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Conservation
agriculture and
people

THE SUCCESS of conservation agriculture depends not only on whether it can produce high yields or good profits. It also depends on local customs and culture, the way people think of farming and the unwritten rules they follow. This chapter looks at how conservation agriculture is affected by two issues:

- The different roles and special needs of **women and men**.
- How **cultural beliefs** affect people's willingness to consider conservation agriculture.

This chapter also looks at how conservation agriculture can provide opportunities for special groups of people. It shows how it can:

- Help families cope with the challenge of **HIV/AIDS**.
- Help farmers with **physical disabilities**.
- Provide incentives for **young people** to stay in farming.

Women and men

In many villages and in most families, men and women tend to be responsible for different things. They do different things, know different things, and have different interests, priorities and needs. They have different backgrounds and experiences, and their families, neighbours and society as a whole expect men to fulfil certain roles, and women to perform other roles.



Labour In some places, for example, men may plough the land and sell the produce, leaving the women to do the planting, weeding and harvesting. In other places, women may do the land preparation. Men and women may each tend different fields and grow different crops. Men are often responsible for the crops that can be sold for cash, while women deal with the lower-



status crops the family eats every day. It may be culturally unacceptable (or at least unusual) for a woman to handle draught animals or drive a tractor. In general, women do more farm work than men, though this is often not recognized.

Income Husbands and wives do not necessarily share their incomes. Men may keep the money they earn, and give only part of it to their wives to buy food and other essentials. Women may earn their own money by selling produce, making cakes or beer, or trading.

Markets Women tend to sell their produce close to home. Men are more likely to take their produce to distant markets for sale.

Information and knowledge Men are more likely than women to attend extension meetings and be members of farmer groups. They tend to be better educated, go to town more often, and have better access to information from outside. Because of their backgrounds, women and men tend to know about different things: men understand machinery and marketing, women know about nutrition and weed management.

Decision making Men often make the key decisions in the family, while women do more of the farm work. Many men go to the cities in search of work, leaving the womenfolk to look after the farm. The women then either have to wait for the men to decide what to do, or they have to make the decision themselves.

Rights Women tend to have fewer rights than men. Men normally own the land, and in some countries, women cannot even legally own it. Even if it is legal, they are prohibited from doing so by local custom. Wives may find their male relatives deprive them of their land and livelihood when their husband dies. As the formal head of household, a husband may be more likely than his wife to qualify for credit.

Freedoms In many places, women have fewer freedoms than men. Perhaps this is because of traditional views that “the woman’s place is in the home”. Or it may be that women are afraid to go far from home without protection.

Priorities and needs Because they are responsible for different tasks and have different types of knowledge and experience, men and women tend to have different priorities. A man may want to buy an ox to pull farm equipment, for example, while a woman may prefer to buy a weed wiper to help her control weeds.

Freedom of expression Women may be unwilling or unable to express their views. For example, they may not dare to speak out in public, especially if they have different views from their husbands.

Don’t forget the children

Children also contribute to their families. From an early age, they do a surprising amount of work around the farm:

- They plough, plant and weed crops, spread fertilizer and carry loads. They scare birds away from ripening fields of grain.
- They fetch water, collect firewood and help cook.
- They tend animals and keep them off the fields.
- They look after younger brothers and sisters, freeing their parents to do other things.
- Often, they do all these things in addition to their full-time job: going to school!

Children who have lost their parents to AIDS may have to take on the full burden of feeding and caring for their younger brothers and sisters.

Conservation agriculture, women and men

Conservation agriculture may affect men and women in many different ways. That may make them more (or less) willing to adopt it, or may influence the particular techniques they decide to use. Some examples:

- Conservation agriculture may cut the amount of labour needed overall, but it may increase the amount of work that women and children have to do.
- Eliminating ploughing (traditionally men's work) may make it easier for women to adopt conservation agriculture.
- Men who control the family budget may be unwilling to invest in a weed wiper, which would ease the burden of weeding for women.

These distinctions are not always clear-cut. And they differ from place to place and from family to family. Traditional patterns are breaking down anyway as families are forced to cope with the stress of AIDS and migration. A widow may have no choice but to do traditional "men's work" if she is to feed her family. On the other hand, she may find it impossible to do so if she cannot get the support (land, labour, credit, inputs) she needs.

Even though it is difficult to generalize, the differences between men and women are real. And they affect how people may see conservation agriculture and how ready they may be to adopt it.

Ideas for action

If you are an extension agent or development worker, here are some ways to help women and men adopt conservation agriculture, or to help them choose the techniques best suited to them.

