

Contrasted Agrarian Change in Punjab, India

Case Study of Two Villages in Ludhiana and Jalandhar Districts

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The scarcity of lucrative non-farm jobs and the stagnant or declining agricultural incomes for rural households in Punjab, especially for the Jat Sikhs, are causing distress. By selecting two villages of different types from Ludhiana and Jalandhar districts, this paper presents how the different conditions inherent to the villages led to sharply contrasted agrarian changes. In the Jalandhar village, where emigration to Western countries dates to an earlier time, the ample supply of leased-out land from Persons of Indian Origin depressed land rents, which enabled the remaining Jat Sikhs to earn high incomes by expanding the operational size of land through land tenancy. In contrast, in the Ludhiana village, where emigration to the West is constrained and land rent remains at a high level, the incomes of Jat Sikh tenant farmers remain low, whereas rentiers living on land rent and educated idle youths prosper. The latter case of Ludhiana village is reflective of a wider trend in Punjab.

Punjab faces severe agricultural distress, especially among small and marginal farmers, as is evident from their heavy indebtedness and the incidence of suicide (Singh 2010; Singh and Bhogal 2016; Singh et al 2016; Singh et al 2017). Three main factors underlie the distress. The first is the exhaustion of agricultural growth potential in Punjab since the mid-1990s (IFPRI 2007; Singh 2010) and the worsening terms of trade for agriculture in India in general (Srivastava et al 2007; Raghavan 2008).¹ The worsened terms of trade for agriculture are basically caused by the macro-level structural changes that occurred: India's economic development shifted from a stage of having a "food problem" to one of an "agricultural adjustment problem" (Hayami 1988).

Second, a rapid decrease in farm size caused by patrimonial customs, which dictate that inherited land be divided equally among male heirs, casts a negative shadow on landowners. In Punjab, according to the National Sample Survey Office (NSSO) 70th round (NSSO 2014), the owned land share of marginal farmers (who own less than 2.5 acres), which was 9.8% in 1971–72, increased to as high as 29.8% in 2013. The owned land share of large farmers (more than 25 acres) decreased from 22.9% to 5.8% during the same period. This farm size shrinkage must have deteriorated farmers' economic positions (Manjunatha et al 2013).

Third, there has been a failure to utilise the economic opportunities arising from the accelerated growth of the non-agricultural sector in India after 1991. Although the Jat Sikhs, who make up an estimated 90% of Punjab's farmer population and are the dominant caste, have exerted strong power in the countryside, they have failed to transform themselves from prosperous agriculturalists to successful businesspersons–industrialists (Damodaran 2008). The Jat Sikhs also do not prefer to take up formal jobs in the private sector or the government, except in the army or the police. Historically, the British Indian army recruited about half its soldiers from Punjab, earning its people the sobriquet "martial race of India" (Ali 1989: 4). Furthermore, after independence in 1947, the Indian government has refrained from promoting the industrial sector in Punjab because of its shared borders with Pakistan.

In summary, the scarcity of lucrative non-farm jobs and stagnant or declining agricultural incomes have forced Punjab's rural population, especially the Jat Sikhs, into distress. It is noteworthy that the distress exists in a relative sense, compared to their wealth and to the sharp increase in per capita income achieved by other major states of India (Appendix Figure 1, p 51).

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We will show evidence later in this paper, but in conclusion, Punjab's rural population appears to choose one of the three main options to cope with distress: (i) leasing in land in the tenancy market to enlarge their farm size, (ii) taking up locally available, regular non-farm jobs, and (iii) overseas migration, mainly either to the Gulf or Western countries. And, we will argue, as a result of the people's (combination of) choices, there are predominantly two trajectories of agrarian change in Punjab, that is, the "failed" scenario and the "successful" scenario.

As we discuss later on, of the three major regions in Punjab, Majha and Malwa regions mainly followed the "failed" scenario, and only Doaba seemed to follow mainly the "successful" scenario.

The Doaba differs from the other two regions in the early historical emigration of its people to Western countries. Based on this network, emigration from Doaba to the West remains popular till date. Most emigrants settled down there after acquiring citizenship, which finally resulted in the emigration of all their family members as Persons of Indian Origin (PIOs).

In fact, according to Nanda and Véron (2015), Doaba has the highest degree of overseas migration (24% of households have at least one current overseas outmigration), followed by Majha (12%) and Malwa (5%).² In Doaba, because of the large-scale outmigration as non-resident Indian (NRI), the supply of leased-out land in the tenancy market is ample, which depresses land rents. This low land rent enables the Jat Sikh tenant farmers who remain in the villages to enjoy high incomes. This is the major reason why Doaba falls under the "successful" scenario. Of course, the Gulf countries are also included as the other major destination of migration, but the nature of migration is basically short-term. Many Jat Sikhs have to remain in the villages in that case. As a result, it is difficult to escape from distress, which results in the "failed" scenario.

We have already published a paper that pursued a similar topic (Ohno et al 2021) by collecting and analysing a large-sized data (with 1,200 households, including 946 landholders and 254 landless) from 48 villages across Punjab. It demonstrated causality among several key economic variables, such as landholding, overseas migration, land-leasing (in and out) behaviours, and land rent. The findings illustrated how different trajectories of agrarian change emerged in Punjab by investigating how the people coped with distress. We employed econometric methods in the paper.

In contrast, we try to show more concretely the mechanisms in which various key economic variables mentioned previously worked and resulted in either the "failed" or "successful" scenario, by comparing the two villages selected from Ludhiana and Jalandhar districts, respectively. We conducted a survey covering all households in the two villages and also gathered the related qualitative data and information.

The remainder of the paper is organised as follows. First, an outline of the two study villages, including land distribution among Jat Sikhs and others, household members and labour force, agriculture and livestock, and employment structure is presented. Then, we highlight overseas migration, which differs starkly between the two villages. The next section analyses the land tenancy market and land rent issues. A

summary of the different trajectories of agrarian change pursued by the two villages is also presented. Finally, we summarise our arguments and present our conclusions.

Outline of the Two Study Villages

The village we selected from Ludhiana district (NK) is located approximately 35 km south-west of Ludhiana city. The other village, in Jalandhar district (KM), is located approximately 15 km west of Jalandhar city. We conducted the main household-level survey (household census) in October–November 2016 in NK and in January–February 2018 in KM.

In this section, the socio-economic conditions of the two study villages are described, starting from household composition and land distribution, followed by population and labour force, agricultural practices, costs and returns of crop production, livestock sector, and non-farm employment and income earnings.

Household composition and land distribution: As Table 1 shows, the Jat Sikhs constitute 37% of the households of both villages. The remaining households comprise either Sikh or Hindu Scheduled Castes (SCs) and Other Backward Classes (OBCs). The results show that the dominance of the Jat Sikh community in terms of landownership in both villages remained unchanged until recently. However, in NK, many (34.5%) Jat Sikhs are landless.³ According to village informants, most of them sold all of their land, mainly to arrange for the migration of their family members to Western countries, but failed to become PIOs for various reasons.

Moreover, a large proportion of Jat Sikhs live in non-farm households (73.6% in NK; 30.7% in KM), indicating the existence of a developed land tenancy market. As a result of this tendency, the average operational land area of Jat Sikh farmer households (9.0–11.8 acres) is much greater than the average land held by landowning households (3.4–3.5 acres).

Population and labour force: In addition to the 205 households in KM mentioned in Table 1, there were 90 Bihari migrant households with a total of 446 household members.⁴ Of those 90 households, 17.8% were "second-generation" migrants, all of whom were born in Punjab. Additionally, of those 446 household members, 53.5% members were born in Punjab.⁵

Table 1: Household Composition in the Two Villages

	NK	KM
No of total households	239	205
No of Jat Sikh households	87 (37.2%)	75 (36.6%)
% of households owning land	65.5	96.0
Average area of owned land	3.36 acres	3.46 acres
% of farm households	26.4	69.3
Average area of operational land	8.97 acres	11.80 acres
% of non-farm households	73.6	30.7
No of non-Jat Sikh households	152	130
% of households owning land	1.3	1.5
Average area of owned land	1.21 acres	1.73 acres
% of farm households	2.6	0.8
Average area of operational land	10.71 acres	5.00 acres
% of non-farm households	97.4	99.8

Ninety Bihari migrant households staying in KM are not included here.

Source: Authors' compilation.

The existence of Bihari migrant households is related to potato cultivation, which developed in KM from the mid-1980s. It is worth noting that Bihari migrant labourers usually come only during the paddy-transplanting season in Punjab because of the progress of agricultural mechanisation, especially combine harvesters.⁶ The potato-producing area is therefore an exception, where agricultural wage labour opportunities (including post-harvesting of potatoes in cold storage) are plentiful. No such migrant households are found in NK.⁷

Table 2 presents the characteristics of the population and the labour force. The average number of household members in both villages is slightly less than 5.4, and that of Bihari migrants is somewhat smaller at 5.0. Data shows that the labour force participation of men is significantly lower in NK than in KM because of a high presence of unemployed youths in NK, as we describe later. Owing to their poverty, Bihari migrants show higher labour force participation by women, who work as casual labourers. Almost all of them belong to scs.

Agricultural practices: Table 3 presents the salient features of agriculture in the two villages. Some farm households (37.0% and

15.1% in NK and KM, respectively), mainly from marginal farmers, produced only fodder crops. If such farm households are excluded, the average operational farm size becomes much larger in both villages—slightly less than 14 acres.

Village in Ludhiana district—NK: In accordance with the Punjab's dominant cropping pattern, NK primarily cultivates paddy (*kharif*; June–October) and wheat (*rabi*; November–May). Of the 450 acres of total farmland, 100 acres are irrigated by a government canal constructed in the mid-1960s, in addition to private tube wells.⁸ The remaining 350 acres are irrigated solely by private tube wells. A tube well can irrigate around five to seven acres. The typical depth of a tube well in the village is approximately 300 feet (91 m), with delivery pipes being 120–140 feet (37–43 m) deep and water available from a depth of 100–110 feet (30–34 m). Farmers must reset the delivery pipes to greater depths over time (by 10 feet, or 3 metres at a time). Due to the declining groundwater table, the shift from centrifugal to submersible pumps began around 2000 and was completed within 5–10 years. The installation cost of submersible pumps (with 7.5–15 HP motors attached) is ₹1–₹2 lakh. It should be noted

that electricity for agricultural purposes has been free in Punjab since 1997–98. However, the electricity supply for agriculture is limited to eight hours per day during the kharif season, which restricts the irrigated land to 2–3 acres under paddy cultivation. Many farmers use diesel oil generators when free electricity is not available.⁹ Moreover, farmers often attach an “automatic starter” to the tube wells in order to prepare for the unpredictable and thereby sudden supply of electricity.¹⁰

A few pioneering farmers first introduced tractors in the 1970s, but their wider use occurred only during the 1980s and 1990s. Our data shows that of the 12 tractors owned by 13 farm households, the largest ones are of 60 HP (8.3%), followed by 55 HP (41.7%), 50 HP (20.8%), 47 HP (4.2%), 45 HP (16.7%), and 35 HP (8.3%). Purchasing large tractors is a heavy burden for farmers because the price of a tractor in the mid-2010s varied between ₹4.3 and ₹6.5 lakh for 45 HP and ₹5.8–₹9 lakh for 50–60 HP. Moreover, when purchasing tractors, many farmers have to borrow from commercial banks, such as Punjab and Sind Bank, with 2 to 3 acres of land as collateral and a loan repayment period of 10–15 years.

Combine harvesters are used widely for both paddy and wheat harvesting. Unlike tractors, however, urban entrepreneurs usually own combine harvesters because they are expensive (₹13–₹14 lakh). Further, a large acreage is required to recover the cost of the harvester. Therefore, farmers usually depend on the custom-hiring of combine harvesters.

Village in Jalandhar district—KM: The major cropping patterns we observed in KM are paddy/maize (*kharif*) and

Table 2: Population and Labour Characteristics

Village	Landownership Class (Acres)	No of Households	Average No of Household Members			Average No of Labour Force			% of Labour Force		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
NK	0	177	2.97	2.54	5.51	1.69	0.32	2.01	56.9	12.6	36.5
	–2.49	31	2.48	2.19	4.67	1.07	0.19	1.26	43.1	8.7	27.0
	2.50–4.99	18	2.32	2.42	4.74	1.00	0.37	1.37	43.1	15.3	28.9
	5.00–9.99	11	2.82	2.45	5.27	1.18	0.27	1.45	41.9	11.0	27.5
	10.00–24.99	2	5.50	5.50	11.00	3.00	1.00	4.00	54.5	18.2	36.4
	Total	239	2.88	2.51	5.39	1.55	0.31	1.87	54.0	12.4	34.7
KM	0	131	2.98	2.47	5.45	1.84	0.34	2.18	61.7	13.8	40.0
	–2.49	27	2.48	2.19	4.67	1.33	0.26	1.59	53.6	11.9	34.0
	2.50–4.99	30	3.07	2.23	5.30	1.73	0.10	1.83	56.4	4.5	34.5
	5.00–9.99	15	3.20	2.60	5.80	1.93	0.13	2.06	60.3	5.0	35.5
	10.00–24.99	2	6.00	3.00	9.00	5.50	1.50	7.00	91.7	50.0	77.8
	Total	205	2.97	2.41	5.38	1.80	0.29	2.09	60.6	12.0	38.8
Bihari migrants	90	2.69	2.27	4.96	1.46	0.89	2.35	54.3	39.2	47.4	

Source: Authors' compilation.

Table 3: Salient Features of Agriculture in NK and KM

	NK	KM
No of farm households	27	53
Average farm size (operational)	8.86 acres	11.67 acres
No of farm households producing only fodder	10	8
Average farm size (case of excluding farm households producing only fodder)	13.53 acres	13.61 acres
Major cropping pattern	Paddy (<i>kharif</i>)–Wheat (<i>rabi</i>)	Paddy or Maize (<i>kharif</i>)–Potato or Wheat (<i>rabi</i>)–Maize or Melon (<i>summer</i>)
% of farm households owning tractors	48.1	77.4
Irrigation	100 acres: Canal+Tube wells 350 acres: Tube wells	Tube wells
Tapped water depth of tube wells	100–110 feet	100–110 feet
Period of conversion to submersible pumps	2000–10	1995–2010
No of non-farmers who own land	39	23
% of non-farmer landowners who own tube wells	48.7	73.9

Source: Authors' compilation.

potato/wheat (rabi), followed by maize/melon (in summer, albeit in small areas). Paddy and potato are the major crops, accounting for 70%–75% of the cultivated area in each season. Since the mid-1980s, potato cultivation expanded rapidly and soon outgrew wheat cultivation. However, at the time of our survey in early 2018, the area cultivated for wheat crops was slightly larger than that for potatoes, because potato prices have been low since around 2014.¹¹

In KM, the shift from centrifugal to submersible pumps started in the mid-1990s and was completed by the end of the 2000s. The depth of tube wells is around 200–300 feet (61–92 m), with delivery pipes located at 120–150 feet (37–46 m). The water is obtained from 100–110 feet (30–33 m), which is much deeper than it was in the mid-1990s, at 60 feet (18 m).

Nearly 80% of the farmers, including tenants, own tractors. Tractors are usually replaced every 10–15 years and upgraded to larger ones. In early 2018, of the total 41 tractors owned by 41 farm households, the largest ones are of 60 HP (12.2% of the total), followed by 57 HP (2.4%), 55 HP (14.6%), 50 HP (12.2%), 45 HP (20.7%), and 40 HP (8.5%), although the most popular type is 35 HP (25.6%).

Combine harvesters were first introduced during the 1980s but not used for wheat crops until reapers were introduced in 2004.¹² We observed a delay in adopting combine harvesters for wheat crop in NK as well.

Costs and returns of crop production: Table 4 presents a summary of the structure of costs and returns related to crop

production. The net income per acre for the paddy/wheat cropping pattern is roughly ₹50,000 in KM and ₹60,000 in NK and ₹58,000 for the paddy/potato pattern in KM (in the case of “normal prices” of potato).¹³

Livestock sector: Income from the livestock sector, which is confined chiefly to milk production from cows or buffaloes, can be considerable. Table 5 (p 45) shows the net income from milk production, which we estimated by assuming the net income as 70% of the gross revenue. The average income from milk for farm households is ₹3.7 lakh in NK and ₹2 lakh in KM, which is as large as the agricultural income from 3 to 6 acres of owned land.

Non-farm employment and income-earnings: Aside from self-employed agriculture and overseas migration (which we describe later), villagers are engaged in employment of three types: (i) casual labour, (ii) high-income regular non-farm jobs, and (iii) other regular non-farm jobs.

Casual labour consists mainly of agricultural and construction labour. The wage rate was around ₹300 per day at the time of our survey. If the labourers work 20–25 days, then they can earn around ₹6,000–₹7,500 per month. The share of employees engaged in casual labour of the three categories is 20%–25% (excluding the Bihari migrants).

In the context of our research, a “high-income” regular non-farm job is defined as a job paying more than ₹15,000 per month (₹1.8 lakh per year). Government schoolteachers, university lecturers, army/police officials, bank staff and other private-sector

Table 4: Costs and Returns of Crop Production

	NK			KM					Unit: ₹/acre
	Paddy	Wheat	Paddy/Wheat	Paddy	Potato	Wheat	Paddy/Potato	Paddy/Wheat	
Yield (kg)	3,300	1,900	5,200	2,700	8,500	1,650	11,200	4,350	
Price (per 100 kg)	1,510	1,575	3,085	1,510	300	1,550	1,810	3,060	
Gross income (grain)	49,830	29,925	79,755	40,770	25,500	25,575	66,270	66,345	
Straw		3,000	3,000			6,500		6,500	
Gross income (total)	49,830	32,925	82,755	40,770	25,500	32,075	66,270	72,845	
Seed	550	2,250	2,800	400	1,300	600	1,700	1,000	
Land preparation	2,200	800	3,000	1,800	4,500	1,900	6,300	3,700	
(Trans)planting	2,500	Included in seed cost	2,500	2,800		Included in land preparation cost			
Fertilisers	1,470	2,670	4,140	2,110	5,060	2,170	7,170	4,280	
Urea	870	870	1,740	560	710	670	1,270	1,230	
Ammonia					650		650		
DAP	600	1,800	2,400	1,000	3,150	1,500	4,150	2,500	
Potash				275	550		825	275	
Zink				275			275	275	
Maund making					3,200		3,200		
Growth promoting agent	1,000		1,000	350			350	350	
Weedicides	400	850	1,250	400	500	500	900	900	
Insecticides	3,000	600	3,600	450	950	200	1,400	650	
Irrigation	1,500	500	2,000	1,500	500	500	2,000	2,000	
Harvesting	1,200	1,200	2,400	2,500	4,675	1,600	7,175	4,100	
Straw preparation						2,800		2,800	
Transport	160	160	320	150	400	100	550	250	
Total cost	13,980	9,030	23,010	12,460	21,085	10,370	33,545	22,830	
Net income	35,850	23,895	59,745	28,310	4,415	21,705	32,725	50,015	
Net income as % of gross income	71.9	72.6	72.2	69.4	17.3	67.7	49.4	68.7	
Net income (case of potato price=₹600/100 kg)					29,915		58,225		
Net income as % of gross income					117.3		87.9		

Case of table potato, not potato for seed.

Source: Survey by authors.

office employees,¹⁴ and professionals such as pharmacists, veterinarians, electricians, information technology technicians, and lawyers constitute high-income workers. They are often entitled to receive a large pension after retirement. This category also includes large-scale businesspeople and high-tech artisans, whose annual income goes up to ₹3 to ₹6 lakh. Overall, high-income earners account for only 13%–15% of the three categories.

The remaining 60%–65% of the villagers are engaged in various types of other regular non-farm jobs. They are either self-employed (20%–25%) or employed (40%–45%). Self-employed workers include shopkeepers, carpenters, masons, painters, tailors, and milkmen, apart from some religious workers and musicians. Conversely, employed workers include drivers, bus conductors, security guards, private teachers, dairy farm/milk plant workers, sales assistants, electric workers, mechanics, and clerks. Their monthly income is less than ₹15,000 but usually between ₹6,000 and ₹10,000 (₹72,000–₹1,20,000 per annum).

Table 5: Households with Milk Incomes by Owned Land

Land-owned (Acres)	NK					KM							
	Farm Households			Non-farm Households		Farm Households			Non-farm Households				
	No of Households	Average Operational Farm Size (Acres)	No of Households with Milk Income	Average Income from Milk (₹)	Equivalent Income from Agriculture (Acres)	No of Households	No of Households with Milk Income	Average Income from Milk (₹)	No of Households	Average Operational Farm Size (Acres)	No of Households with Milk Income	Average Income from Milk (₹)	Equivalent Income from Agriculture (Acres)
0	7	9.41	5	5,77,550	9.63	173	15	66,761	1	7.50	1	1,81,860	3.03
–2.49	7	6.34	6	69,860	1.16	20	5	1,13,090	16	3.41	15	1,65,770	2.76
2.50–4.99	7	9.86	7	2,68,196	4.47	12	7	69,502	23	11.04	23	1,51,733	2.53
5.00–9.99	4	8.50	4	5,14,967	8.58	7	1	1,51,000	12	21.91	12	3,35,132	5.59
10.00–	2	18.00	2	2,17,140	3.62	0	0	0	1	37.00	0	0	0
Total	27	9.23	21	3,65,640	6.09	212	28	78,728	53	11.62	51	1,99,605	3.33

(1) Information on milch animals are not collected for non-farm households in KM.

(2) "Equivalent income from agriculture" is calculated by way of dividing the milk income by the net income from crop production, which is assumed to be ₹60,000 in both the villages (Table 4). Source: Authors' compilation.

Table 6: Overseas Migration in NK and KM

Village	Landownership Class (Acres)	No of Households	No of Households with Current Overseas Migrant Workers	Average No of Members Abroad				% of Western Countries	Students Studying Abroad	No of Households with Returned Overseas Migrant Workers	Average No of Return Migrant Workers
				Male Worker	Female Worker	Dependents	Total				
NK	0	177	26 14.7%	0.14	0.01	0	0.15 2.9%	3.8	0.01	27 15.3%	0.16 3.3%
	–2.49	31	7 22.6%	0.23	0	0.06	0.29 6.1%	22.2	0.06	1 3.2%	0.03 0.7%
	2.50–4.99	18	3 16.7%	0.17	0.06	0	0.22 4.7%	50.0	0.06	2 11.1%	0.11 2.3%
	5.00–9.99	11	2 18.2%	0.18	0.09	0.09	0.36 7.3%	100	0	2 18.2%	0.18 3.6%
	10.00–24.99	2	0 0%	0	0	0	0 0%	–	0	0 0%	0 0%
	Total	239	38 15.9%	0.15	0.01	0.01	0.18 3.5%	22.7	0.02	32 13.4%	0.14 2.8%
KM	0	131	54 41.2%	0.52	0.02	0.02	0.55 10.1%	33.3	0	6 4.6%	0.05 0.9%
	–2.49	27	13 48.1%	0.48	0.07	0.19	0.74 15.8%	75.0	0.07	6 22.2%	0.22 4.7%
	2.50–4.99	30	16 53.3%	0.77	0.10	0.43	1.30 24.5%	76.9	0.03	2 6.7%	0.07 1.3%
	5.00–9.99	15	7 46.7%	0.60	0.07	0.67	1.34 23.1%	90.0	0.07	3 20.0%	0.20 3.4%
	10.00–24.99	2	2 100%	4.50	1.50	1.00	7.00 77.8%	100	0	0 0%	0 0%
	Total	205	92 44.9%	0.60	0.05	0.16	0.80 14.9%	61.2	0.02	17 8.3%	0.09 1.7%

Singapore is included in "Western countries."

Source: Authors' compilation.

with at least one “current” overseas migrant worker in KM is 44.9%, which is much higher than the corresponding 15.9% in NK. Second, the proportion of households with at least one “returned” migrant worker is 13.4% in NK. In contrast, compared to current migrants, we found substantially fewer returned migrants (8.3%) in KM because of the dominance of Western countries as their destinations, where most migrants choose to settle down. Overseas migrants from NK mainly engage in short-term work in the Gulf countries. Some emigrate again after returning home for a short period.

Table 7 presents the average education level and destinations of current overseas migrants (excluding their dependents). The proportion of migrants to Western countries is much larger in KM (52.6%) than in NK (18.4%). The proportion is also much higher among the Jat Sikhs (68.8%) than among the non-Jat Sikhs (24.2%). Migrants to Western countries have higher education achievement (12.9 years) than those migrating to the Gulf countries (10.5 years). Scoring six on the International English Language Testing System (IELTS)¹⁸ makes one eligible to obtain a visa for most Western countries. Therefore, overseas migrants to these countries might have attended better secondary schools¹⁹ and/or received further education at special language schools.

Consistent with the West-bound overseas migrants’ goal of settling in these countries, Table 7 presents that 53.2% of these workers have already obtained citizenship after emigrating to the West.

Table 7: Destinations of Overseas Migrant Workers and Their Education in NK and KM

	NK		Total	KM		Total	Grand Total	Share (%)	With Citizenship (%)
	Jat Sikhs	Non-Jat Sikhs		Jat Sikhs	Non-Jat Sikhs				
US				14	2	16	16	9.4	93.8
UK				7	8	15	15	8.8	33.3
Canada	1		1	9	4	13	14	8.2	78.6
Italy				6	4	10	10	5.8	40.0
Australia	5		5	4		4	9	5.3	11.1
New Zealand				3		3	3	1.8	100
Germany				2	1	3	3	1.8	66.7
Slovenia				2		2	2		0
Norway	1		1				1		100
France					1	1	1		0
Spain					1	1	1		0
Portugal				1		1	1		0
Greece					1	1	1		0
Western countries	7 (12.9)	0	7 (12.9)	48 (13.0)	22 (12.6)	70 (12.9)	77 (12.9)	45.0	53.2
UAE	3	14	17	12	24	36	53	31.0	–
Qatar	3	2	5		7	7	12	7.0	–
Bahrain	1		1	4	3	7	8	4.7	–
Kuwait		2	2		6	6	8	4.7	–
Saudi Arabia		1	1		5	5	6	3.5	–
Oman	2	1	3		1	1	4	2.3	–
Jordan		1	1			0	1		–
Cyprus		1	1				1		–
West Asia	9 (10.2)	21 (10.0)	30 (10.1)	16 (11.4)	46 (10.5)	62 (10.7)	92 (10.5)	53.8	–
Singapore		1	1				1		0
Philippines					1	1	1		0
South East Asia	0 (12.0)	1 (12.0)	1 (12.0)	0 (12.0)	1 (12.0)	1 (12.0)	2 (12.0)	1.2	0
Total	16 (11.4)	22 (10.1)	38 (10.6)	64 (12.6)	69 (11.2)	133 (11.9)	171 (11.6)	100	–

Numbers in the parenthesis show average education years.

Source: Authors’ compilation.

The initial investment for overseas migration to the Gulf countries usually varies from ₹80,000 to ₹2,00,000. The average remittance from such migration ranges between ₹1.8 and ₹3 lakh per year. If the migrants work there for around two to five years with no serious health or legal complication, then their rate of return migration can be quite high. However, migrants to the Gulf countries are often forced to perform unskilled manual labour (incompatible with their relatively high educational background) in a harsh climate and a miserable socio-economic environment. Therefore, several returned migrants face mental illness and remain idle in their home villages.

In contrast to investment in Gulf migration, the corresponding investment for Western countries is extremely high: ₹8–₹15 lakh.²⁰ As the living expenses for migrants are much higher in these countries, most migrants send little to no remittance. In addition to the high educational level necessary to migrate to these countries, the large investment imposes severe financial constraints on rural households in Punjab, especially for landless and marginal landowners with less than 2.5 acres of land.²¹

Finally, we need to explain the existence of “quasi-PIOS” in KM. There are 12 households in KM (25.5%) and 19 households in NK (59.4%) that quit agriculture although they own more than 2.5 acres of land (Table 10, p 47). In KM, of those 12 households, seven households (58.3%) are “quasi-PIOS,” with most family members settled in the West, while only a few elderly family members remain in the village (Table 8, p 47).²²

In contrast, in NK, of the 19 households, seven households (36.8%) are rentiers without workforce members.²³ The owned (and leased-out) lands of these seven rentiers are distributed thus: five acres (two households), four acres (one household), 3.5 acres (one household), three acres (one household), and 2.5 acres (one household). It is noteworthy that the per-acre land rent income is as high as ₹40,000–₹45,000, as we describe later. Moreover, in NK, many “idle” people live not only in the rentier households but also in other households. Table 9 (p 47) shows that the proportion of idle people as compared to the labour force is alarmingly high, especially among the landowning Jat Sikhs. As a result of the spillover effects of high land rents, more people in NK in general, especially educated youths, seem to have weak work incentives and live in an “unhealthy” condition.²⁴

Land Tenancy Market

Table 10 shows the structure of land distribution and the tenancy market. The total farmland areas in the territories of NK and KM are 450 acres and 490 acres, respectively (not shown). Therefore, the land areas owned by both NK villagers (199 acres) and KM villagers (252 acres) are much smaller than the total farmland in the respective villages.

The land tenancy market is complicated. According to village informants, in NK, there are at least nine P10 households whose members all live abroad, and although no family members are in India, they still own about 105 acres of land. In contrast, in KM, there are at least 62 P10 households owning approximately 220 acres of land (of which 60 acres are, however, located outside KM). Besides the issue of land owned by NRIs, one must consider that some villagers own land outside their village territory, some of which is leased out. By the same token, non-villagers own some land inside the village—some of which is leased out. Leasing-in land outside the village territory is also common.

As Table 10 shows, the share of leased-in land to the total operational land is 73% for both villages. In contrast, the share of leased-out land to the total owned land (excluding the land-owned by P10s) is 64.8% in NK, which is much higher than 33.1% in KM. However, if this complexity in the land

tenancy market is considered, the extent of land tenancy market development in each village cannot be measured based solely on these percentages.

A fact that Table 10 clarifies is that a much higher percentage of households (25.9%, or 53 out of 205) in KM are engaged in agriculture than in NK (11.3%; 27 out of 239). Moreover, these farm households' average operational farm size is considerably larger in KM (11.67 acres) than in NK (9.23 acres). The higher supply of, and lower demand for, leased land in KM rather than in NK can be attributed to the larger land area owned by NRIs, aside from the bulk of land that KM villagers lease in from the surrounding villages. Moreover, the existence of "quasi-NRIs" that we have described previously will increase the supply of leased-out land in KM in the future.

It can be inferred that, as a result, the land rent in KM (₹25,000–₹30,000) is determined at a much lower level than

in NK (₹40,000–₹45,000) (Table 11, p 48). The table also presents the distribution of land rent in 48 villages that we sampled from five districts of Punjab (Ohno et al 2021). Within the spectrum, the results show that the land rent in KM is at the lowest level, whereas in NK, it is close to the average.²⁵

The net income per acre for the paddy/wheat cropping pattern is roughly ₹50,000 (KM) and ₹60,000 (NK). It is ₹58,000 for the potato/wheat pattern in KM (Table 4). The land rent is clearly determined according to the supply and demand of leased land (Ohno et al 2021), and independently of the net income

Table 8: 'Quasi-NRI' Households in KM

Serial No	Owned Land (Acres)	Total No of Household Members	No of Members in Western Countries	Name of the Western Country	Sex and Age of Member in the Village (1)	Income and Income Source (Other Than Land Rent)	Sex and Age of Member in the Village (2)	Income and Income Source (Other Than Land Rent)
1	12	11	9	US	Male (82)	₹2.4 lakh (pension)	Female (80)	–
2	8	5	5	US	Female (55)	–	–	–
3	7	6	5	Canada	Male (61)	–	–	–
4	4	7	5	US (3), Australia (2)	Male (55)	₹ lakh (PACS)	Female (55)	–
5	3	5	4	Germany	Male (61)	–	–	–
6	3	7	5	Canada	Male (75)	–	Male (32)	Handicapped
7	2.5	4	3	UK	Male (61)	–	–	–

PACS: Primary Agricultural Cooperative Society.
Source: Authors' compilation.

Table 9: 'Idle' People in NK

Landownership Class (Acres)	Jat Sikhs							Non-Jat Sikhs						
	No of Households	No of Labour Force			No of "Idle" People			No of Households	No of Labour Force			No of "Idle" People		
		Male	Female	Total	Male	Female	Total		Male	Female	Total	Male	Female	Total
0	30	38	6	44	4	0	4	150	234	48	282	24	2	26
–2.49	25	26	4	30	8	4	12	2	3	1	4	0	0	0
2.50–4.99	19	19	7	26	4	3	7	0	0	0	0	0	0	0
5.00–9.99	11	13	3	16	4	0	4	0	0	0	0	0	0	0
10.00–24.99	2	6	2	8	0	0	0	0	0	0	0	0	0	0
Total	87	102	22	124	20	7	27	152	237	49	286	24	2	26

Source: Authors' compilation.

Table 10: Land Tenure Structure in NK and KM

Landownership Class (Acres)	No of Households	Owned Area (Acres)	Average Owned Area (Acres)	No of Households		Area Leased-out (Acres)	No of Farm Households	Operated Area (Acres)	Average Operated Area (Acres)	No of Households (Leased-in Lands)	Area Leased-in (Acres)	Net Leased-in Area (Acres)
				Leased-out All Lands	Leased-out Part of Lands							
NK	0	177	0	–	–	–	7	65.8	9.40	7	65.8	65.8
	–2.49	31	41.7	1.30	20	1	7	44.4	6.34	3	36.0	9.2
	2.50–4.99	18	63.5	3.42	12	3	7	69.0	9.86	3	53.0	4.0
	5.00–9.99	11	63.5	5.82	7	1	4	34.0	8.50	3	20.0	–30.0
	10.00–24.99	2	30.0	15.00	0	0	2	36.0	18.00	1	6.0	6.0
	Total	239	198.7	3.29	39	5	27	249.2	9.23	17	180.8	55.0
								(64.8%)	(Max 40.0)		(72.6%)	
KM	0	131	0	–	–	–	2	15.0	7.50	2	15.0	15.0
	–2.49	27	31.7	1.17	11	3	16	54.6	3.41	4	37.0	22.9
	2.50–4.99	30	98.0	3.27	7	3	23	254.0	11.04	12	184.0	156.0
	5.00–9.99	15	98.5	6.57	4	1	11	258.0	23.45	9	189.0	159.5
	10.00–24.99	2	24.0	12.00	1	0	1	37.0	37.00	1	25.0	13.0
	Total	205	252.2	3.41	23	7	53	618.6	11.67	28	450.0	366.4
								(33.1%)	(Max 58.0)		(72.7%)	

Figures in parenthesis are the share of leased-out land among total owned land, the share of leased-in land among total operational land, and the maximum operational farm size in each village.
Source: Authors' compilation.

per acre from crop production. This suggests that if tenant farmers lease in their land, their net income per acre (after deducting land rent) would also be very different: ₹30,000–₹35,000 in KM as compared to ₹15,000–₹20,000 in NK. Consequently, tenant farming is much less profitable in NK than in KM.

Finally, the following are noteworthy in Table 10. The direction of the tenancy land flow can be measured by the net leased-in land shown in the last column of the table. First, in KM, the middle landholding classes (with 2.5–4.99 acres and 5–9.99 acres of land, defined as small and semi-medium sized landholdings, respectively) leased in most of the land, whereas in NK, the landless households leased in a large amount of land. The case of KM is more typical of Punjab (Ohno et al 2021).²⁶ Second, the medium and large landholdings (with more than 10 acres of land) do not lease in land in the villages. They are more inclined to migrate to Western countries and become Pios.

Overall, Punjab is undergoing different types of agrarian change led by outmigration by large (more than 25 acres)/medium (10–24.99 acres)-sized landholders as Pios. The land is leased in mainly by members of the semi-medium (5–9.99 acres)

and small (2.5–4.99 acres) landholding class, not by large/medium-sized farmers, contrary to the argument of “reverse tenancy” (Singh 1989; Bansal et al 2018). The argument of “depeasantisation” (Singh et al 2009; Singh and Bhogal 2016) needs to be modified as well, as we observe that quitting agriculture is more common in all landholding strata (Table 10), contrary to the argument that it happens mainly among the small/marginal landholders with less than five acres. We have already found the same tendency in Punjab more widely (Ohno et al 2021).

Different Trajectories of Agrarian Change

The agrarian change observed in the two villages varies substantially. In NK, overseas migration, especially to Western countries, is constrained, causing a limited supply of leased-out land in the tenancy market. Many Jat Sikh households remain in the village instead of migrating to the West. Therefore, the land rent is determined at a higher level. A relatively small number of households try to lease in land but cannot earn high incomes because of the high land rents. Overseas migrants mainly go to the Gulf countries with little hope of escaping from distress. Further, an unhealthy situation has emerged by which many small/marginal landowning households live on land rent alone—as rentiers. Many educated youths remain idle. The landless Jat Sikhs who failed to become Pios in the past are obliged to engage in other regular non-farm jobs or even casual labour.

In KM, by contrast, migration to Western countries has progressed to a much higher degree, following its historical path dependency. Therefore, the bulk of leased-out land in the tenancy market is supplied by Pios. The remaining Jat Sikhs can lease land with low rent, which yields them high incomes.

Table 12 shows our class categorisation of households based on annual income. The households are categorised into five classes: the “middle” class with more than ₹3 lakh, the “lower middle” class with ₹1.8–₹3 lakh, “ordinary” with ₹1.2–₹1.8 lakh, “poor” with ₹72,000–₹1.2 lakh, and “ultra-poor” with less than ₹72,000.²⁷ The table also shows the minimum land acreages necessary for owner farmers, tenant farmers, and rentiers to earn the stipulated incomes, considering the net income per acre and land rent in each village. If income from milk is added, then the necessary acreages to attain the stipulated incomes can be substantially smaller for both owner farmers and tenant farmers.

Table 13 presents a distribution of households in five economic classes, based on the estimated household incomes. It should be noted that households with at least one current overseas migrant in the West countries are all categorised as middle class, irrespective of remittances received. We make the following observations.

First, most Jat Sikhs in KM seem to have achieved upward mobility, or to

Table 11: Land Rent in NK and KM

District	No of Villages	Minimum	Maximum	Average
Amritsar	9	39,000	48,000	43,556
Jalandhar	10	25,000	50,000	33,031
Ludhiana	13	38,000	50,000	44,375
Bathinda	7	51,000	60,000	54,714
Sangrur	9	52,000	60,000	55,667
Total	48	25,000	60,000	45,219
NK		40,000–45,000		
KM		25,000–30,000		

Source: Authors’ compilation. See also Ohno et al (2021).

Table 12: Class and Categorisation in NK and KM

Annual Income	Household Level	Individual Worker Level	Owner Farmers		Tenant Farmers		Rentiers	
			NK and KM	NK	KM	NK	KM	
₹3,00,000	Middle	↑	5 acres	17 acres	11 acres	7 acres	11 acres	
₹1,80,000	Lower middle	↑	3 acres	10 acres	6.5 acres	4.2 acres	6.5 acres	
₹1,20,000	Ordinary	Regular non-farm jobs	2 acres	7 acres	4.5 acres	2.8 acres	4.5 acres	
₹90,000	Poor	Casual labour						
₹72,000	Ultra-poor		1.2 acres	4 acres	2.5 acres	1.7 acres	2.5 acres	
₹0								

Source: Authors’ compilation.

Table 13: Class Categorisation for Jat Sikhs, Non-Jat Sikhs and Bihari Migrants in NK and KM

Class	Annual Household Income	NK			KM			Bihari Migrants (90)
		Jat Sikhs (87)	Non-Jat Sikhs (152)	Total (239)	Jat Sikhs (75)	Non-Jat Sikhs (130)	Total (205)	
Middle	More than ₹3 lakh	47.1	26.3	33.9	80.0	36.2	52.2	4.4
Lower-middle	₹1.8–₹3 lakh	20.7	29.6	26.4	10.7	29.2	22.4	7.8
Ordinary	₹1.2–₹1.8 lakh	14.9	14.5	14.6	5.3	18.5	13.7	22.2
Poor	₹72,000–₹1.2 lakh	13.8	25.0	20.9	4.0	12.3	9.3	45.5
Ultra-poor	Less than ₹72,000	3.4	4.6	4.2	–	3.8	2.4	20.0
Total		100	100	100	100	100	100	100

All households having at least one current migrant in Western countries are categorised in the middle class.

Source: Authors’ compilation.

have at least maintained their high socio-economic status. Large-scale emigration to Western countries and the associated development of the land tenancy market (which made it possible for the remaining Jat Sikhs to enlarge their farm size by paying low land rent) can be attributed to their success.²⁸

Second, in contrast, the Jat Sikhs residing in NK seem to have experienced downward mobility, although some have retained their high status. This is true mainly because they failed at outmigration to the West. Many households are obliged to take up less remunerative non-farm jobs—50.9% of Jat Sikh households with less than 2.5 acres accepted such non-farm jobs or even casual labour.

Third, from the viewpoint of long-term changes from the past, the non-Jat Sikhs in both villages appear to have achieved upward mobility through the conversion of their traditional jobs (agricultural wage labour or services) into regular non-farm jobs.

Fourth, Bihari migrants seem to have also achieved upward mobility compared to their poverty-stricken livelihoods in Bihar, because most of them belong to scs and thereby depend on casual labour. Although one household manages a grocery shop and four keep livestock (mainly milch animals), most of them depend on casual labour in Punjab as well. However, the high labour wage rate in Punjab and the high rates of female labour participation contribute to their high incomes. The average income per household is slightly higher than ₹1.2 lakh, with the income ranging between ₹31,750 and ₹4.5 lakh.

Concluding Remarks

The severe lack of lucrative non-farm jobs and stagnant or even declining agricultural incomes have forced Punjab's rural population, especially the Jat Sikhs, into distress. In the process of people's distress coping, drastic agrarian changes have occurred. As we have mentioned previously, we categorise the agrarian change seen in Punjab's villages into two types: the "failed" and "successful" scenarios. A key factor that divides the two scenarios is the degree of development in overseas migration, particularly to Western countries, where migrants go to become P10s. We demonstrated how the two scenarios are structured concretely based on detailed data gathered from the two villages selected from Ludhiana and Jalandhar districts, respectively.

The failed scenario trajectory involves the following: with the progress of land shrinkage, high demand arises for leased-in land, which leads to high land rent in the tenancy market.

Therefore, the option of leased-in land to enlarge operational farm size results in low incomes for tenant farmers because they must pay high land rents. The high land rent also induces the emergence of a "distress-rentier class" in village societies (Singh et al 2009). Mostly landless and small/marginal farmers with less than five acres of land choose the option of taking up locally available non-farm jobs (other than lucrative jobs), which is less attractive especially for the Jat Sikhs. Finally, some households pursue the third option of overseas migration, but their migration is confined mainly to the Gulf countries and is short term, which makes it difficult for them to escape their distress. The study village selected from NK follows the failed scenario.

By contrast, in the village we selected from KM, many households, especially the landowning Jat Sikhs, migrated to Western countries and became NR1s. Consequently, the land rent is determined as low, making the remaining Jat Sikhs in the village expand their operational farm size under favourable conditions. A study by Bansal (2020) of large-scale and capitalistic tenant farmers in a village in Jalandhar district is also an example that follows the same successful scenario.

The failed scenario followed by NK seems to be more common in Punjab, considering that the proportion of households with at least one current overseas migrant in NK was 16%—almost the same as that of the average in rural Punjab (13%) (Nanda and Véron 2015).

The fundamental factor dividing the two scenarios is land rents. High land rents prevent "healthy" peasant stratification in the era of the agricultural adjustment problem. A future research agenda is the investigation of the conditions and policy initiatives under which land rents can be reduced, including the diversification of agriculture, production of high-value crops, and more capital-intensive livestock sectors. Another possible means of reducing land rents is the development of high-income earning non-farm jobs in Punjab, which can be accepted by educated rural youths, including the Jat Sikhs.

Finally, considering that even the emigrants to the Western countries could, in many cases, only get relatively low-paid and low-grade jobs that are not sufficient for the high living cost there and incompatible with their high education level, it seems that they are not always satisfied with life overseas. We stress the need to solve the issue of economic distress in the state of Punjab and in India.

NOTES

- 1 The minimum support prices (MSPs) for paddy and wheat have been raised rapidly since the mid-2000s, but they are insufficient to prevent the relative decline of Punjab's economy.
- 2 Punjab is the second-largest state in India in terms of its overseas migrant population, next to Kerala. Around 11% of the households in Punjab reported at least one current overseas outmigration, with a higher percentage from rural areas (13%) than from urban areas (6%) (Nanda and Veron 2015). However, it should be noted that the major destination of migrants from Kerala is the Gulf region.
- 3 In Singh et al (2009), of the 7,520 households sampled from across Punjab, 920 households

had left farming; 589 of these households (7.8% of total) were still in the village. In this setting, we found that of the 589 households, 200 households (34.0%) sold all of their land, whereas 72 households (12.2%) sold some of their land (calculated by the authors in Table 7). Therefore, the proportion of landless Jat Sikhs still living in the village is, on an average, only 2.7%. It can be said that the case of NK village is somewhat exceptional.

- 4 Four "slum" clusters exist at the periphery of KM. The migrants work as casual labourers in a wider area beyond the village territory.
- 5 Only six households (6.7%) send a small remittance (₹2,500–₹5,000 per year) to their native places in Bihar.

- 6 Numerous Bihari migrant labourers flowed into Punjab after the advent of the green revolution. They especially did so after the mid-1970s, when paddy cultivation started. They mainly worked as agricultural labourers during two peak seasons: from the harvesting of wheat to paddy transplantation (April–July) and from the harvesting of paddy to wheat sowing (October–November). Later, agricultural mechanisation reduced the labour demand for Bihari migrants.
- 7 However, five Bihari attached labourers are employed by five farm households in NK (they live with the farm household members). Further, KM has 27 Bihari attached labourers employed by 16 farm households. They are

- young, single men who are paid ₹7,000 per month and provided three meals per day with shelter, some clothes, and other small daily necessities. Employers replace them every one to two years.
- 8 The average yield per acre of paddy and wheat in the canal command is 200 kg higher than for other land.
 - 9 During the rabi season, no such difficulty occurs because the cultivation of potato and wheat is not as water-intensive as that of paddy.
 - 10 Irrigation can be started even at midnight, which results in wasteful groundwater use because of such an arrangement.
 - 11 According to village informants, after registering ₹1,100 (per quintal) in 2013, the potato price fell to ₹500 in 2014, ₹400 in 2015, ₹350 in 2016, and finally ₹150–₹200 in February/March 2017. The break-even price is ₹250–₹300.
 - 12 Wheat straw is a valuable feed for cows and buffaloes. The use of reapers with combine harvesters enabled farmers to get wheat straw for animal feed.
 - 13 Depending on the market conditions, income from potatoes can be increased or decreased if farmers stock them in cold storage after harvesting (March–September is the harvest season, with a fixed charge of ₹100 per 50 kg of potato).
 - 14 The primary agricultural cooperative society (PACS) in KM, established in 1916, provides valuable employment opportunities for several villagers and pays an annual salary of two to six lakh rupees. The cooperative has several operational areas: (1) sale of chemical fertilisers and seeds; (2) accepting savings and providing credit (with deposits worth ₹16 crore, bank bonds worth ₹2 crore, and credit worth ₹1.25 crore—surplus funds are deposited in the Cooperative Bank in Jalandhar earning an annual interest rate of 7.25%); (3) managing a grocery shop; (4) providing tillage service by eight owned tractors with laser levellers (through which farmers can save irrigation water, manage weeds easily, and achieve increased crop yields); and (5) others, such as the sale of solar panels and soil-testing services. The society has 325–350 active members. The annual net profit is ₹70–₹80 lakh as compared to the total amount of shares of ₹5 crore.
 - 15 The meagre pension provided by the government for disadvantaged people, such as through old-age pensions or widow pensions, is excluded.
 - 16 The highest is a pension amount of ₹4.56 lakh (one case), followed by ₹3.6 lakh (one case), ₹3 lakh (three cases), ₹2.88 lakh (one case), ₹2.4 lakh (three cases), ₹2.16 lakh (three cases), ₹2.04 lakh (two cases), ₹1.92 lakh (one case), and ₹1.8 lakh (seven cases). The three cases below ₹1.8 lakh are: ₹1.56 lakh (one case), ₹1.44 lakh (two cases), and ₹1.2 lakh (two cases).
 - 17 Students studying abroad are reserve or potential migrant workers and NRIs, who prefer settling abroad after finishing their studies. This often leads to their families' emigration later on.
 - 18 The IELTS assesses English proficiency on a scale from one to nine in four skills: listening, reading, writing and speaking.
 - 19 Children in three categories of household in KM usually go to different types of schools. The share of children attending government schools is small for Jat Sikhs, approximately 60% for non-Jat Sikhs (but after graduating from primary school, all children go to private schools), and 100% for Bihari migrants.
 - 20 In a few cases, migrants—especially those going to the US—incur expenditures of even ₹30–₹40 lakh.
 - 21 Although the land price is ₹20–₹23 lakh per acre (in the case of NK), which is 50 times as high as the annual land rent amount, as we describe later, it is very difficult for marginal/small farmers to afford for the emigration cost to the West.
 - 22 Of the five remaining households, one household has a male member working in Italy, two households have male members working in the UAE, and two households have “high-incomes” obtained through a father who is a policeman with a son studying in the UK and a transport business, respectively.
 - 23 Of the remaining 12 households, five households have at least one current overseas migrant (three households have migrants in Australia, and one household each has migrants in the UAE and Oman). Two households have high-income, non-farm jobs, but five households have only other regular non-farm jobs.
 - 24 Singh et al (2009) point out that the “distress-rentier class” living on land rent alone performs no useful economic activity. They report that they are vulnerable to “indulg[ing] in bad habits,” as many start using intoxicants.



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- 3 A minimum of eight years of experience of research and /or teaching as an Assistant Professor or equivalent position in a University, College or Accredited Research Institution/organization with a minimum of 7 (seven) publications as books and/or research/policy papers and a total research score of 75 as per the Criterion laid down in Table 2, Schedule IV of the Omeo Kumar Das Institute of Social Change and Development (Faculty & Other Academic Staff) Services Regulations 2022.

Candidates who had applied earlier for the post of Associate Professor need not apply again. They may send an updated CV if they so desire.

2. One Post of Professor (General)

Pay scale-(37400-67000+AGP 10000/-)

A. Disciplines: Economics/Geography/Statistics (with specialization in Econometrics)

B. Required qualifications:-

1. A Master's Degree with at least 55% marks (or an equivalent grade in a point-scale, wherever the grading system is followed) in any of the disciplines as mentioned above from an Indian University, or an equivalent degree from an accredited foreign university.
2. A scholar having a Ph.D. degree in the concerned/relevant discipline and a minimum of ten years of teaching experience in university/college as Assistant Professor/Associate Professor/Professor, and/or research experience at equivalent level at the University/National Level Institutions with evidence of having successfully guided doctoral candidate.
3. Actively engaged in research with evidence of published work with a minimum of 10 research publications as books and/or research/policy papers and a total research score of one hundred twenty (120) as per the Criterion laid down in Table 2, Schedule IV of the Omeo Kumar Das Institute of Social Change and Development (Faculty & Other Academic Staff) Services Regulations 2022.

Criterion in Table 2, Schedule IV as laid down in the Omeo Kumar Das Institute of Social Change and Development (Faculty & Other Academic Staff) Services Regulations 2022, is available at the Institute website (www.okd.in) along with the advertisement.

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25 Bansal and Grover (2019) reported that land rent is paid in installments in 95.8% of all cases. In the case of NK, it is usually paid in two installments: 50% is paid in April when the lease contract starts and the remaining 50% is paid in November after paddy harvesting. In KM, the land rent is also usually paid in two installments: 20% is paid when the lease contract begins (in April, after harvesting wheat), and the remaining 80% is paid a year after the contract is terminated.

26 This is supported by Bhattacharya's (2019) examination of the structure of the land tenancy market in Punjab based on NSS 70th round (NSSO 2014); the share of leased-in land by semi-medium and medium farmers was 44.3% and 35.6%, respectively. (Note here that the category of semi-medium and medium is based on operational land instead of owned land.)

27 For simplicity, we did not adopt per capita income as the criterion.

28 We must emphasise here, however, that many migrants to Western countries seem to be dissatisfied with overseas life: they usually work at low-paid and low-grade jobs such as restaurant and shop workers or taxi drivers, which are insufficient to allay the high living costs there and which are incompatible with their high education level.

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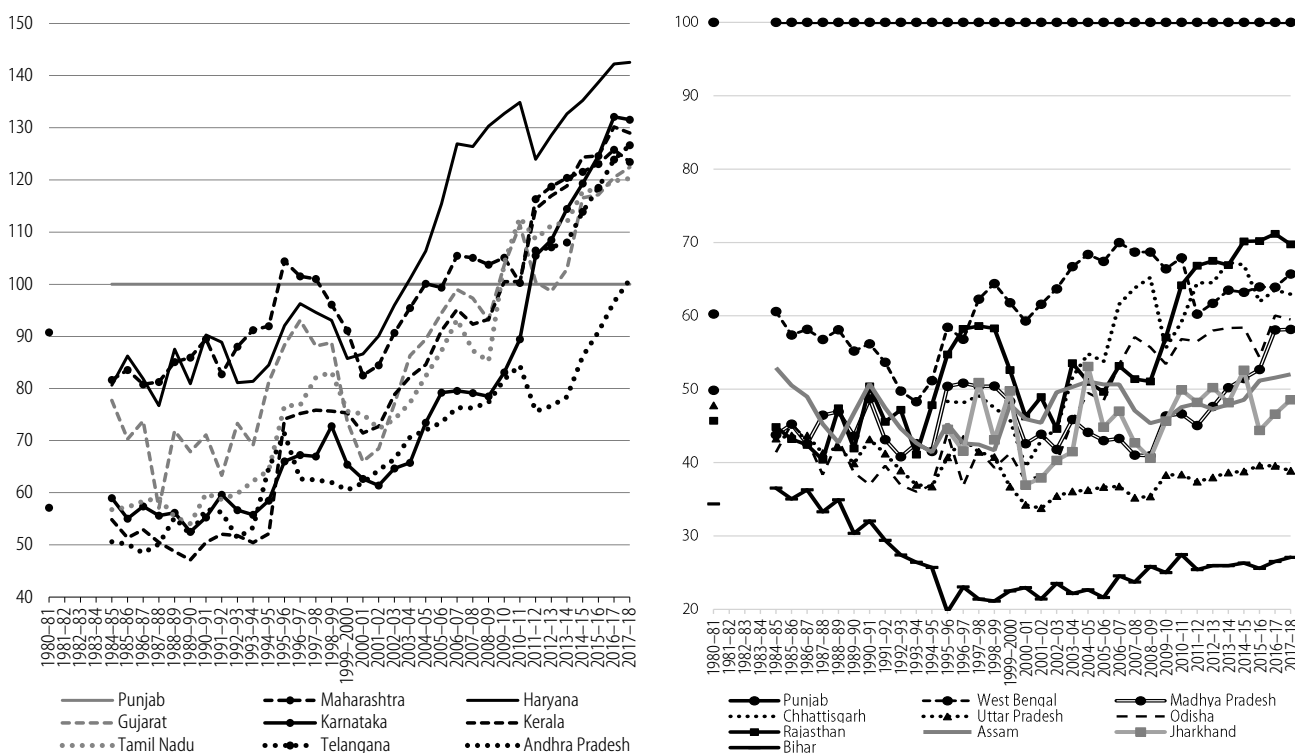
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Appendix

Figure 1: Movement of Per Capita Net State Domestic Product (Punjab=100)



Source: Prepared by authors based on data from Government of India, *Economic Surveys* (various issues).