Integrative Wildlife Conservation and Habitat Protection: The Role of Hunting in Wildlife Conservation, Landscape Preservation and Rural Development



The positive role of hunting in conservation is supported by clear scientific evidence.

On the other hand,

- bad governance in some hunting systems,
- wildlife management focused solely on monetary gain,
- > unacceptable behavior of some hunters, and
- disregarding the aspirations of those people who live with wildlife

are providing the adversaries of hunting with ample ammunition.

Anti-use organizations, their paid lobbyists and influencers feed carefully selected information and images. This relentless anti-use propaganda machine uses scientific evidence only where it fits. It also totally ignores—or distorts—information on the conservation contribution of hunting.

The momentum of the anti-conservation drive is gaining speed. The daily sensationalist news stream is an accelerant for social media storms and torpedoes regional conservation strategies. In consequence, the sovereign rights of governments and people in Africa and Asia are curtailed.

Recently, this process has reached the venerable IUCN. A UK-based anthunting site published a dated opinion on 'trophy' hunting. The piece reflects the personal opinion of six environment law professors. Within hours, it was picked up around the globe and sold as IUCN policy.

Valid IUCN position statements and standing IUCN policy which recognize the positive role of regulated hunting in wildlife and habitat conservation were ignored.

None of the cleverly engineered attacks on hunting mentions the significant habitat and wildlife recovery. In fact, hunting earns more per specific area than other uses in Africa and Asia. Especially in areas where wildlife related income is returned to landholders. 'Unused' wildlife species, or 'unused' habitat quickly lead to the loss of both. This 'tragedy of the commons' doesn't fit into the current anti-use frenzy.

It's a misconception that photo tourism provides viable stand-alone solutions for conservation. Anti-use activists also like to boast that photo tourism is benign and non-consumptive. Have they ever seen a top-end game lodge in Africa? Have they ever measured the ecological foot print of photo safari outfits? Have they ever taken note that individual staff in these camps probably makes less in a year than what lodge guests spend for a night?

Yet, te public silence of pro sustainable use protagonists—hunters, and non-hunting conservation scientists alike—is almost deafening.

With a few exceptions, scientists, hunting associations or governmental wildlife management agencies don't address the public through the media. Coordinated and strategic campaigns for sustainable use are conspicuously lacking. And critical individual response to animal rightist propaganda is muted at best.

This unfortunate scenario conveys a false impression. There is no widespread societal consensus that hunting is wrong. There is no consensus that it should be banned.

Nevertheless, there is clear evidence that hunting is an irreplaceable conservation tool. Not only in Africa and Asia, but also in Europe and North America, and around the world.

But the hunting tool in incentive-driven conservation has to be used properly and with circumspection. Just like with other activities, things can go wrong. We have to address a range of issues in our hunting world.

- ➤ This includes governance at regional and national level.
- > This includes respect for the sovereign rights of private and community shareholders in wildlife areas.
- > This includes fair economic returns for them.
- This includes political, economic and cultural stability for rural communities and individuals.
- > This includes strict enforcement of national laws and international regulations.
- This includes ecological issues like the evolutionary impact of hunting animals with specific traits (like large horns, antlers or bodies), selecting target animals for age and sex, fencing of wilderness areas or interruption of migration corridors, intensive wildlife ranching practices like line breeding and genetic manipulation, wildlife diseases, and so on.
- Last not least the impacts of climate change,

We are aware that some hunting systems are in need of reform. In fact, all hunting systems should undergo periodic reviews, even if they are demonstrably successful. There is no reason that they couldn't be more successful still. Let's get inventive. Let's create incentives to speed up the

will to improvement. Incentives are a good way to accelerate reform processes.

President Roosevelt started successful wildlife restitution, conservation and protection here in America. With sensible laws and enlightened management no wildlife species have been lost. Most species of larger North American wildlife are now rated from common to abundant, and even overabundant.

Europe has a very different wildlife conservation model. It's just as successful. Never in history have there been so many roe deer or wild boar across the continent. The European ibex, once reduced to a few individuals, is thriving all over the Alps. Hunting opportunities increase year by year.

What I said about North America and Europe also applies to other parts of the world. Not all, I admit. Some countries who banned hunting decades ago, Kenya comes to mind, experience serious wildlife losses; others, with hunting, fight with endemic corruption, or remain inaccessible due to civil strife.

But the community conservancies of Namibia, Northern Territories in Australia, Tajikistan and Pakistan are shining examples that incentivedriven conservation produces win-win scenarios.

