

Can Community Managed Grasslands Help Maintain Globally Threatened Bird Populations ?

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Broadly speaking Nepal has three major habitat types; namely forests, wetlands and grasslands (Baral and Inskipp 2004). The term 'grassland' has been used as a broad term for carpeted ground with short grasses or towering heights of elephant grass. The tall grasslands of northern India and southern Nepal have been considered to be the most threatened of the habitat types in the region (Grimmett *et al.* 1998). The height of some grass species in lowland Nepal reach 8m or even more, making it perhaps the tallest grassland regions of the world!

Grasslands support high biodiversity, a higher number of globally threatened animal taxa are found here compared to other habitats in Nepal. Nepal grasslands are internationally important for conservation of many fauna as they harbor significant portion of many grassland birds' population. Sadly due to the widespread habitat loss and over-exploitation of the natural resources, the grasslands are shrinking day by day (Peet *et al.* 1999).

Tall elephant grasslands in southern Nepal are home to many species of threatened fauna (Baral 2001). These include Nepal's charismatic large mammals and other megafauna such as One-horned Rhinoceros *Rhinoceros unicornis*, Bengal Tiger *Panthera tigris*, Gaur *Bos gaurus*, Wild Buffalo *Bubalus arnee*, Asian Elephant *Elephas maximus* and Sloth Bear *Melursus ursinus* and five species of deer. Many of these mammals have been studied (Laurie 1982, Mishra 1982, Smith 1984, Dinerstein 1987), however work on avifauna of grasslands started only from the 1990s. Almost 20 species of globally threatened animals are believed to be heavily dependent on these grasslands. Baral (2001) listed 31 grassland birds as priority species for conservation, several of these now are globally threatened indicating urgency to act for them (BirdLife International 2006).

The importance of grassland as an important habitat for birds is documented (Baral 2001). Prior to the start of grassland bird conservation programme under the aegis of University of Amsterdam, only three grassland species were studied in Nepal: Bengal Florican *Houbaropsis bengalensis* (Inskipp and Inskipp 1983, Weaver 1991), Sarus Crane *Grus antigone* (Suwal 2002), Swamp Francolin *Francolinus gularis* (Baral 1998). Since the onset of the grassland bird conservation programme a number of research work has been carried out on the ecology of the threatened grassland avifauna. These include, Bengal Florican (Chaudhary 2002, Baral *et al.* 2000 and 2002), Swamp Francolin (Dahal 2002, Singh 2007), Hodgson's Bushchat *Saxicola insignis* (Baral 1998), Sarus Crane (Suwal 2002), Lesser Adjutant *Leptoptilos javanicus* (Hundgen and Clarkson 2003, Tamang 2003, Gyawali 2003, Chaudhary 2007), Grey-crowned Prinia (Baral 2002) and Slender-billed Babbler (Baral 2006) etc. In addition to these birds, lowland grasslands are home to many little known species, eg White-tailed Stonechat *Saxicola leucura*, Rufous-rumped Grassbird *Graminicola bengalensis*, Pale-footed Bush-warbler *Cettia pallidipes* (Baral 2003, 2006, in press). Nepal grasslands also act as a limit for the world distribution of some grassland birds (Baral 2000).

Grass is also a vital resource for local people and now almost all such habitat is restricted to the protected areas (Sharma and Shaw 1993). Chitwan National Park, Sukla Phanta Wildlife Reserve, Bardia National Park and Koshi Tappu Wildlife Reserve are important grassland reserves (Peet *et al.* 1999). It is estimated that nearly 500 km² is covered with tall grasslands, roughly 23 % of the total 2230 km² of vegetation cover in lowland protected areas (Baral 2001).

Grasses are the most used daily resource by the rural people. It is used to feed livestock and forms their staple diet. It is also used for various household uses; building houses, hats, mats, fishing baskets, tables, chairs etc. In recent years, a high demand of grasses has been put by the paper industry. Grass is highly renewable and fast growing resource used by all level of people but more by the ultra-poor people. This shows strong

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connection of grassland habitat with humans living at the lowest level of economic standard. It is said that grass is used by humankind when a baby is first born and also during the funerals!

Loss of grasslands by deterioration, disturbance and natural succession are major issues for grassland conservation. Lack of new riverine areas for formation of new grasslands also poses serious threat. Threats to the grasslands has yet to be addressed as it is important habitat for several globally threatened species.

Grassland conservation in lowland Nepal has drawn attention in recent years. In the past conservation was taken in a rather narrow sense and conservation for many meant tree plantation (Baral 2001). International Trust for Nature Conservation (ITNC) have conducted grassland management experiment in small scale to promote habitat for Bengal Florican (Dhan Bahadur Chaudhary *verbally* 2005). The result of the latter study is not known.

As the grassland habitat itself is dependent on the dynamic regimes of floods, fire and disturbance, management of the habitat needs careful considerations. Present day management practice is mainly focused on large mammals. Management should be sympathetic also to birds, small mammals and other lesser fauna. Prescribed grassland management practiced in the protected areas need to be reviewed to see the changes on the composition of flora and fauna.

Conservation of grassland will help maintain grassland bio-diversity. This will increase sustainable use for various purposes. Sustainable management of the existing state-owned pasturelands and creation of new ones as community grasslands should be promoted. In addition to this local people and land owners should be encouraged for having their own private grasslands. To fulfill the human need rotational cattle grazing should be allowed in a way that promotes grass species diversity. Conservation education programmes run by CBOs and NGOs should promote grasslands in community forests and encourage to have community managed grasslands. *Saccharum* and *Imperata* grasslands are important for human beings and easily grown in the community managed lands. In fact these grasses are the first to grow in a fallow land, so additional input from us is minimum. Promotion of *Themeda* and *Narenga* grasslands (Peet *et al.* 1999) in the community managed grasslands should help promote conservation of threatened species. Community managed grasslands alone may not conserve all grassland birds but certainly will help several species to maintain their population at low risk.

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<p>विजयादशमी तथा शुभ-द्विपावली २०६४ को हार्दिक मंगलमय शुभकामना व्यक्त गर्दछौं ।</p> <p>शिवपुरी राष्ट्रिय निकुञ्ज काठमाण्डौ</p>	<p>विजयादशमी तथा शुभ-द्विपावली २०६४ को हार्दिक मंगलमय शुभकामना व्यक्त गर्दछौं ।</p> <p>रारा राष्ट्रिय निकुञ्ज मुगु</p>	<p>विजयादशमी तथा शुभ-द्विपावली २०६४ को हार्दिक मंगलमय शुभकामना व्यक्त गर्दछौं ।</p> <p>मकालु वरुण राष्ट्रिय निकुञ्ज संखुवासभा</p>
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