

# Mountain Transboundary Protected Area and Connectivity Conservation

10-15 Nov 2008; Dhulikhel (near Kathmandu), Nepal

A workshop convened by the IUCN World Commission on Protected Areas Mountains Biome and Transboundary Conservation Task Force, ICIMOD and WWF-Nepal

This workshop examined the threats that climate change and the fragmentation of natural ecosystems pose to mountain environments. The focus was on mountains, and specifically those conservation connectivity corridors which include transboundary protected areas. The workshop endeavoured to assist the Convention on Biological Diversity's (CBD) Programme of Work on Protected Areas (PoWPA) to achieve its targets for transboundary protected areas and for connectivity conservation areas by: reviewing the existing status and protocols, identifying gaps, and preparing guides and tools as well as action plans for improved management. Since effectively managed large-scale mountain connectivity conservation corridors are a basis for improved species conservation and healthy environments for humans threatened by climate change, the workshop also aimed to facilitate long-term adaptive conservation responses. These adaptive responses are intended to help minimise species extinction and maintain healthy environments and catchments.

The workshop report was prepared by Dr Graeme L Worboys

## Introduction

Thirty-six practitioners and experts in mountain transboundary and connectivity conservation management from 14 countries attended a workshop held in Dhulikhel (near Kathmandu), Nepal from the 11<sup>th</sup> to the 15<sup>th</sup> November 2008. The Workshop was convened in partnership by three organisations: 1) IUCN (the International Union for the Conservation of Nature) and, specifically, the Mountains Biome of the World Commission on Protected Areas (WCPA) in association with the WCPA Transboundary Taskforce; 2) The International Centre for Integrated Mountain Development (ICIMOD); and 3) The World Wide Fund for Nature (WWF). The purpose of the Workshop was to review a draft conceptual framework for Connectivity Conservation Management (CCM); to review 10 tools proposed for CCM; and to develop Action Plans for specific connectivity corridors. All of these objectives were achieved and the workshop was considered to be a success by participants. This report provides a record of the workshop and its achievements and follow-up actions.

Connectivity conservation corridors (and their associated transboundary protected areas) help conserve habitats; ecosystem processes; and the opportunities for species to evolve, adapt, and to move. When established and managed, especially on a large scale, connectivity corridors will provide additional opportunities for some species to survive in a world affected by climate change. The workshop aimed to facilitate large-scale connectivity conservation initiatives and the context for this work is briefly presented here.

## Mitigating and adapting to climate change

The Earth is currently experiencing its sixth great extinction event and climate change, compounded by other human actions, is one of the principal causes. The root cause of climate change requires urgent and adequate

international responses and these should include mechanisms to mitigate and adapt to the effects of climate change. This workshop focused on connectivity conservation and actions to mitigate and adapt to facilitate conservation of biodiversity as biome shifts induced by climate change happen. It concentrated on protected areas and large natural areas in the mountains, their effective conservation management, the conservation of their natural interconnections, and the strategic role transboundary protected areas play in achieving connectivity conservation along international boundaries.

In a world impacted by climate change, large-scale conservation corridors the mountains can help conserve species. For mountain chains that run from north to south, corridors offer the capacity for both altitudinal and latitudinal biome shifts, with species moving up-mountain or towards the poles (or both) as temperatures increase and conditions become drier or wetter. Mountain connectivity corridors with limited latitudinal variation, but extensive longitudinal interconnections, offer both altitudinal opportunities for movement of species and potential opportunities to benefit from changed east-west rainfall patterns. They also help maintain ecosystem health at a time when the values of intact catchments become more important. The loss of permanent snow cover and glacial ice, for example, has already impacted streams that were once perennial in equatorial Asia, Africa, South America, and other parts of the world and the value of the remaining catchment areas has increased. Connectivity conservation management assisted by transboundary protected area management can help conserve species. They are important conservation initiatives of IUCN, WCPA, and ICIMOD.

### **IUCN WCPA's role in connectivity conservation**

The IUCN WCPA, with its worldwide network of protected area professionals and specialists provides international leadership for best practices in protected area management. The WCPA Mountains Biome has the specific task of facilitating large-scale connectivity conservation, particularly in mountain areas, and this task is identified by the WCPA Strategic Plan (2005-2012). The rationale is clear. Habitat destruction and fragmentation lead to extinction of species while the retention of protected areas within larger, natural landscapes helps to conserve them. The WCPA plan also responds to priorities of the Convention on Biological Diversity's (CBD) Programme of Work on Protected Areas (PoWPA), including connectivity conservation and transboundary protected area management. The PoWPA connectivity conservation target (for Goal 1.2) states:

"By 2015, all protected areas and protected area systems are integrated into the wider land – and seascape, and relevant sectors, by applying the ecosystem approach and taking into account ecological connectivity and the concept, where appropriate, of ecological networks" (CBD PoWPA 2005) and for transboundary protected areas (for Goal 1.3) it states:

"Establish and strengthen by 2010/2012 transboundary protected areas, other forms of collaboration between neighbouring protected areas across national boundaries, and regional networks, to enhance the conservation and sustainable use of biological diversity, implementing the ecosystem approach, and improving international cooperation."

WCPA has responded strategically to these targets. It has focused on large-scale natural areas which offer important connectivity conservation opportunities for species, habitats, and ecosystem functions. The focus has been on mountainous areas of the Earth since many of these areas still retain large expanses of interconnected natural lands. Mountains are also highly vulnerable to climate change; they offer a myriad of refugia for species and they retain critical ecosystems for the health of many people on Earth.

The 2008 Dhulikhel Workshop was preceded by WCPA Mountains Biome workshops in South Africa (2003) [Africa]; Banff, Canada (2004) [North America]; the Cantabric Pyrenees, Spain (2005) [Europe]; and Papallacta, Ecuador (2006) [South America]. Each workshop has taken a step forward in the facilitation of connectivity conservation by the WCPA. This increasing sophistication and momentum evolved from inspiring and securing grand visions for mountain connectivity conservation, to sharing lessons learned, to working on capacity-building products, and to working on a clear conceptual framework for Connectivity Conservation Management (CCM) given that such theoretical knowledge did not exist. A new IUCN book on 'how to manage' these large landscapes is also being finalised. The draft manuscript entitled 'Connectivity Conservation Management: A Global Guide' has been developed and it is planned to publish it in 2009. As part of the book's development, some conceptual framework diagrams needed to be tested and the 2008 Dhulikhel Workshop provided an opportunity to do this.

Asia (2008) was also the next significant international venue for WCPA's work in facilitating connectivity conservation, although this need was always understood and the 2008 Kathmandu Workshop was targeted in 2004 in partnership with ICIMOD. For WCPA, organising the Dhulikhel (Kathmandu) Workshop was a natural partnership between WCPA's Mountains Biome and its Transboundary Conservation Taskforce given the scale of these connectivity corridors and the multiple countries and political boundaries involved.

### **ICIMOD's role**

ICIMOD was a critical partner in convening the Dhulikhel Workshop. Based in Kathmandu, Nepal, ICIMOD is an intergovernmental organisation serving eight member countries in the Hindu Kush - Himalayan region. Its work focuses on mountains, on sustainable livelihoods and poverty reduction, adaptation to environmental change and ensuring ecosystem services, and water and hazard management. It is transboundary in its focus and has pioneered biodiversity and connectivity conservation in the Eastern Himalayas and specifically, the Kanchenjunga Conservation Landscape and the Sacred Himalayan Landscape. The Workshop is consistent with ICIMOD's Strategic Framework (2008-2012) and responds in part or fully to all five of its Strategic Goals. ICIMOD provides an institutional framework to facilitate transboundary protected area management and connectivity conservation across multiple countries as a basis for landscape-scale conservation. The workshop also responds directly to ICIMOD's 2007 strategic programme on 'Adaptation to Environmental Change and Sustaining Ecosystem Services.'

