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## Livestock Biodiversity and its Sustainability in Relation to the Millennium Development Goals in Nepal

LOK NATH PAUDEL<sup>1</sup>, MATTHIAS GAULY<sup>2</sup>, UDO TER MEULEN<sup>2</sup>, UDAYA CHANDRA THAKUR<sup>1</sup>

<sup>1</sup>Ministry of Agriculture, Dept. of Livestock Services, Central Bovine Promotion Office, Nepal

<sup>2</sup>Georg-August-Universität Göttingen, Dept. of Animal Science, Germany

### Abstract

Agriculture is the mainstay of more than 65 % of the population and is one of the best options to mitigate the deep rooted poverty in Nepal. Agriculture sector provides about one-third to the gross domestic production (GDP) in Nepal. Livestock is the integral part of Nepalese agricultural system which contributes about 28 % share to agricultural gross domestic production (AGDP). It is the flourishing industry that directly addresses poverty (MDG 1), gender issues (MDG 3) and environmental sustainability (MDG 7) and indirectly to almost all Millennium Development Goals (MDGs).

Nepal is very rich in livestock biodiversity, but average production and productivity of the indigenous livestock breeds is very low. There is the potentiality of improving the productivity of indigenous breeds by intensive selection. Livestock products will only be cost effective if they are based on forage feeding. About one-third of Nepalese livestock are underfed which not only negatively affected the production potential of the existing livestock but also the breed improvement programme initiatives of the Department of Livestock Services (DLS). Lack of quality forage is more prone in trans-Himalayan regions, *e.g.* Mustang and Manang regions where very important livestock species like Yak, Nak, Chauries, Lulu cattle and Himalayan goats can be found. Livestock enterprise is getting paralysed in these regions because of the scarcity of quality fodder and pasture. Pasture species like White clover (*Trifolium repens*), Rye grass (*Lolium perenne*), Dhimchi (*Pennisetum flaccidum*), Kote (*Medicago sativa* var. *falcata*) and fodder species like Bains (*Salix babilonica*), Pipal Pate (*Populus* spp.), Khasru (*Quercus semicordata*), Bhote Kantus (*Castanopsis* spp.), Thotne (*Ficus hispida*) are very important in these areas. They can be grown and multiplied by using the traditional knowledge of the local population. An intervention to ameliorate the quality of the pasture will ensure low cost of livestock products, enrich the biodiversity, help in sustainable and environment friendly livestock production and will be the mile stone in achieving the MDGs in the trans-Himalayan regions of Nepal.

**Keywords:** Biodiversity, livestock, MDG, pasture, traditional knowledge, trans- Himalayan regions