

Workshop Report

Tracking Options for Sustainable Management and Trade of Yarshagumba in the Kailash Sacred Landscape

FOR MOUNTAINS AND PEOPLE



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Workshop Report

Kailash Sacred Landscape Conservation and Development Initiative

Tracking Options for Sustainable Management and Trade of Yarshagumba in the Kailash Sacred Landscape

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Acronyms

ANCA	Api Nampa Conservation Area
BAFRA	Bhutan Agriculture and Food Regulatory Authority
CAS	Chinese Academy of Sciences
CGS	China Grassland Supervision
CFUG	Community Forest User Group
DoF	Department of Forest
DAMC	Department of Agriculture Marketing and Cooperatives
DNPWC	Department of National Park and Wildlife Conservation
DPR	Department of Plant Resource
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
GBPIHED	G.P. Pant Institute of Himalayan Environment and Development
ICS	Information and Communication Services
ICIMOD	International Centre for Integrated Mountain Development
KSLCDI	Kailash Sacred Landscape Conservation and Development Initiative
MoAF	Ministry of Agriculture and Forest
MoFSC	Ministry of Forest and Soil Conservation
NTFPs	Non-Timber Forest Products
RECAST	Research Centre for Applied Science and Technology
SBB	State Biodiversity Board
TU	Trivhuwan University
TAR	Tibet Autonomous Region

Workshop Summary

A regional workshop on 'Tracking Options for Sustainable Management of Yarshagumba and Trade for the Kailash Sacred Landscape Conservation and Development Initiative (KSLCDI)' was held in Paro, Bhutan from 9 to 12 August 2015. The workshop aimed to establish a platform for exchanging knowledge, experience and lessons learned by individual countries on sustainable Yarshagumba management; forge regional networks of institutions and experts; and promote regional cooperation for collective efforts in sustainable management of highly valued natural resources for livelihood co-benefits in the landscape.

During the workshop, representatives from Bhutan, China, India and Nepal discussed existing policies, practices and science, as well as challenges and potential solutions in cordyceps management. Some of the major challenges include limited knowledge, environmental degradation, socioeconomic conflict and illegal trade. Research on cordyceps from a socioeconomic perspective is also lacking, which creates a gap in existing knowledge of Yarshagumba in these countries.

The workshop made a number of recommendations for effective management and trade of Yarshagumba. These included building capacity of relevant stakeholders, introducing identity based entry permits, registration of buyers, determining the carrying capacity of Yarshagumba habitat, long-term monitoring and research in Yarshagumba management, and developing sustainable harvesting techniques. Each country also identified its key priority. Bhutan emphasized strengthening the marketing of the product. China focused on introducing an auction system. India's concern was to reduce the number of Yarshagumba collectors per household, while Nepal stressed the need to develop guidelines for managing the resource.

In view of KSLCD's transboundary nature, countries shared ideas on ways to enhance regional cooperation for improved Yarshagumba management and trade. These included developing and implementing long-term monitoring protocols, e.g., establishing permanent plots in member countries, joint monitoring and experience sharing among researchers and bringing out joint publications. Participants also highlighted the importance of building strong networks among member countries by encouraging collaboration and networking institutions, organizing bilateral meetings, capacity building through exchange visits, workshops and seminars, promoting trade, market and market information through transparent marketing systems, transboundary cooperation and value addition.

Recommendations

Participants greatly appreciated the role of cordyceps in enhancing the livelihood of people in Kailash Sacred Landscape (KSL). Discussions were geared towards improving existing policies related to cordyceps management through strong regional cooperation and a collective approach for ensuring sustainability and generating co-benefits for mountain people. The workshop came up with the following recommendations for cordyceps management in KSL.

Priority activities for Yarshagumba management and trade

- Strengthen Yarshagumba marketing procedures and regulations
- Engage in dialogue with neighbouring countries on policies/strategies for resolving transboundary issues such as illegal harvesting and trade of Yarshagumba
- Introduce a Yarshagumba auction system on a trial basis to maximize profit for the collectors
- Establish a fixed royalty system for Yarshagumba.
- Develop Yarshagumba management guidelines



Priority activities for sustainable management practices in Yarshagumba

- Improve post-harvest activities of Yarshagumba including grading and market information
- Provide alternative cooking and heating facilities in high-altitude areas during Yarshagumba season to minimize pressure on forest
- Introduce mechanisms and schemes to encourage local collectors to invest their quick incomes derived from Yarshagumba for long-term enterprise development
- Introduce a system for registering Yarshagumba buyers
- Train and build capacity of collectors on sustainable methods of harvesting Yarshagumba