There are more elephants and lions in Namibia than ever before in the past four decades. The two rhino species thrive. The saltwater crocodile was on the brink of extinction in northern Australia in the 1960s—today the populations numbers exceed 100,000. Communities make money from breeding crocs and selling the hides, a limited number of crocs is hunted.

Tajikistan's Markhor population was—not so long ago—close to being critically endangered; it's now restored to healthy levels, bringing with it a

rebounding snow leopard population. These programs create much needed (and substantial) income for communities in remote mountain villages. The same can be said for Khyber-Pakhtunkhwa, Gilgit-Baltistan and Baluchistan provinces in Pakistan. In both regions several urial species made a comeback too. All this is a result of regulated hunting programs.

The privately-run wildlife reserves in South Africa have led to an economic and ecologic revolution. Never before in recent history was that much land under some sort of conservation management. Never before have we counted that many animals on these lands. Yes, this has also caused problems and these need to be addressed decisively.

Botswana's counterproductive 2014 hunting ban has been reversed. New and rigorous management systems promise similar successes as in neighboring Namibia. Large private reserves in Zimbabwe, where hunting is one cornerstone of economic survival, are generally doing well and donating elephants, rhinos, lions and other wildlife to depleted areas state-owned in Zimbabwe and Mozambique. The CAMPFIRE areas in Zimbabwe show also some success.

The flipside of these successes is that private, community and stateowned hunting concessions are being driven into economic obsolesce by overly restrictive import regulations in the United States and some European countries. As a result, a substantial number of hunting blocks are being converted to other uses than wildlife.

You can look where you want around the globe—hunting can't be that bad for wildlife conservation as our opponents try to make the public believe.

So, apparently, incentive-driven-conservation is the solution. Now we need to focus on practical solutions and best practices to make it work, and to show that world that it works:

Transparent and documented processes are the basis for focused information campaigns, and

- > provide opportunities to comment, criticize, contribute;
- encourage user feedback, and user-supplier interaction;
- allow monitoring, adapting and refining the sustainability of extractive and non-extractive use options;
- > set standards for better or best practices.

Many papers, opinion pieces, concepts, plans, project proposals etc. have been written and discussed. Many experts from many fields have been involved.

But I am afraid that few, if any practical reform results have emerged.

- ➤ The development of *Principles, Criteria and Indicators of*Sustainable Hunting outside Europe didn't even reach the pilot phase;
- the adaptation of a European Charter on Hunting and Biodiversity is a reality, but the follow-up in some countries seems weak;
- the efforts to advance the case of a Charter for Hunting Wildlife Conservation and Habitat Protection in Africa have stalled;
- certification of hunting and/or hunting areas is a recurring topic with inputs from many. Last year's conference arranged by the Spanish government in Seville/Spain and the IUCN SULi concept proposal 'Hunting ASSETS' are but two examples. Hunting stakeholders rejected these emerging suggestions as too complicated, impractical or too expensive.

The time has come that we take decisive action – and this IWCC meeting is a good starting point.

Today you will hear a rough outline of three interlinked tools. This could be the hunters' contribution towards a more integrative wildlife conservation and habitat protection approach.

They are almost ready to be used in pilot projects.

I hope that my presentation will convince the IWCC to recommend that the international branches of the Fish & Wildlife Service, and the Association of Fish and Wildlife Agencies join hands with similar agencies in Africa and Asia.

Of course, this cooperation of government agencies would be incomplete without experts from the IUCN/SSC Sustainable Use & Livelihoods Specialist Group and a variety of species specialist groups, as well as private and community wildlife and habitat shareholders in the range countries.

We can create regionally diverse win-win situations for wildlife conservation, landscape preservation and rural development.

The Citizen-Scientist Hunter

Citizen science programs can yield a wealth of information that would not be possible otherwise, given the limitations of research funding and personnel. A past president of the Wildlife Society defined *citizen science* well. It's a program of scientific work designed and overseen by scientists. A network of volunteers performs or manages tasks such as observation or data collection Hunters can demonstrate practical and intellectual conservation leadership within such a citizen science project.

For the conservation and sustainable use of wildlife in Africa and Asia, the value of citizen science is obvious.

Hunting citizen scientist volunteers do not need specific scientific training. They have extraordinary tools to collect, store and distribute information at almost no additional cost, and with acceptable additional effort. Their tools of trade include modern optics and range finders, accurate satellite maps, on-line data collecting systems, and mobile gadgets of all descriptions. They also have safe and user-friendly methods of collecting, transporting and storing DNA material.

