

# Agrifood Systems Policy Research

## HISTORICAL EVOLUTION OF AGRIFOOD SYSTEMS IN NEPAL

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### ABOUT THIS RESEARCH NOTE

This report explores the agrarian history of Nepal over the last 500 years, and the historical, social, and political trajectories that still shape modern agrifood systems in Nepal. The report is organised according to the main epochs in Nepal's political-economic history. The study explores the complex layers of factors which vary across space according to contemporary and historic state formations, the local agroecology and indigenous and imported cultural-economic institutions and technologies that shape regional diversity in modes of production and food production systems across Nepal. The study is based on readily available documents including secondary literature and archival data as data sources.

### KEY STUDY FINDINGS

- Land has been closely connected to political power in Nepal, particularly after the Gorkhali conquest
- There are two primary axes of inequality – first the distribution of land and landlord-tenant relations, and second, the localised spatial inequalities within the hills, between the high-quality valley domains and more marginal higher slopes. The latter is closely aligned with ethnic and caste divisions.
- Land reforms of the past have failed to make meaningful impacts on the distribution of land and assets.
- Diverse cropping systems have evolved in line with Nepal's complex geography, although significant developments in the productive forces through technology investment have been somewhat restricted due to the unequal distribution of land and assets.

## ABSTRACT

This report traces the history of agri-food systems in Nepal, focusing particularly on the last 500 years. A central theme in the agricultural history of the country, is the coexistence of modes of production, characterised by sedentary peasant agriculture, feudal agrarian relations, alongside lineage or clan based agrarian formations, which have been predominant amongst Nepal's Adivasi or 'indigenous' communities. The expansion and contraction of these different forms of agriculture have largely paralleled political changes in different spatial or temporal junctures, but have also been mediated by local agro-ecology and cultural institutions. A critical juncture was the Gorkhali conquest in the late 18th century and subsequent Rana rule. This consolidated an integral link between land and political power, and has been critical in shaping many of the socio-economic inequalities which shape Nepali agriculture today. Land tenure and inequalities in the distribution of land, both in terms of the area and quality of holdings, has consistently impeded agricultural investment, and today has significant bearings on the scope for sustainable intensification and climate change adaptation.

## BACKGROUND

This is a synthesis report of a larger study which aims to explore the agrarian history of Nepal. The report is organised according to the main epochs in Nepal's political-economic history – these are firstly, the pre-Gorkha period (before the Kingdom of Nepal was established in 1768) whereby we focus on the time of the Sen Kingdom in the east and Baise/Chaubise rajyas (22 & 24 principalities) in the west, through to Gorkha and Rana rule (1950), and then on to the Panchayat era of absolute monarchy (1990), followed by the post

1990s period – the decades marked by the restoration of democracy and economic liberalisation. For each of these eras, the plains of the Tarai-Madhes and the hills/mountains are dealt with in the most part separately, given the significant differences in the land tenure system, ecology and economy of these two belts.

In terms of the Geographical zones described in the report – this is challenging, given that the new Provinces established after 2015 are largely abstract politically delineated entities with limited correspondence with ethno-linguistic history or agro-ecology, and some have no historical significance independently as 'regions', either politically or culturally. We have thus chosen a broader categorisation of regions. The eastern hills refers largely to the areas west of the Likhu and Kamala basins (which includes the historic ethnic domains of Kiratis, namely Wallo Kirat, Majh Kirat and Pallo Kirat), which encompasses the lands once under the eastern Sen Kingdom of Vijayapur, and the hill part of contemporary Province 1. The central hills refers to the areas between the Likhu/Kamala and the Gandaki river basins, a region which includes the Kathmandu valley, the district of Gorkha (homeland of the Gorkhali dynasty), and much of contemporary Gandaki and Bagmati province, including the historic Chaubisi Rajya (24 principalities) and western part of the Sen kingdom, which was annexed by the expanding Gorkha state in the 18th century. The western hills or 'Karnali' refers largely to the Karnali and Mahakhali basin, which make up the areas west of the Gandaki basin up until the Indian border with Uttarakhand. Most of this region was part of the historic Baise Rajya (22 principalities).

The eastern Tarai meanwhile, refers to the historically Adivasi region of the plains east of the Koshi, forming the lowland part of contemporary Province 1, which is quite distinct from the caste Hindu domains west of the Koshi. The central Tarai refers to the areas between the Koshi river and Narayani River, which are (with the exception of the Chitwan inner Tarai valley) predominantly home to Maithili and Bhojpuri speaking castes, and today forms much of the historic, Mithilanchal region, as well as the Bhojpuri belt. The western Tarai refers to the districts west of the Chitwan valley – an area with a longer history of forest cover, including much of the Tharu heartland and the Naya Mulak districts of the far west, which were returned by the British empire to Nepal after the 1857 rebellion.

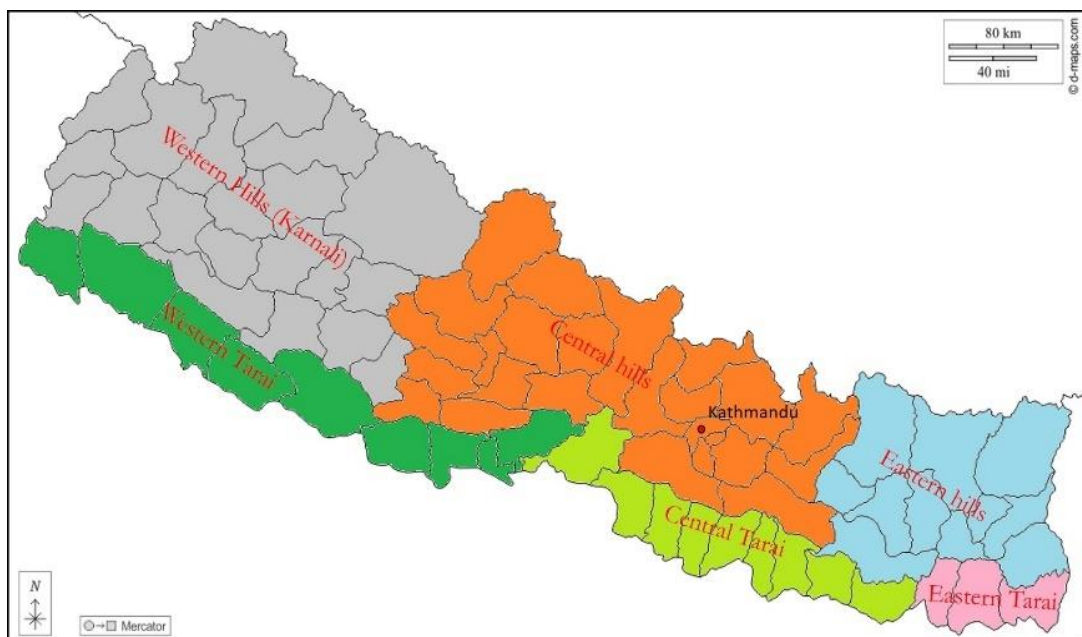
## OBJECTIVES

This research study aims to trace the major drivers of food production and food security in Nepal charting the evolution of agrifood systems in the

state. The key questions of the study are:

1. What are major political, economic, and social developments in Nepal that have taken place since the 1800s to recent times that have determined agrarian relations and outcomes for the country?
2. Have environmental changes in historical and current times influenced the trajectory of evolution of food systems?
3. What are the temporal continuities and discontinuities in agrarian relations and outcomes between 1850 and presently prevailing contexts?
4. How have these evolving agricultural political-economies determined current drivers, production processes, consumption patterns, decision-making, and ecological factors of modern agrifood systems?
5. What political and structural barriers and opportunities do these historical developments provide for study and action towards transformations of present agrifood systems?

**Figure 1: Map of study regions in Nepal**



## DATA AND METHODS

The report draws mostly on historical data (qualitative) on land tenure, cropping patterns, and landlord-tenant relationships drawn from literature reviews and secondary sources. It also uses the primary data generated from the authors' previous studies on the changing agrarian relations, land tenure, and different modes of production. Alongside this historical-qualitative data, recent national agriculture data on cropping patterns, crop production, and landholdings have also been used and analyzed in the report.

In terms of the method, the report is primarily an archival study and has used the literature review and content analysis method. A few key informant interviews were conducted with experts and scholars of agrarian history, irrigation management, and agro-food systems of Nepal.

## PRIOR TO GORKHALI CONQUEST

### Mode of production in the Terai prior to Gorkhali conquest

#### EARLY SETTLEMENT AND STATE FORMATIONS

The Nepal Terai, or Madhesh, has a complex history – as it has long been a frontier between the kingdoms of the Gangetic plains to the South (including the Mughal empire), and the smaller principalities of the hills to the north – and at different periods of time has fallen under the influence of state formations from both regions. There is a popular narrative that the Terai was a forest wilderness between collapse of early Vedic kingdoms which flourished in the 5th and 6th century BC, such as Mithila, and the emergence of

centralised feudal state formations such as the Sen (17th-18th century) and Gorkha (late 18th century onwards) kingdoms. The Tarai was indeed a heavily forested belt, and a large share of the population was made up of Adivasi communities such as the Tharu who carried out shifting cultivation (see below). There is however evidence that there were also more sedentary, politically organized agricultural settlements, home to Hindu castes made up of small peasants, with some accumulation of agricultural surplus (Burghart, 1978). These communities lived adjacent to Adivasi communities in the forest belt who were integrated into a quite different mode of production. The expansion of the Sen kingdom in the late 16th and early 17th century annexed much of the central and eastern Tarai, taking power from local chieftaincies, and represented the establishment of a more centralized state apparatus in the lowlands.

#### UNDERSTANDING THE MODE OF PRODUCTION

In the large tracts of the Tarai under forest prior to the Gorkhali conquest, the population was sparse, and was home to most of the Tarai's adivasi (indigenous) groups such as the Tharu, who lived across the Tarai, and smaller communities such as the Rajbanshi, Gangai and Dhimal in the east.

The lack of written records makes it extremely difficult to reconstruct the historical 'mode of production' during the pre-Gorkhali era, although shifting cultivation, played an important role. According to Müller-Böker (1991) the agricultural economy of the Tharus in the Chitwan valley was dominated by

shifting cultivation, pastoralism hunting, fishing and gathering. Shifting cultivation has also been recorded as the predominant agricultural system amongst the Tharu of the Dang valley (McDonnaugh, 1989, Gurung, 2003) as in the Tarai of Uttarakhand (Singh, 1989). Accounts from Morang shortly after the Gorkhali victory in the early nineteenth century, reported that the indigenous Rajbanshi and Gangai were engaged in slash and burn agriculture and hoe cultivation (Hamilton, 2007).

In terms of the relations of production, the means of production was likely to have been common property rather than being owned by individual households or lineages. Shifting cultivation based agricultural systems in the hills of Nepal have generally depended on customary communal tenure (Caplan, 1970, Gaenszle, 2000). This may have applied to the Tarai also where the forest was extensive. Even if land was not under any formal 'customary tenure', some land was likely de-facto common property – particularly in the context of forest dwelling communities where livelihoods were semi-nomadic and the means of production were extensive, as Rai (2015) shows with regards to the Dhimal, who inhabited the northern forested belt of Morang and neighbouring Jhapa.

Historical studies of adivasi communities elsewhere in the sub-continent (see Singh, 2007) , also suggest that these modes of production had redistributive characteristics, driven by the survival and reproduction of the clan rather than accumulation of wealth. Any potential accumulation which did take place would be undermined by redistributive systems, which represent the reproductive mechanism of this economic formation. Rai's (2015) study of the Dhimal in

northern Morang pointed to a strong cultural ethos of exchange and reciprocity. Though they had a customary leader or Majhi, this was not a vertically ranked social position, and was instead rooted in a moral economy based upon kinship bonds and mutual support. Even following the gradual dissolution of the adivasi mode of production in later years, the Majhi would play a role in redistributing food and resources to those who needed it (Rai, 2013).

Adivasi modes of production across South Asia have over time, been gradually undermined or dissolved following the emergence of centralized state formations, which has facilitated a transition towards or growing articulations with both feudalism and capitalism (Singh, 2007)<sup>1</sup>. Three processes in particular have been significant throughout Nepal's agrarian history: taxation of the peasantry, creation of an indigenous functionary class, and clearing of the forest frontier (Sugden, 2013). When this transition began in the Adivasi domains of the Tarai is difficult to assess. Historical studies of the Sen kingdom in central and Eastern Nepal contain some of the earliest recorded evidence of an administration system with feudal tax appropriation capabilities (Regmi, 1970b), although this may have existed earlier. The degree to which the state was able to infiltrate remote forest dwelling communities is questionable.

