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Introduction : Les enjeux de l'accès à la terre et à l'eau, les pratiques locales et les politiques nationales dans la plaine du Népal

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- 1 The Nepalese lowlands are the country's breadbasket – providing at least 70% of national production (Government of Nepal 2020) – even though they are densely populated, with 54% of the country's population living on 17% of the total area (Nepal Census 2022). Pressure on land and other natural resources is therefore high in these lowlands, also called the Tarai, Madhesh or Tarai/Madhesh – the term used to designate this area being a source of political debate (Karki et al 2020).¹ As the plain was the scene of political troubles, from the end of the People's War (1996–2006) to the establishment of the new constitution in 2015, scientific literature on Nepal's lowlands has focused on identity and citizenship issues, protest movements, land tenure and political representation of the plain's population groups (Jha 2017, Upreti et al 2013). Prior to that, very little had been written about the Madheshis, a group of castes similar to those living on the other side of the Indian border. Generally speaking, the focus on political issues tends to overlook other topics that are equally relevant to the daily lives of the populations living in the plain.² Among these neglected topics is the management of natural resources such as land and water. The articles in this special section aim to fill this gap.
- 2 The contributors focus on various issues related to land and water management and to the tensions associated with them, as well as on Tarai inhabitants' agricultural and resource management practices. The analysis of these practices informs us about ongoing social changes, conflicts of interest or divergent logics that confront each other, all of which contribute to shaping the Tarai space. We are thus interested in what these practices tell us about the way a society that manages and uses natural resources has evolved, and what related tensions tell us about the transformations

underway. The aim is to address the way the different sources of influence – in relation to state policies, to the market, to social structures and to personal initiatives – become entangled in the pursuit or modification of such practices. Indeed, the development of the Tarai is both driven by state policies and by the choices and strategies of different categories of people (farmers, shopkeepers, entrepreneurs etc) who are actors of their own change whilst being involved in social networks and clientelism.

- 3 Over the last 60 years, the plain has undergone huge changes. From a pioneering front (or at least considered as such by the state), it has become a fully occupied space that is entirely cultivated or inhabited (with densities reaching almost 500 people/sq km on average in 2021). In-migration from the mountains is still ongoing, further enhancing ethnic, cultural and religious diversity. Significant urbanisation has also been observed over the last twenty years (Rimal et al 2018). These demographic changes have resulted in the reconfiguration of access to and use of natural resources such as land and water. They have also led to various territorial restructurings since the districts of the Tarai have experienced different incoming waves of settlement, either from India or from the mountains. As a result, and despite its narrow width (less than 50km), the Tarai is not homogeneous in terms of the structure of the population, not only from west to east but also from north to south (see Candau et al 2015 for the case of Sunsari).
- 4 The articles in this special section follow on from a research project that was carried out from 2013 to 2017³ and which concentrated on water and land management practices in three districts of the Tarai (Rupandehi, Saptari and Sunsari). However, the articles here mainly focus on the two districts in the eastern Tarai, a region which is poorly documented scientifically compared to the central and far western Tarai. One exception is the work related to land issues by Fraser Sugden, who provided well-documented field data and analysis regarding the persistence of 'semi-feodalism' (Sugden 2013). This section brings together three research articles written by geographers – two articles based on case studies, and one of a more general scope based on a literature review and on the project's results – and a note about the use of a geographic information system (GIS), a tool used by many students and scholars in the project.
- 5 The themes covered in this issue include the state-farmer relationship, water user associations in a state-built irrigation system and flood management. Other topics not covered here but that have been studied in the framework of the project include: pond management, commercial agriculture, land tenure and labour migration, migration and agriculture, so-called traditional irrigation systems, urbanisation and changes in land use. The project – and thus the articles – combines three main approaches: historical, socio-technical and political ecology. The historical approach helps put the present situation into perspective. The socio-technical approach consists, as far as water studies are concerned, in analysing the social dynamics of water management through the study of techniques and water distribution (Vincent 1997, Mollinga 2014). It seeks to show how social and technical fields are intertwined in water management, how some specific water distribution objects can focalise conflicts and how technical changes (but also technical inertia) can be explained by social logics as well as by kinship, identity and/or power relations between irrigators or in their relationship with engineers (Valadaud et al 2019). And lastly, the political ecology approach mainly analyses power relations in the management of the environment and therefore the interests defended by various actors as well as their discourses (Benjaminsen et al 2009,

Robbins 2004). In the realm of water, the notion of hydrosocial cycle has been defined as ‘a socio-natural process by which water and society make and remake each other over space and time’ (Linton et al 2014: 177). This process is part of the co-construction process between society and resources (here water and land), that is, the mutual construction of the representation of resources and of the society managing these resources. In other words, the endless interactions between the construction of a ‘natural’ order and a ‘social’ order (Jasanoff 2004) mean that the representation of a resource is not independent of human interrelationships or of the way this resource is managed. The term co-construction describes this inextricable interaction between people’s representations of nature and the way they wish to govern it. The co-construction of resource management mechanisms and the discourses that underlie this management are examined in the three research articles making up this section. The result of this co-construction can be seen in geographical changes that are made evident using GIS. In his note, Jérôme Picard lists the main principles of geomatics as well as its limits and use-related constraints due to the Tarai’s characteristics: small plots of land, diversity of land use, heterogeneity in the cropping calendar (creating non-homogenous surfaces, which makes it difficult to choose a suitable period to study agriculture), various sorts of roofing (thatched roofs that can be hidden by or be mistaken for trees), fuzzy separation between agricultural and inhabited spaces, etc.

