Regional Consultation on Forgotten Foods in Asia-Pacific – A Synthesis

and

The Asia-Pacific Regional Manifesto on Forgotten Food

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Asia-Pacific Association of Agricultural Research Institutions (APAARI)
182 Larn Luang Road, Khlong Mahanak, Pomprab Sattrupai
Bangkok 10100, Thailand
Phone: +66 987844464
Email: secretariat@apaari.org
Website: www.apaari.org

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In this collective action, APAARI greatly acknowledges the active engagement and productive inputs of all the partners, including: Ma Estrella Penunia and Irish Baguilat, Asian Farmers Association for Sustainable Rural Development (AFA); Oliver King and KS Murali, MS Swaminathan Research Foundation (MSSRF); Joanna Kane-Potaka and R. Padmaja, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Seta Tutundjian and Rakesh Kumar Singh, International Centre for Bio-saline Agriculture (ICBA); as well as Yogesh Jadhav, Barli Development Institute For Rural Women (BARLI). The inputs from these partners formed the true basis of the developed Regional Manifesto.

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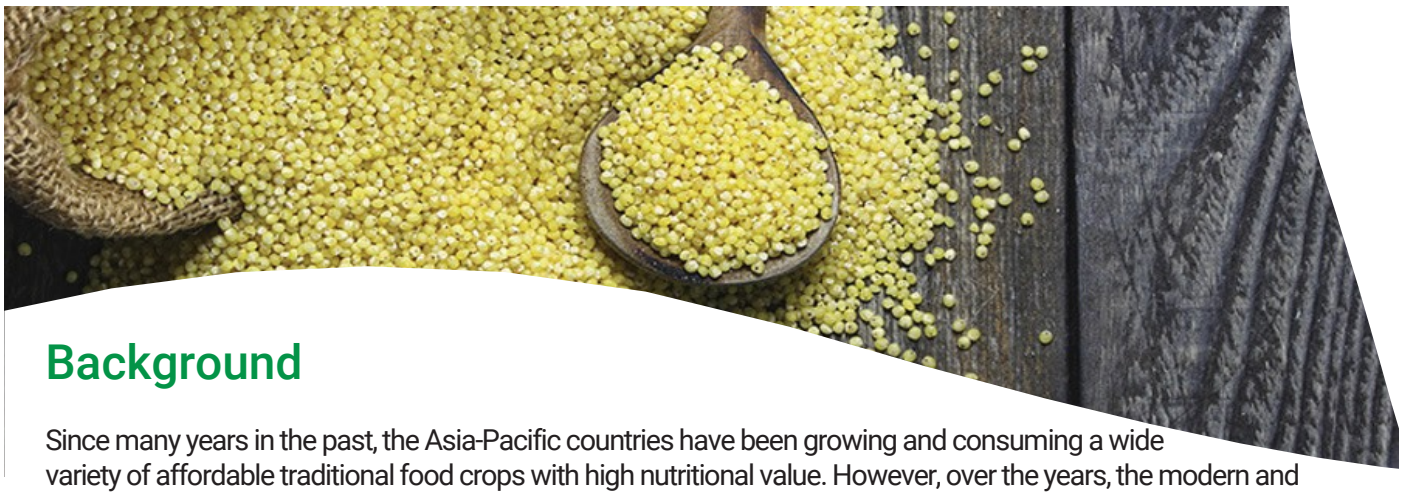
Abbreviations and Acronyms

AFA	Asian Farmers Association for Sustainable Rural Development
AFRIS	Agri-Food Research and Innovation System
AFS	Agri-Food Systems
AIS	Agricultural Innovation System
APAARI	Asia-Pacific Association of Agricultural Research Institutions
APCoAB	Asia-Pacific Consortium of Agricultural Biotechnology and Bio-resources
APIRAS	Asia-Pacific Islands Rural Advisory Services Network
APR	Asia-Pacific Region
ASEAN	Association of Southeast Asian Nations
BARLI	Barli Development Institute for Rural Women
CFF	Crops for the Future
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture
CoP	Community of Practice
CoSAI	Commission on Sustainable Agriculture Intensification
CSA	Climate-Smart Agriculture
CSO	Civil Society Organization
DOA	Department of Agriculture, Thailand
EC	European Commission
ECM	Executive Committee Meeting of APAARI
ES	Executive Secretary of APAARI
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAO-RAP	Food and Agriculture Organization – Regional Office for Asia and the Pacific
FARA	Forum for Agricultural Research in Africa
FFC	Forgotten Food Crops
FO	Farmers' Organization
GA	General Assembly of APAARI
GAM	General Assembly Meeting
GFAR	Global Forum on Agricultural Research and Innovation
ICAR	Indian Council of Agricultural Research
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
MSSRF	MS Swaminathan Research Foundation
NARES	National Agricultural Research and Extension Systems
NARI	National Agricultural Research Institute
NARS	National Agricultural Research Systems
NUS	Neglected or Under-utilized Species
PDS	Public Distribution System
POT	Performance-Oriented Target
UNFSS	United Nations Food Systems Summit



Background

Since many years in the past, the Asia-Pacific countries have been growing and consuming a wide variety of affordable traditional food crops with high nutritional value. However, over the years, the modern and industrialized agriculture has aimed to achieve immediate profit with consequent changes in policies and programme priorities, influencing food habits. As a result, several countries aligned their practices to the mainstream agriculture, shifting from traditional foods to more profit-oriented cultivation. Underutilized and neglected species (NUS) crops are being recognized as "crops of the future" because of their multiple benefits, such as high nutraceutical values, medicinal properties and climate resilience. Though the importance of these crops was well recognized in the traditional system of agriculture, because of the monoculture practices of very few staple crops, their role in nutrition security was, over the years, diminished[1].

The Asia-Pacific region is home to 386 million (14.1 per cent) under-nourished population of the world[2]. The over 800 million people, who are chronically hungry, and the two billion, who suffer micronutrient deficiencies worldwide, underline the need to act. This situation is exacerbated by the ever more frequent erratic extreme weather events and the incidents of new strains and biotypes of pests and diseases in new areas, being symptomatic of climate change[3]. It is well known that the world depends on staple crops, such as rice, wheat, maize, soybean and potatoes, for energy and nutrition. From over 30,000 edible plant species, 6,000 have been used and 700 cultivated throughout human history. In 2013, only nine crops (sugar cane, maize, rice, wheat, potatoes, soybeans, oil palm fruit, sugar beet and cassava) accounted for 53 per cent of global average daily calories. NUS crops make up a major portion of the less cultivated species that can bring nutritious food to millions of people around the globe.

To achieve this, the world requires greater diversity coupled with sustainable management practices in agricultural and food systems to feed 9.7 billion people in 2050[4]. These targets can be met sustainably with the combination of indigenous knowledge systems and modern scientific approaches in farming to encourage NUS crop cultivation among small and medium-scale farmers. The development community needs to value traditional knowledge systems to make this shift while protecting the neglected crops and diversity on farms, as well as the associated environment and livelihoods of farmers.

It is difficult to mainstream forgotten food and the minor crops in today's agricultural and nutritional spectrum. However, a shift from the current 'yield-for-immediate-profit' paradigm towards multi-functional and diversified agri-food systems is needed to achieve zero hunger and provide nutritious, healthy and sustainable diets. This requires, among others, a transformation of agricultural innovation systems (AIS), valuing more local knowledge and ingenuity, as well as neglected genetic and species diversity.

Envisioning holistic agriculture rather than specialized agriculture with innovations in irrigation systems, enhanced soil organic carbon nutrient availability, and enhanced soil micro-biota can support the shift towards the integration of forgotten food in AIS. This will require an innovative approach involving a multi-disciplinary regional analysis and a regional multi-stakeholder consultation to inform priorities for collective action in research, innovation, education, sustainable production, processing, marketing and consumption of forgotten foods.

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[2] FAO, IFAD, UNICEF, WFP and WHO. 2020. The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets. Rome, FAO. Retrieved from FAO UN: http://www.fao.org/3/ca9692en/CA9692EN.pdf

[3] FAO COMMITTEE ON AGRICULTURE NUS. (2018, October 1 - 5). Retrieved from http://www.fao.org/3/mx479en/mx479en.pdf

[4] https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

Part 1: Regional Consultation on Forgotten Food in Asia-Pacific

Background

The Regional Consultation on Forgotten Food in Asia and the Pacific was organized on 28 May 2021, to improve knowledge and understanding of Asia-Pacific stakeholders on forgotten food, and initiate, and jointly implement respective collective actions focused on research, advocacy, policy dialogue and practice (ref. Annex 1: Agenda). The Consultation was co-organized by the Asia-Pacific Association of Agricultural Research Institutions (APAARI), Global Forum on Agricultural Research and Innovation (GFAR), Crops for the Future (CFF), the Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), Asian Farmers Association for Sustainable Rural Development (AFA), MS Swaminathan Research Foundation (MSSRF), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Barli Development Institute For Rural Women (BARLI).