In the caste Hindu regions such as the Maithili and Bhojpuri speaking belt, as noted above (see Burghart, 1978), it is likely that even prior to the Sen dynasty, these regions were home to a sedentary peasantry living under petty chieftaincies, with some moderate inequality.



Sedentary peasant production continued under the Sen kingdom, and Regmi confirms the presence of a formal tax collection hierarchy in Mithila in the Sen era (Regmi, 1970a). Greater state control and taxation would have inevitably contributed to deepening inequalities and the emergence of a distinctive landlord class – like in Bihar to the south, which is a cultural continuum with the central Tarai in terms of linguistic and caste relations. In the Indian parts of Mithila for instance, the rigid caste system combined with the long history of revenue administration for the pre-Mughal and Mughal state formations – meant that there was a distinct feudal landlord class as early as the 13th century. Politically powerful upper caste landowners, extracted a portion of the crop from the peasants to channel to the state as tax, retaining a portion for themselves for diversion into luxury consumption. They would simultaneously extract surplus as rent from tenants on their private holdings (Chaudhury, 1964). Regmi (1978d) points to the presence of zamindars like their counterparts in India in the settled tracts of the Tarai around the time of the Gorkhali conquest who had customary rights over the peasantry and a tax collection role, and widespread tenancy. At which point the mode of production in this tract could be termed ‘feudal’ – is difficult to ascertain. Feudalism generally refers to concentration of land by the state or a landlord class, with surplus appropriation through rent or debt bondage, which (unlike capitalism) is used for elite consumption rather than productive purposes (see Sugden, 2019).

It is likely that the emergence of ‘feudal’ mode of production was a gradual process which emerged in line with the rise of state formations – and the dynamics of this are captured in the next section.

In the Chitwan valley, and further west in the Tarai, beyond the influence of the Sen dynasty the economic system is more difficult to ascertain. These domains were also Tharu, with parallels with the mode of production further east. The western Tarai came under the influence of the hill principalities of the baise and chaubaise rajya, which emerged following the collapse of the medieval hill based Khas kingdom (Kafle, 2022). The presence of shifting cultivation until relatively recently – until into the 20th century in areas such as the Dang valley – (McDonnaugh, 1989, Gurung, 2003) suggests that subordination to the centralised state likely occurred much later here.

### **Mode of production in the hills prior to Gorkhali conquest**

The agrarian system in the hills bears parallels with the Tarai, whereby there is a juxtaposition of indigenous ‘adivasi’ forms of economic and political organisation dominated by shifting cultivation and customary tenure, alongside sedentary peasant livelihoods, with the latter often associated with caste Hindu populations, and nascent feudal landlordism.

## SOME CONCEPTUAL NOTES ON ADIVASI VS PEASANT MODES OF PRODUCTION IN THE HILLS

Across the hills outside of Kathmandu, like in the Tarai, there were likely differences in the mode of production between the Adivasi domains, and the areas settled by Hindu castes which tended to be dominated by a more sedentary peasant livelihood. Modern identity politics has differentiated between two distinct ethno-linguistic groups in the hills. The first are Nepal's Tibeto-Burmese speaking indigenous groups such as the Rai, Limbu, Gurung, Tamang and Magar (known today as *janajati*)<sup>2</sup> who traditionally lived across the eastern, central and pockets of the western hills (particularly parts of the Rapti valley). The second are the Indo-European Nepali speaking (also known as *chas* or *parbatiya*) groups who originated in western hills (and continue to make up much of the population of the that region). The majority of whom are Hindu Brahmin and Chettris, with a smaller population of Dalit occupational castes. They have since migrated across Nepal, and include the founders of the modern Gorkhali state.

This division is however not necessarily clear cut and some hill communities which today are classified as Hindu Chettris, particularly in the west, have historically been integrated into an agrarian system and culture with closer resemblance to that of South Asia's tribal or 'adivasi' communities than their caste Hindu counterparts (see Luintel, 2013). Bearing in mind this complexity

and fluidity – when we refer to Adivasi modes of production in the hills, we are referring to an economic formation similar to that discussed above with regards to the Tarai, that has been widespread historically in frontier regions of South Asia (Singh, 2007). This is one dominated by shifting cultivation and forest/pastoral-based activities, with communal ownership of land, and customary, often lineage-based tenure.

## THE WESTERN HILLS: TRANSITION FROM ADIVASI TO PEASANT MODE OF PRODUCTION

Prior to the Gorkhali conquest, the Sen kingdom made up a large portion of the eastern and central hills, while the hills to the west of Kathmandu were made up of petty kingdoms – including the Chaubisye Rajya (24 principalities), which took up much of the Gandaki basin, and the Baise Rajya, or (22 principalities), which took up much of the Karnali, Bheri and Mahakali basins (Vaidya, 2020). The west of Nepal was traditionally the heartland of the Nepali speaking *chas* castes. Prior to the Baise rajya from the 15th to 18th centuries, it was part of the much larger Khasa kingdom from the 11th to 14th century, centred on Sinja of Jumla (Vaidya, 2020). There is some evidence that the *chas* people were once part of a more egalitarian agrarian system, akin to the Adivasi mode of production described above. Luintel (2013) suggests that this included an absence of caste stratification, as well as shifting cultivation and transhumance.

However, the development of the powerful Khasa empire, which was in the centre of trans-Himalayan trade networks, and the introduction of high-altitude paddy (supposedly from Kashmir) in the 13th or 14th century, which depended upon terracing and sedentary cultivation intensified social stratification (Luintel, 2013). The Khasa kingdom likely had feudal elements and appropriated a share of the agricultural surplus (Adhikary, 1988). As occurred in the lowlands, a tax appropriation apparatus generally depends upon a network of intermediaries – thus driving social stratification, particularly in the lower valleys. Elements of an Adivasi mode of production likely persisted in the remoter upper valleys home to so called *matwali Chettris* or *pawai*, including a dependence on rainfed agriculture and transhumance, veneration of folk deities such as *Masto* and a lack of adherence to ritual rules around meat and alcohol consumption (Luintel, 2013).

With the exception of the *pawai* domains, it appears that much of Nepal's western hills by the time of the *baise rajya*, was home to a sedentary peasant mode of production. Due to the legacy of the centralised Khasa kingdom, there were likely some elements of feudalism where surplus is appropriated by a landowning elite and the state for consumption purposes. As of late 18th century, Regmi (1978d) suggests there was a notable landed class in the *baisi rajya* region, and widespread tenancy. There was also an active market for land with sale and mortgage for land being common prior to the Gorkha conquest. There was a complex land tenure system, elements of which persisted into the Gorkha era, such as in the Karnali region, where the peasantry had a complex range of tribute obligations to pay to the local nobility

(Subedi, 1998).

## THE CENTRAL AND EASTERN HILLS

In the central and eastern hills, Adivasi modes of production likely played a much more critical role, although there was considerable westward migration of Hinduized khas populations, combined with migration (and eventual assimilation) of Rajputs and Brahmins from India (Whelpton, 2005) into the central hill region – and these groups went on to establish the petty principalities of the *Chaubisi Rajya* (24 principalities), including the principality of Gorkha from which the founders of the state of Nepal originate. The mode of production in the areas close to state power, like in the *Chaubisi Rajiya*, was likely dominated by sedentary peasant production – particularly amongst the caste Hindu population (Regmi, 1978d)

In the more remote parts of the central hills home to groups such as the Gurung, Magar and Tamang, as well as much of the east dominated by the Sunwar, Rai and Limbu – there is evidence that an Adivasi mode of production was predominant. Like in the Tarai, the hill Adivasi communities, were integrated into mode of production with communal characteristics – including clan based or communal ownership of land, sometimes oriented around shifting cultivation, and redistribution of surplus within communities, regulated by customary institutions, while being manifested in ritualized processes. Shifting cultivation was central to agriculture in hill Adivasi communities for generations, and has various local names, such as *khoriya*, *bhasme*, *lhose*, and occasionally *jhum*, by communities in eastern Nepal<sup>3</sup> (Dhakal, 2002, Dhakal, 2000).



Clan based land ownership of land was widespread and has been documented widely in the east amongst the Sunwar (Egli, 2000), Rai (Gaenszle, 2000, McDougal, 1973) and Limbu (Caplan, 1970). Under such systems, the land in the vicinity of a village would be owned by a clan unit, and under customary law could not be sold (Regmi, 1965). Land was allocated by the village chief to households (Regmi, 1978), who would use it for multiple purposes including shifting cultivation, pastoralism, and later, sedentary agriculture (Gaenszle, 2000). A similar system of customary tenure was present amongst the Magar of the western hills – whereby farmland and forest was held communally by a clan – and access to land for non clan members could only be secured through marriage. Clan leaders would allocate different areas of land to different clan sub-groups and individuals were expected to fulfil communal obligations for the clan to access agricultural land (Gurung, 1996). Clan leaders would allocate different areas of land to different clan sub-groups and individuals were expected to fulfil communal obligations for the clan to access agricultural land (Gurung, 1996). Communal labour regimes were mobilised to support *khoriya* or shifting cultivation and grain was stored in communal granaries for distributed within the group, suggesting an even higher level of collective activity than in the east.

The larger Adivasi mode of production retained relative stability, even as Adivasi groups were integrated of the petty kingdoms of the pre-Gorkhali era. Under the Galkot rajya in Baglung, the Magar retained relative political and economic autonomy, as did the indigenous mode of production. Likewise, the Thami of Dholakha paid tax to the Newar Principality of Dolakha, while

simultaneously operating their own communal lands (Shneiderman, 2010).

## **Cropping systems prior to Gorkhali conquest**

It is challenging to determine with assurance at which time or place- or even in what form agriculture was first practiced in Nepal since there have not been any archaeological excavations with regard to the antiquity of crop cultivation in Nepal. There is evidence however, that cultivation practices had reached the territorial boundary of present-day Nepal from at least three frontiers. First, wheat and barley from the west following Kashmir, rice from the southern plain, and, millets, and sorghums from the northern border. The introduction of agriculture likely occurred in some part of Nepal by 2000 BC, while animal husbandry, was likely introduced at about the same time (Whelpton 2005).

There was a long history of rice cultivation in South Asia which dates back to as early as 6000-8000 BC (Fuller et al., 2010), and there is evidence of a well-established seasonal rice-wheat cropping pattern and sedentary cultivation on the Gangetic plains as early as 2000-1800 BC (Boivin et al., 2012, Fuller, 2011), and this system likely extended to the contemporary Nepal Tarai. In the hills, excavations in the Kathmandu valley dating back to the Licchavi era find evidence of rice grains, suggesting a long history of cultivation (Khanal and Riccardi, 1988). Subedi (1998) suggests that both paddy and wheat were important crops in the medieval period in the Karnali under the Baise rajya. Much of the paddy was of the marsi variety locally produced in the Karnali up until today which was introduced in the 13th and 14th century (Luintel, 2013).

Paddy was also important in the Chaubaise rajiya further west. Ramirez (2000 [cf. Aubriot, 2004]) suggested that control of paddy cultivation lands was important for the founding of pre-Gorkhali principalities such as Gulmi. Wheat, which is commonly planted in the dry months after wheat, likely also has a long history dating back to 400BC - 100 AD, (Knörzer, 2000). There are records of its cultivation during the Lichhavi era in Kathmandu valley (Yadav, 1986), and in the Karnali during the baise rajiya period (Subedi, 1998).

There is a long history of irrigation in the hills which was a prerequisite for rice and wheat cultivation. There was reference to irrigation systems in Lichhavi era inscriptions in the Kathmandu valley (Yadav, 1986). Under the Malla era which followed, further irrigation systems built (Raj Kulos), with complex management regimes (Knörzer, 2000). Irrigation also has a long history in the western region during the Baise Rajiya period (Subedi, 1998). In Jumla, Karnali, people there had a local institution called Kumthi to ensure the equitable distribution of water from the irrigation canal to each plot (Shrestha 1993). In the central hills, a number of irrigation systems were established by the kings of the Chaubisi Rajiya (Aubriot, 2004, Pradhan, 1990). Pradhan (1990) suggests that irrigation canals were built often to serve guthi lands associated with temples, whereby the water was used to maximise revenue for the shrine. Likewise, some were built by local elites and others by communities themselves. In central Nepal, Royal edicts by Rama Shah of Gorkha in the 15th century also make reference to irrigation canals, making it clear that local disputes over irrigation had to be dealt with at a community level and without the involvement of the state authorities (Riccardi Jr, 1977). Pradhan

(2000) suggests this set the precedent for the many farmer-managed irrigation systems, which dominate hill agriculture today.