- 6 The spatial dynamics and the resulting dynamics of territorial restructuring have to be explained through a historical contextualisation of resource management (Molle 2006) and of the relationship between the state and rural communities. The latter is discussed in Olivia Aubriot and Tristan Bruslé’s article. The authors distinguish four periods in this relationship, based on a paradigm change in land or water or agriculture policies. (i) From the unification of Nepal at the end of the eighteenth century to 1950, when the newly created state relied on land taxes to finance its administration and army, and when land policies structured the relationship between the state and farmers. (ii) From 1950 to the 1980s, with a rise in the influence exerted by foreign governments and development agencies: a land reform abolished privileged land tenures, systematic economic planning was introduced and public policies focused on the expansion of collective infrastructures. (iii) From the mid-1980s to the 2000s, when the participatory management paradigm emerged. (iv) From the 2000s onwards, a period during which market-oriented agriculture has been encouraged, the number of development actors has increased while the disengagement of the state has been very relative.
- 7 The last two periods are analysed by Romain Valadaud in his study on the criteria for selecting members of water user associations (WUA) in Nepal’s largest state-built irrigation system. WUAs are the main element of the participatory paradigm. Analysing the criteria governing inclusion/exclusion in WUAs explains how WUAs reproduce social inequalities. This case study shows that WUA membership is dissociated from water use and linked to land tenure, thus excluding tenants from the WUA. In order to understand this exclusionary choice, Valadaud analyses the texts related to the water reforms and the positionality of the actors (donors, engineers, landowners) involved in crafting and implementing the participatory model. He shows that the neoliberal irrigation management framework suits the design of WUAs developed by landowners-patrons and that it contributes to the reproduction of social domination in the form of patron-client relationships. His analysis of the socio-technical history of the irrigation system demonstrates how inequalities have been reproduced at various levels

(national, irrigation system as a whole, sub-branches) and at various stages (from the engineers office to the vote) of WUA implementation. He also shows the consequences of absentee landlordism and of the exclusion of tenants from WUAs on the deterioration of canals, and thus on the inequalities of water access. Social relations of power may thus be maintained through decentralised and participatory irrigation management, but he suggests a way of reorienting this participatory model towards further inclusion.

- 8 Marie-Amélie Candau compares the flooding situation of two villages located on either side of the Koshi, the largest tributary of the Ganges. Since 1950, flood management in the Nepalese Tarai has been carried out through a policy of river embankments. Thanks to rich empirical material, Candau shows, on the one hand, that over the last decades floods have been more frequent and their nature has changed, with water remaining trapped for a longer period behind the dikes. On the other hand, these embankments have had many unexpected political, economic and social consequences. There is indeed a degradation of agricultural land, an increase in inequality vis à vis flood vulnerability, corruption in the decision-making process and in the construction of embankments, and a dikes policy linked to local politics. The settlement pattern is embedded in a landscape that is vulnerable to flooding. The author shows that before the construction of embankments, villagers had some knowledge to cope with and to adapt to the flood regime. Now, with the embankments, they suffer increasingly from floods, especially the most disempowered villagers.
- 9 These three research articles focus on two major common points. Firstly, they highlight the influence of institutional and technical choices of development policies on the daily lives of people who have settled in the plain. Secondly, they pay particular attention to those left behind by these development policies. The Madheshis, especially the poorest, are particularly affected by this phenomenon analysed in the two case studies presented here.

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NOTES

1. We have decided to use the term Tarai as a geographical unit.
2. Three main population groups can be identified. The Madheshis, the Adivasis from the plain and the Pahadis. Whatever their ethnic or caste origin, the latter, migrants from the mountains, have mainly settled in the northern part of the Tarai.
3. A project funded by the French National Research Agency (Projet-ANR-12-AGRO-0002).

ABSTRACTS

This introductory article to the special section on the Nepalese lowlands presents the following theme: the management of natural resources such as land and water. This topic has often been neglected in scientific literature on this part of Nepal, especially since the emergence of political movements at the end of the People's War. This article presents the subject of each contribution, as well as the approaches common to all three articles: historical, socio-technical and political ecology. All of them highlight the influence of institutional and technical choices of development policies on the daily lives of people who inhabit the plain. They also pay particular attention to those left behind by these development policies.

Cet article d'introduction à la section spéciale sur la plaine du Népal porte sur la gestion des ressources naturelles telles que la terre et l'eau. Ce thème a souvent été négligé dans la littérature scientifique sur cette partie du pays, surtout depuis l'émergence des mouvements politiques à la fin de la guerre du peuple. Cet article présente les thématiques abordées dans chaque contribution, ainsi que les approches - historique, socio-technique et de l'ordre de l'écologie politique - communes aux trois articles. Ces derniers mettent en évidence l'influence des choix institutionnels et techniques des politiques de développement sur la vie quotidienne des habitants de la plaine. Ils accordent également une attention particulière aux laissés-pour-compte de ces politiques de développement.

INDEX

Keywords: Nepal, water, Tarai, agriculture, irrigation, flood

Mots-clés: Népal, Térai, eau, agriculture, irrigation, inondation

AUTHORS

OLIVIA AUBRIOT

Olivia Aubriot is a geographer at the Center for South Asian and Himalayan Studies (CNRS/EHESS-CESAH). She takes a keen interest in natural resource management, agricultural change and in agriculture in peri-urban situations.

TRISTAN BRUSLÉ

Tristan Bruslé is a geographer at the Center for South Asian and Himalayan Studies (CNRS/EHESS-CESAH). His interests lie in international labour migration, the dynamics of Tarai urbanisation and changing livelihoods.