

PROCEEDINGS OF THE WORKSHOP ON

## Organic potential along the Silk Road

18 June 2019

Islamabad, Pakistan



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PROCEEDINGS OF THE WORKSHOP ON

# **Organic potential along the Silk Road**

18 June 2019

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# Acronyms

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|                   |  |
|-------------------|--|
| <b>CPEC</b>       | China–Pakistan Economic Corridor                           |
| <b>GB</b>         | Gilgit-Baltistan   |
| <b>GBC</b>        | Gilgit-Baltistan and Chitral                               |
| <b>FAO</b>        | Food and Agriculture Organization                          |
| <b>FPCCI</b>      | Federation of Pakistan Chambers of Commerce and Industries |
| <b>GM</b>         | Genetically modified                                       |
| <b>HKH</b>        | Hindu Kush Himalaya  |
| <b>HKPL</b>       | Hindu Kush Karakoram Pamir Landscape                       |
| <b>ICIMOD</b>     | International Centre for Integrated Mountain Development   |
| <b>ITC</b>        | International Trade Centre                                 |
| <b>KP</b>         | Khyber Pakhtunkhwa   |
| <b>MNFS&amp;R</b> | Ministry of National Food Security and Research            |
| <b>NTFP</b>       | Non-timber forest product                                  |
| <b>PPP</b>        | Public–private partnership                                 |
| <b>SDGs</b>       | Sustainable Development Goals                              |
| <b>WWF</b>        | World Wide Fund for Nature                                 |

## SECTION 1

# Background

---

Pakistan is blessed with abundant natural resources and the ability to provide a range of mountain ecosystem services. However, these resources have not been effectively and sustainably used to leverage socio-economic and ecological benefits for its mountain communities, where poverty is prevalent. In Gilgit-Baltistan (GB) and Chitral, there exist interlinkages of agriculture, tourism, and trade which serve as the backbone of the local economy. These regions hold great potential for an organic push: an intertwined network of products and services driving resilience building, employment, environmental conservation, and sustainable development.

Gilgit-Baltistan and Chitral (GBC) are relatively better off socio-economically than most of the mountain regions in Pakistan, primarily due to a stronger educated workforce and adequate networks and investments of private and public institutions; this region is also strategically well placed (being part of the modern Silk Road as the gateway to the China–Pakistan Economic Corridor – CPEC). And most importantly, the region has great potential to produce organic, proven, and resilient local varieties of crops, including high-value ones. Moreover, the prospects are bright in terms of trade and tourism.

Encouraging and building an organic system of agriculture and related areas in the mountain context is an invaluable opportunity. In terms of foundation, GB already has in place an agriculture and livestock policy. The Government of Pakistan has identified agriculture, tourism, and export-oriented trade as national priorities, and these sectors can collectively promote niche organic products and services in GBC. Enabling appropriate environmental, policy and legal frameworks, fostering innovative entrepreneurship, promoting prudent investments, establishing effective branding, and maintaining high quality standards are what are required to improve the status of the organic industry in Pakistan.

On 18 June 2019, the Ministry of National Food Security and Research (Government of Pakistan) and the International Centre for Integrated Mountain Development (ICIMOD), along with the World Wide Fund for Nature-Pakistan (WWF-Pakistan), joined hands to organize a national consultative workshop on “Organic Potential along the Silk Road” in Islamabad. The aim of the workshop was to explore measures and alternatives for policy and strategic actions that allow communities, governments, and the private sector to both protect the environment and thrive economically.