About 250 participants joined the event, including members of local and regional representative groups, APAARI members and partners, international and national institutions (educational and research), custodian farmers with farmers associations, value chain actors, the private sector, civil society, and policymakers from Asia-Pacific (ref. Attachment 2, Part 1: List of Participants). They actively engaged with each other and explored how to improve the adoption of forgotten food in Asia-Pacific, and develop collaboration strategies to build capacities at local and regional levels.

Objectives

The Conference aimed at achieving the following objectives:

- Recognition by different stakeholders on the importance and value of forgotten species and sustainable agricultural technologies, such as agroecological approaches, participatory plant breeding, and efficient seed systems.
- Articulation and analysis of multi-level (institutional, organizational, individual) capacity development needs in the areas of research, extension, education and development across the value chain of such crops.

> "Inclusion of traditional foods in all public food systems will provide region specific opportunities and demand for traditional crops," B. Salome Yesudas, Farmers' Representative

- Identification of strategic and effective ways to lobby and advocate for policy innovations to ensure the use and conservation of forgotten food, such as incentives for their cultivation and conservation, as well as incentives for farmers to innovate within their agri-food system.
- Identification of areas for collaborative research and partnership opportunities, and discussion on the ways to establish a Regional Knowledge Hub on Forgotten Foods.

The three-hour webinar also aimed to solicit the insights of the participants from across the world, which fed into the development of a draft Regional Manifesto envisioned to speed up the wider adoption of more bio diverse agri-food systems.

Outcomes

The Consultation was expected to build a consensus around a new vision of research and innovation systems needed for enhancing food diversification, farmers' income, and the environment, as well as the pathways to achieve this vision. Hence, it envisioned to empower custodian farmers, particularly women and youth, in their practices to conserve, cultivate, use, save, exchange and sell forgotten crops and foods for nutrition, climate change resilience and

identity conservation.

The reached consensus was documented in the form of a draft Regional Manifesto (ref. Annex 2: Asia-Pacific Regional Manifesto), which is the event's key output developed in support with and owned by major farmers organizations, and research and development (R&D) agencies. It is a basis for global actions linked to local initiatives.

The Manifesto will provide an actionable framework for shared values, operational principles and concrete strategies that will help smallholder farmers to localize actions and policies within their own communities and countries. In this way, the Manifesto provides a public declaration of intentions to rapidly accelerate the wider adoption of more bio-diverse agri-food systems. The output of this Asia-Pacific Regional Manifesto has fed into the preparation of a Global Manifesto. APAARI, a regional member of GFAR, will lead key collective efforts in the region with other organizations to scale activities among farmers to increase adoption.

Setting the stage

> "This is not a manifesto for the archives," Alessandro Meschinelli, GFAR

Focusing on challenges faced by formal agricultural systems in promoting forgotten foods, the Regional Consultation highlighted the excessive focus on staple crops, value and supply chain difficulties, as well as limited access to technology and innovation advancements that have crippled the current agri-food system in promoting NUS or forgotten foods. Forgotten grains often include cultivated, semi-domesticated, wild species and traditional varieties of crops that have been produced and consumed for centuries for their fodder, oil, and medicinal properties. These crops were often undervalued with the rise of mainstream agriculture and certain cash crops. However, they form the key elements of multifunctional, diversified, and sustainable agri-food systems. Forgotten grains are nutrient rich and contribute to food and nutrition security, income generation, and are often linked to cultural and ethnic identities and traditions. They have the potential to diversify the production of staple food and bring forward various nutrient-rich varieties to the table of the consumers. Forgotten crops can also adapt well to marginal environments and under unfavourable agroecological and low input conditions. Erratic climate conditions are thus less likely to affect the yield of these crops, improving climate-safe practices among small-scale farmers. These crops can also play a key role in empowering marginal communities through economic and social benefits, both for youth and women in agriculture.

The opening statements from Dr. Ravi Khetarpal, Executive Secretary, APAARI, Mr. Alessandro Meschinelli, Consultant, Collective Action for Forgotten Foods, GFAR, and Dr. Ronnie Vernooy, Alliance Bioversity-CIAT, pointed out the excessive dominance of agricultural staple crops in the diets of Asian producers and consumers, as well as those beyond Asia. They introduced forgotten crops as pro-poor and promoted their significance in elevating marginalized farmers from economic difficulties, which requires strategic interventions from various agencies.

They also highlighted that the development community needs to capitalize on the unique demography of the population that lives in Asia-Pacific. Understanding food choices and preferences in this region will help establish opportunities for success in scaling forgotten foods and bringing back traditional seeds to farmers. Furthermore, farmer-centric innovation needs to be encouraged, along with feedback from the community. Simultaneously, marketing and promotion policy support will improve the adoption and scaling up process of forgotten foods, as well as ownership of rural communities. This is envisioned to help nurture trust and involve more farmers in process.

Perceptions about Forgotten Food

The session on Perceptions about Forgotten Food facilitated by Dr. A. A. Sayed, Chief Executive Officer (CEO), CFF, highlighted the importance of bringing these nutritious crops to the forefront to fight climate change and on consumers' tables. The session introduced an action learning agenda for forgotten food to scale it at the global level, across Asia-Pacific and beyond.

The presentation on an action learning agenda on forgotten foods by Dr. Ronnie Vernooy, Senior Scientist, The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), highlighted the value of forgotten crops stressing the challenges faced by farmers in producing, processing and managing forgotten crops for everyday use. The presentation focused on adapting to the impact of climate change and how forgotten crops stand central to farmer's needs to cope with this impact.

The science of forgotten crops is still young and the rate of research conducted on these crops will ultimately affect public perception and adoption rate among farmers. The conversation around forgotten crops and their local knowledge and practice is not only related to the consumer market but also to the history and identity of the region, making it an indigenous shared knowledge system that has been nurtured over generations.

The following components were highlighted for taking the scaling initiative forward:

- **New professionalism** – Demand and supply-driven agenda will help generate profit for farmers, giving them the opportunity to sustain their needs and interest.
- **Focus on sustainable development** – The scaling process should keep development goals at the center to help remove farmer's apprehension.

"Food diversification is required to ensure climate-resilient nutrition," Sayed Azam Ali, Crops for the future

- **The role of facilitators** – Researchers need to act as knowledge bridge builders, i.e., facilitators.
- **Performance-oriented target (POT)** – Accurate client satisfaction indicators and indexes, result-oriented policy formulation, result-oriented adaptation is needed.
- **Incentives** – Rewards in the form of incentives are necessary for improving the stagnated process.
- **The new division of labour** – Shared governance and decision making will help meet priorities and implementation activities.
- **Farmer representation** – Equal representation of farmers in committees, associations, including research councils, is required.
- **On-station to on-farm approach** – Decentralizing processes and methods of adaptation and management is needed.
- **Teamwork** – Trans-disciplinary teamwork is of utmost importance in order to see any changes in scaling forgotten foods.

In addition, collective showcase and display of forgotten crops at events, conferences, and university campuses will be useful in promoting these crops among farmers and consumers, generating curiosity and taste for the food.

Ms. Irish Baguilat, Coordinator, shared the results of farmer's perception of traditional crops across Asia-Pacific measured through a survey AFA conducted along with MSSRF and 25 other partner organizations (ref. Annex 1: Farmer Perception Survey on Traditional Food Crops). The purpose of the survey was to recognize farmer's awareness and interest in considering forgotten crops as an alternative crop. The survey results were used as a guide to develop a plan of action and, eventually, the Regional Manifesto. The survey was conducted in March 2021, and included 3,087 farmers from 19 Asia-Pacific countries.

The survey was successful in providing a need-based assessment of farmer's choices, concerns, and priorities. It helped develop new processes for the scaling method and provided a platform to improve the existing model. The survey also recognized the variety of forgotten crops that interested the participants, which included fruits, vegetables, plantation crops, grains, and cereals.

The role of extension agencies and farmer's organizations has been emphasized as crucial in their contribution to making NUS seeds available at the local level, as well as to leverage the production of these crops through capacity development. The existing practice of cultivating forgotten foods is entirely indigenous and most of the captured responses supported the statement. However, scientific research on these crops is invaluable in making it more accessible to various actors across the world. The survey also recognized the difficulties farmers faced while growing these crops, which included low profit, low demand, low productivity and less awareness in the market.