### **WWF's role**

The World Wide Fund for Nature (WWF) (Nepal), the third partner for the Dhulikhel Workshop, has contributed significantly to connectivity conservation and transboundary conservation work. The staff members of WWF have been long-term colleagues and friends of the WCPA Mountains Biome and have been very supportive of this workshop. WWF is focused on ground delivery, and is a recognised world leader in connectivity conservation for its work in the Terai Arc Landscape connectivity corridor of Nepal and India.

## **The Workshop**

### **Purpose and Objectives**

The overall purpose of the Dhulikhel Workshop was to help with the implementation of the CBD PoWPA 2012 and 2015 targets for transboundary protected areas and connectivity conservation. On a regional scale, the purpose was to facilitate connectivity conservation and transboundary conservation corridors in the mountains in Asia. For most continents, large-scale connectivity conservation involves more than one country, and political boundaries that divide such lands are often found in mountain environments such as those along catchment divides. This may involve protected areas on both sides of borders and principles and practices that achieve transboundary management also assist these large-scale mountain connectivity corridor initiatives.

Connectivity corridors typically include protected areas, some critical transboundary protected areas, and many other land tenures in potentially more than one nation. Such initiatives are relatively new globally and there was a need to identify the tools required for connectivity conservation on such a large scale. Tools for transboundary protected areas (such as diplomatic agreements and security considerations), and tools for connectivity conservation management (such as stewardship incentives and a process for conservation planning) are often site (and single nation) based and may need to be improved for them to work effectively on the scale of multi-nation connectivity corridors. An effective suite of guidance tools is needed if countries are to help achieve the CBD targets. It was proposed that the Dhulikhel Workshop help advance the identification of these CCM tools. In addition, there was an opportunity, through input from practitioners and experts at the Workshop, to review and improve a draft CCM Conceptual Framework diagram to be published in the book. This (draft) conceptual framework could also be used by participants to review the management of their own connectivity corridors. The Dhulikhel programme provided this opportunity and participants from different countries worked together on their corridor Workshop Action Statements. The full workshop programme was developed based on these considerations (Attachment One). Thirty-six participants (Attachment Two) were involved in achieving the objectives of the workshop.

The overall objectives of the workshop were:

1. to help facilitate the implementation of the CBD PoWPA for connectivity conservation (ecological linkages) and transboundary protected areas; and, consequently
2. to facilitate effectively managed large-scale mountain connectivity conservation areas as a basis for improved species' conservation and healthy environments for humans in the face of climate change threats.

## Agenda

The workshop commenced with presentations on the management of connectivity conservation to provide an introduction and to provide the very latest information on CCM. It was then split into two sessions (Attachment One). Session One reviewed a draft Conceptual Framework for CCM and 10 proposed CCM tools. Session Two involved people working on actual or proposed connectivity corridors in preparing Workshop Action Statements. The specific objectives for these sessions are given in the following section.

### Session one objectives

1. To review and recommend improvements to the draft Connectivity Conservation Management (CCM) Framework
2. To review the 10 key CCM tools presented in order to:
  - identify their relative importance as a CCM tool;
  - help identify other important CCM tools; and to
  - help identify the most important CCM tools needed.

### Session two objectives

1. To review the status of CCM for individual connectivity corridors in the light of the improved CCM Framework
2. To prepare a brief, realistic, Workshop Action Statement for each connectivity corridor with actions identified at national level (for existing corridors and new initiatives)

The Dhulikhel Workshop was very successful, and the objectives for the two sessions were achieved. The results are summarised in the following.

## Results of session one

### Review of the (draft) CCM Conceptual Framework

All four groups presented ideas for improving the draft CCM Conceptual Framework. There was general support for all elements of the draft. The groups supported the 'Conceptual Model' which identified the situational context of CCM including its dynamic and interacting 'People', 'Nature' and 'Management' settings. The groups also supported the central importance of the 'Vision' and agreed that the four key management functions identified, 'Leadership'; 'Strategic Management Planning'; 'Action', and 'Evaluation', were all important for CCM. One group identified 'Finance' and 'Governance' as additional management functions. The groups supported the concept of CCM being dynamic and situational. They also supported the idea that CCM be undertaken at different geographic levels, such as local, landscape, national, and international geographic settings, and that leadership at each of these levels was important.

The groups challenged aspects of the draft framework and sought improvement. Clarification of some of the terms used was sought. Groups did not support the draft three-dimensional Framework Model presented. It was too complex and there was consensus that the two-dimensional version of the diagram of the draft framework also needed improvement and three slightly different versions of the diagram were proposed. Due to lack of time, no attempt was made to resolve these differences at the workshop. A commitment was made to analyze each version carefully afterwards and to prepare and circulate a report. The analysis report ('Improving the [Draft] Connectivity Conservation Management Framework') was subsequently prepared and an improved framework developed. It has been circulated to workshop participants, and is posted on the WCPA Mountains Biome Website [www.mountains-wcpa.org](http://www.mountains-wcpa.org). The improved Conceptual Framework diagram will be published in 2009.

## Review of ten CCM tools

All four groups supported the ten CCM tools presented in principle: one group organised the 'tools' as a series of management steps. It was agreed that the terms used needed to be improved and it was suggested that each of the ten tools was more like a thematic area of CCM than a tool and more specific tools needed to be identified to achieve each of these 'thematic' areas. One group proposed an additional tool. Based on this feedback, the ten tools will be improved and more specific information included and published in the new IUCN book.

## Results of session two

One new connectivity corridor, two geographically enhanced corridors, and three corridors with improved management were described by six groups working on individual areas. This was an outstanding result and the work by the groups is described here. Based on the information generated, a 'background statement' and the 'Workshop Action Statements' are presented for each connectivity corridor. In addition, each group nominated a Facilitator for their connectivity conservation work. The Facilitator's future role will be to maintain communication with the group, to encourage and coordinate implementation of the Workshop Action Statement, and to work as part of a wider network to achieve global connectivity conservation outcomes.

### (i) The Altai-Sayan Connectivity Corridor (China, Kazakhstan, Mongolia, and Russia)

#### *Background*

A new, outstanding vision for an Altai-Sayan Connectivity Corridor was described by the Altai-Sayan Group. The proposed cooperative management involves Russia, China, Mongolia, and Kazakhstan, and its purpose is "to ensure the natural and cultural heritage of the Altai-Sayan (The Heart of Asia) always stays intact and interconnected and nurtures its traditional people and their cultural legacies".

#### *The Altai-Sayan Connectivity Corridor Workshop Action Plan*

The group identified the following specific actions.

