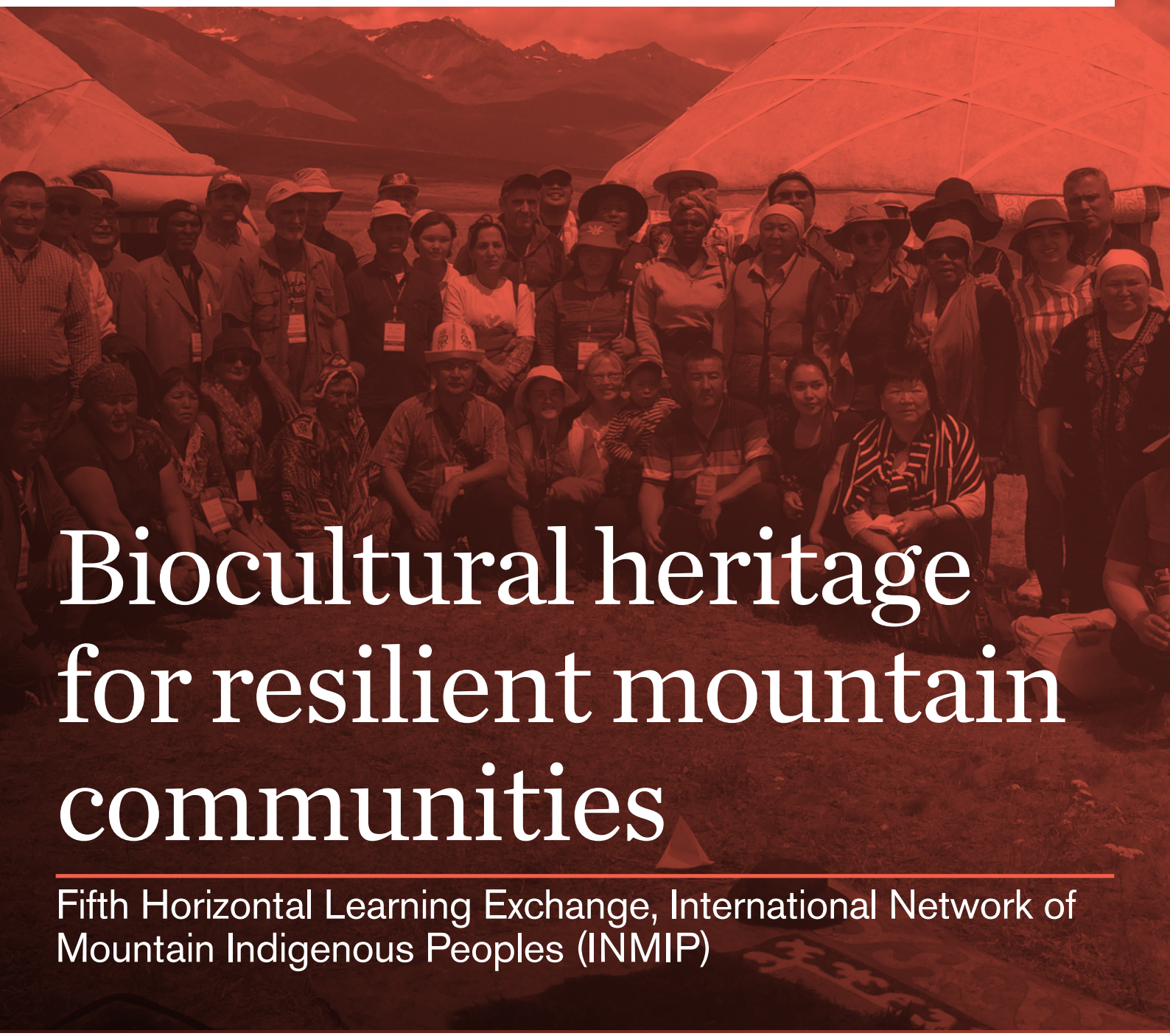
Kyrgyzstan
26–31 July 2018

Event Report



Biocultural heritage for resilient mountain communities

Fifth Horizontal Learning Exchange, International Network of Mountain Indigenous Peoples (INMIP)

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INMIP

Asociación ANDES

BIO-MURAS
PUBLIC FOUNDATION

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About the event

Fifth Horizontal Learning Exchange, International Network of Mountain Indigenous Peoples (INMIP), Kyrgyzstan, 26–31 July 2018.

Organised on behalf of INMIP by Asociación ANDES (Peru) and Public Foundation Bio-Muras (Kyrgyzstan), with communications support from IIED.

INMIP is an international network of indigenous mountain communities in 11 countries. It was established in Bhutan in 2014, and aims to revitalise biocultural heritage for climate adaptation and sustainable mountain development.

ANDES is a small international indigenous-led organization that works to support indigenous peoples' struggles for biocultural rights and self-determination, land rights and territorial development, and community-controlled and biodiversity-based food systems. ANDES is currently hosting the Secretariat for INMIP.

Public Foundation "Bio-Muras" aims to explore and promote agrobiodiversity, biodiversity, cultural heritage and traditional knowledge and innovative approaches for sustainable use of agrobiodiversity. It implements activities on agrobiodiversity management, strengthening local and cultural institutions and capacity building of local communities.

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Published by IIED and INMIP, February 2019

http://pubs.iied.org/14674IIED

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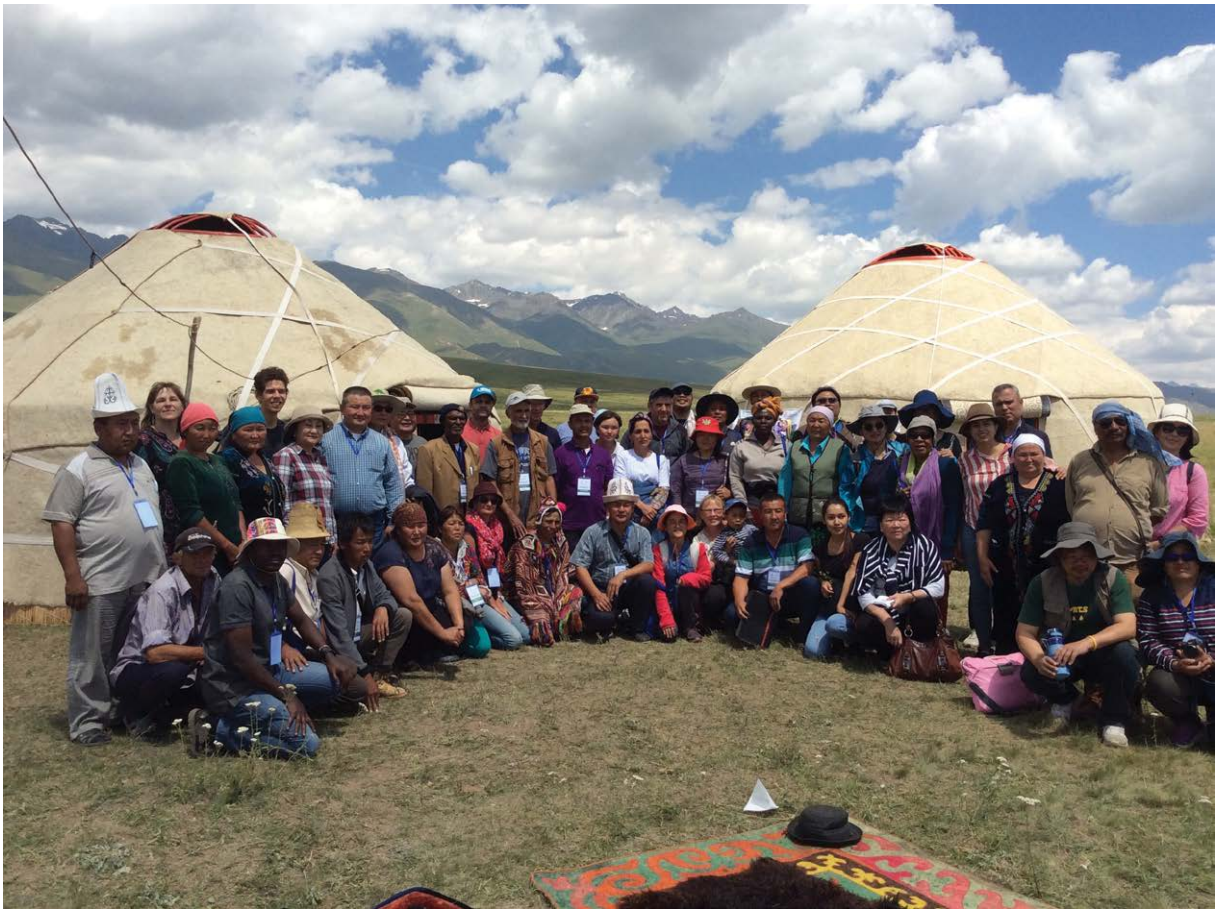


INMIP group photo at Suusamyr pasture. Tammy Stenner

Acronyms

Asociación ANDES	Association for Nature and Sustainable Development, Peru
BCHT	Biocultural heritage territory
CBD	United Nations Convention on Biological Diversity
CIP	International Potato Center
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer field schools
FN	Food neighbourhood
GEF	Global Environment Facility
ICOMOS	International Council on Monuments and Sites
IFAD	International Fund for Agricultural Development
INMIP	International Network of Mountain Indigenous Peoples
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
MASL	Metres above sea level
MEB	Multiple evidence base
NGOs	Non-governmental organisations
SDGs	Sustainable Development Goals
TCF	The Christensen Fund
TK	Traditional knowledge
UNFCCC	United Nations Framework Convention on Climate Change
UNPFII	United Nations Permanent Forum on Indigenous Issues
WW	Walking workshops

Summary

Mountains provide essential ecosystem goods and services for mountain and downstream populations – water, energy, forests, biodiversity and agricultural products, including 60–80 per cent of the world's freshwater. Indigenous peoples and local communities in mountains play a critical role in sustaining these services through traditional farming systems, which conserve evolving populations of several major food crops for climate change adaptation. However, mountain peoples are also highly vulnerable to climate change, are amongst the poorest and most marginalised, and are experiencing erosion of precious genetic diversity and traditional knowledge for adaptation. Thus, investment in indigenous mountain communities is critical for achieving the Sustainable Development Goals (SDGs), and for implementing the Paris Agreement, the Convention on Biological Diversity (CBD) and the FAO Treaty on plant genetic resources for food and agriculture.

The International Network of Mountain Indigenous Peoples (INMIP) was established in 2014 to address these challenges and revitalise mountain biocultural heritage for climate adaptation and sustainable food systems. Its annual horizontal learning exchanges or 'walking workshops' enable mountain communities to exchange knowledge and innovations to enhance their capacity to respond to climate change and other key challenges, while revitalising traditional knowledge, crops and culture.

Update on INMIP activities

INMIP's fifth learning exchange was held in July 2018 in Kyrgyzstan, centre of origin for walnuts, apples and apricots. It involved 67 participants from 10 countries, mainly community representatives, but also non-governmental organisations (NGOs), scientists and donors (130–140 participants including the host communities). The walking workshop took place in four communities and focused on community forest management in the wild walnut forests of Jalalabad Province, traditional organic aymaks ('*aymaks*' are groups of farmers) in Talas Province, and community pasture management in Suusamyr pasture, Chuy Province. Gender, climate change and traditional knowledge/culture were also discussed as cross-cutting issues.

To start, community representatives reported on activities conducted since the last INMIP exchange in the Potato Park, Peru (2017), and inspired by INMIP exchanges:

- In India in the eastern Himalayas, the Lepcha are declaring a biocultural heritage territory (BCHT).
- In Tajikistan, INMIP members plan to establish a Wheat Park.
- In Taiwan, indigenous women have revived traditional millets through a 'millet ark' project.
- In Thailand, Karen communities gained alot of knowledge on seeds from the Potato Park, and have worked with youth to produce a rotational farming cookbook.
- In Kenya, the Taita communities have expanded a local group to revive culture and conserve traditional crops for climate adaptation – they are heavily affected by climate change.
- In Kyrgyzstan, on return from Peru, communities decided to enhance conservation of wild walnut forests, locally adapted fruit trees and vegetable crops.

Tackling climate change

Several communities reported adverse climate change impacts:

- In China, the Naxi in Yunnan face increased risks to production.
- In the Potato Park, Peru, rising temperatures have increased pests and diseases and are forcing farmers to plant at higher altitudes, resulting in human-wildlife conflicts.
- In Kyrgyzstan, communities are experiencing rapid changes in climate – for example, a prolonged dry season, frost in spring and snow in autumn have led to poor walnut harvests. In response, they are planting trees and growing a surplus to distribute; they use clay to maintain moisture around saplings. This spring was very wet, so crops could not be planted.

Many highlighted the role of traditional farming systems and crops in adaptation to climate change and biodiversity conservation:

- In Thailand, the Karen rotational farming system aids climate adaptation and ensures food security.
- In India, the Lepcha practice cooperative water management and plant conservation.
- In Kyrgyzstan, walnut forest users are propagating varieties resistant to frost and drought. They stressed the importance of farmer-to-farmer sharing of local seeds that are more suitable for the changing climate (than modern varieties), and of maintaining ancestral rules for sustainable harvesting.

Promoting traditional knowledge transmission

The loss of traditional knowledge is a serious problem for mountain communities. For example, in Chinese Naxi communities, the youth don't farm and outmigration by youth and women is hampering traditional knowledge (TK) transmission. Strategies to tackle this problem were discussed:

- In Papua New Guinea (PNG), university students are working with communities, translating materials into their local languages to restore pride, and collecting traditional knowledge and stories.
- In Thailand, young people were invited to actively participate in producing the rotational farming cookbook; young local chefs were trained and community enterprises established for young women.
- In Kenya, traditional culture is being promoted in schools.
- In Kyrgyzstan, communities continue to teach their children that walnut trees are sacred and forest associations work with schools and youth who will be future forest users.

Participants emphasised the importance of applying a multiple evidence base (MEB) approach where indigenous, local and scientific knowledge are equally valued and validated. Knowledge sharing should be based on equity and reciprocity and usefulness for all involved, as recognised by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Convention on Biological Diversity (CBD) and the Indigenous Platform of the UN Framework Convention on Climate Change (UNFCCC).

Promoting gender equality

Participants discussed gender roles in traditional farming and resource management, which vary across the communities. The Karen are matriarchal, and in many communities, women play a key role in family farming and seed conservation, but they are not always included in governance structures. A key question is how to promote gender equality while maintaining traditional knowledge and practices? An approach being used in the Potato Park is to engage women in community enterprises and link women's traditional knowledge with science.

Promoting organic production in Kyrgyzstan

- In the wild walnut forests of Arstanbap, local forest user associations are helping to conserve the forest. Pests and diseases have damaged 20,000 hectares of forest (eg cherry pest) – they use biological control methods.
- Women collect fruits and nuts and develop products such as apple powder for tea. Medicinal herbs are sold to pharmacies in Bishkek, although they need more drying equipment to scale up.
- In Taldy Bulak village, organic garlic is grown and certified by the Organic Movement Federation Bio-KG. This ensures demand despite the higher price. The yield is also higher compared to non-organic garlic sites.

- In Kopuro Bazar, the promotion of the Organic Aymaks concept aims to protect TK, ecosystem services and nomadic culture – it incorporates the environment, the economy and 'our hearts', like a triangle.1 Farmers use crop rotation (barley, potato, clover) to maintain good yields.
- In Suusamyr, local pasture-user associations manage pastures in accordance with national pasture law, and work closely with local self-government offices to prevent pasture degradation.

Food neighbourhoods: developing a vision for 2050

INMIP agreed to develop a vision for the future of food systems for 2050, building on the concept of food neighbourhoods, where food is rooted in social and cultural practices and neighbourhoods are made up of a close community defined by territories. These food neighbourhoods will focus on in situ conservation of genetic resources in centres of crop and animal domestication and diversity, such as potatoes in Peru, wheat in the Pamir mountains in Tajikstan, and millets in Taiwan. The vision will be based on traditional knowledge and cultural and spiritual values, agroecological production and ecosystem goods and services, low carbon economies, sustainable development, and the rights of indigenous peoples.

Policy roundtable on migration and climate change

On the fifth day, a policy roundtable on 'Mountain indigenous peoples, climate change and migration' provided a rare opportunity for mountain communities to interact with policymakers and scientists on an equal footing. Several INMIP communities reported high and increasing levels of outmigration to urban areas, largely to seek economic opportunities in a globalised world, which hampers TK transmission and agrobiodiversity conservation. But education is also a key reason for outmigration, given the lack of higher education institutions in rural areas, and the lack of cultural education erodes TK. Communities emphasised the need to create economic opportunities for young people in mountain communities, that also strengthen TK and culture, and to enhance cultural education.

Climate change and reduced productivity are also contributing to outmigration (eg in Kenya), but climate-induced migration is not yet being considered as a category of migration (eg. by the migration department in Kyrgyzstan). In Taiwan, the government has forced many tribes to relocate from mountains to plains following typhoons, leading to increased suicide rates and fears of their cultures disappearing. These types of migration are different to customary migration by indigenous peoples.

The Suusamyr Declaration

The workshop culminated in the Suusamyr Declaration (see Annex 1) which calls on UNFCCC Parties to (among others):

- Recognise the vital contribution of mountain indigenous peoples to climate adaptation and mitigation and support their efforts to strengthen the biocultural resilience of mountain regions.
- Ensure poverty alleviation and indigenous peoples' rights are central to strategies for implementing the Paris Agreement, and
- Take radical and rapid action to decrease fossil fuel dependency.

1 The Organic Aymaks concept revolves around a national network of organic *aymaks* (groups of farmers) to develop a system of self-assessment for organic farm production quality, productivity and income for local farmers in Kyrgyzstan. The products are marketed under the brand Organic Aymaks. See http://bit.ly/2RDGUme

1 Introduction

1.1 Investing in mountain ecosystems and peoples for sustainable development

Mountains are home to 915 million people and cover 22 per cent of the world's land (Romeo *et al.* 2015). They provide essential ecosystem goods and services – water, energy, forests, biodiversity and agricultural products – for mountain and downstream populations. Mountains provide 60–80 per cent of the world's freshwater (FAO undated), supplying major cities in mountain and lowland areas. They sustain a large proportion of the world's biodiversity hotspots, high levels of crop and livestock diversity, rich traditional knowledge for the conservation and sustainable use of biodiversity, and resilient seeds and farming systems (Swiderska *et al.* 2018).

Mountains are also home to many indigenous peoples, and are prominent amongst regions of crop domestication: potato, maize, wheat, sorghum, quinoa, tomatoes and apples originate from mountain areas (Brush 1998). Indigenous peoples in centres of domestication continue to nurture ancestral populations of agrobiodiversity and to create new genetic diversity through co-evolutionary processes for climate adaptation, guided by their cultural values and holistic worldviews (Garrett Graddy 2013). Many agroecological practices are inspired by traditional knowledge (Berkes *et al.* 2000), which also provides a 'major resource for climate change adaptation' according to the IPCC (2014). Mountains also play an important role in climate mitigation in forests and high-altitude pastures.

However, mountain ecosystems are also highly vulnerable to climate change. Mountains have experienced above-average warming in the 20th century, and high mountains are highly temperature sensitive (IPCC 2014). Rising temperatures are causing mountain glaciers to melt. In the Peruvian Asociación ANDES, for example, glaciers have already shrunk by 40 per cent since 1980 (Swiderska and INMIP 2017). Glacier recession has been linked to an increase in landslides, lake outburst floods, mudflows and rockfalls; and results in reduced water availability (IPCC 2014). More erratic rainfall has been observed in mountain areas, as well as more intense precipitation, destabilising slopes and increasing soil erosion, landslides and flooding (Nyman *et al.* 2015). Rising temperatures have also led to a rise in soil pests in mountain regions and have caused dramatic shifts in the altitudinal ranges of some flora and fauna, putting some species and crop varieties at risk of extinction.

Climate change will disproportionately affect indigenous peoples and local communities living in fragile ecosystems such as mountains (UNFCCC 2017). Mountain peoples are among the world's poorest and most marginalised (Nyman *et al.* 2015). Almost half of those living in rural mountain areas are vulnerable to hunger and face poverty and malnutrition (Romeo *et al.* 2015). In many mountain regions, poverty, climate change and poor education facilities are increasing outmigration to urban areas. This is hampering the transmission of traditional knowledge and can increase the burden of work on women.

Despite their vital importance and high vulnerability, mountain ecosystems and peoples receive very little funding and support, and are often adversely affected by policies that promote unsustainable development. Enhancing investment in mountain areas is essential for achieving the 2030 Sustainable Development Goals. Achieving several of the SDGs requires investment in mountains, including: SDG 1 'no poverty', SDG 2 'zero hunger', SDG 3 'good health and wellbeing', SDG 5 'gender equality', SDG 6 'clean water and sanitation', SDG 10 'reduced inequalities', SDG 13 'climate action', SDG 15 'life on land', and SDG 16 'peace, justice and strong institutions'. SDG 15.4 focuses specifically on mountains:

By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development (United Nations undated).

Furthermore, investment in mountains and its indigenous peoples is critical for achieving the Convention on Biological Diversity's Aichi Targets on biodiversity, agrobiodiversity and traditional knowledge, and will also be important for realising the post-2020 agenda.[2] Supporting mountain ecosystems and peoples is also necessary for implementing the Paris Agreement's objectives on climate change mitigation and adaptation; and for implementing the FAO Treaty on Plant Genetic Resources for Food and Agriculture, which requires in situ as well as ex situ conservation and the protection of farmers' rights.

1.2 INMIP learning exchanges: revitalising mountain biocultural heritage

INMIP – the International Network of Mountain Indigenous Peoples – was established in May 2014 to address these challenges, with a particular focus on revitalising biocultural heritage[3] for climate adaptation and sustainable food systems and livelihoods (see Box 1 for INMIP's vision and objectives). The network comprises 11 countries in Asia, Africa, Latin America and Oceania: Bhutan, China, Kenya, India, Kyrgyzstan, Papua New Guinea, Peru, the Philippines, Taiwan, Tajikistan and Thailand, and is expanding further. Its members include indigenous mountain communities in centres of crop diversity and origin, NGOs and research organisations.

INMIP holds annual week-long horizontal learning exchanges or 'walking workshops' where indigenous community representatives from several countries visit mountain communities to exchange knowledge, experiences, practices and innovations for addressing common challenges. Discussions are held around sites such as farmers' fields, water sources, forests, sacred sites and community seed banks to stimulate discussion on these issues and to enable exchange of practical know-how. The walking workshops provide a rare opportunity for mountain communities to share traditional knowledge across regions and borders, and a powerful mechanism for enhancing recognition of the importance of traditional knowledge and cultures amongst communities. This revaluation of traditional knowledge has also been fostered through exchanges between INMIP communities and scientists and other experts. The network has revitalised traditional knowledge, crops and practices, cultural values and worldviews, contributing to the implementation of the CBD's articles 8(j) on traditional knowledge, innovations and practices and 10(c) on customary sustainable use. These are also recognised as cross-cutting issues through the CBD. Similarly, INMIP has contributed to achieving CBD Aichi Target 18 on respect and recognition of traditional knowledge and customary sustainable use of biodiversity.