Dr. Joanna Kane-Potaka, Executive Director, Smart Food Initiative, ICRISAT, focused her presentation on the results of ICRISAT's 'Smart Food Approach and Farmer Survey' conducted among 40-60 year old small-scale farmers living in rural and tribal areas. The presentation explored the value of forgotten crops and the incentives of promoting them into the mainstream agriculture. It also stressed the challenges in agricultural development combining food security, nutritional security and sustainable diets with smart food.

The future focus of making climate-smart approaches in farming begins with introducing forgotten crops into the mainstream agriculture. The food system divide makes it a lot harder to mainstream smart food for everyday consumers. However, this can be tackled with innovative approaches to marketing and promoting smart seeds. Four major steps are required to re-introduce smart foods in our food systems as follows: concept branding, science-backing, creating demand-pull with consumers, and ensuring farmers and rural communities are benefitted in the process and fill the knowledge gap.

The survey respondents were eager to adopt forgotten grains, especially tribal farmers. Many of these farmers were aware of growing and cultivating forgotten grains and had indigenous experience in cultivating them. However, rural farmers relied on training and capacity development to grow these crops. The survey also recorded the need to empower extension workers to raise awareness among farmers in different locations. Furthermore, the survey verified the need to address, promote, diversify and record existing traditional knowledge and combine it with new science to mainstream forgotten grains in the mainstream agriculture.

The broad value of forgotten crops and their benefits in tackling climate change will play an important role in meeting the challenges of agricultural production posed by climate change and soil degradation. Many traditional crops have higher nutritional value than their commercial counterparts, and are well-adapted to local conditions, exhibiting resistance to drought, pests, diseases and marginal soil conditions. Traditional crops could be strategic in helping more people meet the recommended levels of nutrition consumption, which is currently a global health concern.

Transformation of Agri-Food Systems and Innovation in favour of Forgotten Foods

The panel discussion moderated by Ms. Irish Baguilat, Coordinator, AFA, and Dr. Rishi Tyagi, Coordinator, Agricultural Biotechnology and Bioresources (APCoAB), APAARI, focused on various strategies for transforming agri-food research and innovation systems, as well as perspectives from farmers and the National Agricultural Research Systems (NARS). The session involved farmers, experts, and researchers focusing on the ways to scale forgotten grains, the challenges that farmers face in cultivating these grains, and the ways to market them to the public.

"Farmers are the custodian of genetic resources," Birte Komolong, National Agricultural Research Institute, Papua New Guinea

The discussions explored the nutritional value of these crops, highlighting it as one of the major reasons to cultivate them. Climate tolerance is also an important factor to promote forgotten crops among key players because these crops are drought tolerant and consume less water as compared to rice or other staple crops. Farmers from dry regions can significantly improve the production of these crops with very little input.

The discussions also suggested to include farmers as co-researchers to share knowledge, inputs and abilities to improve and scale forgotten foods in their communities. Furthermore, the participants suggested to improve traditional seed-sharing methods and seed access among farmers, as well as awareness campaign for the public, assuring minimum support price (MSP), improving programme scheme and support for NUS cultivation among rural farmers, and developing clear policies for procurement of these products.

The perspectives of NARS were provided by Dr. Vilas Tonapi, Director, Indian Institute of Millet Research, Indian Council of Agricultural Research (IIMR-ICAR), India. He highlighted the importance of building an ecosystem around small-scale farmers, if forgotten crops are to reach their commercial potential. The establishment of a strong value chain is the key to scaling forgotten crops among farmers and the public.

Dr. Birte Komolong, Programme Director, National Agricultural Research Institute (NARI), Papua New Guinea, also shared her experience in maintaining a firm foundation with communities of farmers to increase the scaling of forgotten crops. Her insights on setting the agenda correct, understanding market forces to help bring appropriate scalability to farmers, and bringing consumers on the same platform in promoting forgotten crops, provided a fresh perspective to the discussion.

Ms. Martina Spisiakova, Knowledge Management Coordinator, APAARI, focused on the importance and driving force of the shift in perspective from a linear model of technology transfer to that of agricultural innovation systems (AIS) perspective. The shift in this perspective requires the involvement of different types of actors to collaborate, co-create knowledge, and create an enabling environment for AIS that values, promotes and encourages innovation. These actors include farmers, research and education institutions, rural advisory services, businesses and enterprises attached to the value chain, as well as policy and decision makers, civil society (farmer and non-governmental organizations), regional and global fora, and many others.

The shift in attitude has to come from this broader systems perspective, through functional capacity development (soft skills) to collaborate, reflect and learn, navigate complexity and engage in political processes. Combined with technical capacity development, such an approach that develops capacity at three levels – individual, organizational and enabling environment – and focuses on co-learning and facilitation, can drive innovation and change at a larger scale.

Farmers need to be at the core of the co-creation of knowledge to make it more accessible and user-friendly, hence improving the adoption and scaling.

Dr. Norah Omot, Policy Coordinator, APAARI, emphasized the importance of policy in creating an enabling environment for the production and uptake of forgotten food by consumers. Policy-driven decisions are always data-centric. Often, lack of data or its availability, can slow down decision-making processes and procedures. Policy decisions can influence many actors in the value chain. Lack of stakeholder engagement in framing policies, and also the political atmosphere of a certain region, can have a major influence on the policy framework. Overcoming these barriers requires close interaction and knowledge sharing of various actors in the value chain to chart future pathways.

Dr. Dave Shearer, Deputy Head, Commission on Sustainable Agriculture Intensification (CoSAI), provided an overview of the evidence-based portfolio to map investments in agricultural innovation in the Global South. The data-driven portfolio highlighted low investments made in agricultural innovation in the Global South that stand at 60-70 Billion USD and cover only 4.5 per cent of the agricultural output. Investments are significant but not large enough for global impact. The pattern of investments in agricultural innovation is less than that of the energy sector, which covers 6 per cent of the total output. The largest share of investments into innovation is driven by government agencies, followed by the private sector and development partners. These investments in forgotten foods should address the multi-dimensional aspect of the economy, environment, and social justice.

The talks also discussed the ways to engage family members to help elevate workload and ease the process of learning for farmers from marginal backgrounds. Training will provide opportunities for working together to co-share knowledge, both indigenous and scientific, helping ease farmers' discomfort of processing new information and building a shared platform for exchanging information.

Farmers' interaction in Breakout Rooms

Moderated by Ms. Esther Penunia, Secretary-General, AFA; Dr. Oliver King, MSSRF, and Dr. K. S. Varaprasad, Senior Consultant, APAARI, the session was organized into three breakout rooms that provided an opportunity for the participants to elaborate on the Regional Manifesto and future course of action based on the discussions in the Regional Consultation. The sessions brought up different perspectives of various participants representing the diverse stakeholder groups to develop an inclusive Regional Manifesto. Some of these key suggestions, also integrated in the Regional Manifesto itself, are listed below:

Government bodies should:

- Secure rights for family farmers to natural resources, essential infrastructure, regulate the growing market, raise public awareness and secure finance for small-scale farmers.
- Support national farmers federations, as well as festivals and fairs that showcase such forgotten crops, support MSP for forgotten crops, as well as crop and nutrition diversity, including forgotten crops in Public Distribution System (PDS), and incorporate them in their nutrition programmes.

Research organizations should:

- Co-create knowledge with farmers, support women and youth in farming, help conserve quality seeds and improve accessibility to these seeds, influence public demand through marketing, as well as include farmers in governing body to give equal representation.
- Support inclusion of gender dimensions while conducting studies, capture traditional knowledge in NUS cultivation, and develop seed and gene banks for such crops.

Civil Society Organizations should:

- Raise awareness of nutritional security, strengthen policy advocacy, and support marketing of forgotten crops.
- Launch and support awareness programmes, develop incubation centers, build capacities of family in cultivating NUS crops, support farmers as entrepreneurs, and strengthen the documentation of these crops.

Furthermore, development partners need to invest in smallholder farmers, and provide access to finance.

Closing Remarks

In his closing remarks, Dr. Ravi Khetarpal, Executive Secretary, APAARI, stressed that the Asia-Pacific Regional Manifesto on Forgotten Foods initiative provides a window of opportunity for farmers across the region to become key agents of change. The heart of the initiative is to leverage local capacities to increase participation in action, make farmer-centric decisions and boost local economies and agricultural markets. Farmers at the centre of innovation will leverage inclusive, fair, and responsive framework for adapting new practices into research systems for scaling forgotten foods. Smallholder farmers from across the world can rely on forgotten grains to provide them fairer social and economic returns.