## SECTION 2

# Objectives

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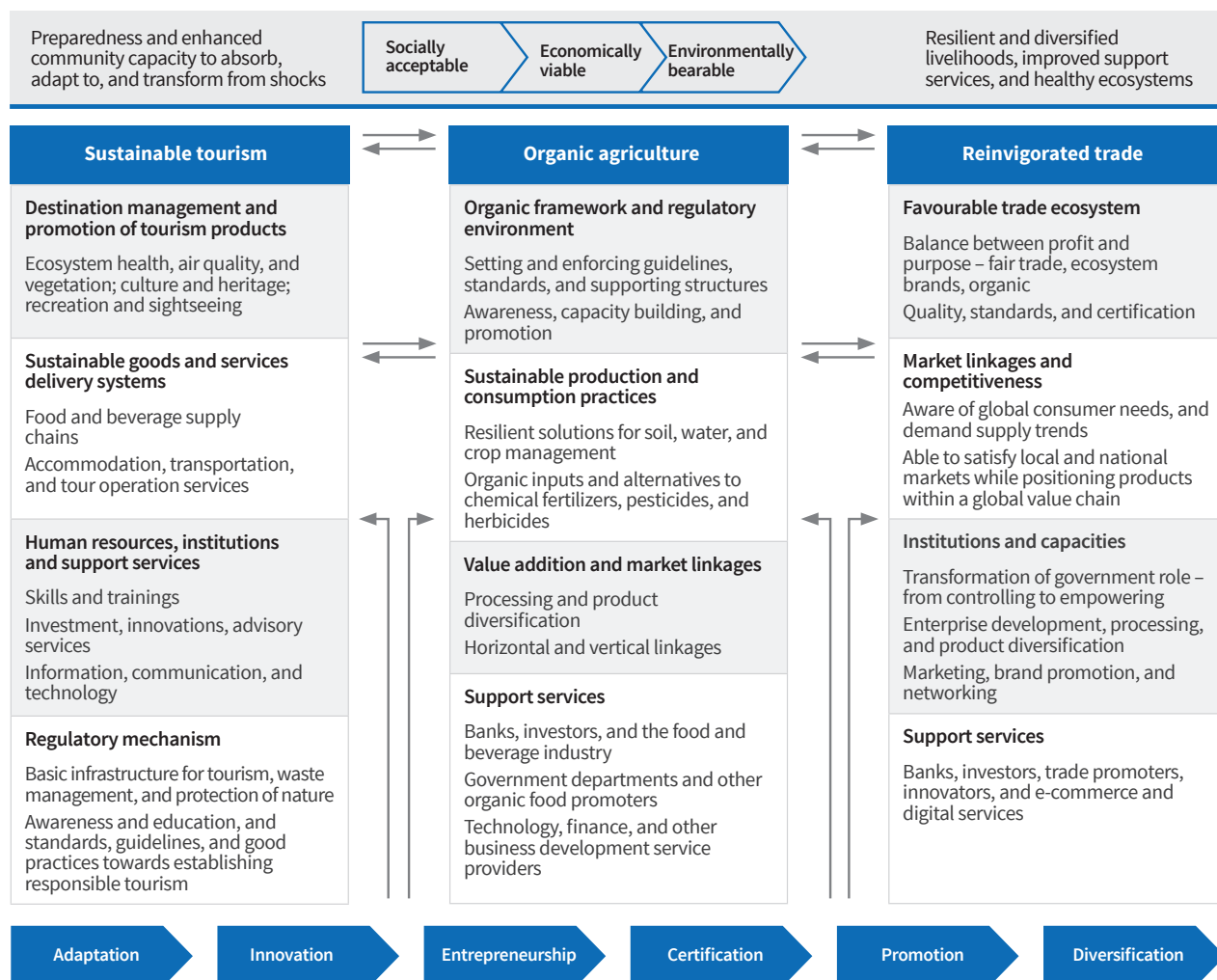
The overall objective of the workshop was to explore, understand, and underscore the feasibility of unlocking the organic potential in the mountains of Pakistan, particularly in GBC, to begin with. The specific objectives were to:

- Identify the key stakeholders and their needs to understand and take measures to evolve organic chapters.
- Establish an enabling framework for an overarching strategy, collaborative partnerships, and policy options and actions.
- Focus on three areas to achieve an organic goal: agriculture (horticulture and livestock); sustainable tourism and ecosystem; and trade in organic goods.



**FIGURE 1** A FRAMEWORK TO EXPLORE THE REGION'S ORGANIC POTENTIAL

The envisaged framework for the assessment of the organic potential was:



## SECTION 3

# Highlights

The national consultative workshop brought together more than 50 participants from Islamabad, Khyber Pakhtunkhwa (KP), and Gilgit-Baltistan, including governmental and non-governmental stakeholders and local community members.

## Inaugural session

Rab Nawaz, Senior Director, Programmes, WWF, on behalf of WWF and ICIMOD, warmly welcomed all the participants and emphasized that this workshop would provide more opportunities to learn about the organic potential of Pakistan. He said that many

articles and studies show that it is vital to explore and tap this potential immediately. He pointed out that due to the overuse of fertilizers and pesticides, the ecosystem is collapsing, and the quality of soil and water is depleting. Stating that Gilgit-Baltistan is the ecological hub and water tower of the region – like Karachi is the economic hub – he expressed optimism that it has a huge potential to grow organic niche crops. Going the organic way, he said, would encourage investors and youth. Since youth outmigration is a major issue in the region, he said there is a need to provide incentives for the youth to take up organic cultivation and promote organic products and economic activities. He concluded his remarks by again emphasizing on the organic capability of Pakistan and said that this exploration could begin in a small way by encouraging all the stakeholders and learning from best practices across the world.

Farid Ahmad, Head, Strategic Planning, Monitoring and Evaluation, ICIMOD, underscored the importance and complexity of mountains as a system. He said that there's a need to understand this complexity and the science, particularly in terms of ecosystem services upon which millions are dependent for food, energy, and basic livelihoods. He urged the participants to deliberate and come up with policy recommendations and actions that could be taken up with policymakers soon after the workshop. He emphasized on the need for regional cooperation and collaboration, particularly on scientific pursuits that could enhance the region's organic potential. This is a right time to harness the opportunity, he said. He further underlined the need for mountain-specific policy recommendations which could then be presented to the policymakers. He concluded by thanking WWF, the Ministry of Food Security, and the FAO for organizing, owning, and supporting the event as well as the cause.

