

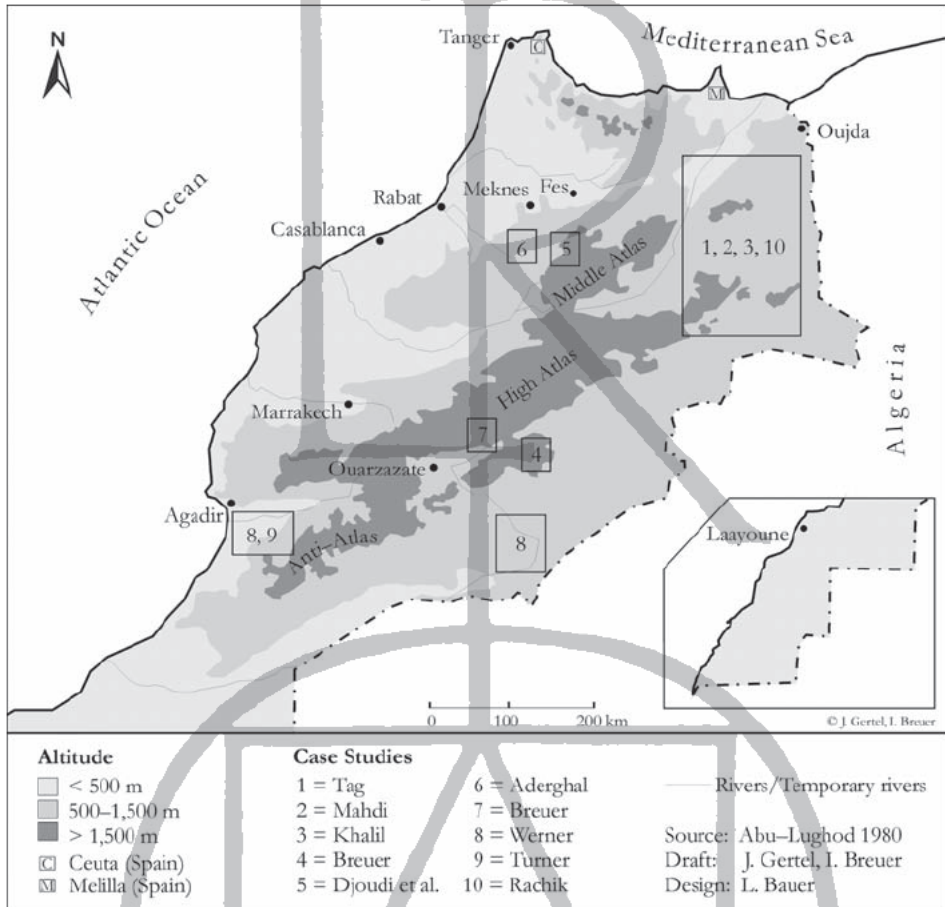
## Introduction

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Extensive pastoral production takes place on some 25% of the world's land area. It provides 10% of the global meat production, supports between 100 and 200 million households, and comprises herds of nearly a billion head of camel, cattle and smaller livestock.<sup>1</sup> Yet, despite their vital role in food production in marginal environments, pastoral livelihoods are threatened. Rapid urbanization, spreading cultivation, installation of nature conservation areas and hardening international borders increasingly restrict access to pastures and limit spatial mobility. It is however not only the transformations of pastoral territories, but also the exposure of pastoral livelihoods to neo-liberal policies of economic restructuring, changing property rights and newly evolving global marketing chains that generate globalizing scapes of mobility and insecurity. Hence, many pastoral societies are undergoing an unbalanced integration into the global economy, and are subject to manifold processes of specialization, income diversification, and social polarization, ultimately reflected in increasingly unequal access to resources. In this context questions of mobility and livelihood security become central to a scholarly perspective on changing pastoral societies (cf. Gertel, this vol.).

Morocco is integrated and exposed to these dynamics of globalization. In the last two decades the country experienced multiple liberalization programs, the deregulation of economy and trade, and the implementation of a free trade agreement with the United States in January 2006 (cf. Davis, this vol.). Prices of consumer products are increasingly market determined. Remittances from over 2.4 million Moroccans working abroad, predominantly in Europe, and revenues from 2.5 million tourists visiting the country are of crucial economic importance. Nonetheless, Morocco's economic situation still depends on agriculture, which accounts for about 16–23% of the GDP and employs about 40–50% of the country's labor force. Livestock production is widespread; 85% of all farms possess animals and Moroccans own about 16.4 million sheep and 5.4 million goats, many of which are kept in pastoral or agro-pastoral production systems.