INMIP communities have started to implement many of the practices and innovations learnt through these exchanges, such as collectively managed biocultural heritage territories (BCHTs), as evident from the workshop reports. As well as strengthening capacity of communities for climate adaptation, sustainable agriculture, sustainable livelihoods and securing rights, INMIP has given a voice to indigenous mountain communities through annual declarations and workshop reports, and dialogues with policymakers at national and international level (such as the UNFCCC). Walking workshops held in Bhutan, Tajikistan, China, Peru and Kyrgyzstan have generated evidence on pressing challenges facing mountain communities, including on issues of climate change, water, pests and diseases, seeds, migration and erosion of culture and traditional knowledge. These exchanges have enabled the emergence of local solutions and visions to address these challenges, as documented in INMIP workshops reports and declarations. For more information, see: www.inmip.net and www.bioculturalheritage.org

2 The Aichi Biodiversity Targets for 2011–2020 period were agreed at the tenth meeting of the Conference of the Parties, 18–29 October 2010, in Nagoya, Aichi Prefecture, Japan. See www.cbd.int/sp

3 The term 'biocultural heritage', like 'biocultural diversity', recognises the inextricable linkages between biological and cultural diversity, and acknowledges their intergenerational character. It includes indigenous knowledge, cultural and spiritual values and customary laws associated with wild and domesticated ecosystems and species, as well as agricultural biodiversity and human-modified landscapes. For a definition of biocultural heritage, see www.bioculturalheritage.org.

Box 1. INMIP's vision, mission, values and objectives

Vision: A world rich in biocultural heritage that maintains the reciprocal and harmonious relationship among the spiritual, human and natural realms for resilient indigenous mountain communities.

Mission: Provide a global platform for exchange of knowledge and experiences and cooperative discovery for the recognition, protection and promotion of mountain indigenous biocultural heritage.

Values:

- *Reciprocity* – between network members and in relation to Mother Earth and the sacred
- *Diversity* – biological and cultural diversity are critical to the future of mountain peoples and the planet in these times of global change
- *Cultural identity* – focus on indigenous mountain communities
- *Empowerment* – of indigenous peoples to influence policy and to support local implementation of policies and practices for food sovereignty, rights to resources and knowledge
- *Communication* – for effective networking, sharing knowledge, experience and best practices, and to influence policies relevant to indigenous peoples, mountain ecosystems, smallholder farmers, the environment and climate change.

Objectives:

1. To **establish networks** of biocultural heritage territories and community seed banks and support international seed exchanges and collaborative activities.
2. To **strengthen the capacity** of indigenous mountain peoples for resilience in the face of global change by revitalising their biocultural heritage, particularly spirituality, indigenous knowledge, practices and customary laws.
3. To **exchange knowledge**, **information, strategies and innovations** for adaptation to global change and promote the intergenerational transmission of indigenous knowledge.
4. To **advocate for policies** at the local, national and international levels that recognise and protect: a) the integrity of communities, biocultural heritage and the environment; and b) the rights of mountain indigenous peoples, particularly of the role of women, youth, children and elders, based on a range of traditional resource rights, such as those included in the United Nations Declaration on the Rights of Indigenous Peoples and the International Labour Organization Convention 169.

2 INMIP's fifth horizontal learning exchange in Kyrgyzstan

2.1 Overview

The mountainous forests of Central Asia are centres of origin and diversity for many fruit and cereal crops. INMIP's fifth horizontal learning exchange was held in July 2018 in Kyrgyzstan, a centre of origin and diversity for apples, apricots and walnuts. It brought together 67 participants, mainly indigenous community representatives from 10 countries but also NGOs, scientists and donor agencies – and including members of the local communities visited, the number of participants rose to 130–140.

The learning exchange involved walking workshops in four different mountain communities, including ancient forests and pasturelands, across three provinces of Kyrgyzstan. It explored community-based resource management, climate change, biocultural heritage, gender, organic farming, biocultural markets and alternative food systems. The main locations and themes were as follows:

- Wild walnut forest, Arstanbap village, Jalalabad Province: community forest management, climate change impacts (eg pests), spiritual values and marketing forest resources.
- Birch forest, Taldy Bulak village, Talas Province: traditional Organic Aymaks concept and techniques (eg garlic).
- Farmers' fields, Kopuro Bazar village, Talas Province: Organic Aymaks techniques (eg potato) and biocultural markets.
- Shorgo pasture, Suusamyr valley, Chuy Province: community pasture management, nomadic culture and climate change.

The objectives of the exchange are set out in Section 2.2 (Opening ceremony and objectives). A Biocultural Festival was held in Arstanbap village where communities cooked traditional dishes and shared traditional music and dance. Cultural exchanges (food, songs, stories, games) were also held in the other communities visited. Participants travelled back to Bishkek for a policy roundtable on 'Mountain indigenous peoples, climate change and migration' – providing a rare opportunity for indigenous mountain communities to interact with government representatives and scientists. Finally, an INMIP meeting was held to discuss network matters.

This report provides a record of the learning exchange and policy roundtable. It highlights the challenges facing mountain indigenous peoples and how they are responding – and to inform policies and programmes on climate change, biodiversity, genetic resources and the SDGs. It also provides a resource to support South–South and community-community knowledge exchange.

2.2 Opening ceremony and objectives

The opening ceremony was held in Arstanbap village in Bazar Korgon district, Jalalabad Province, in southern Kyrgyzstan. The walking workshop was opened with an offering of traditional bread called 'nan and boorsok'.

Akylbek Kasymov from the local host organisation, Public Foundation BioMuras, welcomed the participants from 10 countries to the mountainous and beautiful area.

Alibek Begimkulov from Bazar Korgon district administration welcomed participants. He explained that this a historically important territory, a special place with wild walnut forests concentrated in Arstanbap. Although known as the 'Greek walnut' (because Alexander of Macedon took walnuts to Greece) it is a native species and indigenous to this area.

The deputy **head of Artansbap village** welcomed participants to Arstanbap, on behalf of the head Tashtanbek uulu Ulukbek who could not attend. He explained that the village is very famous within and also outside the country. It has local self-government and a population of about 22,000 people. It is a national and international tourist area with very scenic landscapes. The village conserves walnut forests

and has a project to preserve biodiversity, supported by foreign agencies. Last year they held a walnut festival. Some people raise livestock in the forest – they are trying to save the forest by regulating livestock. The director of Arstanbap forest management department, **Pinazarov Keneshbek**, also welcomed participants to the Arstanbap region.

INMIP's international coordinator, explained that the network has held exchanges in different mountain environments for over five years:

Alejandro Argumedo (INMIP): First in Bhutan, then in Tajikistan in a beautiful apple forest, then in China and in Peru, and now we join those mountains with the beautiful mountains of Kyrgyzstan. From the beginning the **objective** has been to share knowledge and experiences and learn from each other – and promote rights-based sustainable mountain development, and the protection of our biocultural heritage. We have come a long way. We are evolving into a community of practice for mountain development and conservation, where our traditional knowledge collaborates with science to create new knowledge. In the face of climate change, collaboration between knowledge systems is critical. These exchanges serve to test knowledge and to validate the knowledge we bring here. So when we go back to our communities, we can strengthen the social capital of our communities and use what we learn to strengthen our traditional knowledge and capacity to respond to these changes. Over the next few days we will engage in cooperative learning in one of the most beautiful places on the planet with rich biocultural diversity.

Alejandro presented the **objectives of the workshop**:

- To continue to share and learn from each other; understand the fast changes happening at global level from local perspective.
- To discuss collaborative projects, eg the mountain cookbook focusing on native and forgotten crops; the biocultural territories handbook; and a proposal for a joint project on visioning food systems.
- To hold a policy dialogue on migration: each country has prepared a case study, and we will discuss how to present this.
- To discuss network business: election of coordinator, next venue of exchange.

2.3 Country introductions and reports

A video of the last INMIP exchange in the Potato Park in Peru was shown, and country teams were asked to introduce themselves and provide a brief report on their activities since the last exchange.

Bhutan (Ugyen Phuntsho): Buli is a remote community located in the central part of Bhutan under Zhemgang district. The livelihoods of the community depend mainly on subsistence farming, which is generally practiced in Bhutan. The key problems faced by farming communities in the country include farm labour shortages, lack of niche markets and human wildlife conflicts. The rural-urban migration rate is at 21.7 per cent in all parts of country, with many youths leaving the villages, and this is affecting Buli community as well, resulting in youth unemployment in urban areas and farm labour shortages in rural communities. The way forward for addressing issues in rural communities is through improvement of rural livelihoods and encouraging unemployed youth to return to/remain on the farms, by providing good amenities, improving irrigation systems, providing agricultural loans with low interest rates, facilitating government land leases, providing free solar fencing and improving farming techniques.

China (He Jixian): We come from Yunnan in Southwest China, we live along the Yangtze river, are Naxi peoples and have an ancient culture. We have a long history and are proud of it. We have experiences with climate change, which can affect our lives. Climate change causes changes in agriculture, increased risks to production. The youth don't farm, they don't know how to farm, we need to seek solutions.

India (Nayan Pradhan): We are Lepcha from the eastern Himalayas – Lingsey and Lingseykha communities. We are implementing a community seed bank which has 90 indigenous seed varieties. We are taking cultural initiatives in farming practices. In our culture, we practice cooperative water management besides conserving our native plants, we have 300 native orchids. We are in the process of declaring a biocultural heritage territory in Lingsey-Lingseykha.

Kenya (Chemuku Wekesa): We are Taita communities from the Taita Hills in Southeastern Kenya near the border with Tanzania and Mount Kilimanjaro. Since Cusco, the Taita communities have implemented a number of initiatives to enhance local adaptation, in an area heavily affected by climate change. The community group are called Njamba Mzango, a group invoking local culture in adapting to climate change. Since last year, the group has grown from 30 to 60 members and expanded its activities on the ground. This year the group has participated in over 10 activities and showcased local culture and food; it is active in local shows to promote local food systems and crops. It has also set up a tree nursery for indigenous species in an important area which is a biodiversity hotspot.

Papua New Guinea (Anne Marie Wanamp): PNG is in the 'eighth continent' of Oceania. It comprises three regions – Melanesia, Polynesia and Micronesia. I am Melanesian. I work with students in the university to promote, document and teach our oral traditional languages and cultures. Gure attended the Peru workshop. He works with farmers in highlands. We have many languages and the university is a good way to address farming issues because PNG has many languages. Students study and work with local communities around the country. Indigenous knowledge must be transferred through its language. It is best is to work with students, as they can translate materials to their language. They can speak many languages. Students come from all over PNG and other Pacific countries, namely Vanuatu and Solomon Islands. By preserving our languages, we will preserve and pass on indigenous knowledge. Language gives us our identity and tools for self-definition. This will help restore pride and dignity in university students and society at large, thus creating a better future for our countries.

Peru (Ricardo Pacco Chipa): This type of meeting is important for indigenous peoples, to talk about the problems we are facing with climate change. We are Quechua from the Potato Park in Cusco, Peru. Climate change has been challenging for us, but we are trying to adapt our potatoes to the changes. We have lots of visitors, this year we had an exchange between students in China and Peru, and installed a weather monitoring station. Now we are monitoring rainfall. It is important to have participation from scientists, academics and indigenous peoples to exchange different knowledge to carry out our work. Indigenous peoples are affected by national seed law, we get together to see how to address this challenge so that farmers benefit, not just big companies. It is important for us to have meetings and knowledge exchange between youth and elders. Like many of you, we have problems with cultivating at higher and higher elevations as the climate warms. It seems we are invading the spaces of wild animals; new conflicts between humans and wild animals are emerging as they are damaging crops. Problems include increased frost, snow and rising temperatures. An impact is that we see more pests and diseases in our crops. Climate change affects our agricultural calendar and biocultural indicators.

Taiwan (Yih-Ren Lin): We come from different parts of Taiwan. Pagung is from the Tayal tribe in the north; Apu and Chih-Chun are from the Kanakanavu tribe in the south, and I am a non-indigenous person doing indigenous studies and working at Taipei Medical University. We have participated in many meetings of the INMIP network. Pagung has been inspired by the Potato Park experience and has returned to conserve millet in her community. Millet is their staple food, they do not grow potatoes. She started to re-grow millet where it had not been grown for over 30 years. The neighbours asked, 'Are you going to earn money from millet?' She said, 'No, it is not for money.' They asked, 'What is it for then?' Her answer was, 'For our own culture'. She was so eager to do it. She shared millet with neighbours, and made some elders cry because it reminded them of their traditional food and lifestyle. Now it has been four years since the learning exchange in Bhutan. More and more women and elders are participating in the autonomous project we call the 'millet ark'. It has encouraged different tribes to come to ask for millet seeds, particularly after newspapers published stories about it. The work of the 'millet ark' continues, and we hope to encourage more people.

Thailand (Prasert Trakansuphakon): We choose to focus on rotational farming as the main mechanism to manage our resources. It is a socioecological system, a traditional way of working. There is much traditional knowledge related to this process, and we have food security, food sovereignty and many varieties of seeds and plants. It is also a good mechanism for adaptation to climate change particularly as more than 20 species are very well adapted to climate change. Our rotational agriculture system is a self-management process, so our communities can be strengthened to manage themselves and natural resources in a sustainable way. After getting back from Peru, we worked with young indigenous women and professional photographers to engage with young local people. We produced a

cookbook (a recipe book), the first rotational food cookbook in the world, called *Taj auf le quv* or *Food in rotational farming*. We are also collaborating with the Slow Food network and have created a Slow Food Youth network in Thailand. We worked with more than 10 Karen communities in northern Thailand. With the young people, we have done awareness raising to be confident about their own cultural identity, their rotational agriculture system and food system, and they created their own mechanisms through photos, food products and their own brand to communicate the story of their traditional and innovative practices to government agencies, civil society and the public. We trained young local chefs in the communities. You can see the process in a documentary tonight. We got a lot of ideas and experiences from Peru about seeds. We invited a friend from Bangkok, an artist, to draw a seasonal calendar of rotational farming products. We invited young people to collect data on rotational farming, and two months ago we did a big event in Bangkok – a rotational farming festival to communicate to policymakers and the public about rotational farming. We have done innovations in the community to develop social enterprises for local products, for example rotational agriculture such as honey products, coffee, tea, rice and chilli powder. This shows that it is important to have knowledge from our elders/ancestors, and also new knowledge from modern science.

Tajikistan (Yodgor Qonunov): The ancient agricultural culture of Tajikistan has promoted the creation of many sorts of domesticated plants and animal breeds based on wild local species. The main agroecosystem zones are located below 3,000 metres above sea level (masl) and can be divided into two sub-zones: rainfed and irrigated farming. The apple park established by Mirzoshoh in Tajikistan and the Potato Park in Peru inspired us to organise an international expedition to retrace Vavilov's[4] steps in the Pamir, in which many international and local scientists and experienced local farmers participated. Currently we are working on the new idea of establishing a wheat park in a high mountain area of the Pamir of Tajikistan (3,500 masl), with harsh climatic conditions. We hope to share the first results at the next meeting.

Kyrgyzstan (Kurmanzhan Osmonalieva): Today all the world community understands that climate change is affecting all of our lives. Having heard all your country reports, I understand we have common problems, these can be solved commonly, together. Knowing about the problems, each country should establish seed banks. We should also share seeds among ourselves, seeds that are more suitable for the changing climate. A problem in many countries is a lack of seeds of all types. Tomato is one of these crops. We are experts in tomato in our country. Unfortunately, we do not have quality seeds. More than 60 per cent of tomato seeds are genetically modified organisms (GMOs). We cannot solve our problems without good quality seeds. With the support of Bio-Muras, a donor agency and public foundation, we have established some projects. We work with farmer seeds to see the properties of the tomatoes. We had good-quality production. For two years we have been training farmers to get quality tomatoes, scientifically tested; to make production, fermentation; and to share seeds with neighbours and communities. We have good results. From Tajikistan they are requesting seeds, they even need to ask two years ahead. We hope that such good-quality seeds will increase in volume to have throughout country, not only Samarkandek village governance of Batken distict of Kyrgyzstan.

SwedBio (Pernilla Malmer and Daniele Crimella): We are working as a 'knowledge interface' between practice, policy and science, to ensure there are firm links from local to global when international policies are agreed upon. It is important that experiences from indigenous peoples and local communities contribute to global policymaking, to ensure policies strengthen and do not undermine local governance and management of biodiversity. It also is important that communities and national organisations are aware of good policies and demand their implementation by governments. SwedBio is a small team working with many local partners, in regional and global networks. It is based at the Stockholm Resilience Centre – a transdisciplinary research centre. It focuses on thematic focal areas eg biocultural diversity; livelihoods, food and health; climate change and ecosystems; values and governance, and cross-cutting issues (eg gender; equity, human rights and democracy; endogenous development). SwedBio is co-organising dialogues linking climate change, biodiversity and ecosystems in different regions, in collaboration with the Secretariat of the Convention on Biological Diversity, to introduce the ecosystem approach into climate change dialogues.

4 Nikolai Ivanovich Vavilov (1887–1943) was a prominent Russian and Soviet agronomist, botanist and geneticist best known for having identified the centres of origin of cultivated plants. He devoted his life to the study and improvement of wheat, corn and other cereal crops that sustain the global population.

One of the most efficient ways to connect actors and find solutions on various global challenges is through dialogues – everyone has a part of the solution, and no one can solve the problems alone. The dialogue process, that involves all critical actors with different views and perspectives, is as important for the solutions as the outcome itself. Outcomes of dialogues can be brought into global negotiation processes, such as the CBD, where SwedBio dialogues have influenced the negotiations on resource mobilisation.[5] SwedBio also engages with the IPBES (Intergovernmental Panel on Biodiversity and Ecosystem Services), which provides policymakers with assessments about the state of knowledge regarding the planet's biodiversity and its benefits for people. IPBES has recognised that indigenous and local knowledge are equally as valid as science and is trying to find methods to integrate them in knowledge generation, such as through dialogues across knowledge systems. Trust, respect, reciprocity, equity, transparency and free, prior and informed consent (FPIC) are prerequisites in any dialogue across indigenous, local and scientific knowledge systems.

A central method we use in all this is the **multiple evidence base (MEB)** approach (Tengö *et al.* 2014, 2017)[6] where indigenous, local and scientific knowledge are equally valid. Many indigenous peoples feel their knowledge has not been respected, and that science repeatedly questions the validity of indigenous knowledge. However, a diversity of knowledge is needed for formulating sound and useful policies for ecosystem governance. Thus, we developed this approach with indigenous partners. The approach gives an enriched picture, where everyone contributes, and each knowledge system keeps its integrity and validates its knowledge on its own terms. The approach has been recognised in different policy forum (IPBES, CBD). Our partners also use it for monitoring their biocultural landscapes. The MEB approach is not new, it is just that we have described and given a name to it. Participatory plant breeding (PPB) is a similar approach, where linking science and traditional knowledge creates a far better plant variety than would have been the case without collaboration between farmers and plant breeders.

ICOMOS (Maria Laure): I am director general of the NGO the International Council on Monuments and Sites (ICOMOS), which has about 10,000 members in the world who work for the preservation of cultural heritage. It was created 50 years ago, and is about monuments, heritage, museums, works with the United Nations Educational, Scientific and Cultural Organization (Unesco) World Heritage list. Now we realise that cultural heritage is not only castles and monuments, but relies on people, this is why I believe we must focus more on people and traditions. So, I am very happy to participate in these discussions and learn more from you.

Tamalpais Trust (Alan Zulch): I am also representing the New Field Foundation – both have the same donor – and are sister organisations to The Christensen Fund (TCF). Tamalpais is a grant-making organisation that supports indigenous peoples in 25 countries. We have interests in many things such as women's leadership and the spiritual connection to place/land. We recognise that these are interconnected with all we are talking about.

The Christensen Fund (TCF) (Alibek Otambekov): We are from a neighbouring country, Tajikistan. Any problem with policy will affect all of us, we have similar concerns. I would like to thank the organisers Akylbek and Alejandro. To organise such an event takes a lot of time and energy; it took one year of planning. I can only imagine how far you all travelled. You are here because you do not want to follow a European model of living – you want to keep your roots in indigenous life and quality of life.

5 'Collective action by indigenous peoples and local communities' is now recognised as a valid contribution of resources. A framework for safeguards related to biodiversity finance mechanisms has been developed.
6 See also https://swed.bio/stories/a-multiple-evidence-base-approach-for-equity-across-knowledge-systems.

3 Session 1: Walking workshop through wild walnut forest – community-based forest management

For Session 1, participants took a short bus ride to the wild walnut forest near Arstanbap village for a walking workshop. The experiential learning exchange was on community-based management of forest resources with Kaiymov Ganyjan and Sherikbai Shaimkulov who are representatives of the local forest user groups. The discussion continued while walking to the next learning site in the walnut forest, taking care near the cliffs. The second site allowed participants to see the mountains and the impacts of climate change on forest biodiversity.

3.1 Exchange at first site in walnut forest

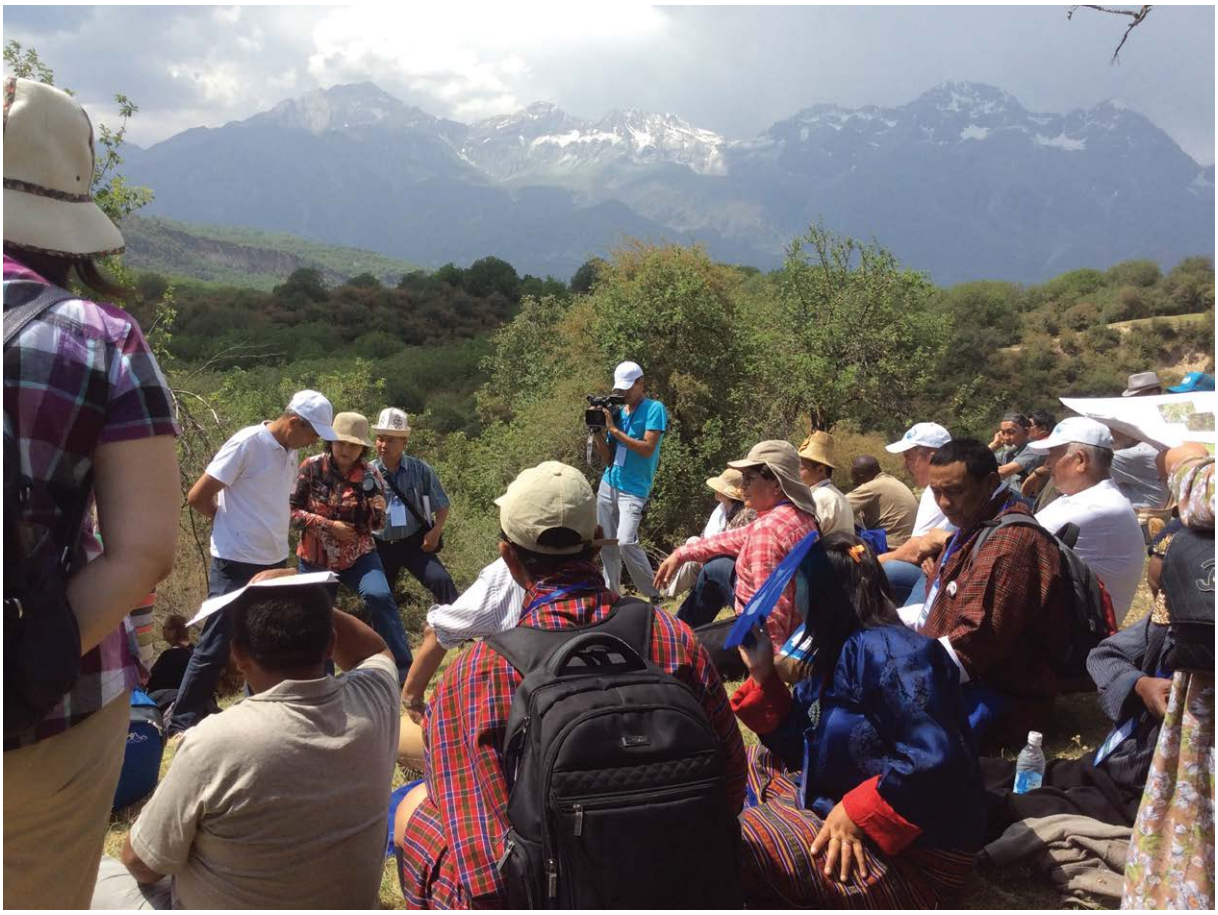
Sherikbai Shaimkulov (Lesik-South NGO): This is a national forest territory of wild walnut and fruits near Arstanbap village, Bazar Korgon district. It has six forest enterprises with a total of 13,000 hectares, and the district has a population of 47,000. From 13,000 hectares, the annual harvest is 5,000 to 7,000 tonnes of walnuts. The forest has 280 types of walnut and two local apple tree species. The walnut forest constitutes 5.6 per cent and pistachio constitutes 3.4 per cent of Kyrgyzstan's forest. Walnuts grow from 1,200 to 2,000masl, but are sensitive after 1,800masl, where the fruit will be smaller. Still, the area is natural, wild, diverse, but also very dry. People of Kyrgyzstan are proud of their walnuts and forests.