- Establishing an Interim International Committee for the Altai-Sayan Connectivity Conservation Initiative (ASCCI) which will guide and coordinate planning, operating principles, and actions
- Facilitating an IUCN-WCPA (Mountains Biome) mission in July 2009 to meet key ASCCI country representatives to discuss the potential for a transboundary connectivity corridor. If it agrees to proceed, the meeting will then discuss and formalise the concept of an 'Altai-Sayan World Connectivity Conservation Congress' for July 2010.
- Facilitating the presence of ASCCI representatives at the connectivity conservation forum to be held at the Wild 9 Conference in Mexico in November 2009
- Undertaking a number of specific actions including
  - providing connectivity conservation educational material (in four languages) and developing a web-based information hub;
  - cooperatively producing an Atlas of the Altai-Sayan Region;
  - establishing research and monitoring;
  - establishing a link between the Altai-Sayan Initiative and the Hindu Kush-Karakoram-Himalayan(HKKH) partnership for exchange of information and lessons learned;
  - requesting IUCN WCPA to officially inform the governments of the four countries of the ASCCI of the plan, including the next steps; and
  - briefing Kazakhstan representatives about the ASCCI.

#### *The Altai-Sayan group members*

Tatjana Yashina [Facilitator]; Yuri Badenkov (Russia)

Galbadrakh Davaa (Mongolia)

Yuanming Zhang, Zhang Yili (China)

Marie-Eve Marchand, Harvey Locke (Canada)

## (ii) The Karakoram-Pamir Region Transboundary and Connectivity Conservation Area (China and Pakistan)

### *Background*

The Karakoram-Pamir Group described a proposed connectivity conservation area of 35,000 sq. km that has a population of about 200,000 people on the mountainous border area between China and Pakistan. The connectivity area expands an existing Transboundary Protected Area along the China-Pakistan border. The group identified this outstanding natural area as one that contains the catchment headwaters of the Indus and Xinjiang; that provides a habitat for rare fauna species such as the Marco Polo sheep, Blue sheep, Snow leopard, Brown bear, Ladakh urial and Himalayan ibex; that has over 400 plant species, and that has outstanding mountain scenery such as the peaks of K2, Rakaposhi, and Nanga Parbat and mountain glaciers, lakes, and streams. The area suffers from human impacts— including fragmentation of habitats. The vision of the group is to improve the management of the corridor's core protected areas; to restore the corridor's ecological characteristics; and to promote sustainable development.

Some progress in connectivity conservation management has already been made as follows.

- A Memorandum of Understanding (MoU) between China's Xinjiang Institute of Ecology and Geography of the Chinese Academy of Sciences(CAS) and WWF Pakistan (2006)
- Support pledged by Xinjiang Wildlife Conservation Society and the United Nations Development Programme (UNDP) Pakistan (2007)
- A workshop was held in Kashgar in 2008 which resulted in key resolutions such as
  - recognition of a 'Sino-Pak Conservation and Development Area' for the transboundary Khunjerab National Park and Taxkorgan Nature Reserve;
  - recognition of management protocols for the area;
  - development of a joint management strategy for the area;
  - promotion of tourism in the area;
  - joint research and the exchange of researchers, managers, and students; and
  - establishment of a steering committee to take the transboundary cooperative initiative forward.

### *The Karakoram-Pamir Region Workshop Action Plan*

The Workshop Action Plan recommended that the Kashgar Workshop cooperative work be expanded and expedited in the following three phases.

#### *Phase One*

- Hold a steering committee meeting.
- Develop a strategic framework to implement the decisions of the steering committee.

#### *Phase Two*

- Convene a stakeholder workshop to discuss and agree upon connectivity conservation to link protected areas of the Karakoram and Himalayas to the transboundary conservation area.
- Initiate the linking of the Wakhan corridor in Afghanistan, Pakistan, and Tajikistan to the proposed connectivity conservation areas.
- Assess the feasibility of a trans-Pamir-Hindu Kush connectivity conservation area between Afghanistan and Pakistan.
- Identify conservation areas of the Kullong Mountains in order to link them to the protected areas of the Pamirs.

#### *Phase Three*

- Develop a collaborative management plan involving partners from China and Pakistan.
- Secure approval of the plan from the governments of the northern areas of Pakistan and the Xinjiang Autonomous Region of China.
- Implement.

### *Karakoram-Pamir Region group members*

Ashiq Ahmad [Facilitator] (Pakistan)

Yang Weikang (China)

Latif Ahmad (Afghanistan)

Krishna Prasad Oli (Nepal), Farooq Ahmad (Pakistan)

### (iii) The Brahmaputra-Salween Transboundary Complex (China, India and Myanmar)

#### *Background*

The vision for the Brahmaputra-Salween Transboundary Complex (BSTC) is:

“Biodiversity conservation and maintenance of ecological services in the BSTC for sustainable development in the region” The project involves ICIMOD a facilitator working in close relationship representatives from China, Myanmar, and India as well as three big non- government organizations(NGOs);viz., Conservation International, the World Wide Fund for Nature, and the Wildlife Conservation Society. Each nation has a significant role to play by facilitating a national consultation of experts and stakeholders; reviewing research information; and development of a data base; developing a CCM Framework; and, developing a Strategic Plan. Specific tasks have been recognised in the Workshop Action Statement.

#### *The Brahmaputra-Salween Transboundary Complex Workshop Action Statement*

The Workshop Action Plan identified specific tasks for each nation as well as the development of a Connectivity Conservation Strategy.

#### Myanmar

- Training of a professional at ICIMOD for connectivity corridor mapping
- Exposure of one professional each from the Forestry University and NGO to Kanchenjunga landscape sites and ICIMOD and review of the existing literature
- Identification, delineation, and mapping of corridors; assessing biodiversity in corridors; and, identifying transboundary management issues
- Awareness about landscape conservation, livelihoods, and conservation corridors
- Exchange of personnel between Myanmar and Yunnan
- Formulation of a national strategy and development of an action plan

#### China

- Identify potential stakeholders and initiate dialogue.
- Organise a meeting with stakeholders.
- Review the literature on biodiversity and conservation issues.
- Undertake a policy review on conservation in Yunnan, China.
- Triangulate the information with field verification.
- Organise a technical workshop (late November 2008).
- Prepare a draft status report.
- Help organise an international workshop sponsored by ICIMD which helps define the future course of action.
- Organise field visits.
- Prepare a final technical report.

#### India

- Identification of partners
- Review existing information.
- Undertake consultation about the connectivity conservation concept.
- Initiate a workshop of biodiversity conservation stakeholders to establish a gap analysis and identify future activities.

#### Strategy plan

- A connectivity conservation strategy plan will be developed which includes
- capacity building,
- joint research and participatory planning,
- policy analysis, and
- an implementation statement.

*Brahmaputra-Salween Transboundary Complex group members*

- Xuefei Yang, Linshan Liu (China)
- Nakul Chettri (Facilitator)
- Karma Jigme (Bhutan)
- Naw May Thant, Win Naing Thaw (Myanmar)
- Mingma N. Sherpa (Nepal)

**(iv) The Terai Arc Landscape Connectivity Corridor (India and Nepal)***Background*

The Terai Arc Landscape (TAL) is a well-established connectivity corridor, and CCM is actively being undertaken under the leadership of WWF (Nepal). Located along the Nepal-India border, the TAL vision is "A globally unique landscape where biodiversity is conserved, ecological integrity is safeguarded, and sustainable livelihoods of its people are secured". In 1999, the Biodiversity Vision for Nepal recommended linking protected areas through corridors. The TAL connectivity corridor, which conserves a globally significant ecosystem, was initiated by WWF in 2000 and endorsed by the Government of Nepal in 2001. It includes 11 protected areas, four of which are in Nepal and seven in India. A TAL Strategy was developed and implementation commenced in 2001.