Less work for men, but more work for women

Farmers in central Ghana are pleased that conservation agriculture has saved them work. Using minimum tillage and planting cover crops has restored the fertility of their soil and has improved crop yields. And it takes at least 30% less work than the traditional slash-and-burn practices. These techniques were introduced by Sasakawa Global 2000 in collaboration with Monsanto and the Ministry of Agriculture.

But not everyone is happy. Higher yields mean more work harvesting and transporting the grain. Those jobs fall mainly to women and children.

Women say that they now have less time for trading and other types of work, which brings in about one-third of their income. Money from maize sales, on the other hand, goes to their husbands, who decide on how to use it. Often, the men do not share it fairly with their wives.

The women think that the men should help them harvest and transport the grain, and should share the proceeds more fairly.

Understand the roles and views of men and women It may be necessary to do some research into this before you start promoting conservation agriculture. Try to understand men's and women's viewpoints, their roles, cultural beliefs and other things that may affect how they manage their farms. You can do this by observing what people do, discussing with key informants and different interest groups, and participatory rural appraisal (PRA) exercises. Consider holding separate meetings for women (using a woman facilitator) to make sure they have a chance to express their views.

Anticipate problems Check whether conservation agriculture is likely to have any unforeseen effects. For example:

- Replacing ploughing or hoeing with ripping may deprive the people who did the land preparation of an important source of income.
- In the first few seasons, men's workloads may fall (no ploughing), while women's may increase (more weeding).

Encourage flexibility Discuss the changes with men and women, and encourage them to take on new roles. Train women how to handle animal-drawn rippers, and encourage men to do weeding. Men may be more willing to weed if they can use herbicide (spraying is often a man's job).

Ensure that women are not overburdened Talk with families (especially men and elders) about the advantages of conservation agriculture. Point out that there may be more work to do in weeding and harvesting, and facilitate the community to come up with solutions. For example, families might consider using some of their profits to buy a sprayer that cuts the time needed for weeding. Elders may be willing to influence men to help with some of the work that women traditionally do.

Plan extension activities for everyone Recognize you have to talk to the women (and young and old people) as well as the men! Pay special attention to women: plan extension activities and demonstrations especially for them. Hold meetings for a convenient time of day so women can attend.

Involve men and women Ensure that both women and men are involved in planning, designing and implementing conservation agriculture activities. Encourage women to take leadership positions in groups.

Check equipment Check whether there are likely to be any restrictions in women or men using conservation agriculture equipment. A weed wiper may be more appropriate for women than a sprayer, for example. You may have to run separate training courses for women and men on using animal-drawn implements.

Provide information in an appropriate way Find out how men and women in a particular community get information. For example, men may listen to the radio or ask retailers for advice, while women may get information from the local market. Use these channels to spread the message about conservation agriculture. Tailor your message to your audience, and then choose how to get the message to them. For example, you might ask nurses and midwives to tell

women how to use conservation agriculture to grow vegetables. Make sure you use the right type of language: use simple words and avoid jargon.

Help people get inputs and credit Assist men and women to access credit, seed supplies, implements, agrochemicals, and services such as hiring of draught animals. Pay special attention to women groups: the group as a whole may be able to buy implements for its members to use.

Assist with marketing Help women to form marketing groups, and put them in touch with traders and transport firms so they can sell surplus produce.

Focus on the family partnership Encourage the family to work as a unit, rather than focusing on the differences between men and women. Dividing up responsibilities is normal, but everyone's main goal should be the family's welfare and livelihood.

Cultural beliefs

People's culture and traditional beliefs may help or hinder efforts to promote conservation agriculture.

Here are some examples of ways that culture can hinder its promotion, along with some suggestions on what to do about it (in *italics*):

Staple foods Throughout southern Africa, people think of maize as their main food. It can be difficult to convince them to rotate their crops. In some areas, people still plant maize even though it is not the ideal crop. For example, parts of Mokhotlong district in Lesotho are above 2500 m and are very cold, but everybody grows maize even though yields are very poor. (*Ask them if they have considered growing something else and selling it, then buying maize to eat.*)

Fire Many farmers like to burn stubble and weeds to clear the land before planting. Livestock owners also use fire to manage pastures. These practices have even been promoted by extension services. (*Burning destroys valuable crop residues and threatens cover crops growing during the dry season. Much better to leave the residue on the surface as mulch.*)

Luo rituals delay farming

The Luo of Nyanza Province in western Kenya have many traditions and beliefs related to farming. They say that if they fail to observe certain rituals, the community will be visited by a calamity. The eldest person in a family must perform these rituals before others can start work on their farms each year. It is taboo for anyone to begin farming before the ceremony has been performed.