"We need to have a clear communication strategy to convey our work," Ravi Khetarpal, APAARI

Attachment 1: Agenda

Opening Session		
14:00 - 14:20	Opening Remarks (Including background and objectives)	Ravi Khetarpal, APAARI Alessandro Meschinelli, GFAR Ronnie Vernooy, Alliance Bioversity-CIAT
Session 1: Perceptions about forgotten food **Moderator: Sayed AA**		
14:20 - 14:30	The science and value of forgotten foods and crops	Ronnie Vernooy, Alliance Bioversity - CIAT
14:30 - 14:50	Farmers' perception on forgotten foods in Asia-Pacific – Survey results	Irish Baguilat, Asian Farmers'Association
14.50 - 15.00	Smart Food Initiative	Joanna Kane-Potaka, ICRISAT R. Padmaja, ICRISAT
Session 2: Panel Discussion on Transformation of Agri-Food Systems and Innovation in favour of Forgotten Foods **Moderators: Irish Baguilat and Rishi Tyagi**		
15.00 - 15.50	Farmers' perspectives National Agricultural Research Systems perspectives Strategies for transforming agri-food research and innovation systems	Ika Krishnayanti, Central Java Province, Indonesia Salome Yesudas, Andra Pradesh, India Region Selected NARES of the Region Vilas Tonapi, ICAR-India Birte Komolong, NARI, Papua New Guinea Martina Spisiakova, APAARI; Norah Omot, APAARI; Dave Shearer, CoSAI
Session 3: Breakout Session for farmers' Interaction (three breakout rooms organized per sub-region) **Moderators: Esther Penunia, Oliver King and KS Varaprasad**		
15.50-16.20	Farmers from different countries through their organizations discuss the regional Manifesto and future course of action with all participants	Discussion in three breakout roomsorganized per Sub-region (each having its moderator)
Session 4: Plenary Session **Moderator: Carlo Fadda**		
16:20-16.35	Key outputs from the breakout sessions	Moderators of breakout sessions
16:35-16.45	Key elements for draft regional Manifesto for Asia-Pacific	Estrella Penunia, AFA KS Murali, MSSRF Rishi Tyagi, APAARI, Joanna Kane-Potaka, ICRIASAT
16:45-16.50	**Closing Remarks**	Ravi Khetarpal, APAARI

Attachment 2: List of Participants in the Regional Consultation

Abbasi Moghadam, United Arab Emirates
Abhishek Kumar Jha, India
Aditya Pratap Singh, India
Ahmad Mostaan, Iraq
Ajit Sahu, India
Alberto Miti, Italy
Alessandro Meschinelli, Italy
Ali Rasaei, Iran
Amir Soyel, India
Amirul Islam, Bangladesh
Amit Chakravarty, India
Amutha Sundararajan, India
Anand Teertha Pyati, India
Angela Birch, Fiji
Anil Kumar, India
Anil kumar Kallenchira, India
Anjali Kulkarni, India
Anna Dulay, South Africa
Anupama Panghal, India
Anuradha Agrawal, India
Asep Kurnia, Indonesia
Ashis Kumar Samanta, Bangladesh
Ashok Sarial, India
Babak Nakhoda, United Arab Emirates
Babu Potta, India
Baskar R, India
Batchimeg Batmunkh, United States
BB Rai, Bhutan
Behzd Sorkhilalehloo, United States
Bhogtoram Mawroh, India
Bimala Rai, Nepal
Binoy Medhi, India
Birkha Bahadur Tamang, Bhutan
Birte Komolong, Papua New Guinea
Carlo Fadda, Kenya
Cathy Lalthanpuii, India
Celia Vasimalla, India
Celilu Bitong, Thailand
Cheng Ping Kuan, Taiwan
Chhimi Dorji, Bhutan
Chike Mba, Italy
Chila Bakka Reddy, India
Chinnathambi S, India
Chin Yi Tsao, Taiwan
Cholie Ann Mirhan, Philippines
Choney Zangmo, Bhutan
Christine Xu, United States
Chuon Mony Roth, Cambodia
Dagin Lin, Taiwan
Dannah Logronio, Philippines
David Shearer, Australia
Deeksha Krishna, Fiji
Deepak Mangesh, India
Devaki A, India
Dhaneswar Mohanta, India
Dhanya Chemboli Sreenivasan, India
Dinesh Kumar, India
Dongxin Feng, Austria
Ehsan Kahneh, Iran
Elangovan M, India
Elisabeth Rajala, Sweden
Emmanuel Leaño, Philippines
Esther Penunia, Philippines
Fadila Al Salameen, Kuwait
Farooq Tariq, Pakistan
Fatema Nasrin Jahan, Bangladesh
Forough Shavakhi, Iran
Girigan Gopi, India
Gwen Magdamit, Philippines
Han Wei Chen, Taiwan
Harka Tamang, Nepal
Heman Subba, Bangladesh
HSIN YI TSENG, Taiwan
Hui Lung Chiu, Taiwan
Huyen Le Thi Thanh,, Vietnam
Ika Krishnayanti, Indonesia
Ina Zulaehah, Indonesia
Irish Baguilat, Philippines
Isra'A Odat, Jordan
Israel Oliver King Edwin Devarathna, India
IWen Wang, Taiwan
Jack Lin, Thailand
Jacqueline Hughes, India
Jaffarsadiq K, India
Jayakumararaj Ramaraj, India
Jayashree Mohanta, India
Je-Ruei Liu, United States
Jeyakumar Prabhakaran, India
Jijnasa Barik, India
Joanico Jose Ximenes, Timor-Leste
Joanna Kane-Potaka, India
Jose Romeo Ebron, Philippines

Joy Jamago, Philippines
Kailash Chandra Machha, India
Kalolaini Colaitiniyara, Fiji
Kavitha Kasala, India
Khammoun Xaymani, Laos
Kien Van, Vietnam
Kinzang Gyeltshen, Bangladesh
Kishore Kumar Sharma, India
Kodeboyina S Varaprasad, India
Kongpasa Sengsourivong, Laos
Koppisetty Sri Lakshmi, India
Krishna Prasad G, India
Kumar N, India
Lava Kumar, Nigeria
Lukas Pawera, Czechia
Monir Ahmed, Bangladesh
Muhammad Hamad Ashraf, Pakistan
Muhammad Usman Ghazanfar, Pakistan
Murali Kallur, India
N. Saichandan, India
Nandaris Marwein, India
Nasreen Sultana, Bangladesh
Nayantara Joseph, India
Neeranjan Gauda, India
Ngoc Anh Nguyen, Vietnam
Nina Kao, Taiwan
Niranjan Ameta, India
Nirmalakumari Angamuthu, India
Nishanth Bankapur, India
Nitesh Kumar, India
Nitin Puri, India
Norah Omot, Papua New Guinea
Omar Yacouba Touré, Benin
Oscar Manirakiza, Burundi
Padmaja Ravula, India
Palash Deb Nath, India
Palden Ongmo, Bhutan
Pallavi Kundu, India
Panaw Sumilao, Philippines
Paul Raja Rao Valaperla, India
Peanamesh Sundargarh, India
Pema Yuden, Bhutan
Pius Ranee, India
Pradeep Rai, Bhutan
Prashant Parida, India
Pratibha Singh, India
Prerna Garg, India
PRITI KUMARI, India
Pushpinderpal Pannu, India
Queenie Annq Curayag, Philippines
Rabin Rai, Nepal
Raghunath Ghodake, India
Rajdeep Behera, India
Rajeev Varshney, India
Rajendra Chapke, India
Rajesh Kumar, India
Raman Ahuja, India
Ramesh Tatineni, India
Ranjan Kandali, India
Ranjit Dalai, India
Raut Lilaraj, Nepal
Ravi Khetarpal,Thailand
Ravindra Joshi, Philippines
Ravindran Thelapurath, India
Rishi Tyagi, Thailand
Robelyn Piamonte, Philippines
Rohit Pillandi, India
Rohith Kumar, India
Ronnie Vernooy, Netherlands
Rosalina Dulabay, Philippines
Ruben Isiderio, Philippines
S Sahithi, India
S.S. Dudeja, India
SABER GOLKARI, Canada
Sabyasachi Hanuman, United States
Sahithi Reddy Voladri, India
Saima Zia, Pakistan
Salome Yesudas, India
Samitha Haldar, India
Sangeeta Khetarpal, Thailand
Santi Kongmany, Laos
Sarthak Danda, India
Sasireka Rajendran, India
Satish Kumar Sain, India
Satya Narayan Mallick, India
Sayed Azam-Ali, Malaysia
Sayvisene Boulom, Laos
Selva Kumar, India
Sengphachanh Sonethavixay, Laos
Shakeela V, India
Shibajee Pradhan, India
Shikha Srivastava, India
Shoh Sharipov, Tajikistan
Shuen Chi You, Taiwan
Simon Wilkinson, Thailand
Sonam Dorji, Bhutan
Sosamma P Mkudanal, India
Speedy Crisostomo, Philippines