Recommendations for strengthening regional cooperation in Yarshagumba

- Develop and implement long-term monitoring protocol inclusive of biodiversity
- Promote exchange visits among member countries to learn about best practices in sustainable management of Yarshagumba
- Promote registration of traders and form regional networks of traders
- Establish strong networks and promote transboundary cooperation to control illegal Yarshagumba trade

Lessons learned on policies, practices and science

- Guidelines for collecting/ harvesting Yarshagumba (Bhutan)
- Export Certification Procedure for Yarshagumba (Bhutan)
- Sustainable collection practice (China)
- Protected area restriction procedure (India)
- Permanent plot (China and Bhutan)
- Data collection and mapping

Introduction

Ophiocordyceps sinensis, commonly known as Yarshagumba, is a caterpillar fungus that grows naturally in the northern alpine grasslands of Bhutan, India, Nepal and the Tibetan plateau of China at an altitude of 3,000 to 5,000 m (Buenz et al. 2005). Recognized for its medicinal value, yarshagumba has become a major source of income for mountain communities in these countries. This has led to overharvesting and environmental degradation in its habitat. While national governments are making efforts to introduce better harvesting and management practices, policies and regulations for collection and trade of Yarshagumba differ from country to country.

Within the Kailash Sacred Landscape (KSL), Yarshagumba is an important source of livelihood for remote mountain people. Access and management of Yarshagumba has become a contentious terrain. Both government institutions and local communities are keen to develop national policies and local management plans to reduce the negative impact of Yarshagumba collection and trade.



In 2014 the government of Nepal held a national workshop on conservation and management of Yarshagumba. The event generated information on the production, trends, and customary and statutory rights with regard to access to and benefits from this resource. The workshop revealed a clear need for a detailed understanding of harvesting and utilisation techniques; habitat management; market information, value addition, and benefit sharing; and transboundary cooperation for trade and strengthening horizontal and vertical linkages (community control, market linkage). These findings have a regional/transboundary interface and requires cooperative learning and solutions. Sustainable collection and trade of Yarshagumba is a transboundary issue that requires regional-level effort and cooperation.



The 2015 regional workshop thus aimed to discuss policies and practices that can facilitate exchange of knowledge and experiences in cordyceps management. In addition, it sought to contribute to one of the intended outcomes ICIMOD's Transboundary Landscape programme: 'improved cooperation among regional member countries for sustainable and inclusive ecosystem management for enhanced and equitable livelihood benefits'. In particular, this activity is related to several outputs under the KSLCD such as innovative livelihoods for strengthening value chains for higher income for farmers, ecosystem management for sustaining services through preparation of area-specific conservation, etc.

The workshop was held in Paro, Bhutan so that the participants could observe the annual yarshagumba auction organized by the government of Bhutan on 9-10 August 2015. During the action, all registered collectors and traders come together for transparent trading of Yarshagumba. The participants also had an opportunity to observe cordyceps value addition facilities and understand Bhutan's overall approach in managing high-value non-timber forest products (NTFPs) for livelihood co-benefits. Objectives and expected outcomes of the workshop are summarized in table 1.

Table 1. Workshop Objectives and Expected Outcomes	
Objectives	Expected Outcomes
<ul style="list-style-type: none"> • Exchange knowledge and experience on sustainable yarshagumba collection and trade with specific reference to policies, legal status, and involvement of stakeholders in each country. <ul style="list-style-type: none"> • Legal status in each country, existing national/ international policies, experience on value-addition • Exchange lessons on best practices to develop national or local level management plans (area specific conservation, management and marketing) <ul style="list-style-type: none"> • Role of state, local institutions and communities, lessons learned from Bhutan's experience in cordyceps market interventions • Facilitate formation of informal networks of key people involved in Yarshagumba management and trade in the region 	<ul style="list-style-type: none"> • Policy recommendations for each member country on improved management of Yarshagumba. • Documentation of best practices (Yarshagumba management, access and benefits, markets) at local level. • Establishment of informal network of key persons working on Yarshagumba in the region • Identified next steps and actions on Yarshagumba management and trade by KSL member countries

Country Presentations: Linking Yarshagumba to Future Development

Yarshagumba in Bhutan: Sustainable Harvesting and Management

The Royal Government of Bhutan supports sustainable management of Yarshagumba as the resource is highly valued among Bhutanese communities. However, sustainable management and trade of Yarshagumba remains a big challenge because of lack of awareness, malpractices, inefficient value addition techniques and market information.