Asghar Mahmood, Director, Agriculture, Government of Gilgit-Baltistan, stated that the steps taken by the GB government to promote agriculture are producing encouraging results, particularly the approval of an agriculture, livestock, and fisheries policy which is a milestone that could maximize the organic capacity of the region. He acknowledged the support of the Aga Khan Foundation and other organizations while devising this policy and facilitating the approval process. He further said that an agriculture centre is being set up mainly for the protection and promotion of agriculture, and also to minimize the use of pesticides. A biological control lab has been established for that purpose, he said. He also informed that the Agriculture Department has submitted a concept paper on organic potentials, policy formation and implementation. By developing organic agriculture through a CPEC project and certification, he said both agro-tourism and eco-tourism would get a boost. He expressed the hope that the workshop would sensitize people about the topic and prove useful in bringing more investment in clusters, be it at the micro-, meso-, macro- or enterprise levels.

Muhammad Ayub Chaudhry, Additional Secretary, Ministry of National Food Security and Research, said that the workshop was an important and timely step towards unlocking the organic potential of Pakistan. Stating that although Pakistan is proud of its mountains, people, and its overall geographic location, he said that it has not been able to fully capitalize – both at the community and government levels – on the capabilities it has

in the areas of ecosystem services and ecotourism. Agriculture development, he said, is a prerequisite for Pakistan to meet the Sustainable Development Goals (SDGs) as well as to ensure nutritional security. As the mountain areas of Pakistan provide a unique opportunity for developing ecotourism, he expressed his strong belief that with the right kind of resources, GBC has the opportunity to be a model region both in terms of organic agriculture and tourism, which could then be scaled up to other regions. He said the workshop was a timely effort by ICIMOD and WWF. Acknowledging the contribution of ICIMOD in particular, he also brought attention to some of the actions carried out by the Pakistan government in areas such as cold water fisheries, non-timber forest products (NTFPs), beekeeping, and rearing of yaks. He went on to state that the Ministry of National Food Security and Research was ready to endorse the recommendation that would emerge from the workshop. He also stressed on the critical role that the media has to play in highlighting the potential of organic farming in GBC.

Mina Dowlatchahi, FAO Country Representative, Pakistan, said that the FAO has long-standing experience in both organic and climate-smart agriculture. She pointed out that Pakistan will have golden opportunities in organic farming in the mountains and in ecosystem management. However, she cautioned against the use of fertilizers which has greatly affected agriculture in the country; she also drew attention to genetically modified (GM) food products and the use of preservatives in them. Dowlatchahi further stated that organic agriculture is directly related to the kind of work that the FAO is doing and that in this area, smallholder farmers and micro entrepreneurs ought to be encouraged. She then cited several challenges in the spheres of integrated pest management and soil management. She saw a lot of opportunities in GB in creating new businesses and in the use of digital technology for agriculture solutions and formulating agriculture strategies; she referred to e-commerce, promotion of the value-chain approach for higher returns, and creating markets at the domestic, national, and international levels. She said that the focus areas of the FAO are crops, livestock, fishery, and forestry. She also talked about agro-tourism being a billion-dollar industry. While there are plenty of opportunities when it comes to organic farming, she said that there are also challenges, and hoped that the workshop would be able to set up a model that could be replicated. Furthermore, she stated that it would be better to start small and then expand

quickly. The other aspects she touched upon were the need to acknowledge women's role in farming as well as the importance of identifying neglected, underutilized crops.

Ghulam Ali, Programme Coordinator, Hindu Kush Karakoram Pamir Landscape (HKPL) Initiative, ICIMOD, presented the overall background of the HKPL and highlighted the objectives, agenda, and the expected outcome of the workshop.

## Technical session

During the technical session, Arif H. Makhdum, Technical Adviser, Organic farming, WWF-Pakistan and lead of the organic study, and Atif Mughal, Assistant Professor, FC College and principal investigator for trade and tourism of the organic potential study, presented the findings and key recommendations of a study conducted on the organic potential of GBC. Similarly, Farhad Zulfiqar, Assistant Professor, Department of Economics, COMSATS University (Islamabad), made a presentation on food security and nutrition on behalf of ICIMOD; Srijana Joshi Rijal, ICIMOD, spoke about ecosystem services and agricultural linkages; while Anu Joshi Shrestha, ICIMOD, dwelt upon trade, business models, and the private sector.

Arif H. Makhdum, Technical Adviser, Organic farming, WWF-Pakistan provided an overview about organic agriculture in GBC and the prospects of supply and demand for organic products. He also pointed to the several problems besetting agriculture in GBC: massive reliance on water; mixed farming systems with low inputs; and limited equipment and labour shortage. He stated that since the farming system mainly consists of small holdings and as the land itself is fragmented, it is highly vulnerable to climatic changes. Then he listed out the major food crops grown in the region which are a major source of income: potato, wheat, barley, buckwheat, peas, beans, and a limited variety of fruits. He also said that there has been an increase in the production of apricots.