*The Terai Arc Landscape Connectivity Corridor Workshop Action Plan*

The Terai Arc Landscape Connectivity Corridor Workshop Action Plan is the current (2004-2014) TAL Connectivity Strategic Plan. This plan was approved by the Nepalese Government and it identified key threats and their root causes; and these included direct causes (such as forest conversion, excessive extraction of fuelwood, poaching, human and wildlife conflict, and overgrazing); biological threats (such as invasive species, imbalance in predator-prey populations, and use of agrochemicals); and cross-cutting issues such as population growth, low agricultural productivity, and lack of off-farm livelihood opportunities). Governance for TAL involves six levels, and they are a policy-level steering committee; a project execution executive committee; a programme coordination and monitoring committee; project team managers; district or protected area level committees; and grass roots' groups to facilitate action with user groups. Clear lines of communication and accountability were established. TAL priorities for action were identified such as managing 'bottleneck' locations and other key issues.

The actions identified included the following.

- Undertaking transborder, national, and field-level cooperative management meetings
- Wildlife monitoring
- Habitat management
- Human-animal conflict mitigation
- Anti-poaching
- Community forestry
- Capacity building and education
- Providing alternative energy
- Achieving income generation

*The Terai Arc Landscape group members*

Ghanashyam Gurung [Facilitator], Siddhartha Bajra, Hem Baral, and Shiv Bhatta, (Nepal)

**(v) The Greater Virunga Landscape Transboundary Area (Democratic Republic of Congo, Rwanda and Uganda)***Background*

The Greater Virunga Landscape Transboundary Area (GVL) is part of the Albertine Rift Valley of Africa and includes parts of the Democratic Republic of Congo, Rwanda, and Uganda. The area hosts the greatest species' richness and numbers of endemic vertebrate animals in Africa, including the mountain gorilla. It has the largest mammal biomass ever recorded, but is threatened by landscape fragmentation caused by increasing population numbers, poverty, and conflict. Other threats include poaching, clearing of the forest for charcoal production, oil exploration, and human-wildlife conflicts. Transboundary conservation commenced in January 2004 with a Memorandum of Understanding (MoU), and, in 2006, a Transfrontier Strategic Plan was prepared and a Secretariat established. Governance of the transboundary area recognises a policy-level MoU involving national ministries; an executive level committee; a



transboundary secretariat; and technical advisory groups (research, tourism, community and private sector, and law enforcement). The Secretariat's role included coordinating fund raising efforts for the transboundary site; coordinating implementation of the strategic plan; undertaking monitoring and evaluation; and facilitating capacity building.

#### *The Greater Virunga Transboundary Area Workshop Action Statement*

The following CCM actions were recognised for the transboundary area.

- Enhance the Vision for the GVL. Add new goals, including broadening the connectivity conservation scope to lands beyond the protected areas, and broaden the values of connectivity corridors and community conservation for ecotourism and other ecosystem services.
- Ensure that the strategic goals are revisited and assessed annually.
- Undertake leadership and position the Secretariat to push innovation, to evaluate the effectiveness of coordination mechanisms, and to make the transition sustainable funding.
- Review the existing Connectivity Strategic Plan in relation to 1) climate change and the potential for the connectivity conservation area to support adaptation; 2) trends in carbon storage; 3) marketing the benefits of the corridor initiative; 4) recognition of the corridor by cross-sectoral interests and 5) specific improvement in areas such as communication, policy, funding, expansion of corridors, social-economic impact assessments, and others.
- The Greater Virunga Trans-boundary Secretariat will coordinate a process of country-based corridor assessments by the protected area management authorities which will include
  - identifying the priority connectivity corridors,
  - identifying threats,
  - establishing alliances and opportunities to gain access to resources,
  - assessing climate change adaptation, and
  - defining conservation activities and implementing mechanisms.
- Undertake monitoring and evaluation of connectivity conservation targets as well as other evaluations. Use the 'protected area management effectiveness tracking tool' for protected areas within the corridors.

#### *The Greater Virunga Transboundary Area group members*

Tom Sengalama [Facilitator] (Rwanda)

Bruce Jefferies (New Zealand)

Kathy MacKinnon (United Kingdom – currently Washington DC, USA)

Trevor Sandwith (South Africa – currently Washington DC, USA)

### **(vi) The Great Eastern Ranges Connectivity Conservation Initiative (Australian Alps to Atherton, [A2A]) (Australia)**

#### *Background*

A vision for an 'Alps to Atherton (A2A)' connectivity corridor was described in the early 1990s, documented as a concept in 1996 and in 2004, and was officially recognised by the Australian governments in February 2007. The connectivity corridor extends for more than 2800 kilometres along the east coast of Australia, which is one of the wetter areas of the country and contains rich assemblages of fauna and flora. Most of Australia's mainland rainforests and tall Eucalypt forests with their associated tree-dwelling fauna are found there. The connectivity corridor protects the catchments of impoundments that supply water to more than 52% of Australians. The Vision for A2A prepared by the New South Wales (NSW) Department of Environment and Climate Change states "Our vision is for the ecosystems of Australia's great eastern ranges to be healthy and connected from the Australian Alps to Atherton (and beyond), which will contribute to the long term economic, social, cultural and spiritual well being of the community, and of native plants and animals". Connectivity conservation management for the NSW section of A2A (which the NSW Government describes as the great eastern ranges) is currently being implemented. A three-year Business Plan guides this implementation.

#### *The Great Eastern Ranges Connectivity Conservation Initiative (A2A) Workshop Action Plan*

The following proposed actions are focused on the NSW section of A2A and include.

- Achieving a process for generating a community 'owned' Vision for NSW for the great eastern ranges (A2A)
- Achieving national support for the Vision
- Achieving natural, cultural, social, and economic context analysis statements for NSW and for the Hunter Valley for various audiences

- Developing a national-level Memorandum of Understanding for A2A stakeholder governments
- Developing a discussion paper on potential governance models for A2A
- Developing a discussion paper on potential models for an A2A Secretariat and its method of funding
- Seeking advice from NSW 'priority area' facilitators on how to fund longer-term connectivity conservation
- Seeking funding mechanisms for land stewardship incentives
- Expanding the support base for A2A connectivity conservation
- Producing a connectivity conservation action plan for the Hunter Valley strategic area
- Developing and applying a connectivity conservation management evaluation framework (plan) and indicators and produce evaluation information for use by a range of audiences
- Adaptively developing an improved Action Plan based on the evaluations

*The Great Eastern Ranges Connectivity Conservation Initiative (A2A) Group Members*  
Ian Pulsford [Facilitator], Lesley Pulsford, Michael Lockwood, Rod Atkins (Australia)  
Linda McMillan (USA)

## Workshop Outcomes

Positive workshop outcomes were achieved. The conceptual 'Framework for Connectivity Conservation Management (CCM)' was improved and ten proposed CCM tools were verified as important. These (now) well-grounded advances in theoretical knowledge for CCM will provide certainty (and a degree of comfort) for current and future connectivity conservation investors and practitioners. It will help create order and a process for potential significant international investment in large-scale conservation initiatives and, consequently, will contribute to meeting the CBD 2015 PoWPA targets. This theoretical work will be published in 2009 in the new book by IUCN and Earthscan entitled 'Connectivity Conservation Management: A Global Guide'.

