identified shortcomings were developed and experimented on.

4.1 The Methodology to Consider the Gender Perspective

The methodology applied in the project consisted of a general developmental framework in the form of 'Training for Transformation' (Hope/Timmel 1984) which emphasises a more egalitarian development and includes both sexes equally and more specific tools to strengthen the involvement of women.

4.1.2 'Training for Transformation' (TFT) as a Philosophical and Developmental Framework

This training programme was developed in Kenya in 1974 and adapted to Zimbabwean conditions by Hope/Timmel (1984). It originates in the pedagogy of Freire (1973) and is built on conscientisation through participatory education, where learning is based on experience in the own living world of the actor. Teaching therefore consists of dialogue via problem posing, which means facilitation of communication flow and asking questions to help groups find the causes and the solutions themselves instead of teaching of 'foreign' knowledge and realities. TFT provides concrete methods to implement Freire's approach and empowers local people to control their lives through active participation in their own development and sharing of ideas and knowledge. It stresses the importance of participation and co-operation of both, male and female members in organisational development in order to build institutions which enable people to become self-reliant. It aims at strengthening dialogue and people's confidence (e.g. slogans like: "nobody knows everything and nobody knows nothing"), their openness for criticism and it integrates social analysis to help groups to find the root causes of problems (Hope/Timmel 1984). Freire's key principles form a philosophical framework which is relevant for any individual living in a society and can be applied in almost all situations in life. The strong acceptance of and agreement on these principles by various characters with different attitudes and in different mainstreams is its major strength. It manages to integrate and unite these often conflicting interests under one umbrella, the key principles. As described

above, socio-cultural change has weakened the social coherence and security which was based on traditional roles, rules and regulations. Therefore, according to our experience, a new 'umbrella' which can replace or at least partly substitute the old security is particularly important as the desire of social harmony is extremely strong and dominates most decisions of individuals. Without developing a platform to develop the new "umbrella", co-operation and leadership structures in rural communities will generally remain weak and often dominated by the unresolved social conflicts, which also adversely affects innovation development and extension.

Farmers were introduced to this framework in awareness raising workshops with the whole community, where men and women were invited specifically. The codes used (pictures, songs, slogans and proverbs) proved very efficient to strengthen the involvement of women. Regular follow-ups to TFT are built in different stages of the process.

Specific Gender-Related Methods and Tools 4.1.2

In the ConTill Project we hardly ever made gender issues or relations an isolated, specific topic as this would have created aversions and sometimes resistance on the part of some extension workers as well as on farmers' side. It proved much more efficient to put the goal (e.g. technology development, spreading of knowledge etc.) in the forefront and discuss gender perspectives which emanated as constraints or potential in the achievement of the goal. This way, the role of gender and the required changes were taken serious as they were directly seen in relation to the achievement of the desired progress. In a nutshell one can say that the consideration of the gender perspective was seen as one important tool in the development process but not as a goal or an end in itself. This insight resulted from the experience in the department of extension where in an affirmative action a gender campaign had been run several years ago. Training workshops for higher level extension staff were held and in the project planning everything was to be carried out 'with gender in mind' or 'with specific consideration of women'. The result of the campaign was nearly zero at farmers' level and at higher level resulted in an aversion against gender, in particular with men. It was a typical outside driven effort where a concept was pushed on people without going through a learning process.

In our approach, the responsibility to encourage equal involvement of both sexes was with the facilitators. They were extension workers of the department of extension as well as NGO's. Their main task was to empathise, have a feel for gender issues and to ensure that both sexes are addressed specifically. In many cases they had to encourage women or slow down men if necessary. Therefore, these facilitators themselves had to go through a learning process while interacting with farmers in order to internalise the gender perspective. The project personnel underwent such a learning process and training of extension workers became an important focus. Gender training was not an isolated activity, but went along with the training/learning process for participatory approaches.

