

National Policy Workshop on Mainstreaming Small Millets in Our Diets

A Synthesis of Policy Recommendations

Date: 1 June 2017

Organised by



DHAN Foundation

Under the aegis of

**Scaling up Small Millet Post-harvest and
Nutritious Food Products Project**



Global Affairs
Canada

Affaires mondiales
Canada



IDRC | CRDI

International Development Research Centre
Centre de recherches pour le développement international

Canada

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National Policy Workshop on Mainstreaming Small Millets in Our Diets

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1 June 2017

India Habitat Centre, New Delhi

1. Introduction

A national policy workshop was organised on 'Mainstreaming Small Millets in Our Diets' at India Habitat Centre, New Delhi on 1 June 2017 by DHAN Foundation as part of *Scaling up Small Millet Post-harvest and Nutritious Food Products Project* supported by IDRC and GAC, Canada. The main objective of the policy workshop was "To discuss and develop concrete policy support needed for mainstreaming small millets at State and Central Government levels in the following

spheres: a. Improving production, b. Development of decentralized processing infrastructure, c. Market development and d. Promoting household consumption". Small millet farmers, representatives from small millet FPOs, small millet processors, food entrepreneurs and eminent persons from Government of Tamil Nadu, Odisha and Andhra Pradesh, NGOs, research organisations and funding agencies participated in the workshop and shared their views on policy supported for mainstreaming small millets. The list of participants is provided in Annexure 1.



Mr. M. Karthikeyan, Principal Investigator and Programme Leader, DHAN Foundation, gave an introduction about the workshop. Mr. M.P. Vasimalai, Executive Director of DHAN Foundation, made opening remarks and Shri B Rajender, IAS., Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare, delivered the keynote address. Lead presentations were made by Dr. Vilas Tonapi, Director, Indian Institute of Millet Research, Dr. Jahanmohan, Agriculture Policy & Planning division of Tamil Nadu State Planning Commission, Mr. K. Muralidharan ADA, RFD Scheme, Department of Agriculture, Tamil Nadu, Mr. Karthikeyan, DHAN Foundation, Dr. Israel Oliver King, Principal Scientist, MSSRF, Mr. Sivaramakrishnan, proprietor of Sri Velavan Agro, Tamil Nadu and Mrs. Urmila, proprietor of Atchaya Foods, Tamil Nadu, Dr. Ravindra, Director, WASSAN, Dr. Sarma from Department of Agriculture, Andhra Pradesh and Mr. Dinesh Balam, State Coordinator, WASSAN, Odisha. The detailed presentations can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>. The workshop agenda is provided in Annexure 2.

The participants agreed that, despite the wave of millet promotion in the last five years, there is a long way to go for transforming small millets from the current neglected and underutilised status to one of the mainstream foods. They also agreed that sustained and focused support and active role of government in the long term is crucial for mainstreaming small millets in our diets. The learning and insights gained from different millet development initiatives in the country by private actors, NGOs and the government were shared to develop a large-scale plan of action. The synthesis of policy perspectives, policy action points and suggestions that emerged from the workshop are provided in the following section. The detailed proceedings are provided in Annexure 3. It is expected that the deliberations from the workshop

will feed into the existing and the forthcoming state and central government initiatives to promote small millets.

2. Policy support needed for mainstreaming small millets in our diets

2.1. Broader goals of policy intervention

Reviving/ integrating small millets into food cultures and farming systems for healthy lives, resilient agricultural livelihoods and healthy agro-ecosystems.

2.2. Need for government intervention

1. **To improve nutritional status:** India is facing triple burden of malnutrition and rising epidemic of non-communicable diseases across the social and wealth categories. Promoting consumption of small millets is one of the important means to address this situation.
2. **To address climate change related issues:** Indian farmers, particularly rainfed farmers are facing various climate change related issues, which are drastically affecting their livelihoods. Small millets being able to adapt to a wide range of growing environments and requiring less water, are good candidates for climate change adaptation.
3. **To develop markets for small millets:** Small millet markets are just emerging and has many imperfections such as price discovery issues, underdeveloped and not standardised infrastructure and technologies, and poor business development. There is need to create a 'level playing field' for small millets when compared to other food grains for their revival. Support has to be provided until the market reaches a threshold level, from where the consumer demand and market forces can drive the growth of small millet products to make them as 'mass products', accessible to major sections of the population.





4. **To improve the development impact of public investment on farming:** Public investment on small millets pays back many fold as supporting millet cropping and food system results in savings in the public investment made so far such as power subsidies, fertiliser subsidies, etc.
 5. **To correct the imbalances created by past policies:** The past agriculture and food policies have resulted in distorted cropping system, unbalanced nutrition regime and inequality across irrigated and rainfed regions. Introducing small millets in public food programmes can help reforming them in terms of the following:
 - (i) linking nutrition with local crop diversity, livelihoods and economy, (ii) partly reversing the shift from dryland-based food system to irrigation-based food system and iii) improving the livelihoods and economic growth of backward dryland regions.
1. **Specific support for value chain development of small millets is necessary;** given the specific constraints involved, generic support offered for few components as part of various government schemes will not suffice for mainstreaming them.
 2. Given the multiple and interrelated constraints faced by the small millets, **isolated Supply-Centric Initiatives will not bring small millets back into production or food systems;** integrated interventions at least at the regional level covering production, processing, market development and household consumption are needed.
 3. **Prevalent diversity of small millets necessitates decentralised approach for ground level interventions.**
 - Small millets are in **specific agro-climatic niches/farming systems;** all efforts towards improving their production should take this into consideration.
 - Small millets are part of **food-cultures** - traditional and modern - and so are location/region specific; all efforts towards improving consumption should take this into consideration.
 4. **Twin strategy of (i) Supporting market development and (ii) Supporting, what market will not do, needs to be followed** for mainstreaming small millets in our diets.



- Small millet market in general caters to the urban section with purchasing power. As it is in the initial stage, support by the government is needed for establishment until a threshold level is reached from where the private forces can take it forward. This support can take the form of development of markets, infrastructure, institutions, support for value chain actors, addressing knowledge gaps, evolving and establishing product standards and creating an environment conducive for entry of many private entities in the small millet value chain.
 - There are many areas, which private sector will not take up such as ensuring access to small millet for poorer sections, which needs to be addressed through public investment.
5. **Consumption of small millets** as meals, tiffin or in any form involving **substantial quantity will make a difference to the nutrition** than value-added products where quantum of consumption is small and only the fraction of the product is constituted by small millets. Further, small millets **need to be consumed in bulk to generate substantial demand for considerable period to trigger area expansion and for development of market, infrastructure and technology**, until large demand makes it possible entry of private players, investors and providers of appropriate technologies. Promoting small millets for niche markets (such as urban elites) will not help in increasing the area substantially and their revival. Bulk demand has to come from the rural areas mainly and promotional efforts should focus on the same.
 6. Scaling up of the proven working models available across the country on production, processing, market development and household consumption, mainly transferring the learning from Tamil Nadu and Karnataka to other production regions.
 7. Women play an integral role in the cultivation of small millets and their consumption. Therefore, all the policy actions should pay necessary **attention to the gender aspects and towards strengthening roles of women**; Attention needs to be paid to create spaces for women in various aspects of millet development.
 8. **Marginalised communities** such as tribals are currently the major producers and consumers of small millets. Therefore, all the policy actions should lead to further **strengthening and enhancement of their existing roles in the emerging small millet value chains**.



2.4. Focus areas for policy action

2.4.1. Scaling-up production

Strategic directions and focus areas

1. Small millets are in **specific agro-climatic** niches/ farming systems: The approach to production systems improvement research and support for improving production has to take this into consideration; generic and similar solutions across the geographical regions will not be effective.
 2. **Cluster approach:** The production regions need to be divided into three types namely (i) current production clusters, (ii) declining production clusters and (iii) erstwhile or new production clusters and differentiated approaches to be followed, with priority given to the first two types.
 3. There needs to be **specific targets for each type of cluster for increasing area** under small millets production.
 4. **Priority** should be given to **small and marginal farmers** for production support, as they need support to bring areas under small millet cultivation and double up as consumers.
3. Support for increasing production covering
 - a. Reviving/promoting small millets as part of mixed/inter cropping systems and not as sole crops
 - b. Research and effective adoption of region/location-specific improved production practices
 - c. Threshing yard construction and custom hiring services for harvesting, threshing, cleaning and grading of produce
 - d. Customised crop insurance at affordable terms
 - e. Diversifying cropping systems in traditional rice and wheat belt like Punjab and Haryana for addressing malnutrition-related issues
 4. Support for marketing of farm produce of small millet farmers through **higher Minimum Support Price (MSP) and regular procurement by government** covering,
 - a. Assessment of cost of production for small millets in different production regions for arriving at support prices
 - b. Fixing MSP for small millets higher than other crops to create a level playing field with other crops and production incentive for the farmers
 - c. Involvement of civil supply corporation and marketing federation at the regional level to cushion the grain market and to create a sustained regional supply chain for small millets. This will address market uncertainties and make possible other large scale measures such as inclusion of small millets in public food programmes
 - d. Support for aggregation of the produce at the local level through farmers' organisations
 - e. Creation of decentralised warehousing and procurement facility with stock-based credit support

Specific policy action points

1. **Mapping of small millet production areas** across the country at the micro geographical unit level such as firka or sub-block for informed policy actions and better implementation.
2. **Support for Community Managed Seed Systems** involving local farmers' organisation covering,
 - a. *In situ* conservation of land races
 - b. Participatory varietal improvement and adoption of well-performing varieties through mini-kit programme
 - c. Seed enterprises to meet local/regional seed demand



5. Need-based credit support for small millet cultivation.
6. **Agency:** Support for organising small millet farmers into effective farmers' organisations such as FPOs and supporting them for organised production and marketing.

