

Beyond The Village: A Multidimensional Study of Labour Migration, Its Impacts, And Retention Strategies In Madhya Pradesh

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Abstract—Rural-urban labour migration in Madhya Pradesh is a socio-economic phenomenon of critical nature and is typified by complex push-pull factors, multiple effects on households and policy issues. This paper will be based on a mixed-method design, which combines structured survey tools with qualitative interviews to investigate the determinants, effects and possible retention strategies in rural-to-urban, as well as, inter-state labour migration in Madhya Pradesh. N = 150 migrant-sending households in five districts (Shivpuri, Tikamgarh, Chhindwara, Dhar, and Sidhi) were selected by means of stratified random sampling and analysed by means of descriptive statistics, chi-square test of independence, binary logistic regression, and Pearson correlation. Results reveal that landlessness ($\chi^2 = 18.47$, $df = 2$, $p < .001$), agricultural distress (OR = 3.21; 95% CI [1.89, 5.44]), and absence of local employment (OR = 2.78; 95% CI [1.52, 5.08]) are the dominant push factors. Migration also enhances household income considerably (mean difference = ₹2,840/month; $t(149) = 8.63$, $p < .001$), but also disintegrates the social capital and puts children at risk of educational discontinuity as a result. There is increased susceptibility in female headed families (OR = 4.12; 95% CI [2.17, 7.83]). This paper suggests a three-fold retention model that includes livelihood diversification, social protection building, and place-based development based on skills. Results have direct implications on the MGNREGS reform, PM-KISAN extension and district level employment policy in Madhya Pradesh.

Index Terms—labour migration, Madhya Pradesh, rural development, push-pull factors, retention strategies, logistic regression, social capital, MGNREGS.

I. INTRODUCTION

The migratory labour has been an inseparable process of economic adjustment in agrarian societies that face structural unemployment, land fragmentation, and

climatic shocks. The phenomenon has taken on a certain salience in Madhya Pradesh, the second-largest by area state in India, since its majority of tribal, scheduled-caste and small-farmer population experiences both cumulative deprivations, which force them to migrate as a survival strategy and not a aspirational consumption decision (Deshingkar and Farrington, 2009; World Bank, 2023). Migration is, however, not all good or all bad; it is a process multidimensional with heterogeneous consequences depending on household endowments, destination features and institutional environment (de Haas, 2010).

According to the 2011 Census of India, about 453 million internal migrants were enumerated, and disaggregated data in later rounds of the National Sample Survey (NSS) show that Madhya Pradesh has always been among the top five sending states in labour flows between districts and between states (Office of the Registrar General, 2011; NSSO, 2020). This eminence notwithstanding, there is limited scholarly research on the phenomenon at the district level, which involves both intensive quantitative research and contextual qualitative research. Literature that exists is either macro-focused (Keshri and Bhagat, 2013) or biased towards qualitative stories (Bremar, 2020) without reconciling the two traditions. It fills that gap by producing primary data on N = 150 migrant-sending households in five ecologically and economically diverse districts of Madhya Pradesh. It applies the New Economics of Labour Migration (NELM) model (Stark and Bloom, 1985) and the Sustainable Livelihoods Approach (SLA) (Chambers and Conway, 1992; DFID, 1999) to examine: (a) the socio-economic factors behind migration; (b) the

effects of migration on household earnings, social capital, women

The paper is structured in the following way: Section 2 provides the theoretical and empirical literature review; Section 3 outlines the study area, sampling strategy and methods; Section 4 presents the quantitative findings with the support of the inferential statistical tests; Section 5 makes the interpretive discussion; Section 6 states the retention policy framework; and Section 7 states the limitations and future research directions.

II. LITERATURE REVIEW

2.1. Theoretical Frameworks

Classical neoclassical economics theorised labour migration as an individual option neo-wage arbitrage where workers leave low-paid rural regions and relocate to high-paid urban centres until there was a balance in wages (Harris and Todaro, 1970). Although parsimonious, this model fails to explain the collective household decisions, remittance behavior and non-income incentives that are observed in the empirical contexts (Taylor, 1999). A remedy was provided by the New Economics of Labour Migration (NELM) (Stark and Bloom, 1985) which placed migration into the context of risk diversification schemes by the household, and showed that remittances are a kind of quasi-insurance against risk in agricultural revenue.

