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**National Seminar on  
Sustainable Development of Tribal Areas  
Through Integrated and Eco-  
Friendly Approaches**

**December 11-13, 2009**

**Compendium  
of  
Invited Papers  
&  
Abstracts**

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## Lead Paper

### Sustainable Agriculture Under Subsistence Farming In Tribal Areas

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#### ABSTRACT

Subsistence farming refers to a form of farming in which nearly all the crops or livestock raised are used to maintain the farmer and his family leaving a little surplus for sale or trade. The subsistence farming had been in practice in pre-industrial agricultural era throughout the world. As urban centres grew, agricultural production became more specialized and commercial farming developed. The subsistence farming persists today mostly in less developed areas and in particular tribal areas of the country.

The tribal population constitutes about 8.20% of country's population, mostly located in the central uplands of the Indian peninsula. A bulk of them (about 60%) reside in the central western India constituted by M. P (14.5%), Maharashtra (10.2%), Orissa (9.7%), Gujarat (8.9%), Rajasthan (8.4%), Jharkhand (8.4%) and Chhattisgarh (7.9%). The literacy rate among the tribes in these major states are also significantly lower (37.4-52.1%) than that of the non tribes (53.6-76.9%), a major factor for continuing unsustainable subsistence farming in tribal areas of the country.

Though the subsistence farming has been sustainable in the past, it has now become unsustainable mainly due to increased demand of output from per unit area and time and degraded natural base. How to improve the sustainability of the system has been major concerns of the researchers in the country and many economical options have been suggested. These include organic farming – using less/none off-farm inputs, integrated cropping systems, namely, intercropping, sequential cropping with efficient crop rotations, and diversified farming systems, namely, agroforestry, agri-horticulture and animal based farming systems. Many models on Integrated Farming Systems including crops, animals, horticulture/silviculture and fisheries have been developed for specific regions that will be more economical, sustainable and eco-friendly for the region.

These systems not only improve the economic, social and cultural sustainability, but also enhance environmental benefits such as conservation of biodiversity and improvement in natural resource base of the region