The cropping pattern appears historically to have aligned strongly to the mode of production. The rice-wheat cropping cycle in particular, is strongly associated with sedentary peasant production, which as indicated above, appeared to be present in parts of the Chaubise Rajiya of the west – including the more fertile valleys of the Karnali. This was supported by terracing technology, and importantly, by the introduction of irrigation systems. In large tracts of the hills, however, including the upper valleys of the Karnali, home to the so-called Matwali Chettri or Pawai, the Adivasi domains of the central hills, and much of the eastern hills non-terraced, rainfed farming was predominant, with a strong role for shifting cultivation – as noted above. It is likely that coarse grains such as buckwheat and barley were predominant – crops with a long history of cultivation, dating back to as early as 1000BC, with evidence of millet and legume cultivation from 400BC - 100 AD (Knörzer, 2000). At some stage, dry rice or ghaiya dhan which is planted without bounded fields, was adopted in the hills of Nepal. While this was still cultivated in dry areas, such as tars (elevated unirrigable river terraces) (Joshi et al., 2001) when it was introduced is not known.

Importantly, a large share of Nepal's current cropping systems including maize, potatoes, and common vegetables or fruits such as chayote (iskus), capsicum, tomatoes, bananas and chilli peppers originate in the Americas, and thus date back only to the Colombian exchange after the 16th century.

While the exact date of the introduction of these crops to Nepal however, is not clear, it was likely a gradual process which occurred between the 17th and 19th centuries – when these crops were introduced to South Asia by European traders (Whelpton, 2005).

## **GORKHA CONQUEST (1750S – 1900S) AND EARLY RANA RULE**

### **Mode of production and tax collection hierarchy in Tarai**

#### **THE TAX COLLECTION SYSTEM**

The Gorkha conquest of the Baise - Chaubisi Rajya and Sen Kingdom in the second half of the 18th century marked the formation of the state of Nepal. This was a defining moment in the agrarian history. The Gorkha empire had a strong bureaucracy and efficient revenue generating machinery which surpassed earlier state formations (Regmi, 1976). The Tarai in particular, was highly prized by the Gorkhali rulers, given its flat and fertile land and high revenue generation potential. The expansion of the tax collection apparatus and expanded settlement was encouraged by the new rulers (Gaige, 1970). While vast tracts of the plains were still under forest, a large share of the land which was cultivated and permanently settled, was legally classified under a tenure known as raikar, which allows individual households to operate personal plots while the state remained the ultimate landlord (Regmi, 1978c). Regmi terms it 'state landlordism'. Earlier zamindars from the pre-Gorkha periods, who had de facto property rights to their holdings, including the ability to rent it out to tenants, saw their power undermined, as the state emerged as the ultimate landlord and surplus appropriating entity (Regmi, 1978d).

The primary source of revenue for the regime was land tax – and this represented a significant share of the surplus produced by the peasantry. The state created a hierarchy of functionaries to collect taxes for the regime – likely building upon earlier administrative foundations from pre-Gorkhali kingdoms or principalities (Regmi, 1988). The primary tax collector in the Tarai was known as a chaudhari, with a number of subordinate roles. Functionaries were granted salaries and land assignments for their services (Regmi, 1988, Regmi, 1970b) and were also entitled to receive 'labour rents' from the peasants under their jurisdiction.

Alongside the raikar system of state landlordism was a form of property right known as birta which represented a tax free grant. Large grants of land particularly in the Tarai, classified as birta were given to members of the hill bureaucratic elite, including family members, priests, and high-ranking bureaucrats. Given the importance of land to income and social status, such land grants assured that the nobility who received them remained loyal, strengthening the authority of the Kathmandu rulers (Regmi, 1976). The grants were often of forested land, and had the added value of encouraging settlement and increasing tax revenues (Regmi, 1989a, Regmi, 1976). Birta owners had de facto private property rights to their estates, which essentially operated as semi-independent feudal vassals (Regmi, 1976). Most of the birta landlords were absentee landlords who, were based in the hills, only visiting during the harvest (Feldman & Fournier, 1976; Lal, 2002). With the extraction of rent by landlords as well as tax by the state, there was an effective division of the surplus product between the state and the local landlord (Sugden, 2009).

## PERPETUATION OF ETHNIC AND CASTE HIERARCHY AND EMERGENCE OF LOCAL LANDLORDISM

The conquest of the Tarai by the Gorkhali state had far reaching implications on the agrarian formation, consolidating centralised feudal system – or as Regmi (1976) termed it ‘state landlordism’ as the primary mode of production<sup>4</sup>. Under this system, a share of the agricultural surplus was appropriated by the centralised state which controlled land and was channeled into luxury consumption and the military.

Importantly, this system also consolidated the emergence of a local landlord class drawn from the local tax collector functionaries, who were able to directly appropriate surplus from the peasantry. This supported a reproduction but also reconfiguration of caste and ethnic relations. Plains upper castes were given the role of Chaudhari as well as that of lower-level functionary positions in the belts of the Tarai, home to caste Hindus such as the Maithili and Bhojpuri speaking belt of the central Tarai, and the Abadhi speaking regions of the western Tarai. As these functionaries were granted salaries and land assignments for their services (Regmi, 1988; 1970), they emerged into a local nobility with large taxable personal lands. These could be sub-let to poorer peasants without access to their own holdings, resulting in a division of the surplus product between the state and the local landlord. This likely intensified pre-existing inter-caste inequalities (Sugden, 2017, Sugden, 2019). To compensate for labour shortages on the newly cleared forest land and to maximize tax revenue, local functionaries encouraged the migration of farmers from India to the south, many of whom were from lower castes. They joined the ranks of poor tax or rent paying peasants

(Gaige, 1970). The recipients of birta grants were also an important local land-owning class - although these landlords were mainly hill elites holding large tracts of land, for which the plains caste population or adjacent Adivasi communities would be brought in to work as tenants.

## SUBORDINATION OF THE ADIVASI MODE OF PRODUCTION IN THE FOREST BELT

While in the settled tracts home to sedentary caste Hindu cultivators, the Gorkha conquest likely supported the emergence of a more centralised form of feudalism and propped up a local upper caste nobility, in the parts of the Tarai still under forest, the change after the Gorkha conquest was far more significant. Within these domains, large tracts of land were still out of the effective reach of the state revenue generation apparatus, and were likely still under Adivasi modes of production. In the century following the Gorkha conquest, this mode of production was undermined and subordinated to the same system of centralised feudalism and local landlordism which characterised the settled tracts of the lowlands. There were three processes which supported this process of subjugation, which were outlined above.

The first was the creation of an indigenous functionary class. While the mechanisms of calculating tax differed between the forested and settled tracts, the system of revenue collection was widespread across the lowlands – and this supported the creation of an Adivasi nobility. Positions such as Chaudharies, and the subordinate roles of Kanugoyes, Mokaddams or Patwaris were generally appointed to those with the ability to expand land reclamation and collect tax (Regmi, 1970b).

This in particular, included the Tharu and Rajbanshi chieftains, gradually creating the foundations of what would become an indigenous landed class.

The second process of subordination was surplus appropriation by taxation and rent, which varied from around a third to 40% of the crop (Karky, 1981). Appropriation of surplus likely impeded accumulation and technological development, and undermined indigenous systems of redistribution within communities.

The third intervention which was central to feudal subordination in forested adivasi domains, were the efforts to expand the cultivable area and encourage settlement. This would have been instrumental in interrupting the traditional pattern of nomadic shifting cultivation, and it extended the reach of feudalism from more populated regions into the remote forested belt. Chaudharis and associated functionaries in the eastern Terai were encouraged to clear tracts of forests and distribute land to tenants, who would pay tribute to the state (Regmi, 1976, Regmi, 1978b). The generation of land tax through clearing of new forest land was deemed necessary to generate revenue for the state's expansionist drive (Ojha, 1983). Functionaries, while being encouraged to clear new land, were requested to maintain the existing peasants on existing raikar land and bring in new cultivators, particularly from India, as bringing settlers from within Nepal would potentially result in a loss of revenue from existing raikar holdings (Ojha, 1983). The distribution of tracts of forest land as birta grant was also important to expand cultivation on the forest fringe. They were distributed as an incentive for wealthy individuals to clear the forest, whereby

part of the newly settled land would be under standard raikar tenure, and part would be bestowed as personal birta holdings. (Regmi, 1976, Regmi, 1989a).

The contraction of the forest frontier saw the emergence of new agricultural communities of adivasis farming under the centralized feudalism of the state, with surplus being appropriated via taxation and rent on private holdings. Many of the adivasi farmers who had once retained relative autonomy in the forest became permanent tenants on the land of birta recipients or their own tribal chiefs, or revenue paying small farmers, subjugated to both the local landlords and feudal hill based state.

The process of subordination however, was likely uneven across space. There was likely resistance to state control in remoter domains. Rai (2015) observed that in the north of Morang and Jhapa even as late as the 20th century, the Dhimal were not official title holders to any land (and actively avoided registering their plots). They thus maintained a forest-based livelihood, which temporarily allowed them to avoid the tax burden. The densely forested Tarai regions with a high prevalence of malaria, on the one hand, discouraged outsiders to settle until the 1960s when the malaria was controlled. On the other hand, it weakened the hold of the state power over the malaria-resistance Adivasi (Rai 2013). Hence, as Rai's (2015) study shows it is likely therefore that some communities retained relative economic and political autonomy from the state for a far longer period. The Dhimal had for decades used abundant forest land without the need to register it under their names with the bureaucracy. Some actually actively resisted or avoided registering titles in their name (Rai, 2015).



Muller-Boker (1999) also suggests that Tharus were carrying out shifting cultivation in the Chitwan valley during the Gorkha and Rana era, as before large scale resettlement from the 50s onwards land was sufficiently available for this type of extensive land use.

However, slightly elevated tracts of river terraces were preferred most, whereas lower areas within the flood plain were avoided because of the risk of flooding and the excessive moisture of the soil, but also because their crops would have been destroyed by the wild animals.

Across the majority of the Tarai however, the state maintained a strong influence on the agricultural economy, and the appropriation of surplus through land tax and rents for peasants on birta land was likely to have impeded accumulation and technological development within a vast stratum of the peasantry.

#### ONSET OF RANA RULE IN TARAI

After Rana rule started in 1846, the economic importance of the Tarai to fund the regime both through revenue from timber, which was sold to the British, and agrarian taxation, continued to grow (Guneratne, 2002). A more efficient tax collection system was introduced to regularize revenue collection, with pressure to maximize surplus to fund their conspicuous consumption of the elite in Kathmandu. A more rigorous system to collect tax in the Terai was also introduced. A new post of tax collector known as the jimidār replaced that of the chaudhari (Regmi, 1978d). Regmi (1988) notes that while some chaudharis were able to find a position within the new jimidāri system, preference for the jimidār positions was given not to the traditional landed gentry at the mouja level, but to

elites from the hills with strong connections to the bureaucracy. This supported fiscal discipline, as they were de facto employees of the state and could be dismissed if they failed to perform their duties (Regmi, 1988). Jimidārs were usually from the dominant Brahmin and Chettri caste (Guneratne, 2002, Regmi, 1976). However, where hill origin jimidārs were preferred, next in order were well-to-do-settlers, often from India (Regmi, 1982), although lower level roles such as patwaris were expected to be from the local community under their jurisdiction, and thus an indigenous elite retained some power (Regmi, 1978c).

Inequality and the prevalence of local landlordism increased during the Rana years. Jimidārs were able to rapidly increase their wealth and landholdings and emerged into powerful landlords. They would extract additional unauthorized payments from the peasantry or appropriate the land of tax-defaulting peasants (Regmi, 1976). Lower level functionaries were also able to accumulate land and receive their share of the surplus – a burden borne by the peasant. For instance, a mokuddum would receive 5% of the land in their jurisdiction free of tax, while patwaris would receive a share of the revenue generated (Regmi, 1976). Oral histories collected in Morang suggest that patuwaris were able to access land through their appointments, and a local Tharu nobility were able to invest in an extravagant lifestyle (Sugden, 2010). Incentives continued to be given to jimidārs to accelerate the clearing of the forest frontier, including tax concessions and a portion of land as personal tax free birta or jirayat lands (Yadav, 1984), which could be leased out to others.

During the Rana era, birta grants continued to be offered directly to members of the nobility both to build up loyalty of the elite and to encourage settlement (Regmi, 1976). The heavily forested Morang and Sunsari region in particular, emerged into a region with severe land inequality, with vast estates belonging to single families from the hills and cultivated by rent paying adivasi farmers (Sugden, 2010). In areas with a longer history of settlement such as the caste Hindu heartland of Mithilanchal, some lands which were already settled and cultivated were transferred into birta tenure in the name of members of the nobility (Regmi, 1989b).