2.4.2. Processing infrastructure development

Strategic direction and focus areas

1. **Addressing knowledge gaps** in primary processing of small millets for streamlining supply of nutritious bulk products of small millets.
2. **Establishment of a thriving ecosystem for small millet processing equipment** at the national level through offering **specific support at (i) Equipment manufacturing level and (ii) Adoption of processing technologies level.**
3. **Promoting decentralised processing facilities,** which have better technical feasibility in the context of wide variations in grain features among small millet crops and their varieties and fit into the food cultures of local areas and regions, instead of large-scale centralised facilities.

Specific policy action points

- 1) **Addressing knowledge gaps** in primary processing: Supporting user centred research on
 - a) Improving processing equipment for small millets to meet the requirement at village, micro enterprise and medium enterprise levels to reduce the cost of processing and improve the quality of bulk products
 - b) Evolving and establishing user-friendly standards for raw materials, processing and bulk products like that of paddy rice, with the involvement of value chain actors, with nutrition as the focus
 - c) Improving shelf life
 - d) By-product utilisation
 - e) Managing kodo millet poisoning



2) Supporting equipment manufacturers

Specific support to be given for small millet processing equipment manufacturers, rather than seeing them as one among the numerous equipment manufacturers, as the sector is in the early stage and the equipment manufacturing, distribution and servicing is not yet developed adequately. Specific support to be given to the following:

- a. **Improvement of the design of their equipment** with the following objectives
 - (i) To improve the quantity and quality of output,
 - (ii) To improve ease of use, maintenance, safety and stability, and
 - (iii) To reduce footprint, energy use and cost of the machineries.
- b. Developing and establishing **equipment standards** related to processing equipment
- c. **Increasing volume of sales through**
 - (i) Placing bulk orders from government schemes,
 - (ii) Facilitating business-to-business linkages,
 - (iii) Increasing visibility of products and
 - (iv) Adopting different marketing strategies
- d. **Improving production capacity**
- e. **Access to capital in better terms**
- f. **Creating an enabling environment** through
 - (i) Supportive tax regime,
 - (ii) Removing entry barriers to government bids to small manufacturers and
 - (iii) Empanelment of well-performing equipment manufacturers by the state and central governments.

3) Supporting adoption of processing technologies

- a. Popularise prototypes developed and tested in South India across different small millet producing regions
 - ◆ Development of a demonstration cum business hub in each production region for disseminating and selling customised processing equipment

- ◆ Dissemination of processing technologies through media and other channels

b. Development of local cadre of mechanics

4) Supporting processors at different levels

Specific support to be given for small millet processors, rather than seeing them as one among the numerous grain processors, as small millets are just emerging as a food category in the market and much needs to be done towards improving the business viability of small millet processors and their establishment.

a. Village-level processing enterprises – For custom hiring service in the production regions

- ◆ **Support for processing equipment** at subsidised terms to the **suitable village-level agency** such as an existing miller or other village enterprise, forthcoming SHG or farmers' organisation, etc.

- ◆ **Hand-holding until establishment** including (i) Support for installation, (ii) Structured capacity building for operators mainly village youth and women and (iii) Support for popularising the milling service in the nearby villages

- ◆ **Reviving the defunct units** through addressing unit-specific issues along with (i) Servicing existing machines and (ii) Providing additional equipment

b. Regional processing enterprises - For commercial supply of rice, grits and flour, in the production regions

- ◆ **Supporting for establishing/expanding** production facility at subsidised terms to suitable agency such as Farmers' Producer Company and interested entrepreneurs

- ◆ **Incubation support including** (i) Support for installation, (ii) Structured capacity building on processing,

(iii) Building market linkages, (iv) Access to credit at easier terms to meet investment needed for procurement and storage of raw materials for long period (as there is only one crop season for most of the small millets), using mechanisms such as credit guarantee fund, considering the long gestation period needed for becoming a viable unit

- ◆ **Creating enabling environment** through (i) Reducing barriers to entry such as easing access to power supply, (ii) Offering production incentives, (iii) Supporting sales through government outlets and (iv) Ensuring product quality standards such as level of polishing

2.4.3. Market development

Strategic direction and focus areas

1. **Local or regional market development** with emphasis on nutrition, considering the food cultures in the pertaining region
2. The small millet value chain needs to be developed in such a way that **all the important actors get a fair share**, particularly for the small millet farmers and the viability of each one of them is improved
3. Preference to be given for supporting **value addition initiatives that link with on-farm diversity** in each production ecosystem
4. Support to focus on existing and new micro, small and medium food enterprises, rather than large-scale companies, to meet the local food preferences and to have fewer footprints

Specific policy action points

1. **Market demand study** of small millets for an informed policy discourse and action at the state and central government levels
2. **Support for small millet food enterprises**

Specific support to be given for small millet food enterprises, rather than seeing them as





one among the numerous food enterprises, as the value-added products of small millets are just getting established in the market and need focused support for becoming mainstream food products

- a. Support for initial establishment at subsidised terms for interested new entrants
- b. Business incubation support for interested new entrants covering (i) development of small millet food products, (ii) latest packaging technologies and labelling, (iii) capacity building on business management, (iv) improving visibility, (v) marketing and building business linkages, (vi) compliances with government protocols, etc.
- c. Support for accessing improved packaging technologies
- d. Support for testing of small millet food products, as it is currently quite costly (about Rs.6, 000 per product) in FSSAI referral labs.
- e. **Support for access to bank finance at convenient and subsidised terms** to meet working and fixed capital needs through specific financial schemes and mechanisms such as credit guarantee
- f. **Reducing barriers to entry** in the mainstream food market

- g. **Promoting exclusive millet markets** in big urban centres, preferably in available government marketing infrastructure
- h. **Creating an enabling environment** through
 - ◆ Supportive tax regime involving simple and transparent taxation and exemption to small millet food products under GST
 - ◆ Support to display proven research results on health benefits of small millets in their product labels as an aid to market their products
 - ◆ Ensuring product standards for small millet food products
 - ◆ Organising buyers and sellers meet
 - ◆ Supporting market mechanisms that promote the diversity maintained by the small millet farmers such as e-tracking of source of small millet product to the farm where it is produced and encouraging ethical practices of giving back to the farmers
 - ◆ Institutional mechanisms to support small and micro food enterprises with components such as single window system for accessing government schemes, back-end service delivery and business development support in every production region



3. Support for millet porridge vendors and other informal millet food enterprises

Recognising the contribution of millet porridge vendors for the provision of nutritious foods to the bottom of the pyramid population in urban and rural areas and supporting them in terms of infrastructure, access to water, capacity building and social security, so that their livelihoods are stabilised.

2.4.4. Increasing household consumption

Strategic direction and focus areas

1. Focusing on **increasing consumption of small millets** as meals, snacks or in any form involving **substantial quantity**, with a target to replace the share of paddy rice or wheat with small millets- at least 25% replacement.
2. **Building on the location/region-specific food cultures, both traditional and modern.**
3. **Substantial public investment on addressing food behaviour** in favour of small millets is necessary for reviving consumption of small millets, which the private sector will not do. Small millets need to be positioned mainly as 'healthy foods,' rather than as 'therapeutic foods.'
4. **Inclusion of small millets in PDS and other public food programmes** such as ICDS and

midday meals to ensure access of small millets to poorer sections and for creating a demand pull to accelerate market development for small millets.

