

Pastoralism and Pastoral Development

General

420 Livingstone, I. 1991. **Livestock management and overgrazing among pastoralists.** *Ambio: a journal of the human environment* 20(2):80-85

Keyword(s): *Livestock management / Rangelands / Pasture management*

Call No: 304.2 AMB

Lang: En

Degradation of the range in pastoral economies is widely put down to the existence of a 'common property problem' (CPP) arising out of communal ownership and leading to excess holdings of livestock. Examining first the reasons for accumulating livestock in traditional livestock systems, this article looks more closely at the physical processes of range degradation, reviewing recent literature, and argues that inadequate account has been taken of the difference between average rainfall years and drought and immediate post-drought years in which degradation under the CPP, is concentrated.

421 Oxby, C. 1991. **The involvement of agropastoralist women in livestock programmes.** In Wallace, T.; March, C. (eds.) *Changing perceptions: writings on gender and development.* Oxford: Oxfam. 202-209p.

Keyword(s): *Women's participation / Women workers / Pastures*

Call No: 305.4 WAC

Lang: En

This paper first describes the involvement of agropastoralist women in livestock programmes. This is followed by brief description of two rare NGO projects which have attempted to involve women in animal production activities. Both are restocking projects. Recommendations for the betterment of the women involved in livestock programmes is also discussed.

422 Sandford, S. 1983. **Management of pastoral development in the third world.** Chichester: John Wiley. 316p.

Keyword(s): *Developing countries / Pasture management*

Call No: 333.74 SAM

Lang: En

This book presents information on pastoral societies and the management and organisation of pastoral development in the third world. There are eleven chapters in this book. The physical and analytic framework is discussed in the first chapter, which defines a number of important terms and concepts

which will frequently recur in what follows and has given some indication of the present extent of pastoralism and of many expectation about its future. The chapter also reviews current beliefs about the state of the world's rangelands and the causes for desertification. Objectives, strategies and instruments required for pastoral development is discussed in the second chapter. Third chapter focusses on the management and organisation in pastoral development. Fourth chapter outlines some of the important aspects of the development of pastoral water supplies. Fifth chapter concentrates on three aspects with the very broad scope of range management. Sixth chapter discusses the main aspects of range management. The full scope of organising the management for improving range productivity is discussed in the seventh chapter. Eighth chapter has focussed between different forms of organisation and management in some selected aspects of the improvement of animal health and animal husbandry. The scope of pastoral marketing and processing have been briefly reviewed in the ninth chapter. Chapter Ten focusses on the organisation of pastoralists seen as a whole over the broad range of their function in components. Chapter eleven concentrates on the organisation and management of government activities.

Afghanistan

423 Balland, D. 1988. **Nomadic pastoralists and sedentary hosts in the central and western Hindu Kush mountains, Afghanistan.** In Allan, N. J. R.; Knapp, G. P.; Stadel, C. (eds.) *Human impact on mountains.* New Jersey, NJ: Rowman & Littlefield Publishers. 265-276p.

Keyword(s): *Nomadism / Hindu Kush-Himalayas / Animal husbandry / Mountain people / Afghanistan*

Call No: 304.2 ALH

Lang: En

In this paper, Gujar in the central Hindu Kush and the Pashtun nomads in the Dasht-e-Nawar area are described as the nomadic pastoralists and sedimentary hosts in the Afghan Hindu Kush region based on their lifestyle and migratory process.

Bangladesh

424 Feldman, S.; Fazila Banu; McCarthy, F. E. 1992. **The role of rural Bangladeshi women in livestock production.** In Dove, M. R.; Carpenter, C. (eds.) *Sociology of natural resources in Pakistan and adjoining countries.* Lahore: Vanguard Book. 347-371p.

Keyword(s): *Livestock management / Women's role / Rural women / Bangladesh*

Call No: 333.7 DOS

Lang: En

The purpose of this paper is to document women's participation in the production of livestock in Bangladesh. Based on data collections from four villages in two region, the paper also examines the social relation of livestock production focussing primarily on factors of family status and gender. It is hypothesised that specific activities which different family members perform in the production of livestock vary by configuration of household membership and the family control of productive resources.

Bhutan

425 Asian Development Bank. 1988. **Bhutan: women in development profiles in highland livestock development.** Manila: Asian Development Bank. 34p.