Stephan Weise, Italy
Subhashni Sridhar, India
Sudam Pawar, Thailand
Suman Guchhait, India
Suresh Kumar, United States
Suresh Raut, India
Susan Subedi, Thailand
Susanta Sekhar Choudhury, India
Tapas Roy, India
Tarathip Sanboonkrong, Thailand
Tessa Lyrene Lantican, Philippines
Thansita Tanaphatrujira, Thailand
Tran Thi Bich Ngoc, Vietnam
Trinath Taraputia, India
Utpal Barman, India
Vennila P, India
Vijayalakshmi Rangasamy, India
Vikram Sankaranarayanan, India
Vilas Tonapi, India
Vipindas P, India
Vishwanath Sah, India
Vivek TR, India
Von Ryan Ebron, Philippines
Wangda Dukpa, Bhutan
Wen-Chi Huang, Taiwan
Wendy Craig, Italy
Yemi Akinbamijo, Ghana
Yogaraj Prabakaran, India
Younus Ali, Bangladesh
Yuvraj Raj, India
Yasmin Janina Serrano, Philippines

Part 2: Asia-Pacific Regional Manifesto on Forgotten Foods

Background

Since many years in the past the Asia-Pacific countries have been growing and consuming a wide variety of food crops, which had high nutrition value. However, with change in food habits over the past years many have moved away from those traditional foods, which have now become almost a forgotten food. Our agri-food system is now characterized by a limited number of (major) staple crops, like rice, maize, wheat, soybean and potatoes, which make up 60 per cent of the global food energy intake and unsustainable farming practices. Formal agricultural research systems often tend to neglect many local crops and foods, considering vast diversity of over 30,000 edible plant species, of which 6,000 have been used as food with 700 cultivated throughout human history. These species have demonstrated multiple environmental, economic and social benefits, in particular, to the fragile, marginalized and vulnerable local communities and ecosystems.

Currently, our agri-food system is off course if it is to sustainably nourish a growing population on a hotter planet while sustaining the Earth's capital of biodiversity and natural resources upon which it depends. Its outputs are increasingly delivering calorie-dense foods, responsible for a triple burden of malnutrition – obesity, undernourishment, and food insecurity. Its governance is not multi-stakeholder driven. In a vicious circle, current food systems are responsible for 30 per cent of Green House Gases emission, as well as significant land degradation. This is making the production of major current food crops depending on increasingly impoverished soils, and even more vulnerable to climate change, while susceptible to growing pests and diseases. Risks of yield losses and environmental damage will increase and could result into severe economic impacts affecting especially the most vulnerable population.

Greater diversity associated with sustainable management practices is crucial in agricultural and food systems. This is important in order to feed the projected nine billion people in 2050 in tandem with protection of environment and enhanced livelihoods of farmers, ensuring healthy, safe and affordable food, as well as developing food system pathways for the future. For this sustainable scenario, we need to value and use traditional knowledge systems on time-honored agricultural systems, and crop species and varieties. Such approach will also contribute to the 'Right to Food' and the 'Right to Health' embedded in the Universal Declaration of Human Rights[5].

The Sustainable Development Goal 1 (SDG 1) stipulates the need to eradicate poverty in all its forms. This necessitates moving from the definition of poverty that is based only on economic terms (lack of income), to one that includes nutritional poverty (lack of healthy diverse diets and access to adequate food), biodiversity poverty (lack of genetic, crop and system diversity), and cultural poverty (loss of knowledge of food heritage and traditional agricultural systems) – all of which are interconnected. This broader definition can transform interventions based on a single, linear impact pathway where farmers are seen as the `beneficiaries' of new technologies and innovations to a more reciprocal impact pathways in which rural communities become protagonists and key actors. These actors can share their rich knowledge and traditions of foods and genetic resources, cultures and practices to support humanity in an uncertain future, making a circular pathway with explicit feedback loops between different knowledge systems.

In case of Forgotten Foods, access to seeds has been limited due to the poor performance of seed multiplication and distribution system, lack of consideration by the formal seed sector, and support by national programmes. Production and consumption of Forgotten Foods have declined over the time also due to negative social perceptions, pervasive impact of agricultural and trade policies, lop-sided funding in favour of staple crops, lack of interest from research institutions, limited

[5] Cordoba Declaration on Promising Crops for the XXI Century, 2012. Retrieved From https://www.fao.org/fileadmin/templates/food_composition/documents/Cordoba_NUS_Declaration_2012_FINAL.pdf

awareness of their value among consumers, and challenges in establishing markets and end-uses.

Yet, Forgotten Food Crops (FFC) have been used, conserved and improved by local communities for centuries if not millennia, and thus, making them part of their unique cultural heritage. FFC often have high nutritional content and complement the nutrients provided by mainstream crops, which typically have been bred and selected to produce high yields under optimal conditions without consideration of their nutritional values or suitability to cultivate in marginal areas.

Many FFC grow on marginal soils that would be too poor to support cultivation of major crops, and require minimal or no pesticides and fertilizers. The use of FFC, to increase species and genetic diversity in farmers' fields, has been shown to help vulnerable groups particularly in rural areas, including women and indigenous people, to escape from poverty and social marginalization.

The valorisation of FFC requires collective actions at global, regional, national and local levels. For each of these actions, farming communities and indigenous peoples need to be recognized as custodians of knowledge, agents of change, and partners for innovative practices and products for sustainable transformation rather than mere beneficiaries. Alongside this, there has to be a conscious effort to promote women-led collectives and enterprises to grow and sell nutritious FFC and Forgotten Foods. This will lead to enhancing the agency of the women and empowering them in growing, selling and consuming these nutritious crops.

A shift from the current « yield-for-immediate-profit » paradigm of agriculture is needed towards a triple bottom line designed especially for food systems where the solution has to be good for farmer (build resilience and protect natural resources and livelihood), for consumers (nutritious) and for the planet (sustainable). This would lead to multifunction, diversified agri-food systems to achieve zero hunger and provide nutritious, healthy and sustainable diets, which requires among others a transformation of agricultural innovation systems, valuing more local knowledge and ingenuity, as well as genetic and species diversity.

Methodology for the Preparation of the Regional Manifesto

The following process and methodology was used in development of the Regional Manifesto, led by APAARI. At the beginning of 2021, APAARI developed and finalized a concept note on forgotten food in collaboration with the Global Forum on Agricultural Research and Innovation (GFAR), Crops for the Future (CFF), the Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT), Asian Farmers Association for Sustainable Rural Development (AFA), MS Swaminathan Research Foundation (MSSRF), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Barli Development Institute For Rural Women (BARLI). Regular electronic discussions were held with these partners on modalities of conducting a survey and then organized a regional consultation.

A targeted questionnaire on the knowledge and status of FFC and the farmers' practices was developed to conduct an online Farmer Perception Survey across Asia-Pacific involving 4,051 farmers, and 31 regional and national organizations from 19 countries in Asia-Pacific region[6].

[6] **APAARI members** (as of 28 May 2021)

Country Core: Afghanistan (ARIA), Australia (ACIAR), Bangladesh (BARC), Bhutan (DOA), Fiji (MoA), India (ICAR), Iran (AREEO), Japan (JIRCAS), South Korea (RDA), Malaysia (MARDI), Nepal (NARC), New Caledonia (IAC), Papua New Guinea (NARI), Pakistan (PARC), Philippines (PCAARRD), Sri Lanka (SLCARP), Taiwan (COA), Thailand (DOA), VAAS (Vietnam), Samoa (MAF), Lao PDR (NAFRI)

Associate Members: BAR, Philippines; CGIAR (One CG), France; ICRISAT, India; IAUA, India; SAC, Bangladesh; PNG Unitech, PNG; WorldVeg, Taiwan; CABI, UK; CAU, India; ICIMOD, Nepal; SHUATS, India; AAU, India; TNAU, India; PJTSAU, India; IAAS, Singapore; AAI & FSII, India; ABRC, Taiwan; KGF, Bangladesh; UAS-Dharwad, India; BIRAC, India

Affiliate Members: AAU-Anand, India; CSK HPKV, India; UPM, Malaysia; SDAU, India; IITB, India; JAU, India; NCHU, Taiwan; SKUAST, India; IGKV, India; KU, India; NTU, Taiwan; PAU, India; CIRAD, France

Reciprocal Members: AARINENA, Jordan; APAFRI, Malaysia; AIT, Thailand; APSA, Thailand; CACAARI, Uzbekistan; NACA, Thailand; SPC, New Caledonia; FARA, Ghana; AFA, Philippines; BRAC, Bangladesh; GODAN, UK; TAAS, India; BCIL, India; HLAF, Malaysia; AFMA, Thailand; GCHERA, Canada

Based on analyses of the survey data, more than 90 per cent of the farmers expressed their willingness to cultivate FFC (traditional/indigenous crops) and have expectations in the form of support from national governments, research institutions, civil society organizations, development partners and consumers, as well as the public, which may improve sustainable production, processing and marketing of forgotten foods.