We can generate a broad database of morphometric measurements and physical descriptions of hunted animals. We can create detailed information on wildlife populations and their demographics in the hunting area. We assist in refining maps of distribution ranges and contribute towards resolving taxonomic questions. We help to evaluate the impacts of anthropogenic and natural selection pressures on the demographic structure of wildlife populations. And much more.

Information on hunter-harvested animals, collected over a long period, is extremely important to assess changes in wildlife population structure, habitat and climate. The interpretation of the data sets supports management decisions. They help to understand complex interactions

regarding the sustainability of extractive and non-extractive use of wildlife.

The combined data generated by hunters, researchers and local communities allow better interpretation of population dynamics and lead to improved harvest strategies within national and transboundary management plans. When combined with social data relating to human presence and activities, we can identify best practice approaches that combine good conservation with economic development and rural traditions and cultural values.

The data sets will also be sources of valuable information for national regulatory and management agencies, law enforcement, and the parties to multinational agreements, like the Convention on Biological Diversity (CBD), Convention on Migratory Species (CMS) and the Convention on International Trade in Endangered Species (CITES).

All we need are standardized reporting forms containing sections on morphometrics and pelage, hunting area and camp, hunting team, weather and climate, landscape and vegetation, socio-economics, status of other local wildlife, etc.

Filling out such forms demands some additional work and special dedication: interviewing guides, camp staff and local residents; making notes of daily field observations; taking photos, measurements and correlating the bits of information. But if we want to perpetuate regulated hunting, such additional effort is a small price to pay.

Ultimately, data generated by citizen-scientist hunters will assist in making wildlife management more transparent. Conclusions drawn from these data will reassure a watchful public of the integrity and effectiveness of hunting related conservation methods.

Principles, Criteria and Indicators (PCI) for Sustainable Hunting

Almost 20 years ago Austrian university institutions developed a PCI system in cooperation with hunters, landowners and government agencies. Over the years the system was refined and adapted to changing circumstances. About a year ago the actual final version was put online by the Austrian government.

The individual pillars of this system are:

Principles

... basic generalizations accepted as true that can be used as a basis for reasoning or conduct

Criteria

... reference points against which other things can be evaluated

Indicators

...scores or values derived from a series of observed facts describing the stages from sustainable to non-sustainable conditions

The *Principles, Criteria and Indicators for Sustainable Hunting* provide a simple structured assessment system to measure the impact of hunting activities.

The detailed matrix of ecological, economical and socio-cultural parameters gives a reasonably accurate, objective and transparent description of the status quo of habitat-wildlife-people interactions. The unit of observation is the defined hunting area.

The system incorporates a grading system that lets landowners, management authorities and users assess the ecologic, economic and socio-cultural viability of hunting areas.

It also provides practical suggestions for decision makers wishing to implement adaptive management strategies.

The PCI process is clearly not a certification system. However, the data, together with experience gained in the process, may eventually lead to a peer-driven quasi-certification system of policies, approaches and methods. A framework of logical checks and expert reviews safeguards its integrity.

At significantly lower cost than traditional certification systems and with low administrative effort, the outcomes enable a triple bottom line evaluation of hunting. The results will demonstrate its ecological, economic and societal benefits.

This project was developed in Austria. It can be adapted to African and Central Asian scenarios to assess hunting activities and hunting areas in regional or multiregional contexts. It can also be used species-specific or a combination of both. The PCI-Matrix is not limited to game species and hunting activities. It includes the interactions of game- and non-game wildlife species, and anthropogenic impacts. It also covers interfaces with other land use options such as photographic tourism, pastoral and agricultural activities, wildlife research activities and more.

The PCI approach

- focuses on the conservation and/or restoration of wildlife species, their genetic diversity, life cycles and population dynamics, and the ecosystems which they inhabit,
- investigates the capability of hunting activities to yield economic benefits for conservation projects and local communities,
- facilitates cooperation with other forms of land use,
- explores the traditional connection of rural people and wildlife,
 - the public interest in hunting,
 - the principles of animal welfare, and

- the hunters' aspirations concerning opportunities to hunt
- highlights the links between hunting and conservation
- assists hunters in accepting the necessity of fair, legal and environmentally sound hunting practices

In short – the PCI methods provides a simple method of measuring the impact of hunting activities with a structured evaluation system for different eco-regions.

The PCI approach ties in with the recently published resolution of the Association of Fish and Wildlife Agencies (United States) on *Reaffirming Support for Sustainable Use and Regulated Trade*. This resolution stipulated, inter alia, that

"well managed, regulated hunting, fishing, and trapping supports and promotes biodiversity conservation, can affirm strong cultural ties, and is a heritage activity across eons".