Keyword(s): *Women's participation / Livestock / Bhutan*

Call No: 305.42 ASB P

Lang: En

This document examines the situation of Bhutanese women in relation to government policies, legal aspects, cultural and social customs, their economic role and bank operations: analyse their needs and impact with regard to the bank-assisted Highland Livestock Development Project. Covering the general issues on Bhutanese women, the profile also highlights how their role was effectively integrated into the project.

China and the Tibetan Plateau

426 Clarke, G. E. 1988. **China's reforms of Tibet and their effects on pastoralism.** Kailash: a journal of Himalayan studies 14(1,2):63-131

Keyword(s): *Pastures / Animal husbandry / Economic conditions / China, Tibet*

Call No: 301.05 KAJ

Lang: En

This paper attempts to describe the situation as it existed in 1986 in certain areas of the Tibetan Autonomous Region (TAR), between the high Himalayas, the ranges of the northwest Tibetan Plateau and Central Tibet. It describes the natural and social conditions of Tibet. Which gives the ecological particularities, national characteristics, the economic structure of the region and the living conditions of the people as they are and brings these factors together in the explanatory context of their

particular historical situation. The centre of this account is a presentation of original field research in the form of case-studies on households and communities. The main portion of the paper presents the original case-studies from recent field research among pastoral communities in south-western and central Tibet, in particular the Lake Namtsho area on the southeastern fringes of the Changthang plateau, and in the Shigatse prefecture. These are considered in the context of the ecological and a wider institutional framework, one that includes both traditional and wider administrative features. This account is then interpreted in the context of recent and continuing institutional and economic changes, which is rounded off by some practical conclusions and implications for applied research.

427 Miller, D. J. 1995. **Herds on the move: winds of change among pastoralists in the Himalayas and on the Tibetan plateau.** (MNR [Mountain Natural Resources] discussion paper, 95/2). Kathmandu: International Centre for Integrated Mountain Development. 20p.

Keyword(s): *Pasture management / Pastures / Herbs / Himalayas / Grassland management / China, Tibet*

Call No: 574.52643 MIH P

Lang: En

Rangelands cover about one-third of the Himalayan land areas and over three-fourths of the Tibetan plateau. A large livestock population and possibly 10 millions livestock dependent people reside in these mountain grazing lands, along with a unique assemblage of large wild ungulates. Most of Asia's major rivers originate in these rangelands and what takes place in these headwaters ecosystems has far reaching effects on downstream areas which have not been fully measured. Factors, such as geographical extent, biodiversity conservation, environmental protection, economic development, and human welfare, suggest that Himalayan and Tibetan rangelands should be a priority area for development, but, unfortunately, they are not. This paper examines some of the reasons why the rangelands and pastoralists on the Tibetan frontier have been ignored, and describes changes taking place on the rangelands, discusses issues facing pastoralists, highlights new perceptions emerging to help explain rangeland dynamics and pastoral systems and outlines factors to be considered in developing strategies for pastoral development in the region.

India

428 Chatterjee, P. C. 1989. **Nomadic graziers of Garhwal.** In Singh, T. V.; Kaur, J. (eds.)

Studies in Himalayan ecology and development strategies. New Delhi: Himalayan Books. 93-99p.

Keyword(s): *Nomadism / India, UP, Garhwal*

Call No: 574.5264 SIS

Lang: En

The geographical features of the Himalayas limit the choice of basic occupations for its inhabitants for agriculture and grazing. Agriculture is the main occupation in the broader river valleys lower down and on the lower hills, and pasturing cattle, which is taken up has a supplementary occupations here, gains importance with gain in altitude and assumes the main role on the high table-lands and the still higher hill-slopes of the greater Himalayas. And further up, as the barrenness of the hill slopes increases, grazing becomes the main source of livelihood. The life in these remote impregnable hills is very arduous, howsoever laborious and dedicated the inhabitants may be, they find it very difficult to earn a livelihood. Thus, like variations in the geographical features and the climate, difference is also found in the people and their way of life especially migratory habits. This paper proposes to discuss the people here, one by one, on the basis of their origin, their habitat and habits.

429 Rao, A.; Casimir, M. J. 1985. **Project: pastoral niches in the western Himalaya (Jammu and Kashmir).** [15]p.

Keyword(s): *Economic conditions / Nomadism / Tribes / Pastoralism / Jammu and Kashmir*

Call No: 636.08551 RAP P

Lang: En

This report briefly reviews the descriptive note on the traditional adaptive strategies of the mobile pastoral communities. Data presented in this report represents the basic results on research projected on the pastoral niche in a part of the western Himalayas. The report shows that although the broad features of their subsistence strategies are very similar, there is a variation in the detail aspects of resources exploitation. It also shows that each group partly breeds different types of livestock and partly utilise various biotypes within a given region, but at different altitudes.