The achievement of a new, very large connectivity corridor in the heart of Asia, the 'Altai-Sayam Connectivity Conservation Corridor' was an outstanding outcome for the workshop. In addition, achieving major corridor enhancements for the Karakoram-Pamir Transboundary Area of China and Pakistan and a focused connectivity conservation improvement for the Brahmaputra-Salween Transboundary Area for India, China, and Myanmar were also important outcomes. All of these large mountainous areas contain very important ecosystems and species. Important consolidation and improvement advances were also recognised for the Greater Virunga Landscape, the Terai Arc Landscape; and the A2A Connectivity Conservation Corridor.

## Workshop Evaluation

The workshop was very successful according to respondents of the Workshop Evaluation Questionnaire. A very high number (88%) identified that their overall level of satisfaction was either High or Very High in relation to their expectations. [The Questionnaire used a rating scheme with five choices from Very Low to Very High.] The lowest rating identified was Moderate for 12% of respondents. All respondents advised that they would like the IUCN WCPA to conduct similar workshops in future.

## General comments

Many brief comments were received from attendees including: "Well done, exceptional opportunity; Extremely useful plus future useful guidelines"; "Thank you!" "Excellent overall! and excellent wrap-up presentation summarising outcomes"; "Great experience: thanks to all those that shared knowledge"; "Excellent arrangements"; "Well done"; "Job well done"; "New ideas are in great scarcity"; "It has been good to hear stakeholders such as business and youth considered as very important at this workshop.....crucially!"; "This was extremely useful and provided useful guidelines for the future work on connectivity corridors"; and "Everything was well prepared and now even Australian English is understandable."

## Improvement (needed) comments

Some people wanted further improvements, and comments included: "IUCN field trips should spend less time in the bus and more on the ground"; "Improvement of the facilitators in the working groups – organise facilitation in a way

that it enables everyone's participation"; "Ensure field trip gets into the biodiversity more if possible"; and "Provide at least one evening of free time and opportunities to exercise."

### Follow-up recommendations

Some attendees sought additional actions including: "A web-based forum on communication; a clearer follow-up plan [is needed]; the networking established should continue somehow."

### Future workshop recommendations

Attendees provided comments about future workshops including the following.

#### *Workshop topics*

Focused protected area activities to promote connectivity conservation areas and transboundary protected areas; inform and advance [connectivity conservation]; and an Altai-Sayan Workshop.

#### *Workshop organisation*

These should assign tasks to participants before they arrive and set a clearer agenda and create a regional core group to draft and finalise the workshop agenda.

#### *Workshop venue*

World Wilderness Congress, Wild 9, and Mexico the next venue for connectivity conservation

### Follow-up Plan

The Workshop Evaluation survey was very helpful, including the request for a better follow-up plan. Such a follow-up plan is provided here as a series of actions as well identifying accountabilities for this work.

*Action one* – Circulate the Workshop Report to participants, partners, sponsors, the IUCN WCPA, and Programme on Protected Areas (PPA), the Secretariat of the Biodiversity Convention and the Global Environment Facility (GEF) (Vice Chair Mountains Biome).

*Action two* – Circulate the completed analysis report of the different improvement options for the Conceptual Framework (Vice Chair Mountains Biome).

*Action three* – Circulate an invitation for all participants to become members of the IUCN WCPA (Mountains Biome) team (Vice Chair Mountains Biome).

*Action four* – Correspond with the IUCN WCPA Vice Chair for Russia as a basis for following up on the Altai-Sayan Group's action request to IUCN WCPA (Vice Chair Mountains Biome).

*Action five* – Subject to final organisational arrangements during early 2009, the IUCN WCPA (Mountains Biome) should participate in a preliminary meeting with representatives of the governments of China, Kazakhstan, Mongolia, and Russia in the Altai Mountains in July 2009. The purpose of the meeting would be to facilitate a potential Altai-Sayan Connectivity Conservation International Congress for July 2010 (Facilitator Altai-Sayan Group, Vice Chair Mountains Biome).

*Action six* – Correspond with the six 'Connectivity Conservation Facilitators' in May 2009 and November 2009 to identify progress against their respective Workshop Action Statements. Publish the results on the Mountains Biome Web Site (Vice Chair Mountains Biome, Deputy Vice Chair Mountains Biome).

*Action seven* – Consistent with a request by the Dhulikhel Workshop participants to continue networking opportunities, a proposal to establish a new voluntary network of international large-scale connectivity conservation initiatives will be developed. This proposal for an 'umbrella network' (i.e., a network with a broad category of functions and actors) of connectivity corridors will be a part of the IUCN WCPA's Mountains Biome network. The proposal will be developed during 2009 and circulated for comment. Our Dhulikhel facilitators are anticipated to have a key role in this work (Vice Chair Mountains Biome; Deputy Vice Chair Mountains Biome; Rod Atkins).

*Action eight* – To advise participants of the next major Mountains Biome Connectivity Conservation initiative, to be held at the Wild 9 Congress in Mexico, November 2009 (Harvey Locke)

## **Conclusion**

The 2008 Mountain Transboundary Protected Area and Connectivity Conservation Workshop held in Dhulikhel (near Kathmandu) Nepal from the 11-15 November was very successful. It met its objectives and the outcomes will help connectivity conservation and contribute to the PoWPA 2015 targets for ecological networks. A proposed new voluntary network of global connectivity conservation initiatives arising from the workshop and facilitated by IUCN WCPA is also anticipated to assist the PoWPA 2015 targets.

## **Acknowledgements**

IUCN WCPA (Mountains Biome) would like to warmly express its thanks for the outstanding support of its partners, ICIMOD and WWF. In particular, the support of the former ICIMOD Director General (DG), Dr Gabriel Campbell in 2004, and the current DG, Dr Andreas Schild, and his staff, especially Dr Eklabya Sharma and Dr Nakul Chettri was appreciated. The support of Dr Ghana Gurung, WWF Nepal was especially helpful.

Direct financial contributions from our sponsors permitted the workshop to proceed and I would like to recognise their special contributions. My thanks are extended (in alphabetical order) to the Australian Alps Liaison Committee; ICIMOD; IUCN WCPA; IUCN Nepal; The Nature Conservancy; the United Nations Educational, Scientific, and Cultural Programme's Man and Biosphere programme (UNESCO – MAB); The World Bank and WWF. In particular, I would like to thank especially Kathy Mackinnon (The World Bank); Ian Dutton (formerly of The Nature Conservancy); Jon Miceler and Ghana Gurung (WWF); Thomas Schaaf of (UNESCO-MAB); Peter Jacobs (The Australian Alps Liaison Committee); and Eklabya Sharma and Nakul Chettri (ICIMOD) for their outstanding support.

A great many people worked behind the scenes, but special recognition needs to be extended to Rod Atkins and Nakul Chettri for their organisation work and to Trevor Sandwith, Jamie Ervin, Wendy Francis, Linda McMillan, Bruce Jeffries, Michael Lockwood, and Ashiq Khan who contributed in many different ways to the running of the workshop. Thanks also go to our outstanding speakers, our workshop facilitators and presenters, and our special presenters Tom Sengalama and Farooq Ahmad as well as our hosts at the Dhulikhel Lodge Resort.