A virtual Regional Consultation was organized on 28 May 2021, with over 500 registered and 247 actual participants (Attachment 2, Part 1: List of Participants in the Regional Conference). The objective was to build a consensus around a new vision of research and innovation systems needed for enhancing bio-cultural diversity, hence, empowering custodian farmers, particularly women and youth, in their practices to conserve, cultivate, use, save, exchange and sell FFC.

The 247 participants represented 38 countries of the world and 160 institutions from across South Asia (146), South East Asia (50), East Asia (10), West Asia (9), Pacific (7), Central Asia (1) and beyond Asia (24). It is worth highlighting that the participating farmers were so motivated that they themselves came out with a Declaration (Annex 2: Farmers' Declaration) in favour of FFC, which further strengthened the basis of the Regional Manifesto. This also helped in highlighting many of the important areas of the transformation of agri-systems that need attention of the global community.

Based on the above, APAARI prepared a draft Regional Manifesto with inputs from all the partners, through collective actions of farmers, academia, national agricultural research and extension systems (NARES), and their research and development institutions, including international organizations, the private sector, non-governmental and civil society organizations in the region.

A New Vision of Research and Innovation Systems to Support Forgotten Food

The pillars of a new vision of research and innovation systems to support FFC based on the above-mentioned survey and Regional Consultation, as well as the existing opportunities for moving towards diversified agri-food systems include:

Research and innovation networks

- Novel research networks with long-term committed research funding support, generating and sharing knowledge on FFCs, using trans-disciplinary and participatory approaches through integrating community, family farmer organizations, cooperatives and scientific knowledge to provide a credible evidence base around Forgotten Foods, and to blend farmers' practices with new research technologies (e.g. molecular genetics, nutritional profiling, agronomic interventions, digital technologies and applications).
- Innovation and translation of research, conservation of traditional varieties involving farmers, especially women farmers, as they are the custodians of this knowledge, farmers organizations, cooperatives, and translation of research outputs (nutritional content) to stimulate demand from consumers, in turn, support the marketing of the Forgotten Food products.

Transformation of agricultural research system

- Sustainable seed systems, facilitating conservation, access, availability, use and exchange of high-quality seeds of traditional crops and varieties by farmers; developing seed systems suitable to forgotten food crops and strengthening their seed value chain; region-specific oriental improvement of seed system.

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- Supporting Gene Banks to ensure good collections of species of FFC and their wild relatives to make them available for research and innovation by the scientific and farmers' community.
- Efforts in participatory plant breeding with family farmers to improve the adaptation of FFC and Forgotten Foods to social, economic and ecological conditions; as well as nutritional value by incorporating farmers' knowledge of local circumstances and improving their contribution to food security; these efforts should also aim at reducing the level of anti-nutrients in the various FFC and Forgotten Food.
- Research Governance implies research institutions to include representatives of farmer communities and organizations in the governance structures of research and innovation, as well as equal participation of smallholder farmers and their organizations in research agenda design, implementation, monitoring and evaluation.

"These crops have grown well in our soil, even in marginal areas, with very little inputs, and they withstand adverse conditions. We also use indigenous crops for religious and cultural activities, such as festivals. Our communities, in particular the women, have conserved these crops for centuries. We rely on traditional knowledge and existing practices to grow, consume and sell these crops.

We have been developing new resource management approaches to better conserve, process and market these crops. Our work is a testament of the role of family farmers as custodians of our country's agrobiodiversity and caretakers of the environment. Our communities are rich repositories of diverse species, wisdom and knowledge."

Excerpt of the Asia-Pacific Farmer's Declaration Manifesto on Traditional and Indigenous Food Crops (28 May 2021).

Drivers of change

- Effective awareness raising and consumer marketing along the rural-urban continuum, to ensure that the values of FFC are recognized by all in society including researchers and technical agents, farmer champions, farmer organizations, CSOs, celebrity endorsements, as well as urban communities and consumers, for their nutritional, cultural and environmental benefits using various media road shows, linking to various nutritional programmes e.g. public distribution system, anganwadi services for children, pregnant women and lactating/young mothers (especially in India), and mid-day meal schemes/school feeding programmes.
- Innovative investment and empowerment of smallholder farmers and farmer organizations to govern, manage and sustain their enterprises and services to their members through decentralization, establishment of community-based enterprises around Forgotten Food and through partnerships with other food systems actors; as well as grants for seed conservation in community seed banks and seed banks at sub-regional levels, capital/loans for production, processing and marketing.
- More advocacy and evidence-based policy changes, including incentives for Forgotten Food cultivation and conservation and policies that can help family farms to innovate within a system that recognizes their diversity and the complexity of challenges they face. This involves policies to include FFC and Forgotten Foods in national nutrition missions of the governments.
- Better access to markets with support of short supply chains and alternative retail structures, stimulation of demand for Forgotten Foods in a broader context of promoting green and circular economy as a livelihood opportunity for local stakeholders; regulation of markets, trade and particularly prices to enable the local communities to buy Forgotten Food at affordable prices; build the ecosystem of value chains by involving biodiversity

groups, small holder farmers and by using local germplasm and traditional varieties; branding of Forgotten Foods to enhance marketability.

Capacity building and education to support change

- Developing functional capacities of various stakeholders, including smallholder farmers and producer agencies' capacities to innovate and engage young farmers for FFC.
- Targeted capacity development to conduct research on FFC, with ab initio involvement of farmers in developing the research agenda to ensure a truly demand-driven approach and an authentic engagement into co-innovation processes through multi-stakeholder platforms that foster co-learning between practitioners and researchers, and establishing community-based enterprises; creating critical mass of 'file breeders' for future and sustainable participatory breeding; development of new curriculum (primary and secondary education) and short courses at university level.
- Reforming education programmes through integration of systems' analysis, functional capacities (including engaging in collaborative activities, mobilizing new partners to create institutional consortia, and influencing the policy environment) blended with technical capacities to equip extension and research agents with skill sets to foster innovations around Forgotten Foods.

Knowledge platform

- Better data, evidence, new metrics and indicators to show the value of FFC and Forgotten Foods in terms of nutrition, resilience to climate change, cultural richness and sustainable livelihoods, including women's agencies to reduce inequalities; hosting cultural events and festive celebrations with focus on Forgotten Foods and hand-holding of forgotten food champion farmers as Research facilitators.
- Open Access Multi-lingual Digital Regional Knowledge Portal, to collect, collate and disseminate authentic information on all important aspects of Forgotten Foods including species/crop identity, natural occurrence, information on access and conservation status, current status of cultivation; value chain, profitability, seed systems status; package of practices; supply chain; markets and trade; food, nutrition, health and ecosystem services in a retrievable format.

Approaches critical to support the transformation process

- Focus on agroecological approaches that offer vulnerable and marginalized smallholder farmers a development pathway that builds on their existing knowledge and on the principles of climate and food systems resilience through farmer-driven approaches.
- Respect the rights of farmers implemented locally by allowing farmers to use, save, exchange and sell their FFC and Forgotten Food and protect their traditional knowledge and participate in benefit sharing.
- Co-design and co-create solutions with women for enhanced production and for creating women-friendly innovations for production, cooking, processing and marketing.
- Integration of gender transformative approaches for equity, to transform power dynamics and structures that reinforce social, cultural and all forms of inequality in the cultivation of these crops and foods, which play an important role in shifting consumption patterns and changes in dietary behaviours for better nutritional outcomes.