He went on to list out other problem areas – limited access to information on production; lack of specialized machinery; a narrow range of fruit varieties; scattered and small production areas; dearth of presentation and sales skills; lack of training; absence of processing equipment at the farm level; harsh and unpredictable weather; and limited as well as high cost of transportation which leads to low market accessibility. Yet, he said the prospects of organic farming in GBC remains high

due to the growing demand from health-conscious consumers, the associated economic benefits, increasing awareness about organic products among farmers, and rising demand for exports. During the assessment exercise that followed, the participants recommended that the focus should be on increasing productivity per unit area, adding value in terms of certification, reducing food waste, and strengthening linkages between mountain agriculture and tourism.

Atif Mughal, Assistant Professor, FC College, in his presentation, focused on trade and sustainable tourism in the context of organic agriculture. He said that, apart from being locally consumed, certain commodities such as potato, sweet peppers, and peas, and fruits like cherry, apple, walnut, and apricot are exported downstream. Since these vegetables and fruits could be exported, he said that their organic production could lead to increased incomes.

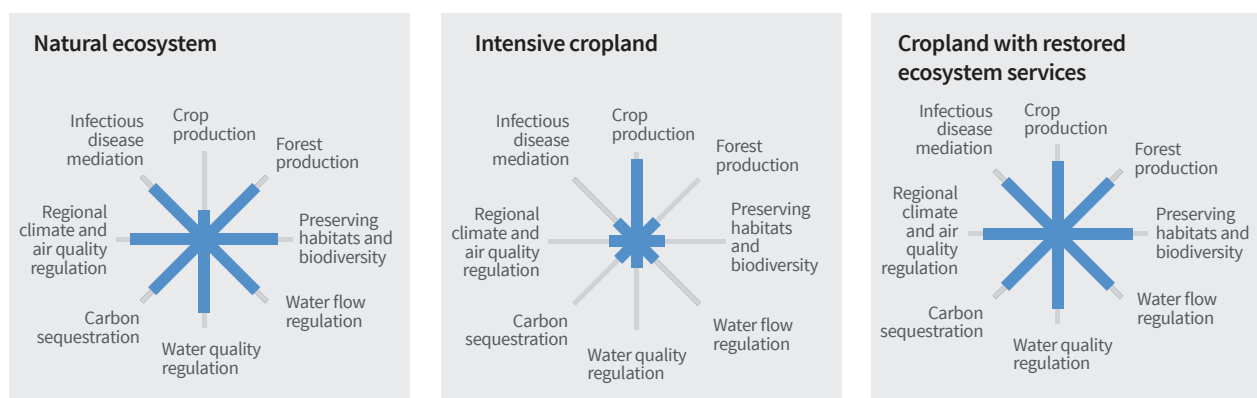
He also cited that fruits like cherry, apple, and apricot, and nuts such as walnut and almond are already grown organically in GB using dung and manure as fertilizers. He elaborated on the marketing opportunities that are in store for such organic fruits and nuts.

He then dwelt upon the implementation aspects of production, processing, and market access of the agricultural crops. He also spoke about bee farming and the prospects it has. Talking about the trading opportunities in livestock, dairy and poultry, he stated that there is a gap in the supply and demand for livestock and poultry in GB. Here, he saw opportunities in organic yak farming – for milk and cheese, especially – and in organic poultry eggs and sheep or goat meat. In terms of avenues for trade in organic fisheries, he mentioned game fisheries and polyculture fishing.

He reported that there is a significant imbalance between the demand and supply of organic produce to support sustainable tourism, although about 1.4 million domestic tourists visited the region in 2018, a 78% increase from 2017. Therefore, he said promoting ecotourism could provide socio-cultural, economic, as well as environmental benefits to the area.

Srijana Joshi Rijal, Ecosystem Specialist, Ecosystem Services, ICIMOD, linked ecosystems services with agricultural production and its economic value in organic agriculture in the Hindu Kush Himalaya (HKH). She provided an outline of ecosystem services and their economic importance, and then focused on the ecosystem services of the HKH