Lesik-South is an NGO. We are specialists in forestry with PhDs. We thank TCF for support from 2011 to 2018. We are dedicated to the conservation and multiplication of walnuts in two villages through the association of forest users. After the collapse of then Soviet Union in 1991, there were difficulties in managing the forests, and the communities wanted to help manage them. Members of two forest associations are present: the chairs of the Arstanbap Forest Users Association and Kaba Forest Users Association. After the INMIP workshop in Peru, we wanted to do something for conservation. We decided to focus on conservation and sustainable use of walnut forests. There are 180 varieties of walnuts, but we will select the best 10 to disseminate all over Kyrgyzstan.

Q: How do you grow the trees?
A: They are all a closed-root system, must be grown in containers/plastic etc. All properties of the tree are not guaranteed to be transferred to the new plant, so we also use grafting – both grafting and budding.

Kaiymov Ganyjan and **Sherikbai Shaimkulov** (**Kaba Forest Users Unit representatives):** If a person mistreats nature, there will be harsh impacts. We are grateful for bringing people from different countries. Thanks to TCF for supporting the meeting and our association. Our main objective is to conserve walnuts and other trees and bushes. Climate change is influencing crops grown. So, we are also making adjustments to what we grow, trying to identify species that are resistant to climate change, and trying to propagate trees. In World War II, much of the walnut forest was cut down to make guns. Our main objective is to conserve natural walnut forests and other trees. Now we try to propagate varieties of walnut that are resistant to frost and drought.

Kaiymov Ganyjan (**Chair of Kaba Forest Users Unit):** I am a retired forester, working in a TCF-supported programme. I joined others who love nature like me. Our organisation was formed in 2016. After six months of meetings in the villages, each village sent delegates to the association from 2012. I use my forestry skills to work with communities in the management of forests. Members of the Kaba Forest Users Unit are mainly foresters and have a great deal of experience in forests. We are experiencing rapid changes in climate. Our population of 22,000 depends on the forests. Last year there was frost in April and May when the walnut trees were in flower, so we had a poor harvest. In addition, there was an early snow in the fall, and we were only able to harvest the walnuts closest to the village. This year we are also experiencing unusual weather: the spring was very rainy, so we could not plant our crops; there were delays with the flowering. We also grow potatoes and maize.



Discussion at wild walnut forest. Tammy Stenner

3.2 Exchange at second site in walnut forest

At the second site, Sarymsakov Zakir of Lesik-South explained the characteristics and spiritual significance of the local mountains, while Kenzhebai Osmonkulov, also of Lesik-South, explained plant protection issues in conditions of climate change.

Sarymsakov Zakir (Lesik-South): Our water comes from the Tasher range, Fergana. Tasher is the highest point at 4,823masl. The other side is the Alai Mountains, reaching over 7,000 masl. Our people tell legends of Babay Mountain, which is known as the 'top of the trees' or 'the start of god'. In the legend, god told a wiseman to find a beautiful place, and he would give him seeds of bushes and trees to spread and create a paradise. These mountains have really unique places with different varieties, unique ecosystems of walnut and fruit forests. Together, walnuts and fruits create a unique ecosystem. The mountains also influence the creation of the ecosystem, where large trees create a big canopy and provide lots of fruit. The area gets 1,300mm/year precipitation; atmospheric moisture is at least 50 per cent. These are good conditions for trees.

We are seeing climate change impacts: last year there was a prolonged dry season and some trees are still suffering. We are planting trees in 'empty' areas with no forest cover. Our response is to grow a surplus to distribute.

Q: For restoration do you plant seeds or saplings?
A: Both – in autumn, we mainly plant seeds.

Q : You mention climate change and prolonged drought. Can the walnut survive in drought?
A: The forest is not irrigated, but we put clay around the base of the trees we plant to maintain moisture around the sapling.

Q: What other wildlife do we find here?
A: Around 25–30 years ago, there was more wildlife around here. Now it is moving higher up in altitude, things like wild boars, jackal and deer are now rare. There are birds here, 17 species that do not migrate. The snow leopard lives only in the high mountains. Birds support planting of fruits and nuts. The area was rich for birds and animals, but unfortunately humans take their food and the animals are moving up.

Q: What are the seasons like here? Do you plant for the rains?
A: Yes. We plant for the rain which comes in March, April and May. Then it is dry. November to March there is snow.

Q: Does grafting reduce fruiting?
A: No, it gives a good result. For the seedlings, we grow the seedlings in plastic, so we do not damage the roots when we transplant. We have high survival rates.

Q: Do you carry out any rituals or ceremonies for the mountains?
A: According to legend, our ancestors walked around the forest and collected saplings to plant. We want to continue to teach our children, our youth that walnut trees are sacred, that they should not destroy them. They give us our livelihood. Juniper is another important plant in the high mountains. We also protect it, and do not cut it in snowy periods. When we want rain, we sacrifice livestock to ask for rain. We do this in sacred places. We are nomadic, we travel with animals so we offer them to the gods when we ask for help. We do this in mountains, in sacred places. For women who have recently given birth, they also make a sacrifice to ask for help.

Kenzhebai Osmonkulov on plant protection in conditions of climate change: Pests and diseases have damaged 20,000 hectares of forest with infestation of different pests (eg cherry pest). These impacts are visible in the surrounding landscape. The pests are moving upwards with climate change. Fire is not much of a problem. We do not use chemicals to control pests, only biological agents.

3.3 Session 1 summary by Alejandro Argumedo

This is a rich example of what is happening in many forests, more and more frequently with climate change. If the forest is lost, lives, cultures and emblematic species are also lost. We could collect information on rituals and community rules in mountains, for a possible publication. At the next site, we'll share reflections and knowledge on our own forests. Women are key users and at the site, we'll discuss and hear more experiences.

Presentation by Kyrgyz team, wild walnut forest. Alan Zulch

4 Session 2: Promoting sustainable livelihoods through conservation of wild walnut forests

4.1 Exchange visit at Arstanbap forestry territory

For Session 2, participants travelled to another site in Arstanbap forestry territory. There they had a further exchange with the Kaba and Arstanbap Ata associations of forest users on promoting sustainable livelihoods through the conservation of wild walnut forest resources and biodiversity; identification and assessment of resources and community-based management of biocultural heritage; and processing and marketing of forest resources. After an introductory session, they worked in country groups to map their own local forest resources and to illustrate and discuss issues relating to forests/farming, gender, culture/traditional knowledge and climate change.

Sherikbai Shaimkulov (Lesik-South): These are natural forests but the walnut trees are all the same age – about 100–250 years ago it was natural. Our ancestors used lots of trees and some of the same methods to conserve the trees. We are trying to recover the walnut forest. Now the average age of the trees is 50–55 years old. Our ancestors told us not to cut the trees or break the branches while harvesting. If we see 10 walnuts on the ground, we leave two or three to grow into new trees. Work in the forest was always community-based work. From year to year, the numbers of people increased, putting more pressure on the forest. Livestock numbers also increased and more people started to cut small trees that locals knew were important for their livelihoods. They needed to manage the forest so they worked together to preserve the walnut trees especially. People try to conserve and protect the forest to satisfy local needs. On this site with trees of the same age, the trees were cut to make guns. These trees grew from roots naturally therefore they are the same age. The density is quite high so the tree canopies are small. Walnut and fruit trees like apples and cherries are very important for livelihoods.

Kenzhebai Osmonkulov (Lesik-South): Planned protection in walnut forests is important due to infestation, which can be seen in the red colour in the landscape. We cannot burn here. The exception is to control pests using fire at night to kill the moths – this is cheap and easy. For the silkworm, we use biological control methods. This is a bottle of natural enemies for the moth –this insect eats other bugs, they are very active and climb trees and eat insects. Another local agent is a virus against silkworm.

Chair of Arstanbap Forest Users Association: The Arstanbap Forest is 35,000 hectares in two divisions. We use bio-agents to control silkworms which eat the leaves; we have different control methods: collecting worms manually, use of fire, and use of insects that eat the larvae. Women are also active – let's have a woman share with us as well; the women use and transform forest products into different biocultural products.

Ms Adalat (representative of women's group): The women collect fruits and nuts; we drive them and make apple powder for tea with herbs. We've done this for three years. Now we have a shop in Arstanbap to sell products and medicinal herbs to pharmacies in Bishkek. We have some problems: we need more drying equipment to extend the work in the community to village level. We also will try to package and sell more. Some years we have lots of apples – we could use them all, but the amount has decreased. The women learnt how to dry them; they plan to use 50 per cent of forest products for drying and packaging. They need consultants, expert equipment and most importantly they need markets. Kyrgyzstan became a member of the Eurasian Economic Union but there are so many requirements to meet for marketing there.

Q: Is it dangerous for you to collect forest products? Are there wild animals?
A: Before it was dangerous but now, no – there's no fodder in the forest so it's safe.

Q: Do you have self-governance? Do you have income from the forest? There are many challenges. Are there benefits too?
A: The forests are state owned. Before 1991, they were managed by the state. The state harvested walnuts and apples and distributed them; there were staff to manage and distribute forest products. Under self-governance we have other staff to manage and distribute them. This also relates to

wild fruits (eg berries, nuts). Before, the state sold products and gave salaries. In 1991 we got independence, and the state had difficulty in managing the forests (there were low incomes and no money). The state rented out land in the forest; the land is leased, not sold, as it is not private. Sites are rented to local people based on established rules and responsibilities for forest enterprises, so tenants must protect forest biodiversity. Tenants can harvest for five years, and this can be renewed for up to 49 years. As you walk around you will see problems of forest degradation and impacts of climate change. Forest associations have a role in changing attitudes. They work with schools and with youth who will be the future users.

Anne Marie Wanamp (**PNG):** I would like to share my experience. In my country we have no walnuts but could implement some ideas. These trees are sacred to all; human longevity depends on them; indigenous peoples are the custodians. In PNG, 8 per cent of land belongs to the government and 92 per cent belongs to the people. It's a small country but rich in oil, gas and gold, therefore the world comes to PNG for its resources. Since the world depends on money, when we sell, we have nothing left. If we do not follow the west with globalisation as a country we might miss out on opportunities to improve our livelihoods. We are pushed to think we need money for everything, therefore, we do not take care of the environment. We must restore what is lost and keep what we have. I work with university students. I teach sociolinguistics and literature. We teach students the importance of knowing their languages. If you speak the language you know who you are; if you lose it, you lose your identity. We have patrilineal and matrilineal societies. We (women's groups) try to feel empowered. Women have a main family farming role. Men help too. The work is divided, agreed and changing for the better in shared work. In PNG, women in business can get loans, for example for developing herbal products. PNG has 876 documented languages and others that are not yet documented. We have a challenge to maintain traditional knowledge in all of these languages. It can be done; the colonisers gave us one language to unite but now there is no national language. I teach in English but we use all three main languages in our country (English, Tok Pisin and Hiri Motu).

Pernilla Malmer (SwedBio): We need to address the **gender** issue. Based on the walk in the walnut forest and the presentations, I see some important threats. One is the tenure system – who is allowed to manage and use the forest and how this affects sustainability. It is interesting to learn about the Soviet system and challenges of renting land, but also about women's work related to caring for herbs, taking care of the poor and vulnerable, and I imagine also taking care of kids. Men also presented techniques for taking care of plants, and about roles and responsibilities in traditional knowledge. We are talking about equity, decolonisation and how to manage the balance between traditional knowledge (TK) and roles and equality. My question to all of you is: how to maintain traditional knowledge and roles for men and women, and to help young people to have expectations in a changing world about equality and choice, and how they are valued. Let's have young people speak about how to balance tradition and gender equality.

4.2 Group work and presentation of maps of forest resources, gender, traditional knowledge and biocultural heritage

Each country group mapped the local forests in their communities to represent their gendered roles and responsibilities within traditional forest and natural resource management systems. They were asked to think about how to create a balance between these roles and gender equality. The participants then formed a circle and each group shared the results.

Thailand: We would like to share our philosophy/local wisdom based on our legend or oral history. The Karen people are a matriarchal society, we believe that we come from *Muf Qa Hklej*, the great grandmother bayan tree, and that all human beings before birth come through the great grandmother bayan tree. She records the lifecycle of people through their skull: how long that human will live, when they will be born, when they will die and when they will come back through the great grandmother bayan tree to report about their lives as humans in the human world. Then when a child is born the father puts the umbilical cord into a bamboo tube shape and ties it to a selected tree around the community or in the umbilical cord forest. In Karen society, women play important roles at family level and also in the farming system, particularly on seeds. The knowledge and practices on seed processes belong to women's role and authority, and women are always active in creating any kind of innovation

on social enterprise from their local products by adding value to products for markets for income generation.

Bhutan: The conservation of forests involves restrictions on their use. The government gives ownership to the communities; therefore, they conserve more actively. We grow a lot of trees in the watershed area, and we have a rule that if you cut one tree, you must plant 10. We practice social forestry, where people all over the country plant trees. In the constitution of Bhutan, we commit to maintaining at least 60 per cent forest cover.

Tajikistan: This beautiful world needs women. A lot of its richness comes from women. They have important roles in farming and conservation of biodiversity. The roles of women and men are listed here:

Women	Men
• Help farming	• Head of family
• Harvest	• Protect and restore forest
• Dry, preserve, process food	• Plough land
• Pass TK on to children	• Establish gardens
• Teach language to children	• Boys learn the TK of their fathers
• Girls learn the TK of their mothers, they learn to respect tradition	• They also learn about markets and managing their land

Kyrgyzstan: Our image shows one family with walnut trees. The whole family helps to care for the walnut trees. The children can help to shake the tree so the walnuts fall and others can harvest them. From our childhood, our parents teach us about walnuts. They teach us to care for the walnuts by following simple rules like ‘no fire’, ‘no axe’, etc. We learn to sort walnuts by size and quality. Higher-quality and larger-sized nuts get more money. We also make many products from walnuts, including noodles, milk and flour.

India: We have used two categories, men/boys and women/girls to show their roles in agriculture:

Women/girls	Men/boys
• Seed conservation	• Rituals and spiritual practices
• Seed sowing	• Planting trees
• TK of seed conservation	• Care for caves and lakes
• Care for health of seeds	

Peru: The priorities for including women in landscape management in the Potato Park are as follows:

- Building women’s capacity, helping to identify new opportunities
- Creating women’s groups/associations to seek economic opportunities together
- Supporting education programmes for women
- Creating bridges between women’s TK and science
- Considering important crops like corn, and creating programmes for gastronomy and nutrition, using TK and science.

Kenya: We analysed the Njamba Mzango group of the Taita community, where the culture is disappearing. Community groups have been formed to promote culture in public events. Traditional culture is also being promoted to students in primary and secondary schools. In this case, to balance gender roles, leadership must be shared between men and women. For example, when the chair of the

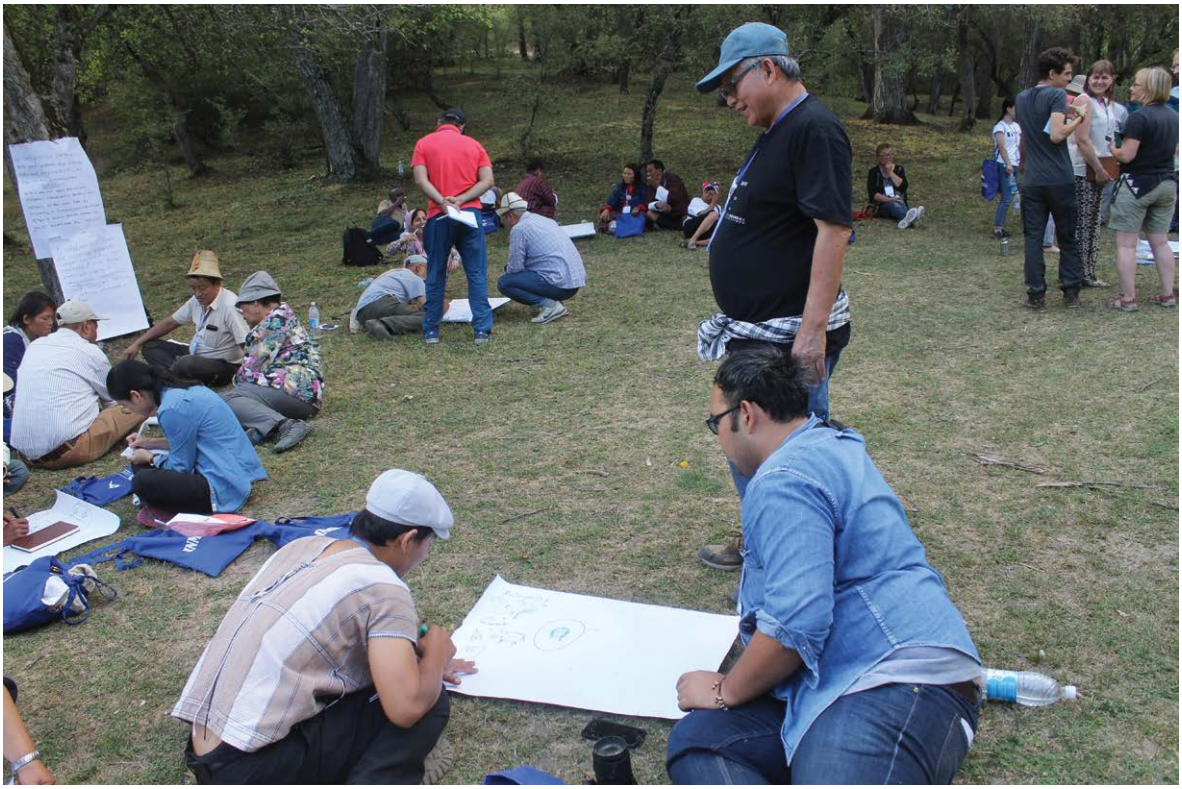
group is a man, the vice chair must be a woman; then the secretary would be a woman, and the vice secretary a man. It is becoming more common in Kenya to seek such gender balance.

China: We have traditional roles for men and women. Men focus on farming and heavy work, while women raise children, cook and take care of livestock. Now there is equal opportunity for education for boys and girls, and both men and women can work and make money. We are losing some TK because women are moving to the cities and not teaching the children and youth. We would like them to come back to the rural areas to teach this important TK.

Taiwan: Our 'gaga' traditional lifestyle is based on hunting and fishing. We are managing change, change in land or economy at the ecosystem level. After the INMIP exchange in Bhutan in 2014, we started working with TK for women farmers, looking for ways to improve and add value, and to resist climate change.

4.3 Session 2 summary by Pernilla Malmer

There were very interesting discussions in the groups. In the presentations we learnt about women and men and that there are different practices around the world. From the Karen in Thailand, we learnt that traditional cultures are not always organised in the same patriarchal system as most other societies. In Kyrgyzstan, the children (girls and boys) are helping with forest resources from a young age. Also, we see that many communities are starting to think about the future, particularly the possibility of organising groups. It seems that this exercise was useful for starting the reflection and discussion on gender issues. We explored the current situation and gendered roles in traditional agricultural and pastoral practices. This is very interesting and should continue, but we should also look beyond the practices of today, and visualise how we will confront the future. A next step in the discussion might be to consider what happens when those lines/roles are blurred? Does it weaken or strengthen TK? Another step would be to look to ways to support gender equality while maintaining TK and practices that we value. Power structures are not necessarily part of the traditional knowledge and practices needed for maintaining customary sustainable use and biocultural heritage.



INMIP country teams mapping their own forests/resources, wild walnut forest. Akylbek Kasymov

5 Session 3: Walking workshop on Organic Aymaks, Taldy Bulak village, Talas Province

Participants travelled by bus to Chychkan Gorge in Jalalabad Province (five hours), where construction of a dam in the 1960s caused massive migration – 14 villages and 22,000 people were displaced. On the bus, participants were asked to think about ideas for the INMIP declaration to submit to the organisers. After lunch, they travelled for a further three hours to Taldy Bulak village in Talas Province, for an exchange on organic farming in a birch forest area. They then travelled to nearby Kopuro Bazar nomadic village, where they were introduced to nomadic culture and discussed the Organic Aymaks concept and how it relates to biocultural heritage territories.

5.1 Exchange visit to discuss Organic Aymaks in Taldy Bulak village

Participants were welcomed by the authorities of Taldy Bulak village and the NGO Bio-KG. The discussions centred on the Organic Aymaks concept, which revolves around a national network of organic *aymaks* (groups of farmers) to develop a self-assessment system for organic farm production quality, productivity and income for local farmers in Kyrgyzstan. The products will be marketed under the brand 'Organic Aymaks'.

Iskender Aidaraliev (NGO Bio-KG and local self-government): I would like to share about garlic growing. The community made a decision based on the climate and river to organise organic crop production and they chose garlic. Welcome to people from far away countries to this first Talas village, at the highest altitude of Talas, 2,300masl. This year in Kyrgyzstan it has been declared the year of development of the regions, and we would like to promote development in our own region through organic garlic production.

A farmer: I have been working for two years. First, we grew radish, also beans and potatoes. This year we began with garlic, using no chemicals, only biological agents to protect the environment and peoples' health. The problem now is how to sell the products in new markets, and to export as well. We have Bio-KG organic certification, so that will be helpful in entering new markets. Here you can see potato fields and garlic fields.

Q: You said your organisation has 12 members. Do you all grow garlic?
A: Yes, we all grow garlic and potato. We participated in exhibitions and fairs for seven years to sell organic products in Bishkek. We are all people who love nature, water and soil. We focus on organic agriculture.

Q: Where do you get the seeds?
A: This 'pink garlic' which came from Europe. It could be from France.

Q: Do you get a good price for your products?
A: The price depends on the market. It's more than for non-organic products. Bio-KG has a good reputation and high demand for its products. The seventh exhibition is being organised and the opinion of organic food, which has a 60 per cent higher price, is growing. There is still demand and sales at the higher price.

Q: Are you planning to export to other countries?
A: Yes. First, we will export to Russia. Moscow will buy 300 tonnes of our product.