The specific methods and tools which were applied were:

Give Women the Chance to Articulate Themselves

- ♦ Whenever discussing with the male head of household or in workshops, we asked their wives if they would not like to join the discussions, or we directed questions to them specifically in order to involve them and to give value to women's opinions. To our surprise, women followed this invitation very willingly in most cases and articulated themselves well if given the chance. Men generally reacted also positive to this move. This might be culture-specific, but turned out to be the most crucial element to achieve an equal involvement of women and men in discussions. Often one got the impression that women were very eager to contribute, it simply needed the formal invitation from chairpersons or facilitators, who have to break the usual pattern and emphasise on the importance of equal participation.
- Specific invitations to women and men to participate in extension meetings, community workshops, field days, look & learn or evaluation tours have been effective and after some time it became the 'new culture' that both participate equally.

Create Awareness for Gender-Specific Perspectives and Priorities

♦ In workshops, formation of small groups according to gender and age (e.g. young/old women, young men/old men in problem, needs and potential analysis) were an efficient tool to create awareness for differences in perception and priorities due to gender and age. Plenary presentations of their results and consequent discussions increased the value and the importance of women's perspectives and made men understand this perspective.

- ◆ The use of proverbs, codes and songs related to gender were useful tools which were mainly used indirectly in situations where gender was not discussed as the specific issue.
- When discussing new technologies, specific consideration was given to the impact on male and female farmers in terms of resources, labour and skills. PRA methods like seasonal diagrams and matrix scoring were useful in this context. The gender perspective was always discussed in view to its impact on a technology and not on gender per se.

Create Situations where Women Can Prove Their Capabilities

- ◆ In role plays, exercises and during discussions often women-specific tasks and abilities are required. For example, on topics like gardening, women's crops etc. and other operations which generally are carried out by women, men participate in the discussions but are less competent than women. The recognition of these tasks as equally important raises the confidence of women and at the same time makes men realise the knowledge and competence of their wives.
- Women as chairpersons for group discussions, as presenters of their experiments and other positions where they could expose their capabilities were important to make men recognise women's potential.

To summarise, the main focus in the methodology was to increase the recognition of women's tasks, achievements and capabilities and thereby empower women through strengthening of their confidence and increase mens' acknowledgement of the importance of women's roles.

4.2 The Impact: Women's Response

The impact which was achieved through addressing gender issues was measured qualitatively and quantitatively. The Monitoring & Evaluation System of the project did not consider gender-specific indicators, but the internal monitoring of the process allowed to follow-up gender-specific impacts. Here are some of the general project impacts:

Impacts with Regard to the Involvement of Women and Men

- ♦ In farmer/community workshops participation of male and female farmers was monitored. After introduction of Training for Transformation participation was equal most of the time. In most of the workshops where both sexes were specifically invited (by farmer leaders), the percentage of women ranged from 30 to 50%, whereas in ordinary extension meetings it is about 10% only. The verbal contributions of women went up to more than 50% in some cases, but was generally slightly less than men's contributions.
- ♦ Women's interest in experimentation increased greatly. Often they became more active than men and with it the reliability and the quality of research increased. Several times during evaluation tours they openly showed that they know more about the trial than the husband or corrected the husbands when they tried to show off. This could be a sign of changing authorities due to the recognition of women's knowledge.
- Women's role of technology testers rather than innovators generally remained, but women caught up in the number of self-initiated experiments. They preferred small trials where little risk is involved, but came up with good and valuable ideas.

Impacts with Regard to the Position of Women in Society

- Women who were rather shy and quiet gained considerable respect from other farmers due to their good presentations of their experiments (see Boxes). The 'learning by experimenting' process and the acknowledgement of non-formal, non-scientific knowledge has built up their knowledge and the confidence to expose it and share it with other farmers.
- ♦ In some of the local institutions women were elected chairperson. The rise in confidence allowed women to negotiate more for their needs than before (see Boxes).
- According to men whom we asked about changes, they claimed to be more aware now of the important contributions of their wives in farming and realised that it is beneficial if the wives also come to the meetings. The respect for women might have increased.