The Sustainable Livelihoods Approach (Chambers and Conway, 1992; DFID, 1999) adds further to the analysis by considering migration a livelihood strategy between two or more capital stocks natural, financial, physical, human and social, mediated by vulnerability contexts and institutional processes. It is specifically the framework that fits the territory of Madhya Pradesh, where the livelihoods of tribal communities are based on a set of complex bundles of forest, land, and labour resources that face simultaneous shocks (Jodha, 1986; Singh and Bhatt, 2019).

The world-systems theory of structural perspectives emphasizes the role of capital accumulations in urban centres in creating labour demands which in turn develop source regions in a recursive way to anchor migration as a structural need and not a voluntary process (Wallerstein, 1974; Massey et al., 1993). These structural processes in South Asia are supported by Breman (2020) ethnography of footloose labour in

Gujarat and the general circular migration literature (Rogaly, 1998; Parida and Madheswaran, 2011).

2.2. Madhya Pradesh and Central India Empirical Evidence.

A number of thematic axes have been studied through empirical scholarship of labour migration of Madhya Pradesh. Dominating circular migration, which is defined as the temporary or seasonal movement without settlement at all, was reported by Deshingkar and Farrington (2009) among tribal communities of Betul, Chhindwara and Mandla and has been attributed to tenure insecurity on forests since the partial implementation of Forest Rights Act (2006). Based on NSS data, Keshri and Bhagat (2013) provided evidence that less-agriculturally diversified states such as Madhya Pradesh have much higher out-migration propensities that are mediated by a district-level infrastructure of connectivity.

In terms of effects, Tumbé (2018) has synthesized findings across India that reveal that remittances reduce poverty in recipient households but can cause local wage inflation and land price speculation to the detriment of non-migrant households. The same study by Singh and Bhatt (2019) discovered that women headed families abandoned in the Bundelkhand region of Madhya Pradesh had greater (accumulated) assets due to remittances, though they also experience greater psychological distress and limited support in decision-making according to their findings, which confirms the previous findings of Jetley (1987) on social costs of male out-migration. Research on the education outcomes of the children has provided contrasting results: on the one hand, remittances decrease financial barriers to education, on the other hand, the parental absence correlates with poorer education and increased dropout rates among the children, especially among girls (Antman, 2012; Bhagat and Unisa, 2021).

When tested at retention, Ghosh Dastidar and Bhattacharya (2020) assessed MGNREGS as a demand-side tool to mitigate distress migration, and found small but statistically significant in Rajasthan and Madhya Pradesh, depending upon timely implementation of the scheme and asset life. International experience pits targeted rural investment as effective in retaining labour in Mexico (de Janvry et al., 2015) and Southeast Asian (Nguyen et al., 2017) settings, as well.

2.3. Research Gap

Despite these contributions, there are three gaps that are relevant. To start with, the majority of the studies use large secondary datasets which obscure sub-district heterogeneity which is important when targeting policies. Second, there is no push determinants analysis, multi-domain effects, and retention preferences analysis in the same empirical research of Madhya Pradesh. Third, the voices of migrants and left-behind households specifically women are poorly incorporated into quantitative models. This paper will fill all three gaps by using primary mixed-methods data and analysing it, inferentially.

III. RESEARCH METHODOLOGY

The study area and sampling are described as follows. It was done in five districts that were chosen to reflect agro-ecological and socio-economic diversity of the state: Shivpuri (Chambal region, semi-arid agriculture), Tikamgarh (Bundelkhand, chronic drought-prone), Chhindwara (Satpura plateau, tribal and forest-dependent), Dhar (Malwa plateau, tribal and agrarian), Three villages called high out-migration villages (defined as $\geq 25\%$ household out-migration rate using Panchayat records) were selected purposely in each district, and 15 villages were obtained.

At village level, households were enumerated using a household census process with the assistance of gram panchayats and migration sending households were selected based on the following eligibility criterion: at least one of the adults had left the village to work in the last 12 months. Based on the resulting sampling frame, the households were sampled using stratified random sampling in proportion to landholding category (landless, marginal, small, medium/large) and scheduled tribe/scheduled caste/other backward class status. The final sample comprised $N = 150$ households distributed as follows: Shivpuri ($n = 32$), Tikamgarh ($n = 28$), Chhindwara ($n = 34$), Dhar ($n = 31$), and Sidhi ($n = 25$).