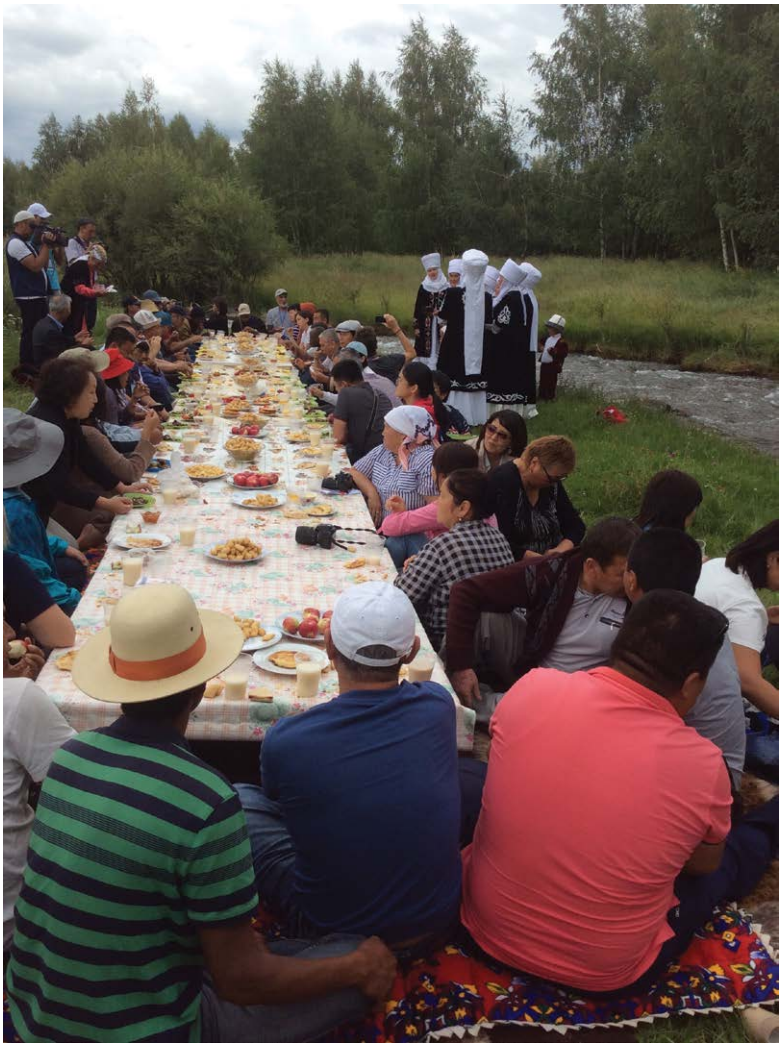
Q: What is the yield difference between organic and non-organic garlic? And why?
A: The organic yield is higher, probably because we use only organic fertilisers. We are only growing organic in this area, so the comparison is with other sites where they grow non-organic.

Q: What are the main potato diseases?
A: This is high altitude so there are few pests. We use compost, biogas, and organic fertiliser they bring from Korea and Russia. Garlic is good protection for children passing high-altitude zones, when tied around their neck, so they breathe it in.

5.2 Exchange visit to Kopuro Bazar village and introduction to the Organic Aymaks concept

INMIP participants were welcomed with music by a women's group, and Kyrgyz bread and butter. They entered a portable yurt made of sheep's wool, used by nomadic peoples. As the owner of the yurt explained, 'The yurt can be put on a horse or camel to move from place to place. A group of young men can set it up in a short time, maybe 30 minutes or one hour. As our people were nomadic, we lived in such yurts. Now we use them only for three seasons, and not in winter. This yurt is a "common" one, not as luxurious as one for special occasions or special guests.'

Participants had a meal beside the river: fermented horse milk (*kymyz*), tea, breads and pastries, butter, honey, cheese balls, sheep meat – all organic. Women sang accompanied by the Kyrgyz instrument *comus*. This was then followed by speeches from local authorities.



Lunch by the river. Tammy Stenner

Iskender Aidaraliev (Bio-KG and local self-government): A governor came for this event, we work together with Bio-KG to sell garlic to other countries. He will speak now and give some background on the area, the local self-governance structure, and traditional knowledge.

Governor of Talas Province: I would like to remind you that it is the year of development of the regions in Kyrgyzstan, and the village has agreed to work on that, and to work with Bio-KG. I have seen some of this activity. We will focus more on organic development, and also do organic work in neighbouring

areas. We have problems with livestock and milk production so we will try new products; we will support Bio-KG organic production.

Akylbek Kasamov (Bio-Muras): I would like to mention our workshop. It began the 26th July. First, we saw walnut forest management, and also issues related to children and youth, now we came to learn about Organic Aymaks activity.

Alejandro Argumedo (INMIP Coordinator, Peru): We are here as representatives of 10 countries; we are indigenous peoples from mountain areas. We have representatives of three agencies that support our network here. For indigenous peoples, this exchange is very important. All over the world, we are seeing fast changes – globalisation, climate change, cultural change. We know what defines indigenous peoples is their traditional lifestyles, associated to the territories where they live. So, we are very happy to be in this country with thousands of years of nomadic culture using the landscape, especially pastures. In our countries we all work at the landscape level; we are all facing similar challenges. We are excited to learn from the experience of your Organic Aymaks. We want to learn how through the aymak*s* you can preserve the nomadic life. We can see how the biocultural heritage of Kyrgyzstan and nomadic culture can come together to protect this rich culture. In Peru, we have a 10,000-year history of traditional agriculture, but we still have many challenges to protect our crops. Sometimes we forget to look at the whole landscape. This network focuses on how to manage landscapes and protect cultures; and also, how the role of women is affected by such changes and how to protect them.

We understand the Organic Aymaks concept as a biocultural heritage territory (BCHT) to protect traditional knowledge and ways of life, along with ecosystem goods and services like water. We need sustainable development to be coordinated with communities and with government institutions and international institutions. We can use culture to promote sustainable development. Our vision is to establish a network of BCHT sites to share experiences about how to manage and establish such sites. We are excited to learn from the experience of Bio-KG tomorrow, when we will see fields and farming practices.

Sarygulov Sultan (Bio-KG): We will explain the Organic Aymaks concept tomorrow. We are reminded to use the advice of our ancestors, for example, do not cut a single tree, do not cut the flowers. Kyrgyz people are nomadic, moving from place to place, staying for a maximum of one to one-and-a-half months at a time. We work mainly with animals, and move to let the grasses recover, to not destroy a grazing area.

Thinking about economic development we've begun to forget the traditional knowledge of our ancestors. Kyrgyz people consider three things: the environment, the economy and our consciousness or hearts – like a triangle. We're forgetting two of them, as only the economy is on our minds. Therefore, we developed a model to include all three things, the Organic Aymaks .

The first objective is to keep traditions being transferred from generation to generation, not to forget our valuable culture. A second objective is to protect the environment, to keep it clean, not contaminated. The third is for people to be clean in their hearts. We mainly do farming and promote organic production. Here we promote organic agriculture in some places and also do organic livestock production. If we deal with organic agriculture we should be certified. We are using all organic production and we will try to transfer this knowledge to our children.

5.3 Session 3 summary

The day ended with a cultural exchange involving a demonstration of nomad games: archery and falconry; a Manas poem recital by three generations (see Box 2), songs and dances; a demonstration of wrapping a woman's headdress with 40 metres of fabric, which formerly had multiple uses (for injuries, birth and death); food in yurts and homestay with families.

Box 2. The Manas epic poem of Kyrgyzstan

The epic of poem Manas is perhaps the most famous part of Kyrgyz culture, and is (arguably) the longest poem in the world. At 20 times longer than the Odyssey, this epic tells of the life of Manas, an epic warrior, and his son and grandson. The original tale was passed orally from performer to performer, who were known as *manaschi*. The tale was written down starting in the 1800s, and the first complete version was published in the 1920s. It has since been translated into many different languages, and published in the Soviet Union and abroad.

The poem starts with Manas, a warrior reputedly born in Talas Region. His efforts to unite warring tribes and create a homeland for his people form the centre of the tale. Kanykei, his wise and noble wife from Samarkand, and Bakai, his counsellor, are also main characters of the tale. The second and third parts of the tale follow Semetei, his son, and Seitek, his grandson, in their battles. There is a mausoleum in Talas that supposedly holds the remains of Manas. During renovations in 1969, the skeleton of a man was found inside, though the inscription on the outside says that the mausoleum is for a woman. In the Epic of Manas, his wife Kanykei and counsellor Bakai decide to bury Manas in a tomb with somebody else's name on the front, well aware of the practice of the time of destroying all records of one's foes. Putting another name on the tomb would ensure that it would survive Manas's enemies.

No matter if Manas was an actual person or not, his influence on modern Kyrgyzstan has been immense. The national flag features 40 rays of sun, which represent the 40 tribes that Manas united as the first Kyrgyz state. There are landmarks across Kyrgyzstan named after Manas, from Manas International Airport and Manas Prospect to Kyrgyz-Turkish Manas University, all in Bishkek. Manas Peak, at 4,482m is the highest peak in the Talas Range, and 3349 Manas is a minor planet discovered by a Soviet astronomer in 1979. Statues of Manas can be found across the country. There is a statue of Manas on his magical horse, slaying a dragon, in front of the state philharmonic hall in Bishkek. Surrounding the statue are busts of Kanykei and Bakai, as well as some of the most famous *manaschi*.

Inside a yurt, Suusamyr pasture. Tammy Stenner

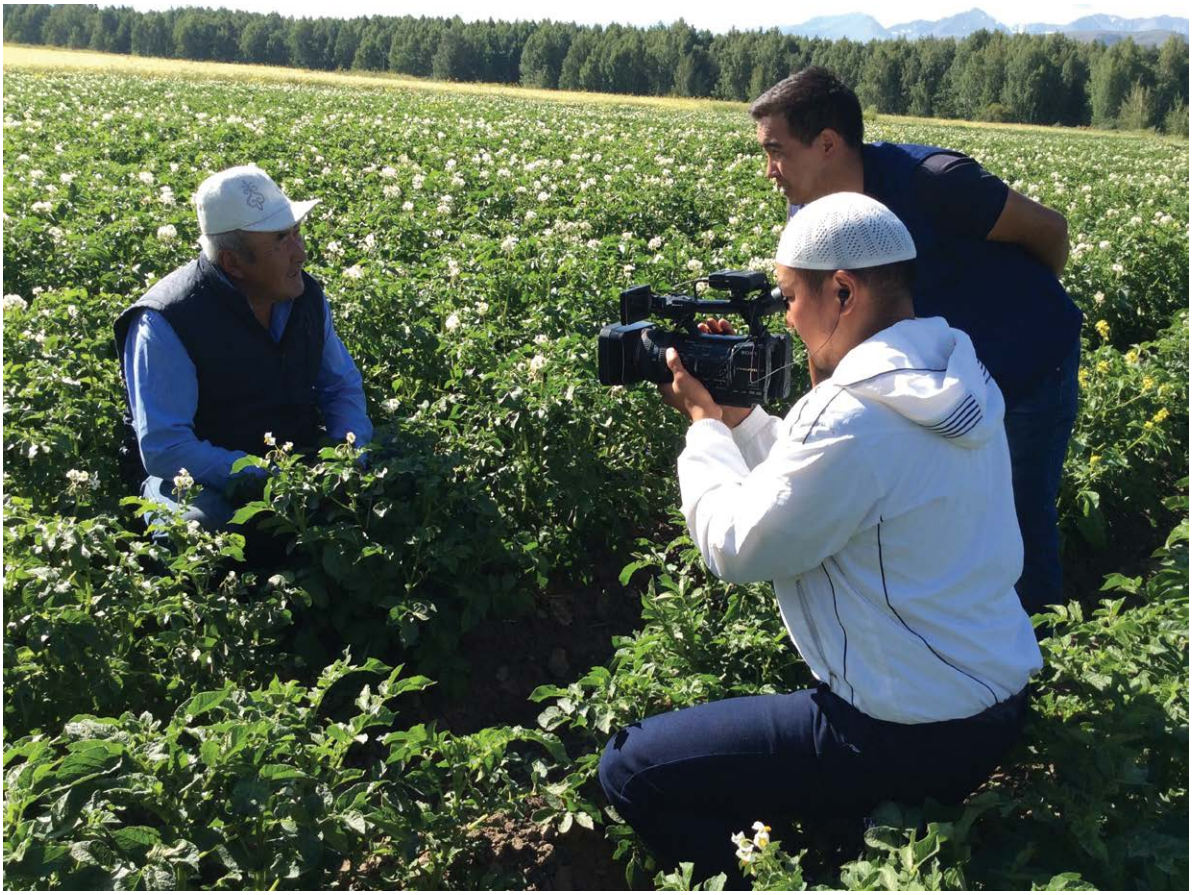
6 Session 4: Walking workshop on Organic Aymaks, Kuporo Bazar village, Talas Province

6.1 Exchange visit at Site 1 beside potato and barley fields

Iskender Aidaraliev (Bio-KG): Yesterday we met the governor of Talas Province and today we have three district administrative heads from Talas Province and Bio-KG representatives to share with and learn from together. They all show they are willing to work with organic production, and we hope the whole province will begin to do organic production.

Community representative: The activities we do are challenging, we do all organic production, and also care for the birch forest. The birch trees were planted 50 years ago. Now we are trying to care for them.

Mr Muktarov (leader of the farmers' group): Welcome to Talas. Our group formed six years ago and was called the 'Ken' community; it was an organic farming community. We want to produce ecologically friendly crops. We would like to present our community: we are 10 people, and last year we grew potatoes. We gave 1 tonne to the kindergarten and 1 tonne to the school. We give potato seeds for free to poor people. We also produce barley. We use crop rotation to have good healthy yields. Look at the field – it's divided into parts. One is barley, the next is potato, and there is also clover, which is good for organic agriculture. We also organise training activities for farmers in the communities with different types of specialists, like agronomists. In the Soviet time, we used lots of chemicals, but it destroyed the soil. The soil became like a drug addict, needing more and more fertiliser. Now we use organic, healthy methods, and we are restoring the land with Organic Aymaks.



Interview at potato field. Tammy Stenner

Q: Why did you change to organic?
A: In Soviet times, collective farms were managed by specialists with the same crop grown at the same time, with chemicals. We wanted to restore the land, to have quality products, especially for children and youth.

Mr Sultan Sarygulov (coordinator of Organic Aymaks, Bio-KG): When we thought about organic production, we sought other models; there are many organic projects in Kyrgyzstan, but some were one sided – focused only on production or only on processing. A multi-sided approach to nature is better, as nature is holistic. We need not only innovations, but also traditions – both are important for our organisation and for sustainable production. In Kyrgyzstan, many projects and donors do not support multiple approaches. The Christensen Fund has supported us for five years, in organic production using traditional knowledge and innovations.

6.2 Exchange visit at Site 2 in potato field and discussion on clean seeds

The potato was bought from Kochkor district where a farmer produces *in vitro* seeds with the agrarian university and Bio-KG. We went to Kochkor to bring clean (ie disease-free) potato seeds. We are growing these for the third year and trying to increase our yield. We distributed seed potatoes to the poor and to schools (not eating potatoes). We are five growers now.

6.3 Exchange visit at Site 3: discussion on potato pests

Colorado beetles on potato plants sparked a spontaneous discussion around pest migration and pest control. Hand collection of pests is commonly done in the community. Organic pesticides are used and they want to purchase organic pesticides from the Ministry of Agriculture; however, first they will increase the plants' immunity. Potato seeds are also prepared or treated ahead of planting time for resistance. The beetle is not a problem at higher altitudes. We also received biological pesticides from Russia, Sweden and Korea.

Q: how long have you had the problem with the Colorado beetle?
A: For 25 years – since the seed was imported from Europe.

6.4 Community mapping exercise: relating territories to Organic Aymaks

Akylbek Kasymov and Alejandro Argumedo: After learning about Organic Aymaks from our hosts, we will now do some mapping to share and exchange knowledge and connect this to biocultural heritage. In Cusco we mapped our territories. Now we can add the element of pastoralism. We can use the Organic Aymaks concept to guide the mapping: it provides the key elements. We're giving you a paper and markers to represent your territory and how it relates to Organic Aymaks.

Sultan Sarygulov (coordinator of Organic Aymaks, Bio-KG): Here are five guiding elements that the Organic Aymaks bring together:

- Conservation of traditional knowledge and cultural and spiritual values.
- Agroecological food production especially organic and chemical free.
- Enhancing livelihoods through agriculture and pastoralism, while valuing health and landscapes.
- Ecosystem goods and services for managing landscapes.
- How to coordinate from local to national and international (CBD, UNFCCC, INMIP) – which form will we use to transmit work and communicate our findings?

We can also address gender as a cross-cutting issue, to follow-up on the previous discussion.

Kyrgyzstan: We learn in our culture that we are part of nature; we are like a child of nature. This peculiarity of Kyrgyz culture means we must take care of nature, soil, water etc. Our ancestors teach children how to care for nature. When Kyrgyz people think about the consequences for nature now and for the next generation, there are six guiding principles that direct our relationship with natural

resources. It starts with forming a positive relationship. There must be rational use, with what is now known as ecosystem approaches. Also, as nomadic/pastoral people, we rotate fields and use pastures seasonally. Life is changing. We used to make fire from wood, now we use solar and other renewable resources. Whereas we once only had livestock, now we also use some farming techniques. We learnt this from the Russians who came and also from the internet. We received support from Kenya, China, South Korea and others. Now we use crop rotation, not to deplete the soil. This leaves all living things in good condition.

In terms of gender, we never put pressure on women, and never discriminate against them.

Q: Do you have any rituals with nature?
A: We had a lot of rituals relating to nature; now we have less. When we go to the mountain or forest, we must give thanks. There are also sacred sites and rocks. We perform a ritual before ploughing. When we sow, we always leave some seeds for the birds. We give thanks for the harvest. Another example is that when wolves come in the snow, Kyrgyz people think about their needs – they allow the wolves to eat some sheep. We give thanks for everything.

Q: Are there any customary laws?
A: Relations among Kyrgyz people are based on customary laws. Our traditional leaders give us advice.

Taiwan: We have two cases to present – both led by women in the tribe:

1. Due to reconstruction after the damage by a typhoon, women came back and applied their TK for restoration of their homeland. '*Usulu*' means women's field; '*doona domu*' means elders' field. Both types of fields were damaged in the typhoon. After the exchange in Bhutan, we led women back to implement organic agriculture with traditional crops. TK is important for conservation and for restoration. Thanks to INMIP, we got a lot of inspiration, support and encouragement, which is important to our work in Taiwan. We plan to implement innovations including solar energy.

2. Millet is a traditional staple but it was lost for over 30 years. Women brought millet back. We have seen organic farming with potato, and inspired by the Potato Park visit, Pagung revived millet growing in her community. The restoration is linked to traditional culture, and brings people back to a vision of a shared economy. Over 30 varieties of millet were restored to the tribe. We also hosted TCF's regional representative Kyra from the USA to see our work.

Q: How does this work link to the Organic Aymaks of Kyrgyzstan?
A: We saw garlic farming, which is new here. We also introduced some new crops, but this may destroy TK and rituals. Now as we think about introducing new products into our culture, this is an important process.

Q: How did you convince people to return after the typhoon, and to restore millet cultivation? How did you decide what kind of TK to use?
A: One key crop was millet. We invited people to come and grow millet. Old people volunteered to do it. They linked it to rituals and TK; it was a way to heal the land and heal the people.

China: Pumpkin is a traditional crop in China. First, we must recognise the shapes of pumpkin. Second, we select and preserve seeds before the winter. We use TK to select good quality seeds. We do not wash the seeds before storing them. Third is the cropping. We must know where to grow, high or low land. Normally we use mixed cropping, especially on the margins of the fields. We use terrace agriculture. We put corn in the middle and pumpkin on the edges. Next is knowing when to grow. We also examine each plant to select the best ones and save their seeds. When we weed the fields, we spread the weeds there to act as fertiliser. Finally, we harvest, not only for our own household, but for sharing. We save some for the poor and for festivals. Everyone knows who grew the best pumpkins and will ask them for seeds.

Q: We see how many communities relate to land through crops, considering altitudinal ranges and social networks. How does this link to the Organic Aymaks?
A: From here we are learning about ecological practices. Our pumpkin is also natural. There must be other TK on pests. We would need to find other animals that would help with that. We need to study more.

Bhutan: The village known as Buli has 28 farmers and one man is the leader. They cultivate traditional crops. They have a community seed bank for 14 crops. Due to climate change and development, traditional crops are being lost. We are re-focusing on traditional crops now. Through rituals and ceremonies, we must pray at the temple for rainfall or not to have pests. There is a lake in the village that no one touches for two months each year. There are also limits on forest use to protect the forest. We also have livestock and terraced agriculture. The government gave us free electric fencing to protect our crops. We do not use chemical fertilisers. To deter beetles, we use a mixture of chili, garlic and cattle urine fermented for a week. The strong smell of this mixture keeps beetles away. All of Bhutan practices organic agriculture.

Q: What per centage of production is exported?
A: Only a few crops such as potato and asparagus, and recently garlic, are exported. We do not have certification, and we hope to correct this to be able to expand our exports.

Q: Do you have rituals in your communities in Bhutan?
A: Before planting and in times of drought we have rituals. The farmers go to the temple to pray, and may also carry the prayer book around the community. This can help to bring rain.

Q: What is the picture in relation to gender issues?
A: There are 28 women community members participating in the programme, and there is one man who is leader.

Q: Why is the leader of a women's group a man?
A: The women do not like to take this role, so they selected a man to be leader.

Kenya: This is a case study from our landscape. There are several mountains with indigenous forests at the top and lots of birds. One species of bird is only found here and it is endangered. Below there are fruit trees, berries and wild mushrooms. There are also sacred sites for rituals, and prayers for rain or a good harvest. At the foot of mountains are the crops like maize and indigenous vegetables (cowpea), fruit trees. Urban centres below the forests go all the way to the Indian ocean. Forests are also catchment areas. The rivers are connected to lowlands which are very dry. It is mainly pastoralist here, with camels, sheep, goats, so it is interconnected to the highlands. The lower part is also connected to one of the largest national parks in the world (Tsavo East and West National Parks). The farming system is mainly organic. We use livestock and poultry manure for fertiliser. We have irrigation along the rivers, especially in the dry lowlands. Farming, livestock and tourism and the most important economic activities. Men's roles are livestock, building and rituals. Women's roles are farming, crafts, water and collecting fuel. We have a devolved system of government where local governments link to the national government. This area is rich in tourism because it connects mountains to the ocean. It also has a role in fisheries.

Q: How is this connected to the Organic Aymaks model?
A: It is also organic, and uses manure. But in some ways, it is the opposite of Organic Aymaks: pastoralism is in the lower part, and agriculture in the high part, which is wetter.

Q: How do you coordinate different activities at different levels in Kenya?
A: There are 47 county governors and regional governors. The law allows for participation at different levels, both at county and national level. We are now working on climate change financing through a very bottom-up approach.

Q: Is there a law on organic agriculture in Kenya?
A: There is a general law from a long time ago, but it does not specifically address organic agriculture.

Q: Which countries have a law on organic agriculture?
A: Peru, Bhutan, Taiwan, China and Sikkim State in India.

Yi-Ren (Taiwan): Organic farming is booming and heavily promoted, but the problem is that the products must be examined by the government, at a high cost to the farmer. Natural farming is a good alternative, and this includes indigenous peoples' farming.

Alejandro (Peru): The FAO system promotes agroecology. There are problems with organic, as it can be monoculture, industrial production. Therefore, we should look to alternatives like agroecology, including TK-based and cultural knowledge and practices.