The PCI method is inexpensive, since it largely based on self-assessment with input from the user and supplier sides. It considers the interface of hunting with other forms of land use like agriculture, livestock, and ecotourism; the economic imperatives of local communities and private enterprise; the interest of the state and the global community, and last not least the interest of habitat, wildlife and the hunter.

Charter for Hunting, Wildlife Conservation and Habitat Protection in Africa and Central Asia

In November 2015—in my capacity as president of the Applied Science Division of the CIC—I organized a meeting of senior government officials from Namibia, Zambia, Mozambique and Tanzania and conservation NGOs from the region.

The purpose of the meeting: We wanted to explore the potential of the existing *European Charter on Hunting and Biodiversity* in connection with the threats and opportunities for wildlife, wild landscapes and sustainable use in the SADC region.

Could a similar charter for Africa help solve issues of governance, transparency, and accountability in wildlife-based land use? Could this be a way to improve existing hunting systems on private and community land?

The participants clearly felt that this was the case! In several follow-up meetings we explored the issues and went as far as drafting the *Charter for Hunting, Wildlife Conservation and Habitat Protection in Africa*.

Hunting, in the charter context, is seen as a recreational and cultural form of utilization and management of habitats and wildlife. It is integrated into broader conservation initiatives. Explanatory notes explain terms and concepts, and illustrate guiding principles for a wildlife management system, where hunting is one component. Th Charter is a platform for the protection and advancement of biodiversity.

The draft charter text contains many aspirational elements which address the needs of national and local conservation shareholders. Care has been taken that it conforms to the existing frameworks of global and regional agreements on biodiversity and sustainable use. The charter frame work is underpinned by the acknowledged principles laid down years ago in the *Addis Ababa Principles and Guidelines for the Sustainable Use of Nature*. Of course, it is supported by operational quidelines.

The draft clearly stipulates that hunting must not only be ecologically sustainable, but enhance biodiversity conservation and safeguard animal welfare. Hunting must be embedded in socio-cultural context of the country, and the Charter does not only encourage, but mandates the participation and buy-in of rural communities living with wildlife, as well as their local knowledge, traditions.

Last not least: The principal rights owners—rural communities and private entities, as the case may be—must receive their fair share of economic benefits.

These points, and more, are defined within the Charters in the Principles, Criteria and Indicators matrix, and operational guidelines.

The system has a structured evaluation system to monitor, measure and assess the ecological, economical and societal implications of hunting related activities. The diverse shareholders are accountable to the public. This purpose is served with standardized periodic reports on the state of hunting and the conservation of wildlife habitats and biodiversity in the signatory countries.

The development of trust-building instruments is essential to drive biodiversity conservation in Africa and Asia. Aspirational, regionally adapted *Charters for Hunting, Wildlife Conservation and Habitat Protection* will create trust across sectors and even borders. This is essential for long-lasting success for wildlife, habitats and local livelihoods.

Conclusion

Unfortunately, the Charter development process stopped and progress stalled. Apparently, Namibian authorities continue to build nationally on the work we started a few years ago, but the Namibian efforts should again be embedded in a regional plan.

Therefore, I call on the international hunting community to support

- the restart of a comprehensive consultative process with
 - the IUCN Species Survival Commission (and its Specialist Groups), and
 - with country and region-specific wildlife interests (citizens, local resource stewards, protected area managers, government agencies and conservation NGOs),
- mobilize adequate funding, and
- commence with a couple of pilot projects in Africa and Central Asia.

This will create the groundwork for truly **Integrative Wildlife Conservation and Habitat Protection** activities, and it will show the global audience the important role hunting plays. It will mainstream Wildlife Conservation and Habitat Protection as lucrative investment.

The information obtained in the process will assist

- national regulatory, research and management entities,
- national and international hunting associations,
- non-hunting conservation NGOs who support sustainable use,
- authorized law enforcement personnel, and
- the secretariats of multilateral environmental agreements like CBD, CMS and CITES.

Expert data interpretation will assist in the development, review and adaptation of national and transboundary habitat and wildlife

management plans. The legal national and international movement of mementos of harvested animals (at some time in the past also known as 'trophies') could even be supported by an integrated identification system.

Ultimately, data and processes will improve transparency, and reassure a watchful public of the integrity and effectiveness of regional wildlife conservation methods.

Integrative Wildlife Conservation and Habitat Protection needs a supporting champion like the IWCC and the good will of its members.