Specific policy action points

Support for increasing household consumption

1. **Investing for a considerable period on improving general awareness, knowledge and skills** in utilisation on a large scale, with different branding and communication strategy for different kinds of target groups
2. **Supporting nutrition literacy** for school children and youth through curriculum development

Support for inclusion of small millets in Public Food Programmes (PFP) through supporting

1. Additional investment needed for purchasing small millets
2. Investment on awareness of end users of PFP i.e. the community for building consumer preferences and engaging them through various ways including food festivals with mothers' committees
3. Decentralised formulation of menus in ICDS, midday meals, etc. for the target population



depending on location specificities in terms of crops, food cultures, etc.

4. Strengthening local processing and storage facilities
5. Establishment of decentralised procurement systems, instead of centralised bids.
6. Capacity building of Anganwadi workers & other actors involved in the PFP for systematic implementation

2.4.5. Generic focus areas

1. **Creating a 'Nutricereals' bracket for millets** in National Food Security Mission (NFSM) and other policy support measures, to get special focus needed for mainstreaming them, instead of putting them under 'coarse cereals', which led to them being sidelined.
2. **Variety of financial instruments** besides grants such as soft loan, revolving fund, etc. **needs to be deployed** for supporting millet value chain actors. Suitable financial products need to be designed and delivered to millet value chain actors by agencies such as NABARD, SFAC, etc.
3. **Modalities**
 - a. **Special purpose vehicle (SPV)** for millets is required to pay focused attention; different forms such as 'commodity board' need to be explored.
 - b. **Spaces for entry and involvement of public agencies, private actors, NGOs and civil society organisations** at different levels are to be created, given the scale of interventions needed for mainstreaming small millets in our diets. The models used for implementing watershed development programmes across the nation can be referred.

- ◆ Local agencies such as farmers' organisations, civil society organisations, NGOs, etc. with proven record need to be engaged for cluster/sub-region

level integrated interventions for mainstreaming small millets, with support from state/ regional agencies.

- ◆ State-level anchoring institution - government institution or NGO - in collaboration with business incubator and/or agricultural university needs to be engaged with technical support from national agencies for the following:
 - Demonstration, dissemination, distribution and capacity building on processing equipment
 - Business incubation support to small millet processors and food enterprises
 - Nutrition education campaign through media and bigger events for promoting household consumption
 - Promoting small millets through public food programmes
 - Policy advocacy at the state level
- ◆ A consortium of pan-Indian organisations with competencies in management and research needs to be engaged for the following:
 - Addressing knowledge gaps
 - Developing standards
 - Supporting equipment manufacturers for scaled-up supply of quality processing equipment - National level
 - Technical backstopping for state/ regional level agencies
 - National-level campaigns
 - Policy advocacy
- c. Transparent and user-friendly on-line monitoring and evaluation system to be used for timely sharing of data and offering timely support.



Annexure 1

List of participants

S. No.	Name	Organisation
I	Small Millet Farmers and FPO representatives	
1	Mrs. V. Krishnaveni	Peraiyur Farmers Producer Organization
2	Mr. C. Alagesan	Jawadhu Hills Farmers Producer Organization
3	Mr. Rama Khila	Semiliguda Farmers Producer Organization
4	Ms. R. Suma	Peraiyur Farmers Producer Organization
II	Small Millet Processor	
5	Mr. T. Gunasekara Seenivasa Perumal	Small millet processor, Sengapadai, Madurai
III	Small Millet Food Enterprises	
6	Mr. K.V. Sivaramakrishnan	Sri Velavan Agro, Trichi
7	Mrs. T.S. Urmila	Atchaya Foods, Madurai
IV	Research Organisations	
8	Dr. Vilas A Tonapi	Indian Institute of Millet Research
9	Dr. D. Malathi	Post Harvest Technology Centre, TNAU, Coimbatore
10	Dr. N. Varadharaju	Post Harvest Technology Centre, TNAU, Coimbatore
V	Professionals from related development sectors	
11	Mr. Vijay Sardana	
12	Ms. Vibha Varshney	Centre for Science and Environment
13	Mr. Shankar	
14	Dr. Basanta Kumar Kar	The Coalition for Food and Nutrition Security (India)
15	Mr. Amit Mitra	
16	Mr. Vaidialingam	
VI	Promoters	
17	Mr. B. Rajender, IAS	Joint Secretary (Crops)
18	Mr. K. Muralidharan	Directorate of Agriculture, Chennai, Tamil Nadu
19	Dr. A. Ravindra	WASSAN
20	Mr. A. Daniel Anand Raj	SWISSAID



S. No.	Name	Organisation
21	Ms. Rachna Bhattarai	Patanjali, Yogpeeth
22	Ms. Somya Bhatt	GIZ
23	Mr. Deepak Chamola	GIZ
24	Dr. NDRK Sarma	Dept. of Agriculture, Andhra Pradesh
25	Mr. Dinesh Balam	WASSAN, Bhubaneswar
26	Mrs. Sonali Bisht	INHERE
27	Dr. K.R. Jahanmohan	State Planning Commission, Tamil Nadu
28	Dr. Nikhil Raj	TCI-TARINA
29	Dr. Bhaskar Mitra	Tata-Cornell Agriculture and Nutrition Initiative, Tata Institute of Social Sciences
30	Mr. Arunkumar.R	Srijan
31	Mr. Jaidayal	Srijan
32	Dr. E.D. Israel Oliver King	MSSRF
33	Mr. M.P. Vasimalai	DHAN Foundation
34	Mr. M. Karthikeyan	DHAN Foundation
35	Mr. M. Palanisamy	DHAN Foundation
36	Mr. M. Santhanam	DHAN Foundation
37	Mr. V. VEDIYAPPAN	DHAN Foundation
38	Mr. P. Krishnamurthi	DHAN Foundation
39	Mr. T. Dhanabalan	Kalanjiam Thozhilagam Ltd.
40	Mr. Kailash Chandra Machha	DHAN Foundation
41	Mr. S. Mohanalingam	DHAN Foundation
42	Mr. P. Saravanan	DHAN Foundation
43	Mr. Bijaya Kumar Nayak	DHAN Foundation
44	Mr. K. Pandimuruga Chinnan	DHAN Foundation
45	Mr. K. Manikandan	DHAN Foundation



Annexure 2

Programme Schedule

S. No.	Name	Organisation
10.00 AM	Prayer	
10.10 AM	Welcoming the participants	Mr. Santhanam, Programme Leader, DHAN Foundation
10.20 AM	Introduction about the workshop	Mr. M. Karthikeyan, Principal Investigator & Programme Leader, DHAN Foundation
10.30 AM	Opening remarks	Mr. M.P. Vasimalai, Executive Director, DHAN Foundation
10.40 AM	Key note address	Shri B Rajender, IAS, Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare
11.00 AM	Release of Guidelines for Setting up a Small Millet Processing Unit	
11.10 AM	Tea break	
	Panel- I	Chair: Mr. M.P. Vasimalai & Co-chair: Dr. NDRK Sarma, Dept. of Agriculture, Andhra Pradesh
	1.1 Policy support needed for improving production on a large scale	
11.20 AM	Lead presentation	Dr. Vilas Tonapi, Director, Indian Institute of Millet Research
11.40 AM	Experience of Tamil Nadu in increasing millet Production	Dr. K R Jahanmohan, Tamil Nadu State Planning Commission
11.55 AM	Observations and contributions by participants	Mr. K. Muralidharan, ADA, RFD Scheme, Dept. of Agriculture, Tamil Nadu
	1.2 Policy support needed for establishing decentralised processing infrastructure	
12.30 PM	Lead presentation	
12.50 PM	Observations and contributions by participants	Mr. M. Karthikeyan, Principal Investigator & Program Leader, DHAN Foundation
01.30 PM	Lunch	



S. No.	Name	Organisation
	Panel – II	Chair: Dr. Varadharaju, Prof. & Head, PHTC, Tamil Nadu Agricultural University Co-chair: Mr. A. Daniel Anand Raj, Senior Programme Officer, SWISSAID
	2.1. Policy support needed for market development for small millets	
02.15 PM	Lead presentation	Dr. Israel Oliver King, Principal Scientist, MSSRF
02.30 PM	Policy support needed for establishing micro, small and medium small millet food enterprises - Observations from experience	Mr. Sivaramakrishnan, Sri Velavan Agro, Trichi & Mrs. Urmila, Atchaya Foods, Madurai
02.45 PM	Observations and contributions by participants	
	2.2 Policy support needed for enhancing household level consumption of small millets	
03.00 PM	Lead presentation	Dr. Ravindra, Director, WASSAN
03.15 PM	Observations and contributions by participants	
	2.3 Learning from initiatives	
03.30 PM	Comprehensive Revival of Millets Project	Dr. NDRK Sarma, Department of Agriculture, Andhra Pradesh
03.45 PM	Special Programme for Millets in Tribal Areas of Odisha	Mr. Dinesh Balam, WASSAN
04.00 PM	Tea break	
	Concluding session	
04.15 PM	Sharing of synthesis of deliberations and Discussion	Mr. M. Karthikeyan
04.45 PM	Concluding remarks	Dr. Ravindra & Mr. M.P. Vasimalai
05.00 PM	Vote of thanks	Mr. M. Palanisamy, Program Leader, DHAN Foundation