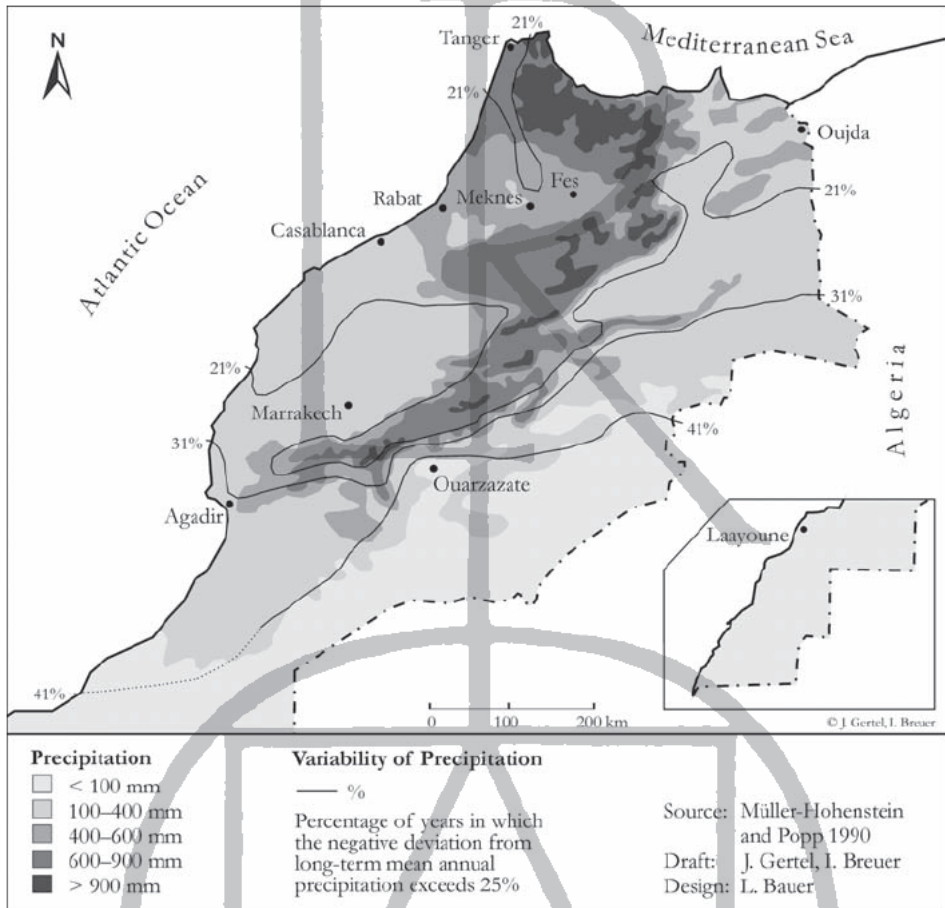
The pastoral landscape is characterized by a wide range of natural diversity. The country comprises semi-arid and arid, but also humid regions, and high mountain areas can be found as well as open plains, steppes and desert zones (cf. Maps 1-1, 1-2). Accordingly a large variety of pastoral production systems exists, ranging from vertical transhumance to horizontal steppe pastoralism, and from semi-inten-



Map 1 1: Case Studies in *Pastoral Morocco*

sive agro-pastoral systems to more extensive forms relying almost entirely on natural pastures.