Existing policies for Yarshagumba management:

The Department of Agriculture Marketing and Cooperatives (DAMC) in Bhutan introduced an auction system for yarshagumba in 2004. Auctions were also conducted under FBC and local government in 2012 and 2013 respectively. DAMC is responsible for issuing identity cards, facilitating registration processes and deregistering buyers who fail to comply with MOAF guidelines. Announcements are made on national television about auction sites. DAMC supports the Geog auction committee and is a member of the visual sorting committee.

Management issues:

- Limited knowledge of collectors of biology and ecology of Yarshagumba
- Illegal collection and sale of Yarshagumba
- Lack of organization and communication among collectors
- Increased government dependency for conservation and management
- Exponential growth of collectors in recent years
- Unregulated camping of collectors (on or near growing areas)
- Increased garbage problems in collection sites
- Detrimental effect on the carrying capacity of the land, shortage of food for blue sheep and the mega carnivore (snow leopard)



Yarshagumba in China: A Gift of Nature or a Threat to Rangeland Ecosystem?

Income from cordyceps has enhanced the quality of life of nomadic communities in China. However, Yarshagumba collection has also had adverse effects on the environment and local communities. Degradation of rangelands due to overharvesting, deforestation due to fuelwood collection, environmental pollution, social instability and conflict, incidence of falsified or fake cordyceps in the market, and low production due to intensive harvesting are some of the major issues related to Yarshagumba harvesting in the country.

Existing policies for Yarshagumba management:

Ophiocordyceps sinensis is classified as Grade II protection species in the list of national protected plant species prepared by the State Council of China in 1999. This classification, however, did not lead to a suspension or ban on the collection of cordyceps. National Grassland Act, Regulation of National Wild Plant Protection, and

Regulation on Exportation and Importation of Endangered Plant and Animal Species Management are some of the legislations associated with cordyceps management in China. China Grassland Supervision (CGS), affiliated to the Ministry of Agriculture, is responsible for monitoring and implementing regulations for collection and trade of Yarshagumba and formulating provincial harvest plan every year.

The Ministry of Science and Technology, the National Science Foundation, the Ministry of Agriculture, Chinese Academy of Sciences, universities and private companies are also involved in Yarshagumba research in China.

Both TAR and Qinghai Province have regulations on the issuance of collection and trade permits. However, tax evasion in the street market and transboundary smuggling of Yarshagumba continues.

Recommended policy interventions:

- Quota/permit systems are useful to some extent; however, urgent revision of regulations is required to ensure clarity regarding permit systems, tax, use of standard collection tools, knowledge sharing, capacity building and awareness raising on sustainability.
- Additional financial support is vital for conducting research on Yarshagumba despite the fact that great progress has been made in the fields of habitat management, development of new technologies and products.
- Intensive and systematic policy research, inter and intra-country experience sharing through open information exchange and inter-department collaboration are crucial.
- It would be advisable to establish a cordyceps administration system from the ministerial to township level for the millions of poor highland residents who depend on the species.

Community-Based Yarshagumba Management in Baima Xueshan, NW Yunnan

Baima Xueshan Nature Reserve was established in Southwest China in 1983. It has a population of around 9,600 people, most of whom depend on natural resources. Yarshagumba collection is one of the main income sources. Although this activity is banned in the area, community members have reached an understanding with officials to secure their livelihood. They are allowed to collect the resource on the condition that they do not cause harm to the natural ecosystem; maintain designated campsites with stringent no-litter policy; use designated tools for collection; reassess the level of destruction to the grasslands and restoration after each collection season. Similarly, understanding has been made in terms of collection ownership through collection of fees and better management through a fixed time period for collection. In addition, officials assist people in acquiring information on price dynamics and bringing traders to the community members.

Yarshagumba in India: Policy and Practices in Uttarakhand, India

Yarshagumba is recognized as a non-timber forest product in India. There are restrictions imposed on its collection and trade. Collection of yarshagumba from Protected Areas (PA) and Reserve Forests (RF) are usually not allowed. Over the years, increased collection of yarshagumba in Uttarakhand has led to problems such as degradation of fragile habitat, indiscriminate use of floral diversity for fuel and other purposes, unscientific harvesting, threats of forest fires, poaching and social conflicts.

Existing policies for Yarshagumba management:

Legal frameworks that govern Yarshagumba in India include Indian Forest Act 1927, Van Panchayat Rules 2005/2012, Uttarakhand Forest Transit Rules 2012, Biological Diversity Act 2002 and The Schedule Tribes and Other Traditional Forest Dwellers/Recognition of Forest Rights Act (FRA), 2006. Van Panchayat (VP) issues permits for collection of Yarshagumba to the local right holders. Some features of the existing provision (2008) includes fixed collection period (1st May-30th June), marketing through Forest Development Corporation, extraction monitoring by the District Magistrate/District Forest Office at least once a year, identity cards, and royalty for cordyceps.