Peru: The four pillars of Organic Aymaks are important for us. Our ancestors left us this drawing, the Santa Cruz Pachacuti. It has three parts representing three worlds: the upper, the middle and the lower worlds. These also represent three realms or '*ayllus*': the *runa*, *sallqa* and *auki ayllus*. Cultural and spiritual values and customary laws are part of *auki*. Ecosystem goods and services, like wetlands, animals, forests are *sallqa*. Gender is represented as duality in the drawing, day/night. Even our hands and feet come in pairs. All landscape management is based on duality. In the lower part you see our livelihood activities, organic production and micro-enterprises. We take local, national and international approaches to policy, linking to FAO, CBD, UNFCCC and national certification/recognition. Kyrgyzstan has good experience on certification. In the Potato Park we can learn from the Kyrgyzstan experience, both positive and negative. Pests coming from the outside are difficult to control, as we do not have TK for them. In the Potato Park, we have potato weevils – we use biological control or manual removal. We also use chickens to eat pests. The Potato Park has been sharing seeds through the International Potato Center (CIP) and the International Treaty.

Q: On duality and gender, to what extent are power structures a part of culture? What can be changed? For example, in Bhutan there is a group of 28 women with a man as leader – perhaps that is not part of culture but rather about power distribution?

Alejandro (Peru): In the Potato Park, we learn from our ancestors to work together, men and women. Sometimes women are community leaders. We also have heads of households who are women. We should expand this, especially where leadership is mainly men. Both should be involved in all integrated management of the territory and governance.

Q: How can we in Bhutan get good potato seeds from Peru?
A (Alejandro): Bhutan and Peru signed an agreement with CIP. The seeds are being prepared. The seeds and their passports will go to the FAO, then to the farmers.

India: Our communities are in the eastern Himalayas, near China. Sikkim and our area now do not have pasture land. This land is owned by the government and was converted to conservation areas. We have our spiritual practices and we believe we are the sons and daughters of the mountains. Our ancestors are mountains. Therefore, people worship the mountains, lakes and caves. In the upper part you see the sacred forest. All spiritual values come from TK and our ancestors. Related to customary law, which is very strong, women conserve much of it, often through women's groups. There are various self-help groups for mothers, married women, unmarried women, young women, etc. How to manage these groups?

Mayal Lepcha (Lepcha woman): There are many mothers' groups in our communities. There are 1,200 mother's groups and self-help groups. Each group has about 10 people and they have four meetings per month. Two weeks per month are focused on TK and culture, and two weeks are about social and economic issues. For women a main role is motherhood. They are also involved in a system of microfinance (an internal lending system for small loans). We do organic production. We have livestock, so we also use cow urine. We mix one-part urine with 10 parts water and spray the mixture on crops to deter pests. A mothers' group began with general discussions and grew to different groups with different concerns.

Thailand: In agriculture in Thailand, we consider spirituality at the level of ecosystems. Our ancestors told us how to care for what we use, including the forest, water, the queen of nature, our grandmother. We want to go further than organic. We have socioecological agriculture. It follows a fallow system of rotation. It takes 7 to 10 years for fields to come back. Grazing pastures must recover well. We allow grazing in fallow lands, along with beekeeping. With rotation, we have a natural seed bank. We have innovation in the process, to create an integrated, rotational, seasonal and organic farming and agroforestry system, with incomes from tea, coffee, bamboo. Forests are classified by TK for use as sacred sites, agroforestry, or watershed maintenance.

We use the analogy of the rich but lazy man, using modern varieties and planting according to season. We can have pride, teach our children, stay in the community. Indigenous youth in Thailand have a situation where the young study and work in the cities and often don't come back to the communities. Innovation can create pride in identity. Here is an example with a social enterprise for youth based on non-timber forest products (NTFPs) and marketing. Youth are important, as they are the future. What kinds of innovations do we have? We have social enterprises for tea and honey to bring people to the

village and the countryside. The youth contribute in marketing and use of technology. They can develop their forest products to communicate and share with the urban population.

Tajikistan: We will share examples from two places. The first is in Bartang Valley, in the Pamir Mountains, Eastern Tajikistan. It is a traditional community in a valley that is surrounded by high mountains on all sides. The territory has three parts: the upper pasture and grazing lands, the middle and the downstream part. The upper part has sacred places, and the 71km Lake Sarez, at 3,700masl. The lowest part of the area is 1,800m and the highest is more than 4,000m. The TK of the place is used and maintained traditionally. Farmers in the region lost local wheat, but this community kept the local wheat varieties. Now they share it with the other communities. The local wheat is well adapted to the local climate and growing conditions. We produce wheat and beans for porridge, a very popular dish in the capital and other places. On gender issues, men and women are equal in the communities. Men produce wheat, women clean the seeds. If the family has one son and one daughter, and there is only enough money for one person to study, they would choose the girl because she is the future mother and keeper of TK.

Abduvohid will describe the other case. In 1970, there were 4,000 internally displaced people living there. After independence, people were returning to their homeland. Now there are 485 people from 78 families living there. With TCF support, they are trying to reconnect to the motherland. They have been working for nine years on this, and there is much more to do. The area is 2,200–4,000masl. A government decision established the area as a specially protected territory of 2,300 hectares. The culture, language and biodiversity of legumes are being protected. A rotation system is used for potatoes. The seeds were brought from another area. They are supposed to be organic, but all of our production is natural and organic, so we do not have a special word for that. We keep the language and culture alive.

Mirsoshoh Akobirov: Potato is grown in all mountain areas in Tajikistan, and the Colorado beetle is a problem for everyone also here. I am not sure if it is possible to fight it. The bugs bury themselves deep in winter so the chemicals do not make contact with or kill them when they are buried. One solution was discovered accidentally. A bird called *sarsakach*, which is like a chicken, eats the pests. We recommend two chickens for each 1/5 hectare. Where chemicals did not work, the chickens did.

6.5 Community mapping exercise synthesis and reflections

Alejandro Argumedo: We have seen how we all perceive landscapes with specific names for our landscapes, rivers, sacred sites, etc. We are learning from each other how we manage our landscapes, territories and resources, and how these come together in a system. We have seen how we can manage biocultural landscapes with planning tools like ecological planning, biospheres or national parks. To establish biocultural heritage territories, what do we need to do, how can we bring together our experiences into a single framework? Tomorrow we will talk more about food neighbourhoods.

Reflections from Marie Laure: I come from ICOMOS, which is generally associated with tools used to manage world cultural heritage sites and natural sites. After listening to the presentations, I think maybe these two categories of cultural and natural sites should be suppressed, as I hear from presenters that the two categories are connected, linked in a more holistic approach. The relationship with innovation and change is challenging for conservation, as it is focused on maintenance rather than change. Some think that ‘change’ takes us away from authenticity. What can be done? I have heard here about a peaceful relationship with change. For example, farmers carry out manual fertilisation of crops as an innovative strategy for maintaining diversity. Classical conservation has a lot to learn from biocultural practices, and could evolve to something more like dynamic conservation.

7 Session 5: Walking workshop on pasture use and management

After lunch in yurts in the birch forest and nomadic horse games (youth trying to pull each other off horses), participants travelled to Suusamyr Valley (three hours). In the evening, participants had dinner, storytelling and songs in yurts.

7.1 Exchange visit to Shorgo pastures, Suusamyr Valley

Participants were welcomed to the Shorgo pastures in Suusamyr Valley, Chuy Province, northern Kyrgyzstan, for an exchange on traditional knowledge of pasture use and pasture management in conditions of climate change, and to get a taste of nomadic Kyrgyz culture, by spending time at a summer camp and sleeping in yurts. After a round of introductions, they received words of welcome from a specialist in capacity building and monitoring of pastures from the National Pasture Users Association of Kyrgyzstan, a professor at Turkish Manas University in Kyrgyzstan, a representative from the Association of Suusamyr Pasture Users, a representative from a nearby village, and the village head. This was followed by a masterclass on nomadic cooking (fried bread making).

Discussions on pasture use and management

Head of Pasture Users Association: Pasture committees are intended to prevent conflicts related to pastures. Up to 2009, we used a 'ranging out' system, but it did not suit our country. Much of the population lives in rural areas and uses pasture lands. After the collapse of the Soviet Union, we were less organised, the rich took the better lands and other areas were depleted. Therefore, in 2009, a national pasture law was adopted to prevent degradation and increase incomes in rural areas.

Pastures are state property and cannot be rented out or owned by anyone. Each local area has local self-government, including a pasture manager. The use of the pastures is determined through the Pasture Users Association. All inhabitants are members of the association. They plan pasture use by season, register the number of livestock, and plan management of the pastures and improvements of the roads, bridges and other infrastructure.

If sites are degraded, they are left for 2–3 years. The Kyrgyz law on pastures was highly supported by international bodies, including the World Bank, International Fund for Agricultural Development (IFAD) and donor agencies. The funds received by the National Pasture Users Association of Kyrgyzstan for pasture improvement were used on roads, and also to buy equipment that all members will have access to. Neighbouring countries are copying the Kyrgyz model (Tajikistan, Uzbekistan). There are also legal and regulatory acts to protect forest users at the national level. As a member of an association of land users, I visited Mongolia to share information on our pasture law.

Q: How much do members of the pasture association pay?
A: Users pay membership fees, depending on the number of livestock they have. The total budget is made considering the plans for improvements in any given year, and salaries of association staff. The users generally pay about US$1.50 per animal unit (one animal unit is one horse or five sheep). The six local villages have a total of about 7,500 people. In an area of 95,000 hectares of pastures, they raise about 35,000 sheep and goats (equivalent to 7,000 animal units), 5,000 horses and 5,000 cattle (a total of 17,000 animal units x US$1.50). One committee is usually about 15–20 people. There are 454 pasture committees.

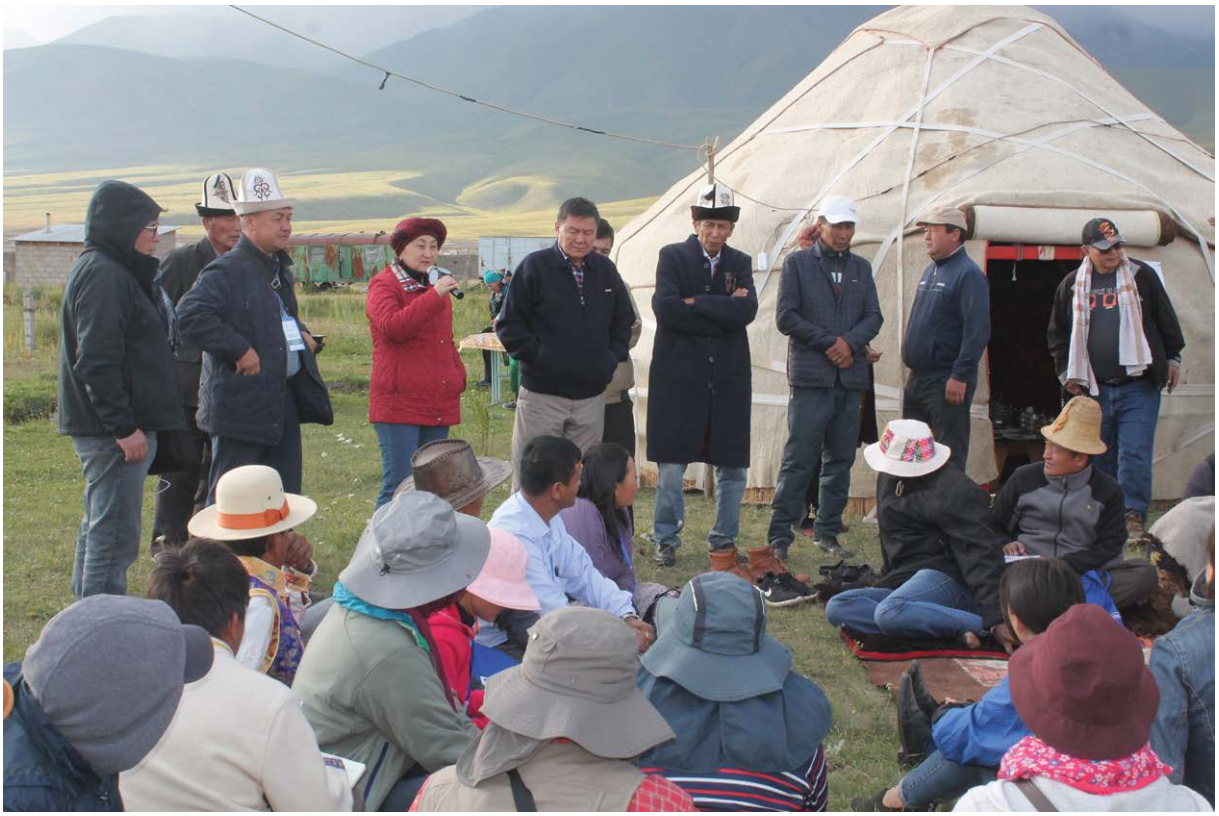
Q: Are there women chairs too?
A: All the chairs are men, but all have women accountants. These two roles are paid. The rest of members are volunteers. The national pasture law establishes the rules for each committee and registers them. The pasture committee works closely with local self-government offices.

Q: Are there other activities in pasture areas, such as mining or other resources? If so, how are these managed?
A: Kyrgyzstan has valued metals including gold. Before there was uncontrolled mining activity, but now there is close cooperation between mining companies and the pasture committees. Unfortunately, we cannot stop some activities. The land belongs to the government, who also issues the licenses for mining. We cannot do anything about it. After mining takes place in an area, we demand to be able to recultivate it.

There are 3.8 million hectares of pasture land in Kyrgyzstan and summer grazing on slopes. There were lots of livestock in Soviet times. Currently, there are 7 million sheep, 1.5 million cattle and 600,000 horses. The condition of the pastures is OK, but some are degraded and will be left to rest for a couple of years.

Q: What kinds of livestock do you have in Kenya and how are they managed?
A: We have rangeland for pastoralists, with traditional cattle breeds, who move around to allow land to recover between uses.

Head of Pasture Users Association: Here pasture is part of the national wealth: 70 per cent of the population lives from pastures. We have pasture user associations at the national level. Therefore, it gives us the possibility to protect the rights of pasture users.



Exchange with pasture users at Shorgo pastures, Suusamyr Valley. Akylbek Kasymov

8 Session 6: Visioning food systems for 2050 and food neighbourhoods

8.1 Remembrance ceremony

In the morning, a remembrance ceremony was held up the mountain near the camp.

Alejandro Argumedo: We are on sacred land with thousands of years of history. The nomadic peoples are perhaps the oldest peoples in the world. We are connected to our ancestors, our lands. Thinking of past and future, we will have a remembrance ceremony. A host elder will lead us in a prayer to remember Taghi Farvar and others we have recently lost.[7]

8.2 Visioning food systems for 2050 and food neighbourhoods

Alejandro Argumedo: INMIP has accumulated useful experience over the past five years in different sites, related to landscape knowledge and perceptions, norms and practices. These elements link us together as mountain indigenous peoples. I would like to discuss with you the development of a programme based on a vision of food systems for 2050.

Our experience of biocultural elements/units provides an organic, holistic approach. We have identified five key elements of a biocultural landscape, based on the Organic Aymaks concept:

- Traditional knowledge, practices, cultural and spiritual values
- Food production (agroecological)
- Innovation and livelihoods
- Ecosystem goods and services
- Local–global links (linking local knowledge and perceptions to national and international policy processes, and participation in networks)
- In addition, gender is an important transversal theme.

How does INMIP move into the future? The concept of **food neighbourhoods** is one way. Why neighbourhoods?

- They are made up of a close community: crops live in neighbourhoods and people live in neighbourhoods.
- There are different types of activities, but all linked to the place.
- Food is rooted in social and cultural practices.
- Territories define the neighbourhood.

We can develop the concept further as a network, applying a global vision, while respecting the specificities of each place. It gives us a clear vision/framework for future monitoring of implementation. One idea is to develop a joint proposal under the INMIP umbrella. It would use a consensual approach to implement it in each community/country. As coordinator of INMIP, I have been exploring how to move the network forward. With the Global Crop Diversity Trust, there was a discussion under the Consultative Group on International Agricultural Research (CGIAR) centres in Bonn about the conservation of genetic resources. However, the practice is quite weak on in situ conservation and they are interested in a collaboration on some aspects of this work.

7 Dr Mohammad Taghi Farvar was the son of Shahsevan indigenous nomadic tribe pastoralists in Iranian Azerbaijan. Taghi was twice chair of the IUCN CEESP (International Union for Conservation of Nature's Commission on Environmental, Economic and Social Policy) and dedicated his life to the recognition and support of indigenous and community conserved areas (ICCAs). He died 16 July 2018. http://bit.ly/2SOIOhk

Walk to the visioning session, Suusamyr pasture. Tammy Stenner

In each country in INMIP, we have a relationship to crops in centres of origin/domestication. Not only plants are domesticated, but also animals. Here is Kyrgyzstan, alfalfa is an important crop and is an indication of the importance of pastoralism. In this context, pastures play an important role in ecosystem goods and services. Similarly, the potato in Peru, wheat in the Pamirs and millet in Taiwan are important foods in our respective food neighbourhoods (FNs), linking people, crops, animals and culture. Each site should select an emblematic species, providing the focus that defines the neighbourhood.

I propose we work together to further develop the concept systematically. We have mentioned five key elements, but this could change. This will also help us to assess the implementation of FNs, and provide a vision for the future of food systems, low carbon economies, sustainable development, farmers' rights, human rights and the rights of indigenous peoples. We could also use this framework to implement international agreements.

Related to our future work, I would like to mention the **Global Alliance for the Future of Food**, a platform that has made a call for visioning Food Systems for 2050.[8] This is in response to the current globalised food system paradigm, industrial production and intellectual property rights regimes where benefits flow to a few companies. The Global Alliance is promoting agroecology approaches and will include diverse actors in the visioning process.

Asociación ANDES joined other partners in presenting a proposal to participate in the visioning. Of the 300 entries, five were selected. Our proposal with the Global Crop Diversity Trust and International Centre for Tropical Agriculture (CIAT) was selected. Having spoken with the partners about the FN concept, our visioning will focus on that. It must include the agroecological approach, and it must be a diverse group participating in the process. INMIP has diverse actors, all united in our concern for

8 See https://futureoffood.org

protecting our biocultural heritage and our pride in that heritage. In summary, we have two potential actions to do, together:

- One is the 2050 food systems visioning exercise.
- The other is the implementation of FN in each country.
- A third possible activity is a seed meeting in Oaxaca, Mexico in October.

Alan Zulch (Tamalpais Trust): While I am not currently involved in the Global Alliance for the Future of Food, I was closely involved in its first three years and can speak a bit about this. It is a global alliance of 25 funding agencies from North America and Europe, ranging in size and mission, from small programme organisations to the Gates Foundation. They are looking for ideas. It is easy to think that the rich and powerful know what to do, but they don't. This INMIP group could influence a significant amount of funding, but the Global Alliance members are smart people, so this needs to be done right. The possibilities are there, if we can anchor the vision in something concrete (ie food systems).

Head of Pasture Users Association (Kyrgyzstan): I have received a lot of information I like about this organisation. Every country has important or fundamental resources for food and livelihoods. On the basis of the resources from each country, we should unite and work together at the international level to influence big organisations and funders. The population is increasing and food security is an important issue. Therefore, the vision for 2050 is a good idea.

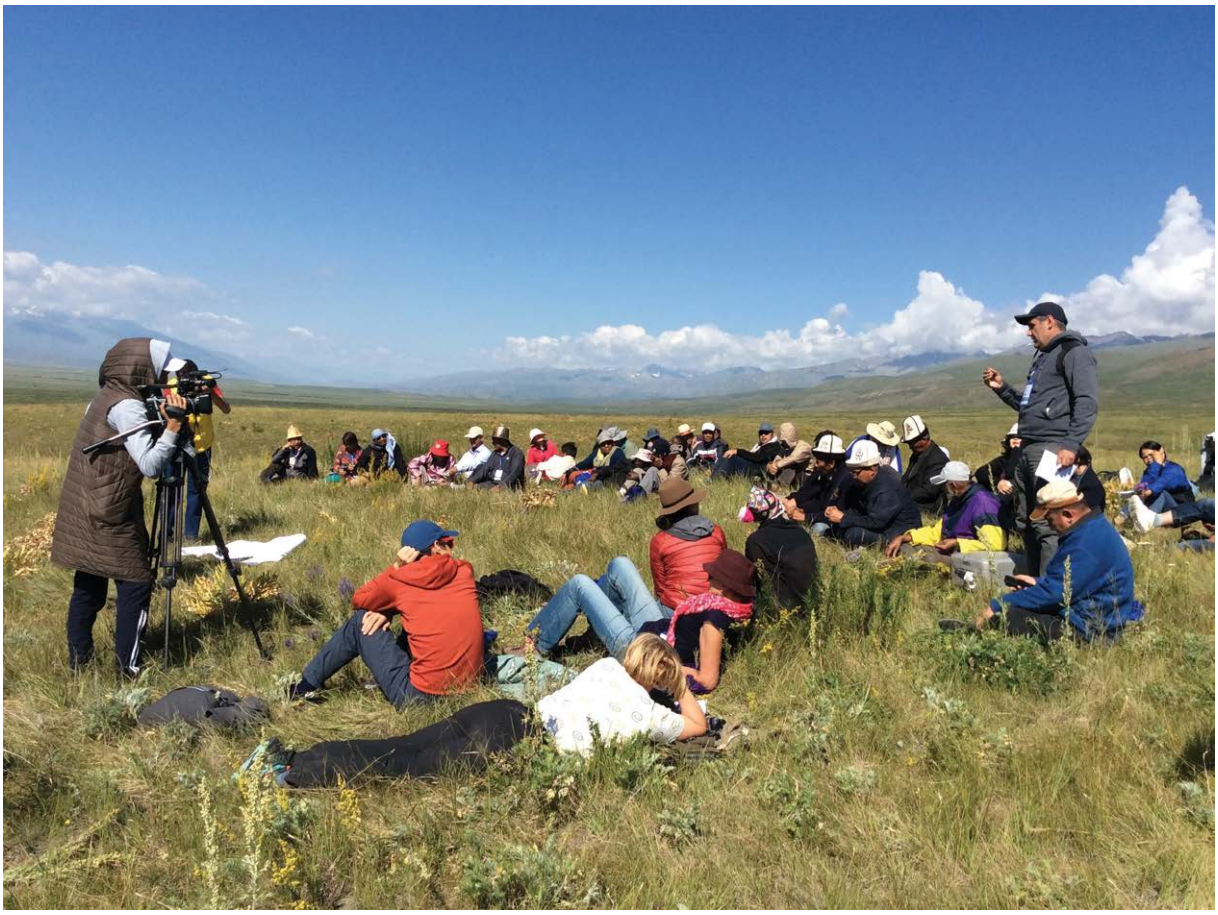
Yi-Ren Lin (Taiwan): We get a lot of encouragement from this network. The proposal is a very ambitious work. It is a good opportunity, but it will not be easy. How to get the power and energy to carry out these tasks? The walking workshop does this in a way. The interactions of the group give energy, new concepts, power to do things at the local level. We must go forward. Often, we feel marginalised. When we are together, we are energised. We also need Alejandro to give us innovative concepts. We will do our best in Taiwan.

Prasert Trakansuphakon (Thailand): I agree with the clear concepts and framework presented. Also, 'commons' is a new trend, the future. I think it is a good idea to combine our workshops with other events to give more exposure to the public (eg slow food, indigenous peoples' networks). This also allows us to learn from others. How can we make more space for young people? Work with youth and elders? Also, to strengthen the youth and elders' networks, we can make concrete plans to work on this together. Each country can work and learn from each other. We can promote indigenous peoples' knowledge and practices at national and global level. We should definitely discuss this proposal further as one of the main priorities of the network.