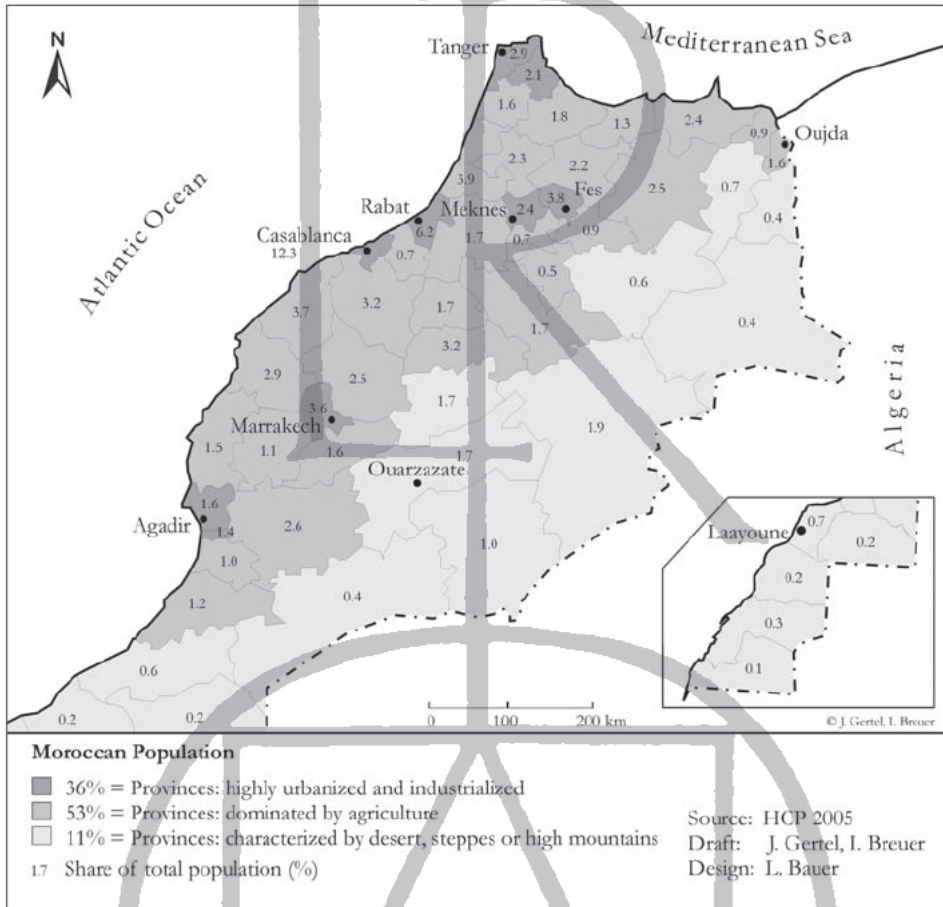
Large parts of the country are prone to a high variability in precipitation that causes severe inter-annual production fluctuations, exposing Morocco's agricultural and pastoral systems to a wide array of climatic and macro-economic risks. Massive amounts of wheat, the staple food of the poor, have thus to be imported to ensure food security for a growing population of about 30 million, half of which lives in rural areas. While agricultural and pastoral production systems are highly articulated, the agri-food system features deep cleavages between export-oriented sectors, producing, for example, tomatoes and citrus fruits according to EU import quota, and a multitude of small-scale family enterprises that grow food and raise animals for subsistence and local markets. These production systems differ accord-