### **Cropping systems in Tarai (1750s-1900s)**

There was some modest development of the productive forces during Rana era with the introduction of new cultivation techniques and increased agricultural output (Seddon, 1987). Although this may have been driven in part by Rana policies, population growth appears a more likely explanation. In terms of crops, paddy, millet and lentils were reported in government taxation records (Regmi, 1988). While wheat was likely produced as part of a rice-wheat cycle – most records of wheat production were from the hills – and the limited dry season irrigation in the Tarai will have made cultivation challenging. In areas still under shifting cultivation, such as the Chitwan valley, rice, mustard and maize were common crops amongst the local Tharu (Müller-Böker, 1999). In the irrigated fields they used to plant jhinuwa dhaan, a long grain rice, where in the dry land dry rice or mustard were cultivated. Both, direct sowing or transplantation, was in practice with just one harvest a year (Müller-Böker, 1999).

There were some efforts to establish commercial production during the Rana era – including some large-scale state-run plantations. However, these were often short lived, and closed if they did not yield the government sufficient profit (Regmi, 1988). The only commercial crop which appeared to grow in increasing volume was jute in the eastern Tarai, which was largely cultivated by local farmers without government intervention from the late 19th century onwards. Earlier government efforts to establish jute plantations in the western Tarai had failed (Regmi, 1988)

The land tenure system was an impediment to commercial production. Under Ranas, although jimidārs were supposed to encourage innovation and development in agriculture, Regmi (1977) asserts that their operations remained primarily restricted to the parasitic activities of tax collection, rent collection from tenants and usury. As a result, commercial production was limited.

There was likely some forms of irrigation infrastructure in the Gorkha and early Rana era. For example, government records from the early 19th century make numerous mentions of irrigation infrastructure in Bara, Parsa and Rautahat, including disputes over water allocation. This includes irrigation channels and canals commissioned by the local Chaudhuris (Regmi, 1978a). These were however, likely for paddy production, rather than being the more robust dry season channels which would be needed for wheat cultivation. It was only towards the end of the Rana era that larger scale irrigation systems were constructed. In most cases, irrigation was dependent upon private investment by enterprising farmers and land owners.

While incentives were offered, such as the authorities meeting half the costs (Pradhan, 1990), the coverage by canals remained very limited. Village ponds formed the primary irrigation source in the Mithila region, with many constructed by jimidārs during the Rana period although water yields were low. Only two state funded irrigation systems were constructed in the Rana era. One was Chandra Nahar in Saptari, built in 1923. The other was the Judha Nahar, built in 1940s (Pradhan and Belbase, 2018, Pradhan, 1989b). However, the command area of these canals were limited, and groundwater pumping technologies were yet to be widely available.

### **Mode of production and tax collection hierarchy in hills**

#### **TAX COLLECTION HIERARCHY AND MODE OF PRODUCTION**

The importance of land revenue from hilly regions for the state, was far less significant than in the Tarai, particularly in the first half of the 19th century prior to Rana rule (Regmi, 1988). However, with increased settlement and an expanding cultivable area in later years, it gradually increased. The system of tax collection was more diverse than in the plains after the Gorkha conquest, given the large number of smaller state formations of the Baise and Chaubise Rajiya, which went on to shape the system of revenue collection by the new rulers (Regmi, 1978d).

As noted above, large tracts of the hills in the pre-Gorkhali era were already under sedentary peasant farming, based upon some form of peasant proprietorship, oriented around terrace farming, particularly of rice. There were several systems of land administration in these permanently settled parts of the hills, including the amanat, ijara, thekthiti and

thekbandi systems, with variations according to the responsibilities for collecting tax (Karky, 1981). On the whole though, the tax collection hierarchy at the time of the Gorkhali conquest was similar to in the Tarai, with a network of local tax collectors established amongst local elite to collect revenue from raikar lands.

All the above forms of revenue generation led to growing inequalities in the areas of sedentary cultivation – particularly as certain individuals were empowered to collect tax. For example, Regmi (1978d) reports how mukhiyas (tax functionaries under the ijara system), were under obligation to allot vacant land to landless peasants. However, if there was nobody to take the land immediately, they were allowed to retain it temporarily as a personal holding. However, this often became permanent, even when tenants were available. However, it is likely that the tax collectors didn't accumulate the same levels of land ownership as in the Tarai where jimidārs would receive tax free birta alongside their responsibilities to collect tax. There were also some mechanisms to limit internal inequality within the tax paying peasantry such as the short lived raibandi system (Regmi, 1976) which would periodically redistribute raikar rice lands according to family size. This system while appearing 'equitable' in fact, supported the maximization of revenue in the hills, as by ensuring each peasant had enough land for subsistence, as the likelihood of default on taxes was reduced. This supported an agrarian structure in some locales dominated by small cultivators, with variations in wealth according to family size (Regmi, 1978d).

While birta grants were less widespread than in the lowlands, they still played a critical role as part of the state building process. Grants were often gifted to local chieftains or local nobility of old hill

principalities – particularly in newly annexed lands such as Jumla, Dailekh and Baglung. They were particularly valuable to reward rulers who had defected to support the Gorkhas. Many were allowed to retain their feudal titles albeit under overlordship of Gorkhas (Regmi, 1976). In the areas of the former Khasa kingdom in the west, according to the land grant charter, the Brahmans who acquired birta lands from the kings were exempted from taxes. In addition, Birta holders did not cultivate their lands themselves, however, they and could collect various taxes and rent from the peasants who cultivated the birtaland (Adhikary 1988).

In the wake of the westward expansion of the Gorkhali empire was a substantial westward migration of Hindu Nepali speaking castes who were carrying out sedentary, terraced rice farming, into regions of the central and eastern hills which were previously dominated by Adivasi communities. As in the Tarai, to maximize tax revenue, it was necessary to increase the cultivable area by clearing hill forests, so the state actively encouraged this migration as it sought to bring new lands under cultivation (Regmi, 1976). In eastern Nepal, migration was primarily of upper caste Brahmin and Chettri, but they were also usually accompanied by Dalit occupational castes who would provide services to the upper castes as well as the Rai in return for grain, via the jajamani system of inter-caste exchange (Gaenszle, 2000). While the occupational castes were often landless, the numerically and economically dominant Brahmin and Chettri were mostly peasant cultivators farming permanent fields who would pay tax directly to the state – and were not directly subordinate to the local chieftains (Rai or others).

## SUBORDINATION OF ADIVASI MODES OF PRODUCTION

A significant change in the hills, was the gradual subordination of the hill adivasi mode of production to the centralized state, and the process largely paralleled that which occurred amongst Tharu and other ethnic communities of the Tarai. The Adivasi mode of production of the hills which was dominated by shifting cultivation, customary tenure, and redistributive institutions, was gradually dissolved throughout the Gorkha and Rana era. This was a temporally and spatially uneven pattern given the rugged terrain, in a process which likely continued even up until the early Panchayat era.

While in the Tarai a large number of Adivasi peasants became tenants for local landlords while also paying tax, in the hills where large landed estates were less prevalent, it is likely a majority become small tax paying proprietors of raikar lands (much like their caste Hindu neighbours), with pockets of localised landlord-tenant relations, a process outlined in Sugden et al (2018). Both sub-groups were however, also having surplus appropriated by the central state via labour tribute. Lecomte-Tilouine (2017) suggest that by the 1980s, sedentary terraced agricultural techniques were carried out by both adivasi and caste Hindu populations, with cropping systems determined by the altitudinal zone rather than ethnic group. While there was a convergence in the general mode of production within which Adivasi groups and the caste Hindu population were integrated, there were notable differences with regards to ownership of land – particularly irrigated rice lands.

The hill Adivasi peasantry (which includes the so called matwali Chettri of the Karnali, as well as Magar, Gurung, Rai, Limbu and Tamang) was more likely to have greater involvement in pastoralism and have smaller plots (Lecomte-Tilouine, 2017). However, for the same reasons the latter were also more likely to live on fragile land, and thus were also more likely to be subordinated to localised landlord-tenant relations, as Sugden et al (2018) shows with regards to Bhojpur in the eastern hills. The processes through which this transition took place are outlined below.

#### CREATION OF FUNCTIONARY CLASS AND TEMPORARY PRESERVATION OF COMMUNAL LAND

As occurred across Nepal, the Gorkhali state preserved and intensified existing indigenous hierarchies through often propping up local adivasi-janajati chieftains both to collect tax in kind (Regmi, 1976) or mobilize villagers for forced labour (Holmberg et al., 1999). In the east for example, the traditional political structure of the kirat communities were integrated into the state administration system (Fitzpatrick, 2011, Gaenzsle, 2000). What was also unique though was that customary communal tenure which was emblematic of the Adivasi mode of production, was actually protected initially by the state, as a means to maintain the loyalty of the kirat community, under a tenure known as kiptat. Such land could not be alienated to non-Limbu (Fitzpatrick, 2011).

Chieftains were given the role of collecting the homestead tax called serma from resident cultivators of their communal kiptat lands, as well as right to collect their own labour rent. They were also given strengthened judicial power,

and the right to collect fines and levies from the local population. This allowed them to accumulate some wealth (Gaenzsle, 2000) (Fitzpatrick, 2011). Surplus would flow from the indigenous economic system to Kathmandu, with a portion being retained by local chiefs.

It was the westwards migration of Nepali speaking Hindu castes which paved the way for the end of the protection offered by kiptat tenure, and in turn, the gradual dissolution of the Adivasi mode of production. The incoming caste Hindus brought with them paddy cultivation, as well as associated technologies such as terracing (Gaenzsle, 2000, Caplan, 1970). While still subject to surplus appropriation to the state through tax, the incoming Hindu castes were part of a quite different mode of production from the indigenous population, grounded in the cultivation of individual fixed family plots. Clearing of new land (often forest) by these incomers paved the way for gradual erosion of communal kiptat tenure, and the rising power of a new upper peasantry. In 1903 orders were issued to permit the alienation of kiptat jungle or waste lands to other settlers, on condition that it was converted into paddy fields (Regmi, 1965). State policy dictated that land brought under permanent cultivation within the kiptat area was automatically converted into raikar tenure (Gaenzsle, 2000, Fitzpatrick 2011). While the first land to be alienated was often the jungle or waste land around communities with productive potential, the Limbu and Rai still had access to their own kiptat holdings. However, even this began to be lost to new settlers through deception, loss of land through mortgaging, and weak political clout during land disputes with new settlers (Caplan 1970).



Access to land amongst Adivasi communities was also lost due to Guthi land allocations. Sanskrit literature advocated to donate land to Brahmins, teachers, priests and religious and charitable institutions, with a belief that anyone who donated the land would live in heaven. Such religious interest promoted the Guthi (land allotted to religious institution) and Birta land tenure (Adhikary 1988); which, also contributed to the undermining of the Adivasi mode of production.

It is worth noting however, that the process through which the adivasi modes of production was dissolved was uneven across Nepal. It is likely that many farmers continued to maintain control of their land, and rely heavily on customary tenure and shifting cultivation in isolated valleys well into the 19th century, cultivating land on a customary basis, even if it wasn't encouraged the state. Gurung's (1996) study from Tara Khola valley, showed that there was a persistence of customary land management practices of the Magar, including shifting cultivation – even though these rights were not officially recognised. Such customary land and resource tenure practices still persist, mainly in high hill and mountain regions in various forms.

## CORVEE LABOUR

During the Rana regime from the mid-19th century onwards, an important form of surplus appropriation by the state, particularly in the hills, was a form of corvee labour – or 'labour rent', which became widespread in the middle hills during this period. Extracting labour rent was one of the few ways through which surplus could be appropriated from some of the remoter domains still under the Adivasi mode of production (see example

from Gurung, 1996). There were several mechanisms of labour rent extraction. Certain raikar lands were placed under a tenure known as rakam where the users had obligations to provide unpaid labour to the state (Regmi, 1976). Jhara was a more occasional labour obligation which applied to all regardless of the land they were cultivating – and included labour for specific state projects such as construction (Regmi, 1987). This was prevalent in the central hills around Kathmandu, in particular, amongst Tamang (Holmberg et al., 1999).

## INTERNATIONAL MIGRATION

With the continued pressure of rents, taxes and low productivity, outward migration to India from the hills became widespread. Migration occurred initially through the recruitment of men from Nepal's indigenous hill communities (notably Gurungs, Magars and Tamangs) from the western and central hills to the Gurkha regiments of the British army, following the 1814-16 Anglo-Gorkha war, to serve British imperial expansion (Kansakar, 2012). This began later in the eastern hills, alongside more permanent migration to Northeast India, both for the purposes of settlement (for agriculture, labour and for livestock keeping). Pressure on land in Eastern Nepal was a prime cause of migration to Sikkim as early in the 1890s (Caplan, 1970). In the 19th century, as the British also began building roads and tea plantations in North East India, Darjeeling and Assam both began to see a rising tide of migration from Nepal, most of whom were from hill areas of Eastern Nepal (O'Malley, 1907).