Annex 1: Farmer Perception Survey on Traditional Food Crops

Asian Farmers' Association (AFA)

Following the finalization of the questions by all partners, AFA drafted briefing paper for national partners and conducted an orientation on March 9, 2021. The survey was done in 17 countries in Asia-Pacific from March to April 2021. Google forms were used to capture information through phone interviews and online surveys. Google forms were translated into 13 national languages. Data were consolidated and processed and presented to all national partners on 29 April 2021. The conclusions were used to develop the Farmers' Declaration on Traditional and Indigenous Crops. The constituencies from AFA for the farmer survey are as below:

Southeast Asia:
Indonesia - Aliansi Petani Indonesia (API)
Philippines - Pambansang Kilusan ng mga Samahang Magsasaka (PAKISAMA), Inc Vietnam - Vietnam Farmers' Union (VNFU)
Timor-Leste - Asosiasaun Nasional Produtor Fini Komersia (ANAPROFIKO) Laos - Lao Farmer Network (LFN)

South-Asia:
Bangladesh - Kendrio Krishok Moitree (KKM) and ActionAid
Bangladesh India - Self-employed Women's Association (SEWA)
Nepal - Central Tea Cooperative Federation (CTCF) Ltd., National Land Rights Forum (NLRF) Sri Lanka - Monlar / Lankan Farmers Forum
Pakistan - Crofter Foundation Bhutan - Tarayana Foundation

East Asia:
Taiwan - Taiwan Wax Apple Development Association (TWADA)

Central Asia:
Tajikistan - National Association of Dehkan Farms (NADF)
Mongolia - National Association of Mongolian Agricultural Cooperatives (NAMAC) Kyrgyzstan - National Union of Waters Users' Association of Kyrgyz Republic (NUWUA)

The Pacific:
Fiji - Pacific Island Farmers Organisation Network Samoa - Pacific Island Farmers Organisation Network

MS Swaminathan Research Foundation (MSSRF)

Following the South Asia Regional Consortia discussion, the Farmer's perception survey on Forgotten Crops was finalized. Subsequently, MSSRF convened a meeting with constituency partners (listed below) and shared the Concept note, Survey questionnaire, methodology and expected deliverables on 30 March 2021. The survey was carried out across 15 states in the months of April and Mid- May. Both physical survey and Phone Interviews were conducted in respective partners locations depending on pandemic conditions. Questionnaire link were shared with partners to upload the data. In India, over 1800 respondents participated in survey. The data was processed and presented to constituency partners.
Datasets of MSSRF is merged with AFA datasets in order to analyze and present as one in the South Asia Regional webinar held on 28 May 2021. The regional constituencies were invited to contribute to the webinar and encouraged to share their additional inputs in the regional and national level

discussion organized by MSSRF in the Manifesto and Farmer's declaration development processes. The constituencies of M.S. Swaminathan Research Foundation, Chennai, India, include:

- Bharathi Integrated Rural Development Society (BIRDS), Kurnool, Andhra Pradesh Centre for Indigenous Knowledge Systems, Chennai, Tamil Nadu
- Himalayan Environmental Studies and Conservation Organisation (HESCO), Dehradun, Uttarakhand
- Martin Luther Christian University, Shillong, Meghalaya
- North East Slowfood and Agro biodiversity Society (NESFAS), Shillong, Meghalaya Sanlak Agro Industries Private Limited, Coimbatore, Tamil Nadu
- Sevamandir, Udaipur, Rajasthan
- Shahaja Samrudha, Bengaluru, Karnataka
- Tamil Nadu Agricultural University (TNAU), Coimbatore, Tamil Nadu
- Watershed Support Services and Activities Network (WASSAN), Hyderabad, Telangana

International Crop Research Institute of Semi-Arid Tropics (ICRISAT), Hyderabad, India

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) undertook the survey adapting the protocol given by APAARI on 235 farming households (both women and men were jointly interviewed per household) in two locations- a rural location in Andhra Pradesh (Kurnool district) and tribal community dominant location (erstwhile Adilabad district) in Telangana, India. The survey form was slightly adapted and translated into local language for the ease of field enumerators. The data was collected during March-April 2021 through personal interviews and the CS Pro version 7.5 was used for collecting the information and inputting them digitally. It was assumed that APAARI has already taken the IRB approval. As there was not enough time to get ethical approval from the ICRISAT Ethics Committee (IEC), informed written consent was taken from the respondents of the survey for not only participating in the survey but also for the audio, photo and video recordings as well before the start of the survey.

The team was able to undertake this survey as two surveys for different projects were already being implemented in the field during this time. We took this opportunity and trained the enumerators to collect the data. The data collection instrument was translated into the local language (Telugu) such that the meaning of the inquiries is not lost. As the teams were already in the location and ICRISAT also saw it as a good opportunity to get this understanding from the farmers, the data collection was completed on time. The two constituencies from ICRISAT for the farmer survey are as below:

- Erstwhile Adilabad district (tribal), Telangana state,India
- Kurnool district (rural), Andhra Pradesh state, India

ICRISAT Team: R. Padmaja, K. Kavitha, P. Babu and T. Rohith Kumar; Theme - Markets, Institutions, Nutrition and Diversity (MIND); Research Program on Innovation Systems for the Drylands.

Annex 2: Asia-Pacific Farmers' Declaration on Indigenous Food Crops

We, the participating organizations in the survey conducted between March - May 2021 on Traditional and Indigenous Crops, as a preparatory process to the Regional Consultation on Forgotten Foods organized by the Asia-Pacific Association of Agricultural Research Institutions (APAARI), Global Forum of Agricultural Research (GFAR), Alliance Bioversity - CIAT, Asian Farmers Association for Sustainable Rural Development (AFA), M. S. Swaminathan Research Foundation (MSSRF), Barli Development Institute for Rural Women (BDIRW) and International Crop Research Institute for Semi-arid Tropics (ICRISAT), appreciate the attention given to traditional and indigenous food crops that we, with our ancestors, have cultivated for generations. We know that many of these crops are nutritious and can readily provide for our families' need for food, fiber, health, medicines and occasionally incomes. We also use our indigenous crops for religious activities and for traditional and local festivals. We understand well that these crops have thrived in our soil, even in marginal areas, with little inputs, and withstanding adverse conditions.

Thus, these crops have been conserved by our communities, especially by our women farmers. We have relied on traditional and existing practices – our own knowledge, family's tacit knowledge and fellow farmers' knowledge - to grow, consume and sell these crops. We have been developing resource management approaches that help conserve agro-biodiversity and ways to process and market these crops. Our work on local indigenous crops is a testimony to the role of family farmers as custodians of our country's agro-biodiversity and caretakers of the environment. Our communities are rich repositories of diverse species, wisdom and knowledge.

We have learned that many of these local and indigenous crops are now being termed by international scientists as "forgotten food crops" or "neglected and underutilized species", because these crops have received little attention or entirely ignored by agricultural researchers, plant breeders and policy makers.

We recognize that attention to these crops is mounting because of its potential to contribute to fight poverty, hunger and malnutrition, as well as to make agriculture more resilient to withstand the effects of climate change. In our communities, where many are poor, hungry and malnourished, the massive promotion of these crops can mean more available, affordable, adequate nutritious food, and markets for our crops, thereby increasing our incomes. With the support mainly from our partner civil society organizations and development agencies, some of us have already taken initiatives for conserving, using and diversifying agriculture through indigenous, traditional or local crops:

- In the Pacific, the Pacific Breadfruit and Seeds Program, as prioritized by the Pacific Island Farmers Organisation Network, developed breadfruit, an important indigenous food source, as an orchard crop across the Pacific region. The seeds component encourages members to grow local, nutrient-rich, open pollinated plant varieties and relearn the practice of saving their own seeds for future planting. A virtual community has been established (www.breadfruitpeople.com) where queries on this traditional crop are answered here.
- Affiliated Farmers' Organizations of the Lanka Farmers' Forum (LFF) and Ecological Agricultural Producers' and Entrepreneurs Cooperative Society (EcoAPECoop) are working with smallholder food producer organizations and their members in nine districts of Sri Lanka. LFF members are practicing agroecology, which enhances agro biodiversity, protects the environment and uses traditional seed varieties, which tolerate pests, diseases and climate change effects. Further, LFF farmers are adding value to their crop by converting them in to food commodities to earn better income. For example, the Matale District Lanka Farmers Forum produces grain-based food products using different underutilized grain varieties under the brand name Pink Products. Now, the EcoAPECoop, the national level primary cooperative society markets these value-added farmers' products under "ApeCoop" brand. In addition, LFF farmers' together with

other farmers groups lobby for national and regional level policy changes to enable and protect the farmers rights to grow, conserve and market indigenous and traditional crop and seed verities. In 2013, these farmers succeeded in defeating the proposed Seed Act amendments that could have criminalized farmers who grow, conserve and sell traditional food crops and seeds without register.

- The Self Employed Womens' Association (SEWA) in India has established a rural distribution network called RUDI, which buys local crops such as pulses, turmeric, spices, from their farmer members, and then process and package these in their RUDI centers, subsequently it is distributed to rural women through women members called RUDIbens or to feeding centers for children.

However, we realize that there are still challenges in promoting these crops to the larger market, especially in urban communities. These crops are perceived to have low economic value, inferior, and a poor peoples' food. Cultivation of these crops remains low, as there are few researches and innovations done for its wider cultivation. We have not received support in marketing these crops and good quality seeds are also not readily available. Governments resources and support are mostly channeled towards the cultivation of a few crops including narrow range of staples. And due to such bleak scenario, the number of farmers amongst us who are cultivating these crops are steadily declining, and we are afraid that the knowledge and practices on the cultivation of these indigenous crops will be lost, and along with it, the potential of these crops to contribute to the achievement of the ambitions of Agenda 2030.
But we would like to impress upon the authorities to support the revival and encouragement of such crops for the overall good of the ecology, biodiversity, food, nutritional and income security in the face of increased climate variation, biodiversity loss and compromised nutrition.

