



### About Rainfed Farming Development Program

The 'Rainfed Farming Development' theme, initiated by DHAN Foundation in 2002, graduated into an emerging program in 2008-09. The Rainfed Farming Development Program (RFDP) works with the shared vision of "making rainfed farming as a viable livelihood" and with specific goals of Food security, Income security and Ecological security. The broad strategy of RFDP is "enhancing viability of rainfed farming livelihoods through integrated and critical demand based interventions, depending on the context". As on July 2013, RFDP was working in fourteen locations in 6 states with 15647 member farmers across different agro-ecological conditions. RFDP has been implementing various projects like NWDPRA, CAIM, IWMP and RESMISA in collaboration with agriculture department, marketing department and agricultural universities.

### About RESMISA Project

The action research project 'Revalorising Small millets in Rainfed Regions of South Asia (RESMISA)' aims to increase production and consumption of nutritious small millets and associated pulse and oil seed crops in rainfed regions of India, Nepal and Sri Lanka. It pursues a multi-pronged research strategy related to conservation, productivity enhancement, value addition, post-harvest processing, promotion and policy action to raise the profile of small millets. The project has selected six research sites in backward and tribal dominated pockets of Tamil Nadu, Andhra Pradesh, Odisha and Jharkhand states of India and one site each in Sri Lanka and Nepal. The project is anchored by DHAN Foundation and Canadian Mennonite University. The other Indian partners are Tamil Nadu Agriculture University, All India Coordinated Small Millets Improvement Project of ICAR and WASSAN. This project is supported by Canadian International Food Security Research Fund (CIFSRF) promoted by Canadian International Development Agency (CIDA) and International Development Research Centre (IDRC), Canada.

## National Seminar on Recent Advances of Varietal Improvement in Small Millets

**Madurai Symposium 2013**

**September 12, 2013**

*Organized by:*

**Rainfed Farming  
Development Programme,  
DHAN Foundation,  
Madurai**





## National Seminar on Recent Advances of Varietal Improvement in Small Millets

### Background of the theme

Small millets are known for their excellent nutritional qualities in terms of high crude fibre, protein and minerals and for their ability to grow under marginal environments and rainfed conditions. They are recognised as nutri-cereals and climate resilient crops. Because of these special qualities they are being given much importance in addressing global issues of food security and nutrition security. Despite these advantages, the total cultivated area of small millets other than finger millet has declined by 80% between 1961-66 to 2008-09, and that of finger millet by 46%. The total production of small millets has declined by 76%. Farmers' interest in these crops has declined and one of the important reasons for this is the low productivity of small millets cropping systems.

Therefore an important challenge for the plant breeders is to improve the yielding ability of small millets in order to enhance productivity. The other important parameters considered besides productivity are disease resistance and drought tolerance. In the past considerable progress was made in varietal improvement of finger millet. As a result its productivity has increased considerably and could offset decline in production caused by decline in area. Similar advancements are yet to happen in case of other five small millets and by and large it still remains as a challenge. Most of the improved varieties in these crops come from pure-line selection, as combinational breeding happens to be tedious. The other challenge for plant breeders is crop improvement with respect to quality parameters as demanded by various stakeholders like farmers. Some important parameters that need to be considered are quality of grain and fodder in terms of taste and keeping quality and nutrition factors like mineral content.

The third challenge for the plant breeders is meeting the varietal preferences pertaining to communities living in heterogeneous geographical niches like Eastern Ghats. As the agro-ecological and socio-economic conditions are different from where the research stations are located, there is need for varietal improvements specific to those environments. There is also need for evaluating the successful varieties developed by farmers over generations in other locations with similar agro-ecological environments. The other important issue is very limited penetration of developed varieties among farming communities, except for few states like Karnataka where there is large scale penetration of successful varieties of finger millet. So the fourth challenge for all concerned with small millets improvement is effective and sustainable dissemination of suitable varieties developed among the farmers. To address these third and fourth challenges and in principle to involve farmers, the end users of varietal improvement research systematically, many concerned individuals and organizations across the globe have tried various participatory crop improvement approaches. These approaches have been attempted in many countries like Ghana, Bangladesh, India and Nepal for rice, wheat, mungbean, horsegram, maize, chickpea, finger millet and sorghum (Plant Sciences Research Programme. DFD India). While there is a perception that these approaches are alternative to conventional breeding, over time lot of common grounds and complementary space has been identified for effective integration. Given the fact that the potential for participatory varietal selection is huge, efforts were taken for participatory crop improvements in small millets also.

In the back drop of these challenges and developments a national seminar on '**Recent advances of varietal improvement in small millets**' is being organized on 12<sup>th</sup> September as part of Madurai Symposium, a biennial event to be held in September 11-15, 2013, at Madurai, Tamil Nadu

### Thematic areas

#### Recent advances in

- Varietal improvement of small millets
- Participatory varietal improvement in small millets
- Innovative ways for dissemination of improved varieties developed at community level

#### Expected Outcomes

- Cross learning among stakeholders on various initiatives and approaches on varietal improvement of small millets.
- Identification of areas for advancing varietal improvement of small millets in India

#### Participants

Faculty, research scholars, post-graduate students of SAUs and ICAR institutions, NGOs involved in the related issues, progressive farmers and personnel from seed industries are expected to participate in the seminar

#### Indicative Programme Schedule

10.00AM: Prayer and welcome

10.15AM: Purpose and background of the seminar

10.30AM: Lead paper presentation

11.10AM-  
03.30 PM: Theme paper presentations

03.30 PM: Panel discussion

04.30 PM: Concluding session

**Venue: Thamukkam Grounds, Madurai, Tamil Nadu**

**Date: 12.09.2013, Thursday**

### Sending abstracts of papers

Abstracts not exceeding 300 words (with 12 Times New Roman and justified format) may be sent by email to [rfdprishnagiri@ghan.org](mailto:rfdprishnagiri@ghan.org). The hard copy along with the filled in registration form may be sent to the following address:

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### Deadlines

Last date for receiving the abstracts : **August 23, 2013**

Confirmation of acceptance : **August 27, 2013**

Confirmation of participation : **September 2, 2013**

### For more details please contact:

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