Proceedings of National Policy Workshop on Mainstreaming Small Millets in Our Diets

1. Background of the policy workshop

1.1 Introduction

Small millets in the Indian context include finger millet, kodo millet, little millet, foxtail millet, proso millet, barnyard millet and browntop millet. They have been cultivated in India for around 3000 years, making them an integral part of the culture and history of India. Small millets offer better nutrition with more micronutrients (such as vitamin B complex, calcium, iron and sulphur), more protein, more dietary fibre and low glycemic index when compared to mainstream cereals such as rice and wheat. They are known as both preventive and curative foods. They help to manage lifestyle

diseases such as obesity, diabetes, hypertension, stroke, anaemia and some types of cancer. They are also a safe source of food as no or minimal farm chemicals are used for their cultivation. Furthermore, they are considered as climate resilient crops, as they can be grown under varied conditions such as arid and semi-arid environments requiring less water than many other cereals. They are drought resistant, require few external inputs and are often able to cope with poor soils. However, the production and consumption of small millets have declined drastically in the last three decades. While there are many factors responsible for this such as low productivity, high labour intensity, lack of attractive farm gate prices, easy availability



Figure 1: Inauguration of the policy workshop with lighting of lamp by participants

of rice and wheat through the public distribution system, drudgery related to hulling, inadequate food product development and commercialization, low social status and inadequate availability, an overarching factor is the inadequate policy support given by the state and central governments. In this context, a national policy workshop was organised on 'Mainstreaming Small Millets in Our Diets' at India Habitat Centre, New Delhi on 1 June 2017, by DHAN Foundation under the aegis of **Scaling up Small Millet Post-harvest and Nutritious Food Products Project**. The main objective of the policy workshop was 'To discuss and develop concrete policy support needed for mainstreaming small millets at state and central government levels in the following spheres: a. Improving production, b. Development of processing infrastructure, c. Market development and d. Promoting household consumption.'

1.2 Participants

The meeting brought together 45 stakeholders, including representatives from Farmers Producer Organisations (FPOs), small millet processors, food entrepreneurs, eminent persons from Ministry of Agriculture and from Governments of Tamil Nadu, Odisha and Andhra Pradesh, NGOs, research organisations and funding agencies. The details of the participants are provided in Annexure 1.

1.3 Process

The meeting was inaugurated by lighting of the lamp by various small millet stakeholders. Mr. M. Karthikeyan, Principal Investigator & Programme Leader, DHAN Foundation introduced the participants to the background, purpose and focus areas of the policy workshop. Mr. M.P. Vasimalai, Executive Director, DHAN Foundation, made opening remarks and Shri B Rajender, IAS, Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare, delivered the keynote address. The one-day workshop was divided into the following three major sessions:

- I. Introductory session
- II. Discussion session organised on the following sub-heads
 - a. Policy support needed for improving small millet production on a large scale
 - b. Policy support needed for establishing decentralised small millet processing infrastructure
 - c. Policy support needed for market development for small millets
 - d. Policy support needed for enhancing household level consumption of small millets
 - e. Learning from on-going initiatives for promoting small millets
- III. Concluding session

The detailed agenda of the policy workshop is provided in Annexure 2.

2. Important deliberation points

2.1 Introductory session

Mr. Karthikeyan, Principal Investigator and Programme Leader, DHAN Foundation, informed the participants that this workshop was a continuation of small millet promotion efforts



Figure 2: Introduction to the workshop by Mr. Karthikeyan, Programme Leader, DHAN Foundation

started with **Revalorising Small Millets in Rainfed Regions of South Asia Project in 2011 and currently taken under Scaling up Small Millet Post-harvest and Nutritious Food Products Project**. These projects were implemented by a consortium of partners namely DHAN Foundation, Tamil Nadu Agricultural University, All India Coordinated Small Millet Improvement Project and WASSAN in India and Canadian Mennonite University and McGill University in Canada and were supported under Canadian International Food Security Research Fund by IDRC and GAC, Canada.

He shared that this workshop was a reflection of understanding that large-scale and sustained government support is needed for reviving small millets, given their current neglected and underutilised status, until a threshold is reached from where market forces will take the lead. It is also a reflection of understanding that the learning and insights from different millet development initiatives in the country can be put together for large-scale plan of action. It is expected that the deliberations from the workshop can feed into the existing government initiatives to promote small millets such as those in Andhra Pradesh and Odisha and the forthcoming initiatives. Different kinds of small millet stakeholders were invited to express their views on the policy support needed for mainstreaming small millets in our diets.

He put forward the following premises and priorities to be given attention during deliberations.

1. **Focus areas of discussion** - There is a need for comprehensive and integrated ecosystem level interventions covering (i) increasing production, (ii) developing decentralised processing infrastructure, (iii) local market development and (iv) promoting household consumption at local and regional food system levels to bring out a significant improvement. So, the session

on the needed policy support was divided into four major themes for convenience, though they are highly interlinked and influence each other.

2. **Policy spaces** - The multiple policy spaces related to promotion of small millets considered are (i) Agriculture, mainly rainfed farming, (ii) Food processing, (iii) MSME development and (iv) Food and civil supplies.
3. **Millets vs. small millets** - Most of the policy recommendations for major millets will also be applicable to small millets; but small millets need more attention and efforts than major millets, given their neglected and underutilised status. Specificities of small millets when compared to major millets such as processing difficulty, low quantum of production, localised production and higher price associated with small millets other than finger millet need to be taken into account.
4. **Priorities within the focus areas**
 - a. **Increasing production** - The relevant strategies to be followed for increasing production of small millets and how they will be different from the strategies of 'Green revolution'.
 - b. **Increasing consumption** - The support needed for transforming small millets from 'niche foods' to 'mass foods' to be given attention.
 - c. **Developing processing infrastructure** - Support needed for establishing decentralised processing infrastructure to be given focus.
 - d. **Market development** - More focus on micro, small and medium food enterprises (rather than large-scale companies), to meet the local palate and to have less footprint and on market development with emphasis on nutrition.



Opening remarks

Mr. Vasimalai, Executive Director of DHAN Foundation, in his opening remarks, shared his thoughts on the scope of the workshop, the framework for deliberations and leads for discussion under sub-themes. He suggested focusing the deliberations on small millets (rather than on millets in general) and that too only on policy aspects for mainstreaming of small millets. The policy action needs to be at three levels namely, (i) Demand stream (farmers as producers and consumers),



Figure 3: Opening remarks by Mr. Vasimalai, Executive Director, DHAN Foundation

(ii) Supply stream (all government departments), and (iii) Enabling stream (NGOs, policy bodies, etc.). He suggested the following focus areas for discussion under four major themes of the policy workshop - **Under improving the production**, policies needed for in situ conservation, local seed production and promoting millets as organic foods; **Under consumption**, focusing on children and youth and inclusion of small millet in Public Distribution System (PDS) and other public food programmes such as Integrated Child Development Scheme (ICDS); **Under market development**, the policies needed for making markets work for small millet farmers and **Under processing**, the policy support needed for decentralised processing infrastructure.

He felt that it was the right time for moving forward from ‘small scale pilots’ to ‘scaled up interventions’ with involvement of multiple stakeholders, including FPOs, government departments, research organisations, business organisations and NGOs. He conveyed his expectations that this meeting would result in a synthesis of policy recommendations for mainstreaming small millets in our diets.”

Keynote address

Shri B. Rajender, IAS, Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare, in his keynote address mentioned that millets were very close to his heart as he was born and brought up in Telangana where millet was one of the staple foods. He observed that distribution of rice in PDS at Rs. 2 per kg introduced by Shri N.T. Rama Rao, then Chief Minister of Andhra Pradesh, has drastically changed the food pattern. He shared details about some developments related to promoting millets in his ministry and suggested leads for discussion. Excerpts from his address:

1. In 2015, millet was included in National Food Security Mission with a target to produce 3 million tonnes as additional production by 2020.
2. A new scheme by name “**Mission on Millets**” with special budget was being conceptualised by the Ministry of Agriculture. He welcomed the suggestions emerging from the workshop for the same.