Alejandro Argumedo (Peru): We must also consider youth etc. based on local dynamics, while using a common framework, which needs further discussion. Yes, we must communicate beyond the declaration and web articles, in international processes. We should also think about the mountain agenda, the CBD and others. We will add these items to the agenda for further discussion.

Akylbek Kasymov (Kyrgyzstan): Vision 2050 is important. It is linked to our dreams, hopes and wishes. In Kyrgyzstan, we lost lots of local crops. We also explored science, state registration journals, and our experts said that many crops had hybrid-related breeders' rights. Now we are trying to recover traditional vegetable varieties. So far, we have recovered three varieties of tomato, and we are sharing the seeds within the network. Local varieties are adapted for climate change, so they are good for food security. We can suggest content and prepare joint proposals for sharing experiences in our countries. We should relate these to food and culture neighbourhoods.

Chemuku Wekesa (Kenya): I support the proposal, and note that we need something concrete. I also have a suggestion for an activity at the local level which can be transformative. When the CBD Aichi Targets and other targets end, how will we engage in policy processes as a network? What is the legal status of the network? This is important for us when we join. How can we contribute to the proposal as communities?



Visioning session, Suusamyr pasture. Tammy Stenner

Alejandro Argumedo (Peru): These are good questions. We have a five-year strategic plan drafted at the last workshop. We received very few comments, but will review the method for getting feedback (it was done in a Google Doc). Governance is part of the strategic plan. Registration or similar options have been explored, and options are posted on the website. However, there are still important questions about this. If all countries take turns hosting the secretariat, maybe there is no need to register the network. If we register, maybe it will need to be in one country. Perhaps we can organise a writeshop to develop a proposal and vision. We must be open to whatever comes out of the process.

Ugyen Phuntsho (Bhutan): We are interested in participating in the proposed activities; we must choose a lead agency and one community to participate. Initially, Lhab Tshering and the National Biodiversity Centre started to work with INMIP.

Nayan Pradhan (India): In the Indian context, we would like to share our vision for 2050 and our mission. Yes, we are interested. We should also include gender issues in the discussion.

Alejandro Argumedo (Peru): We were able to visit a beautiful place in the Eastern Himalayas in India where orchids are used for ritual and food, and we explored the possibility of establishing an orchid garden or park.

Tian Milin (**China):** During our 2014 trip to the Potato Park in Peru, prior to the Bhutan workshop, we realised the importance of TK. Returning to China we tried to implement what we learnt. We want to continue working with the network.

Anne Marie Wanamp (PNG): As a nation, we are already doing a 2050 vision. Including INMIP's vision and mission could contribute to the vision. Our governance here as INMIP does not relate to the national level, but it can complement national aims.

Alejandro Argumedo (Peru): There is an incredible sweet potato diversity in PNG, giving it a connection to Peru. INMIP members are the participating communities, not the national government. The National Biodiversity Centre of Bhutan has changed the communities engaging in the network. We must respect the internal dynamics of each country.

Kyrgyzstan: We must work with people of different ages: they cannot all be old, or they forget the future; or all be young, as that would be a comedy of errors; there must be young and old, not comedy or tragedy. It is good to think about the environment in all of this. TK has secrets to preserve the environment.

Yodgor Konunov (Tajikistan): We agree to work on FN. It is not easy to produce food, but we do it in the high mountains. We, the Mountain Societies Development Support Programme (MSDSP), as an organisation are members of INMIP, and we represent the network in our sites. For example, we can organise a 'wheat park' for local wheat.

Alejandro Argumedo (Peru): All agree to work together on a FN proposal. It must include collaborative development. A few ideas to include and activities underway: the Food Forever Initiative is a champion-based platform. It has links to the 2030 SDGs. One activity is on 'forgotten crops'. The idea is to recognise international chefs and link them with local 'real' chefs (mothers, grandmothers) to promote local food systems.

There is a world map of Vavilov centres of crop domestication which shows the emblematic species of different regions. Mexico and Guatemala have maize, Peru has potato. Kyrgyzstan has a unique biocultural complex – it is a centre of origin for walnuts, apples and apricots.

To move forward with the FN process, we will:

- Print the concept note on FN, for the development of a framework
- Develop a factsheet for each site to fill in
- Identify emblematic species for each site – some already know what this is, while other must still think about it
- Discuss the role of international gene banks (ie in repatriation), and
- Try to develop rough elements for the proposal.

On the 2050 visioning, it must be finalised by 30 September 2018. We only heard last week of our inclusion in the process. As INMIP we will contribute to this process, using examples such as use of pasture, seeds, water and animals as food, links to the village. Alejandro will communicate with the 2050 group, and bring any questions for tomorrow. We need a concrete plan and vision for the network for each site. We can also apply multiple evidence-based approaches to link science and TK, local and global.

Pernilla Malmer (SwedBio): You can all be proud to have been selected to bring a vision of future food systems to the process. The selection was based on the constellation of people it includes, all over the world, with international level institutions etc. A MEB approach can even be applied at the community level, ensuring that everyone's knowledge and perspectives are equally valid and contribute to enriched evidence for the mutual benefit and usefulness of all involved. Many of you can go into vision from local experience. You are diverse, yet united by global issues. You can create a picture at the global level. Creating resilience in global food systems requires diversity, and the ability to see the importance of other actors. Knowledge related to governance of biocultural heritage, equally valued alongside science, can be a solid basis for better policies for the governance of ecosystems and biocultural landscapes.

Alan Zulch (Tamalpais Trust): I echo Pernilla's words. There are opportunities and challenges facing all of us and INMIP. Lots of assumptions are made about indigenous peoples. The Global Alliance has a growing appreciation for indigenous knowledge, but also skepticism and misunderstandings. There is an opportunity, in connection with the Global Alliance, for indigenous peoples to articulate what indigenous cosmovision and knowledge has to offer the world. This group must be self-reflective and really reflect on its own capacity, be creative, and participate in imagining what the network can be and do. You could connect more between meetings, more like a network. There is magic here, try to carry

it over between meetings. Of course, we are all busy, have few resources, and we are doing what we can. However, to live into our potential, we must continue to work hard. We need to feel the magic in diversity. That quality must be brought forward.

Daniele Crimella (SwedBio): I am learning from you – you are all the experts. You can convey that deep connection with the land that has to interact with all the elements of the territory. You have unique connections. Others may not see it in their daily life. Don't be afraid to share this within the network, and also present it to others such as governments, international actors. This is really valuable.

Marie Laure (ICOMOS): What I have learnt here will be valuable input for ICOMOS. I have some reflections. Some economic aspects, markets and products, are important for financial sustainability. People need or want money, for the latest phones for example. Allowing and supporting the use of such technology will be important to keep the youth involved.

Baktygul (student journalist, Kyrgyzstan): I think there must be continuity and connection between the generations. Our youth don't know all our culture and traditions. Our goals are not the same as the older generation. I want to share with other youth; it is important for our future. We need to be aware of our national identity; we cannot build a future if we do not know our past. I was a bit of a radical feminist, so that aspect of the conversation is interesting.

Alejandro Argumedo (Peru): We must involve the youth on a daily basis. The next generation is critical.

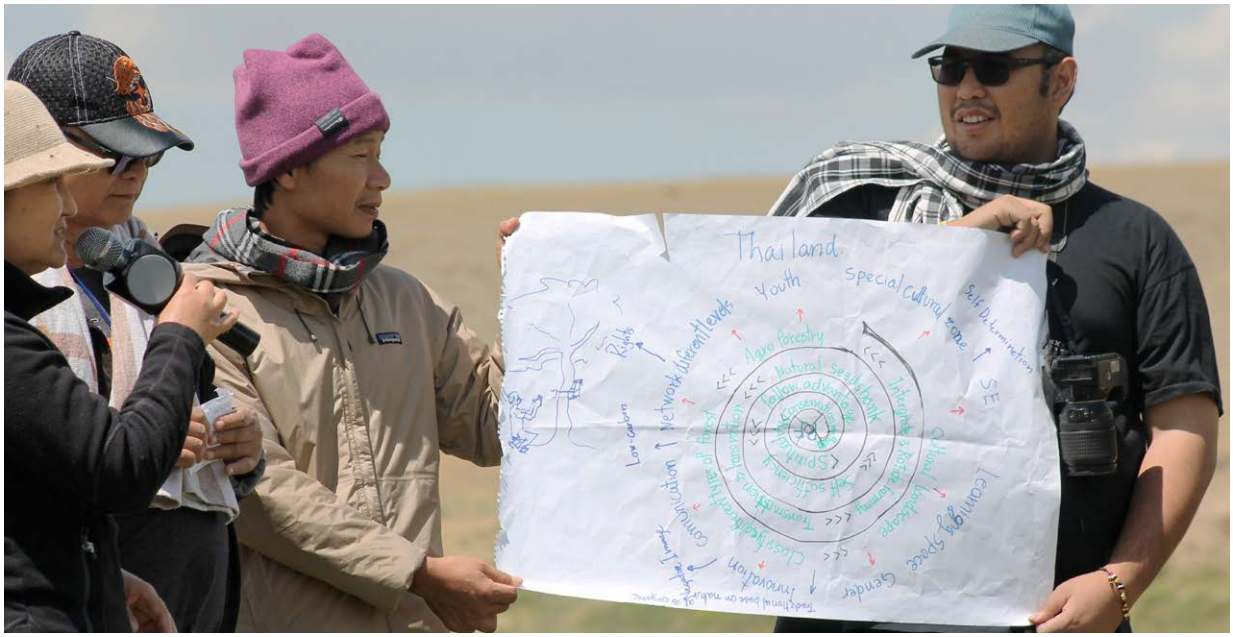
Akylbek Kasymov (Kyrgyzstan): We have all talked about indigenous peoples. The definition is important here. In Soviet times, there was a bad stereotype for indigenous peoples. Now they are more popular, acknowledged. Also, Europeans have ancestors, and also fight for a better life. Indigenous peoples are connected practically to foods. We see lots of networks, unions, associations. This is a kind of politics, playing a role at the community level, national level, and international level, so we must be careful. We use the term 'indigenous peoples' and many others exist. Alejandro's proposal offers us an opportunity to connect to others in the world. The more people are connected, the more sustainable our movement will be.

Unfortunately, there are limited resources for indigenous peoples, and we need to inspire people to join and support our network. Non-organic movements put billions of dollars into food (such as Coca Cola). TCF has been working for 10 years in this, focused on supporting stewards of biocultural diversity. Using the two concepts (indigenous peoples and stewards), they have achieved a lot. Now is the time to protect these people. Networking is a sustainable way to protect them. When youth are involved, it is better. We should include criteria to include youth in our activities.

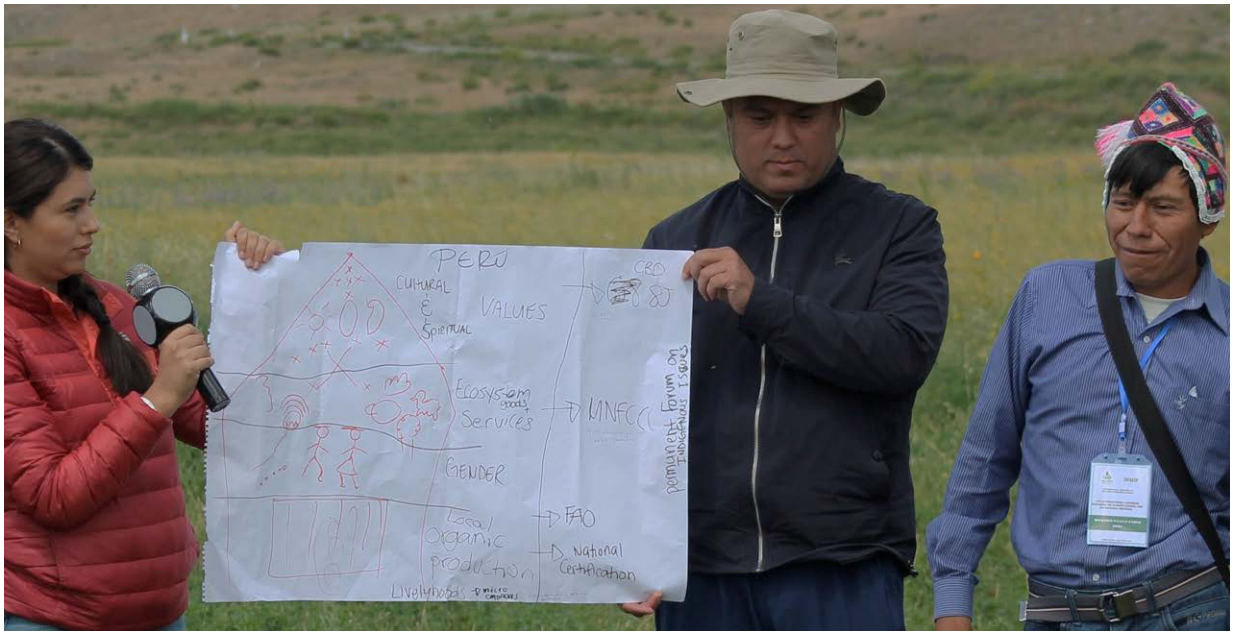
Alejandro Argumedo: I would like your consent to represent INMIP in the meeting of the Global Alliance in Oaxaca in October (Resilient seed systems for resilient food systems). SwedBio and Asociación ANDES are on the steering committee, but I will ask for INMIP participation too (by letter or in conversation).

9 Session 7: Developing INMIP's Suusamyr Declaration

Country teams worked in small groups to identify key points to propose for the INMIP declaration and Vision 2050 on food systems. Using flipcharts, they reported back to the plenary. The key points from each group are summarised in Annex 2. After lunch, they heard a presentation from the Batken group on organic tomatoes and dried apricots, and watched a demonstration of milking horses, before travelling back to Bishkek.



The Karen team from Thailand present their inputs for the Declaration. Akylbek Kasymov



The Quechua team from Peru present their inputs for the Declaration. Akylbek Kasymov

10 Session 8: INMIP policy roundtable: mountain indigenous peoples, climate change and migration, 31 July 2018

10.1 Introduction to policy roundtable

The opening ceremony began with a telling of the traditional Manas epic poem and music played on national musical instruments, the *komuz* and *kyl kyiak*.

Alejandro Argumedo: Today we will hear presentations on migration from the INMIP member countries represented here. We will use the presentations and responses as the basis for developing case studies and an INMIP publication on migration in the coming months.

Akylbek Kasymov: There are representatives of 10 countries participating in this roundtable, and of the donors who made the workshop possible – The Christensen Fund, New Field Foundation, Tamalpais Trust and SwedBio. There are also students and teachers here, representatives of our partner organisations, farmers, representatives of state agencies: the state Departments for Migration, the Department of Pastures, Livestock and Fisheries , the Ministry of Agriculture, and international agencies (FAO).

10.2 Key issues on indigenous peoples, climate change and migration

Alejandro Argumedo, INMIP coordinator: Over the past four days, we have been fortunate to visit and learn with the local communities of Kyrgyzstan. We see a very diverse and rich country, with beautiful landscapes and very dynamic communities. We have learnt how this country has been built on a millenary culture of nomads. The issue of migration is not commonly discussed as an indigenous peoples' issue. However, we see how indigenous families and groups are mobile, moving beyond the customary seasonal migrations. The new migration paradigm is complex and responds to the conditions of a new globalised world. Indigenous peoples are moving to economic centres seeking opportunities. They are also removed by force from their homes in some cases.

INMIP Policy Roundtable, Bishkek. Akylbek Kasymov

We will explore the issues of migration in relation to climate change. The UN Permanent Forum on Indigenous Issues (UNPFII) is interested in this issue, and it is important for the world community. Indigenous peoples in mountain communities should be part of global discussions. We want to identify some key issues to continue the discussion:

- Why is indigenous migration important in our communities?
- Is it changing our cultures?
- How can we keep our identity when we leave traditional lands?
- How can we analyse indigenous migration in common categories of migration? Do they apply to indigenous peoples?

10.3 Presentations by the Kyrgyz Government and FAO and plenary discussions

Keynote presentation: Migration policies of Kyrgyzstan

Turatbek Kyzy Aizat, leading specialist of the State Department of Migration, Kyrgyz Republic

I will give an overview of national migration, especially environmental migration. The main migration is to Bishkek. One and a half million people have moved from villages to cities and provinces. This has affected the infrastructure of cities, which cannot receive everyone. They migrate mainly for work and a better life. Internal migrants are mainly young people and young girls, with secondary school education, moving to improve living conditions. Eighty-six per cent of those who move will not return to villages. We need to focus more on ecology and environmental issues. We have weak infrastructure, few opportunities and limited access to land and water. Our main focus is labour migration, and immigration from other areas.

Internal migration encompasses complex issues requiring complex responses: 70,000 people are living abroad in Russia and Uzbekistan, and also Korea. They leave the country for work and remittances – annual remittances are increasing, and now as we are part of the Eurasian Economic Union, remittances are mainly spent on housing, education and holidays. Our department provides permissions. Also, for ethnic Kyrgyz, we will develop comprehensive migration policies. The department has 44 people, and a representative in Moscow. We have joined the European Union and its common labour market. Unfortunately, we are not currently addressing the ecological question – the environment, climate – but will develop policies on this in future.

Q (Bhutan): Do you have any policies to prevent people leaving rural areas, incentives for youth to stay in rural areas, or policies to prevent migration to urban areas?
A: Today we have two programmes on internal migration: i) state employment and migration to 2020 and ii) a state programme on border control for migration. There is no particular policy to restrict migration to cities. Most migrate seeking employment and a better quality of life. The next phase of the programme will focus on infrastructure development, not incentives.

Q (Alejandro Argumedo): Does your department consider climate change as a category for migration? How much is migration changing nomadic traditional lifestyle?
A: Interesting question, we should think about it. We do not follow climate change issues, only employment, those who leave the country, and those who come in to work. Another agency deals with climate change. We do not follow the changes in nomadic culture. Climate change is an important issue.

Keynote presentation: Adaptation of pastures in conditions of climate change in Kyrgyzstan

Bekenov Malik, specialist in climate change adaptation, Department of Pastures, Livestock and Fisheries

I will highlight the conditions of pastures, present dynamic indicators on climate change and the variability of pastures and livestock in climate change conditions, and share information about our early warning system. We have 9 million hectares of pastures in Kyrgyzstan, and three categories: spring-

summer pastures, winter pastures and hay-cutting areas. In winter the pasture yields are low, there is degradation, the most degraded are winter pastures close to villages – about 50 per cent are degraded; whereas 36 per cent of summer, high-mountain pastures are degraded. We have an average of 2.6 heads of livestock per hectare – 1 head per hectare is ideal.

How does climate change affect economic development? Productivity will decrease, and the health of communities will decrease. Sixty-five per cent of Kyrgyz people live in rural areas, mainly in pastures, with livestock. The average annual temperature in Kyrgyzstan has increased by 0.8 degrees above pre-industrial levels; by 2050 it will be 2 degrees. This will impact livestock; we are not sure what will happen in the future.

In 2011–2012, there was a long, cold winter and abnormal conditions in Osh and Batken areas. The cost is estimated at 380 million Kyrgyz soms – due to colder, unusual temperatures. Many people had to migrate to the capital and regional centres and outside Kyrgyzstan. In June 2013 there was snow and frost and 15,000 sheep died. This year, there was a sharp weather change – in summer pastures, more than 3,000 livestock died due to frost and cold weather. The pastoralists said even the elders had never seen these conditions. The hot conditions in summer will support disease transmission and loss of livestock.

When we asked people about the weather and how to prevent the loss of livestock, we identified the need for an early warning system. This is being developed for pastures by the Pasture Department under the Ministry of Agriculture, through a pasture management project with IFAD which provides precise data for highland pastures.

Data from satellite and international meteorological stations will be transferred to local stations. With special software we will share information with pastoralists, farmers, and livestock breeders via WhatsApp so they can take local action (eg give drinking water to livestock in drought). We provide information from hydrometeorology to livestock breeders five days in advance. Past meteorological stations were destroyed or damaged, so we need new ones. Meteorological data is also used by pasture management committees in their one-year and five-year plans, along with GIS and data from emergency services, to support breeders in grazing their animals.

Difficulties with implementing the early warning system include the lack of experience and experts in rural areas; and the need to define the type of information that is useful. There is also no internet in rural areas. Another difficulty is that breeders are not compensated for big losses – they have no insurance for losses. We must think about the sustainability of the early warning system. High losses of animals and crops are serious impacts due to climate change.

Q (Abduvohit Safarov, Anahito public foundation, Tajikistan): What actions do you take to reduce degradation of winter pastures? Do you use traditional knowledge of pastoralists?
A: Near villages, the reason for degradation is overgrazing – there was no law before 2012, and it was difficult to get access to remote pastures, and people only used close ones. In 2012, the law on pastures was introduced, and administration committees developed pasture management, with a schedule for all seasonal pastures. There is also assistance to pasture committees to improve infrastructure (roads and bridges), especially to give access to summer pastures and prepare animals well to survive winter. Pasture committees give out maps to indicate the pasture schedule.

Q (Ysad): Will the early warning system be for everyone or just pasture users?
A: During the project we have funding to develop software, but we will not have it after – need to consider sustainability. The project will develop software, train specialists. For the early warning system, we are analysing year to year pasture users' interest in climate change issues.

We share information via email, but will need specialists. The early warning system will be mainly for pasture users, according to project design. Meteorological data will be shared all over the country.

Pasture committee representative: Our pasture committees play a role in climate adaptation and preparing for climate change, we have 5- and 10-year pasture management plans. We have a 30-hectare demonstration plot, which is fenced, for training and convincing people – the pasture committee used its own plot for demonstration and also fenced other areas. Nine thousand hectares of pasture is protected by the local population, and we are using nearby pastures only during winter; it was difficult to convince people to use more distant pastures, we needed infrastructure.

Q (Yih-Ren Lin, Taipei Medical University): Do the government and scientists in Kyrgyzstan collaborate with farmers and indigenous peoples? We also have impacts of climate change, but not pastures. If the government does not have the technology or resources to manage, TK can help to adapt to climate change.
A: Scientific institutions work on animal husbandry, we are working together on pastures, and using remote sensing to find degraded areas. In Suusamyr pasture, local pastoralists and government have fenced some areas, they are working with pasture users.

Presentation: The FAO Global Environment Facility (GEF) project

Abdumital Chyngojoev, FAO

FAO has been implementing a project since 2014, on 'Sustainable management of mountain forest and land resources in the condition of climate change' with US$5.4 million of GEF funding (a US$25 million project in total). The main partners include the Ministry of Agriculture in Kyrgyzstan. The project aims to enhance development in agriculture and forestry, to develop institutions and support agrarian policy and forest restoration.

In 2015, implementation of work started, and recommendations were made to Ministry of Agriculture and Ministry of Environmental Protection. Only a small part has been implemented so far. The project supported the development of a five-year national action plan on forests, and is promoting policy changes. It is supporting forest enterprises that promote carbon sequestration and rehabilitation of forests. With the Department of Hunting and Forestry, they are working to restore 9,000 hectares; they have produced booklets for partners working on restoration. Intervention areas include five areas in the province. Forest enterprises have restored 1,000 pistachios and almond forests – they involve local people, who rent the land for nut production and get yields within five years. Students are involved in forest restoration – 2,500 hectares have been restored already. Livestock are the enemies of the forest, the forest areas must be fenced off to protect them. We also provide tractors to communities and fuel to forestry enterprises.