Nepal

430 Dhungel, B. P. 1987. **Sociocultural and legal arrangements for grazing on public land: case study of Bahadurganj.** (Natural resource management paper, 11). Kathmandu: Winrock International Institute for Agricultural Development. 10p.

Keyword(s): *Animal husbandry / Legal aspects / Social aspects / Grazing land / Nepal, CDR*

Call No: 636.084 DHS P

Lang: En

The interdependence of crop farming and animal husbandry has been an important feature of the Nepalese rural economy, particularly in the Terai. But growing demand for food for the ever-increasing human population has led to a decline in public grazing lands. Therefore, the practice of grazing animals on public land has almost died out. A decline in grass availability on public lands has induced individual farmers to prohibit others from grazing on their private fallow. Because of numerous legal loopholes, legal provision to protect public lands from encroachment are ineffective. Specifically, the paper documents and analyses exiting legal arrangements related to public land, especially public pastures, that determine the importance of pasture as a sources of feed/fodder. It also documents social and cultural arrangements for grazing and public pasture management. Suggestions and measures to improve grazing management of public land is also provided.

431 Miller, D. J. 1987. **Yaks and grasses: pastoralism in the Himalayan countries of Nepal and Bhutan and strategies for sustainable development.** Missoula, MT: University of Montana. 109p.

Keyword(s): *Yaks / Rangelands / Grassland management / Pasture management / Nepal / Bhutan*

Call No: R 636.293 MIY

Lang: En

This paper draws on years of personal experiences of the author in the Himalayas and an extensive literature review to describe the range and livestock resource of some of the highest altitude rangelands in the world. The pastoral situation, rangeland reserves, topography, climate and vegetation of Bhutan and Nepal is described, followed by a brief description on domestic yak and their role in pastoral product systems in the Himalayas. Present-day concerns and constraints associated with pastoralism in Bhutan and Nepal are discussed. Strategies for sustainable development is outlined. Viable pasture development strategies and range management programme is suggested to be implemented in the Himalayas, so that the rangeland remains productive resource of forage for livestock and wildlife.

432 Rai, N. K.; Thapa, M. B. 1993. **Indigenous pasture management systems in high altitude Nepal: a review.** (Research report, 22). Kathmandu: Winrock International Inst. for Agricultural Development. 81p.

Keyword(s): *Pasture management / Traditional technology / Hills / Nepal*

Call No: 633.202 RAI

Lang: En

Animal husbandry is fundamental to the socioeconomy of the high altitude areas of Nepal. While the agricultural sector in these areas pivots around it, the centuries old trans-Himalayan (Nepal-Tibet) trade has also depended on animal husbandry for pack animals. It is also an important element in the social structure of the local populations. This report argues that indigenous management systems have been particularly effective for maintaining productivity at levels sufficient to meet local needs over a long period of time. The report also argues that the people in rural communities possess detailed knowledge of their local ecosystems and know effective ways of ensuring sustainable use. The report further argues that, in spite of their effectiveness in the management of resources, indigenous systems have for the most part been ignored in the formulation of natural resources management policies in Nepal. This paper provides a description and an analysis of successful practice of animal husbandry based on indigenous pasture management.

433 Thapa, M. B. 1993. **Indigenous pasture management systems in high altitude Nepal: a review.** In Tamang, D.; Gill, G. J.; Thapa, G. B. (eds.) *Indigenous management of natural resources in Nepal: proceedings of the Workshop on Indigenous Management of Agriculture and Natural Resources*, held on 8-9 Jun 1992 at Dhulikhel, Nepal. Kathmandu: Winrock International Inst. for Agricultural Development. 290-298p.

Keyword(s): *Pasture management / Traditional technology / Highland / Nepal*

Call No: 333.7 TAI

Lang: En

Livestock rearing is the primary source of economic survival for the inhabitants of the high-altitude areas of northern Nepal. One of the main problem is the unavailability of adequate quantities of animal forage, especially in the winter. This paper reviews the indigenous pasture management systems in high altitudes of Nepal. These systems of pasture management stem primarily from local knowledge and experiences to ensure an effective system of animal forage production and allow the sustainable use of pasture resources. The paper clearly indicates that external efforts to bring about pasture development must be recognised and incorporate components of indigenous pasture management.

