Sustainable Indigenous Knowledge Systems in Agriculture in Zimbabwe’s Rural Areas of Matabelel and North and South Provinces

Zimbabwe Case Study

This study researched Indigenous Knowledge Systems (IKS) in agriculture in Zimbabwe’s rural areas, focusing on crop farming in the Tonga of Binga District in Matebeleland’s North Province, and livestock in the Kalanga tribe of the Plumtree District in Matebeleland’s South Province. The study aimed to uncover some of the knowledge that indigenous people used to survive under the harsh climatic and physical conditions of the region.

Specific goals in both the Binga and Plumtree Districts were: (i) to uncover the socio-political, religious, economic and environmental implications of IKS in farming; (ii) to identify and analyze the methods of natural resources management; and (iii) to assess the value and limitations of IKS in agriculture.

Methodology
Information was collected through literature review, personal interviews with farmers, site visits, group discussions, and the use of Village-Based Researchers (VBR). The VBRs prepared the community for the field study and facilitated discussions. The field study in Binga District at Kamaziyo visited about 40 homes; in Plumtree, about 100 homes were covered.

Resource Utilization
In the Binga District, the men control the family resources and they must see that these resources are distributed and used well. These resources include land, water, vegetation, livestock, and family labor. Land is distributed to new families by the chief of the area who, in consultation with other elders, distributes the land for settlement and farming. The management of the land resources in the Binga district is done by the Village Development Committees set up by the government in the 1980s.

People in the Plumtree District are mainly engaged in subsistence farming and animal husbandry. While timber is abundant, the residents feel that these resources are not being used effectively to generate employment and provide a source of income. It is used primarily for firewood and the construction of houses and fences.
IKS Practices

IKS exist in both areas and are still sustaining local people in crop farming—including land preparation, grain selection, planting, harvesting, as well as grain storage and livestock management. Typical of Kalanga IKS practice was their indigenous knowledge of grasses and soils to allocate grazing pastures. Family heads converged at the chief’s place every spring to discuss grazing arrangements for that season. The beginning and ending dates of grazing in specified pastures were also established. Headmen and kraal-heads then monitored villager compliance with these rules.

Both the Binga and Plumtree communities placed three values on IKS. First, knowledge is power. People who have stayed in Plumtree for a number of years knew the rainfall patterns and when to plant crops to produce better yields. The second value of IKS was that of a knowledge base that determines the supply and distribution of food, as well as the division of labor. The third importance of IKS was attributable to the continuous supply of resources for sustainable life.

Conclusions

During his field research, the author discovered the value that indigenous communities place on IKS. Both the Tongas and Kalangas value IKS as a knowledge base and for determining food production and labor division between gender and age groups, and as part of community survival. He recommends that IKS should complement, rather than compete with Western knowledge systems in the implementation of projects. The lesson for development agencies should be to investigate first what indigenous people know and have, then develop and improve upon indigenous technologies.

In the Plumtree District, the people indicated that the recurrent droughts—and lack of grass in grazing lands—have made it difficult to rotate grazing as is the traditional practice. Westernization was also threatening IKS. The Binga District pointed out that indigenous farming methods have been substituted with Western methods of farming; crops they traditionally grew have been replaced by cash crops.

One of the major limiting factors of IKS is its lack of documentation. African knowledge of indigenous plants and their African names is declining rapidly. IKS is also limited by its lack of proven scientific procedural explanations. One only hears that it is taboo to do certain things. IKS is also in a precarious position because it depends on those who have the knowledge sharing it with others. It is also viewed by many young people as obsolete and out of date compared with Western cultural knowledge and practices.

The study recommends the following:

- Build strong awareness programs to appreciate IKS and its role in resources utilization management.
- Research, document, and disseminate detailed information on IKS.
- Promote and transfer IKS to areas with similar characteristics. Exchange visits between groups working on similar projects are one way of achieving this, as are workshops on important IKS issues.
- Publish literature on IKS, particularly in the local language of the targeted communities.
- Train development agency staff, especially those that work directly with the indigenous communities.
- Capacity building and empowerment of local people to recognize the value of IKS and promote these systems through: traditional community gatherings; training in research, documentation and the dissemination of IKS; and support from the formal sector, for the indigenous communities to develop IKS themselves.