Figure 4: Keynote address by Shri B. Rajender IAS, Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare

A booklet on **Guidelines for Setting up a Small Millet Processing Unit** covering (i) Choosing set of equipment based on the planned scale of operation, (ii) Testing equipment at the manufacturer's site, and (iii) Installation was released during the policy workshop by Shri B. Rajender, IAS., Joint Secretary (Crops), Ministry of Agriculture & Farmers Welfare.



3. Deliberations in the workshop need to focus on (i) mapping out production, (ii) protecting local germplasm, (iii) research on production practices and (iv) changing eating habits at the ground level.

2.2 Policy support needed for improving production on a large scale

This session was chaired by Mr. M.P.Vasimalai & co-chaired by Dr. NDRK Sarma, Department of Agriculture, Andhra Pradesh. Dr. Vilas Tonapi, Director, Indian Institute of Millet Research, made the lead presentation. This was followed by presentations by Dr. Jahanmohan, Agriculture Policy & Planning division of Tamil Nadu State Planning Commission (SPC), and Mr. K. Muralidharan, ADA, RFD Scheme, Department of Agriculture, Tamil Nadu. Mrs. V. Krishnaveni, representative of Peraiyur Farmers Producer Organisation, Tamil Nadu shared the issues faced by small millet farmers. Excerpts from their presentations and the follow-up discussion are provided here. The detailed presentations can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>

Dr. Vilas Tonapi, Director, Indian Institute of Millet Research, identified the successful elements of 'Green revolution' as 1) Seeds, 2) Irrigation, 3) Outreach of technologies and

4) Policy support like Minimum Support Price (MSP), support for development of marketing infrastructure, value addition and industry uptake, etc. He then explored the possibility of their replication for dryland ecosystem in general and millet in specific. He said that the 'Seeds' element is relevant, as in the case of small millets, making available good quality seeds at affordable price at the production areas at the right time will result in an increase of yield by 15 per cent. To make this possible, '**Community Managed Seed System**' needs to be supported, and FPOs can be supported to start a seed enterprise. While 'Irrigation' is not much relevant to millets, 'Outreach of technology' is very relevant, given the low adoption of technology



Figure 5: Presentation by Dr. Vilas Tonapi, Director, Indian Institute of Millet Research



in the millet production systems. 'Policy support' element is very relevant to millets in terms of suitable MSP, infrastructure development and market development.

He insisted that for increasing area under production, instead of '**production push**', '**demand driven area expansion**' needed attention and for that, investment has to be made simultaneously for increasing awareness, demand generation and increasing production. He highlighted the areas in need of policy support under the expected Mission on Millets as follows:

1. Support for (i) Good quality seed, (ii) Farm gate processing machinery and (iii) Warehousing facilities at the production centre as they can increase the farm gate price realised by the farmers significantly
2. Support for organised production of small millets with involvement of FPOs, NGOs and government departments
3. Support for national-level effort for *ex situ* conservation, characterisation and documentation of traditional varieties
4. Support for minikits for large-scale reach of well-performing varieties
5. Support for increasing consumption in the rural areas
6. Support for diversifying cropping systems in traditional rice and wheat belt like Punjab and Haryana for addressing the malnutrition-related issues
7. Support for creation of processing facilities at village, sub-regional and regional levels with diversified machineries for ensuring value chain integration, as attempted in Karnataka
8. Support for higher MSP for small millets than other cereal crops to create a '**level playing field**' with other crops and as a production incentive for the farmers
9. Support for creating awareness to doctors, students, etc. on millets for better value integration



10. Support for inclusion of millets in midday meals as innovative ready-to-eat food products
11. Small millet rice needs to be exempted from GST like paddy rice, and value-added small millet products needs to be exempted from tax or charged a lower tax

He also suggested the following:

1. Ensuring engagement of equipment manufacturers who can provide quality processing equipment, to avoid problems faced with machinery supply under Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP).
2. Creating a '**Nutricereals**' bracket in National Food Security Mission (NFSM) for millets, for special focus on mainstreaming, instead of putting them under '**Coarse cereals**', which led to them being side-lined.

He concluded his speech by saying that the chances for mainstreaming millets are quite bright, and it can be accomplished if all the stakeholders are networked and they work together.

Dr. K. R. Jahanmohan, Agriculture Policy & Planning Division of Tamil Nadu State Planning Commission (SPC), informed that the share of area under small millets in total millets has come down in Tamil Nadu from 11% to 7% between 1988-2001 and 2001-2015, and a slight reversal of this trend can be observed in the recent years. He shared that SPC is in the process of learning



Figure 6: Sharing of experiences by Dr. Jahanmohan, State Planning Commission, Tamil Nadu

from the successful experience of significantly increasing area under sorghum and finger millet in Tamil Nadu in the last five years and applying the same to the neglected small millets.

He informed that SPC plans to focus on one or two small millets every year for offering focused support; and in a span of four years, all small millets would be covered. Further, these small millets will be given focused support under the newly initiated **Mission on Sustainable Dryland Agriculture (MSDA)**. SPC in the past found that establishment of decentralised small millet processing units in the production area resulted in a conspicuous increase in consumption of small millets and attempts to emulate this model across the state.

He suggested that (i) Quantifying the demand for small millets, which is said to be increasing, and (ii) Assessment of cost of production for small millets other than finger millet by the research agencies will help much in policy formulation. He also emphasised on the need for focused intervention on ‘seeds’ and on conserving local varieties, which are fast disappearing. He also shared information that 14 millet FPOs were promoted in Tamil Nadu, and this can be followed in other states also.

K. Muralidharan, ADA, RFD Scheme, Department of Agriculture, Tamil Nadu, shared information about status of millet cultivation in Tamil Nadu and government schemes to increase



Figure 7: Sharing by Mr. Muralidharan, Department of Agriculture, Tamil Nadu

production of millets. He gave a detailed account of **Mission on Sustainable Dryland Agriculture**. This is a new scheme, which will be implemented in 1000 clusters, each covering 1000 hectares. This scheme has an integrated approach and activities related to land development, agronomic interventions, mechanisation, animal husbandry and value addition. The total outlay is Rs. 802.9 crores. While all dryland crops are covered, millets are given special focus. An exclusive support of 100 crores is allocated for value addition, wherein local level processing units will be set up with the involvement of Primary Agriculture Cooperative Societies (PACS) and FPOs. More on the scheme can be seen in the presentation available at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>.

Krishnaveni, a representative of Peraiyur FPO expressed that small millet farmers like her need the following support from the government:



Figure 8: Demands from a small millet farmer by Mrs. Krishnaveni, FPO representative, Peraiyur

1. Acceptable farm gate price for small millets
2. Construction of threshing yard close to the farms
3. Infrastructure for storage of produce
4. Access to crop loan for small millet cultivation, as available for crops like banana
5. Supply of small millets through Public Distribution System



Post-presentation comments, remarks, suggestions and clarifications

Dr. Vilas Tonapi: There needs to be a balance in handling traditional and improved varieties; local varieties with attractive varietal features such as better nutrition, cooking quality, etc. need to be identified and promoted. Continuous efforts are needed for crop improvement to increase productivity.

Dr. Sarma: Focused efforts are required for in situ conservation of local cultivars through efforts such as biodiversity festivals. These local cultivars need to be registered with National Bureau of Plant Genetic Resources (NPBGR) and evaluated at NPBGR, agricultural university and farmers' fields. Through participatory evaluation, suitable varieties can be identified, purified, and propagated through community-managed seed system.

Mr. Amit Mitra said that necessary caution should be taken in replicating 'Green revolution' technologies to avoid its ill effects. Millet production is still in the domain of women farmers. He emphasised that technological improvement should not undermine women's control over the millet cultivation, which usually happens when 'the market' takes over. He suggested that data on land utilisation needs to be decomposed to understand the ground situation related to production of small millets. In Karnataka, 600,000 hectares went out of cultivation in the last one decade of which 250,000 hectares were under millets. In many states, millet growing areas were targeted for tree cultivation by paper industries. Necessary policy attention should be given to avoid erosion of area under millets.

Dr. Ravindra: Once the local varieties are taken out of their native regions to research stations for crop improvement, their adoptive capabilities are lost. Currently, NFSM package supports hybrid seeds and other "Green revolution" package. He expressed that "Green revolution" package cannot be emulated for millets. What is needed is a focus on millet production systems as a whole. Small millets are in general intercrop or mixed crops. They can be reintroduced as intercrops also, as proven by introduction of foxtail millet in redgram mono crop in Telangana. He emphasised that millets need to be seen as part of niche ecosystem and as of now, they cannot compete with paddy and cotton. The ecology and economy of millets need to be understood, and a suitable production system improvement needs to be explored. The research design for millet production improvement needs to be examined.