♦ According to observations and discussions with women, their self-esteem, their confidence and their pride of being a farmer has increased. This did not only apply for women, but also for men and was due to the acknowledgement and building up of knowledge based on experience. Together with TFT and tools to negotiate power relations it appeared as if this might have improved the relationships between men and women in the communities. Their capacities for self-organisation have visibly improved (see for example Box 5).

Impacts with Regard to the Technical Output of the Project

- ♦ With regard to technology output, simple light-weight tools which can be used with donkeys (preferred by women) were developed as a result of women's articulation of their needs (see Hagmann 1997).
- ♦ Issues in which women were specifically interested obtained more weight in the discussions and in experiments (gardening, certain crops, food security, bakery and soap-making co-operatives were formed etc.).
- ♦ The understanding of processes and technologies which were developed has resulted in increased yields, in diversification of crops, in improved soil and water conservation and in other non-agricultural income generating activities.

Box 3: The Silent Speak

Mrs. Magura generally behaved like the farmer's wife. Although she participated in the workshops and always joined the researchers when discussing with her husband, she was very quiet and did not appear all too interested to share ideas. One day we took visitors to their farm and Mr. Magura, who normally explained their farm and their experiments, was not around. Mrs. Magura did not hesitate to explain all the experiments and answer all questions so well and confidently nobody had ever expected. She even showed some of her own experiments of which we did not even know. The absence of her husband was her chance to prove that she is even more capable than her husband.

Mrs. Komwedzai is the second of the two wives of her husband and is very quiet and shy. In discussion she normally only listens to what her husband says. During a TFT workshop, when an exercise on perception was carried out (a picture of a woman who could be seen as a young lady or as an old lady) all participants only saw the old lady. Suddenly Mrs. Komwedzai had her hand up and explained that there is a young lady. The other participants could only see the young lady after the angle of the picture was changed. They were very impressed by Mrs. Komwedzai. For her, this experience triggered a far more active participation ever since. It was a situation where she could show her capacities.

Box 4: Bargaining for New Norms

Mr. Gwaungana, a farmers' club chairman has two wives, one is running a vegetable market in the nearby growth point and the other wife is 'helping him in the fields'. In the framework of the ConTill Project mid-season tours were organised where farmers share and exchange experience and ideas which emanated from their experiments. For these tours around the village, always men and women were specifically invited and both sexes were very actively discussing. With most households, husband and wife presented together, but Mr. Gwaungana presented his experiments alone. Soon after he started, the women in the group interrupted him and asked for his wife to come in front as well and explain the trials together. Mr. Gwaungana told the group that he would have liked his wives to be present, but she would be shy and therefore has stayed at home. The women in the group criticised him openly for hiding his wife and not giving her the chance to interact with other farmers. They said that men like Mr. Gwaungana do not allow their wives to fully participate. In the end, Mr. Gwaungana had to apologise to all women before proceeding with the discussions on 'his' experiments. The new norm that women should be equally presenting and interacting was strengthened in this community.

In a community workshop representation in the farmers' club was discussed. Master farmers claimed that only they should be in the committees. The facilitator asked whether they think they are the only people who know about agriculture and an old master farmer confirmed this statement. Suddenly the women were rebelling and claimed that they are the ones who do most of the work in the fields, so they are competent in agriculture and therefore should be part of the committees as well. Young male farmers also rebelled against the statement. In this case it was necessary for the facilitator to put the discussion into a provocative statement.

Box 5: Guarding the Self Discipline

After a community workshop farmers decided that they wanted to revive their traditional work organisation and formed groups which work together in the fields. It worked well until harvest when one lady did not come to work in other's fields any more. The group did not confront her, but decided to go to her field and harvest it for her.... After that incident, this lady was one of the most active persons in that group....

Box 6: Negotiating for Leadership Qualities

The kraalhead is a highly respected traditional leader in the communities, who also often have other formal or political positions. In a review and re-planning workshop farmers were asked to review their activities in groups according to their villages. During the report back to the plenary, there was one village group who said that they have nothing to present as there was nothing worth reviewing in their village. Other participants insisted that they share their reasons why nothing went on and why nobody could say out why. After a lot of probing of the participants, the wife of the kraalhead of this village stood up and stressed that the main problem would be the kraalhead (her husband), who does not give any feedback after going for look & learn tours and workshops. All the other villagers agreed with her and were relieved. The kraalhead was quiet first of all, but later explained that he was not aware of the consequences and promised to improve on this leadership quality. Later we heard from villagers that the kraalhead now shares ideas more openly and informs them.