## Annex 1 Programme

### IUCN WCPA (Mountains Biome) and ICIMOD Workshop November 2008

Sunday 9 <sup>th</sup>	November 2008
	Various times – All delegates arriving at Kathmandu Airport will be picked up by ICIMOD and transferred to the Hotel Himalaya Patan. On arrival at the Hotel Himalaya, delegates will receive a detailed programme for the workshop. (Delegates' own arrangements for the evening and next morning)
5.30 pm	Introductions, welcoming and workshop and organisation meeting involving Dr Nakul Chettri, Dr Eklabya Sharma, Dr Graeme Worboys; Rod Atkins, and Linda McMillan. Venue: Lobby, Hotel Himalaya
Monday 10 <sup>th</sup>	
	Delegates: Free time to 11.00 am
10.00 am	Dr Graeme Worboys and Rod Atkins travel to ICIMOD HQ to assist Dr Nakul Chettri with final preparations for the meeting.  Deputy Vice Chair Linda McMillan: Key WCPA contact person at the Hotel Himalaya for any assistance or guidance needed by workshop participants  Delegates need to check out by 11.15 hours.
11.15 am	Buses arrive and collect luggage.
11.30 am	Buses with delegates and luggage transferred from Hotel Himalaya Patan to ICIMOD Headquarters.
12.00 Noon	Orientation for workshop participants at ICIMOD by Dr Nakul Chettri
12.30 pm – 2.00 pm	Lunch and welcome reception – ICIMOD Headquarters – Khumaltar
2.00 pm – 3.30 pm	Welcoming addresses at ICIMOD HQ  Dr Madhav Karki, Deputy Director General, ICIMOD  Dr Graeme Worboys, IUCN WCPA Vice Chair for Mountains Biome  Mr Trevor Sandwith, Deputy Chair, IUCN WCPA  Dr Uday Raj Sharma Secretary of the Ministry of Forestry and Soil Conservation, IUCN WCPA Vice Chair for South Asia  Dr Ghana S Gurung, WWF-Nepal
3.30 pm – 3.45 pm	Refreshments at ICIMOD
4.00 pm	Depart from ICIMOD headquarters – coach transfer to workshop venue – Dhulikhel Lodge Resort, Dhulikhel
5.30 pm	Arrival at Dhulikhel Lodge Resort, Dhulikhel and check in
7.00 pm	Welcome dinner - Dhulikhel Lodge Resort  [Graeme Worboys] Delegate introductions  [Rod Atkins and Nakul Chettri] Orientation background information  [Graeme Worboys] Background to IUCN WCPA's Connectivity Conservation Work; workshop objectives; an introduction to the workshop programme
Tuesday 11 <sup>th</sup>	<b>WORKSHOP PART ONE: REVIEW OF THE (draft) CONNECTIVITY CONSERVATION MANAGEMENT FRAMEWORK AND KEY TOOLS</b>  <b>Dhulikhel Lodge Resort</b>
	BREAKFAST
8.45 am – 8.50 am	[Graeme Worboys] Introduction and objectives for the day  CCM: SETTING THE SCENE
8.50 am – 9.00 am	[Trevor Sandwith] Establishing a context: Connectivity conservation as a critical part of the IUCN's strategic response to global change
9.00 am – 9.15 am	[Jamie Ervin] Developing The Secretariat of the Convention on Biological Diversity's new technical guide concerning "Integrating protected areas into the wider landscapes, seascapes, and natural resource sectors" The very latest
9.15 am – 9.35 am	[Harvey Locke] The Yellowstone to Yukon Connectivity Conservation Initiative
	5-minute BREAK
9.40 am – 9.55 am	[Nakul Chettri] Work in progress: HKKH Transboundary protected area and connectivity conservation management. Guidelines, key tools, and key lessons
9.55 am – 10.10am	[Dr Gurung] Work in progress. The Terai Arc Landscape connectivity conservation. Guidelines, key tools, and key lessons

10.10 am – 10.25 am	[Bruce Jefferies] Work in progress: Association of South East Asian Nations (ASEAN) Transboundary protected area management. Guidelines, key tools, and key lessons
10.25 am – 10.50 am	TEA
	A (DRAFT) FRAMEWORK FOR CCM AND KEY TOOLS
10.50 am – 11.40 am	[Graeme Worboys] A (draft) management framework for connectivity conservation, and key tools which support this
11.40 am – 12.30 pm	Commence workshop groups: Review of the (draft) CCM Framework and selected tools and improvements suggested
12.30 pm – 1.30 pm	LUNCH
1.30 pm	Workshop groups continue: Review of the (draft) CCM Framework and selected tools and improvements suggested
3.30 pm	TEA
6.00 pm – 7.00 pm	End of day free time  14-minute film on A2A Connectivity Conservation. Film Premiered at the IUCN World Conservation Congress(WCC) Barcelona
7.00 pm – 8.00 pm	DINNER
8.00 pm – 10.00 pm	(Optional) Workshop groups continue: Review of the (draft) CCM Framework and selected tools and improvements suggested
Wednesday 12 <sup>th</sup>	<b>WORKSHOP PART ONE: REVIEW OF THE (draft) CONNECTIVITY CONSERVATION MANAGEMENT FRAMEWORK AND KEY TOOLS (Continued)</b>  Dhulikhel Lodge Resort
? – 8.30 am	BREAKFAST
8.30 am – 10.30am	Workshop groups continue: Review of the (draft) CCM Framework and selected tools and improvements suggested
10.30am – 11.30am	TEA
11.30 am – 12.30 pm	Review of the (draft) Connectivity Conservation Management Framework and key tools: Workshop presentations from 4 Groups  (Use of overheads or Powerpoints)  10.00 minutes per group, with 5-minute Question and Answer sessions
12.30 pm – 1.30 pm	LUNCH
	<b>WORKSHOP PART TWO: REVIEWING CONNECTIVITY CORRIDORS AND DEVELOPING AGREED ACTION STATEMENTS</b>
1.30 pm – 1.50 pm	[Graeme Worboys] Using the (improved draft) CCM Framework as a guide: 1) Break into working groups linked to specific connectivity corridors. 2) Review the current CCM action status for individual connectivity corridors. 3) Identify the agreed priority areas for CCM action for a connectivity corridor 4) If appropriate, prepare a brief statement of CCM action needed for each nation, and the process, within each government, to help achieve this. 5) Identify any further improvements to the (draft) CCM Framework and key tools as a consequence of the local review.  Potential working groups <ul style="list-style-type: none"> <li>• Albertine Rift Valley</li> <li>• Altai Mountains</li> <li>• HKKH</li> <li>• Terai Arc</li> <li>• A2A</li> <li>• Y2Y</li> </ul>
1.50 pm –	Connectivity corridor working groups
3.30 pm	TEA
6.00 pm	[Nakul Chettri and Rod Atkins] briefing on requirements for the protected area field trip on Thursday
6.00 pm – 7.00 pm	Free time
7.00 pm – 8.00 pm	DINNER
8.00 pm – 10.00 pm	Optional. Connectivity corridor working groups