Recommended policy interventions:

- Assign a single nodal department to enforce regulations on Yarshagumba management
- Sustainable harvesting practices, research on ecology and rotational harvesting
- Regular stakeholder meetings at district and sub-district level
- Sub-district/district level committee under FRA may resolve disputes over access rights for civil and unclassified forests
- Transboundary issues should be resolved through mutual dialogue and sharing of information and expertise.
- Awareness and capacity building of the locals and relevant stakeholders
- Organized marketing, registration of potential buyers, value addition through grading and sorting, buyer-seller meet, and open auction on dates fixed by representatives of local bodies
- Royalty rates should be declared in advance to facilitate the trading process



Yarshagumba in Nepal: Policy, Market, Trade and Management in Dolpa

Dolpa district is known for producing the highest quantity and quality of Yarshagumba in Nepal. The management committee under the leadership of the District Forest Office oversees Yarshagumba governance in the area. In addition, the District Development Committee has issued yarshagumba management guideline (2007). The committee decides the opening and closing dates of the collection period, which is monitored by the local clubs in the collection sites. There is a fixed entry fee system for collectors in the district. The entry fee is NPR 500=00 for the community forest user group (CFUG) member, NPR 2000=00 for a local resident of Dolpa and NPR 3000=00 for people from outside Dolpa. In 2009 the funds collected from entry fee by each CFUG ranged from NPR 500,000=00 to NPR 25,00,000=00, while yarshagumba trade contributed about 25% of the income for individual collectors in the district. Impacts of cordyceps collection summarized in table 2.

Table 2. Impacts of Cordyceps Collection	
Positive impacts	Negative impacts
<ul style="list-style-type: none"> • Helped improve access to education and healthcare and to meet basic needs like food and clothes. • Raised the socio-economic condition of those involved in the activity • Generated income for developing infrastructure like house and solar power system and for buying luxury items such as television and other gadgets • Enabled female collectors to make long-term investment (e.g., gold jewellery) 	<ul style="list-style-type: none"> • Made people habituated to expensive and luxury goods • Increased alcohol consumption and gambling among youth • Decreased interest in agricultural work; low productivity • Risk of accident and death faced by collectors • Unsustainable harvesting and decline in production

Recommended policy interventions:

- Controlled entry and sustainable harvesting
- Prevent loss of biodiversity and poaching activities in collection sites
- Equitable benefit sharing amongst people
- Streamline institutions' roles and resolve boundary conflicts among CFUGs.
- Control illegal trade on the Nepal-Tibet border.
- Research and development activities in cordyceps management
- Raise awareness of sustainable harvesting, packaging and processing techniques.

Key points made by the respective countries are summarized in Table 3 & 4.

Table 3. Summarized policies, practices, and science				
Summarized policies				
Key areas	Bhutan	China	India	Nepal
Policies	Legalized for collection and trade under Forestry Acts/ Policies	Protected but access allowed according to harvesting plan and quota	Prohibited in Protected Areas; and Government Reserve Forests; Allowed in Van Panchayats, civil forests and unclassified forests	Legalized for collection and trade under Forestry Act/ policy
Summarized practices				
Key areas	Bhutan	China	India	Nepal
Access to Yarshagumba resource	Based on administrative boundaries	Based on traditional user rights	Based on traditional rights	Open access
Registration of collectors/permits	Collectors limited to communities residing in highlands; Only 3 collectors per household; Civil servants prohibited	Quota system; lack of clarity regarding access permit	Permits issued by Van Panchyats	Local permit system
Registration of traders	Access limited to local traders; Government encourages traders for competitive bidding	No registration; Access via middlemen	No registration of buyers	Open to local and international traders
Harvesting guidelines	Exist at the national level	Harvesting plan prepared by China Grassland Supervision	Yes (provision 2008)	Exist at the district level in some areas
Camp site management guidelines	Prescribed guidelines	Site specific agreements	No	Site specific agreements in some areas
Waste management guidelines	Exist	Site specific agreements	No	No
Post-harvest cleaning, storage, packaging	Local practices; Limited processing	Local practices; Processing by companies	Local practices; No packaging	Local practices; No packaging
Grading	By committee at the auction venue	Standardized quality control	Done locally	Done by collectors and traders
Marketing	Organized and transparent auction system; Led by local government and facilitated by government stakeholders	Not organized; Direct transaction between collectors and middlemen/ consumers	Not organized; Direct transaction between collectors and trader/ middlemen	Not organized; Direct transaction between collectors and middlemen
Transparency of local market price	Collectors are aware of local market prices	Depends on individual bargaining power	No official market	Depends on individual bargaining power
Summarized science				
Key areas	Bhutan	China	India	Nepal
Monitoring plots	Initiated and ongoing (4 plots in different regions)	No monitoring plots	Yet to start	Implemented in some areas; difficult to continue
Socioeconomics	Some studies done	Yes	Few	Yes

Key points made by the respective countries are summarized in Table 4.