Dr. Vilas Tonapi responded that adoptive capacities of varieties are tested in 81 regional centres, and varieties are released at the regional level. With some refinement, the local varieties are released in the same region.

Mr. Daniel Anand Raj: Under MSDA, it is envisaged that back-end subsidy will be provided for summer ploughing. The back-end subsidy will be provided by banks. If MSDA funds are routed through that channel, it will not reach farmers, as banks will take away the money as a way to get back old bank loans from the farmers.

Mr. Muralidaran: In response to the question by Daniel Anand Raj, Muralidaran said that the funds would be routed through Primary Agriculture Cooperative Societies (PACS) and this problem would not exist.

Dr. Bhaskar Kar sought information on studies related to nutritional outcome in the age group of 6 to 24 months by switching to millets and studies on nutritional outcomes due to millet consumption for children severely affected by malnutrition in India. These data become important in the context of increase in wasting in the last 10 years across the country.

Dr. Vilas Tonapi informed that there are studies, which found that body mass index and haemoglobin content has improved through millet consumption. Dr. Jahanmohan informed that in Tamil Nadu, supplementary millet food was found to increase haemoglobin level and shared the data.

Dr. Sarma: Quality seeds are not used by millet growers. The government is giving subsidy for certified seeds only. In this context, 'Community-based seed system' is a good option through which seed self-sufficiency can be created in the production regions.

Mr. Vasimalai: Mapping of area under cultivation for each small millet crop at the micro level is needed. Involvement of multiple stakeholders in each state is needed for mapping production areas. Inclusive technology development, specific to rainfed production system is needed, including millet production system. He suggested that it is better to avoid use of the term "Green revolution technologies" in the context of millets, as it would be understood differently by different people.



2.3 Policy support needed for establishing decentralised processing infrastructure

In this session, Mr. Karthikeyan, Principal Investigator and Programme Leader, DHAN Foundation, made the lead presentation. The excerpt from the presentation and the follow-up discussion are shared here. The detailed presentation can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>

Mr. Karthikeyan, Principal Investigator and Program Leader, DHAN Foundation, spoke about the policy support needed for establishing decentralised processing units for small millets based on DHAN Foundation's experience of working with processing equipment manufacturers and processors for the last six years. He explained that regional value chains for small millets are slowly emerging in the last few years, and a favourable situation has arisen for transition of small millet foods from 'niche foods' to 'mass foods'. For this transition to happen, developing decentralised processing infrastructure is the key. In this context, policy support is needed for two focus areas namely (i) Addressing knowledge gaps in processing and (2) Establishment of a thriving ecosystem for processing. He emphasised that an approach of 'ecosystem development' needs to be adopted, and policy support needs to be given at three levels namely, (i) Equipment manufacturing level (ii) Distribution level and (iii) Processors

level. Most of the government schemes offer support only at the processors' level and that too for village-level processors only. The other two levels are not given necessary attention. Even at the village-level processing, inadequate support has resulted in a large number of defunct processing units. He stressed that support for improvement of technology and business development to



Figure 9: Dr. Varadharaju, Professor, Tamil Nadu Agricultural University sharing his suggestions

equipment manufacturers, and favourable policies to assist them are very essential. Furthermore, the new entrants to the small millet processing sector—both individuals and FPOs—need to be given specific support. He also shared leads for discussion pertaining to developing a long-term action plan, modus operandi and effective collaborative mechanisms.

Post-presentation comments, remarks, suggestions and clarifications

Dr. Varadharaju: Millet FPOs should be supported for setting up decentralised processing units with 50% to 75% grant support.

Dr. Amit Mitra: These decentralised processing units need a considerable gestation period for becoming a viable unit in terms of prior preparation, time taken for acquiring necessary skills, time taken for establishing market linkages, etc. The design of policy support should take this into account.

Mr. Deepak Chamola: Designing and delivering suitable financial products for FPOs for small millet related activities will help a lot. Similarly, financial products for millet activities for individuals are needed.

Mr. Dhanabalan: Small Farmers Agribusiness Consortium (SFAC) is giving credit guarantee to the extent of 85% for FPOs to access bank finance.

Mr. Santhanam: Most of the FPOs have not matured as a business unit. Accessing bank credit has been a challenge to most of the FPOs. The experience of FPOs, which were successful in accessing bank credit needs to be shared widely. Facilitating support is to be given to FPOs to access credit for investing on machineries.

Mr. Jaidayal: FPO promoted by Srijan, an NGO, could mobilise Rs.10 million credit from Friends of Women's World Banking (FWWB), due to the past track record of significant achievements



Post-presentation comments, remarks, suggestions and clarifications continues...

and communicating the same to different stakeholders.

Mr. Vasimalai: The difficulty in accessing finance is real. Rabo bank and HIVOS have created a fund with FWWB to finance FPOs. Similar support is given by SFAC. Canara Bank also has come forward to support FPOs. The individual farmer member of FPO can avail credit through their Farmers Interest Groups (FIGs), rather than expecting credit support from FPO.

Mr. Muralidaran: Many processing units initiated in the villages are defunct and necessary support should be given for reviving them. A catalogue of well-performing equipment manufacturers with details of their products and services needs to be prepared and shared to ensure access to appropriate processing equipment.

Mr. Karthikeyan: Choosing the right equipment manufacturer by the government departments for supplying processing machines as part of the government schemes is very important to avoid the past bad experiences related to machinery supply. The procedures in government schemes need to be such that even small-scale equipment manufacturers can participate.

Dr. Vilas Tonapi: There is a need for developing colour standard for small millet rice. If it is as white as paddy rice, adulteration with paddy rice gruel is bound to happen. Consumers need to be educated about the relationship between colour of small millet rice and the corresponding level of nutrients. The colour standards can be checked with the aid of a colour chart.

2.4 Policy support needed for market development for small millets

This session was chaired by **Dr. Varadharaju, Professor and Head, Post Harvest Technology Centre, Tamil Nadu Agricultural University & Co-chaired by Mr. Daniel Anand Raj, Senior Programme Officer, SWISSAID.** Dr. Israel Oliver King, Principal Scientist, MSSRF, made the lead presentation followed by sharing of experiences by Mr. Sivaramakrishnan, proprietor of Sri Velavan Agro, a food enterprise in Trichi and Mrs. Urmila, proprietor of Atchaya Foods, a small-scale food enterprise in Madurai, Tamil Nadu. The excerpts from their presentations and the

follow-up discussions are provided here. The detailed presentations can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>

Dr. Israel Oliver King, Principal Scientist, MSSRF, shared his thoughts on the policy support needed for market development for small millets, based on the long experience of MSSRF on small millet promotion in different parts of the country. He described the value chain scenario of small millets in terms of different actors involved and their practices. He stressed that market development for small millets should start from the farm in such a way that there is a significant increase in the share



Figure 10: Presentation by Dr. Israel Oliver King, Principal Scientist, MSSRF

of the consumer price realised by the small millet farmers, especially women farmers who play a significant role in small millet cultivation. The important points stressed by him are as follows:

1. Support for extending the improved processing technologies available in Tamil Nadu to the production zones such as Madhya Pradesh
2. Supporting establishment of local small and medium-scale processing facilities, at least at the cluster level, for improving domestic consumption and to reduce the carbon emission resulting from transport of small millet for more than 1000 kilometres for processing and distribution
3. Support for building the capacity of women, local youth and mechanics related to processing of small millets in the production regions by linking to **Skill India Initiative** of the government
4. Support for credit to local processing units of individual entrepreneurs and farmers collectives
5. Supporting value addition initiatives that link with diversity on-farm in each production ecosystem
6. Supporting e-tracking of source of small millet product to the farm where it is produced, linked with ethical practices of giving back to the farmers will strengthen the custodians of small millets and the small millet diversity maintained by them
7. Supporting nutrition literacy for school children through curriculum development
8. Support for branding, labeling, linkages with government and other market actors and asset building for individual entrepreneurs and farmer's collectives
9. Supporting different actors in the small millet value chain (producer, procurer, processor, value adding enterprise, distributor and consumer) following an inclusive approach by improvising support offered by SFAC, Nabkisan, etc. in a way

that meets the specific requirements of small millet value chain actors

10. Support for millet promotion campaigns involving different stakeholders at different levels, involving youth, Panchayat Raj and State departments, as successfully done in Tamil Nadu
11. Legal support, financial support, tax support and support for cross-border transport for private initiatives

Mr. Sivaramakrishnan, proprietor of Sri Velavan Agro, a food enterprise in Trichi, Tamil Nadu, involved in grain processing and, production and marketing of 55 small millet food products, shared the support needed for food enterprises engaged in production and marketing



Figure 11: Sharing of experience by Mr. Sivaramakrishnan, Proprietor, Sri Velavan Agro

of small millet value-added products, based on his three years' experience. He said that support from academic and government institutions is needed on the following aspects:

1. Developing and ensuring specific standards for raw materials, i.e. grains of small millet crops, so that a processor can buy right material at right price. Currently, the enterprises are forced to purchase raw materials with many



impurities, which significantly increase the cost of production. Farmers can get better price if they sell cleaned small millet grains.