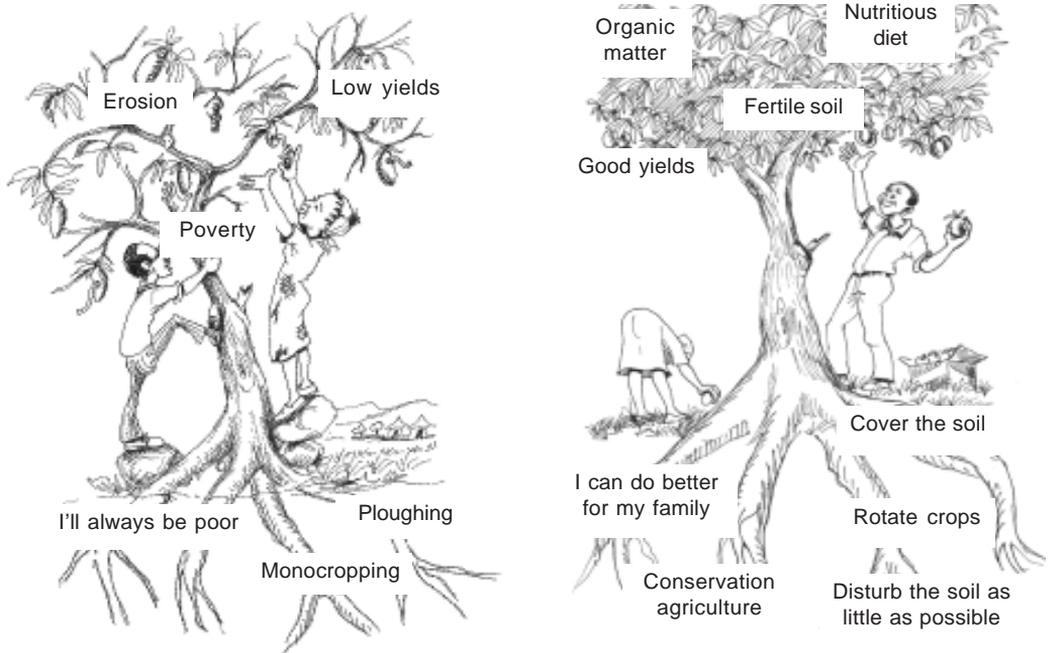
But what if the person who performs the ritual is away working in town? Or has succumbed to AIDS? This can lead to indecision and delay. Vital days or weeks may be lost before the person can return to perform the ritual, or another solution can be found.

Ploughing Ploughing is associated with many mistaken beliefs:

- A “good farmer” is often seen as someone whose field has been ploughed and cleared of everything. A farmer with crop residue is seen as lazy. (*No: a good farmer is one who gets good yields and conserves the soil.*)
- Many farmers think that they must plough to make sure the soil soft so that roots can penetrate easily. (*In fact, the opposite is true: ploughing destroys the soil structure and creates a hardpan.*)
- Farmers believe that they have to plough organic matter under to make compost. (*Not true: organic matter is more valuable if it is left on the surface.*)
- The soil must be ploughed in order for the rain to penetrate and keep moisture in the soil. (*Again, the opposite is true: rain sinks into the soil more easily if the soil is covered with mulch or vegetation.*)

Fatalism Some people believe they are poor and will be poor for the rest of their lives. (*They forget that they can find a way out of poverty; conservation agriculture offers them a way to do this.*)

Land ownership and tenure This is an economic and political issue as well as a cultural and social one. If the land is owned communally (or by the state), individual farmers may have little incentive to improve their soil. Communal



What beliefs are there in your community that hinder development? What beliefs hinder the adoption of conservation agriculture?

No house? No trees

"In western Kenya we found a widow not really participating in the project on fruit trees and planting legumes. We found out later that in that village, a widow was not allowed to plant trees if her husband had not built her a house before he died. We brought this up at a village meeting, and the people decided to abandon this practice. This widow is now one of the resource farmers in the area."

Anja Boye, ICRAF

grazing may mean they cannot keep animals out of their fields. And in many places women cannot own or inherit land. (*Reach agreements in the community to guarantee security of tenure.*)

Ideas for action

It can be very difficult as an outsider to address issues of culture. Many traditions have a practical reason that may not be immediately obvious. Or they are rooted in history. People see their culture as part of their identity, and changing it is very difficult.

