

Traditional foods and their role in health and nutrition security in the HKH



DATE: 24 June 2020
TIME (NST): 09:30–11:00 (Session I)
 13:00–14:30 (Session II)
PLATFORM: Microsoft Teams

ORGANIZER
 Himalayan University Consortium (HUC), ICIMOD

CONVENORS
 Jyoti Prakash Tamang, ICIMOD Mountain Chair
 Eklabya Sharma, Deputy Director General, ICIMOD

Background

The unique gastronomy of the Hindu Kush Himalayan (HKH) region is a fusion of soybean-alcohol from the north and dairy and vegetables from the south. The South Asian food culture originated in the Indus Valley Civilization around 8,000 years ago, when the cultivation of cereal crops such as wheat and barley as staple diets as well as domestication of cattle for milk and meat was recorded. The consumption of milk and milk products in Nepal can be traced back to 900 BCE, which indicates the ancient and rich food culture of the Himalayan people. Traditional foods are sources of bio-resources and bioactive compounds that boost immunity and ensure food and nutrition security.

Global agriculture has gradually lost its diversity, with a shift from diverse systems to a narrow range of crops. Of thousands of known plant species, only nine supply over 75% of the global plant-derived energy. Wheat, rice, and maize account for more than half of dietary energy supply. In the HKH, for instance, traditional food crops such as barley, millet, buckwheat, and beans are either neglected or underutilized. Indigenous knowledge on



traditional recipes and preservation methods has also therefore eroded from local socio-cultural systems.

There has subsequently been renewed focus on the promotion of traditional food crops, which are being relabelled as “future-smart foods” in view of their high potential for nutrition security, climate resilience, market value, and agrobiodiversity. These crops are being revived in the HKH and other regions through focused research, production technology, public-private partnership, and change in consumer behaviour.

About the webinar

This webinar brings together international experts in food science and agricultural economics, practitioners in food and nutrition security, and civil society and private sector representatives from the HKH and beyond to discuss the importance of traditional foods and their functionality and health-promoting benefits as well as specific foods and nutritional concerns and challenges for mountain communities.

The webinar is open for microbiologists, food scientists, agricultural economists, social scientists, and practitioners in relevant fields in the HKH. It is also relevant to entrepreneurs promoting local produce as a part of mountain heritage and tourism and to pharmaceutical producers of alternative functional foods. Preference for enrolment will be given to faculty and graduate students from HUC members and practitioners affiliated with institutional partners of ICIMOD.

The webinar will be jointly convened by Jyoti Prakash Tamang, who is serving as ICIMOD Mountain Chair (2019–2021), and Eklabya Sharma, Deputy Director General, ICIMOD. It will be part of the preparation for the inception of the HUC Thematic Working Group on Mountain Foods and Nutrition Security.

Registration

Please visit: www.icimod.org/huc/webinar



Agenda

The webinar will involve two 90-minute sessions punctuated by a two-hour break. Each speaker will present for 15 minutes, followed by a 15-minute Q&A.

