

# RETURNING TO AFRICAN TRADITION THE WAY FORWARD FOR SMALL FARMERS?

Indigenous knowledge should not be denigrated as “unscientific”, argues TIM HART, but rather be encouraged to incorporate and develop new and appropriate knowledge.

**N**ew grafting techniques to produce fruit for export, environmentally-friendly pesticides, and fertilizers improvised from available resources – these are just some of the innovations made by small farmers using traditional methods. Indigenous knowledge (IK) can make a significant contribution towards resolving two key problems facing Africa: poor health, including HIV/AIDS, and poverty.

Approximately 80% of the African population use traditional medicines to meet their health care needs and IK contributes to this field. IK can also help to alleviate poverty if it is effectively applied in agriculture. At present, the vast majority of sub-Saharan Africans depend on resource-poor agriculture, without modern inputs, and they rely almost exclusively on locally available resources for their livelihoods.

Since 1994, much has been said about IK and its role in a democratic South Africa. But for those not directly involved, IK does not seem to have been integrated optimally in development practices.

But Dr Mogege Mosimege, Director of the Indigenous Knowledge Systems Unit of the Department of Science and Technology, has told the Arts and Culture Portfolio Committee that much has indeed happened behind the scenes.


Mosimege's presentation of 9 November 2004 covered the groundwork, vision and goals of a South African Indigenous Knowledge Systems (IKS) Policy. It consists of four key areas:

- ▶ the affirmation of African cultural values in the face of globalisation;
  - ▶ the development of services provided by indigenous knowledge holders and practitioners;
  - ▶ the contribution of indigenous knowledge to the economy; and
  - ▶ the interaction with other knowledge systems.
- The role of IK in health and agriculture is generally considered to fall into areas two and three. But areas one and four are also

Indigenous knowledge is the knowledge that grows within a social group, incorporating learning from own experience over generations. It is also knowledge gained from other sources, and absorbed into local ways of thinking and doing







worth noting. Globally and throughout Africa, IK has had to interact with other knowledge systems, and in particular the dominant paradigm of Western scientific knowledge. Much of this interaction has been on the frontiers of health and agricultural development. It has been far from friendly, or even mutually beneficial for the local population.

Such interaction has often been one-sided and extractive. African and other “indigenous” populations, particularly elders and traditional healers, were sought out for their knowledge of the medicinal properties of various local plants. Given the commodity orientation of the marketing economy, researchers then sometimes used this knowledge for their own enrichment, giving little credit or acknowledgement – and no reward – to the local informants.

These exploitative practices and the subsequent commoditisation of knowledge have raised the need for the protection of indigenous or local knowledge by attaching intellectual property rights (IPR) to it – and this is problematic. Such knowledge is generally held communally or shared by a number of people, who are often not clearly identifiable, and its origin cannot easily be legally established.

This problem is further compounded by the difficulties of attaching IPR to intangible products and the fact that indigenous people are often marginalised and cannot generally afford the costs involved in attaching and enforcing their IPR on intangible goods.

The value that “Western-orientated” and trained researchers place on IK flows from three different views:

- ▶ A large group see IK as a primitive form of knowledge, which is incorrect and unscientific, so that conventional research is needed to educate and modernise its users. Modernisation is the key and considered the best approach by proponents of this view.
- ▶ A small group of applied researchers see IK as a highly valued and under-utilised resource that needs to be carefully studied so that the “best elements” (those considered relevant by scientists) may be extracted and combined with conventional science. This extractive process ignores the social, cultural, spiritual and other dimensions associated with IK, on which its effectiveness depends. It is a weak attempt at legitimising indigenous knowledge in the eyes of the academy.
- ▶ An even smaller group, emerging from the second, argues that neither indigenous nor

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scientific knowledge can be regarded as a complete and static stock of knowledge, since they reflect contrasting epistemologies, created within specific environments. Both forms of knowledge are evidence of dynamic processes of observation, investigation and experimentation. Both can include and adapt external innovations. In this view IK is equal to scientific knowledge and differs only in the resources at its disposal.

This last viewpoint has been given enormous support from agricultural development studies carried out by non-government and other organisations with smallholder farmers in developing countries around the world. This research has shown that if only the “best tenets” of IK are extracted, the resulting technology or innovation is usually less effective. For example, trying to get farmers to plant an improved variety of a local plant without observing the necessary preparatory rituals or social taboos would be tantamount to trying to get an engineer to believe in a new concrete mixture when she knows that the foundations have not been correctly laid.

The complementary potential of these two knowledge systems becomes clear when they are applied to a particular need or problem. In the applied development situation, neither indigenous knowledge nor scientific knowledge can claim superiority over the other. Their complementary application in specific situations is what matters, and this understanding has resulted in a greater awareness of the dynamic nature of IK and its role as an important resource for sustainable local development.

Many South African smallholder farmers rely heavily on indigenous or local knowledge in their farming activities, and innovate using this knowledge. Recent workshops held in KwaZulu-Natal in November 2004 and February 2005 by the South African PRO-LINNOVA programme (PROMoting Local

INNOVation in ecologically oriented agriculture and natural resource management) stressed this point.

The workshops reinforced the idea that local innovation is a process through which individuals or groups discover or develop new and better ways of managing resources, building on and expanding the boundaries of their indigenous knowledge. This ability to innovate with IK allows many African farmers to survive in their marginal and restrictive environments.