2. Developing and ensuring specific standards for processing of small millets such as easily adaptable standards for rice processing. Following processing standards such as level of polishing will help both processors and consumers and in development of market for small millets.
3. Development of efficient machinery for scaled-up processing of small millets, as the commercial viability of millet processing is under threat due to low volume.
4. Improving the shelf life of small millet food products, as it will improve the business viability.

Small millet food enterprises need the following support from the government:

- ◆ Guidance on latest packaging technologies and labeling
- ◆ Support for accessing improved packaging technologies, as currently small enterprises are not able to do the same due to the large volume of packs to be ordered, involving high level of locked-in capital
- ◆ Support for testing food products, as it is quite costly (about Rs. 6,000 per product) in FSSAI referral labs
- ◆ Support for access to bank finance to meet investment needed for procurement and storage of raw materials for a long period (as there is only one crop season for most of the small millets), through specific financial schemes
- ◆ Support for participating in important exhibition and fairs
- ◆ Simple and transparent tax system across the states
- ◆ Tax exemption or lower tax for small millet food products

- ◆ Single window system for accessing government schemes and awareness on such schemes
- ◆ Support for mentoring on a regular basis beyond technology transfer, particularly on business management

Mr. Sivaramakrishnan also suggested that **Millet Commodity Board** can be set up to support and validate the millet food enterprises.



Figure 12: Experience sharing by Mrs. Urmila, Proprietor, Atchaya Foods, Tamil Nadu

Mrs. Urmila, proprietor of Atchaya Foods, a small-scale small millet food enterprise in Madurai, Tamil Nadu, shared the support needed by women entrepreneurs for entering the small millet value chain and establishing food enterprises based on her five years' experience. She stressed that engagement of women entrepreneurs and women Self-Help Groups (SHGs) can help in considerably increasing the reach of small millet foods across all the age groups. The important points emphasised by her are as follows:

1. Regular training by District Industrial Centre to women SHGs and women entrepreneurs and support for forthcoming entrepreneurs in setting up small millet food enterprises
2. Support for credit with a repayment moratorium of four years
3. Support for setting up small millet restaurants in local towns in terms of equipment, space, etc. The government can support by offering exclusive

Post-presentation comments, remarks, suggestions and clarifications

Mr. Vedyappan: Handholding /mentoring support is needed for entrepreneurs besides training in technology by government institutions, as running a business not only involves technology transfer, but also management, accounting, human resource management, etc. Capacity building is needed by new entrepreneurs for maintenance of accounts and records; maintaining proper records will help in linking with banks and accessing government schemes.

Mr. Sivaramakrishnan: A typical food entrepreneur has to relate with 17 departments and undertake the necessary compliances. So, there is need for handholding/mentoring support.

Mr. Karthikeyan: Support is needed for market linkages by many small food enterprises. There is need for an exclusive drive to support small millet enterprises, rather than seeing them as one of the small food enterprises. Small millets being an emerging food category, flexibility can be provided in existing government schemes such as relaxation of age. Single window system is also needed for FSSAI registration, and other government protocols to be followed for business establishment, besides credit and government subsidy.

Mr. Dinesh Balam: How will a single window system for food enterprises look?

Dr. Sarma: In reply to the question raised by Dinesh Balam, Dr.Sarma said that the model of single window system introduced in Andhra Pradesh for other purposes can be followed. It involves applying on-line with expected reply/response within a period of time. One simple application should take care of all the necessary procedures related to establishment of a business enterprise.

spaces for millets in the state-supported market infrastructure such as farmers markets.

4. Support for food enterprises in testing of their food products

2.5 Policy support needed for enhancing household level consumption of small millets

Dr. Ravindra, Director, WASSAN, made the lead presentation based on WASSAN's experience



Dr. Malathi informed that currently, food enterprises are not allowed to display health benefits of small millets on their labels

Mr. Karthikeyan: Mentioning health benefits of small millets in the label is an important selling point for the emerging small millet food category. Food enterprises should be supported to capitalise the research results on health benefits of small millets to market their products and reaching the consumers. There has to be a product standard in terms of proportion of small millets in the whole product for it to be termed as a small millet food product.

Dr. Israel Oliver King: The endogenous (local production and consumption) and exogenous value chains need to be differentiated and the marketing strategy needs to be applied accordingly. Labeling, packaging and branding itself account for about 60% of the product cost, making the product costlier for the consumers. So, a strategy of low cost packaging and labeling can be followed for endogenous value chain to reach large number of consumers and another strategy of costlier packing, labeling and branding can be followed for "exogenous" value chain.

Mr. Amit Mitra shared the need for addressing kodo millet poisoning issue prevalent in tribal belts.



Figure 13: Sharing by Dr. Ravindra, Director, WASSAN

of introducing millets in various State Nutrition Programs (SNPs). An excerpt from the presentation is provided here. The detailed presentation can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>

Dr. Ravindra shared in detail the important pointers for policy on millets, the need for government intervention, causal loop analysis of millet ecosystem, some initiatives on introduction of millets in state nutrition programmes, their implications and policy support needed for promoting millet consumption through state nutrition programmes.

He shared WASSAN's experience of facilitating inclusion of millets in Angan Wadi Centres in Vikarabad District in Telangana and Integrated Tribal Development Agency (ITDA) hostels in Srikakulam, Vizianagarm and East Godavari. The advantages observed are as follows.

- Grain supply by local farmers organisations or local markets; wherever possible through integrating millet crops in the existing cropping systems
- Local enterprise development in terms of (i) Processing mills, (ii) Local trade and (iii) Secure markets
- Priority to preferences of local users on millet recipes
- Intense engagement with households on the theme of 'food', resulting in household level increase in millet consumption

In these ways, the engagement of state nutrition programmes for introduction of millets impacts the local economy and household level consumption significantly. Only focusing on awareness will not bring that level of magnitude of change. The policy issues that came in the way are as follows:

1. Rice is available for ICDS and SNPs at subsidised price; similar subsidy is not available for millets, necessitating additional budget.

2. Most of the subsidy for rice is from the central government and if rice is replaced with millets, then the subsidy related to millets needs to be paid by the state government. So, the state governments are reluctant, as they do not want to forego central government subsidy.
3. Even though MSP exists for some of the millets, there is no procurement.
4. State government can take a decision on procuring millets in lieu of rice; however, they hesitate to make that decision, as it may be politically sensitive
5. Need for local millet processing and storage facilities
6. Need for investments on building consumer preferences / engagement

Introduction of millets in SNPs requires policy support for the following areas:

1. Decentralised formulation of menus in ICDS depending on location specificities of crops, food cultures, etc.
2. Establishing decentralised procurement systems instead of centralised bids
3. Investing in training Anganwadi workers and in food festivals with mothers' committees/others
4. Developing millet-based menus for different categories of population viz. under five children, pregnant and lactating women, etc.
5. Decentralised processing facilities
6. Local supply chains with farmers' organisations

2.6 Learning from on-going initiatives

The governments of Andhra Pradesh and Odisha have taken the lead in promoting millets in the production districts by rolling out a comprehensive millet development project. As there is much to learn from these initiatives in terms of programme components and modalities by the other states,



representatives from both states were invited to share details about the project activities. Dr. NDRK Sarma from Department of Agriculture, Andhra Pradesh and Mr. Dinesh Balam, State Coordinator, WASSAN, Odisha, shared details about the millet scheme being implemented in their respective states. Excerpts from their presentations and



Figure 14: Sharing by Dr. NDRK Sarma, Department of Agriculture, Andhra Pradesh

the follow-up discussion are provided here. The detailed presentations can be accessed at <http://www.dhan.org/smallmillets2/sm-resources-policy.html>

Comprehensive Revival of Millets Project, Andhra Pradesh

Dr. NDRK Sarma from Department of Agriculture, Andhra Pradesh, shared details about **Comprehensive Revival of Millets Project** being implemented in 47 mandals in Andhra Pradesh since 2016. He shared the logic behind the selection of mandals, the project components, and approach followed in the project, which other states can refer for formulating millet development initiatives. The project objective is to ensure the consumption of 5kg of millets per month per family. It was found that farmers cultivating millets were already consuming 5kg and more. So, the project focused on ensuring consumption among landless labourers and non-cultivating farmers. The project is attempting to ensure adequate production and development of processing infrastructure that

would supply millet rice/flour on a regular basis in the local areas. Local procurement through A.P. MARKFED (Andhra Pradesh State Co-operative Marketing Federation Ltd) was tested to know how local farmers would respond. Focus is given for increasing consumption step by step- first in areas where it was earlier cultivated and not cultivated now, secondly consumption through school mid-day meal programmes and ICDS and finally bulk consumption through the PDS (may be in the third year).