We are also working with energy efficient stoves to implement environmentally friendly approaches. We provide a service to calculate the national co-efficient of carbon emissions –

this is related to agriculture and controlling degradation. We work in 12 districts in five provinces, providing assistance to local self-governments on pastures, restoration of pastures, agroforestry maps of degraded territories and pastures, and help to develop mechanisms to use in those areas that local self-governance institutions will continue to use.

We promote biological fertilisers to increase yield, and provide training activities for farmers and partners. We also support farmer field schools (FFS) and demonstration sites. On pastures we have worked with government bodies and put additional sites to seed, and have established a nursery for pasture grasses. We need to create awareness among the population; communication through mass media. We have published several books, posters and other publications. We support local people to adapt to climate change, reduce migration and create jobs for local people. The results will be used to make the project sustainable.

Q: How can our pasture users be informed of weather issues? FAO is working with local government, building capacity. But because of lack of information we could prevent problems. We had lots of snow and could not take animals over the pass.
A: It is good to hear from those working in pastures. We will try to provide weather information 10 days in advance. Currently there are some regions where internet is widely used. We will inform by text messages in other regions.

Q Yih-Ren Lin (Taiwan): Who is involved in community mapping? Does mapping classify types of land, forests?
A: We are making maps of degraded lands and supporting specific activities for restoration; we also use traditional methods, through seeding local grasses, and crop rotation.

Department of Pastures, Livestock and Fisheries representative: We train pasture users to use Google Maps, where GIS skills are not necessary. The boundaries are located on a map. There are

454 pasture committees in Kyrgyzstan, which all have boundaries of pastures. We provide mapping materials they can use to map degraded properties. If a particular area is very degraded, they may avoid using it for a year or more.

Q Tajikistan: What are the criteria and objectives of the FFS? How does your organisation assist the project?
A: FAO does not provide direct assistance – but rather provides concrete examples (there is a person in charge of this). They have bought and distributed organic fertilisers and have implemented 76 different technologies.

Q Sherikbai (Lesik-South, Kyrgyzstan): What will FAO do to support farmers in the face of pests and diseases? The FAO does a good job for restoring forests, especially walnuts, fruits and others. The visitors were impressed by our forests, but also concerned by the pests and diseases.
A: FAO is ready to help, but needs to know what kind of support is required by our partners. We hope to provide assistance.

Q Nayan Pradhan (India): Do you include TK and nomadic culture in FFS?
A: Why not? Surely, we base our TK on positive experiences. We use TK for water management. FAO aims to support traditional management of agricultural systems; our partners will use TK in FFS in future.

Q for Ministry of Agriculture: Some areas which used to be pasture are planted with forests and then the forest is fenced, so pastoralists do not have access to forests – why is this?
A: With the local population, we planted forest, but they pulled out the saplings. To avoid this, we carried out awareness-raising work on forest management. We try to ensure local people take ownership of projects, share information on projects, and try to create a livelihood based on forests. Then the forest may be fenced.

Ishenbek Alikeev (scientist from National Agrarian University): We use TK in the curriculum. We are the only agrarian university in the country. We have courses on the management of pastures for students. With support from The Christensen Fund, we include information on the basics of TK – on ethnobotany, food and livestock. For five years already, this is being applied in the university.

10.4 INMIP country presentations

Bhutan

Climate change is impacting on indigenous youth and women in Bhutan. Rural-urban migration is at a rate of 21.7 per cent in all parts of country, with many youths leaving the villages, and this is affecting the Buli Community as well, resulting in youth unemployment in urban areas and farm labour shortages in rural communities. Problems in rural areas also include lack of niche markets, human-wildlife conflicts, shortage of irrigation and limited agricultural land. The way forward is to provide amenities, irrigation, agricultural loans with no interest, resettlement for landless people, and free electric fencing to deter wildlife from farmland.

Q Nayan (India): Since 2014, the Bhutan team has talked about wildlife problems – at the government level, has there been any progress in dealing with this?
A: Ministries have provided solar electric fencing.

Q: Which crops are cultivated with the irrigation?
A: Only mixed farming in highlands. In lowlands, barley is cultivated with irrigation channels.

China: Stone village and Wumu village, Yunnan

We are Naxi people on Yangtze river. We depend on agriculture. A baseline study on 320 households found that migration to urban areas for work increased from 42 per cent in 2002 to 62 per cent in 2012. Even women are migrating. Agrobiodiversity is affected because of labour shortages, there is an aging labour force, and traditional foods are disappearing. To address these challenges, we are engaging in participatory plant breeding and participatory variety selection through scientist–farmer collaboration. We organise TK exchanges; and we have established a community register of local varieties. We hold

seed fairs to share adapted varieties; and develop packaging for value addition to traditional agricultural products. We use cultural and biological diversity; traditional wise men, culture and knowledge. We hold rain ceremonies and worship mountain gods. We need a national climate change adaptation plan.

Q Nayan (India): Can you focus on migration issues of China?
A: Rural-urban migration is a serious issue, so we are trying to change the situation by increasing economic opportunities in rural areas.

India: Eastern Himalayas – mountain indigenous peoples, climate change and migration

A key issue is migration from the mountains of northeast India, Darjeeling State. Lepchas are an indigenous tribe and there are 14 indigenous tribes. Lepcha consider themselves to be children of mountains, they have rituals and festivals related to natural phenomenon, to show respect for nature and the earth. They worship nature. Community organisation is at three levels – village, block and regional level. Climate change and migration cause changes in ecosystems, habitats, landraces, cultural aspects and values. The local economy is shifting to a cash economy.

Kenya: Taita communities, Taita Hills, southeast coast (Chemuku Wekesa, Kenya Forestry Research Institute (KEFRI)

The Taita communities are located at about 2500masl. The area is highly populated, and heavily impacted by climate change. There has been soil degradation as people move up to higher altitudes with more rainfall. The water volume in rivers has declined. There have been more floods and landslides, as well as more extreme drought and drying up of wells and rivers. The rains have become more unpredictable and unreliable (rain normally comes in March, but now we are not sure), causing shifts in planting times. Responses from farmers include planting trees, soil and water conservation, water harvesting, pasture conservation and changing crop and livestock types. Migration of youth to urban areas in search of employment is increasing, due to decreased incomes from agriculture, as a result of climate change and reduced productivity. Rural-urban migration stands at 48–52 per cent.

Q Nayan (India): For sustainable development, are there any policies implemented on migration?
A: No policies, just community structures. Many families prefer to stay in rural areas and grow food.

Q: What is the pasture system?
A: It is a rotational pasture system, land is held by the government and managed by pastoralist communities. They move from place to place, based on a traditional system of movement, set up temporary homes until grazing lands are exhausted, and move on to allow recovery of pasture.

Peru: Ricardo Pacco Chipa, Quechua farmer, Potato Park – rural-urban migration in Peru

Previously migration was to rural areas, to medium-sized cities, like Cusco, Ayacucho. Migration has always existed, but in the 1980s and 90s, with the violence of the ‘Shining Path’, migration rates increased. In the past, TK was not included in the school curriculum, it was in Spanish and was a colonial curriculum. Few communities had high schools, so the youth had to migrate to cities for secondary education, but this is changing. People used to go to mid-sized cities, or even abroad. Things are improving, but there are still limited institutions in rural areas, ie for healthcare, and no higher education. There is also migration from the Andes and Amazon to the coast – Lima receives the highest number of migrants.

Based on personal experience, climate change is affecting migration. A lot of men migrate for temporary work in the tourist season as cooks, porters; they also move to cities at those times for more opportunities. Climate change is causing problems in yields of native crops, and problems of snow and frost which is killing animals. There is little reason to stay in communities. People arrive in the cities with little money or the skills for life in the city. There are lots of people invading land on arid hills and mountains. The El Niño phenomenon is more extreme too, so these communities are being wiped out. We need opportunities, infrastructure and education (from communities and governments).

Q: After migration for education, do they return to rural areas, or do they not have opportunities in the rural areas?
A: The majority do not return after getting their education.

Q: Last year we visited the Potato Park in Peru and saw the changes happening due to climate change – increasing potato pests and diseases – what do you do to address this?

A: With support of elders and scientific institutions, we are trying to adapt our potatoes to climate change. Each year we plant at higher and higher altitudes, but in the highest places, the soils are not good. Also, we are invading the spaces of wild animals. We want to identify varieties that can be resistant to climate change.

Papua New Guinea: Anne Marie Wanamp (University of Goroka)

PNG consists of 600 islands. It has an area of 464,000km^2 and 3.1 million kilometres of sea. It is

mountainous, up to 4500masl, and much land is not suited to agriculture. Food systems and subsistence farming are threatened by severe weather like the 2015 drought – directly through crop failure and indirectly through increases in pests. Traditional village life revolves around food. Gardening and gathering food from the bush is a daily activity. People have an attachment to the environment and land; although tribal conflicts over land also displace people. People have established values and maintain moral ethics.

Climate change changes the types of food grown and raises the lower-altitude limit for crops. With increased temperature, lower-altitude crops now grow at higher altitude – eg coconut, betel-nuts, bananas, melons, mango. Growth and yield are reduced, and there is more flooding and landslides and more cultivation on slopes. Migration occurs within and between provinces; from locations with poor environments and poor roads; it is temporary and permanent. Earlier migration was due to war and for plantation and agricultural settlement. Now there are agricultural smallholder schemes including palm oil production. People migrate to towns for economic development, social services and employment opportunities.

Q: Land conflicts – what is the issue, who owns the land?
A: Three per cent of land in PNG is government owned, and 97 per cent is owned by the people, they own their own lands.

Thailand: Prasert Trakansuphakon

We have external and internal migration – similar to neighbouring countries. Labour migration comes from neighbouring areas, there is lots of need for labour. There is a need for Chinese speakers to work with Taiwan. For internal migration, there is migration for education and assimilation through education. A related issue is forest control and conservation of forests. Indigenous forest peoples do not have land titles, but manage land through customary laws. With official policies, they must follow formal law, but this leads to many conflicts; they try to use the courts to fight for the rights of indigenous peoples to stay in forests.

Thailand: Siwakorn Odochao (Karen young man)

Indigenous youth, both men and women, migrate to the city in Thailand. The main reason for indigenous youth migration from rural areas is for education, because all education institutes are located in the big city. But this education system is not suitable for indigenous youth and does not respond to the life and context of indigenous communities in highland areas. How to solve this? Alternative education-based cultural identity is needed to make the youth proud of their heritage and learn how to do their own farming and participate in traditional knowledge, rituals and practices in everyday life. We also need to create opportunities for the youth to develop community enterprises which allow them to connect to the city and earn their own income eg from fruits, coffee, honey etc.

Thailand: Nutdanai (Jum) Trakansuphakon (Karen young man)

The issue of youth migration is very important; and economic opportunities are important.

Also, we can create networks among 10–20 communities working on social enterprises. We have a successful case with honey, in rotational farming. We have developed manuals on rotational farming, and we invite youth to rotational farming workshops. We have prepared seasonal calendars and manuals to communicate on topics in new ways. The focus is on local food – we organise a cultural night, and produce a recipe book. How to make the youth proud of TK? Establish a biocultural school with its own curriculum, to teach beekeeping among others.

Make young people proud, so they want to return to the community, and maintain TK and local foods there.

Taiwan: Yih-Ren Lin (Taipei Medical University)

As Thailand has explained, there are different types of migration. There are migratory people – in 400 years, Dayan people migrated from central to northern Taiwan, with no intervention from the state, it was more 'natural migration'. They established a traditional territory. People migrate from natural disasters like typhoons, drought. They go to new areas, establish new households, hunting territories and relationships with other communities. This is natural migration, establishing connections to land; it is good for people.

Another kind of migration is with state intervention, promoted by those who do not understand the culture and links to land. Several tribes have been impacted by typhoons. The government implemented a relocation policy – some mountains are dangerous, so the government worked with a charity group to construct houses on the plains, and forced the tribes to relocate. There are problems with this kind of migration – the charity received a lot of money for housing, and built free housing for indigenous peoples, and created a discourse that 'mountains are dangerous, people should live in plains'. As a result, suicide rates increased. Small groups are included with other communities, have no community names, and are afraid of disappearing.

Taiwan: Apuu (indigenous woman)

We decided to build a hut in the typhoon area, and returned to the area. We began with growing traditional food – millet, beans – to provide nutrition for returning. We got funding and training, and learnt to make bread from millet and sell it for income. We regained the concept of 'a place where elders stay' and elders returned – and also the concept of 'women's fields'. So, elders and women settled and established a new home. We got official recognition of our tribes by the government. Women played a critical role in establishing the connection to the land (the population is less than 200).

Tajikistan: Yodgor Qonunov (MSDSP)

Scientists and research institutions are interested in doing research in the Pamirs. There are 9 million people: 6 million in rural areas, 2 million in urban areas, 1 million migrating – net migration is 15,134. The rapid rise in cross-border seasonal migration is affecting all aspects of Tajik life. There is unemployment and underemployment. For development of incentives for youth, we have a TCF project focusing on mobilisation of the community to raise awareness of the value of biocultural territories. We facilitate research for sustainability, pilot activities and support economic activities.

Q: Do you have any strategies/policies to keep youth from migrating?
A: It is difficult to stop, but we can mitigate it. One example is the use of traditional technology – TK and practices – we develop this with scientists, so young people can use the technology themselves for economic benefit. Without that they will not stay in rural areas. We also have education programmes to support indigenous peoples' entry to university (to allow entry with lower marks for example).

10.5 Responses and reflections from other participants

Malik Bekenov, climate change adaptation specialist, Department of Pastures, Livestock, and Fisheries of the Ministry of Agriculture of Kyrgyzstan

We are facing common problems, despite our different locations. We have heard interesting solutions in different countries, different technologies. All countries are applying traditional knowledge to address climate change adaptation problems and have valuable experiences.

Peru's traditions are interesting; good to see the representative in traditional dress. All are handling their situations in different ways, creating employment opportunities. TK and technology are being applied in Thailand – we are also doing training in honey production and it is working well here. It was interesting to hear efforts to keep youth in communities. I would like to emphasise that this forum is successful, although I just joined. I would like your email addresses to continue to communicate in future, and share information.

Danielle Crimella (SwedBio)

Thanks for the rich contributions to today's meeting. Some reflections. Migration is in the nature of man, it occurs everywhere in the world, but for different purposes, including in Europe. This cannot be stopped, it is a reality we must face. We have heard from many of the local communities, about migration from rural to urban, also across borders, into countries. Climate change can contribute to these movements, and also political change and social change. Often, economic activities are at the root of change (eg mining). This highlights the importance of keeping the Human Rights framework in focus.[9] I would like to make three points for further discussion:

- If we want to act on migration, we must base actions on evidence, which can be science, technical solutions, but should also include local indigenous people who have adapted to local conditions.
- We need to promote dialogue and participation – to include all groups across languages, cultures, and even government sectors (eg agriculture and forestry) – to enhance equity and reduce conflict.
- Diversity – in livelihoods, food systems, educational systems – promotes resilience. It underpins capacity to face change and to continue to develop and have a good functioning system.

Alan Zulch (Tamalpais Trust)

Thanks for the reflections and for the rich country presentations, it was inspiring. It shows the benefits that can come from dialogue – experts learning from indigenous speakers. It is clear that economic migration patterns will be changing to become more and more forced migration. The efforts to mitigate economic migration will be pressured in future. It was inspiring to hear solutions put forward by each of the communities, especially those that included women, youth and intergenerational transmission of knowledge. I would like to stress the importance of indigenous cultures in mitigating climate change, the importance of culture and knowledge, because these can be applied in effective ways to address global issues.

Alejandro Argumedo (Peru)

The intergenerational transmission of knowledge and practices is important to respond to climate change. Migration has always been part of culture, but changing conditions are having strong impacts. The objective was to exchange information. I would like to continue with a publication on this theme. I will continue to discuss this with INMIP members, to see how to structure the case studies. They can focus on what communities are doing to respond to the challenges. Each country has responded to climate change through institutions, livelihoods and various TK and ecological solutions (in pastoralism, agriculture, forests etc). We will establish a framework and be in touch with you. We will also include the keynote presentations as background. This will be specially to share with INMIP members, the FAO Mountain Partnership and UNPFII.

9 Human Rights framework of the United Nations Human Rights Office of the High Commissioner. See www.ohchr.org/EN/Issues/Migration/Pages/HumanRightsFramework.aspx

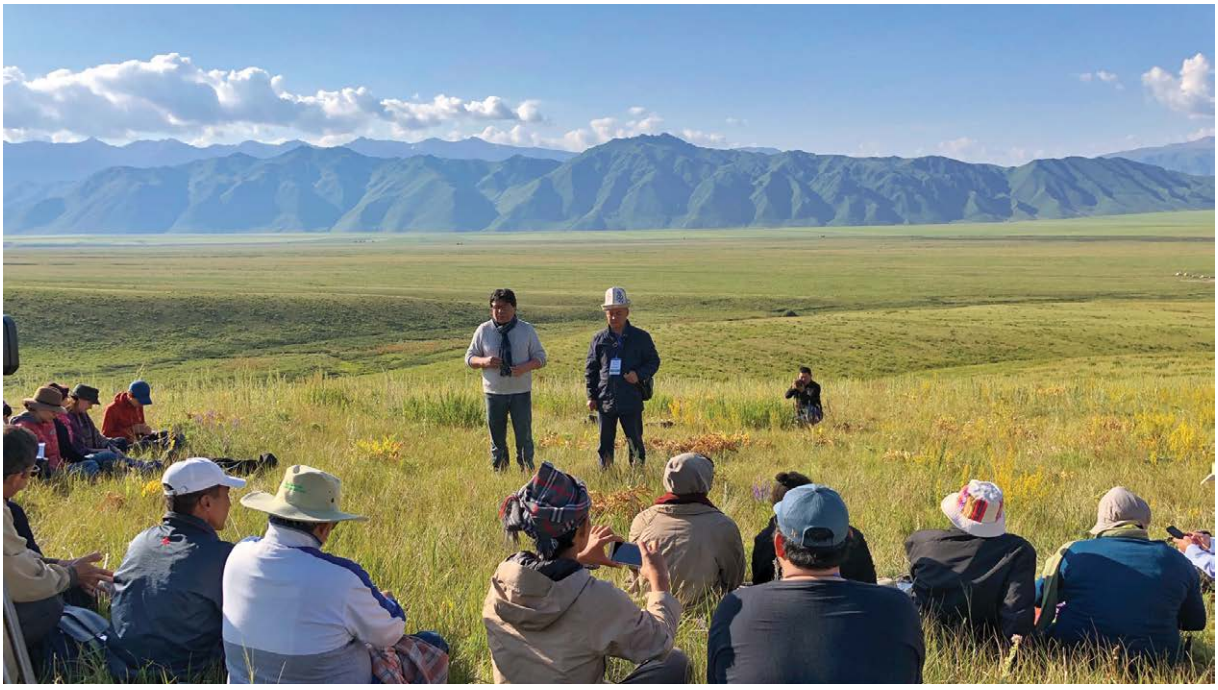
11 Session 9: INMIP meeting and roundtable evaluation, 31 July 2018

On the final afternoon, INMIP members provided reflections on the policy roundtable and walking workshop. They also discussed INMIP's five-year strategy and action plan, the process for developing Vision 2050 on food systems, INMIP governance and plans for the next walking workshop. The notes of the meeting are included in Annex 3.

11.1 Akylbek Kasymov: closing of the walking workshop

Friends, guests, colleagues. I am happy we were able to implement our ideas, our plan for the walking workshop in Kyrgyzstan. I would like to thank all for your active participation, for meeting with community members. I am sure each community has received a huge inspiration from you for the conservation of biodiversity and dissemination of TK – you incentivised them. Unfortunately, something that started also has to finished. Today finishes the fifth INMIP walking workshop. We have given tasks, set goals for ourselves. Shared our wishes and dreams. We will meet again and strengthen our network. The ideas of our farmers, residents and keepers of TK find support in the presence of donor agencies. We hope for their continued support. During this week, we have been discussing and setting objectives, I hope to achieve them. This is important for our network and the whole world.

Five years is not much, but also not so little to assess and implement some activities. But five years in friendly relationships with indigenous peoples gives us a good basis: we are eager to move forward. Once more, gratitude on behalf of me, my organisation and partners that you visited. Wishing you health and that our ideas come true. I wish you a safe trip back to your families and home countries. Thanks to Alejandro, and the secretariat – managing a network requires skills, talent, knowledge and feeling to all members of the network. I'm sure it was a good idea to re-elect him as a coordinator. I wish all participants who participated today – students, farmers, state agencies – success always. See you next time.



Visioning session at Suusamyr pasture. Alan Zulch

Annex 1. The Suusamyr Declaration

INMIP

The Suusamyr Declaration*

From the International Network of Mountain Indigenous Peoples (INMIP)

We, representatives from more than 50 indigenous mountain communities of 10 countries of South, Central and Southeast Asia, the Pacific, Latin America and Africa, members of the International Network of Mountain Indigenous Peoples (INMIP), are profoundly alarmed about the rapid deterioration of our mountain environments caused by huge biodiversity loss and accelerating climate change.

Mountains sustain a large proportion of the world's biodiversity hotspots, are several important food crops' places of origin and serve as water towers for millions of people living downstream. But they are also highly sensitive to climate impacts. The rate of warming in mountain regions is significantly higher than the global average, rainfall has adversely changed, and glacier cover has dramatically reduced. As a result, our cultures and human and environmental health are being damaged. This is adversely affecting human rights, women, children and men's well-being, traditional livelihoods, food systems and food sovereignty, local infrastructure, economic viability, and our very survival as mountain indigenous peoples with unique traditional lifestyles.

As members of ancient cultures who possess and maintain a wealth of knowledge, practices and strategies on how-to live-in harmony with nature, we reaffirm that any solution to the climate crisis must be mindful of the deep relationship between human communities and biological diversity as it forms the physical and spiritual basis of our existence. The future of mountain indigenous peoples depends above all on the maintenance of the sacred relationship between our cultures and water, air, plants, pastures, animals, mountains, and respect for the wisdom of our elders and the sacred position of women.

We call on the UNFCCC Parties meeting in Katowice, Poland to:

1. Develop a framework for action on mountains that heightens awareness of the vulnerability of mountain ecosystems and establishes policies and guidance to build the biocultural resilience of mountain environments and to recognize indigenous mountain peoples' contributions to climate change adaptation and mitigation.
2. Take urgent action to protect the human rights of environmental defenders, of the spiritual guides of indigenous youth and of the indigenous generations of tomorrow. More than 270 indigenous environmental defenders were murdered in 2017-18 alone. We reaffirm the inherent and fundamental human rights and status of Indigenous Peoples, especially those contained in Articles 25–30 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
3. Make sure climate change actors strengthen their gender approach to climate action and to open all spaces for participation and representation of youth, particularly women. Initiatives on climate change of national governments, and at community level, should support both direct and indirect opportunities for youth participation and gender-transformative approaches, particularly in educational and developmental learning, and support empowerment of youth.
4. Agree to make real efforts towards the conclusion of the Paris Agreement Work Programme (PAWP), and to ensure it includes a strong mandate for poverty alleviation, protecting the rights of indigenous peoples, public participation, gender equality and women's empowerment, food security and ecosystem integrity. The survival of humanity demands radical and rapid action. This should include decreasing the dependency of States on fossil fuels. We call on Parties to work collaboratively for a just and inclusive transition to decentralized and biodiversity-friendly renewable energy economies and to support indigenous peoples and local communities to achieve energy security and sovereignty.