Pakistan

434 Buzdar, N. M. 1992. **The role of institutions in the Management of commonly owned rangelands in Baluchistan.** In Dove, M. R.; Carpenter, C. (eds.) *Sociology of natural resources in Pakistan and adjoining countries*. Lahore: Vanguard Book. 218-238p.

Keyword(s): *Rangelands / Pasture management / Pakistan, Baluchistan*

Call No: 333.7 DOS

Lang: En

The semi-nomadic tribes of Baluchistan have for centuries, managed their resources on more or less sustained levels and lead a subsistence, but contented life. But, Baluchis today are faced with economic, political and social realities which endanger not only their way of life but also the resources on which they have depended for a living. The author has studied the problem at the local level in a selected area of Baluchistan. The main objective of the study being to evaluate local rangeland resources and their uses and to study the role of institutions in the management of resources. This paper, based on the above study, focuses on the importance of property rights and tenure-related institutions in determining or influencing stocking rates and productivity levels.

435 Carpenter, C. 1992. **The impact of afforestation on women: the development of marginal lands and female fodder collectors in Pakistan.** In Dove, M. R.; Carpenter, C. (eds.) *Sociology of natural resources in Pakistan and adjoining countries*. Lahore: Vanguard Book Pvt Ltd. 330-346p.

Keyword(s): *Afforestation / Women's participation / Women's role / Fodder plants / Pakistan*

Call No: 333.7 DOS

Lang: En

Women have a vital monopoly over the livestock production portion of small farm operation in Pakistan. This source of income is dependent on the availability and quality of fodder. Yet, fodder availability is rarely considered by development efforts aiming to transfer agriculturally-marginal land into woods lots or forests. This paper focuses mainly on livestock production and women in Pakistan and also describes and compares three different patterns of livestock production in Pakistan and their implications for the afforestation of fodder-producing lands.

Africa

436 Barrow, E. G. C. 1991. **The challenge for social forestry extension work in pastoral Africa.** (Social forestry network paper, 12e). London: Overseas Development Inst. 36p.

Keyword(s): *Community forestry / Forestry research / Africa*

Call No: 634.9 BAC P

Lang: En

Pastoral societies, where people live in fragile and vulnerable ecosystems, are often well adapted to harsh environment. Over time, they have gathered a vast repertoire of local knowledge about their resource base, its weaknesses and strengths, its utilisation and management. This was the form of farmer (pastoralist) participatory research before any such formed research existed. It is complex and based on a whole range of survival and insurance measures that help against the inevitable hard times due to drought and formal disease, and the vagaries of climate. This paper describes people's participation in the development process in the dry lands, to show why and how this can be achieved in a real and meaningful way. In a real way by trying to help create social responsibility for natural resource management, not just around settlements and discrete tree-planting, but as part of the wider management system in dry lands. The Turkana forestry extension programme is looked at as a case study that could form a basis to be adapted in other dry and pastoral lands in Africa.

437 Conyngham, J. 1989. **Interrelation and ethnoecology of Samburu pastoralists, dorobo foragers, and local fauna in Northern Kenya.** TRI [Tropical Resources Inst.] news (7):6-8

Keyword(s): *Pastoralism / Food crops / Fauna / Kenya*

Call No: 634.9 TRN

Lang: En

This paper focusses on the culturally, economically, and ecologically significant interrelations between Ariaal Samburu pastoralists, local fauna, and their ecosystem in the Ndoto Mountains and Marsabit region of north Kenya. Leading hypothesis patterns and processes related to the cultural and economic interactions are pointed out. Finally, the workplan of the project to analyse the abundance, distribution, movement, and economic activities of herders and foragers is presented.

438 Coppock, L. 1993. **Pastoral women harvest hay for calves.** ILEIA [Informationcentre for Low External-Input and

Sustainable Agriculture] newsletter 9(3):16-17

Keyword(s): *Women workers / Animal feeding / Feed crops / Ethiopia*

Call No: 631.8 ILN

Lang: En

Despite major economic changes in Africa, livestock production has remained the main engine of the livelihood systems in semi-arid areas such as Borana. To reduce the incidence of calf mortality, better feeding is often proposed. Improved calf-feeding can enhance animal production, as shown by Borana pastoralists in southern Ethiopia. Exotic inputs are not needed, instead, native grasses and legumes can be used more effectively by harvesting some for later use. Borana women, who are traditionally responsible for managing calves, have been trying out new techniques in haymaking.

