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## RESEARCH REPORT

# Decline in Traditional Millet farming in Tribal Trace Areas of Mahabaleshwar Taluka a Hazard to Ecosystem

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ABSTRACT	KEYWORDS			
Millets are well known for their nutritional values. It is a healthy and nutritional meal useful from infants to people suffering old age. It is one of the oldest crops used in cultivation practices. As time passed farming has turned out to be money earning business and farmer have shown more interest in cash crops. The trend of economic development in farming has shown deduction in natural and traditional farming of some millet. Similar effects on tradition farming of millets by local people from Mahabaleshwar have been studied in following paper.	Traditional farming, Millets, Mahabaleshwar, Cash crop.			
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## **INTRODUCTION**

In India, out of the total net sown area of 141.0 Mha, rainfed area accounts for 85.0 Mha spread over 177 districts. This constitutes approximately 60 percent of the total farming area in the country. Rainfed agriculture contributes 44% of the total food grain production of the country and produces 75% of pulses and more than 90% of sorghum, millet and groundnut from arid and semi arid regions Basavaraj et al., (2010). Millets are amazing in their nutrition content. Each of the millets is three to five times nutritionally superior to the widely promoted rice and wheat in terms of proteins, minerals and vitamins. (Millet Network of India Deccan Development Society - FIAN, India). Local villages in ranges of Sahyadri limited to Mahabaleshwar block are Rajpuri, Pangari, Dandeghar, Bhilar, Bhosekhind, Gureghar, Bondarwadi, Avakali, Gutad, Lingmala, Ranjanwadi, Mahabaleshwar, Kshetra Mahabaleshwar, Machutar, Taldev, Kelghar, Vada, Pratapghad etc. Millets cultivated in these villages and studied in resent paper are Finger millet, Eleusine coracana (Nachni), Foxtail millet, Setaria italic (Rala, Kang), Little Millet, Panicum sumatrense (Vari) and Great millet, Sorghum spp (jondhala). Finger millet, Foxtail millet, Little Millet are more familiar in traditional farming as these villages reside on hills, depend on natural source of water after rainy season like springs and waterfalls. In some villages wells are constructed for limited irrigation.

## **MATERIALS AND METHODS**

The local villages that reported millet cultivation was surveyed for last two years. Data from farmers engaged in millet cultivation and types of millet cultivated along with cultivated area was acquired from Grampanchayats and several NGOs associated with the welfare of tribal people. Meetings were held regularly with several farmers and group of farmers. Survey of cultivated crops and their status was carried out w.r.t. climatic conditions, irrigation and production in percentage. Similarly data for total land utilized for cultivating millets for last five years was carried out.

### **RESULTS**

Amongst all millets the most traditionally cultivated millets before 2005 was Pearl and Great millet which was about 75 to 80 % and other millets like Finger, Fox tail and Little millet ranged from 25 to 40 %. Recent data indicates that there is overall fall in traditional farming of millets. Fall in Great millet is higher upto 34 % and until 2009 pearl millet cultivation heads great millet. As reported by Basavaraj et al., (2010). % decline in traditional farming as indicated in table 1 for each millet is 34% in Great millet, 14% in Finger millet,

10% in little millet and 5% in Foxtail millet similar results are recorded in study conducted by Directorate of Millets Development, (2011).

**Table 1:** Year wise data of percentage farming of millets and decline in millet farming.(% values are year dependent and independent of other genus)

% farming of millets						
Year	Pearl millet	Finger millet	Foxtail millet	Little Millet	Great millet	
2005	75	40	35	29	79	
2006	75	35	35	28	75	
2007	72	32	30	25	70	
2008	70	32	30	20	65	
2009	60	26	30	19	45	
% Decline	15	14	5	10	34	

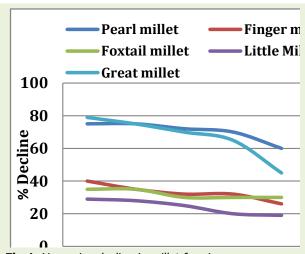


Fig.1: Year wise decline in millet farming.

Some cash crops like strawberry, and Sweet corn are replacing traditional crops and few short life crops are also being newly introduced increasing competition with traditional crops. Being a popular place on world map Mahabaleshwar has always undergone change in its cultivation practices. Major loss in traditional crops is due to invasion of foreign crops like Strawberry, Gooseberry, Mulberry, Sweet corn and French beans. These crops are not cultivated throughout the year due to heavy rain showers which leads to force full application of chemical fertilizers and insecticides. Impact of

fertilizer is known worldwide but due to some insecticides there is great decrease in some non infectious insects but very use full in pollinating some wild species of plant.

#### **CONCLUSSIONS**

Post Green Revolution there has been a systematic decline in the production of millets. This can be understood from the production trends of millets as compared to other crops such as rice and wheat that were relentlessly promoted for intensive farming.(Millet Network of India Deccan Development Society FIAN, India) Much of the decline in production can be attributed to the way millet cultivation areas have shrunk over the last fifty years. Before 2005 rice was cultivated in lesser areas in Mahabaleshwar ranges but this has been reversed today. Major reasons for this decline are low economic value, decreasing knowledge about traditional food, farming and processing, retarded area of land under cultivation, government policies, loan facilities and availability of stable market. Mahabaleshwar is not a notable agricultural region as most of its area is forest. Decline in traditional farming has lead to development of modern cash crop framing leading to heavy loss in natural ecosystem due to introduction of non natural techniques where as traditional farming in more natural than modern farming.

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