Table 4. Key points: Policies, practices, and science		
Bhutan		
Policies	Practices	Science
<ul style="list-style-type: none"> • Revisit policy of 20% increase in royalty every two years • Rather, increase royalty according to market price • Improve marketing strategies • Promote policies/strategies related to transboundary issues <p>Responsible: DoF&PS, DAMC, BAFRA</p>	<ul style="list-style-type: none"> • Improve post-harvest (grading, market information) • Improve cooking and heating facilities • Strengthen garbage management; • Provide awareness raising and training to collectors • Adopt a co-operative business model on a trial basis <p>Responsible: DoF&PS, DAMC</p>	<ul style="list-style-type: none"> • Identify host moths • Identify long-term observation plots • Establish weather stations • Determine carrying capacity • Ensure co-ordination among researchers <p>Responsible: RDC, DoF&PS, ICIMOD and other regional institutions</p>
China		
Policies	Practices	Science
<ul style="list-style-type: none"> • Introduce auction system of marketing (to avoid fake products and to increase collectors' profit) <p>Responsible: Government</p>	<ul style="list-style-type: none"> • Train and build capacity of collectors. • Encourage local collectors to invest incomes from Yarshagumba for enterprise development <p>Responsible: Government</p>	<ul style="list-style-type: none"> • Market chain analysis and risk assessment • Long-term monitoring and research on Yarshagumba in the context of climate change and human activities <p>Responsible: CAS , CGS</p>
India		
Policies	Practices	Science
<ul style="list-style-type: none"> • Reducing collection period from 2 months to 1-1.5 month • Restricting number of collector per household • Advance fixation of royalty • Awareness on biodiversity conservation measures • Develop marketing strategy <p>Responsible: State govt, UKFD, SBB, communities</p>	<ul style="list-style-type: none"> • Awareness and capacity building of collectors • Introduce registration of buyers • Enhance patrolling of the area for effective regulation and monitoring • Organize buyers and sellers meet <p>Responsible: State govt, UKFD, SBB, communities, Revenue Dept, state bodies</p>	<ul style="list-style-type: none"> • Impact on biodiversity • Status of availability of Yarshagumba • Harvesting/collection trends and techniques <p>Responsible: GBPIHED and other research institutes</p>
Nepal		
Policies	Practices	Science
<ul style="list-style-type: none"> • Develop and pilot Yarshagumba management guidelines in ANCA <p>Responsible: MoFSC/DoF/DNPWC/ DPR/ KSLCDI</p>	<ul style="list-style-type: none"> • Introduce an identity registration system, a certification process, and an auction system for marketing <p>Responsible: MoFSC/DoF/DNPWC/ DPR/ KSLCDI</p>	<ul style="list-style-type: none"> • Conduct Yarshagumba mapping, establish monitoring plots, ecological and habitat study, and assess trade. <p>Responsible: MoFSC/DoF/DNPWC/ DPR/ KSLCDI/ FNCCI/ RECAST</p>

Status, Recent Practices, and Sustainable Management Options for Yarshagumba in ANCA-KSL

The discussions are based on extensive fieldwork within ANCA in KSL Nepal. There is a need for urgent management guidelines, awareness raising on sustainable harvesting methods and local stakeholder dialogues between upstream-downstream communities, long-term monitoring of the resource, and transboundary cooperation to address illegal trade in Yarshagumba.

Priority Actions, Stakeholders Involvement, Challenges, and Implementation in Yarshagumba Management

Key questions:

- What would be your key priority actions for implementation?
- Which stakeholder is responsible for taking it forward?
- What are the challenges in implementation?