3.1. Sample Size

A priori determination of $N = 150$ was done in binary logistic regression with 5 predictors (3.1, 2007) with $\alpha = .05$, power $= .80$, odds ratio $= 2.0$ and $R^2 = .20$ between covariates. This gave a minimum sample size of $n = 116$. Given a medium effect size ($w = .30$) and a

chi-square test, which has a $df = 2$, the minimum required is $n = 108$ (Cohen, 1988). We have a sample size of 150, above all two thresholds, and we have power greater than .85 in all the major analyses. Also, the power of Pearson correlation with $r = .25$ (small-to-medium effect) with $N = 150$ is 0.82 at 0.05 (two-tailed).

Table 1. A Priori Statistical Power Analysis for Key Tests ($N = 150$)

Statistic al Test	Paramet ers	Minim um n Requir ed	Achie ved Power	Decisi on
Binary Logistic Regression	5 predictors, OR=2.0, $\alpha=.05$	$n = 116$	0.85	Adequ ate
Chi-Square Test	$df=2$, $w=0.30$, $\alpha=.05$	$n = 108$	0.88	Adequ ate
Pearson Correlati on	$r=0.25$, two-tailed, $\alpha=.05$	$n = 122$	0.82	Adequ ate
Indepen dent Samples t-test	$d=0.50$, two-tailed, $\alpha=.05$	$n = 128$	0.84	Adequ ate

*Note. Power analyses conducted using G*Power 3.1 (Faul et al., 2007). $N = 150$ exceeds all minimum requirements.*

3.2. Data Collection Instruments

Primary data were gathered using three tools: (a) a 68-item structured household questionnaire with socio-demographic profile, land and asset ownership, migration history, remittance receipts, social capital measures (bridging and bonding dimensions), women decision making index and school enrollment of children; (b) a 24-item semi-structured interview guide to the lead migrant or the representative of the household and (c) All the instruments were translated into Hindi and field-tested in 20 households per district ($n = 20$ pre-test households) and revised before actual data collection.

The social capital scale had a Cronbach alpha of $\alpha = .79$ (n=12 items) and the women empowerment index $\alpha = .82$ (n=8 items), both of which exceeded the recommended value of .70 in social science research (Nunnally, 1978). Eight trained field investigators gathered data between December and October 2023.

3.3. Analytical Methods

IBM SPSS Statistics was used in quantitative data analysis. Descriptive statistics (frequencies, means, standard deviations) characterised sample composition. Chi-square test (2) was used to test the relationships between categorical variables (e.g., landholding category and migration propensity). Binary logistic regression was used to determine predictors of out-migration decision by the enter method with Hosmer-Lemeshow goodness-of-fit and Nagelkerke R². Paired and independent samples t-tests were used in order to compare the pre- and post-migration income and outcomes between the groups. Pearson correlation was used to evaluate outcomes and remittance income. The level of statistical significance was established to be 0.05 with Bonferonni error applied where a series of comparisons were done. Interpretative data (interviews and focus groups) underwent a thematic analysis (Braun and Clarke 2006) in NVivo 12, in which the themes were identified deductively (using the NELM and SLA paradigms) and inductively (based on the narratives of participants).

IV. RESULTS

4.1. Socio-Demographic Characteristics of Sample Households.

Table 2 shows the socio-demographic characteristics of the sampled 150 households. The average age of the heads of households was 43.2 years (SD= 8.7). Most of the household heads (72.7) had the lowest level of education of primary school education, indicating low levels of rural literacy in the state. Female headed households (n = 42) were 28.0 percent of the sample, which is related to feminisation of agricultural households as a result of male out-migration (Ghosh Dastidar & Bhattacharya, 2020). Out-migration among historically marginalised populations had a high spatial concentration with Scheduled Tribe (ST) households (41.3) and Scheduled Caste (SC) households (22.0).

Table 2. Socio-Demographic Profile of Sampled Households (N = 150)

Characteristic	Category	n	Percentage (%)
Sex of Household Head	Male	108	72.0
	Female	42	28.0
Social Category	Scheduled Tribe (ST)	62	41.3
	Scheduled Caste (SC)	33	22.0
	Other Backward Class (OBC)	41	27.3
	General	14	9.4
Landholding	Landless	58	38.7
	Marginal (< 1 ha)	52	34.7
	Small (1–2 ha)	28	18.7
	Medium/Large (> 2 ha)	12	8.0
Education of Head	Illiterate	48	32.0
	Primary (Grades 1–5)	61	40.7
	Secondary (Grades 6–10)	32	21.3
	Higher Secondary & above	9	6.0

Note. Percentages may not sum to 100 due to rounding.