5. Abandon false climate change solutions that harm indigenous peoples' human rights and the rights of Mother Earth. These include nuclear energy, large-scale dams, geo-engineering, bio-fuels, plantations, 'climate smart' agriculture, and market-based mechanisms such as carbon trading, the Clean Development Mechanism, and forest offsets.
6. Support the full and effective operationalization of the Local Communities and Indigenous Peoples Platform (LCIPP), and the implementation of activities at local level that enable exchange of knowledge, experiences, best practices and lessons learnt for addressing climate change. These activities should support the cross- fertilization of diverse knowledge systems in a holistic and respectful manner, to create a multiple-evidence base that supports local solutions and responses and builds local resilience within the framework of the Paris Agreement and other biodiversity and climate change related processes.
7. Request the Local Communities and Indigenous Peoples Platform to carry out studies on how climate change is affecting the movement of indigenous groups out of their traditional lands. This is crucial to addressing the environmental degradation, in part due to climate change, that is fueling mountain indigenous peoples' internal and international migration. Increasingly, indigenous peoples are migrating to seek better opportunities, or because of persecution and statelessness, which hampers the transmission of traditional knowledge for adaptation.
8. Recognize and respect indigenous peoples' land rights as part of nationally determined contributions (NDCs) and national adaptation programmes of action (NAPAs). This is critical to curb deforestation rates and help achieve the global mitigation needed between now and 2030.
9. Support the protection of biocultural landscapes that harbour centers of crop origin and diversity. Climate change is projected to affect agricultural production and is contributing to a rise in global hunger and malnutrition. Landraces cultivated in centers of crop diversity by indigenous farmers are critical to local food and nutrition security and to ensure the viability of the agriculture of tomorrow. The conservation of these genetic resources depends on the protection of our biocultural landscapes and the evolutionary processes within them. In return, we declare our commitment to implement "*Food Crop Neighbourhoods*" that ensure centers of crop origin and diversity are protected, secure the survival of our biocultural heritage, are defined and managed by indigenous peoples according to our customary laws, and are free from extractive industries, deforestation and chemical-based industrial food systems.

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Katowice, December 2018

* This Declaration collects the main issues and concerns discussed during the 5th meeting of the International Network of Mountain Indigenous Peoples (INMIP) which took place in various locations of Kyrgyzstan during 25-29 July 2018. The meeting culminated in a final session at the Suusamyr pasture.

Annex 2. Developing the Suusamyr Declaration – country team reports

Bhutan

- Focal person for INMIP should be National Biodiversity Centre
- Traditional crops conservation
- TK on cereal crops
- Rituals and cultural values
- Environment management
- Involvement of youth
- Climate change
- Food neighbourhood
- Awareness promotion

Papua New Guinea and Kenya

- Co-management of forests to allow local communities to receive benefits from the forests
- Create awareness and educate the communities on the importance of traditional values and culture in the community for sustainability
- Include TK and culture in the school curriculum to have more youth appreciate and embrace it for continuity
- Women should be given more decision-making roles at all levels, local to national

China

- This INMIP meeting is a great opportunity to teach local knowledge, traditions and to learn knowledge about how we interact with the environment
- We can use culture and communication to sell our products
- We should find more roles for women scientists
- Meetings of indigenous communities on landscapes are important to promote indigenous food systems
- The value of women's knowledge, and teaching women's knowledge

Taiwan

- Women's role in TK
- Landscape is a holistic concept to accommodate local knowledge, a useful framework
- Kyrgyzstan has a strong cultural identity for a young country. They involve young people
- The story of leaving sheep to the wolf reminds us that non-humans also have important roles
- Economic products – we are keen to put new things into local culture; even new and innovative elements can be connected to culture
- Customary law is important in pastures etc to safeguard livelihoods

Thailand

- Innovation based on traditional knowledge and practices
- Indigenous youth are our future
- Creative movements for food security and food sovereignty
- Sustainable economic livelihoods based on TK and science
- Indigenous youth, agriculture of happiness and communication from local to global
- Indigenous chief alliances, communicating the story of food and livelihoods
- Awareness of alternative indigenous foods and nutrition
- Rotational agriculture as a socioecological agriculture system
- Low carbon agriculture and natural resource management as dynamic and innovative systems

Kyrgyzstan

- To use wider national tradition on the use, management and recovery of pasture
- Branding for Kyrgyz walnuts
- Migration
- Involvement of youth and women in collection and involvement of walnut forest users
- Letter to request support for forests
- Comprehensive restoration activities
- Organic crops, Organic Aymaks
- Gene/seed banks for local vegetable and fruit crops

Peru

- Gender: initiatives at community level should include women in all aspects of landscape management (governance, economic)
- Greater support for indigenous peoples (communities, networks, initiatives), especially work on conservation in biocultural territories and climate change adaptation
- Greater work with youth: transmit TK from elders to youth (school and social programmes); create opportunities for youth to stay in the community (healthy crops – healthy bodies; sustainable communities; infrastructure; economies)

Tajikistan

- Gender – involvement of women
- Innovation activities
- Youth
- Nutrition
- Collaboration with scientific institutions
- Strengthening cooperation
- Promotion and awareness raising in mass media
- Introduction of indigenous knowledge in different regions

- Community-based ecotourism
- Creation of local seed banks
- Development of appropriate legislation for indigenous knowledge
- Creation of local networks

India

- Gender issues
- Specific mountain issues
- Customary law
- Traditional knowledge
- Spiritual values
- Rituals
- Migration
- TK on organic production
- Ecological balance

Annex 3. INMIP meeting and roundtable evaluation, 31 July 2018

Evaluation of policy roundtable

Abduhovid: Grateful for the meeting. Proposal for next meeting: we have been four days in the field doing activities. When we declare, it would be nice to be in field for a couple of days, and give tasks to each group to develop declaration – bullet points, then each group put resolutions. Make a brainstorm session. Most of the time we were on the road, now rushed. Some leave today. Also have themes ahead of time. Also meeting in an agrarian university, we thought there would be students, but we did not see them. The idea would be to send messages to youth, discuss with them. Would be good to have meeting more public. Also include youth in next meeting, and consider gender in participation.

Alejandro: Intention was to draft resolution throughout, and share/work with group. Travel time cut into work time. Try to balance experiential learning with other important tasks. If we develop the case studies and make a publication, stressing points mentioned, that would be valuable. Hopefully we send a framework/terms of reference for each case study. On your second point, the main objective of public events is to amplify voices, reach youth too, to see another world is possible. Summer means there are no classes, so it was difficult to include students. Be mindful of these issues in the future.

Baktygul Dzhusupova (director of Lyceum School): The strategy in our school will change. In our college on livestock and farming, we educate on traditional knowledge of farming. We have ad hoc projects, but have new ideas about preparing future employees on the experiences of these countries. Want to educate students on these issues. Would like to be a member of INMIP, we have an NGO which could apply the concepts. Is it possible to be member?

Alejandro: This is a critical question for a body based on membership. We do not yet have a policy for membership. Perhaps in five-year strategic plan, maybe we can discuss this. An issue for each country? For the network? A mix of both? What happens when a second organisation in a country wants to join? To continue with evaluation of roundtable, we usually highlight a theme of relevance to place. For the FAO Mountain Partnership and World Mountain Forum, the issue of migration is of importance. This could be a way to contribute to debates in the FAO Mountain Partnership, and is also important in UNPFII, so another opportunity to contribute.

Prasert: Process is generally not clear how dialogue would happen, we need more information, more time to make the process more beneficial. Challenge of how to develop the dialogue process.

Alejandro: In the past, the local partner decides the issue, and brings local policymakers on issues of importance to host country. In this case, migration was chosen. These are general guidelines so far. Provides an opportunity for local partners to reach out on issues of importance, get more visibility for issues.

Yih-Ren: We recognise importance of policy roundtable – can help local partners raise awareness. Was hurried, not enough to establish dialogue. Would be good for local partners to prepare some information ahead of time, and during the trip use some time to explain to participants the local context, why the theme is important. Could help us find a sharper focus. We are very ambitious to include many issues. Not enough time to discuss our observations, conversation could provide more help to host country. Need more time to prepare, discuss, sharpen focus before development of presentations, contributions to roundtable.

Alejandro: Time to develop some guidelines for organising the walking workshops (WW) and policy forums, will prepare and circulate for comments and feedback. In Cusco, the policy forum was a full day. In each country, participation is different. Also, we have to give local organisers space to organise according to own priorities.

Anne Marie: Five years as a network, good to share how we can improve, as people become interested in the group, we are in a better position to 'sell ourselves'. An issue of membership, how do we adjust structure, ensure benefits from all? We have a lot of quality time on our hands. Sometimes

the travel tires us. Need more quality time to discuss, not just on last day. Could discuss issues on site. Also, we should prepare inputs on the focus topic before we come. Try to make a very concrete contribution. Can also address issues in home country. Prepare to better address the theme/focus area.

Alejandro: We are taking notes of all comments, and will see how to include them in guidelines for organising meetings. Important to have agreed guidelines for walking workshops (WW) and a process of knowledge sharing and knowledge generation.

Action points

- We will develop a road map for how we carry out walking workshops, and circulate for comments.
- We will develop case studies on migration of 3–4 pages to produce a publication, we will develop guidance for this, invite Vicky Tauli-Corpuz to write the foreword, include Kyrgyzstan experts, and see how to divide it thematically. The focus is what communities are doing to keep youth in communities, various strategies (institutional, livelihoods, TK and innovations).

Five-year strategic plan

Alejandro: A raw draft is on the website, gives a raw view of INMIP governance structure – a roadmap for review and completion. It is in Google Docs to allow for comments and redrafting. We will circulate it for adoption at next meeting and leave time for review at next meeting. It is based on other models.

Tammy: All reviewed it at the last meeting. But we still need feedback from all. Few made comments on the web document. Also, since one year ago, we may have new ideas, or changed opinions about certain points.

Alejandro: On an interim basis, ASOCIACIÓN ANDES is the INMIP secretariat. We need to establish institutionality. Options: keep one for secretariat for five years – offers opportunity for all to develop capacity. Or have one permanent secretariat. We don't really have time to discuss this now. Propose all to review the strategy in detail and provide comments. And we will prepare a document for adoption at the next meeting.

Anne Marie: The ideas are fine at our level, but this document is not at the level of farmers – too dense. We need people to break it down for farmers, or more time to discuss and review with farmers. Farmers need to understand what we are agreeing to. The vision and mission are important to share with farmers.

Alejandro: Yes. The document is awaiting comments. We need to set up a process for review. Must work between meetings, or we will be in same situation next year. Need a calendar for finalising the strategic plan, dealing with institutionality, membership, location of the secretariat etc. The strategy is easy to access through the INMIP web page, and each member organisation can review and develop a process for consultation.

Alibek: To be an official member, then INMIP should be registered officially. First, we need to think about how to get it registered, then think about policies for governance and membership.

Alejandro: It's a chicken and egg situation – register/policies. Where or how to register? Laws vary from place to place for NGOs. In Peru, environmental rights are limited for NGOs. It is different in the Netherlands, with a more flexible framework. There are legal and logistical issues for registration. We have consulted a lawyer on this, one piece of advice is to move the secretariat from site to site. Then, even if INMIP is not a registered secretariat, it still functions as one because its members make it so. In the meantime, we need to decide how to deal with new membership requests. We will need guidelines in that regard, or it is difficult to move forward.

Prasert: We have not reviewed the strategic plan. In the meantime, the most important thing is to work to implement the process. It is complicated to think about legal registration. Prefer to keep a loose network, and move forward with the work. In terms of membership, we currently have country membership. Perhaps leave it at country level so each country coordinates internally, and have a country focal point.

Alejandro: To understand – the current focal point decides the membership in dialogue with others interested in being members.

Alibek: In that case, suggest to keep it as we have it now. But legal registration would make it a stronger organisation, to produce new ideas linked to nature etc. Maybe a criterion for membership of the network could be to links to other networks.

Tammy: It should be country-level organisation – with a focal point, coordinator – then all organisations within one country collaborate.

Adbuhovid: Let's make a plan/calendar.

Alejandro: Leave as it is – country-level membership, with an in-country focal point – agreed? Yes. In terms of legalisation, all to make comments on the strategic plan document.

Action points

All to make comments on the INMIP Strategic Plan by end of September.

Election of coordinators and interim secretariat

Alejandro is the current coordinator, could leave or continue a while. Should not be permanent. Good for others to take over both roles.

Tammy proposed Alejandro and ASOCIACIÓN ANDES, seconded by Anne Marie. All in favour – one more year.

Alejandro – I agree to continue one more year, as does ASOCIACIÓN ANDES. We also need guidelines and to think about change for the future.

Next meeting location and date

Yi Ren: At the last meeting, I remember we decided to go to Taiwan. We are prepared to host.

All agree. We should discuss when? Issues of funding. Suggest March – spring, good weather, no typhoons! NOT July or August due to high cost of air fare.

Food neighbourhoods and 2050 visioning

(Distribute 3 documents for this.)

Alejandro: Overview of what is in documents, focus of process. Propose to open a Google Doc in INMIP website. I will post more developed ideas for proposal, invite partners to comment and contribute to see how we balance our interests. Will be important to make sure what we have discussed and vision of network is guiding focus. Quick comments on documents – 2050 vision – will put bullet points to further develop content. Floor open for comments on any of the documents.

Tammy: Need time to review and translate for local partners.

Alejandro: Yesterday agreed to participate, will move forward with proposal, will post as Google Doc for comments and contributions. To be ready to make contributions, need to translate and digest. Will continue to develop and repost in intranet. The 2050 vision will focus on establishing a network of food neighbourhoods – how in 2050 to influence global food systems. Need commitment to act as a group.

Action points

Make SwedBio members of INMIP for web access to allow them to contribute.

Finalise Suusamyr Declaration

Alejandro: Initial framework prepared, and looked at proposed content. Tried to do synthesis of main points. Put initial document up for review, discussion.

- The chapeau – where, how many people, countries, etc?
- Highlight cultural and spiritual values of mountains, and importance for global survival
- Then main issue of loss of ancient practices – nomadic lifestyle, encompassing holistic knowledge, link to food systems.
- Focus on mountains, highlight the discussion we have, problems facing indigenous peoples in mountains (ie climate change), underline regional conditions, use examples from members
- Call for action, taken from points from group lists
- To whom will the declaration be addressed?

Key issues

- Mountain indigenous peoples and climate change
- Mountain indigenous peoples and gender
- Indigenous peoples and migration
- Indigenous peoples and water
- TK of mountain indigenous peoples and disaster risk management
- Mountain indigenous peoples and food and agricultural diversity
- Mountain indigenous peoples and youth
- Mountain indigenous peoples and biodiversity
- Mountain indigenous peoples and sustainable livelihoods
- UN Declaration on the rights of indigenous peoples

Each will require specific examples for each. First let us agree on the format and sections as laid out above.

Sherikbai: Natural resources management – especially forests.

Alejandro: Perhaps as diversity, but maybe better to mention forests specifically?

Anne Marie: Share skills? How to motivate youth via example of Taiwan – carry out knowledge exchanges. Capacity building or sharing of knowledge – from country to country. Also, the Philippines has experience of sharing skills with youth.

Alejandro: Anne Marie to draft paragraph to include knowledge and skill exchanges. Be mindful of who the declaration is directed to – call to action. Just add a sentence on exchange within paragraph on youth. At the beginning we discussed a potential public/audience – FAO Mountain Partnership, CBD, UNFCCC – so look at what policy meetings are planned that we could participate in to have an impact on international policy processes. Let us identify/agree themes – then assign paragraphs to working groups. Agree to whom it is addressed. How to balance message and opportunity in policy processes? Cannot make it too long – or it will not be read. Will send to IIED editing team.

Tammy: Where would we have the most impact? CBD focusing on new framework for Article 8j on traditional knowledge – we know the connections. Mountain Partnership of FAO – we are new members with not many 'teeth' but are opening doors to these issues. They tried to put mountains on the agenda with UNFCCC but failed, also with SDGs largely failed.

Yih-Ren: We are not familiar with the policy processes. Agree with Tammy – focus on where we can have impact and where is relevant to food neighbourhoods?

Alejandro: Pernilla is deeply involved in policy processes.

Pernilla: The previous declaration aimed to be very focused on climate change for the UNFCCC Conference of the Parties (COP). However, it was difficult to focus on climate alone, as indigenous peoples generally take a holistic approach, and in all our discussions we addressed broader issues. I would like to suggest a paragraph on the 2030 SDGs, the broad framework for sustainable development, that also talks to the holistic perspective. It is also important to link our visions to future agendas, such as the CBD's post-2020 Global Biodiversity Framework that is being developed. The declaration can be an important contribution to the post-2020 framework, especially as there is a new ambition to be more efficient in including the full and effective participation of indigenous peoples and local communities, as manifested in CBD Article 8j on TK, innovations and practices, and Article 10c on customary sustainable use. There is an ongoing discussion on what are the priorities for indigenous peoples and local communities. It is important to also mention climate change, and indigenous peoples as long-term holders of adaptation capacity, but also as vulnerable when things change too fast. We can thus mention several relevant areas and contribute to many processes.

Yih-Ren: Will CBD be relevant to food systems?

Alejandro: Yes, food is included in this. It is holistic and can be used in various fora.

Danielle: Two points: put seed systems in food systems. Also, could target FAO Committee on World Food Security, IFAD and World Food Programme.

Prasert: CBD is main food one. But should also link to UNFCCC.

Alejandro: Suggestion is to do a broad declaration and specifically target different conventions, for example using the issue of youth to link to UNPFII; having a food/seed systems draft to mention by name our initiative on food neighbourhoods and resilient seeds; include some FAO issues linked to farmers' rights and benefit sharing; on TK we could focus on CBD and Article 8j. At the same time, we could link to the indigenous platform of the UNFCCC; also water is linked to UNFCCC; forests linked to CBD and FAO. Craft messages according to priorities of these bodies/processes. As Pernilla suggests, write a chapeau mentioning each process, then craft each paragraph to be directed to the priorities of each, to make specific contributions to these processes.

Drafting – give each team the task of writing one paragraph, and use as a basis for the draft. In one week, circulate a more elaborated draft, one more week for comments. Be ready in two weeks. We need to collaborate – perhaps each can choose a theme? Or each submit their paragraph in few days. Will be used as a basis for further development.

Indigenous peoples and territories, resources included? Chapeau can include all of them. It reaffirms special connection of indigenous peoples to nature. Need to focus on values. For change to happen,

indigenous paradigms are critical. Main message – forgot to include that many indigenous leaders and human rights activists have been killed defending a way of life. We should mention that.

Name of declaration? 'Suusamyr pasture declaration' or 'Nomad declaration'. Assign responsibility for each section to country teams:

- The chapeau – where, how many people, countries, etc (Alejandro and Alibek).
- Highlight cultural and spiritual values of mountains, and importance for global survival (Peru).
- Then main issue of loss of ancient practices – nomadic lifestyle, encompassing holistic knowledge, link to food systems (India).
- Focus on mountains, highlight the discussion we have, problems facing indigenous peoples in mountains (ie climate change), underline the regional conditions, use examples from members and Declaration on the Rights of Indigenous Peoples (Peru).
- Mountain indigenous peoples and climate change (China).
- Mountain indigenous peoples and gender (Taiwan).
- Mountain indigenous peoples and migration (Tajikistan).
- Mountain indigenous peoples and water (Kenya, PNG).
- TK of mountain indigenous peoples and disaster risk management (Bhutan).
- Mountain indigenous peoples and food and agricultural diversity (Tajikistan).
- Mountain indigenous peoples and youth (Thailand).
- Mountain indigenous peoples, forests and biodiversity (Kyrgyzstan).
- Mountain indigenous peoples and sustainable livelihoods (India, Taiwan).

Be sure to address key agendas of the processes we would like to target (CBD, UNFCCC, FAO).

Reflections on the network and drafting the declaration

Alan (Tamalpais): I have two reflections:

- On drafting the declaration: because of the diversity of voices and capacities in the INMIP membership, and the time constraints you are under, it may be most efficient for Alejandro to draft the declaration and share the draft for comments, rather than have each country create their own portion, which would later need to be integrated into one coherent document. Having Alejandro draft the declaration has the advantage of the document having one voice, and once drafted, then each country could comment on all the themes.
- On the network in general: this network is composed of broad network or members, each with different interests, experience and capacities, from the policy level to the local level. Each has important attributes and things to contribute, but not all will contribute the same at all levels of discussion, thus weakening and throwing off balance the network. Therefore, I propose the creation of an intermediate level or mid-level high-capacity INMIP member for each country, a person who can bridge the current divide between high-level global and low-level local, who can act as a translator of sorts, within and between countries. This carefully selected country-level representative could explain global-level issues to local partners, and also in reverse, local to global, and then represent each country as appropriate in INMIP discussions. Otherwise, the INMIP network will lack coherence and strength, and the secretariat will not succeed in devolving power and agency to the community level, with whom it must rightly be shared if the vision and values of INMIP are to be fully realised and sustainable.

Pernilla (SwedBio):

- To be a network is different to being an organisation, it is about diversity and providing meaningful space and energy for everyone; reciprocity, equity and usefulness for all involved. To maintain a network needs vibrancy, energy across all levels – it has been five years now. INMIP began with innovative ideas from a group that all knew each other; and evolved organically as a network. In some sense you have established a structure, so the next step is to see how to keep vibrant dialogue over time. How can partners engage with each other between encounters? PNG and Kenya have a joint idea about how to link mountains and coast. The common ideas are what give vibrancy to the network.
- Back to first day and multiple evidence base. All types of knowledge contribute, TK also. Keep focus on the knowledge and practices of indigenous peoples, to remain a learning platform – indigenous knowledge should be the focus. Voices of farmers and indigenous peoples are key. Need to find ways to bring those voices forward. Give time and space (ie through walking workshops). Need translation, need time and space for translation, conversation, voices of farmers. This knowledge coming from a position of equity, reciprocity.
- We should find methods to keep in touch with each other; we have many opportunities in the new world for communication.

Alejandro: Good ideas and guidance for the ways forward.

Prasert: Suggest secretariat do first draft of declaration – to harmonise with policy processes. Each country then finalise the paragraph assigned to each country.

Anne Marie: Alejandro knows the audience, processes. Also, too many voices can confuse the issue. Agree that Alejandro draft, and then countries contribute.

Alejandro: I will consult in writing the draft as much as possible, then circulate to people for input on their theme and to review other sections. Should have a draft for editing at IIED in three weeks. Draft in one week, one week for comments, one week for edits.

Annex 4. Participants List for Walking Workshop

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The International Network of Mountain Indigenous Peoples (INMIP) aims to support capacity development for biocultural heritage, climate change adaptation and sustainable food systems through community-to-community exchanges. It currently includes communities from 11 countries in Asia, Africa and Latin America. It is coordinated by Asociación ANDES (Peru).

INMIP organised its 5th learning exchange in Kyrgyzstan, 26–31 July 2018, with support from ANDES, PF Bio-Muras and IIED. This report presents the results.

Event Materials

Food and Agriculture

Keywords:
International Network of Mountain Indigenous Peoples (INMIP), traditional knowledge, biocultural heritage, climate change adaptation

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Funded by:

Tamalpais Trust

New Field Foundation Seeds, Soil & Culture

The Christensen Fund

SwedBio
A programme at Stockholm Resilience Centre