On the other hand, mistaken beliefs can seriously harm development. Everyone has a belief system. The question is whether it contains the truth. Here are some ideas on what to do if you are an extension agent or development worker.

Understand and respect the culture Do not automatically condemn beliefs as "wrong" or "bad". Rather, try to understand them and the reasons behind them.

Facilitate discussion Help the community to start to talk about their beliefs. If they recognize a problem, they may be ready to find ways to solve it.

Focus on important issues There is no point in trying to address a particular cultural practice if it is not important.

Build on the culture If you understand the culture and are willing to listen to people, you may be able to identify beliefs and practices that support conservation agriculture. For example, people may already use certain plants as cover crops, or be able to suggest other plants that may be suitable. They may have views about the benefits (or disadvantages) of intercropping. They may be interested in trying out new ideas, or in reviving traditional practices.

Work with respected community members Listen to elders, chiefs and other respected people in the community, and try to get them to support your message.

HIV/AIDS

AIDS and the virus that causes it, HIV, have a devastating effect on farm families in Africa.

- AIDS directly affects the most productive people in the society: adults who would normally support themselves, their children and their elderly relatives. When they fall ill, farming has to be done by weaker, less productive people: the very young and the very old.
- These family members have a double burden: they have to look after their sick relatives, and they have to take over their work. They cultivate smaller plots, and grow a smaller range of less labour-intensive crops. They struggle to keep pace with the seasonal calendar. They plant late and fail to weed on time, so reap smaller yields. Their diet is poorer and they go hungry more often, so they become even less productive and fall ill more often.
- Unable to grow enough to feed themselves, and beset by medical bills and funeral expenses, desperate families are forced to sell what they have. They sell farm implements, draught animals and land to raise money. They have less to invest in their farms.
- Relatives of the deceased may seize the family's property, leaving widows and orphans destitute.
- The survivors – orphans, the elderly, and women – may lack the right skills to use equipment, so it falls into disrepair. They may find it particularly difficult to get credit or extension advice.
- Many communities have traditional ways of supporting less fortunate people. But these customs may be stretched to breaking point by the large numbers of illnesses and deaths.

Junior farmer field schools in Swaziland

AIDS has been a disaster for Shewula, in eastern Swaziland. So many of the adults have died that the community has more than 2000 orphans.

FAO-supported projects have introduced conservation agriculture in the area and are working with the orphans.

The orphans are learning conservation agriculture practices through "Junior Farmer Field Schools". For these children, conservation agriculture has two advantages over conventional farming: it requires less money and takes less work.

One of the things the children learn is how to make compost. They use this instead of expensive artificial fertilizer on their maize and sorghum. They intercrop these cereals with legumes, which improve the soil fertility and provide nutritious beans.

They grow some legumes as a relay crop to cover the soil during the winter, which is the dry season in Swaziland. That increases crop yields during the following season. This practice enables them to harvest two crops from the field in the same year.

Conservation agriculture and AIDS

Conservation agriculture can help overcome some of these problems.

- **No more ploughing** It eliminates ploughing – one of the biggest tasks on a farmer’s calendar.
- **Less weeding** Using cover crops, mulch and herbicides controls weeds better than traditional methods – saving time on weeding, another of the most time-consuming tasks in farming.
- **Low-labour implements** Using a jab-planter is faster and less laborious than planting using a hoe. Some jab-planters can plant and apply fertilizer at the same time. Weed wipers are easy to use and effective at controlling weeds.
- **Crop diversity** Growing intercrops and rotating crops allow farmers to diversify their crops and produce a nutritious range of food on the same plot. AIDS patients and their families need nutritious, balanced diets. Many of the intercrops and cover crops used in conservation agriculture are high in protein and vitamins.

Ideas for action

Here are some ways that extension agents and development workers can help people use conservation agriculture to cope with AIDS.

Provide extension support Discuss with local people and community groups how best to work with AIDS patients and their families. Work out how to tell them about conservation agriculture and the benefits of legumes and other crop options.

Identify and support vulnerable households If possible, find out who is affected by AIDS (either as a patient or because someone in their family is infected). Design extension activities especially for them. Help them choose crops and varieties that are nutritious. Provide advice on nutrition, and teach them recipes that use new types of food – for example, how to fortify maize flour with protein-rich legumes or amaranth.

Encourage farmers to plant nutritious crops Examples are cowpeas, pigeon-peas, lablab, climbing beans, ground beans, groundnuts, mungbeans, sweet potatoes, pumpkins, amaranths and other indigenous vegetables. In many areas, farmers can plant traditional vegetables that are easy to grow and suited to the local conditions.