Group discussions on priority regional activities and collaborating institutions are summarized in table 5

Table 5. Summarized group discussions on priority regional activities and collaborating institutions	
Priority regional activities	Collaborating institutions
<p>Long-term common monitoring:</p> <ul style="list-style-type: none"> • Develop harmonized protocols (include flora and fauna, climate, soils, etc.) 	<p>Bhutan: RDC Yusipang and Parks</p> <p>China: CAS</p> <p>India: GBPIHED</p> <p>Nepal: RECAST, TU</p>
<p>Networking and coordination:</p> <ul style="list-style-type: none"> • Promote exchange of information and coordination at various levels (national, state, regional and community level); • Strengthen sharing of policy, rules, regulations & management plans; • Develop a general framework for sustainable management of Yarshagumba at the regional level; • Organize bilateral meetings among member countries 	<p>Bhutan: MoAF</p> <p>China: Regional and provincial govt./department of agriculture and animal husbandry and department of forestry</p> <p>India: State govt. Uttarakhand/FD</p> <p>Nepal: MoFSC</p>
<p>Capacity building:</p> <ul style="list-style-type: none"> • Organize exchange visits among member countries • Organize workshops on various related topics • Develop training tools and material for collectors/communities on sustainable management of Yarshagumba 	<p>Bhutan: MoAF</p> <p>China: Regional and provincial govt./Department of agriculture and animal husbandry and department of forestry</p> <p>India: State govt. Uttarakhand/FD</p> <p>Nepal: MoFSC</p>
<p>Trade, market and market information:</p> <ul style="list-style-type: none"> • Develop a regional market information system • Introduce and pilot registration of traders and auctioning for improved marketing • Produce a documentary on grading/sorting/processing • Organize transboundary meeting on control of illegal trade • Establish a regional network to share best practices, market study and market information 	<p>Bhutan: DAMC, DOF&PS, BAFRA</p> <p>China: CAS, KSLCDI</p> <p>India: GBHID, state forest department</p> <p>Nepal: MOFSC, RECAST</p>

Recommendations from the discussions on key questions:

- Need for a functional framework or guidelines that the individual countries could adapt to the local context
- Capacity building at various levels, particularly at the grassroots level (collectors), for sustainable management of Yarshagumba with appropriate training materials
- Better communication for reliable information on Yarshagumba in regional market information system
- A common and harmonized research protocol for long-term monitoring of cordyceps

Workshop Outcomes

- Develop a broad regional policy guideline that integrates best practices from the HKH region in sustainable and inclusive management and trade in Yarshagumba. The document should provide general guidance that each country can adapt to the national context.
- Develop communication materials for communities and other key stakeholders (do's and don'ts) for sustainable management of Yarshagumba including harvesting methods, campsite and waste management, post-harvest care and marketing.
- Organize capacity building initiatives at various levels through exchange visits, transboundary and bilateral meetings.
- Assess regional and international market to promote systematized transboundary trade in yarshagumba.
- Initiate long-term monitoring (inclusive of biodiversity, climate, weather and other parameters) using harmonized protocols for applied research and management and standards to generate comparable data that are crucial for planning sustainable Yarshagumba management interventions.



Roadmap Ahead

- Produce a descriptive document (proceedings) as well as a synthesis report on policy, practice and science that different stakeholders can use for supporting sustainable management and trade in Yarshagumba.
- Prepare a broad regional policy guideline on sustainable management and trade in Yarshagumba with nodal country institutions including Bhutan
- Integrate priority activities (regional and national level) identified during this workshop into the 2016 work-plan of KSLCDI member countries during the upcoming KSLCDI review and planning workshop scheduled for 1-4 September 2015 in Kathmandu.
- Network with KSLCDI nodal institutions (China, India, Nepal) and Bhutan to share information and organize exchange visits to learn about good practices in Yarshagumba management and trade.



Annex 1: Workshop Programme

Day 1: Saturday, 8 August 2015

Session 1: Inaugural – Setting the Context of the Regional Yarshagumba Workshop Chair: His Excellency Lyonpo Yeshey Dorji, Minister, MOAF, Bhutan		
15.30-16.00	Registration	Staff of DOF&PS, MOAF
16.00-16.15	Traditional Marchang ceremony	Gyeltshen Dukpa, Chief, DoF&PS, Bhutan
16.15-16.25	Welcome address	Dasho Tenzin Dhendup, Hon'ble Secretary, MoAF, Bhutan/ ICMOD Board of Governors
16.25-16.40	Overview of Kailash Sacred Landscape Conservation and Development (KSLCD) initiatives, objectives and expected outcome of the workshop	Dr Rajan Kotru, Regional Manager, Transboundary Landscapes, ICIMOD
16.40-17.00	Livelihoods and natural resources management in the transboundary landscapes: GlZ perspectives	Corinna Wallrap Technical Advisor, GlZ
17.00-17.15	Address by Chief Guest	His Excellency Lyonpo Yeshey Dorji, Minister, MoAF, Bhutan
17.15-17.20	Vote of thanks	Dr. Tashi Dorji, Livelihood Specialist, ICIMOD
17.20-18.00	Tea break & group photograph	Information and Communication Services (ICS), MOAF
18.00	Welcome dinner	