Map 1 2: Morocco Distribution and Variability of Precipitation

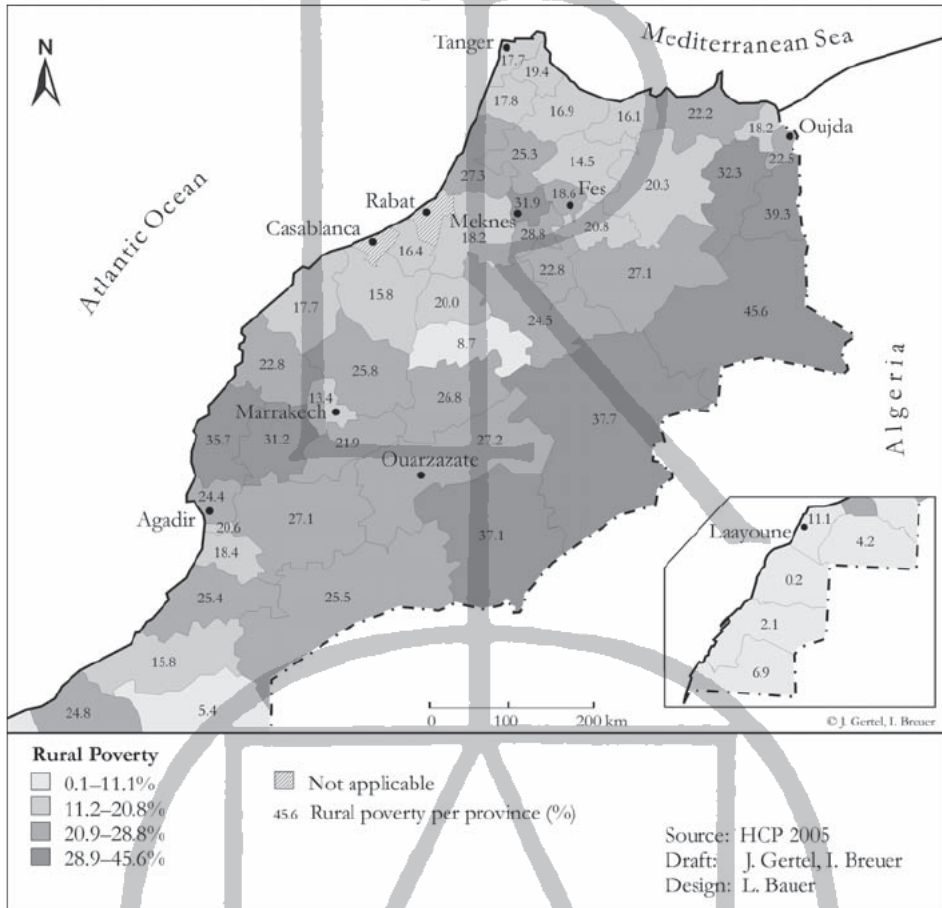
ing to natural diversity, the degree of market integration and state intervention (cf. Chiche, this vol.). The prevalence of poverty in the arid rural regions – precisely the areas that are predominately inhabited by pastoralists<sup>2</sup> – reflect both, structural economic risks and regional specificities (cf. Maps 1-3, 1-4).<sup>3</sup>

*Pastoral Morocco* offers an exploration into these multiple, and often contradictory processes of globalization and regionalization. It departs from a geographical point of view that focuses on interrelations between pastoral development, socio-spatial mobility, and livelihood security. Four interconnected analytical perspectives are applied. First, pastoral production systems are studied in their relations to market and state interventions, that are reflected, for example, in the commercialization of exchange relations and a closer integration into the world market. Second, pastoral



Map 1 3: Morocco Spatial Distribution of Population

livelihoods are investigated according to new forms of regionalization. These unfold on the one hand when pastoral territories are expanded or contracted – for instance, when boundaries or access rights that control the use of pastures are renegotiated. On the other hand new dynamics unfold due to modern communication and transportation (mobile phones, trucks), creating new social scapes of interaction. Third, as pastoral production is increasingly intertwined with labor migration, different forms of mobility are analyzed and comprehended as strategies to maintain and enhance access to resources. Finally, the intersection of these processes in time and space is analyzed, to examine how new forms of security and insecurity are generated and inscribed in pastoral livelihoods. Here the case studies offer specific insights into the social logic of Morocco's pastoral production systems.



Map 1 4: Morocco Rural Poverty

The eastern Moroccan high plateaus are, for example, dominated by the pastoral production of sheep and goats. Local pastoral livelihoods have, however, been subject to interventions by the state and international development agencies. These include the creation of cooperatives, the re-organization of pasture access, and the implementation of technical innovations (cf. Mahdi, this vol.). The region's pastoralism has thus undergone far-reaching social and spatial restructuring, such as sedentarization and the emergence of small towns (cf. Tag, this vol.), which lead to the emergence of new social groups of wealthy pastoral entrepreneurs and impoverished ex-nomads (cf. Rachik, this vol.). The region's economy is also shaped by informal cross-border trade in sheep and consumer goods and maintains a key role in supplying Morocco's urban centers with meat (cf. Khalil, this vol.). In Morocco's regional texture, the eastern plateaus remain one of the poorest parts of the



country, although labor migration to the agricultural areas of southern Spain has recently become widespread.

