

Farmers' experiments and cosmovision

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In adjusting to changing conditions, farmers experiment in ways which sometimes includes spiritual aspects. These aspects are often unperceived or even ridiculed by outsiders, but they are very much a reality for insiders. A Ghanaian-Dutch team of two made a case study among the Talensi people in Tongo, a village in northern Ghana.

The concept of cosmovision was introduced by PRATEC (1991) in the context of the indigenous Peruvian culture. This culture is presented as a holistic worldview: nature is conceived as a living being in which all parts are interrelated, man being one of them. Nature does not belong to man, but man to nature. The conception of the world is not static, but rather dynamic: there is continuous interaction and intervention with the environment.

Agriculture is at the centre of Peruvian cosmology. This means that arts, sciences, philosophy, religion, systems of perception and classification, language and technology are all organised around agricultural activities.

Cosmovision assumes interrelationships between spirituality, nature and mankind. It describes the roles of the superpowers and the way natural processes take place. It leads to assumptions on cause-effect relationships and chance. Therefore, knowledge about the cosmovision of a people is important for any outsider wanting to develop technologies together with them.

This has far-reaching implications for field methods such as Participatory Technology Development. The case descriptions on PTD have generally been based on the assumption that farmers use a "western logic" in their experimentation. Anthropological research (eg. Reader 1988) suggests that the cosmovision demands that more variables be taken into account than merely biophysical factors.

The Talensi cosmovision

Tongo village was chosen for this study, as it became clear from other research in northern Ghana (Millar 1992) that religious practices play important roles in farmers' experiments. At crucial moments farmers make sacrifices, read omens and consult soothsayers and traditional priests. Yet the concrete mechanisms and the logic for these practices were not known. On the basis of interviews, the following cosmovision of the Talensi could be reconstructed.



The universe has been created by the "Allfather". He is almighty, as he not only created the universe in the past, but still permits things to happen. God punishes and rewards man's behaviour by direct interventions in his creation.

The Talensi believe that there are other gods such as the rain god and the earth god. Certain people are endowed with special powers to call upon the earth and wind to cause things to happen. Also, each individual or family has his or her personal god. Man has a soul which is of divine origin.

Between the gods and the living people are the ancestors. Ancestors can communicate directly to the gods, as well as with the living people. The most influential ancestor is the *Mozuri*, the

Tindana, earth priest and son of the earth-god sitting on his ancestors' grave in front of a sorghum field. The *Tindana* has the power to communicate directly with the god of the earth. Photo: Bertus Haverkort.

leader of a group of settlers. Of the living people, the *Tindana* or earthpriest has the power to communicate directly with the earth god. He is believed to be this god's son and thus is the owner of the land.

Certain persons have supernatural powers in seeing the intentions and wishes of God, either directly or through the ancestors. They can act as a medium, predict the future, interpret omens and can advise about the type of sacrifice to be made: they are soothsayers. Their capacities to perform their

functions effectively are tested during the initiation ceremonies. Villagers are free to consult those soothsayers who have the best reputation. In this way, a certain quality control takes place.

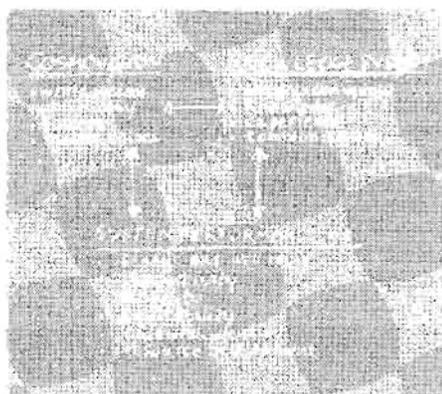
Concept of agriculture

The origin of life is the soil. Rain, plants and animals relate to the specific soil and their performance is an expression of God's will and judgement. Soil life is respected as manifestations of God.

Crops and animals are not just commodities with a commercial value only. Crop and animal products are the outcome of God's will and thus have a sacred origin. Parts of the crops will be used to accompany sacrifices, parts for reproduction and parts for consumption or to be traded for other consumption goods.