439 Hamida, E. B. 1990. **Nomadic herders: learning from the past.** International agricultural development 10(3):10-11

Keyword(s): *Livestock / Animal husbandry / Nomadism*

Call No: 630.5 INA

Lang: En

Pastoralism plays a considerable role in the economics of the drought-prone countries of sub-Saharan Africa, and also in the management of their resources. This article provides the information on nomadic herders and their economic condition due to pastoral development in the west African country.

440 Kettel, B. 1989. **Women and milk in African herding systems.** In Rathgeber, E. M.; Kettel, B. (eds.) *Women's role in natural resource management in Africa.* Ottawa, Ont: International Development Research Centre. 87-101p.

Keyword(s): *Dairy industry / Animal husbandry / Milk production / Women's participation / Africa*

Call No: 305.42 RAW

Lang: En

This paper constitutes a plea for a new focus in research on the productive activities and responsibilities of women in the African rangelands. It calls for a new vision of the importance of women's work in livestock herding, particularly a new view of women's responsibilities in the provision of milk. This plea is intended as a challenge to the enduring invisibility of women in African herding systems and as a new approach to the recognition of women's interests in pastoral development. This paper provides a preliminary overview on women and milk in African herding systems as it relates to women's

use of pastoral resources including livestock, water, and fodder and to the consequences of commoditisation, drought, and pastoral development on women's lives.

441 Perevolotsky, A.; Perevolotsky, A.; Noy-Meir, I. 1989. **Environmental adaptation and economic change in a pastoral mountain society: the case of the Jabaliyah Bedouin of Mt. Sinai region.** Mountain research and development 9(2):153-164

Keyword(s): *Livestock management / Mountain environment / Pasture management*

Call No: 551.432 MOD

Lang: En

The high mountain region of southern Sinai is an 'ecological island' surrounded by desert. The elevation and rock formations create a variety of habitats, each with a characteristic water regime, microclimate, and vegetation. The local Bedouin, members of the Jebaliyah tribe, practise goat and sheep husbandry as a part of their subsistence. This paper discusses the system of livestock production and management typical to the Mt. Sinai region, including the environmental, economic, cultural, and political factors. Special attention is given to the migration movements, both horizontal and vertical, which are an essential component of the Bedouin's adaptation to the specific environmental conditions of this arid mountainous area. The paper also presents an analysis of the dramatic changes in Bedouin livestock husbandry during the Israeli rule as compared with the Egyptian era and attempts to point out the principal underlying factors behind these changes. An epilogue outlines the further changes that followed the return of the Mt. Sinai region to Egyptian rule in 1979.

Europe

442 Rinschede, G. 1988. **Transhumance in European and American mountains.** In Allan, N. J. R.; Knapp, G. P.; Stadel, C. (eds.) Human impact on mountains. New Jersey, NJ: Rowman & Littlefield Publishers. 96-108p.

Keyword(s): *Mountain farming / Transhumance / Livestock management / Europe, United States*

Call No: 304.2 ALH

Lang: En

The livestock industry represents the only possible kind of land use in the extreme climatic conditions found in many regions of the world. It appears in various economic forms as sedentary livestock industry, as migratory livestock industry, and as stall-feeding, which includes keeping livestock in feedlots. This paper highlights transhumance as a part of the migratory livestock industry in European and American mountains along with its distribution and the general environmental conditions. Importance and decline of transhumance is also briefly described.

South America

443 Hess, C. G. 1990. **Moving up – moving down: agro-pastoral land use patterns in the Ecuadorian Paramos.** Mountain research and development 10(4):333-342

Keyword(s): *Pasture management / Land use / Ecuador*

Call No: 551.432 MOD

Lang: En

This paper discusses present day land-use patterns in the northern Andean paramos. The various agricultural and pastoral production systems of this high mountain region are presented systematically and their organisation is explained. Two contemporary land use strategies have been focussed and discussed that are on the upward expansion of the agricultural frontier and the escalation of market-oriented animal-raising activities in the lower ecozones of the paramo communities. Historical and social causes that led to these recent trends and their negative ecological consequences for the rest of the country have also been discussed.