Indigenous knowledge in environmental conservation

Indigenous knowledge is one of the greatest assets of a community. In a time when the climate is changing this knowledge can help them to adapt to these changes and control the environment around them.

This story is about a research project focused on the role of Indigenous Knowledge (IK) in environmental conservation and climate change adaptation and mitigation in Tanzania.

IK means local knowledge that is unique to a given society and is embedded in their cultural traditions. IK is an important part of the culture and history of any local community. Through indigenous knowledge, local communities have been able to cope and adapt with the devastating effects of increased climate variability manifested through frequent droughts and floods. They do this by predicting these extreme climatic events using local environmental and astronomical indicators and then use various local coping measures during droughts and floods.

The current project focuses on mainstreaming this indigenous knowledge to help develop climate change adaptation and mitigation strategies throughout Tanzania.

Learning from the local communities

Decline in the use of indigenous knowledge has certainly contributed to some extent to degradation of natural resources in Tanzania. At the same time, the survival of natural resources in the country has been attributed in many instances to the application of indigenous knowledge in the conservation and management of these resources.

One of the main project goals is to document indigenous knowledge from the local communities. This is done by identifying and documenting local environmental and astronomical indicators used in weather and climate prediction. Also, the perception of the local communities on indigenous knowledge in weather and climate prediction and their knowledge on climate change are being investigated. The project is trying to identify gaps and needs in knowledge in addressing climate change issues.

A group of elders aged 50 years and above in Ismani and Mahenge wards
are the ones who are involved in sharing their indigenous knowledge with the researchers. They exchange ideas, information, points of view and experiences with the researchers. The dialogue is organized among the elders themselves and between them and the researchers. This facilitates the sharing of knowledge and experiences between elders and researchers.

Creating awareness on IK

Awareness creation on indigenous knowledge and its role in climate change adaptation and mitigation is one of the project’s outputs. Climate change awareness to the general public in Mahenge and Ismani has been enhanced through approaches including the use of Radio Ulanga in Mahenge and Nuru FM in Iringa. Also, climate change awareness to secondary school students in Mahenge and Ismani have been carried out. Students in Kwilo High School and Nawenge Secondary School in Mahenge, and Highland Secondary school in Iringa have been sensitized about various aspects of climate change including the role of indigenous knowledge in environmental conservation and in climate change adaptation and mitigation.

As a result of these project efforts in Mahenge and Ismani communities people are now more conscious about environmental conservation, including forest and water conservation. Further, interest of students and the younger generation on climate change and environmental conservation has been enhanced.

Impact to the local communities

Sensitization on indigenous knowledge and its role on climate change adaptation and mitigation have brought positive impacts to the local communities. The local authority and communities in Ismani ward have decided to allocate a large area for afforestation activities in order to restore the lost forest. More than 10 acres have been set aside for afforestation, and seedling preparations are in progress.
Plants and birds to predict rainfall

Local indicators are used by communities in seasonal rainfall prediction. In Mahenge and Ismani, plant phenology is the mostly used indicators in rainfall prediction. The appearance of Kakakuona (Pangolin) and the behaviour of Dudumizi (Caucal) birds were singled out as among the best indicators used in rainfall prediction. Both local Indigenous Knowledge specialists in Mahenge and Ismani have successfully predicted the 2011/2012 seasonal rainfall using Indigenous Knowledge.

CCIIAM project on Indigenous Knowledge

Sokoine University of Agriculture, in collaboration with the Norwegian University of Life Sciences together with the University of Dar es Salaam, Ardhı University, and the Tanzanian Meteorological Agency are implementing a programme titled “Climate Change Impacts, Adaptation and Mitigation” (CCIAM), which runs from 2010 to 2014. The programme is supported by the Norwegian Agency for Development Cooperation (NORAD).

The project talked about in this story – Indigenous Knowledge in Morogoro, Ismania and Irinaga region – is part of the CCIAM programme. It is led by Dr. Agnes L. Kijazi, Director General of Tanzania Meteorological Agency (TMA).

Integrating IK in forecasting

The project on IK has obtained many results which have been disseminated through project brochures and banners, documentary DVDs on IK in weather and climate prediction, radio programmes and scientific papers. The output of the research will be used by TMA by integrating it into available forecasting methods and the meteorological instruments used in the project will be maintained there after completion of the project.

Project title:
The Role of Indigenous Knowledge in Environmental Conservation and Climate Change Adaptation and Mitigation in Tanzania.

For more information go to http://www.suanet.ac.tz/cciam/

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