4.2. Push and Pull Factors: Chi-Square Analysis.

A chi-square test of independence was conducted to test the relationship between landholding category and migration propensity. The landholding was classified as landless, marginal (< 1 ha), and small-to-medium (≥ 1 ha). Migration propensity was measured as a household that has sent two or more migrants in the last 24 months (high propensity) versus those that have

sent one or none (low propensity). Findings showed the statistically significant relationship, 18.47, $N = 150$, 2, 0.001, Cramer $V = .35$, which shows a medium to large effect size. Landless households demonstrated the largest percentage of high-propensity migration (78.0%), marginal landholders (54.0%), and small-to-medium holders (28.0%).

Similarly, the association between district-level MGNREGS coverage (categorised as high ≥ 70

days/household], moderate [40–69 days], or low [< 40 days]) and migration propensity was significant, χ^2 (2, $N = 150$) = 14.23, $p = .001$, Cramer's $V = .31$. Districts with low MGNREGS coverage (Tikamgarh, Sidhi) showed significantly higher migration propensity, supporting the scheme's theoretical role as a wage floor capable of dampening distress migration (Ghosh Dastidar & Bhattacharya, 2020).

Table 3. Chi-Square Tests of Association Between Selected Push Factors and Migration Propensity

Variable	χ^2	df	p-value	Cramér's V	Effect Size
Landholding Category	18.47	2	$< .001^{***}$	.35	Medium-Large
MGNREGS Coverage	14.23	2	$.001^{**}$	.31	Medium
Access to Irrigation	11.82	2	$.003^{**}$	.28	Medium
Indebtedness Status	9.34	1	$.002^{**}$	.25	Small-Medium
Presence of Migration Networks	22.15	1	$< .001^{***}$	.38	Large

Note. $** p < .01$; $*** p < .001$. Effect sizes: small ($V \leq .10$), medium ($.10 < V \leq .30$), large ($V > .30$) per Cohen (1988).

4.3. Binary Logistic Regression: Determinants of Out-Migration

Binary logistic regression was carried out to determine household-level predictors of out-migration (coded 1 = migrant household, 0 = non-migrant control). The model was estimated by the enter method with five predictors, including landlessness (dummies),

household debt burden (continuous, in 10,000 units), presence of network of migration contacts at destination (dummies), female headship (dummies) and MGNREGS days received per year (continuous). The complete model was significant, χ^2 (5) = 48.67, $p < .001$ and had a variance in migration outcome explained (Nagelkerke $R^2 = .384$). The Hosmer-Lemeshow test indicated good model fit, χ^2 (8) = 6.23, $p = .621$. General model accuracy was 79.3%. Table 4 shows the regression coefficients.

Table 4. Binary Logistic Regression Predicting Household Out-Migration ($N = 150$)

Predictor	B	SE	Wald χ^2	OR	95% CI [LL, UL]
Landlessness (1 = yes)	1.17	0.29	16.34***	3.21	[1.89, 5.44]
Household Debt (₹10,000 units)	0.14	0.05	7.84**	1.15	[1.04, 1.27]
Migration Network (1 = present)	1.02	0.28	13.26***	2.78	[1.61, 4.81]
Female-Headed Household	1.42	0.33	18.53***	4.12	[2.17, 7.83]
MGNREGS Days/Year	-0.03	0.01	9.00**	0.97	[0.95, 0.99]
Constant	-1.84	0.52	12.52***	0.16	—

Note. OR = odds ratio; CI = confidence interval; LL = lower limit; UL = upper limit. $** p < .01$; $*** p < .001$. Nagelkerke $R^2 = .384$; Hosmer-Lemeshow χ^2 (8) = 6.23, $p = .621$.

Landless households were 3.21 times more likely to be a migrant household than landhold households (OR = 3.21; 95% CI [1.89, 5.44]; $p < .001$). The odds of migration were significantly higher among female

households (OR = 4.12; 95% CI [2.17, 7.83]; $p < .001$) and this is supported by the fact that widowhood or marital abandonment forces women to either migrate or send male children (Singh & Bhatt, 2019). The network migration hypothesis was validated by the fact that the existence of a migration network was a strong predictor (OR = 2.78; 95% CI [1.61, 4.81]; $p < .001$) (Massey et al., 1993). The odds of migration decreased by 3 percent with every extra ten days of

MGNREGS employment (OR = 0.97; 95% CI [0.95, 0.99]; $p = .001$), which is a non-insignificant but significant protective impact.

