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3.1 CHANGES TO PASTORAL SYSTEMS AROUND THE GLOBE

The Shift from Pastoral to Agro-Pastoral Livelihood: Current Challenges and Future Research Priorities

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Introduction

Nomadic pastoralism is a precarious lifestyle and a significant form of land use involving some form of mobility within extensive rangeland areas (WISP, 2007). Pastoralism provides 10% of the world's meat production and supports approximately 200 million households worldwide (FAO, 2001). A declining trend in pastoralism with a shift to sedentary agro-pastoral practices on smaller tracks of land and its major implications on rangeland management have been noted by the authors across many regions. This short overview reviews the major transformation from pastoral to agro pastoral production systems as a result of declining transhumance and its potential implications for rangeland management. The objective of this paper is to understand the current trends and highlight new areas for research to improve rangeland management as it is occurring on the ground.

Materials and Methods

A survey was conducted in South Asia on transhumance on 250 pastoralists. It was observed that transhumance is declining and there is a tendency for people with larger herds and lower educational levels continuing the practices at certain times of the year (Louhaichi et al., 2014). This trend has been observed in research activities in multiple locations. As a result, a review of the literature was conducted to understand the reasons for the reduction in transhumance and the resulting increase in agro pastoralism.

Results and Discussion

Extensive livestock production based on pastoral grazing systems has been in decline as a consequence of environmental, socio-economical and policy changes over the last five decades in many parts of the world. A number of factors contributed to the settlement of pastoralists, such as: urbanization, degradation of the natural resource base, drier conditions associated with climate change, and an attempt to reach markets with better prices and payment. Policies and services play another major role in settlement as policies tend to favor settlement through feed subsidies and making borders difficult to cross as well as allocate crop land in pastoral areas in many occasions. Major transformations in social structures and lifestyles prompted mass migrations from rural areas to cities for easier access to beneficial social services like healthcare and education among others. Development in agriculture services has improved agriculture livelihoods making crop production more profitable. Farming families as a result often prefer to be near these services as they diversify their earnings. While pastoralism is declining along with a decline in rural populations, livestock numbers are increasing (Figure 1).

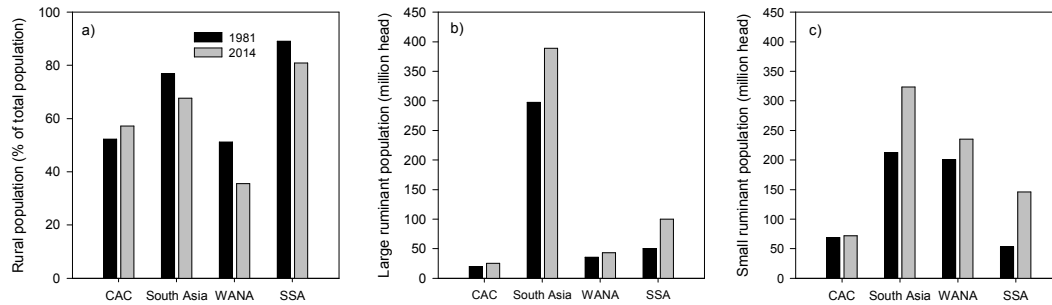


Figure 1. Evolution of rural population and livestock number (source World Bank and FAO stat).

Livestock production will respond to meet the rising meat consumption. In contrast, small ruminants are no longer considered to be the major suppliers of animal products in Turkey due to the large decreases in sheep and goat populations as partly associated with sedentarization (Gursoy 2006). Sedentarization of the small ruminant flocks in the form of agro pastoral production lead to inefficient use of rangeland grazing. This reduction in mobility resulted in overgrazing of rangeland areas with easier access and under grazing in remote areas. Underutilization of rangeland can cause problems not only of overgrazing in key locations but also serve as a security vacuum in remote harder to access areas (de Haan et al., 2014).

Conclusions and Implications

Policies and social services can be adjusted in a way that still promotes migratory pastoralism to utilize and reduce the security vacuum that these areas may pose. Currently governments often provide feed subsidies and land tenure incentives that cause pastoralists to stay near urban areas. Using this money for assessing carrying capacity and enforcement of grazing permits in underutilized areas can provide incentives to utilize harder to reach areas. Providing mobile services such as; school, veterinary, and health services makes it easier for pastoral people to continue their traditional lifestyle. Governments have often rewarded people who move to remote areas by giving them land once it has been cultivated for many years. This has led to degradation in some areas. Revisions of such policies with land planning can change negative impacts. Research on pastoral development is needed to reduce conflict and promote sustainable land management.

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