## Cropping systems in the hills

The western hills likely saw less change in cropping practices during the Gorkha and Rana era when compared to the central and eastern hills. A rice-wheat cropping system appears to have a long history of cultivation, dating back to the pre-Gorkha era (Subedi, 1998). This was supported by the fact that this region had some of the most extensive irrigation systems in Nepal. Farmer managed irrigation systems were widespread throughout the Gorkha and subsequent Rana eras in paddy cultivating altitudes, often with complex systems of management. Other than paddy and wheat, Adhikary (1988) notes that during the 18th century the Karnali region of the Midwest used to export wool, woolen clothes, herbs, horses of noble breeding, falcon and the musk of the deer towards the plains of India; and, foodgrains, cotton clothes, pepper, chilli and some items to Tibet. Jachauri Kulo was an exemplary farmers managed irrigation system in Jumla that helped in crop diversification (Shrestha 1993) and Shrestha observed there were similar system in other part of the larger Karnali region, as well. In the irrigated land, they would cultivate paddy, and if they see a shortage of water in a particular year, they would cultivate barley. The earliest evidence of rice cultivation in the high mountain region comes from Jumla. Improved varieties of wheat and maize were also introduced with the facilities of irrigation (Shrestha 1993).

In central and eastern Nepal, there was a slightly different trajectory of change after the Gorkha conquest. Paddy cultivation, including associated irrigation and terracing technologies was likely widespread in central Nepal even in the pre-Gorkha era – although to a lesser extent than in western Nepal. Irrigation

systems also have a reasonably long history. In central Nepal, the construction of irrigation canals however, increased notably after the Gorkha conquest, and into the Rana era (Aubriot, 2004), with the state viewing irrigation as an opportunity to intensify production and increase tax revenue. While there were a small number of state sanctioned canals or so called 'raj kulos', some of which used forced labour incentives were also given to farmers to construct canals, and the 1854 Muluki Ain clarified the rules of water allocation including recognition that the benefits of any canals would go to the farmer who invested, while clarifying the rights and responsibilities for canal users, and giving recognition of customary rules of management (Pradhan, 1990). While a majority of canals remained largely under community control (Liebrand, 2014, Aubriot, 2004), it appears that the state regularly intervened in their management, for instance in mobilising forced labour for maintenance, particularly for canals constructed under the state initiative (Pradhan, 1990).

However, paddy cultivation and associated irrigation technologies was uncommon in Adivasi domains dominated by shifting cultivation, where coarse grains such as millet were more common. It was with the migration of Hindu castes from the west that rice cultivation was introduced into Adivasi domains which had previously been dominated by shifting cultivation or dryland rainfed crops (Liebrand, 2014), (Gaenszle, 2000) and irrigation (Aubriot, 2004).

While wheat cultivation was likely widespread in western Nepal prior to the Gorkha conquest, there is evidence that it became part of the cropping system later in the central and eastern hills.

This was for a number of reasons including more limited irrigation (when compared to the west of Nepal), and problems of free grazing cattle (Aubriot, 2004). However, as the opportunity to expand the cultivable area reached its limit, the peasantry were compelled to increase cropping intensity to support a rising population. This encouraged the extension of a multi-harvest rice-wheat cropping system into central and eastern Nepal and with this the improved irrigation systems which could support dry season cultivation.

A range of other crops which don't necessarily depend on irrigation and could be integrated into shifting cultivation based agrarian formations, increased from east to west across the hills throughout the Gorkha and Rana era. Maize likely became an important part of the cropping system – being planted on unirrigable bari lands during the monsoon. There is limited data on when maize was produced – in some areas of the central hills it appeared only in the early 20th century (Aubriot, 2004). Potato was also a highly significant crop, and had a notable impact on agricultural production and quality of life and population. It was introduced between the late 18th and early 19th century (Regmi, 1999). In high hills and mountain regions only one crop a year was expected, and they had limited choices of crops. For example, in Khumbu areas, the eastern hill, only buckwheat, potatoes, turnips, barley were grown (Furer-Haimendorf 1975).

Commercial crops were more limited, although some commodities such as cardamom and indigo were produced in the 19th century (Regmi, 1999). Cardamom was introduced from Sikkim initially, although it was not until the second half of the 20th century that it

emerged into a major commercial crop (Fitzpatrick, 2011). In terms of plantation agriculture, tea cultivation emerged from third quarter of 19th century alongside its growth in Darjeeling (Regmi, 1988).

## **LATE RANA ERA: RISE IN OWNER CULTIVATION AND LOCAL LANDLORD-TENANT RELATIONS**

Throughout the 19th and early 20th century, rural Nepal was comprised of multiple localised modes of production under the influence of the centralized feudalism of the state, where surplus was appropriated by the bureaucracy and its intermediaries. These included firstly, independent peasant production, which persisted across large swathes of the eastern hills, with notable class differentiation according to caste and ethnicity. Secondly, there were localised landlord-tenant relations, particularly in the Tarai. Finally, Adivasi modes of production likely persisted, albeit in increasingly remote locales within the forest belts of both the hills and Tarai.

One of the most notable changes was with regards to the character of 'feudal' agrarian relations in both hills and Tarai. From the end of the 19th century, individual tenant-landlord relations became more significant than the tenant-jimidār-state relations which had characterized the earlier Rana years. The primary mechanism of surplus appropriation shifted from state tax payments to landlord-tenant relations (Sugden, 2013). Another major change was the emergence of private land-owning peasantry, for whom much of the surplus would remain with the household – rather than being absorbed by the state as tax. These changes were due two state interventions.

Firstly, the state gradually supported the development of property rights for raikar land throughout the Rana period. This allowed cultivators to become the de-facto owners of their land rather than tenants of the state. The right to buy or sell raikar land was finally codified in law in 1921 – consolidating private property rights. Any individual could buy, sell or mortgage land so long as taxes were still paid (Regmi, 1976). The difference between birta and raikar tenure began to decline during this period, and a 1906 legislation brought some the laws regarding birta and raikar in synergy (Regmi, 1976). This encouraged jimidārs to further expand their holdings. However, an inadvertent impact was that it provided an incentive for other wealthy individuals both from the hills and local communities to buy land – and in doing so a new landed class emerged from within the urban elite (Regmi, 1976).

Secondly, the state monetised land tax for raikar lands in the early 20th century. Land tax remained static despite rapidly rising prices of agricultural commodities, against which tax rates had been calculated, meaning that the raikar landowner needed a smaller quantity of grain to meet tax obligations (Regmi, 1976). As a result it was easier for landlords to rent out excess holdings, as tenants could more easily keep a surplus beyond their subsistence needs after paying tax, yielding a profit which the landlord could extract (Regmi, 1976). As government revenue diversified, and the dependence on land tax had declined, the tax rates were not increased.

This devaluation of tax and the rising concentration in landed property which accompanied it consolidated rent as the primary form of surplus appropriation and is the origin of the predominant form of landlordism seen in Nepal today. Meanwhile, the monetization of land tax

drove indebtedness – and contributed to rising distress sales of land throughout the late Rana era (Regmi, 1976). The main production relations (amongst farmers not subjugated to landlords) were now characterized by ownership of one's own means of production and the retention of the surplus product for household use, with much smaller tax payments. This group came to dominate hill agriculture (Seddon, 1987), where extremes in land ownership were less apparent. However, they were a much smaller group in the Tarai – where a notable number of farmers were still tenants. For example, as of 1948 it was estimated 23% of farmers in rural Morang owned less than one bighā each, while some jimidārs possessed up to 22,000 bighā (Regmi, 1976). Only a small number were fortunate enough to become independent owner cultivators.

The blocked development of an owner-cultivating peasant class in the Tarai can be understood when one observes that with the monetisation of land tax came the rise of debt. Although the value of rents were declining, their monetisation created a need for cash, encouraging further monetisation of livelihoods (such as commercial production) amongst the tax paying peasantry and increased levels of indebtedness to money lenders (Regmi, 1976). The emergence of property rights for land also meant that land could now be left as collateral for loans, causing many peasants to lose land if they defaulted – allowing existing landlords to expand their holdings (Sugden, 2013). Growing landlessness and debt throughout the Rana era spawned the emergence of new axes of feudal exploitation – in particular in the form of bonded labour such as the Kaamaiya system of the western Tarai or Haruwa system of the central Tarai (Dhakal et al., 2020)

## 1951-1991: EARLY DEMOCRATIC PERIOD AND PANCHAYAT ERA

### Land reform and central planning

The Rana regime was overthrown in 1951, in an event which paralleled the anti-colonial movement across the global periphery. At the time of the Rana downfall and the establishment of Nepal's first (short lived) democratically elected government, it is unlikely that there were significant immediate changes to the agrarian structure and rural mode of production. Tax had by this point already become an insignificant component of the agrarian output, and surplus was appropriated primarily through landlord-tenant relations. However, this was also an era of land reforms, as governments sought to address the inequalities perpetuated during the century of colonialism, not to mention pressure by the USA to curtail the growth of communism (Kapstein, 2017) (Gaige, 1970).

While there were various efforts at land reform in the 1950s, it was following the overthrow of the democratically elected government in a Royal coup in 1960, and the emergence of the Panchayat System of absolute monarchy, that a more expansive land reform programme was initiated – following the 1964 Land Related Act. The Act introduced maximum ceilings on landholdings, with the intention of redistributing any surplus land. The ceiling was set at 25 bighas of agricultural land in the Tarai in addition to prescribed areas for residential purposes (Sugden and Gurung, 2012). Lands in excess were acquired by the government after payment of compensation. In theory this surplus land was then to be redistributed to the tillers or landless people (Regmi, 1976). The act also set agricultural rents at a maximum

ceiling of 50% of the crop and made efforts to introduce tenancy rights (Regmi, 1976, Adhikari, 2006).

The overthrow of the Ranas coincided with the era of state led national development and planning which was to last until the mid 1980s, and in 1956 under its first democratically elected government, Nepal implemented its first 'five-year plan' (Whelpton, 2005). These focussed initially on road construction but also increasing agricultural production through promoting higher yielding seeds, access to inputs and irrigation. The third plan in particular from 1966-70 gave a high priority to agricultural development, and aimed to increase food grain production by 15% and cash crops by 73% (Seddon, 1987).

Efforts to support commercialization and improve the productivity of small farmers, particularly in the latter decades of the Panchayat era, through sajhas (cooperatives) to support accessing credit, and markets and associated programmes such as the 1977 Small Farmer Development Programme which targeted the poorest farmers. However, persisting and worsening land inequalities impeded these programmes from reaching out to the poorest cultivators. Landless farmers were unable to procure credit, and the inputs were too costly for the majority of farmers (Seddon, 1987).

With the collapse of colonialism in India to the South, foreign governments increasingly sought to exert their influence through aid. Figures based on successive Economic Surveys and Reports by the Ministry of Finance and the Nepal Rastra Bank suggest that a total of NRs 95 million was provided by foreign 'aid' to Nepal in the period from 1951-52 to 1955-56,



all of which was in the form of grants. Throughout the second half of the 20th century, it went on to form more than 50% of the development budget (Shrestha, 2001), and 5.2 billion dollars had been received by the end of 20th century (Whelpton, 2005)

### **Resettlement programmes**

An important component of Nepal's post 1950s development strategy was to resettle hill people in the Tarai – which still had large areas under forest. In-migration to the tarai would help maintain social harmony in the hills, where population pressure, soil erosion, deforestation, land degradation and declining agricultural yields was making it increasingly difficult for rural populations to subsist (Ojha, 1983). A second advantage for the resettlement programme was that it simultaneously facilitated the spread of hill culture in the Tarai. Ethnic nationalism was central to Panchayat rule – based upon the dominant Nepali caste Hindu culture of the hills. The Tarai had up until now been dominated by the Tharu and Maithili, Bhojpuri and Abadhi speaking castes, some of whom had family links to India. Increasing the migration of hill people to the lowlands was believed to support national integration by shifting the demographic balance of the region (Gaige, 1970). A major intervention to support migration was the HO supported DDT spraying to eradicate malaria, which up until then had deterred many hill settlers to the forest belt of the Tarai (Robertson, 2018).

Migration was supported through formal resettlement programmes such as in the Chitwan valley (Robertson, 2018), although a lot of the migration was haphazard whereby settlers were encouraged by the state to clear forest at their own initiative (Gaige, 1970). This resulted in a massive decline in the

remaining forest frontier and settlers were often able to acquire large tracts of personal land (Shrestha and Velu, 1993). In-migration was naturally highest in the regions with large areas of forest, where there was plentiful land to be claimed (Gaige, 1970). As most of this land lay further north along the foot of the hills, this was naturally where the highest levels of in-migration took place. Gaige (1976) showed that there was relatively slower change in the central Tarai, including the Mithilanchal region, where much of the forest had been cleared during the Rana period and before. While the government's specific aim was to encourage migration from the hills, the unplanned nature of resettlement meant that the forest frontier also opened up opportunities for Tarai people to acquire new lands. This movement entailed mostly caste Hindu populations migrating from more densely populated tracts further south to the forest belt (Gaige, 1976).

The settling of the Tarai's forest frontier continued to from the hills into the 1970s and 80s, but growing by government over rates of deforestation, often leading to confrontation between migrants and the local authorities, and this was associated with some violence in Jhapa in the 1970s (Ojha, 1983)

### **Agrarian structure in Tarai during panchayat era: land reforms, feudalism and the rising owner cultivating peasantry**

#### **INCREASE IN THE PEASANT MODE OF PRODUCTION IN THE NEWLY SETTLED TRACT**

The resettlement of hill people in the Tarai not only led to significant demographic shifts, but also supported the emergence of an entirely new agricultural economy in the regions where new settlements were created.

While there were some hill migrants who were unable to access plots and stayed on to work as tenants, it appears that a large share of the new settlers owned their own land which they had cleared from the forest (Sugden, 2010). As part of an effort to formalize the resettlement process, in 1968-69, the Department of Forests set about creating an inventory of new settlements and formalizing land ownership rights (Ojha, 1983). This meant that settlers had secure ownership of their plots, the distribution of land was relatively more equitable than in the areas under permanent settlement during the Rana era, and most farmers were able to meet their basic subsistence needs from the land (see Sugden, 2010).

Throughout the Panchayat era, the resettlement programme contributed to a growing regional divide. On the one hand, there were increasingly prosperous settlements of owner cultivators on the forested belt under a peasant mode of production. This included the northern parts of the eastern and central Tarai, including most of the district of Jhapa; the very north of the central Tarai; and parts of the western Tarai including northern Rupandehi and Nawalparasi, and parts of Dang, Banke, Kailali and Kanchanpur which have a hill settler majority. This contrasted with the domains with a long history of settlement which were under the *jimidāri* system or *birta* tenure, and which continued to experience deeply inequitable feudal relations and landlordism. These included the southern belt of the eastern Tarai and parts of the western Tarai with an Adivasi majority, as well as most of the central Tarai which was home to Maithili, Bhojpuri and Abadhi speaking castes.

## RELATIONS BETWEEN SETTLERS AND ADIVASI GROUPS ON THE FOREST FRONTIER AND GROWING INEQUALITIES

While most farmers had their own plots in the newly settled tract, some level of internal inequality was inevitable – particularly given the differential resources settlers had at their disposal to clear new fields. To some extent ethnicity and caste contributed to the reproduction and perpetuation of these inequalities within the newly settled tracts. Gaige's (1970) survey during the late 1960s showed that the largest group of migrants were Brahmins and Chettris and they rapidly managed to consolidate political and economic power in the regions where settlements were concentrated such as east of the Koshi or the mid and far western Tarai. Of the migrants in Jhapa in the 1960s who had acquired land, Brahmins and Chettris represented 50% of Gaige's sample from 1967/8 (Gaige, 1976). They had more capital to acquire land, and higher education, as well as the passive support of the local bureaucracy, facilitated by family connections to officials (Gaige, 1970). Importantly, some of the most acute inequalities were in localities where upper caste migrants from the hills settled directly alongside the Adivasi groups of the Tarai. While there was a clear divide between the areas home entirely to settlers and the areas home to already subjugated Adivasi groups which were already under feudalism, such as southern Morang, there were also a number of transitional zones along the forest frontier itself, where hill settlers came directly into competition with Adivasi groups for land, and where struggles over resources became most acute – as documented in a number of oral histories. 25

In this context, growing inequalities between Adivasis and upper caste settlers emerged in this frontier zone, with many cases whereby the indigenous peasantry were subjugated– losing land and assets. Adivasis were more prone to borrow money without understanding consequences, and many rapidly lost their land to the new hill settlers (Gaige, 1976). This was particularly acute in the heavily forested western Tarai (Posel, 1995) and Chitwan valley (Müller-Böker, 1999, Robertson, 2018), where there were a larger number of hill settlers in close proximity to Tharu settlements. Many Tharu were subordinated by the new settlers from the hills, many of whom became large landholders, encroaching upon Tharu lands or registering them in their names through deception.

In the western Tarai districts, an outcome of the unequal relationship between new settlers and the Tharu community was the emergence of the kaamaiya system, whereby members of the Tharu community would become bonded labourers for upper caste hill settlers (Dhakal, 2001). The tradition of Kamaiya was prevalent mainly in the Kanchanpur and Kailali, Bardiya, Banke and Dang districts, the western Tarai. Some versions of this tradition was found also in some of the western Tarai districts, namely Kapilvastu, Rupandehi and Nawalparasi, where significant numbers of Tharus live. Though the people from other caste/ethnic groups were also found as Kamaiyas, they were in very insignificant numbers (Dhakal et al. 2001).

#### IMPACT OF LAND REFORMS IN THE AREAS UNDER 'FEUDAL' RELATIONS

In the settled tracts to the south of the Tarai, which had not been hit by the waves of in-migration, agrarian relations

remained deeply inequitable throughout the Panchayat era – with a high prevalence of feudal landlord-tenant relations. Success of the land reform was questionable. By 1972, the government had acquired approximately 50,000 hectares of land across Nepal. However, this represented only 3% of the cultivable area, and it was estimated that only 22,000 hectares were actually redistributed, benefiting only 10,000 households (Regmi, 1976).

There were several reasons for the land reform programmes' limited success in redistributing holdings. Rather than 'transforming' agrarian relations, reforms simply served to formalize existing landlord-tenant relationships. Gaige suggests that they even legally sanctioned the exploitative sharecropping system whereby the tenant must give the landlord 50% of the crop (Gaige, 1970). It has been argued that land reform legislation itself made land a profitable source of investment as it set the rent at half of the crop. This was more than the third which had been originally been proposed (Adhikari, 2011). There were also multiple vested interests which impeded the success of the reforms. For instance, birtā grants incorporated the feudal lords within the state bureaucratic alliance (Mishra, 2007). Landlords were major support bases of the king during the Panchayat Era in which the first land reforms were established, often influencing implementation agencies and personnel (Khanal et al., 2005).

With the bureaucracy on their side, there were many reports of landlords registering themselves as cultivators while renting out the land to tenants unofficially (Regmi 1976).).

Land was registered in the name of different family members or as commercial plantations (which were exempt from reforms), as reported from Morang (Sugden, 2010). Another case study from Siraha (Deuja, 2008), suggested that landlords were able to influence land reform officers, who would actually help them conceal their holdings, while confiscating a small part to appear to be working in the interests of the poor.

The only difference was that many former birta owners or other landed classes, had also migrated to urban centres throughout this period, from where they continued to extract rent - they had become absentee landlords.

Set against the context of failed land reforms, feudal landlord-tenant relations remained widespread. In the Tarai districts of Mithilanchal, between Saptari and Sarlahi, oral histories collected in the region (see Sugden, 2019) point to an agrarian system not dissimilar to the classical rural feudalism of pre-land reform Bengal described by Bhaduri (1973) whereby a large strata of landless labourers and small peasants would be bonded through ties of interdependence to local landlords through a combination of rent, labour and usurious consumption loans. Land owners included both 'zamindars', the large landlords from the Rana era (some of whom were hill origin, although most were from Maithili dominant castes), as well as large farmers from dominant castes with excess land (Sugden, 2019). A jajmani system existed whereby tenants or labourers from the Tarai Dalit community, would work for free for extended periods, and then would receive some grains during festivals. Dependence on landlords was worsened by the inter-linkage of credit-

debt relations with land tenure, often leaving farmers with little freedom to leave the village and seek work outside. It was recalled in all the sites, that landlords in the past were also the primary source of credit. Repayments of loans were sometimes the basis on which landlords could extract an unpaid labour rent (Sugden, 2019). Many larger landlords also kept haruwas or bonded labourers, a system with some similarities with kaamaiya in the west (Dhakal et al., 2020).

In the Adivasi belt with a longer history of settlement, feudal landlord-tenant relations also remained widespread, although the land reforms resulted in a changing ethnic composition of the landlord class. This change was most notable in domains where there had been a large indigenous landlord class who were tax functionaries, such as the western Tarai districts of Rupandehi and Nawalparasi (Sugden, 2012), and the eastern Tarai districts of Morang and Sunsari (Sugden, 2013). These domains, were also home to a many of the birta grants distributed during the Rana era, and also have extensive estates belonging to absentee hill origin landlords (Sugden, 2013). The predominantly hill origin landlords were able to bypass land reforms through deception and exercise of political power, often at the expense of the fledgling indigenous landed class (Sugden, 2012, Sugden, 2013). The indigenous Tharu nobility did not have the same links to the bureaucracy as their high caste counterparts and were therefore the primary losers from the land reforms. This was worsened by indebtedness amongst the landed Tharu elite, as well as the fragmentation of estates within the family.

## **Agrarian structure in hills: out-migration and pockets of landlordism**

### **LAND REFORM IN THE HILLS AND THE END OF THE KIPAT SYSTEM**

Given that overall inequalities in land were not as acute in the hill region, the land reforms didn't have the same urgency – although there were still plenty of notable areas of inequality and landed estates, particularly amongst more fertile valley land on the valley floors (Sugden et al., 2018). The hill region experienced the same challenges as in Tarai due to lack of implementation. Gurung (1996) reports, with regards to Magar of the Tara Khola valley how those with wealth and power, who had benefitted from the unequal registration of land during the late Rana era, were able to influence or bribe survey teams, and take over large areas of cultivated and forest land.

Out migration to tarai, had some impact on reducing pressure on land in the hills, and while this had contributed to growing inequality in the Tarai, a paradoxical outcome was reduced inequality in the hills. In Bhojpur for instance, this out-migration allowed some moderate redistribution of land during the Panchayat era, particularly with regards to less productive holdings (Sugden et al., 2018). In many ways this stemmed the expansion of feudal landlordism in the hills to the levels which were present in longer settled parts of the lowlands. Nevertheless, on prime paddy lands such as the lower altitude valleys, landlordism persisted, with some migrants to the lowlands retaining their estates in the hills, and managing them from afar (Sugden et al., 2018).

The Panchayat era saw the final end of

the kiptat system. The interim constitution of 1951 confirmed individual ownership rights for land. The constitution made the rights to acquire, use, and sell land property into fundamental ones – thus paving the way for the end of the kiptat system (UN-HABITAT, 2018). Final legal abolition of kiptat rights took place after the land reforms, in 1966. While to some extent consolidated the dissolution of the Adivasi mode of production in the most parts of the hills, customary tenure persisted in some locales, although it was not recognized by the state land policy (UN-HABITAT, 2018, Gurung, 1996). Customary tenure was particularly relevant for land which remained under shifting cultivation or jhum/khoriya such as amongst the Chepang of the central hills (UN-HABITAT, 2018). This created some challenges for indigenous communities. For instance, land cultivated by the Chepang may or may not have private ownership, but land use is regulated by customary law: a shared rule, norms, values, practices that regulates the land use and cultivation. As the government does not recognise customary tenure, Chepangs could not register the land in their names which they had been living for generations, rendering them vulnerable to land alienation.

### **Cropping systems during the panchayat era**

With the onset of state led developmentalism and foreign aid, there were significant investment in large scale agency managed irrigation between the 1960s and 80s (Seddon 1987). Large scale agency managed canals were built, following the establishment of a formal irrigation bureaucracy during the Panchayat era (Pradhan and Belbase, 2018).



A centralised Department of Irrigation was mandated to manage systems that were more than 500 hectares in the Terai and 50 hectares in the hills – systems which came to be known as Agency Managed Irrigation Schemes. The latter became predominant in the Tarai, unlike the much older Farmer Managed Irrigation Schemes which were more common in the hills (Pradhan, 1989a).

There was also a rise in the use of shallow tubewell irrigation, which required private investment by farmers, facilitated by new credit agencies such as the Agricultural Development Bank (Pradhan, 1990). Set against this context, the irrigated area increased from less than 200,000ha in the 1950s to over 1,100,000ha by the 1980s (Seddon 1987). The area irrigated by government managed systems meanwhile, increased from just 6500 ha prior to the first plan in 1956 to 84,427 ha by 1980, with 4210ha being in the hills and 9856ha being in the Tarai (Pradhan, 1990).

There were also concerted efforts to increase the dissemination of improved seeds, fertiliser and farm equipment. While the rate of fertiliser consumption increased from 0.4kg NPK Nutrient Units per ha in 1962-3 to 3.8 in 1971 – fertiliser use remained far lower than elsewhere in South Asia. For instance, in the same period in India, the increase had been from 4.7 to 16.5 (Seddon, 1987). The dissemination of improved higher yielding varieties of seeds had more success, and reached even remote communities.

In terms of cropping systems, by the 1960s, almost all the crops that have a major share in the food stock of Nepali people today had been already introduced. They included rice, corn,

wheat, pulses, millet, potatoes, root crops, and oilseed; and, cash crops like sugarcane, jute, tea, tobacco, cotton, etc. Such agricultural products were supplemented and complemented by livestock products, both primary, e.g., meat, and hide, and secondary production, e.g., milk, blood, wool, etc. Most of those products, crops, and others including livestock products were for domestic consumption. A few cash crops, tea, in particular, and some pulses were being exported particularly after the 1950s. Rice by far remained the major food crop, and maintained its economic, social, and cultural/ritual significance, being grown in almost all regions and ecological zones of Nepal (Joshi, 2017).

The third plan from 1966-70 aimed to increase food grain production by 15% and cash crops by 73%. Cash crop production increased only marginally (Seddon, 1987). Foodgrain production increased by just 7% between 1964/5 and 1971/2 and maize output actually dropped (Seddon, 1987). There were however, improvements in later decades of the Panchayat era, particularly in paddy production, as irrigation brought new lands under cultivation by converting bari lands to khet lands. By 1989 the total production of rice increased to more than 3 million tons<sup>5</sup>, up from a little more than 1 million tons in 1966. It is important to note though that much of the increase in food grain production was due to new land being brought under cultivation, and actual yields per ha were stagnant throughout the Panchayat era. The decline in yields was argued by Seddon (1987) to be largely down to the expansion of cultivation onto more marginal land. This increased the proportion of lower quality land under cultivation reduces the overall

average yields in national data, while the absorption of all land under cultivation and reduces the likelihood that land can be left fallow to recover. Meanwhile with the cultivation of increasingly steep slopes, land degradation and erosion had increased in the hills. In the Tarai, the initial productivity boost on former forested land was declining by the 1980s and in communities further from the forest fringe, farmers were having to burn dung as fuel rather than apply it to the land as nutrients (Seddon, 1987)

This period, however, also saw divergent outcomes given the severe inequality in the distribution of assets – and for some strata of the peasantry there had been a notable increase in productivity due to investments in irrigation and technology (Seddon, 1987). There were also differences according to the local agro ecology. For instance, the gradual rise in terraced sedentary cultivation and improved irrigation in the valleys in the Limbu domains of the eastern hills (technologies which came later than in the central hills) meant that there was a notable rise in paddy output from 73,135 mt in 1967-68 to 77,335 mt in 1970-71, while maize production rose from 123,500 to 130,400 mt. Millet and barley both rose slowly from 30,100 to 31,400 mt, and from 2,825 to 3,176 mt respectively (Caplan, 1970). There was also a continued decline in shifting cultivation, although it persisted in some remote areas such as the Arun valley and Tara Khola (Gurung, 1996). Shifting cultivation persisted around the upper reaches of Bhojpur for instance until the 1980s, after which community forestry rules outlawed it (Sugden et al 2018).

## **Growing dependence on wage labour**

The increase in agricultural output was not keeping up with population growth (Blaikie et al., 2001, Caplan, 1970). Army recruitment continued, yet this period also saw the emergence of articulations with capitalism through wage labour. There was an unprecedented growth in population and growing commerce, encouraging a building boom as roads were extended throughout the hills between the 1960s and 80s, often via foreign aid. Cottage industry and artisanal manufacturing (by occupational castes and others) in the hills meanwhile, were gradually undermined and eroded by the influx of Indian manufactured goods, a process well documented in western Nepal (Blaikie et al., 2001). This increased rural monetization, and with it, the demand for cash, and paved the way for migratory economy of today.

## **1990S TO PRESENT**

### **Agricultural development policy**

In the mid 1980s Nepal underwent structural adjustment and economic liberalisation, and this was to heavily influence agricultural development policy after the restoration of democracy in 1991. In 1996 the Nepalese government along with its international donors introduced the Agriculture Perspective Plan (APP), which outlined a 20 year plan for rapid agricultural growth and prosperity. Heavily influenced by neoliberal principles of entrepreneurship and market integration (see Sugden, 2009), it aimed to encourage smallholders to shift from subsistence production to the production of high value, market orientated agricultural produce focusing

on the comparative advantage of Nepal's diverse agro-ecological zones (APROSC, 1995, Cameron, 1998). The strategy for promoting smallholder commercialization in Morang and the wider Tarai-Madhesh has been 'technology driven'. The focus has been on facilitating commercial production through irrigation and transport infrastructure and extension services to promote new technologies and commodities (APROSC, 1995).

The APP ended not long after the promulgation of the new constitution in 2015, and was replaced by the Agricultural Development Strategy in 2016, which pursued broadly similar aims. While some of the APP targets were close to being met such as those associated with transport infrastructure – the transformation in agriculture which it envisaged remained elusive (Cameron et al., 2016). Economic liberalisation itself had for many farmers undermined the goals of the APP (Cameron et al., 2016). After Nepal's Structural Adjustment, many of the tariffs and restrictions on imports of agricultural products were removed. In the early 2000s, agricultural tariffs in Nepal were actually the lowest in South Asia, with no tariffs at all on grain staples (Pyakuryal et al., 2010). This put farmers at a disadvantage when compared to their counterparts in India, where a stronger developmental state had retained greater level of support for farmers, even post liberalisation (Sugden, 2009). Added to this was a substantial drop in public spending in agriculture, from 30% in the 1970s to just 4.87% by 2017/18 (Joshi and Khanal, 2020).

Currently the fifteenth five-year plan 2019/20-2023/24 period is running, which has major emphasis on the sectors like agriculture, food security, irrigation, land

management and so on. Similarly, the government of Nepal has prepared Agriculture Development Strategy (ADS) 2015-2035, for the agricultural sector growth. But the success of these have already been questioned.

A fundamental problem of Nepal's agricultural growth strategy is that it was driven by the assumption that the peasantry is made up of small, independent land owning farmers, whom, with access to markets and infrastructure, could begin accumulating and unleash their entrepreneurial potential (Sugden, 2009). This overlooks the deeply entrenched forms of exploitation and the vast inequalities in the distribution of land and assets – not to mention a new wave of agrarian stress, which has continued to undermine fragile agrarian livelihoods. Both persisting challenges are outlined below.

### **Agrarian stress**

The predicted ecological crisis in agriculture predicted in Seddon's (1987) study due to population pressure, the expansion of the cultivable area onto the more marginal land, was fortunately averted. This is in part due to the significant out-migration from the hills to the plains and India (Blaikie et al., 2001), and more recently overseas, which has reduced pressure on natural resources. Similarly, institutional innovations such as Community Forestry, had supported a significant recovery in forest cover across Nepal by the 1990s (Kanel and Kandel, 2004).

However, there is a new wave of stress facing the agricultural sector in Nepal today. The cost of inputs has been spiraling over the last two decades (Sugden et al., 2014).

The removal of state subsidies for fertilizer and pesticides in the 1990s following India's liberalization led to considerable price increases as the private sector took control (Kishore, 2004, Walker, 2008). Spiraling oil prices up until 2014 and again in 2022, added to the stress on agriculture. In Nepal for example, the price for diesel increased by 352% between 1995/96 and 2009/10, both impacting the price of fertilizer and other inputs (Pant, 2011). This came at a time when dependence on purchased agricultural inputs had been increasing as farmers seek to offset population growth and land fragmentation. Retail prices for food have also soared in this context, due to the higher processing costs (Pant, 2011). The withdrawal of public goods once available prior to liberalization such as healthcare have also increased living costs (Reed, 2011).

Along with the expansion of markets and mass media is an emergent culture of consumerism, with rising demand for manufactured goods. The expansion of telecommunications networks and lifestyle changes associated with overseas migration (a process described below) has also increased costs as local people purchase phones, recharge cards and mobile internet packages, as well as radios and TVs and solar panels to power them. Modern consumption practices also signify social status, a process widely documented on the literature from Nepal (see also Liechty, 2003, Rankin, 2004). The rising cost of living, and broader integration into markets has grown exponentially with the expansion of roads. Previously isolated communities are now more integrated into capitalist commodity markets than ever before. The most economically damaging change however, has been the spiraling

costs associated with 'cultural' institutions – including the costs of weddings, and particularly in the Tarai, of dowry, which frequently puts farmers into debt.

Climate change is a growing challenge. While the concept of climate change a contemporary global phenomena is an abstract concept for Nepal's farmers, there is a strong consensus that the predictability of the climate has changed – with increased frequency of late monsoons, unseasonal pre-monsoon rains (which damage wheat and other dry season crops), not to mention chilling and extreme heat episodes (Practical Action, 2009, Sharma, 2009, Bartlett et al., 2010).

In the context of rising cost of living and climate stress, marginal farmers and landless households, once partially dependent on agricultural labour, are no longer able to subsist on previous wage rates (Sugden et al., 2014). The urban sector is particularly important in this context, particularly in the periphery of cities such as Biratnagar which is site of one of several industrial corridors in the country. However, most notably, it is overseas migration which has filled the gap in household cash needs. As of the 1981 census, there were 402,977 Nepalese household members classed as 'absentee' – with a majority migrating to the Gulf states or Malaysia, although movement to India is widespread in the west.

## Contemporary agrarian structure

In light of the stresses discussed thus far – what does this mean for the agrarian structure? In the Tarai, landlessness remains a critical challenge across the Tarai today. The latest Nepal living standards measurement survey from the Tarai suggests that as of 2010-11, just over half of households own less than 0.5 ha of land across the central and eastern Tarai (see Table 1). A substantial 36.3% are engaged in some form of tenancy, of which 19.8% are pure tenants. Meanwhile 30% are landless. In parts of the southern Tarai, where there is the legacy of the *jimidāri* system, landlessness and tenancy are even more prevalent – for instance, a survey in a selection of villages in mostly the southern part of Sunsari and Morang found that 57% and 87% respectively, of land was under tenancy (Sugden, 2017). A similar study (Dhakal 2011) carried out in 16 VDCs of 16 districts revealed that 22.7 percent of the families were landless, (national average 22.5% (NLSS: 2004)). 6.2 percent of the surveyed households reported that they have rented out the land for cultivation, whereas, 20.6 percent of the HH have reported renting in land for cultivation under different tenure arrangements. Only 2.4 percent of them were the registered tenants, who hold the tenants' legal rights; 14.5 percent of the households were sharecroppers (Dhakal 2011).

A study conducted in 9 VDCs of three districts, 3 VDCs each, had revealed that 12.4 families are working as Harawa-Charawa, or unfree agricultural labour (Dhakal 2007), a recent study (Dhakal et.al. 2020) shows that the

system still persists in the districts of Madhesh Province in varying forms.

The general trend suggests that landlessness is getting worse. For instance, the percentage recorded as landless for the whole eastern and central Tarai increased from 24.41% in 1995 to 30% in 2010/11.

Table 1: percentage households fitting different land ownership categories in Nepal Tarai 1995/6 – 2010/11

Year	<0.5ha	0.5-2ha	>2ha	landless	tenants
<b>2010/11</b>	50.4	42.8	6.8	30	36.3
<b>1995/6</b>	33.18	47.07	19.75	24.41	36.2

Table 2: Percentage land owned by different land ownership categories in Nepal Tarai 1995/6 – 2010/11

Year	<0.5ha	0.5-2ha	>2ha
<b>2010/11</b>	14.6	54.7	30.7
<b>1995/6</b>	5.8	38.81	55.39

Source: (Central Bureau of Statistics, 1996, Central Bureau of Statistics, 2011)

It would be wrong however, to state that the land ownership structure and feudal landlord-tenant relations are stagnant. A number of major changes have been underway since the 1990s, whereby land inequality remains acute, yet the monopoly of power held by the landlord class has declined. This is most notable in the caste Hindu heartland of the central Tarai – as exemplified in a number of studies from Mithilanchal (see Sugden, 2016, Sugden, 2017).



Firstly, while total landlessness remains a challenge, the economic and political power of the landlord class has declined somewhat since the Panchayat. Many of the large estates of the Madheshi landlord class have declined in district such as Dhanusha with the division of holdings amongst sons, a process already well in motion since the 1970s and 80s. Furthermore, it was reported that as landlords diversify their income sources, with the younger generation taking up professional employment in the bureaucracy or service sector, they no longer see the value of retaining large estates in the countryside.

There have also been significant political changes in the Nepal Tarai since the 1990s which have contributed to an undermining of the feudal authority of landlords. For example, in Dhanusha, the restoration of democracy in the 1990s sensitized many villagers, and revolts against the landlords culminated in them eventually selling off their estates. Such instances were amplified People's War from 1996-2006, where fear of future land reforms saw many large landlords relocate to the towns and parting with their estates in the countryside.