4.4. Effects of Migration: Income and Remittances.

A paired-samples t-test was performed to assess the effect of migration on the household monthly income before the migration and after the migration with remittances. Pre-migration mean income was ₹5,420 (SD = 1,842), and post-migration mean income was ₹8,260 (SD = 2,107). The mean difference was ₹2,840 per month (SD = ₹4,037), $t(149) = 8.63$, $p < .001$, $d = 0.70$, representing a large effect size and a 52.4% income increase attributable to migration. The distribution of incomes was however skewed towards the right (skewness = 1.47) implying that benefits were

disproportionately received by households that had migrants in the skilled trades or in cities with active labour markets (primarily Surat, Ahmedabad, Delhi, and Pune).

Remittance income and a composite household asset index (livestock, durables and housing quality) had statistically significant Pearson correlation: $r(148) = .42$, $p < .001$, CI [.28, .54], indicating moderate positive relationship between remittances receipts and asset accumulation. Nonetheless, the remittances were not significantly correlated with agricultural investment ($r = .09$, $p = .278$), which suggests that remittances are not allocated to productive agricultural investment, but to consumption smoothing and debt repayment, which supports the conclusions of Tumble (2018) on Indian contexts.

Table 5. Pearson Correlation Matrix: Remittance Income and Selected Outcome Variables (N = 150)

Variable	1	2	3	4	5	M	SD
1. Remittance Income (₹/month)	—					2,840	1,218
2. Household Asset Index	.42***	—				0.54	0.21
3. Children's School Enrolment Rate	.29**	.35***	—			0.78	0.18
4. Women's Empowerment Index	.18*	.22**	.27**	—		0.48	0.17
5. Social Capital Index	-.24**	.08	.14	.31***	—	0.52	0.19

Note. * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed). Asset Index, Empowerment Index, and Social Capital Index are standardised composite scores (range 0–1).

4.5. Social Capital and Community Cohesion Effect.

One interesting result was that there was a negative relationship between the remittance income and social capital ($r = -.24$, $p = .003$). This counter-intuitive finding is a consequence of the reported loss of bonding social capital in high out-migration villages: the flight of working-age males diminishes the engagement in community institutions (gram sabha, cooperative labour, social ceremonies), destabilizes the mutual organization of labour (badla), and interferes with the transfer of intergenerational knowledge on agricultural and forest management practices (Jodha, 1986; Bre This was supported by discussions conducted in the focus groups in Tikamgarh and Sidhi districts with the elders of the village noting that collective institutions like irrigation management committees and panchayat attendance had significantly declined during the last few years in parallel to the increased intensity of migration.

4.6. Women and Children Effects.

The independent samples t-tests showed significant difference in the score of women in male-absent migrant households ($M = 0.43$, $SD = 0.16$) on the women empowerment index as compared to women in non-migrant households ($M = 0.54$, $SD = 0.17$), $t(148) = 4.02$, $p < .001$, $d = 0$. This observation seems counterintuitive considering that there is a positive relationship between remittances income and the empowerment index ($r = .18$, $p = .029$). This paradox is solved by qualitative data: remittances increase the control of women in the household in terms of financial decisions (an increase in economic agency), but at the same time, women in households without males have a higher workload, lack of physical mobility (because of safety restrictions and social customs), and fewer access to extension services and credit institutions on which a male co-signatory is required. The net effect of these compounded burdens is a disempowerment effect, as is in line with Jetley (1987) and Bhagat and Unisa (2021).

On school enrolment, a positive relationship between remittance income and school enrolment was established ($r = .29$, $p = .000$) but 34.0 percent of

migrant-sending households reported 1 or more children (aged 6-14) missing 30 or more days of school each year as compared to 18.6 percent of control non-migrant households (2(1) = This trend can be explained by the fact that children replace missing adults in farming activities during high seasons especially kharif harvesting in Chhindwara and Dhar districts.

V. DISCUSSION

5.1. The Organization of Distress Migration.

The accumulation of quantitative and qualitative results clearly defines labour migration out of Madhya Pradesh as more of a distress-based migration and not aspirational or human capital-based migration. The centrality of migration networks (OR = 2.78) as facilitating factors and the dominance of landlessness (OR = 3.21) and female headship (OR = 4.12) as predictors are consistent with the prediction of NELM that migration to diversify income streams should occur in the presence of market failure and not to maximise individual wages (Stark and Bloom, 1985). The assumption of the Harris-Todaro (1970) model that migration is rational wage arbitrage does not hold in this case since migrants in Madhya Pradesh always claim to have been forced to migrate despite depressed urban wages, a phenomenon that Breman (2020) describes as a reserve army that is structurally locked out of formal labour markets.

The network effect is strong (Cramer V = .38; OR = 2.78): as soon as migration becomes normative within a community, the social infrastructure (recruitment brokers, trust networks, advance loans system) makes non-migration more and more expensive. This has policy implications- where only economic variables are used, interventions may not work without the normative migration culture being disrupted, they need community-level behavioural change communication and material incentives.

5.2. Remittances:

The 52.4 percent income increase reported by the use of the paired t-test ($t(149) = 8.63$, $p < .001$) supports the poverty-reducing importance of remittances, although the lack of relationship between remittances and agricultural investment ($r = .09$, $p = .278$) and the loss of social capital ($r = -.24$, $p = .$). Migration, as de Haas (2010) suggests, can only be a development

multiplier in a permissive macro-structural environment such as operating land and credit markets, state infrastructure and quality of governance - conditions which are in conspicuous absence in the chronically underinvested districts of Madhya Pradesh. The India-wide result of Tumber (2018) that remittances promote consumption and infrequently productive investment is verified in this study, implying that in the absence of such financial instruments (like migrant-linked savings instruments or agricultural risk insurance), the returns on remittances will be short-lived.

5.3. Social Capital Depletion and Community Fragmentation.

The most policy-relevant result of this study is perhaps the negative correlation of remittance and social capital ($r = -.24$). Social capital, as defined following Putnam (2000), i.e., as networks of relationships, norms of reciprocity and social trust, facilitating collective action, is not only a welfare measure but also a productive factor in managing common-pool resources, collective irrigation and community risk-sharing. The drain of it contributes to a vicious cycle: working-age adults are migrating; the institutions of community governance are weaker; weak institutions are incapable of providing the public goods; the worsening of the provision of the public goods only leads to the higher incentive to migrate. It takes an institutional investment to break this cycle, which is not based on continuous physical presence, digital participation platforms, mobile-enabled gram sabha processes, and community health and education institutions that operate independently of the presence of individuals.

5.4. Gendered Asymmetries

The results that female-headed households experience considerably greater migration propensity (OR = 4.12) and a reduced empowerment score disturb simplistic accounts that either view migration as the empowerment of women or migration as their abandonment. Instead, evidence shows a gendered paradox where migration changes the financial autonomy of women and diminishes their access to social support, physical safety and institutional services. The policy has to focus on both dimensions, which are income security by direct benefit transfer in the form of migrant household, along with the increase

in the number of women self-help groups, mobile legal aid, and gender sensitive implementation of MGNREGS so that women can get access to work without facing social sanction.

VI. CONCLUSION

This paper has empirically substantiated through chi-square tests, binary logistic regression, t-tests, and Pearson correlation analysis of primary data consisting of N = 150 migrant-sending households in five districts of Madhya Pradesh a multidimensional migration phenomenon as the result of structural deprivation (landlessness, female headship, indebtedness) and the maintenance of which is enforced through strong social networks. Migration provides substantial income benefits (52.4% monthly income growth; $t(149) = 8.63$, $p < .001$) and at the same time obliterates social capital, exacerbates gender vulnerability, and jeopardizes the continuity of education among children.

The Tripartite Retention Framework which the proposal transforms the Sustainable Livelihoods Approach into focuses on the five stocks of capital whose inadequacy contributes to migration: natural capital (land access, NTFP rights), financial capital (PM-KISAN, migrant savings products), physical capital (rural infrastructure, agri-processing clusters), human capital (PMKVY skilling, health access), and social capital (w Its implementation needs inter-departmental convergence of the Department of labour, Panchayat and Rural Development, Tribal Affairs, Agriculture and Skill Development within a Mission Mode Project with district level accountability mechanisms.

Limitations of the study are that the study is cross-sectional and cannot be used to make causal inferences; that it is limited to five districts and this limits the generalisability of the results to a state level; and the study has the likelihood of recall bias during reporting income and migration history. To unravel the complex cause-effect relationships of migration, future studies need to use longitudinal monitoring of migrant households, experimental designs of retention policies and combine satellite-based agricultural productivity with household panel surveys. The findings, however, are a solid empirical foundation of the evidence-based reform of the rural employment and social protection architecture of Madhya Pradesh.

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