The High Atlas – traditionally featuring multiple systems of ascending and descending transhumance – and the interior Pre-Sahara, differ in many respects from this. Only a minority of the population engages exclusively in pastoralism. Pastoral activities are articulated with other economic activities, such as trade, wage labor, and artisanship, many of which are performed in Morocco's urban areas. Most pastoral households are thus split up between the tent, the village or farm, and the city (cf. Breuer, this vol., High Atlas). A massive export of labor to urban areas, where men engage in temporal or seasonal labor markets, characterizes the local economy. The region also experienced early emigration to France in the 1960s/70s. Its repercussions are felt until today, for instance, when the French pension system guarantees social security for some early migrants. Recently, as international tourist agencies strongly market nomadic images, tourism also adds to the income of some pastoralists (cf. Werner, this vol.), while other places although connected to external markets, remain rather destitute (cf. Breuer, this vol., Pre-Sahara).

In the Middle Atlas and in the Oulmes mountains traditional pastoral systems were considerably altered by processes such as land privatization, social stratification among the herders, and intense lamb meat commercialization. Simultaneously, local territorial configurations in the agro-sylvo-pastoral system are increasingly shaped and threatened by the emergence of capital intensive forms of enterprises that dominate local policies and change the access to pastoral resources (cf. Aderghal, this vol.). Pressure on collective pastures is thus high, pasture degradation is serious, and a multiplicity of new herd mobility patterns have emerged (cf. Djoudi et al., this vol.).

The Souss, unlike other pastoral areas, is one of the economically most dynamic regions of Morocco, with comparatively low poverty rates. In the past decades it has witnessed massive growth of export-oriented agrarian production, a boom in the construction sector, and rapid urbanization. At the same time, it offers, with the endemic Argan forest, a unique space – partly protected as a UNESCO Biosphere Reserve – where sylvo-pastoral animal production is practiced. During the last years, the Souss has become the destination of many pastoralists from Morocco's arid areas, especially in times of drought (cf. Werner, this vol.). Their presence has lead to the emergence of extensive conflicts with complex constellations of interests and alliances (cf. Turner, this vol.).

## Notes

- (1) Pastoralism has been conceptualized in various ways, and multiple definitions have been developed. For instance, households are delineated as 'pastoral', if livestock or

livestock related activities account for a specified share, for example, at least 50% of the total gross income (which, in turn, comprises revenues from the value of marketed production and subsistence production). Households which obtain more than 25% but less than 50% of their gross income from livestock on communal grazing land and more than 50% from cropping activities are defined as 'agro pastoral' (cf. Swift 1988). These conceptions go beyond the contested notions of nomadism and nomadic people (Gertel 2002). They offer the advantage of being applicable to the multiple contexts in which pastoral activities are carried out today, as, for example, to individuals and households who have been forced to destitution and depend considerably on non livestock revenues, or to wealthy households who have successfully diversified into trade, transport, agriculture or government employment (cf. Meadows and Morton 2000; FAO 2001; Rass 2006).

- (2) The number of poor pastoralists worldwide are estimated to range between 35 to 90 million, depending on the definition and measure of poverty applied (Rass 2006). For Morocco, the International Livestock Research Institute estimates the number of poor livestock keepers at 2,5 million people, a number comprising both rangeland based and mixed (irrigated and rainfed) production systems (Thornton et al. 2002, 25). According to the same source, poor livestock keepers in rangeland based systems amount to about 131.000 persons.
- (3) The map is based on data from the 2004 "National Map of Poverty" (NMP), published by the Moroccan *Haut Commissariat du Plan* (cf. HCP 2005). We have reworked these data in order to calculate, for each province, poverty levels of the rural population only, while the urban population, generally characterized by lower poverty levels, has been excluded from the calculation. The map is based on administrative boundaries which, in many cases, are not congruent with natural zones distinguishing different pastoral phenomena. Poverty is defined as "the percentage of individuals with expenditure below the threshold of relative poverty, fixed at 1,687 Dh per month for an average rural household with 6.4 members." (HCP 2005, 12; our translation). This threshold represents an expenditure level, that in theory permits access to a minimum of calories (1,984 kcal per person and day) plus a certain amount of non food items. However, expenditure data are available for a limited sample of the Moroccan households only. The communal poverty data displayed in the NMP are thus based on model calculations, the model itself refers to data from two sources: (1) The 2004 national census (RGPH), in which structural features of all of Morocco's households were recorded, and (2) to the 2000/01 household consumption and expenditure survey (ENCDM), in which detailed expenditure data are provided for a sample of Morocco's households. The poverty data were derived by taking into account regionally specific correlations between structural household features and household expenditure (cf. HCP 2005).