Encourage support groups Groups can help in many ways. Members can pool their labour, contribute money to buy equipment, exchange ideas, and learn new techniques together.

Farmers with disabilities

Physically challenged people have great difficulty in providing for their families. But conservation agriculture has enabled people with serious disabilities to feed themselves and their families, restore their dignity, and change their lives.

People with disabilities may need special help to adapt the technology to their needs. Extension staff and development workers should do their best to provide this assistance.

If a blind man can do conservation agriculture, so can you!

Pahlo is an old man who lives in Ha Monoto village, in the heart of the mountains of Lesotho. Every day, he goes out to tend his fields of maize, sorghum and beans.

Not unusual, you might think. But wait: Pahlo is blind.

The village church had been conducting training on conservation agriculture. Farmers were given strings with marks at regular intervals to show them how far apart to dig planting basins. Each trainee received several strings, so they could teach other farmers. One gave a string to Pahlo, who carefully tied on pieces of plastic so he could feel where to dig the holes.

Every morning, Pahlo's two grandsons take him down the mountain to his fields. They help him to find where he left off the previous day, then they leave for school. Pahlo digs the basins with a spade, then puts seeds and the right amount of fertilizer in the hole with a little cup. He plants the whole day, until his grandchildren come to fetch him.

Conservation agriculture has brought hope to Pahlo. For the first time in his life, he is able to plant his field.

More information: August Basson

Stroke does not stop Lesotho farmer

A farmer in Seforong, Lesotho, suffered a mild stroke a few years ago. He was immobilized so could no longer walk behind his oxen to plough his field. And he cannot afford to pay for a tractor to do the ploughing.

He attended training on conservation agriculture and learned how to make planting basins. He still walks with great difficulty, but is proud that he can now provide for his family despite his disability.

More information: August Basson

Young people

Farming is not an attractive option for many young people. Low yields mean low incomes, and the cities offer opportunities that are absent in the village. Many young people opt to try their luck in town rather than stay on the farm.

But young people are Africa's future, and they are vital if Africa's agriculture is to prosper. Young people have skills, energy and creativity. They are quick to learn and open to new ideas.

Conservation agriculture offers incentives for young people to stay in farming:

- It offers the prospect of higher yields than conventional farming. It requires less work and less investment in expensive equipment such as ploughs.
- It opens opportunities for young people to provide specialized services, such as spraying, field preparation, servicing and repair of implements, vegetable growing and seed production.

A future for delinquent youths

Conservation agriculture can be an important component in efforts to work with delinquent youths.

In 2004, a group of young men in Oliosirkon, close to Ongata Rongai near Nairobi, were making themselves a nuisance. They were either orphans or were from homes that did not provide them with support. Most had little formal education, and they earned money through casual labour when they could get work. They took drugs, and had little hope of improving their lot in life.

Local people were fed up with these lads, so they decided to force them to leave. But one woman asked permission to work with them for four months – before the community took such drastic action.

A committed Christian, she met with them twice a week to worship and study the Bible. Under her guidance, the youths decided to reach out to other young people and to people affected by AIDS. They began to visit the sick, and invited other youths to join them. One asked for help to begin another group for delinquent boys nearby.

One of the major difficulties the lads face is how to earn a living. They tried planting kale, but it withered for lack of water. In 2005, they were introduced to conservation farming. They carefully prepared and planted two plots of land. They received a small amount of financial assistance to buy fertilizer and seed (and fencing, because herders in the area allow their cattle to feed on whatever is growing!).

Other people have heard about conservation agriculture, and the youths have arranged to give a seminar on how to do it. They are now thinking of starting a small business as well.

Conservation agriculture has taken these young people off the streets and has given them a way to make a living.

More information: August Basson

Ideas for action

Here are some ideas to try with young people:

- **Open dialogue** Discuss conservation agriculture with young people in youth clubs, sports clubs, drama groups, etc.
- **Find attractive options** Seek options that may appeal to young people – for example those that can provide quick returns, such as vegetable growing.
- **Work with schools** Find ways to teach conservation agriculture in schools. Establish a school nursery to produce seeds or seedlings.
- **Work with the private sector** Involve private companies in promoting conservation agriculture. Young people are tomorrow's customers!

Company encourages children to teach parents

Reapers, a Zimbabwean firm that produces groundnuts and other crops, normally contracts out its seed production to small-scale farmers.

The firm encourages children to help their parents maintain their farm records. It also gives prizes to the parents who have performed best – it donates seed to their children's schools so they can start school gardens.