Time (NST)	Programme
09:20–09:30	Participants check-in on Microsoft Teams
09:30–09:45	Opening Introduction – Chi H Truong (Shachi), Programme Coordinator, HUC, ICIMOD Welcome remarks – David Molden, Director General, ICIMOD
SESSION I	Chair: Eklabya Sharma, Deputy Director General, ICIMOD
09:45–10:00	Use of Chinese traditional medicines and functional foods in relieving mild symptoms and assisting post-COVID-19 recovery – Yi Cai, licensed practitioner of traditional Chinese medicine and lecturer at Department of Global Health, School of Health Sciences, Wuhan University
10:00–10:15	Gastronomy and health benefits of Himalayan ethnic foods – Jyoti Prakash Tamang, Professor, Department of Microbiology, Sikkim University, India, and ICIMOD Mountain Chair (2019–2021)
10:15–10:30	Therapeutic potential of Indian Ayurvedic herb ashwagandha: Biology to biotechnology – Sunil Kaul, Senior Research Scientist, National Institute of Advanced Industrial Science & Technology (AIST), Japan
10:30–10:45	<i>Lactobacillus plantarum</i> from Indonesian traditional fermented foods and its potency as a probiotic agent – Endang S Rahayu, Professor, Department of Food Microbiology, Faculty of Agricultural Technology, Centre for Food and Nutrition Studies, Universitas Gadjah Mada, Indonesia
10:45–11:00	Q&A
11:00–13:00	Break
SESSION II	Chair: Jyoti Prakash Tamang, Professor, Department of Microbiology, Sikkim University, India, and ICIMOD Mountain Chair (2019–2021)
13:00–13:15	A present-day view on traditional food fermentations – Wilhelm Heinrich Holzapfel, Chair, Professor, Advance Green Energy and Environment Institute (AGEE), Handong Global University, South Korea
13:15–13:30	Myanmar's traditional foods – Nilar, Professor and Head, Department of Industrial Chemistry, Mandalay University, Myanmar
13:30–13:45	The importance of traditional mountain crops for food and nutrition security: An economic perspective – Abid Hussain, Food Security Economist, ICIMOD, and Lipy Adhikari, Research Associate, Livelihoods, ICIMOD
13:45–14:00	Changes in agriculture and livestock patterns in Hindu Kush Karakoram and Pamir – Melad Ul Karim, National Lead, Agriculture and Food Security, Aga Khan Foundation, Afghanistan
14:00–14:15	Promoting and marketing local foods in Kailash landscape – Dipak Bahadur Budha, Chairman, Himalayan Corner Pvt Ltd, Nepal
14:15–14:30	Q&A
14:30	Closing remarks by the two co-conveners

Speakers

Abid Hussain

ICIMOD (Nepal)

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Abid Hussain is currently working as Food Security Economist at ICIMOD. He supervises a group on socioeconomics and research methods within ICIMOD's Livelihoods Theme. His research and policy work focuses on mountain agriculture, food and nutrition security, agrobiodiversity, and climate change adaptation. He has around 16 years of experience in research, development, and policy processes. He also served as a faculty member in the economics department of two public sector universities in Pakistan: University of Haripur, Khyber Pakhtunkhwa, and Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi. Hussain has published book chapters and technical reports as well as several articles in peer-reviewed international journals. He is also a member of the editorial board of the *Palgrave Communications – (Nature)* for development studies and economics.



Dipak Bahadur Budha

Himalayan Corner Pvt Ltd (Nepal)

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Dipak Bahadur Budha has 15 years of experience teaching in various schools and colleges in Nepal. His interest in agricultural productivity and food security, particularly in Karnali Province region, led him to engaging in entrepreneurship in organic agriculture. His operations are focused on promoting organic products, and he aims to establish Karnali as a hub for organic goods through local organic production, agro-business, and promotional initiatives.



Endang Sutriswati Rahayu

Universitas Gadjah Mada (Indonesia)

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Endang Sutriswati Rahayu has been working as a lecturer and researcher at the Faculty of Agricultural Technology, Universitas Gadjah Mada (UGM), since 1980. She was appointed Chairperson of the Center for Food and Nutrition Studies, UGM, in May 2019. Rahayu earned her doctorate in 1991 from the Department of Agricultural Chemistry, University of Tokyo, Japan. She has been actively studying food microbiology, with a recent focus on mycotoxins, lactic acid bacteria, probiotic, and gut microbiota. She has a number of collaborative research works under her belt. Currently, she is a member of the International Commission of Food Mycology (ICFM) and President of the Asian Federation of Societies for Lactic Acid Bacteria (AFSLAB) for 2019–2021.



Jyoti Prakash Tamang

Sikkim Central University (India)

ICIMOD Mountain Chair

(2019–2021)

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Jyoti Prakash Tamang is currently serving as ICIMOD Mountain Chair (2019–2021) and works as Professor in Microbiology at Sikkim Central University, India. He is a pioneering food microbiologist who has been working on ethnic fermented foods and beverages of the Himalaya for 34 years, focusing on sequence-based taxonomy, foodomics, gastronomy of Himalayan ethnic foods, bioinformatics, food safety, nutrition, and health benefits. He has received several national and international awards, fellowships at several institutions, and memberships of national and international committees on food science and microbiology. He has published more than 163 research publications, including seven books.