Thursday 13 <sup>th</sup>	<b>FIELD TRIP</b>
	BREAKFAST
8.30 am	<p>Bus departs for a full day field trip to Shivapuri National Park</p> <p>(Extract from the web site) "Shivapuri National Park lies on the north side of Kathmandu Valley, about 12km from Kathmandu City. It covers an area of 14,487ha, of which 11,200ha falls within the wildlife reserve and is demarcated by 114km-long boundary wall. This watershed area is a true representation of the Middle Hills in the protected area system, and it also provides over 40% of the drinking water to Kathmandu Valley. It has a high diversity of forest types (sal, Terai hardwood, lowerslopes mixed hardwood, chir pine, oak and upper slope mixed hardwood) which occupy 39% of the land where 16 endemic plants occur. A total of 129 species of mushroom, 150 species of butterflies with many endemic and rare, 151 species of birds, and 19 species of mammals have been recorded. This National Park is popular with tourists, many of whom camp overnight in order to see the Himalaya at sunrise."</p> <p>LUNCH PROVIDED</p> <p>Return to Dhulikhel Lodge Resort</p>
7.00 pm – 8.00 pm	DINNER
Friday 14 <sup>th</sup>	<b>WORKSHOP PART TWO: REVIEWING CONNECTIVITY CORRIDORS AND DEVELOPING AGREED ACTION STATEMENTS (Continued)</b>
	BREAKFAST
8.30 am – 1030 am	Connectivity corridor working groups continue to prepare their agreed action statements
10.30 am – 11.00 am	TEA
11.00 am – 12.30 pm	Connectivity corridor working groups finalise their agreed action statements
12.30 pm – 1.30 pm	LUNCH
1.30 pm – 3.00 pm	<p>Connectivity corridor working groups presentations</p> <ul style="list-style-type: none"> <li>• Albertine Rift Valley</li> <li>• Altai Mountains</li> <li>• HKKH</li> <li>• Terai Arc</li> <li>• A2A</li> <li>• Y2Y</li> </ul>
3.00 pm – 3.30 pm	TEA
3.30 pm – 5.00 pm	<p>[Graeme Worboys] Review of the workshop findings for the draft CCM Framework and Key Tools</p> <p>[Jamie Ervin] Overview of the Connectivity Corridor Action Statement presentations</p> <p>[Open Panel Discussion: Connectivity Conservation opportunities and possible initiatives]</p> <p>[Nakul Chettri and Rod Atkins] Logistics for dinner and Saturday's departure for Kathmandu</p> <p>[Dr Andreas Schild and Dr Graeme Worboys] Concluding words]</p>
5.00 pm – 6.00 pm	<p>Free time</p> <p>Preparation for Saturday's departure</p>
6.00 pm - ?	Celebratory Mountains Connectivity Conservation Dinner, Dhulikhel Lodge Resort
Saturday 15 <sup>th</sup>	<b>DEPARTURE FROM DHULIKHEL LODGE RESORT</b>
	BREAKFAST and Checkout
9.00 am	Depart Dhulikhel Lodge Resort – coach transfer to Kathmandu Valley travel terminals (airport, bus station etc)

## Annex 2 List of Participants

### ICIMOD-WCPA-WWF Workshop Dhulikhel near Kathmandu, Nepal, 10-15 November 2008

Name	Address	Telephone/fax	email
Dr Weikang Yang Ecologist	Xinjiang Institute of Ecology and Geography Chinese Academy of Sciences NO.40, South Beijing Road, Urumqi Xinjiang, 830011 China	Tel:++86-991-7885358 Fax:++86-991-7885320(O)	<a href="mailto:Yangwk@ms.xjb.ac.cn">Yangwk@ms.xjb.ac.cn</a>
Prof Zhang Yuanming	Xinjiang Institute of Ecology and Geography Chinese Academy of Sciences NO.40, South Beijing Road, Urumqi Xinjiang, 830011 China	Tel:++86-991-7885358(O) Fax:++86-991-7885320	<a href="mailto:zhangym@ms.xjb.ac.cn">zhangym@ms.xjb.ac.cn</a>
Eng Latif Ahmad Ahmadi	Office of Research and Policy National Environmental Protection Agency Kabul Afghanistan	Cell: ++(0)799225978	<a href="mailto:Englatif_ahmady@yahoo.com">Englatif_ahmady@yahoo.com</a>
Mr Karma Jigme Forest Officer	Nature Conservation Division Department of Forest, Ministry of Agriculture Thimphu, Bhutan	Tel: ++975 322452 (O) ++975 17630347	<a href="mailto:kjigme@yahoo.com">kjigme@yahoo.com</a>
Mr Ashiq Ahmad Khan Special Advisor	WWF-Pakistan House No 139, Street 11, Sector H-1, phase 2, Hayat Abad, Peshawar, Pakistan	Tel: ++92-91-5828070(O) Fax: ++92-91-5841594 Cell: ++92 3215932456	<a href="mailto:ashiqahmad@gmail.com">ashiqahmad@gmail.com</a>
Dr Xuefei Yang Assistant Researcher	Kunming Institute of Botany, Chinese Academy of Sciences, No. 132 Lanhei Road Kunming, Yunnan, People's Republic of China	Tel: ++86-871-5223909(O) Fax:++86-871-5223231 Cell: ++86-13888215825	<a href="mailto:xuefei@mail.kib.ac.cn">xuefei@mail.kib.ac.cn</a>
Mr Win Naing Thaw Deputy Director	Nature and Wildlife Conservation Division Forest Department, Ministry of Forestry Building No. 39, Forest Department, Ministry of Forestry, Nay Pyi Taw, Myanmar	Tel: ++95 67 405002(O) Fax: ++95 67 405397 Cell: ++95 9 5001073	<a href="mailto:thaw3242@yahoo.com">thaw3242@yahoo.com</a>
Ms Naw May Lay Thant Range Officer	Nature and Wildlife Conservation Division Forest Department, Ministry of Forestry Building No. 39, Forest Department, Ministry of Forestry, Nay Pyi Taw, Myanmar	Tel: ++95 67 405002(O) Fax: ++95 67 405397 Cell: ++95 9 5061481	<a href="mailto:naw.thant@gmail.com">naw.thant@gmail.com</a>
Mr Shiv Raj Bhatta	Department of National Parks & Wildlife Conservation Babar Mahal, Kathmandu	Tel:++977-1-4220912/ 4220850(O) Fax:++977-1-4227675	<a href="mailto:dnpsc@bdcin.wlink.com">dnpsc@bdcin.wlink.com</a> <a href="mailto:shivbhatta@hotmail.com">shivbhatta@hotmail.com</a>
Dr Ghana Shyam Gurung, Conservation Programme Director	WWF-Nepal Programme, P.O. Box 7660, Baluwatar, Kathmandu, Nepal	Tel: ++977-1-4410942, 4434820, 4434970(O) Fax: ++977-1-4438458	<a href="mailto:ghana.gurung@wwfnepal.org">ghana.gurung@wwfnepal.org</a>
Dr Siddhartha Bajra Bajracharya Executive Officer	National Trust for Nature Conservation, Jawalakhel, Lalitpur, PO. Box 3712, Kathmandu, Nepal	Tel: ++977-1-5526571, 977-1-5526573(O) Fax: ++977-1-5526570	<a href="mailto:siddhartha@ntnc.org.np">siddhartha@ntnc.org.np</a>
Dr Liu Linshan	Institute of Geographical Sciences and Natural Re- sources Research, Chinese Academy of Sciences Jia 11, Datun Road, An-ding-men-wai Beijing 100101 P. R. China	Tel: ++86-10-64889790(O) Mobile:+ +86- 13520747420 SKYPE: woodhill.liu	<a href="mailto:liuls@igsnr.ac.cn">liuls@igsnr.ac.cn</a>
Prof Zhang Yili	Department of Land Use/Cover Change and Land Resources, Chinese Academy of Sciences Institute of Geographical Sciences and Natural Resources Research Jia 11, Datun Road, An-ding-men-wai Beijing 100101 P. R. China	Tel: ++86-10-64856505(O)	<a href="mailto:zhangyl@igsnr.ac.cn">zhangyl@igsnr.ac.cn</a>
Mr Tom Sengalama Executive Secretary	Greater Virunga Trans-boundary Secretariat P.O Box 6626, Kigali Rwanda	Tel ++25008300916(O) SKYPE: Tom.sengalama	<a href="mailto:tsengalama@tcs.org.rw">tsengalama@tcs.org.rw</a>
Mingma N. Sherpa Programme Officer	IUCN Nepal PO Box 3923 Kathmandu Nepal	Tel: ++977 1 5528761(O)	<a href="mailto:mingma@iucn.org.np">mingma@iucn.org.np</a>
Dr Hem Sagar Baral Chief Executive Officer	Bird Conservation Nepal PO Box 12465, Kathmandu, Nepal	Tel ++977 1 4417805 Fax ++977 1 4413884(O) SKYPE: hem.baral	<a href="mailto:hem@birdlifeneपाल.org">hem@birdlifeneपाल.org</a>
Mr Farooq Ahmad Team Leader Biodiversity	ICIMOD Khumaltar, Lalitpur, GPO Box 3226 Kathmandu, Nepal	Tel: ++977 1 5001209 (R) ++977 1 5003222 (ext 302)(O) Cell: ++9851078784	<a href="mailto:fahmad@icimod.org">fahmad@icimod.org</a>