It would be a miracle if such a process would flow without problems and resistance from some actors. In one case, for example, a husband did not allow his wife to participate in a two week-course in TFT, but did not openly say it. Such incidences were normal in the process, but often a year later, when such positions were re-negotiated among these actors, things changed and the formerly resistant persons became the drivers of the process themselves. Often the resistance had to do with fears of loosing power which had to be identified by the facilitators and who could buffer some of them through recognition and through discussions with the individuals. The whole process towards participatory development involves changes in attitudes of all actors which require time and endurance.

All the examples of impacts show a common denominator: the strengthened self-confidence of the actors which reflected a true empowerment. Confident people are not afraid of sharing ideas and they tend not to be afraid of re-negotiating and bargaining for their roles and power. This process and the tools applied have enabled a new mode of dialogue and communication which has even increased the accountability of the local leaders to the people. Their functions and roles were also discussed and negotiated by the villagers in the process.

Impact with Regard to the Extension Approach

The learning process in the project was utilised for conceptual development. The lessons learnt were iteratively moulded into an approach and a concept for participatory extension and innovation development based on experimentation (Hagmann et al. 1996b). During the process we worked closely together with the local extension workers. Their role change from being a teacher to becoming a facilitator took time and required continuous training and learning efforts while working with farmers. This learning experience was utilised to develop a training strategy for extension workers. At present, the approach is being scaled up in the extension department and extension workers are being re-oriented in a training and learning process of about two years duration on the job (see Hagmann et al. 1996a).

5. Conclusions and Recommendations

Action learning was the dominant vehicle in the development of the Conservation Tillage Project. The learning process happened on two levels: farmers learnt through experimenting and the project itself also learnt through the cycle of action and reflection. Project concept and approach underwent drastic changes in this process and the gender perspective emanated as crucial in this process and required specific action. The following conclusions and recommendations can be drawn out of this experience:

- A static situation analysis at the beginning of a project can only be an entry point. The real issues and priorities only reveal during an intervention when the system reacts towards the intervention. If taken serious, gender will always reveal as a very crucial issue in such a process. Therefore it is crucial to be flexible enough to take up such results and adapt the project concept and planning in an iterative way.
- An action learning process is ideal for identification of problems, needs and solutions together with people. Mistakes are unavoidable, but it is important to admit them, learn the lessons and to improve. This requires high flexibility in technical terms and in management terms, but it is a successful way to work with people and not for them.
- ♦ The process should be both, human centred and technology centred. Development of human capacity in terms of self-organisation, strengthening of confidence and negotiation of roles and power must be seen as a way to improve the efficiency of rural development.
- ♦ Human capacity includes specifically women's capacities as they are the backbone of African agriculture. Therefore, it is an ultimate necessity to consider those people as farmers, who work the land. The gender perspective should be in-built in any serious development process. Promotion of gender as an isolated theme or component can be counterproductive.
- ♦ Increased recognition of the own capabilities and functions in society is the most important element which leads to confidence and self-empowerment. Interventions should therefore opt for creating such situations.

- ◆ The tools and methods of how to address gender is culture specific and should be developed and adapted together with local experts. There is no blueprint as the gender priorities might even differ in each project and the tools have to be situation specific. However, one method should be universally applied: give women the chance to prove their capabilities wherever possible.
- ♦ In a time of rapid socio-cultural change gender roles and relations are highly dynamic. Therefore, it is important to build a platform on which rural people themselves can negotiate for new roles, functions, norms and for new power relations. It is more favourable to negotiate roles via technical issues rather than via discussions on gender as the advantages of any changes must be concrete and obvious in real life-situations. The process requires skilled facilitators at various-levels. This new competence is a real challenge to the conventional agricultural research and extension institutions.

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