Special Programme for Millets in Tribal Areas of Odisha

Mr. Dinesh Balam, State Coordinator, WASSAN, Odisha, explained how Special Programme for Millets in Tribal Areas of Odisha was evolved through a consultation process by



Figure 15: Presentation by Mr. Dinesh Balam, State Coordinator, Odisha, WASSAN

taking learning from different millet initiatives of other states. He explained the main components of the project, different activities envisaged under each component and the different kinds of entities involved, including private sector agencies. He also explained about the NGO selection process, management, administration structure and programme delivery mechanism. WASSAN serving as programme secretariat and NCDS, a policy think tank for Odisha Government, is involved as the research secretariat. The programme modalities serve as a model to other



Post-presentation comments, remarks, suggestions and clarifications

The requirement for a **Commodity Board** at the central government level for millet promotion was discussed. While some of the participants stressed the need for such initiative, others were apprehensive that it may lead to centralisation, which may be harmful to the agenda of millets. It was discussed that the experience of Tea Commodity Board has been negative for tea estate workers.

Mr. Dinesh Balam stressed the need for branding and communication strategy for

different kinds of target groups. However, Mr. Ravindra differed from that. He opined that branding may help in reaching the 'niche' market; but what is required is integration of millets into regular diets to substitute consumption of paddy to the extent of 25%. The need is to reach a 'mass' market such as kirana shops.

Mr. Amit Mitra emphasised that irrigation requirement of millets is to be considered as part of the support for production.

states. It is planned that the programme would be grounded by 15 June 2017. It is expected that the project would result in creation of a millet hub in the selected 30 blocks of southern Odisha.

Some of the special features of the project are as follows:

1. Modalities of engaging local NGOs and community organisations for ground level implementation
2. Modalities of housing the project within the existing administrative structure and institutions
3. Plan of giving one cycle of irrigation for millet for productivity enhancement
4. Mobile-based transparent monitoring system to ensure fast response and earlier policy feedback

Concluding remarks

Mr. Karthikeyan summarised the deliberations of the previous sessions and the excerpts are provided here.

1. Necessity for comprehensive support covering production, processing, market development and demand enhancement at the regional level was stressed upon.
2. The small millet value chain needs to be developed in such a way that all the actors get a

fair share and the viability of each one of them is improved.

3. There is no specific support for small millet processors and enterprises as of now. If they are to be established, and the market for small millets needs to be developed, specific support is needed for equipment manufacturers, processors and food enterprises, both for business development and business enabling. Business development support such as incubation support and credit support, and business enabling support such as developing and ensuring of standards and tax exemption is needed for encouraging the enterprises to enter the small millet value chain.
4. As a crosscutting component, it was emphasised that the policy support should pay necessary attention towards integrating gender aspects in small millet value chain development. Similarly, it was emphasised that the policy support should be supportive of the marginalised communities such as tribals who are currently the major consumers of small millets.
5. The modalities of undertaking comprehensive millet development were also shared and the institutional form of **Commodity Board** for millets was suggested.

Dr. Ravindra emphasised that the conventional model of support such as replication of INSIMP involving a package of hybrid seeds, fertilizer





Figure 16: Concluding remarks by Dr. Ravindra and Mr. Vasimalai

subsidy and distribution of machineries will not serve the purpose of millet value chain development and stressed the need for setting the discourse of the policy pertaining to **Millet Mission**. His thoughts on the specific parameters of the discourse for the policy support are as follows.

1. Promoting consumption of millet in rural areas needs to be given priority in the government's policy support for consumption. The focus of INSIMP and other current initiatives on millets is on urban consumption through value addition. However, 'market' can meet the requirements of urban consumers who are ready to pay. Rural consumption is not being addressed adequately, particularly the requirements of a large number of people who traditionally used to consume millets, left it and are not able to go back because of difficulties in processing. There is a need for developing mechanisms to improve consumption of millets in this market segment such as exchange of millet rice for millet grain.
2. The focus should be on increasing bulk consumption of millets in terms of what percentage of paddy rice will be replaced with millets- like 25% to 50% replacement.
3. Government initiatives on increasing production have to focus on small and marginal farmers, instead of big farmers supplying to urban market chain, which the 'market' can take care of. These small and marginal millet farmers are also millet consumers and constitute a significantly large consumer segment. Here, ensuring consumption is relatively easy if the mechanisms for conversion of grains to rice are put in place.
4. The government needs to bring in civil supply corporation and marketing federation with their bulk storage facilities, capacity to handle large volumes, infrastructure and investment to cushion the market and to create a local supply chain for millets through public food programmes. The architecture for decentralised PDS system with millets needs to be conceptualised with the support of experts with understanding of public procurement and distribution system.
5. Institutional mechanisms to support small and micro entrepreneurs with components such as back-end service delivery, business development



support, etc. in every district should be part of the millet support package.

6. Attention to be given to create spaces for women in various aspects of millet development.
7. There is a need for a different way of projecting the millets in the market, instead of emulating prevalent market practices of valuing uniformity, as it will be technically be difficult and disastrous in the case of millets. It is better to market multi-coloured millets in one package for better nutrition value.

Mr. Vasimalai in his concluding remarks mentioned that the output/outcome of the workshop could provide a few leads for action and research and declarations. These leads can be opened, so that there is enough space for diversity and flexibility. The output of this workshop can be shared with the Ministry of Agriculture as sought by the Joint Secretary in the morning session. The recommendations can cover practices, perspectives and principles for millet promotion. The important points from his concluding remarks are as follows:

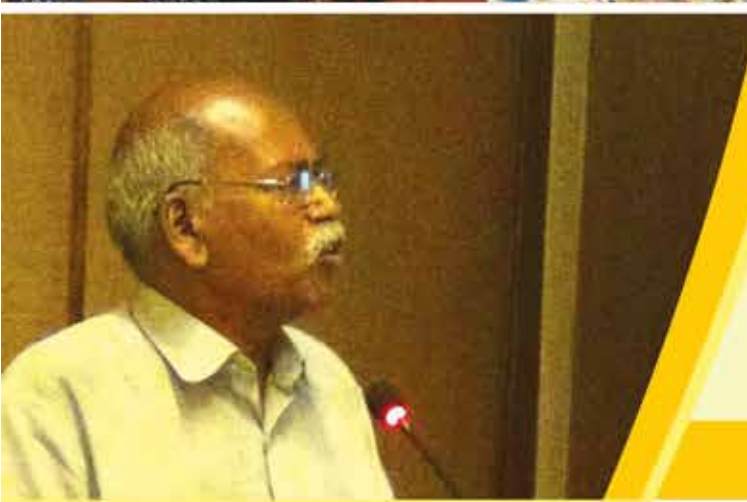
1. Mainstreaming small millets in our diets is a long haul, as we are attempting to restore/ revive ecosystem for small millets; it may take few decades. New players have to come into millet promotion movement as enablers and they should get excitement. Snowballing has to take place; with more snowballing, more progress could be achieved. Entry of new players needs to be facilitated.
2. Structuring of **Mission on Millets** is more important in terms of what it should do and what

it should not do. Special purpose vehicle (SPV) is needed to give focused attention to millets. We need to think about its 'form'; **Commodity Board** and other options need to be explored.

3. Focusing on bulk consumption is the way for promoting small millets, while value-added products can help in positioning this food category. The **Mission on Millets** has to set milestones for the number of farmers and consumers to be reached. Innovative attempts are needed to promote bulk consumption of millets on a scale in an accelerated way. Rural consumption has to take the lead.
4. Small millets are seen as remedying foods. However, they are preventive foods. We need to look at how small millets are positioned and define how it needs to be positioned.
5. A variety of financial instruments besides grants such as soft loans, revolving funds, etc. needs to be explored for promoting cultivation and consumption of small millets.
6. Strengthening small and medium entrepreneurs in the small millet value chain need to be given focus.

He appealed to the participants to continue the collective efforts of learning and reinforcing each other. He informed that DHAN Foundation, with its pan-India initiative of Small Millet Foundation, comes forward to organise a round table on specific leads on development of small millet value chains in the near future.





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