**FIGURE 2**
**A CONCEPTUAL FRAMEWORK FOR COMPARING LAND USE AND ECOSYSTEM SERVICES TRADE-OFFS**


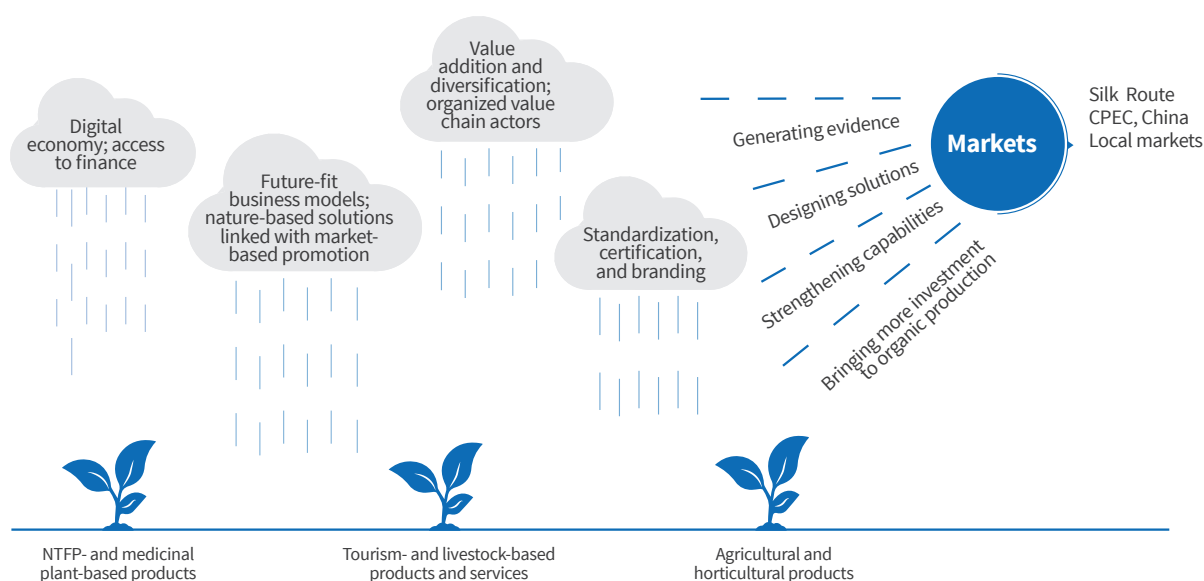
Source: Adapted from Foley et al. 2015

region – in particular, its importance to agriculture. Providing an example from Foley et al. 2015, she noted that although maximizing provisioning services from agroecosystems can result in trade-offs with other ecosystem services, thoughtful management can substantially reduce or even eliminate these trade-offs.

Moving towards the subject of organic agriculture, she gave a rundown on the economic value of ecosystem services in organic agriculture and stated that the organic farming potential in GBC lies in the production of major food crops and cash crops, and in fisheries as well as livestock. She pointed out that the future research prospects for ecosystem services in the HKPL lie in the tools and methodologies for the following modules – quantification; economic

valuation; contributions to food security, nutrition, and well-being; impact of climate change; and regional analyses of the ecosystem services. She concluded with a description of the tools and methodologies that can be used for ecosystem services assessment and valuation.

Anu Joshi Shrestha, Rural Enterprise and Value Chain Specialist, Livelihoods, ICIMOD, made a presentation on the private sector, value chains, and business models for organic enterprises. She started by talking about the growing markets for organic agricultural products, and then went on to report on the revenue share of the global organic food market. She said that the HKH region is moving towards increased organic production – such as in the cases of Bhutan, India (especially Sikkim), and

**FIGURE 3**
**PROMOTING ORGANIC AGRICULTURE BY HARNESSING ITS MARKET POTENTIAL**


Nepal. In terms of the significance of trade and tourism as well as the huge potential for private-sector engagement in market development and certification, she cited horticultural and agricultural products, traditional handicraft, livestock, fishery, and the medicinal plants of GBC.

She then drew attention to how the government of GBC could promote organic agriculture by making policies, providing subsidies and incentives, establishing a certification process, and building the necessary infrastructure. She also said that the private sector can be an equal partner in this venture by supporting the organic agriculture sector through these means – raising the levels of youth engagement; cultivating an entrepreneurship culture; harnessing the tourism market; strengthening the supply side; adding value; facilitating access to finance, information, and technologies; and bringing more investment for economy of scale, diversification, and brand promotion.

Farhad Zulfiqar, Assistant Professor, Department of Economics, COMSATS University, spoke about harnessing landscape opportunities for sustainable livelihoods and ecosystem conservation. He started by describing the key challenges in GB and then explained, with the help of different indicators, about the prevalence of food and nutrition insecurity in GB. So stated that the key potentials of organic agricultural production lay in the agro-ecological suitability of an area, glacier-melt water availability, the span of cultivable land, and rangeland resource, while non-agricultural opportunities like tourism can also be explored to improve livelihoods. Referring to an HKPL study plan, he said it was based on exploring and harnessing potentials, with a focus on assessment of food and nutrition security, and livelihood status; migration; and organic agriculture. He concluded by presenting a theoretical framework for developing an organic GBC.

## Plenary session and group work

During the plenary session, the discussions focused on the prospects and challenges of the organic programme in Pakistan. It was underscored that there are about 160 groups involved in organic farming all over Pakistan and that there is a need to build a national organic programme to discuss all the prospects and challenges. In the particular case of the Hunza Valley, it was stated that the

main challenges are presented by agricultural land encroachment and the use of chemical fertilizers. It was agreed upon that there should be a formal legislation on organic farming in GB and that the government needs to be sensitized.