Day 2: Sunday, 9 August 2015

Interactive Field Visit: Bhutan's Yarshagumba Marketing System through Auctioning Process		
Morning	Participate in Yarshagumba auction in Tsento, Paro; Informal Interactive session with Yarshagumba collectors, traders, community representatives and local government officials	Coordinated by Kaka Tshering, Chief Forestry Officer, Paro Forest Division, DoF&PS, MOAF, Bhutan
Afternoon	Visit Ta-Dzong, National museum of Bhutan	

Day 3: Monday, 10 August 2015

Session 2: Reflections on Yarshagumba Management Systems in Each Country Moderator: Professor Yang Yongping, Kunming Institute of Biology, China		
08.30-09.00	Registration	DOF & PS
09.00-09.30	Keynote address on forest governance in Bhutan	Dr Sangay Wangchuk Officiating Director General, DoF&PS, MoAF, Bhutan
09.30-10.00	Introductions and understanding participants' expectations from the workshop: Informal exercise	Facilitators: Corinna Wallrap and Dr Pushkin
Country Presentation: Bhutan		
10.00-10.30	Yarshagumba history, development of management systems, policies, rules, guidelines, access, benefits, local institutions, stakeholders, socio-economics	Gyeltshen Dukpa, Chief, DoF& PS, Bhutan
10.30-11.00	Yarshagumba marketing, certification, product development and trade	Dorji Wangchuk, Dy. Chief Marketing Officer, Department of Agriculture Marketing & Cooperatives, MOAF, Bhutan

11.00-11.30	Socio-economics and monitoring of Yarshagumba in Bhutan	Dr Purna Bdr Chhetri CRO, RDC Yusipang MoAF, Bhutan
11.30-12.30	Open discussion Insights from a visit to Yarshagumba auction and interaction with collectors and traders; Advantages and limitations of the Bhutan system	
12.30-13.30	Lunch break	
Moderator: Dr Rajendra Singh Bisht, IFS, Uttarakhand, India Time allotted: 30 min for each country (20 min presentation and 10 min discussion)		
Country Presentation: China		
13.30-14.00	Yarshagumba policy, market, trade and management China as a main consumer of Yarshagumba – value addition, consumption pattern, projection of future developments Local Yarshagumba management within the Baima Xueshan National Park: A case study	Kunming Institute of Biology, China
Country Presentation: India		
14.00-14.30	Yarshagumba policy, market, trade and management	Forest Department, Uttarakhand, India
Country Presentation: Nepal		
14.30-15.00	Yarshagumba policy, market, trade and management	Ministry of Forest and Soil Conservation, Nepal
15.00-15.30	Tea break	
Session 3: Audio-visual presentation on Yarshagumba collection and management Moderator: Ananda Bhandari, Under Secretary, Ministry of Forest and Soil Conservation, Nepal		
15.30-16.20	Bhutan/China/Nepal/ICIMOD	Facilitators: Corinna Wallrap and Pradyumna Rana
16.20-16.50	Open discussions Observations and policy inputs from audio-visual presentation	
16.50-17.00	Feedback and end of Day 1	Tashi Dorji

Day 3: 11 August 2015

Session 3: Development of Recommendations Moderator: Dr Rajan Kotru, ICIMOD		
09.00-09.10	Recap of Day 1	Tashi Dorji
09-10-10.00	Yarshagumba management: An example from Api Nampa Conservation Area, KSL Nepal Conflicts at local level Yarshagumba trade and marketing	Corinna Wallrap and Ashok Ram
10.00-12.30 (tea served in groups)	Group work: Participants work in four groups (one mixed group and three country groups). Mixed group: Identify areas of regional cooperation on Yarshagumba management and trade Country groups: Development of recommendations for sustainable management on collection and trade	Facilitators: Corinna Wallrap, Tashi Dorji and Pradyumna Rana
12.30-13.30	Lunch break	
Moderator: Brij Rathore, Policy Advisor, ICIMOD Time allotted : 30 min for each group (20 min presentation and 10 min discussion)		
13.30-14.00	Areas of regional cooperation on Yarshagumba management and trade	Mixed group

14.00-14.30	Recommendations for sustainable management on Yarshagumba collection and trade	China
14.30-15.00	Recommendations for sustainable management on Yarsagumba collection and trade	India
15.00-15.20	Tea break	
15.20-15.50	Recommendations for sustainable management on Yarsagumba collection and trade	Nepal
15.50-16.30	Discussions	
16.30-17.00	Feedback	Participants
17.00	End of Day 2	

