

Evaluating Gram Panchayat Development Plans (GPDP) as Catalysts for Sustainable Livelihood Diversification: A Micro-Level Empirical Study

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Abstract

In India, GPDPs, or Gram Panchayat Development Plans, play a significant role in facilitating community engagement and adapting rural infrastructure to local needs. An agriculture-intensive region in Haryana, this study looks at how they might help diversify livelihoods in the face of challenges such as land fragmentation, rural underemployment, groundwater depletion, and dependence on paddy-wheat production. The study assesses GPDPs using three criteria: the quality of the planning process, spending on livelihoods, and the results for household livelihoods. Using a combination of geographical analysis, key-informant interviews, household surveys, and GPDP document analysis, we examine a subset of Gram Panchayats that stand in for each of Kaithal's seven development blocks. The study differentiates between opportunity-led and distress-driven diversification and analyzes household assets using the Sustainable Livelihoods Framework and livelihood-diversification theory. The GPDP Livelihood-Orientation Score and the Livelihood Diversification Index are tools for analyzing the connection between community planning and economic development. This research looks at the possibility that GPDP-backed programs can lessen reliance on paddy-wheat farming while simultaneously boosting allied agriculture, cattle, skills, micro-enterprises, management of natural resources, and non-farm pursuits. The results should help with decentralized rural planning that is both sustainable and focused on people's livelihoods.

Keywords: Gram Panchayat Development Plan, GPDP, sustainable livelihoods, livelihood diversification, decentralised planning, rural development, Gram Sabha, Panchayati Raj.

1. Introduction

Rural livelihood constitutes a basic element of the socio-economic fabric of India. Traditionally, agriculture has been the major source of income and employment for rural people. However, today's rural economies are increasingly diversified. The present pattern of livelihood activities include cultivation along with agricultural labor, livestock rearing, dairy farming, wage employment, migration, self-employment, micro-enterprises, salaried vocations and other non-farm activities. Livelihood diversification has therefore become a key technique to increase income stability, manage agricultural risk, accumulate productive assets and build household resilience.

This transition is particularly important in Haryana, where agricultural development during the Green Revolution brought significant advances in productivity, irrigation, mechanization and market integration. However, intensive agriculture has also created problems of depletion of ground water, increased costs of cultivation, ecological stress, fragmentation of land, shifting labor requirements and dependence on a relatively narrow cropping system. In the intensively agricultural districts such as Kaithal, sustainable livelihood development consequently needs to be looked at in terms of opportunities beyond the traditional paddy-wheat production.

Decentralized governance provides an institutional system thru which locally relevant development concerns might potentially be handled. The 73rd Constitutional Amendment provided the constitutional status for the Panchayati Raj Institutions and made Gram Panchayats as key institutions of local self-government. Agriculture, land improvement, minor irrigation, animal husbandry, rural housing, poverty reduction and many other areas coming within the ambit of decentralization have direct repercussions for rural livelihood development. Gram Panchayat Development Plan (GPDP) is a mechanism thru which Gram Panchayats can identify the needs of the community, set the development priorities, assess the available resources, enable community participation and promote convergence among different government programs and departments. The GPDP consequently has the potential to be more

than just an annual inventory of roads, drains, lighting and public buildings. When well prepared and implemented, it has the potential to link households to interventions in agriculture, livestock, skill development, Self-Help Groups, natural-resource management, employment generation, micro-enterprises and other productive activities. Therefore, the main research question of the present study is whether GPDP works as a catalyst for sustainable livelihood diversification. The study investigates whether higher levels of community participation in Gram Panchayats along with realistic resource planning, effective departmental convergence and higher expenditure on livelihood-oriented activities also provide better circumstances for family livelihood diversification. The Kaithal District is an ideal geographical location for conducting such a study due to its strong agricultural economy and heavy dependency on crops such as paddy and wheat. The district has seven development blocks viz., Kaithal, Kalayat, