



THE POLITICAL ECONOMY OF AGRICULTURAL TRANSFORMATION IN BIHAR: EVIDENCE FROM THE EARLY TWENTY-FIRST CENTURY

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Abstract: The distinctive features of Bihar's agriculture emerge from the convergence of shifting production relations, emergent local capitalism, unequal land distribution, a new class nexus, and neglected agricultural infrastructure. Despite widening disparities among farmer categories, cultivation has become an unrewarding occupation for minifundia-small landholders, who numerically dominate the state's agrarian structure. Nevertheless, their contribution to rural livelihoods and agricultural production remains significant.

Despite two successive Agricultural Road Maps, multiple Five-Year Plans, and numerous Land Reform Acts and Rules, the marginalisation of the peasantry and unequal landholding patterns continue to persist in the State. Bihar's much-acclaimed double-digit GSDP growth has largely bypassed the agricultural sector, thereby deepening the agrarian crisis, a phenomenon warranting closer analysis. In understanding this deepening crisis, the debilitating effects of the new class nexus and the semi-feudal character of agriculture cannot be overlooked.

Drawing on an ICSSR-funded project conducted by the author across nine villages in Bihar during 2015-2017, this paper argues that the cumulative impact of these multiple factors, including historical ones, underlies the current agrarian crisis in the state.

Keywords: Political Economy, New Class, Minifundia, Agricultural Road Map, Semi-feudal, Local Capitalism.

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1. Introduction

Bihar's agricultural sector has undergone significant changes since the introduction of the first Agricultural Road Map¹ (2008). The AR Map has substantially improved agricultural productivity. However, Bihar's agricultural growth trajectory diverges from the national trend, as the state never fully experienced the Green Revolution, which succeeded only for select crops (wheat, rice, and maize) in drought and flood prone areas. Since 2005, when a new government came to power, both agricultural production and productivity (yield) have shown notable improvement. Despite occasional setbacks, the official narrative concludes that the AR Map introduced a holistic approach, addressing all dimensions of agriculture, including irrigation.

The AR Map aims to increase farmers' incomes, ensure food and nutritional security, address migration and gender issues, promote sustainable agriculture, and place one Bihar product on every Indian plate. While the state achieved its targets for agricultural production and productivity, it failed to improve the status quo in landholding patterns, the share of net sown area, net irrigated area, or cropping intensity, raising serious concerns. On the eve of independence, Bihar inherited a highly unequal land distribution, with feudal landlords and wealthy peasants wielding significant power. Although the Zamindari Abolition Act eliminated *zamindars*, these individuals retained their influence over village power structures (Chauhan and Singh, 2004).

The AR Map highlights the *Ahar-Pyne* ¹system as a potential game-changer for Bihar's agriculture, particularly for small and marginal farmers-if repaired and revitalized. Over time, however, this traditional irrigation system declined due to government neglect, the rise of new irrigation sources (e.g., private tube wells), lack of integration between old and new systems, and poor maintenance. It is also widely believed that landlords deliberately disrupted many *Ahar-Pyne* systems. In recent years, Bihar has experienced high economic growth .i.e, double digit growth, driven primarily by construction, alongwith agriculture also showing accelerated progress. Increased public investment in infrastructure, particularly roads and, more recently, electricity, along with improved governance, has been a major factor in this turnaround. While India's economy grew slowly at the time, Bihar lagged further behind in both production and per capita income (Sharma & Rodgers, 2015).

Despite numerous land reform legislations and policies aimed at addressing structural bottlenecks in land ownership, Bihar's agrarian structure

remains highly skewed. The average farm holding size is among the lowest in India at 0.39 hectare. In 2015-16, 97% of farmers were smallholders who owned 76% of the agricultural area, while the remaining 3% owned 24%, indicating persistent unequal land distribution. Land reforms measures implemented by the state government include abolishing intermediaries, vesting estates, tenancy reform, granting occupancy rights, imposing ceiling on landholdings, consolidating holdings, settling the landless, and distributing surplus land. Nevertheless, inequitable land distribution, land evictions, a new class³ nexus (among landlords, bureaucrats, and politicians), absentee landlordism, concealed tenancy, sharecropping, usurious exploitation, and the bondage of actual tillers remain defining features of Bihar's agriculture.

2. Review of Literature

This debate on the political economy of Indian agriculture, tracing three major analytical strands: the mode of production debate (Rudra, 1970; Patnaik, 1971; Rao, 1970; Chattopadhyay, 1972), the internationalist critique linking underdevelopment to surplus drain and colonial modes of production (Frank, 1973; Banaji, 1972; Alavi, 1975; Sau, 1973; Cleaver, 1976), and empirically grounded village-level studies characterising Bihar and West Bengal's agrarian systems as semi-feudal (Bhaduri, 1973; Chandra, 1974; Prasad, 1973). Drawing particularly on Prasad (1973), the review identifies sharecropping, usury, bonded labour, chronic indebtedness, and negligible irrigation as defining features obstructing agricultural transformation in Bihar. It further traces the historical roots of this crisis to the Permanent Settlement, which entrenched exploitative zamindari hierarchies, and examines the post-1990s political assertion of backward classes alongside a post-2005 accommodation between landed elites and empowered intermediate castes. The debate argues that an unequal land distribution, an emergent nexus among landlords, bureaucrats, and politicians, and persistent semi-feudal institutions continue to stifle productive forces, deepen rural distress, and fuel agrarian unrest across contemporary Bihar.

Prasad (1973) conducted village-level surveys in three districts of Bihar, **Purnea, Saharsa, and Monghyr (Munger)**, and concluded that the prevailing **semi-feudal institutional framework** severely impedes further agricultural development. He argued that, in such regions, priority must be given to **institutional reforms**, particularly the enforcement of a **low ceiling on**

landholdings and **debt redemption measures**, alongside the promotion of economic activities capable of generating widespread supplementary income in rural areas. Prasad (1973) identified the following as the most prominent features of Bihar's agrarian economy: sharecropping, extremely low levels of irrigation, usury, chronic poverty, consumption loans at exorbitant interest rates, widespread indebtedness, semi-slave (bonded) labour relations, low (often subsistence-level) wages, and subsistence living conditions for labourers and sharecroppers. In a later work, Prasad (1987) reiterated that surplus value in Bihar's agriculture is appropriated primarily through **tenancy** (especially sharecropping), **usury**, and the **labour process** (through the use of unfree labour). He maintained that **semi-feudal institutions** act as a powerful drag on development and that even **primitive accumulation** remains conspicuously absent.

Prasad (1987) introduced the concept of 'connotation' in agrarian transition, which was supported by Das (1983). Das (1983) argued that Bihar had entered a transitional phase between feudalism and capitalism, a process facilitated by the exogenous legality of the Permanent Settlement but driven by endogenous demographic and ecological changes within its own internal structure. He concluded that the Bihar Kisan Sabha movement had created an economy dominated by landlord-capitalist-usurers.

The roots of Bihar's agrarian structure and its persistent crisis can be traced to the Permanent Settlement. At the apex of the hierarchy stood the State and below it were the zamindars, tenure-holders, and under-tenure holders. At the base were peasants with limited rights to land and landless labourers with no rights whatsoever. The Permanent Settlement gave rise to a class of irresponsible zamindars-a second tier of exploiters in the form of middlemen who were concerned only with their own interests and made little effort to improve agriculture (Vikas, 2018). The political history of land struggles among the 'backward classes' in Bihar, and their aspirations for social, economic, and political justice-became evident from 1990 onward. This was followed by a post-2005 mutual accommodation between the upper-caste landed ruling classes and the empowered backward classes in sharing the benefits of accumulation through economic growth (Gupta, 2010). Gupta (2010) further observed that macro-level policy interventions after 2005-06, if any, had negligible positive implications for agriculture-the lifeline of the majority of Bihar's workforce.

Vikas (2018) argued that the state remains gripped by a deep agrarian crisis, characterized by growing landlessness and homelessness, low farmer incomes, pending ceiling cases, land evictions, dispossession of allottees and settlees¹, complexities in the Land Reforms Act, outdated land records, encroachment on government land, untrained land reform officials, tenancy-at-will, and unrecorded tenants. An iniquitous land distribution, a new class nexus² (among landlords, bureaucrats, and politicians), absentee landlordism, concealed tenancy, usurious exploitation, and the bondage of actual tillers define Bihar's agrarian landscape in the early 21st century (Vikas, 2017). The stranglehold of semi-feudalism³ on agriculture stifles productive forces, retards growth not only in agriculture but across the broader economy, and fuels agrarian unrest on one hand and organized and unorganized violence—often perpetrated by unemployed youth, on the other (Vikas, 2018).

The study is organized into five sections. Section II presents Sampling methodology of 450 sample farmers. Section III highlights the empirical finding in view of political economy of sample farmers. The conclusions of the study are presented in the last section.

3. Data, Methodology and Sampling Design

The present study is an empirical investigation based on Multistage Stratified Random Sampling with Proportionate allocation (MSRSP), using Cropping Intensity (CI) for the year 2014-15 as the stratification variable. Bihar comprises 38 districts distributed across three agro-climatic zones. To account for variations in agro-climatic conditions, three districts were selected from each zone, representing high, medium, and low levels of cropping intensity.

<i>Sampling Design of the Study</i>				
<i>Agro-Climatic Zone</i>	<i>Selected District</i>	<i>Selected Block</i>	<i>Selected Village</i>	<i>Farmer Household</i>
Zone I	West Champaran	Gaunaha	Semra Srirampur	50
	Vaishali	Paterhi Belsar	Sorhattha	50
	Darbhanga	Bahadurpur	Vasudevapur	50
Zone II	Purnea	Shrinagar	Makhnaha	50
	Kishanganj	Thakurganj	Nemu Gudi (N-S)	50
	Khagaria	Alauli	Shekhpura	50
Zone III	Nalanda	Parwalpur	Dhanawan	50
	Sheikhpura	Ariyari	Sohdi	50
	Jamui	Islampur Aliganj	Manda	50
3	9	9	9	450

From each selected district, one block was chosen that exhibited the minimum deviation from the district's average cropping intensity. From each block, one village was selected at random. A total of 50 farmer households were then sampled from each village, resulting in a total sample of 450 households across the nine selected districts.

To determine the exact number of farmer households in each category, a door-to-door census survey was conducted in all nine sampled villages. Households owning 0.049 acres or more of land were identified and classified into six strata based on the National Sample Survey (NSS) landholding categories. This stratification ensures that the sample accurately reflects the regional agro-economic characteristics of Bihar.

4. Empirical Findings

Salient Features of Agrarian Structure in Study Area

The livelihoods of residents in the nine selected villages are primarily dependent on agriculture and allied activities. These villages are well connected via pucca roads and local markets. Four distinct agrarian classes persist in the study area: rich farmers, middle farmers, poor farmers/tenants, and agricultural labourers (including landless persons). The sampled villages are dominated by specific caste groups: Santhali (Scheduled Caste- SC) in Purnea; Muslim (Backward Caste- BC) in Kishanganj; Kurmi (BC) in Khagaria and Nalanda; Yadava (BC) in Darbhanga, Vaishali, Jamui, and Sheikhpura; and Bania/Yadava (BC) in West Champaran.

Rich farmers, the dominant class, are not primarily engaged in cultivation but rapidly purchase agricultural land owing to rising land values, not for farming, but for speculative and usurious gains. Their income sources include usury (lending money, seeds, or fertilisers at exploitative rates), bonded labour, rack-renting, hiring out machinery, controlling local agricultural facilities, local trade, private education, and government jobs. The primary distinguishing factor for this class is land ownership and control over agricultural capital. A significant proportion are absentee landlords, and approximately 90 per cent of the market surplus is captured by local mahajans or intermediaries. Most rich farmers also hold key positions in Panchayati Raj Institutions (PRIs), fostering a form of crony feudalism ² in the sampled areas.

Middle farmers actively participate in agricultural work. Some own only part of their land and lease out the rest. They do not sell their own labour but

hire in labour, especially female labour, to a significant extent. While some well-to-do middle farmers engage in limited exploitation, it is not their primary source of income.

Poor farmers are the actual tillers. They are deeply involved in farming but often diversify into off-farm work or migration; at least one household member typically migrates to megacities or industrial centres, with remittances reinvested in agriculture. Poor farmers lease in land, sell their labour power, and are compelled to sell produce to local intermediaries or input suppliers owing to debt obligations to mahajans/moneylenders.

Agricultural labourers are largely indistinguishable from landless persons, owning little to no land or implements, and earn their livelihood primarily by selling labour power. However, especially male labourers, prefer off-farm work (e.g., construction, real estate) owing to low, and often in-kind, agricultural wages, leaving female labourers to dominate farm operations. Bonded labour, primarily among SC/ST communities, persists in disguised forms in West Champaran and Sheikhpura. A 65-year-old bonded labourer in a West Champaran sample village was interviewed: he ploughed fields using an oxen-plough, had never left his village, wore no footwear, and was unaware of his block, district, state, or country. In exchange for a small plot (0.5-1 acre), such labourers sell their labour exclusively to rich farmers during peak seasons, receiving wages (often in kind), and may work elsewhere during slack periods, though they remain obligated to serve at social events held at the landlord's household.

Land is the only truly scarce means of production in agriculture, as borne out by the following findings. Table 1 shows that land distribution among the sample villages was highly skewed: on average, 90 per cent of operational holdings accounted for only 55 per cent of the operational area, while the remaining 10 per cent of operational holdings accounted for 45 per cent of the operational area. In the sample villages, no landowner is compelled to abstain from cultivation for want of other resources; *nor does any farmer wish to sell land and exit agriculture, at any cost.* Among the 450 sampled farmer households, 37 (8.2 per cent) owned tractors, and 69 (15.3 per cent) kept oxen-ploughs. Most farming activities, pruning, sowing, cutting, cleaning, and spraying of insecticides and pesticides, were carried out by human labour, mainly female labour; notably, the bulk of agricultural work was performed by female labourers, with machines used only for tilling, irrigation, and threshing.

Table 1: Land Holding Pattern in Sample Villages (per cent)

Size-Class	W. Champaran			Vaishali			Darbhanga			Purnea			Kishanganj			Khagaria			Nalanda			Sheikhpura			Janui			All		
	OH	OA		OH	OA		OH	OA		OH	OA		OH	OA		OH	OA		OH	OA		OH	OA		OH	OA		OH	OA	
SM	37	5	56	20	42	10	60	30	11	2	64	24	32	4	15	2	17	3	41	9										
M	31	14	27	30	30	22	35	50	47	29	17	18	15	7	44	19	39	25	31	21										
S	15	15	12	29	22	36	3	9	32	36	13	32	29	27	23	20	33	45	18	26										
SME	6	12	3	14	5	16	1	5	8	17	3	14	18	31	10	18	10	24	6	17										
ME	8	33	1	7	1	8	1	6	1	6	2	12	5	19	5	15	1	3	3	16										
L	2	20	0	0	0	8	0	0	1	10	0	0	1	12	3	25	0	0	1	12										
All	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Landless	192			132			20			12			23			30			90			93			73			665		
Total no. of Household	520			583			334			184			116			156			243			279			209			2624		
Avg. Size of Holding of Holding (acre)	3.51			1.45			2.17			1.01			2.68			1.44			3.68			3.89			2.63			2.42		
CI	108			156			162			165			147			166			150			144			149			143		
Gini Coeff.	0.593			0.355			0.452			0.160			0.354			0.421			0.504			0.505			0.321			0.495		

Note: CI- Cropping Intensity

Source: Field Work (2015)

On average, in 50 per cent of cases, farmers used local varieties of wheat and paddy seed (retained from the previous year's crop). A fair number of farmers owned tractors and oxen-ploughs to manage their farms, with about 12 per cent of sample farmers ploughing their fields using oxen and plough. To sustain soil fertility, farmers kept cows, buffaloes, and oxen: among the 450 sample farmers, 225 (56 per cent) owned cows, 121 (30 per cent) owned buffaloes, and 155 (39 per cent) owned oxen. Soil-testing coverage among sample farmers was very poor, only 17 per cent of farmer households had obtained a soil-testing report, and even these were found unsatisfactory. The soil-testing centre was located at the district headquarters, and the role of local-level agricultural officials was found to be unfair towards small farmer households.

Cropping Pattern

Cropping patterns vary across the sampled villages in the selected districts. The following crops are predominantly cultivated by farmers in the surveyed districts: **Maize** in Purnea district; **Tea, banana, and pineapple** in Kishanganj district; **Wheat and maize** in Khagaria district; **Sugarcane and paddy** in West Champaran; **Wheat and vegetables** in Darbhanga district; **Wheat and pulses** in Vaishali district; **Wheat and red lentil** in Jamui district; **Paddy, wheat, gram, arhar, and red lentil** in Sheikhpura district; **Wheat, vegetables, black cumin, and ajwain** (*Carum copticum*) in the remaining areas.

Several factors influence crop choice *a priori*, independent of the full range of cropping practices in which a farmer is engaged. These include **holding size and nature of land, market availability and accessibility, irrigation or water availability, soil quality, and family labour supply**. Thus, it is misleading to assume all cultivators are profit maximizers. The primary objective of most peasants is to meet their own and their family's subsistence needs. This study attempts to relate these insights to cropping patterns in the study area, where cropping patterns can be categorically defined.

Farm Size and Cropping Pattern

In general, **small farms** focus on **labour-intensive cash crops, vegetables, wheat, and paddy**, while **large farms** prioritize **staple food crops**. Small farmers typically allocate a portion of their land to staple crops to ensure household food security before dedicating the remaining area to cash crops. However,

when landholdings are extremely small, farmers prioritize **vegetables** to maximize revenue per unit of land. Given the availability of family labour, **minifundia** (very small farms) concentrates on **labour-absorbing crops**. Cultivation intensity is also higher on these holdings, resulting in comparable or higher plough/machine use per acre than larger farms. Small farmers often hire a substantial portion, or all, of the required machinery.

Due to their limited resource base, smallholders are severely constrained by the need to generate cash even to sustain the production cycle. This explains why they allocate a higher proportion of land to **high-revenue (albeit risky) cash crops**, particularly vegetables and spices, which require high labour input per acre but minimal investment in specialized equipment. Crop selection is also influenced by **topography and irrigation**: **Paddy and sugarcane** are grown on **plain, irrigated land**; **Wheat, maize, tea, pineapple, and banana** are cultivated in **upland areas with low water tables**. **Soil quality** has a direct bearing on crop suitability.

Age of Farmer Households

It is commonly believed that a farmer's productivity increases with age, peaks in middle age, and then declines. This age-efficiency curve has implications for the survival of young farmers, succession planning, and the global competitiveness of a nation's agricultural sector. **Table 2** reveals that **approximately 80% of cultivators are above 35 years of age, and around 42% are over 50 years old**.

Table 2: Age of Farmers Household

<i>Age Category of Cultivator</i>	<i>Number of Cultivator</i>	<i>Share per cent of respondent or actual tiller</i>
18-25	21	4.67
25-35	70	15.56
35-50	168	37.33
50 & above	191	42.44
Total	450	100.00

Source: Field Work (2015)

Partly Monetised Economy of Agriculture

Our approach in this section results from a considered choice between competing theoretical frameworks, based on several years of work with these

problems. We have come to the conclusion that conventional economic theory, particularly classical marginalism, is of only limited value in analysing the agrarian economy. Our principal tool of analysis is therefore Marxist political economy; conventional economics, however, does offer certain useful insights, its primary object of study being the rationality of individual economic behaviour.

The nine selected villages share several common features. The factors of production are supplied partly through the market and partly through other mechanisms. Land, for instance, is mostly acquired through inheritance and remains the backbone of the farming community in the selected villages. Seeds, fertilisers/manure, and other inputs are supplied partly through the market and partly produced on farmers' own holdings; seeds are typically retained from the previous year's produce and only occasionally purchased. In the selected villages, 50 per cent of farmers used home-grown seed. Manure is produced from cattle reared on the farm. In most cases, members of the farmer's household constitute the core of the labour force, though agricultural labourers are hired whenever teamwork is required for ploughing, transplantation, and harvesting.

Finally, the grain output is only partly marketed. The peasant's primary goal is to satisfy his own household's grain requirements; only if a surplus remains over consumption needs will he sell it, and even then, such sales are often a distress sale rather than a market-oriented decision. It is a fact that farm size is positively related to marketable surplus for certain specific crops, though this varies from place to place. Table 3 shows that for wheat cultivation, small farmers (less than 2 ha or 5 acres) accounted for only 47.60 per cent of the gross sown area, yet produced 50.13 per cent of total wheat production and 29.01 per cent of the total marketable surplus of wheat. For paddy, small farmers operated 50.39 per cent of the gross sown area while producing 49.61 per cent of total production and 25.80 per cent of the total marketable surplus of rice. For maize cultivation, small farmers accounted for 73 per cent of the total gross sown area while producing 78.12 per cent of total maize output and 81.84 per cent of the total marketable surplus of maize. The study thus indicates that, with the exception of wheat and rice in the given area and context, small farmers achieve higher production and marketable surplus than large farmers, and consequently provide food for a greater number of people.

Table 3: Marketed Surplus, GSA, and Production

Size_Class	(per cent)								
	Wheat			Paddy			Maize		
	GSA (acre)	Production (qtl.)	Marketed Surplus (qtl.)	GSA (acre)	Production (qtl.)	Marketed Surplus (qtl.)	GSA (acre)	Production (qtl.)	Marketed Surplus (qtl.)
Small (≤ 5 acre)	47.60	50.13	29.01	50.39	46.54	25.80	73.14	78.12	81.84
Large ≥ 5 acre)	52.40	49.87	70.99	49.61	53.46	74.20	26.86	21.88	18.16
All	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Wheat, Paddy and Maize are accounted for two-third of Gross Sown Area in total.

Source: Field Work (2015)

A substantial part of the agrarian economic system thus lies outside the market economy. It can still be said to be dominated by the market. In study area, agricultural labourer are undistinguished from landless person owns no land or farm implements, though some do own a very small amount of land and very few farm implements. Agricultural labourer make their living wholly or mainly by selling their labour power. But some of them are not interested due to lower wages (generally in kind) in agriculture rather than in real estates or off-farm activities in near cities. Remarkably, female labourers were engaged in farm work and male labourers were engaged in off-farm activities. Bonded Labour is still persists in some form of agricultural labour in study area i.e., West Champaran district. A bonded labour (65 years old) was interviewed in sample village of West Champaran district. He was ploughing the field through the oxen-plough and told, he never be out from his village either did not know his block name, district name, state name and country name too. Author found that labourers were getting wage in kind and most of them comes from Scheduled castes/ Scheduled tribe. Some of them are bonded labour in nature. Author also found gender based wage-differential in sample villages. Mostly labourers were getting wage in kind (6-7 kg rice or wheat per day per person) not in cash. For female, average wage rate was around Rs. 80-100/- per day and Rs. 120-150/- per day for male labourer.

Local Capitalism

Most farmers were unaware of the Minimum Support Price (MSP); only 14 per cent of sample farmer households were aware of MSP rates. They were compelled to sell their produce to middlemen at prices lower than MSP (the gap between the selling price and MSP ranged around Rs. 200-300 per quintal),

with the middlemen subsequently reselling the produce to government purchasing centres, since the PACS/government purchasing centres either function poorly or operate in favour of large farmers and petty capitalists. Paradoxically, Bihar has 8,463 democratically elected Primary Agricultural Cooperative Societies (PACS) at the panchayat level, mandated to procure grain from farmers, yet it is striking that not a single PACS in the sampled area was found to be functioning in a manner that provided farmers with genuine procurement assistance. Correspondingly, only 2 per cent of sample farmers were able to sell their grain (paddy alone) through PACS in the study area, with PACS itself often meeting its procurement targets through middlemen despite being a local, farmer-oriented body.

Middlemen generally belonged to dominant castes or were rich farmers from the same or neighbouring villages, typically supplying hybrid seed, fertilisers, pesticides, and tractors, activities that point to an emergent local capitalism in the state. Needy farmers were bound to sell their harvested crops to rich farmers or local businessmen. Farmers in the study area acknowledged that “it is easier to borrow from local rich farmers and repay them than to deal with public banks.” Around 90 per cent of the marketable surplus was generally captured by local mahajans or intermediaries in the sampled area. Farmers generally preferred loans from local mahajans/rich farmers owing to easy access and minimal (often purely oral) paperwork, despite interest rates ranging between 40 and 100 per cent. In this context, the exploitation of farmers, through the conversion of both their commodities and labour power into surplus value, can be understood through two abstract circuits of exchange: C-M-C' and M-C-M'.

Market availability and accessibility significantly influence cropping patterns and profitability. Tea, banana, and pineapple were commonly grown by farmers in the Thakurganj block of Kishanganj district, but since the nearest market (Siliguri, West Bengal) lies 80-90 km away, profitability and motivation to grow these cash crops remained low, reflecting a distress condition in which production is undertaken and market engagement assumes a compulsive character. In most cases, farmers suffered from a lack of market access. Notably, 80 per cent of sample farmers (operating less than 2 ha) cultivated 44 per cent of the operated area yet produced 46 per cent of total output, while the remaining 20 per cent of sample farmers (operating more than 2 ha) cultivated 56 per cent of the area but produced only 54 per cent of total output, indicating the comparative efficiency of small farms.

Partial monetisation proved to be the major methodological obstacle in studying the majority of farmers across the nine sample villages. A considerable number of small farmers had mutual, verbal arrangements to work on each other's farms. Since many goods, in their case, are never converted into cash, we are deprived of the scale of measurement that prices provide in a market economy. How, then, does one estimate the cost of production when part of it is never expressed in monetary terms? How does one evaluate income that is consumed within the household, or wages paid in kind? How is the "profitability" of farming to be calculated at all? Some economists have addressed this problem by imputing market prices to goods and services that never actually enter the market; we adopt the same method here across the nine sample villages. By imputing market prices to in-kind expenses, that is, to goods produced on farmers' own holdings and to family labour, we arrive at the following estimates of mean "income" and "expenditure" for calculating net farm business income and profitability.

Returns in Agriculture

Table 4 presents the average Farm Business Income (FBI) for each farmer category (column 12). Average FBI was Rs. 8.03 lakh for large farms, Rs. 2.82 lakh for medium farms, Rs. 1.72 lakh for semi-medium farms, Rs. 91,770 for small farms, Rs. 56,480 for marginal farms, and only Rs. 16,110 for sub-marginal farms. Medium and large farmers were thus in a position to invest their surplus in schools, colleges, seed/fertiliser shops, purchasing foodgrains from small farmers, and usury. Average FBI per acre stood at Rs. 26,007.09, and was highest for marginal farms (Rs. 30,129.41), followed by semi-medium (Rs. 25,589.33), large (Rs. 24,704.57), small (Rs. 24,260.48), sub-marginal (Rs. 22,253.39), and medium farms (Rs. 21,481.61), indicating an inverse relationship between farm size and productivity. It was also observed that sample farmers in Kishanganj district, who typically grew banana, pineapple, and tea, earned higher income per unit of land, suggesting that cropping pattern significantly influences returns. Districts with abundant water availability from ahar/pyne systems and canals likewise recorded higher income per acre. Conversely, in villages located near urban areas, most farmers were engaged in non-farm activities and showed little interest in cultivation, suggesting that urbanisation has had a negative impact on both farming activity and farmers' interest in agriculture.

Table 4: Size-Class wise Returns Per Acre (All Sample Farmers)

(All columns are in Rs. except 1, 2, 10 & 11)											
Size Classes (Acre)	Mean Value of holding size (acre)	Gross Output	Farm Business Income (3 - 5)	Paid Cost	Family Labour Cost	Total Cost (5+ 6)	Net Farm Business Income (4- 6)	Profit	Paid Out Cost Ratio (Cp/O) (5/3)	Total Cost Output Ratio (C/O) (7/3)	Average Value of FBI of each category
1	2	3	4	5	6	7	8	9	10	11	12
0.005-1.0	0.72	36838	22253	14585	3728	18312	18526	18503	0.4	0.5	16115
1.0-2.5	1.88	42683	30129	12545	1840	14385	28272	28228	0.3	0.3	56488
2.5-5.0	3.78	34848	24260	10587	1211	11798	23050	22522	0.3	0.3	91774
5.0-10.0	6.74	36505	25589	10916	794	11710	24795	24679	0.3	0.3	172449
10.0- 25.0	13.07	30513	21482	9031	598	9630	20883	20760	0.3	0.3	282283
25.0 & above	32.51	31994	24705	7289	226	7516	24478	24358	0.2	0.2	803168
Total	3.98	37960	26007	11950	1809	13759	24193	24016	0.3	0.3	103561

Source: Field Work (2015)

With a very low income from agriculture in study area, small farmers, especially marginal farmers were partly working on neighbours' field as a wage labourer and sharecropper. In slack season, they move towards nearby city for non-farm work. Of most of the sample farmers, at least one member had migrated to earn in megacities due to many factors (generally, socio-economic). The study also indicates that productivity (FBI/acre) was higher on small farms (less than 2 ha).

In this way arises the myth that small peasant agriculture is un-profitable and that it would be a 'rationalisation' of the agrarian structure to drive the small peasants away from the soil that they cling to with an obstinate but irrational 'love of the soil'. This is a hollow myth which is easy to expose.

5. Conclusion

Despite repeated policy interventions, successive Agricultural Road Maps and multiple land reform measures, Bihar's agriculture in the early twenty-first century remains entrenched in semi-feudal relations: sharecropping, usury, bonded labour, absentee landlordism, and concealed tenancy continue largely unchecked. Surplus value in this system is extracted primarily through tenancy, usury, and unfree labour rather than through capitalist wage relations, and a persistent nexus among landlords, bureaucrats, and politicians continues to obstruct genuine reform.

At the same time, the empirical evidence gathered from the study area firmly establishes that small farms are more productive and efficient than their larger counterparts, owing to labour-intensive cultivation, higher cropping intensity, and the effective deployment of family labour. Bihar's agrarian economy remains largely subsistence-oriented and only partially monetised. Most farmers prioritise household food security over profit maximisation, relying heavily on home-grown seeds, livestock manure, and family labour, and bringing only their post-consumption surplus to market, frequently through distress sales to middlemen at prices well below the Minimum Support Price (MSP).

This creates fertile ground for local capitalism and market distortion. Mahajans (moneylenders/local traders) capture roughly 90% of the marketable surplus, while Primary Agricultural Cooperative Societies (PACS), conceived as a farmer-friendly alternative to APMC mandis, remain largely dysfunctional, with only 2% of farmers actually selling through them. Farmers continue

to prefer informal loans carrying interest rates of 40-100%, simply because of their ease of access compared to formal credit channels. Compounding this, awareness of MSP remains critically low at just 14%, and government procurement systems continue to disproportionately favour large farmers over small and marginal ones.

Gender and caste further compound these patterns of exploitation. Female labourers dominate farm-level work, while male labourers increasingly migrate toward off-farm employment in nearby towns or megacities. Significant wage differentials persist between male and female agricultural labourers, and bonded labour, particularly among Scheduled Caste and Scheduled Tribe communities, continues to survive in disguised forms despite formal abolition. In sum, this evidence firmly debunks the long-standing myth that small-farm agriculture is inherently inefficient or unprofitable, and that “rationalisation” of the agrarian structure necessarily requires displacing small farmers from their land. Small peasants remain attached to their land not out of irrational sentiment, but because it constitutes their only viable and dependable livelihood base within a structurally distorted, semi-feudal economy.

Beyond the structure of production and distribution of output, a full understanding of Bihar’s agrarian economy also requires attention to the circulation of money within it. Many farmers exchange their surplus grain for cash, but small farmers, those holding less than two hectares; use this cash almost entirely for essential needs such as school fees, medicine, and clothing, leaving little or no scope for reinvestment in agriculture. Wealthy farmers, by contrast, channel their income in three distinct directions: consumption (often of luxury goods), savings, and investment or usury, financing schools, colleges, tractors, irrigation equipment, threshers, land purchases, money-lending operations, and input-supply shops, in addition to purchasing grain from smaller farmers. Most of this income re-enters circulation as money capital: wealthy farmers reinvest it to finance the following year’s production, while moneylenders recycle their profits into fresh loans or new business ventures, a cycle that steadily reinforces existing inequalities.

Although the Government of Bihar has allocated substantial budgetary resources to the Agricultural Road Map, these resources have largely failed to reach marginal and small farmers, who together make up three-fourths of the state’s farming population. Many farmers remain entirely unaware of available support mechanisms such as dysfunctional Soil Testing Centres and PACS-based

grain procurement, pointing to serious gaps in the scheme's implementation and monitoring. In some instances, the very system responsible for monitoring becomes complicit in the problem it is meant to address, producing a self-defeating, zero-sum outcome.

While several uncertainties remain, one conclusion emerges with clarity: small farmers and agricultural labourers can be meaningfully mobilised around their immediate demands only once they come to recognise the hidden workings of this new class nexus. Such awareness, combined with sustained and organised collective action, holds real potential to transform Bihar's agriculture from a story of persistent crisis into one of genuine and inclusive success.

6. Way Forward

There is need to break the New Class Nexus for independent oversight of land ceiling enforcement, PACS functioning, and PRIs, which remain dominated by landed interests; PACS themselves need transparent procurement targets and regular audits, since barely 2% of farmers use them despite thousands existing on paper. Improving MSP awareness, currently just 14%, and widening access to low-collateral credit would help farmers escape usurious loans charging 40-100% interest. Equally pressing is reviving the neglected Ahar-Pyne irrigation system and steering Agricultural Road Map resources toward small and marginal farmers, who form three-fourths of the farming population, yet remain largely excluded from its benefits, with independent oversight replacing the current self-monitoring arrangement. Action against disguised bonded labour and gender-based wage gaps, especially in selected district, should accompany a shift away from land consolidation toward supporting small-farm productivity, given the study's clear evidence against the small-farm-inefficiency myth. Raising farmers' awareness of the nexus and modernising land records would further reduce eviction risk and strengthen their bargaining position.

Notes

1. Agriculture Road Map- In order to achieve major objectives of increasing the farm income, while assuring food and nutritional security and enhancing agricultural growth with justice, a series of programmes are planned. These programmes cover all aspects of agriculture, agricultural infrastructure, from inputs to marketing of final products. They are: Subsidized- Hybrid Seed, Agriculture Machinery, Bio-fertiliser and Green

Fertiliser inputs, Diesel, Electricity, Horticulture planning material; Soil health programme, Seed Village Programme, Farmer's Field School, Soil and Water Conservation, Agricultural Market Development Programme etc. Estimated budget for IInd AR Map (2012-17) was 1.49 lakh crore, and 1.55 lakh crore is for IIIrd (2017-22).

2. Ahar/Pyne- system is an indigenous irrigation technology, historically the most important source of irrigation in South Bihar. An *ahar* is rectangular embankment type water harvesting structures, i.e, a catchment basin embanked on three sides, the fourth side being the natural gradient of the land itself. Water supply for an *ahar* comes either from natural drainage after rainfall or through *pynes* where necessary diversion works are carried out. *Pynes* are artificial channel constructed to utilise river water in agricultural fields.
3. New Class- "New Class" word was used for nexus among government officials, bureaucrats, and businessman/landlord by Milovan Djilas in his book "The New Class: An Analysis of the Communist System" (1957) published by Thames and Hudson, London.

Endnotes

1. **Ahar:** A rectangular, embanked reservoir (catchment basin) constructed to collect and store rainwater and river runoff. Ahars are typically built at the tail end of a pyne or in low-lying areas, embanked on three sides (the fourth being open to receive water).
Pyne: Diversion channels that carry water from rivers or streams to the ahars, or directly to fields. Pynes often run several kilometres, tapping water upstream and channelling it gravitationally.
2. **Crony feudalism** is a term that describes a hybrid system in which pre-capitalist, feudal-style relations of power and dependency continue to operate, but are now reinforced and perpetuated through close, mutually beneficial nexuses between dominant landed classes and formal institutions of the state- particularly local self-governance bodies (Panchayati Raj Institutions), bureaucracy, and political actors.

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