Prof Yuri Badenkov Mountain MAB-6 Group Leader	Institute of Geography Russian Academy of Science Staromonetny, 29 109017 Moscow, Russia	Tel: ++7 495 635 55 32(O)	<a href="mailto:yubaden@mail.ru">yubaden@mail.ru</a>
Mr Galbadrakh Davaa Director of Conservation	TNC Mongolia Sukhbaatar District Amar Street Internom Building, 2 <sup>nd</sup> Floor 14201 Ulaanbaatar Mongolia	Tel: ++976 7011 8526(O) Fax: ++976 7011 8525	<a href="mailto:gdavaa@tnc.org">gdavaa@tnc.org</a>
Dr Jamie Ervin Protected Areas Science Director	The Nature Conservancy 1061 Mountainview Duxbury VT 05676 USA	Tel: ++1 802 244 5875(O) SKYPE: jamison.ervin	<a href="mailto:jervin@tnc.org">jervin@tnc.org</a>
Ms Wendy Francis Director, Conservation Science	Y2Y Conservation Initiative PO Box 1477 Banff AB Canada T1L 1B4	Tel: ++1 403 763 8633 (O) SKYPE: wendy.francis53	<a href="mailto:wendyleefrancis@cs.com">wendyleefrancis@cs.com</a>
Mr Bruce Jefferies Advisor/Consultant	Conservation Planning and Management Systems 185 Stone Street, Wanaka Otago 9305 New Zealand	Tel: ++64 4 443 7454(O)	<a href="mailto:brucejefferies@xtra.co.nz">brucejefferies@xtra.co.nz</a>
Mr Harvey Locke Strategic Advisor	Y2Y Conservation Initiative 4655 ave de l'Esplanade Montreal Quebec Canada H2T 2Y6	Tel: ++1 514 842 3675(O)	<a href="mailto:hlocke@sympatico.ca">hlocke@sympatico.ca</a>
Dr Michael Lockwood Senior Lecturer	University of Tasmania School of Geography and Environmental Studies PB78 Hobart Tasmania Australia 7001	Tel: ++61 3 6226 2834(O)	<a href="mailto:Michael.Lockwood@utas.edu.au">Michael.Lockwood@utas.edu.au</a>
Dr Kathy MacKinnon Lead Biodiversity Specialist	World Bank Environment Department 1818H Street Washington DC 20433 USA	Tel: ++1 202 4584682 (O)	<a href="mailto:kmackinnon@worldbank.org">kmackinnon@worldbank.org</a>
Ms Linda McMillan Deputy Vice Chair IUCN-WCPA Mountains Biome	721 Appleberry Drive San Rafael CA 94903-1205 USA	Tel: ++1 415 309 7961(O) SKYPE: annapurna98	<a href="mailto:linda@mountains-wcpa.org">linda@mountains-wcpa.org</a>
Ms Marie-Eve Marchand Interim Executive Director H2T 2Y6	Canadian Parks and Wilderness Society, Quebec Chapter 4655 ave de l'Esplanade Montreal Quebec Canada	Tel: ++1 514 842 3675(O)	<a href="mailto:memarchand@snapqc.org">memarchand@snapqc.org</a>
Dr Krishna Prasad Oli Regional Coordinator	ICIMOD Khumaltar, Lalitpur, GPO Box 3226 Kathmandu, Nepal	Tel: ++977 1 5003222	<a href="mailto:koli@icimod.org">koli@icimod.org</a>
Mr Ian Pulsford Manager, Landscape Connectivity Conservation	NSW Department of Environment and Climate Change 204 Duffy Street, Ainslie ACT 2602 Australia	Tel: ++61 2 6249 8027(O)	<a href="mailto:ianpulsford@hotmail.com.au">ianpulsford@hotmail.com.au</a>
Ms Lesley Pulsford	204 Duffy Street Ainslie ACT 2602, Australia	Tel: ++61 2 6249 8027(O)	<a href="mailto:ianpulsford@hotmail.com.au">ianpulsford@hotmail.com.au</a>
Mr Trevor Sandwith Deputy Chair IUCN WCPA, Director Protected Areas Policy The Nature Conservancy	4245 North Fairfax Drive Arlington VA 22203 USA	Tel: ++1 202 2948456(O)	<a href="mailto:tsandwith@tnc.org">tsandwith@tnc.org</a>
Mr Peter Shadie Coordinator Regional Protected Areas Programme	IUCN Asia 63 Sukhumvit 39 (Promphong) Wattana, Klongton Nua, Bangkok 10110 Thailand	Tel: ++66 2 6624029(O)	<a href="mailto:shadie@iucnt.org">shadie@iucnt.org</a>
Dr Graeme Worboys Vice Chair Mountains Biome, IUCN WCPA	3 Rischbieth Crescent Gilmore ACT 2905 Australia	Tel: ++61 2 62929908(O)	<a href="mailto:g.worboys@bigpond.com">g.worboys@bigpond.com</a>
Mr Rod Atkins Manager	Australian Alps National Parks Co-operative Man- agement Programme 500 Cotter Road, Weston ACT 2611 Australia	Tel: ++61 2 62052487(O)	<a href="mailto:rodney.atkins@act.gov.au">rodney.atkins@act.gov.au</a>
Dr Tatjana Yashina Science Director	Katunskiy Biosphere Reserve Altai Republic, Ust-Koksa, Zapovednaya st., 1 Russia, 649490	Tel: ++7 913 699 4079 ++7 916 947 6978(O)	<a href="mailto:Katunskiy@mail.ru">Katunskiy@mail.ru</a>
Dr Nakul Chettri Deputy Team Leader Biodiversity Conservation and Management	Environmental Change and Ecosystem Services (ECES) International Centre for Integrated Mountain Development (ICIMOD) GPO Box 3226, Kathmandu - Nepal	Tel: ++977 1 5003222 Ext 323 Fax: ++977 1 5003299/ 5003277(O)	<a href="mailto:nchettri@icimod.org">nchettri@icimod.org</a> <a href="mailto:chettrin@rediffmail.com">chettrin@rediffmail.com</a>