As organizations and cooperatives of family farmers and civil society in the Asia-Pacific region, we articulate our commitment to help in the massive promotion of indigenous, traditional, and local crops. We will conduct awareness raising among our members to increase their motivation to cultivate indigenous crops, strengthen the capacities of our women members and encourage our youth members to get fully involved in the full value chain of indigenous crops, including seed production, and advocate for good policies and programs. Where these exist, we will facilitate partnerships with government, research institutions, CSOs and development partners to improve sustainable production, processing and marketing of indigenous food crops. We will conduct learning exchanges and knowledge management workshops, documenting our experiences and capturing lessons learned from these experiences.

However, we will need the support of the government in terms of policies and incentives, of research institutions in terms of participatory research and innovation, of CSOs in terms of capacity building and technical assistance, and development partners in terms of financing.

Thus, we call on our governments to:

- Secure our rights and control over natural resources, especially lands, waters, forests as we need these resources to invest long term in diversifying our farms, that includes the production of indigenous crops.
- Protect the biocultural diversity heritage which is important for the protection of such crops. The climate resilience of these food crops offers great climate adaptation strategies, which many fail to notice.
- Recognize our effort to conserve the forgotten crops and traditional practices that was passed on from ancestor till date using personal resources for the public. Our knowledge should well documented and legally safeguarded. Special attention be extended to family farmers and incentivizing forgotten, neglected and underutilized species. Farmer's cooperatives or collectives should be viewed not only as economic entities but also as consumer groups.

Develop and implement support programs and projects such as:

- Provision of farm-to-market roads and electricity to areas devoted to traditional, local crops. And other agricultural infrastructure investment through government schemes with importance to traditional or forgotten crops.
- Mechanisms to resolve human and animal conflicts - protection against animals like wild boar / birds / elephants etc.
- Recognition, awarding and accreditation of farmer cooperatives or collectives involved in seed conservation and seed production specifically traditional paddy varieties.
- Incentives for production and processing activities of family farmers through their organizations and cooperatives, such as grants for seed conservation/seed banking, capital and loans for production, processing (to increase shelf life), and marketing (for buying logistics supplies and equipment) of local crops. Support subvention in value chains, collectivization and certification locally.
- Adequately finance public research institutions for innovations on production, processing, marketing, cooking/consumption of these crops.
- Create markets for traditional local crops such as public procurement for school feeding programs or food assistance and market fairs. The inclusion of traditional foods in public food systems will provide region specific opportunities and demand for traditional crops. It will also diversify farmers' livelihood opportunities.
- Regulate markets, trade and prices and minimum support price in a way that local crops will still be affordable, available, adequate for local communities and the domestic market.
- Awareness programs for wider public on virtues of traditional crops specially highlighting nutritional aspects. Governments through its agriculture agencies or agriculture universities can publish statements in support for traditional paddy varieties to help farmers to access general markets.

We call on research institution to:

- Collaborate with us and our organizations in developing solutions to address challenges related to the quality seed production, cultivation, processing and marketing, packaging of the traditional varieties and selected underutilized crop species (root and tuber crops, leafy but nutritious vegetables) to entice consumers and increase their market value. New methods and technology on all aspects to be researched on forgotten crops. Moreover, it is important to develop technologies that are appropriate and women-friendly. One example is small machineries for processing small grains like millets and indigenous crops. Processing machineries for millets can save lot of women's time and lessen the drudgery. Community-based storage facilities at village level are also much needed.
- Support the conservation and improvement of indigenous, local crop varieties and ensure that good quality seeds are made available and accessible to farmers. Geo tagging to be made for traditional varieties based on local farmers experience and research work by NGOs and researchers. Seed storage structures and in situ conservation demonstration fields to be developed in the farmers' fields to access the performance of local varieties and documentation of characteristics to be done.
- Assist seed enterprises of farmers' organizations so they can multiply quality seeds and planting materials of indigenous crops.
- Conduct your experiments, research, and innovation in a participatory manner, with the equal participation of family farmers through their organizations in the research agenda, design and formulation, implementation, monitoring and evaluation of the research, using in-situ approaches as much as possible.
- Translate research outputs on traditional crops (nutritional content) to stimulate demand from consumers and the wider public and in turn support the marketing of our products. Culinary diversity to be studied in detail, there are important aspects like traditional vessels and heat quotient used in traditional cooking which contributes immensely to the final taste of cooked foods.

- Include representatives of family farmer organizations and /or cooperatives in the governance structures of research programs.

We call on partner CSOs to:

- Support the establishment of community seed bank that is critical to address challenges related to access and availability as well as sustainability issues.
- Massively conduct campaigns and public awareness programs to promote the consumption of indigenous, local crops for health of the people and the planet.
- Launch and support awareness program on forgotten food for nutrition security through various media, festivals, educational workshops, highlighting forgotten food varieties and "telling stories of forgotten foods". Local schools, nurseries, historical societies, parks and botanical gardens that not only grow but also feature the stories of these forgotten foods.
- Advocate for policies and programs that promote traditional food crops.

We call on development partners to:

- Invest in smallholder farmers and their organizations so they can be empowered to govern, manage and sustain their enterprises and services to their members through decentralization, establishment of community-based enterprises around these crops and through partnerships with other food systems actors.
- Support the diversification of farms that are resilient to shocks.
- Support the capacity building and training on value addition and product development around these crops.
- Support the organization of seed fairs, food fairs and exhibits, cooking class, recipe demonstrations, and exchange visits of young food entrepreneurs and young farmers. And support us to cater to niche markets and industries for our ethnic foods such as millets, linseed, Niger, wild edible greens, yams, and medicinal rice.

We call on the private sector, consumers and the public to:

- Value the work of family farmers by buying directly from farmers or our cooperatives and enterprises.
- Buy the product of the farmers with the price they have set to show appreciation to the product and to the work that they do.
- Support the awareness raising on the nutritional and health benefits of indigenous and traditional food crops.
- Organize consumer action groups to be formed to support and collaborate with NUS farmers.

The United Nations has declared 2019-2028 as the UN Decade of Family Farming (UNDFF). This decade is important as 70% of family farmers are in the Asia-Pacific region, and most of them are small-scale family farmers who are poor and don't have enough to eat. The Global Action Plan of the UNDFF recognizes the multidimensionality of Family Farming, and when effective policies and programs are enacted, family farmers can provide utmost contribution to a bio diverse and resilient agriculture. We believe that with a strong, cohesive multi stakeholder partnership with family farmers at the heart and at the center of bio diverse agriculture through promotion of traditional local crops, we can effectively implement the Global Action Plan of the UNDFF. Thereby contributing towards the achievement of the SDGs, particularly SDG1 and 2.

Core Organizations:

Asian Farmenrs' Association for Sustainable Rural Development (AFA), Aliansi Petani Indonesia (API), Pambansang Kilusan ng mga Samahang Magsasaka (PAKISAMA), Inc, Vietnam Farmers' Union (VNFU), Crofter Foundation, Kendrio Krishok Moitree (KKM), Lao Farmer Network (LFN), Self-employed Women's Association (SEWA), Central Tea Cooperative Federation (CTCF) Ltd., National Land Rights Forum (NLRF), Lanka Farmers' Forum (LFF), National Association of Dekhan Farmers (NADF), Taiwan Wax Apple Development Association (TWADA), Ecological Agricultural Producers' and Entrepreneurs Cooperative Society (EcoAPECoop), National Association of Mongolian Agricultural Cooperatives (NAMAC), National Union of Waters Users' Association of Kyrgyz Republic (NUWUA), Pacific Island Farmers Organisation Network (PIFON), Asosiasaun Nasional Produtor Fini Komersia (ANAPROFIKO)

Support organizations:
ActionAid Bangladesh
Tarayana Foundation

M.S. Swaminathan Research Foundation and constituencies:

- Bharathi Integrated Rural Development Society (BIRDS), Kurnool, Andhra Pradesh
- Centre for Indigenous Knowledge Systems, Chennai, Tamil Nadu
- Himalayan Environmental Studies and Conservation Organisation (HESCO), Dehradun, Uttarakhand
- Martin Luther Christian University, Shillong, Meghalaya
- North East Slowfood and Agro biodiversity Society (NESFAS), Shillong Meghalaya Sanlak Agro Industries Private Limited, Coimbatore, Tamil Nadu
- Sevamandir, Udaipur, Rajasthan
- Shahaja Samrudha, Bengaluru, Karnataka
- Tamil Nadu Agricultural University (TNAU), Coimbatore, Tamil Nadu
- Watershed Support Services and Activities Network (WASSAN), Hyderabad

182 Larn Luang Road, Khlong Mahanak Pomprab Sattrupai
Bangkok, 10100, Thailand