Examples of local innovations presented during the workshop included the development of technology and the enhancement of social networks, stressing the importance of IK as a resource in development. Farmers, for instance, had developed some workable technologies, using only locally available resources. These included the development of pesticides, developing composting and soil fertilisation systems to improve tree and seedling growth, grafting techniques to produce export quality fruit, developing post-harvest storage facilities that prevent onions from perishing, and making breeding baskets for hens to protect the eggs from predators.

The development of a social network had enabled one Cape farmer to enter into and remain in the apple export market for 30 years, despite the constraints that he and other smallholder farmers had faced.

These and other examples supported the understanding that IK is the knowledge that grows within a social group, incorporating learning from own experience over generations. It is also knowledge gained from other sources, which has been completely absorbed into the local ways of thinking and doing. In some instances, external or scientific knowledge had been combined with IK during the innovation process.

If the implementation of the South African IKS policy takes note of the dynamics of indigenous knowledge and its ability to contribute significantly to development in multiple ways, the South African hills will truly be alive with the sound of indigenous innovation. Indigenous knowledge is more than a mere commodity for sale to the highest bidder, or a resource that can be extracted and shrouded in science. It has the ability to innovate and improve knowledge. •

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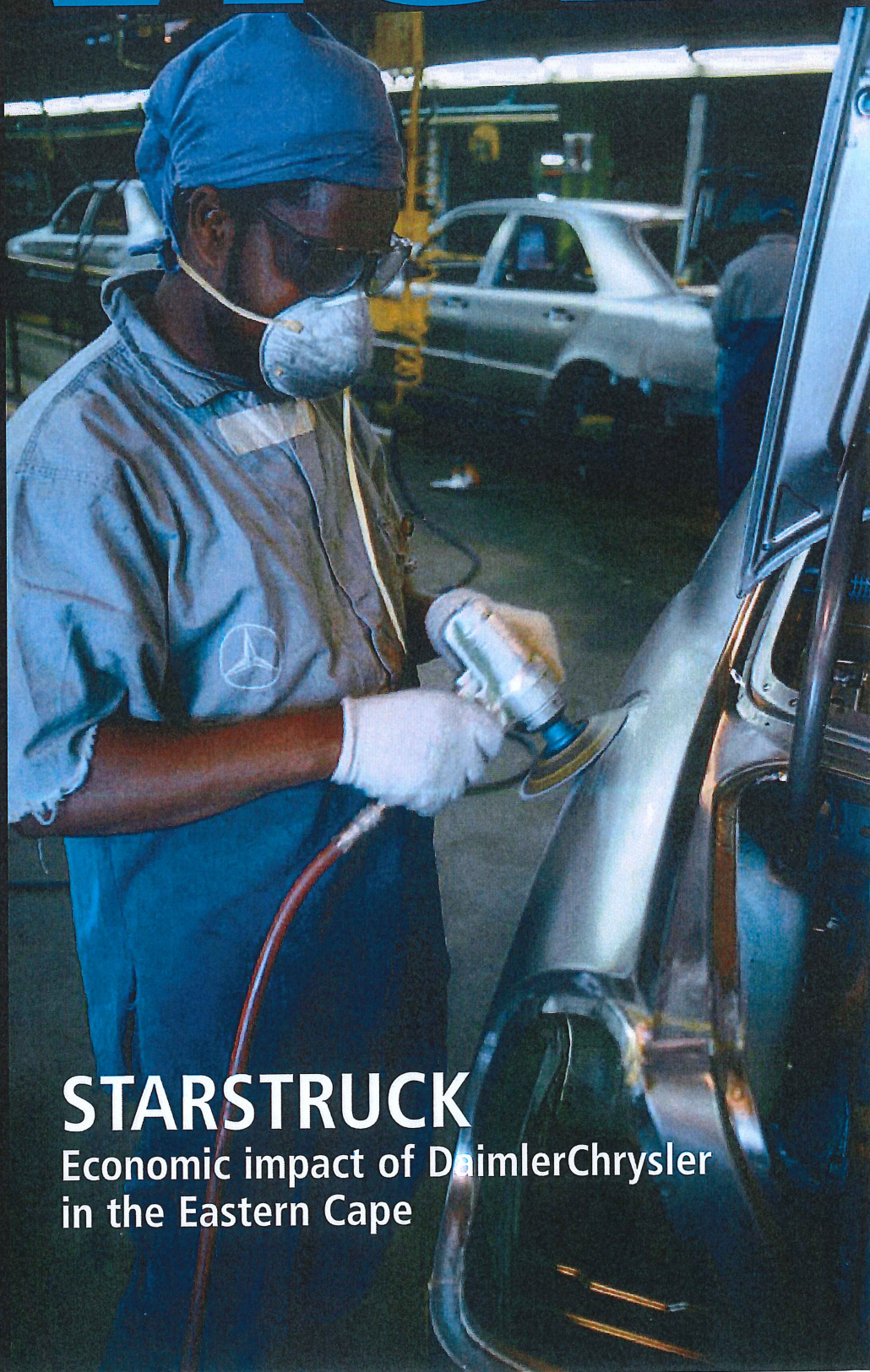
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