## Group work

The group work focused on three thematic areas – legalities and policies; technical aspects and capacities; and investment and the private sector. Each group was asked to identify the key challenges, opportunities, and the way forward (solutions) in the context of organic agriculture, sustainable tourism, and trade (Annex II). The major recommendations of the group works were as follows:

### LEGALITIES AND POLICIES

- A national organic policy needs to be developed and implemented
- A strong mechanism to implement already existing policies is needed
- Organic certifying bodies at the federal level are required
- A monitoring and regulatory framework needs to be developed
- Infrastructure for green and sustainable living have to be developed
- GBC needs to be declared a plastic-free zone

### TECHNICAL ASPECTS AND CAPACITIES

- The capacity of relevant government departments needs strengthening
- Awareness regarding organic farming needs to be raised among farmers
- The supply chain requires strengthening; input supplies such as organic manure, equipment, and information on application need to be made available
- Better financial packages as well as access to finance for rural entrepreneurs need to be facilitated; while capacity has to be built on financial management
- Areas like capacity building in the production of market-oriented products, proper post-harvesting methods, as well as new product development are need improvement

- Targeting the international market for mountain niche products is a must and for that, certification is required; therefore, capacity has to be built as well as information needs to be made available
- Farmers' networks need to be formed for economy of scale and quality consistency
- Data regarding resources inventory, the carrying capacity of the landscape, volume of production, the distribution areas of high-value products, and the cost of production need to be easily made available in order to support informed decision-making by the stakeholders engaged and interested to develop GBC

## INVESTMENT AND THE PRIVATE SECTOR

- Political will and a stable government will encourage investment in this sector
- Coordination and communication among all actors and sectors are required; therefore, a platform where all the players can interact will help develop the sector and bring in more investment from the private sector
- Appropriate technologies which are suitable for the mountain context and increasing the efficiency of farmers would motivate the young generation to improve upon traditional knowledge with sophistication
- Information technology can link the mountains to the plains in a more cost-effective way; therefore, online market development needs more investment and capacities have to be built
- Investment in aggregation centres has to be fostered for better quality standards, market linkages, and for economy of scale

## Closing session

Hagi Iftikar Ahmed, Federation of Pakistan Chambers of Commerce and Industries (FPCCI), called for the FPCCI to take the lead in establishing of a cottage industry development board. He said that there is a need to formally define small cottage industry as it is not mentioned in any legal document. Over 52% of women are engaged in cottage and small businesses, and their contributions go unnoticed and unrecorded, he said. He called for policies for the regulation of these industries to give due recognition women's contributions to the economy. He also stated that

there is a need to have economic profiles of each district, which provide information on the resources available and on the utilization of these resources and the economic benefits that they bring to the people. Further, he said that a background study is necessary for going organic, whereby knowledge is disseminated about its importance and long-term benefits. In this regard, he said an immediate step is to record the process of going organic and undertake a cost-benefit analysis of it. He further stated that it is essential to engage universities and schools in the organic programme – its details, why it is necessary, and its prospects – since these institutions are the ones producing future citizens.

Muhammad Azim, Planning Commission, Pakistan, in his remarks, expressed confidence that Pakistan has high potential in organic agriculture. While stating that the focus ought to be on the Chinese market, he said that it will bring both opportunities and challenges; the latter if Pakistan is not prepared about what it can offer and how it would like to engage in trade relations with them. He stated that since there is pressure on the government to increase productivity – whether by organic means or not – in order to feed the growing population and reduce the production gap, it is difficult to bring everyone on the same page, but a pilot could nevertheless be created. He also called for a platform that could showcase good practices. Saying that the private sector is a key driver of development, he urged for the designing of public-private partnership (PPP) models to promote high-value agricultural products and reach out to high-end markets with volume and quality. Talking about the workshop itself, he said it was a marvellous platform for sharing information, connecting people, and building awareness, and that such sharing should happen in other forums too to create momentum in organic agriculture. He said that success stories from the private sector could be eye-openers for villagers and government representatives about the endless possibilities high-value products from GBC present. ICIMOD, he said, can facilitate the process and dialogue, and create momentum by initiating PPPs for organic product development and market linkages. He further said that the private sector should take a lead and that the Planning Commission is ready to support and develop proposals and pass them on to the government. Investment in certification, scalability, and technological advancement will be provided by the Planning Commission, he assured. Finally, he said the beginning could be on a small scale before moving on to branding, certification, and scalability, in which the private sector could be very much involved.

Haider Raja, Head, WWF, delivered the vote of thanks to the audience for their active participation, debates, and valuable inputs. He said that there is a lot of interest in the topic, as was reflected during the presentation sessions and group work discussions. He said the workshop proceedings will be documented and shared with all the stakeholders. He also underlined the need for creating a special group on organic farming. He added that a network of organic practices and practitioners will be formed in the future by engaging all the participants from the workshop as well as other relevant people, whereby information will be disseminated for further work in this area. He also thanked the ICIMOD presenter, the ICIMOD team, and the administrative and support staff for their untiring work.

#### SECTION 4

## Conclusion and way forward

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The participants were unanimous in their opinion that the government should play a proactive role in steering the direction of the whole programme, particularly through organic pilots, certifying authorities, legal and policy frameworks, private-sector engagement, and improving quality standards. Muhammad Azim, a member of the Pakistan Planning Commission, expressed his commitment towards providing governmental support in order to take the necessary initiatives for the promotion of organic products. For proper communication and coordination, a WhatsApp group was to be formed. Follow-up actions are to be taken by ICIMOD to form a network of organic practices and practitioners for further inputs and to promote organic farming in the region.