Selling off land however, does not appear to significantly benefit the landless and land poor farmers – as evidenced by the rising levels of landlessness. While many medium and large farmers have lost land due to debt, the rising cost of living and population growth, they have also benefitted more from the break-up of larger estates (Sugden, 2017). A number of surveys from the eastern and central Tarai point to an increase in the proportion of land belonging to the middle farmer group.

Even in areas where there has been decline in landed estates such as the Mithilanchal belt, there are pockets of persisting landlordism. In the eastern fringes of the Mithila belt such as the Koshi floodplains – powerful Rajput landlords continue to have a strong control of their estates, and there is even evidence of corvee or 'labour rent' persisting informally alongside sharecropping in some villages (Sugden, 2016). In Morang, absentee landlords retain considerable power, and longitudinal data suggests there is very limited decline in their economic power.

Even if the relations of production and levels of tenancy have remained the same, the monopoly of land amongst a single landlord class has declined, and it appears increasingly common for land poor farmers to rent land from multiple landlords, including local large farmers. Contracts with landlords have also become more impersonal. In Morang, where there are absentee landlords, most manage their estates through an agent, known in Nepal as a kamtiya. In Dhanusha and Saptari, patron-client relations between tenants and landlords such as the jajamani system have declined (Sugden, 2016, Sugden, 2017)

Perhaps the most significant change is that there has been a decline in the inter-linkage between landlordism and usury – which was particularly prevalent in the Mithila region. Large farmers and landlords are still the primary lenders, but with greater circulation of cash and with a rising number of richer farmers diversifying into money lending, poor tenants are less likely to be dependent upon their own landlord to access credit.

What is important to emphasise though is that despite a decrease in bondage to single landlords usury has intensified,. The overseas migrant economy in particular has increased indebtedness and it is normal for households to take loans of \$1500 or above to so called 'manpower agents' to travel overseas (Sijapati et al., 2017), a process which in turn has bolstered the money lending economy locally amongst the larger farmer class (Sugden, 2019). The Harawa-Charwa system of bonded labour is still prevalent in the central Tarai, now Madhesh Province (Dhakal 2007). In the western Tarai, the *kaamaiya* system of bonded labour was formally abolished in 2000, yet still persists informally (Giri, 2012).

With regards to the Nepal's hills in the 1990s and 2000s, inequality persists in hills, but not to same extent as in Tarai. Resettlement in the towns and the lowlands and overseas migration continues to act as a pressure valve to reduce competition for land. There are still pockets of feudal landlordism in some valley or besi areas (Sugden et al 2018). Meanwhile, in areas under a peasant mode of production where owner cultivation prevails, very recent data shows that landlessness continues to grow – and wage labour migration itself was generating new axes of inequality (Gupta et al., 2022). Within these areas, particularly in the ethnically diverse central and eastern hills, there is a very clear geography of inequality, with upper altitude zones often home to more marginalized castes such as Tamang – cultivating smaller more fragile plots which are more vulnerable to climate stress, and the lower valleys dominated by upper castes. Other Adivasi groups such as the Rai and Limbu, often live between these two domains.

Customary tenure and relics of the Adivasi mode of production persist – particularly amongst groups such as the Chepang in the central hills, and even on an informal basis in areas which were once under kipat tenure (UN-HABITAT, 2018). This has created considerably insecurity for indigenous groups cultivating on a customary basis.

## **Cropping patterns and current trajectory of agricultural development**

### **CROPPING PATTERNS**

In spite of lofty ideas of APP and ADS, the expansion of new crops and intensification of agriculture in Nepal remains limited. Rice remains the predominant crop in the hills up to around 1500m, while above the rice growing zone and across Nepal makes up an estimated 42.52% of the cultivated area (see Table 3). A major change over the last 20 years has been a shift towards rice consumption even outside of the rice growing zone (National Planning Commission, 2013). As noted above, rice consumption has long been a sign of social status in Nepal – with the prestige of a household judged by how much rice they consume. While middle hill adivasi communities such as the Rai adopted paddy cultivation sometime between the 18th and 19th century, rice consumption is now increasing above 1500m, particularly in communities home to the Tamang, Sherpa and other ethnic groups until relatively recently had not been integrated into rice culture.

**Table 3: Cultivated area (Hectares) of the 6 major cereal crops in the total cultivated land**

CEREAL CROPS	Year and Percentage of the cultivated area		
	2018/2019	2019/2020	2020/21
Paddy	43.24%	42.63%	42.52%
Maize	27.73%	28%	28.27%
Wheat	20.40%	20.70%	20.52%
Millet	7.63%	7.66%	7.66%
Buckwheat	0.30%	0.30%	0.40%
Barley	0.70%	0.71%	0.63%
	100.00%	100.00%	100.00%

Source: Ministry of Agriculture and Livestock Development (2022): Statistical Information on Nepalese Agriculture 2077/78

Maize makes up 28.27% of the land areas, and wheat 20.52%, with the former being predominant in rainfed lands in the hills, with the latter being dependent upon access to winter irrigation. Millet and buckwheat which were once the staple of many Adivasi communities in the hills make up only 7.6 and 0.4% of the cultivable area respectively, and production of both has declined along with the decline in shifting cultivation and shifts in food habits towards rice consumption (Sugden et al., 2018). Millet has declined by 19% over the last decade and buckwheat by 40% (see Table 4)

Table 4 points to a modest decline in major cereal crops over the last decade also such as paddy and wheat, and with it a notable rise in commercial crops, such as vegetables as well as cash crops. The latter includes a number of niche crops such as chiraito, cardamom, and walnuts walnuts (Department of Agriculture, 2017). Cardamom has been at times a profitable crop in eastern Nepal, being high return, low volume and non-perishable. Fitzpatrick's (2011)

study suggests it has supported the emergence of a new rural middle class in the case study region of Taplejung, amongst larger surplus producing Limbu and Brahmin-Chettri households.

However, such ultra-high value crops are risky investments, as shown by the recent collapse in the rudrakshya price (Gupta et al., 2022).

**Table 4: Decrease of the area under the temporary crops in comparison to the last ten years: 2011-2021**

Temporary Crops	Change in area under cultivation
Cereal Crops (average)	Decreased by 9 %
Paddy	Decreased by 6%
Wheat	Decreased by 6%
Maize	Decrease by 12 %
Millet	Decreased by 19 %
Barley	Decreased by 35
Buckwheat	Decreased by 40 %
Pulses	Decreased by 21 %
Mustard	Increased by 13 %
Potato	Increased by 20%
Other Cash Crops	Increased by 12 %
Species	Increased by 7 %
Vegetables	Increased by 41 %

Source: Ministry of Agriculture and Livestock Development (2022): Statistical Information on Nepalese Agriculture 2077/78

Pastoralism continues to remain important at upper altitudes – and usually involves transhumance, where farmers move up to higher valleys or ridges during the summer. While milk products and meat from pastoralism can be profitable, and access to markets has significantly improved due to road construction – out-migration has meant that many households in the hills have reduced their engagement in pastoral activities.

For example, in Bhojpur, chauri herding on the high ridges during the summer has declined significantly. With labour shortages due to the out-migration of men, many families who stay behind prefer to focus on agricultural production, and have sold off their herds (Gupta et al., 2022)

Shifting cultivation continues in some remote domains of the hills – although it is likely that its days are numbered, particularly with the increasing abandonment of coarse grains. Aryal et al (2010) estimate that shifting cultivation is practiced in about 20 districts across Nepal. It was well documented around two decades ago (Dhakal, 2000, Dhakal, 2002) amongst the Chepang and Magar of the central hills, and Rai, Limbu and Sherpa of the east. How widespread it remains today is difficult to ascertain. Local narratives from Bhojpur in 2015 suggested it had died out around two decades ago (Sugden et al., 2018). But shifting cultivation is neither officially recognized as land use by the government nor can the cultivators

register the land as such, and there is no specific policy to deal with shifting cultivation. The remaining practices of shifting cultivation across the country among many indigenous ethnic populations have further been negatively impacted by various policies regarding forest and conservation, land reform, land survey, agriculture and development (Aryal et al 2010). In Dhakal's study (2000, 2002), only 19 percent of farmers had registered plots whereas 81 percent of them were unregistered.

## **Constraints to agricultural intensification and adaptation to climate stress**

Nepal faces a number of constraints to agricultural development in the context of persisting inequality and climate change. In the context of increasingly erratic rainfall patterns, groundwater irrigation is increasingly important for farmers to adapt. This adaptive capacity is however intricately connected to one's position in the agrarian structure (Sugden et al., 2014, Sugden et al., 2015). For marginal farmers, and in particular, tenants, their marginal holdings and surplus appropriation through rent and usury mean they are not only more vulnerable in the first place to economic and climate stress on a day by day basis, but the available cash to invest in irrigation is also far more limited.

Migration is also creating further challenges for the sector. While there are some instances of cash being invested back into agriculture, most remittances are used for consumption purposes. One's ability to prosper in agriculture through the investment of cash is linked heavily to one's pre-existing socio-economic position (Sunam, 2020). Migration has increased seasonal labour shortages, increasing the demand for labour saving equipment such as tractors and threshers. However, the capacity to invest is again limited for the poorer socio-economic groups.

## CONCLUSIONS

Throughout Nepal's agrarian history, the pattern of change has been incremental rather than transformative – earlier modes of production have been gradually evolved in the context of political interventions by the state, shifting external economic imperatives, as well as struggles over resources and ecological stress. Thus, today, the regional diversity in modes of production and food production systems across Nepal are shaped by a complex series of layers which vary across space according to contemporary and historic state formations, the local agroecology and indigenous and imported cultural-economic institutions and technologies.

An important overarching lesson when one considers the history of Nepal as a whole, is the critical role played by control over land in shaping the lived reality for Nepal's peasantry – both historically and today. Throughout Nepal's history, the land tenure system, and the inseparable link between land and political power, has played a fundamental role in shaping farmers' capacity to maintain a sustainable livelihood, adopt new technologies, produce new crops or adapt to agrarian stress. Importantly, one cannot understand the land tenure system today, without considering the historical legacies of land policy under earlier regimes – such as the Ranas, Gorkhas, and even the pre-Gorkha kingdoms and principalities and Adivasi socio-cultural formations,

Today, land inequality, the origins of which have been dealt with at length in this report, is an important barrier to

sustainable intensification of agriculture – although this takes different forms in time and place. The Tarai is divided still into two clear parts. First is the productive and more agriculturally dynamic northern settler belt with a recent history and prevalence owner cultivation – and this is the domain where much of the cash crop production takes place and where irrigation and mechanization are at the highest levels. Second is the southern regions with a longer history of settlement and with it the 'historic baggage' associated with the state landlordism of the 18th to early 20th century, the birta system, and the subordination of Adivasi groups. This domain is weaker agriculturally, and contains the most prevalent landlord-tenant relations, and inequalities in the distribution of resources.

The hills is even more complex. In much of the hills there is a clear geography of inequality, with a clear class division according to the quality of the land and agro-ecological zone that farmers cultivate – and this often aligns strongly with historically embedded caste and ethnic power divisions – including the gradual subordination of Adivasi agrarian formations. This persists alongside more classic landlord-tenant relations in the valley floors. Commercial cropping systems are infiltrating hill agriculture, although again, the opportunities depend heavily on local agro-ecology, access to state resources and markets, and most importantly, ownership of assets. Migration has offered the opportunity to sustain fragile livelihoods – although the degree to which remittances can be ploughed into agriculture productively is debatable – although this is a critical question in the years ahead.





Paddy cultivation in hills of east Nepal  
Photo credit: Shreya Chakraborty, IWMI India

## END NOTES

1. According to Singh (2007) the adivasi social formation in India traditionally produces little surplus product consisting only of necessary labour time. The imperative of this economic formation is the survival of its members rather than accumulation of wealth. Any potential accumulation which does take place is undermined by redistributive systems, which represent the reproductive mechanism of this economic formation. He argues, like Rey, that it is only taxation and other coercive measures of capitalism and/or feudalism which restructure this mode of production, as this paper will go on to argue.
2. While the Newar of the Kathmandu valley are also considered janajati/adivasi, the historical mode of production within which they were integrated is quite different from both other Adivasi domains of the hills and Nepali speaking caste Hindu communities, and thus this region not included in our conceptualisation of Adivasi domains.
3. In this study, the local term khoriya, and the general term shifting cultivation, are used often interchangeably.
4. See Sugden (2019) for a discussion on the characterisation and terminology surrounding 'feudalism' versus 'state landlordism'
5. [https://factsanddetails.com/south-asia/Nepal/Economics\\_and\\_Agriculture\\_Nepal/](https://factsanddetails.com/south-asia/Nepal/Economics_and_Agriculture_Nepal/), accessed on 15 December, 2022

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