Disrespect for God and for its creation (nature) will be punished by hunger, diseases or accidents. Gods can be pleased by sacrifices. Sacrifices generally take place before the growing season and after harvest.

There is an intimate relationship between the traditional calendar of festivals and agricultural activities. No planting is allowed before certain festivals have taken place, and toward the end of the growing season, agricultural activities come to an end at a moment indicated by the *Tindana* and associated with drumming, dancing and sacrifices.



The cause-effect relationship between human activities, such as soil tillage and crop husbandry, and crop performance are accepted and understood. Agricultural production can be improved by improving husbandry practices. Yet, such husbandry practices are only part of reality. The other part includes the spiritual influence on rainfall, health, crop performance and yield. This is acknowledged and requires sacrifices, festivals and taboos for funerals, drumming and war cries during certain periods in the growing season.

Innovation and experimentation

In the Talensi worldview, there is no clear distinction between the past and

the present. 'We live by the lessons accumulated by our ancestors and thus are guided by our ancestors.' Yet, the changes over the past generation are substantial: food habits changed, animal traction and mechanisation have been introduced, young men acquire jobs outside the village, and migration leads to labour shortage for farming. These changes conflict with the belief held by some outsiders that the society is conservative and resists change. New ideas can come up and changes can be made as long as the ancestors' consent and advice is sought.

This means that, if a new idea does not deviate substantially from existing practices, people are free to try, experiment, adapt or adopt. If the innovation is considered a major change from traditional practice, approval of the gods and the ancestors for experimenting with it has to be sought. Before the experiments are carried out, generally sacrifices are made and the traditional rituals are respected.

The success or failure of an experiment is not only indicated by the relation between the physical or economic costs and the effects of the innovation; the total environmental (physical, economical and spiritual) response to the innovation is assessed. Apart from yield responses, attention is paid to the incidence of accidents, diseases, snake bites etc. Non-material indicators supersede material ones. This might lead to the rejection of an innovation if the farm family's welfare has decreased despite good crop performance. In interpreting the results of the experiment, the soothsayer can play a decisive role. Transfer of knowledge takes place through implicit demonstration, storytelling and initiation rites.

Environmental management

From the above, it is clear that the Talensis have their own way of adjusting to changing circumstances. Not all modernisation will be accepted at face value. Thus far, western scientific and religious systems have failed to understand the traditional systems and have not built up a system of mutual exchange. Given the crisis in agricultural development, environmental damages and social deprivation associated with the western development model, a modest position of westerners would be appropriate.

Rather than ruling the Talensi system out as an inappropriate system which needs to be abolished to allow for modernisation, a more careful blend between the traditional system and the western system could result in synergetic interaction. The Talensis could experiment with certain western innovations, and maybe western science could learn from the Talensis.

One thing becomes very clear from

this case study. Spiritual aspects, managed in a complex system of traditional institutions and functions, take a prominent place. It is obvious that this applies not only to the Talensis but also to farming peoples in large parts of Africa.

Experiences also from India (Pereira, Norberg-Hodge), Thailand (Phongphit), Aboriginal Australia (Cowan) and Bolivia (Rist) indicate that, across the globe, initiatives emerge that re-value indigenous cosmologies and knowledge systems and link them with environmental management but, at the same time, recognise superstition and harmful aspects of indigenous systems. Until now, development organisations have largely neglected these aspects, but it may well be that they hold the key to synergetic cooperation between western and non-western agricultural development approaches.

ILEIA has great interest in documenting and publishing experiences of fieldworkers in dealing with cosmovisions, local and exogenous knowledge systems, in a synergetic way. Can a systematic documentation, comparison and analysis of cosmovisions and indigenous knowledge systems give new orientation for development toward sustainable agriculture? We are preparing a programme in which different persons who are actively engaged in this type of work will be supported by mutual consultation. We are therefore eager to receive more information from the field and call upon our readers to share with us your experiences. ■

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