# Annexes

## Annex I: Group work

### 1. LEGAL FRAMEWORK AND POLICIES

| Challenges   | Opportunities   | Way forward  |
|--|---|--|
| Framework  | Agro-tourism  | Formation of task force  |
| Community acceptance   | Awareness/Community mobilization  | Subsidies to support services                                  |
| Invasive species   | 1.5 billion population  | Linkages with local, national, and international markets       |
| Budgetary constraints  | Indigenous high-value crops, fruits, and herbs  | Certification  |
| Remote areas   | Livestock and fisheries   | Sustainable harvesting   |
| Poor market access   | Indigenous breed with natural pasture   | Marketing/Branding   |
| Poor internet access   |   | Organic market establishment                                   |
| Advocacy policymaking  |   | Community-/provincial level-certification                      |
| Organic fodder production  |   | Incentives and priority for the fisheries and livestock sector |
| Isolated and scattered valleys   |   |  |
| Only 2% cultivated land available  |   |  |
| Advocacy at different levels to promote organic farming  | Awareness raising concerning the agro ecological benefits associated with organic farming                       | Use social and electronic media                                |
| Low understanding at legislation and policy levels   | Legal framework (forest policy, biodiversity act, climate change policy, and forest policy, GB Forest Act 2019) |  |
| Low understanding about regulatory, cultural, and supporting ecosystem services                                    | Typical dry temperate climate highly suitable for temperate horticulture and agro products                      |  |
| Reduced agricultural diversity   |   |  |
| Poor monitoring and regulatory framework   |   |  |
| Poor capacity of relevant government departments (in terms of financial, human, material, and technical resources) |   |  |
| Low priority to the development sector   |   |  |

### 2. TECHNICAL CAPACITIES

| Challenges   | Opportunities   | Way forward  |
|--|---|--|
| Capacity of relevant government departments needs strengthening  | Better financial packages as well as access to finance for rural entrepreneurs need to be facilitated, and capacity needs to be built on financial management | Targeting the international market for mountain niche products is a must and for that, certification is required; therefore, capacity has to be built as well as information needs to be made available  |
| Awareness among farmers regarding organic farming needs to be developed  |   |  |
| Supply chain needs strengthening; input supplies such as organic manure, equipment, information on application, etc. need to be made available | Capacity building in the production of market-oriented products, proper post-harvesting methods, and new product development need improvement                 | Farmers' networks need to be formed for economy of scale and quality consistency<br><br>Data regarding resources inventory, the carrying capacity of the landscape, volume of production, the distribution areas of high-value products, and the cost of production need to be easily made available in order to support informed decision-making by the stakeholders engaged and interested in developing GBC |



### 3. PRIVATE SECTOR AND INTERNATIONAL INVESTMENT

| Challenges  | Opportunities  | Way forward  |
|---|--|--|
| Lack of policy  | Unique landscape and products  | The FPCCI should take the lead in creating an effective model for KP |
| Lack of infrastructure  | Land can be used for pilot testing   | Local government to make policies to promote the tourism sector      |
| Lack of access to an organized market system  | High level of education  | Infrastructure development   |
| Poor capacity building  | A cottage industry development board for formalizing informal networks (legal framework) | Gender balance   |
| Data gaps   | Community-based tourism (homestays)  | Awareness among people and local government                          |
| Technologies are lacking (IT, cold storage, instrument, branding, and packing material) | Medicinal and aromatic plants of high value (like the local kaveer)                      | Harnessing CPEC and Silk Road policies                               |
| Plastic /waste management   |  | PPPs   |
| Prevalence of inorganic and unsustainable practices                                     |  | Role of universities   |
|   |  | Cost-benefit analysis  |
|   |  | Database development   |
|   |  | Development of International Trade Centre (ITC) for market system    |
| Lack of research data   | New model of growth  | Policy   |
| Government instability  | Diverse ecosystems   | Implementation   |
| Lack of peace and security  | Organized communities  | Certification  |
| Lack of access to finance   | Certification  | Access to loan   |
| No incentives   | Political will   | Farmers' coalition   |
| Lack of training and awareness  | Off-season crop value addition   | Farmers' training  |
| Lack of capacity building   | High-altitude, high-value crops  | Land development institution   |
| Lack of appropriate technology  | Hotels, jobs, preservation of food   | Publicity through local media  |
| Research gaps   | International airport  | Organic authority at the provincial level                            |
| Lack of certification   | Renewable energy   | Farmer institutions  |
| Lack of an organized farmers' network   | Tax-free zone  | Organizing stakeholders  |
| Lack of information on international market   | Pure environment   |  |
| Climate change  | Small population, strong administration  |  |
| CPEC can destroy local export   | New cities, development plans  |  |
| Lack of tourism infrastructure  | Huge local market  |  |
| Carrying capacity   | Branding and marketing   |  |
| No data on land utilization   | Low competition  |  |
| Weak institutional capacity   | CPEC route location  |  |
|   | Ecotourism, cottage industry, agriculture, livestock                                     |  |

