A Pathway to Sustainable Agriculture through Protection and Propagation of Indigenous Livestock Breeds of Pakistan-Cholistani Cattle as a Case Study

Authors : Umer Farooq

Abstract : The present work is being presented with a general aim of highlighting the role of protection/propagation of indigenous breeds of livestock in an area as a sustainable tool for poverty alleviation. Specifically, the aim is to introduce a formerly neglected Cholistani breed of cattle being reared by the Cholistani desert nomads of Pakistan. The said work will present a detaile account of research work conducted during the last five years by the author. Furthermore, it will present the performance (productive and reproductive traits) of this breed as being reared under various nomadic systems of the desert. Results will be deducted on the basis of the research work conducted on Cholistani cattle and keeping abreast the latest reforms being provided by the Food and Agriculture Organization (FAO) and World Initiative to Support Pastoralism (WISP) of the UN. The timely attention towards the protection and propagation of this neglected breed of cattle will pave a smoother way towards poverty alleviation of rural/suburban areas and a successful sustainable agriculture in low input production systems such as Pakistan. The 15 recognized indigenous breeds of cattle constitute 43% of the total livestock population in Pakistan and belong to Zebu cattle. These precious breeds are currently under threat and might disappear even before proper documentation until and unless streamlined efforts are diverted towards them. This horrific state is due to many factors such as epidemic diseases, urbanization, indiscriminate crossing with native stock, misdirected cross breeding with exotic stock/semen, inclined livestock systems from extensive (subsistence) to intensive (commercial), lack of valuation of local breeds, decreasing natural resources, environmental degradation and global warming. Hefty work has been documented on many aspects of Sahiwal and Red Sindhi breeds of cattle in their respective local climates which have rightly gained them an international fame as being the vital tropical milk breeds of Pakistan. However, many other indigenous livestock breeds such as Cholistani cattle being reared under pastoral systems of Cholistan are yet unexplored. The productive and reproductive traits under their local climatic conditions need to be studied and the future researches may be streamlined to manipulate their indigenous potential. The timely attention will pave a smoother way towards poverty alleviation of rural/suburban areas and a successful sustainable agriculture in low input production systems.

Keywords : Cholistan desert, Pakistan, indigenous cattle, Sahiwal cattle, pastoralism

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