Lipy Adhikari

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Lipy Adhikari is an Environmental Scientist with an MSc in natural resource management. She works as a researcher on mountain crops and value chain development at ICIMOD and has published a number of publications on food security, neglected mountain crops, and value chain development. Adhikari also worked as a Climate Change Officer at the Integrated Development Society – Nepal prior to joining ICIMOD.



Melad Ul Karim

Aga Khan Foundation (Afghanistan)

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Melad ul Karim works as the National Lead for Agriculture and Food Security in Aga Khan Foundation, Afghanistan. With a post-graduate degree in agriculture, he has over 20 years' experience in designing and implementing projects on agriculture, food security, natural resource management, pro-poor value chain development, climate change adaptation, and community resilience building. More specifically, his work focuses on high-value agriculture, seed sector development, mountain food and nutrition security, rural livelihoods, community infrastructure development, WASH, renewable energy, and access to finance. Karim has experience leading teams and collaborating with international development organizations on projects in fragile regions often affected by natural or anthropogenic disasters.



Nilar

University of Mandalay (Myanmar)
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Nilar is a Professor and Head of Industrial Chemistry Department at University of Mandalay, Myanmar, with 18 years of experience in teaching and research. She received her PhD degree in food science and technology from the University of Yangon, Myanmar, in 2011. Nilar's work focuses on food preservation and processing, water and wastewater technology, environmental science, and process engineering economics. She also has experience supervising projects and research works of undergraduate and graduate students. Nilar recently finished a project on food processing and preservation concerning green tea in Myanmar. She is currently studying the production of wine, jelly, and jam from wood apple collected from the campus of Mandalay University.



Sunil Kaul

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Sunil Kaul obtained his MPhil and PhD degrees from the University of Delhi, India. After his initial post-doctoral training, he was appointed as a researcher at the National Institute of Advanced Industrial Science & Technology (AIST) in Japan, where he has been working for the last 30 years. His major research interest is to understand the molecular mechanism of stress, ageing, and cancer. He has been merging traditional knowledge with modern technologies like gene silencing and imaging to understand the mechanism of action of Ayurvedic herbs, Ashwagandha in particular. He has published more than 200 research publications in international peer-reviewed journals, served on the editorial board of several scientific journals, and received several fellowships. He is the Chairman of Indian Scientists Association in Japan (ISAJ), a registered non-profit organization in Japan, and International Coordinator, DBT (India)-AIST (Japan) International Laboratory for Advanced Biomedicine (DAILAB) at AIST, Japan. Kaul also works as Adjunct Professor in the Department of Bioengineering, Hanyang University, Seoul, Korea.



Wilhelm Holzapfel

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Wilhelm Holzapfel has 45 years of teaching and research in various fields of microbiology and has supervised over 120 post-graduate and PhD students. He has published more than 330 scientific papers, 70 chapters in scientific books, and was (co)editor of eight scientific textbooks. He served as the President of the International Committee on Food Microbiology and Hygiene at the International Union of Microbiological Societies. Between 1987 and 2007, Holzapfel was Professor and Director of the Federal Institute of Hygiene and Toxicology, Karlsruhe, Germany. Since 2007, he has been working as Full Professor at the School of Life Sciences, Handong Global University, South Korea. He was appointed Chair Professor of the Department of Advanced Green Energy and Environment of the same university in 2013.



Yi Cai

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Yi Cai, PhD, is a traditional Chinese medicine (TCM) practitioner (licensed in China) and lecturer at the Department of Global Health, School of Health Sciences, Wuhan University. Her clinical expertise focuses on treating musculoskeletal pain and symptom management by TCM evidence-based treatments. Cai works on health workforce planning and TCM capacity building in the global context. She has also been collaborating with medical and nursing schools to provide TCM hands-on trainings to health professionals. Her current work relates to the improvement of China's health security system and National Essential Medicines policies. She is also engaged in work focusing on international health development assistance. She has conducted and participated in several global health projects. One project conducted in Nepal aimed to disseminate TCM knowledge and collaboration with Ayurveda expertise by developing a cooperative strategy under Nepal's Ministry of Health aided by the Government of China – involving Confucius Institute (affiliated with Kathmandu University), the China Medical Team sent to Nepal, and National Traditional Medicine Research and Training Centre.



For further information www.icimod.org/huc/webinar
For registration queries huc@icimod.org

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