Day 4: 12 August 2015: Field Visit and Workshop Closing

Time	Programme
08.00	Check out from Tashi Namgay Resort, Paro, and travel to Thimphu
09.20-11.00	Visit the Institute of Traditional Medicine, Thimphu: Interaction and observation on the value addition of Yarshagumba such as cordyceps tablet and powder
11.00-12.30	Visit Zorig Chosum (The thirteen arts and crafts of Bhutan)
12.30-13.30	Lunch
13.30-15.30	Drive to Kuenselphodrang Visit to Guinness World Record Plantation Park, Eco-friendly mountain biking trail, and Kuenselphodrang Nature Park
15.30-16.00	Check into Hotel Ro-Chog Pel
Session 4: Closing Venue: Hotel Ro-Chog Pel, Thimphu Chairman: DASHO Tenzin Dhendup, Hon'ble Secretary, MoAF, Bhutan	
16.45-17.00	Arrival of Chief Guest, DASHO Tenzin Dhendup, Hon'ble Secretary, MoAF, Bhutan
17.00-17.10	Welcome remarks by Dr Rajan Kotru, ICIMOD
17.10-17.30	Resolutions and a way forward: Dr Tashi Dorji, ICIMOD
17.30-17.50	Feedback/remarks by KSL member countries (China, India, Nepal)
17.50-18.10	Closing address by Chief Guest
18.10-18.20	Vote of thanks by Brij Rathore, ICIMOD
18.30-20.30	Official dinner hosted by MoAF, Bhutan, and ICIMOD, Nepal

Annex 2: List of Participants

Bhutan	
1	Dr Sangay Wangchuk Officiating Director General / Senior Specialist DoF&PS, MoAF Thimphu
2	Gyeltshen Dukpa Chief Forestry Officer, SFED DoF&PS, MoAF Thimphu
3	Rinxin Wangchuk Forestry Officer, DoF&PS MoAF, Thimphu

4	Dr Purna Bahadur Chettri Chief Research Officer RNR-RDC, Yusipang DoF&PS, MoAF, Thimphu
5	Bal Bahadur Chettri Specialist, Social Forestry DoF&PS, Thimphu
6	Dorji Wangchuk Deputy Chief Marketing Officer DAMC, MoAF, Thimphu
7	Dechen Om Regulatory Officer BAFRA, MoAF Thimphu
8	Kaka Tshering Chief Forest Officer Territorial Forest Division, Paro
9	Akay Dorji District Forest Officer District Administration, Paro
China	
10	Professor Yang Yongping Deputy Director Kunming Institute of Botany Chinese Academy of Sciences No.132 Lanhei Road, Heilongtan, Kunming 650201, Yunnan, China Phone: +86-871-65223223 Email: yangyp@mail.kib.ac.cn
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15	<p>Dr Pushkin Phartiyal Executive Director, of the Central Himalayan Environment Association 06 Woldorf Compound Nainital-263 001, Uttarakhand, India Tel: +91-9412085099 (Cell), Fax: +91-5942 233099 Email:pushkin.lead@gmail.com</p>
Nepal	
16	<p>Ananda Bhandari Under Secretary Ministry of Forests and Soil Conservation Government of Nepal Singha Durbar, Kathmandu, and National Coordinator of Kailash Sacred Landscape Conservation and Development Initiative, Nepal Phone: +977-01-4211862, +977-9841324722 Email: anandabhandari@yahoo.com</p>
17	<p>Ashok Ram Warden Api Nampa Conservation Area, Darchula Department of National Parks and Wildlife Conservation Ministry of Forests and Soil Conservation Mobile: +977-9852054105 Email:ashokrink11@gmail.com</p>
18	<p>Sunil Kumar Acharya Planning Officer Department of Plant Resources, Ministry of Forests and Soil Conservation Kathmandu, Nepal G.P.O. Box 2270 Phone : +977-1-4251161/4251159/4261966/4261967</p>
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20	<p>Tashi Dorji Assistant Planning Officer Ministry of Forests & Soil Conservation, Government of Nepal Singha Durbar, Kathmandu Email: raj_u_chhetri@yahoo.com</p>
International Centre for Integrated Mountain Development (ICIMOD)	
21	<p>Dr Rajan Kotru Regional Programme Manager, Transboundary Landscape & Coordinator Kailash Sacred Landscape Conservation and Development Initiative Email: Rajan.Kotru@icimod.org</p>

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