## Annex II: Agenda

|             |   |   |
|-------------|---|---|
| 09:00–09:05 | Recitation of Holy Quran  |   |
| 09:05–09:15 | Welcome remarks   | Mr Rab Nawaz, Senior Director, Programmes, WWF-Pakistan<br>Mr Farid Ahmad, Head, SPM&E, ICIMOD  |
| 09:15–09:40 | Opening remarks   | Mr Mir Waqar Ahmed, Secretary, Agriculture, Fisheries and Livestock<br><br>Mr Mohsin Farooq, Chief Conservator of Forest, Government of Khyber Pakhtunkhwa<br><br>Dr Muhammad Hashim Popalzai, Secretary, Ministry of National Food Security and Research |
| 09:40–09:50 | Workshop objectives and agenda  | Mr Ghulam Ali, Programme Coordinator, HKPL, ICIMOD  |
| 09:50–10:00 | Highlight – summary of the presentation from the study  | Mr Arif H. Makhdum, Adviser, WWF-Pakistan<br>Mr Atif Mughal, Assistant Professor, FC College  |
| 10:10–10:40 | Remarks by the guests of honour   | Ms Mina Dowlatchahi, FAO Country Representative, Pakistan<br>Mr Muhammad Ayub Chaudhry, Additional Secretary, MNFS&R, Government of Pakistan  |
| 10:40–11:00 | TEA BREAK   |   |
| 11:00–11:25 | Detailed presentation on organic potential of GBC – study findings and recommendations  | Mr Arif H Makhdum, Technical Adviser, Food Security, WWF-Pakistan<br>Mr Atif Mughal, Assistant Professor, FC College  |
| 11:25–12:05 | Expanding the canvas of the organic narrative with key presentations: <ul style="list-style-type: none"> <li>Food security and nutrition</li> <li>Tourism</li> <li>Ecosystem services</li> <li>Trade, business models, and the private sector</li> </ul>  | Dr Farhad Zulfiqar, Assistant Professor, Department of Economics, COMSATS University, Islamabad<br>Dr Srijana Joshi, Ecosystem Specialist, ICIMOD<br>Anu Joshi Shrestha, Rural Enterprise and Value Chain Specialist, Livelihoods, ICIMOD                 |
| 12:05–12:45 | Panel discussion on how to capitalize on opportunity – organic agriculture, sustainable tourism, and trade – challenges and solutions <ul style="list-style-type: none"> <li>MNFS&amp;R</li> <li>Agriculture department</li> <li>Tourism</li> <li>Trade</li> <li>Planning and development</li> </ul>  | Moderator<br>Mr Farid Ahmad, SPM&E, ICIMOD  |
| 12:45–13:15 | Plenary discussion on critical areas, challenges/ solutions: <p>Agriculture</p> <ul style="list-style-type: none"> <li>Institutional roles</li> <li>Quality and certifications</li> <li>Capacities and organic solutions</li> <li>Legal and policy issues</li> </ul> <p>Tourism</p> <ul style="list-style-type: none"> <li>Sustainability of facilities</li> <li>Benefits to communities</li> <li>Education and awareness</li> <li>Carrying capacity</li> <li>Minimizing negative impacts</li> </ul> <p>Trade</p> <ul style="list-style-type: none"> <li>Product demand and supply</li> <li>Tariffs, infrastructure, phytosanitary certification, transport</li> <li>Certification and quality concerns</li> <li>Investment and entrepreneurship</li> <li>Enabling environment</li> </ul> | Moderator:<br>Mr Waseem Ul Hassan, Food Commissioner, MNFS&R  |
| 13:15–14:00 | LUNCH BREAK   |   |

|                               |   |  |
|-------------------------------|---|--|
| 14:00–15:00                   | <p>Group work: strategic inputs and way forward</p> <p>Focused areas in the context of organic agriculture, sustainable tourism, and trade:</p> <p>Legal and policy aspects (provincial &amp; federal governments)</p> <p>Technical and capacity building (organic fertilizers, pesticides, certification, quality standards)</p> <p>Investments and private sector</p> | Mr Ghulam Ali & Mr Muhammad Ismail, ICIMOD   |
| 15:00–16:00                   | Group presentations and way forward   | Group leads  |
| TEA BREAK AND CLOSING SESSION |   |  |
| 16:00–17:00                   | <p>Summary of conclusions, recommendations, and way forward</p> <p>Remarks from the Federation of Pakistan Chambers of Commerce and Industry</p> <p>Closing remarks by Mr. Asifullah Khan, Secretary, Tourism, Culture, Sports and Archaeology, Gilgit-Baltistan</p> <p>Vote of thanks</p>  | <p>Dr Srijana Joshi and Ms Anu Joshi Shrestha</p> <p>(Mr Ghulam Ali/Mr Haider Raza,)</p> |

## Annex III: List of participants

| SN   | NAME/DESIGNATION/ADDRESS   |
|--|--|
| <b>Ministry of National Food Security and Research</b> |  |
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|               |  |
|---------------|--|
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| 39            | Mr Syed Ishtiaq Hussain<br>Director, Livestock and Dairy Development, Gilgit-Baltistan   |
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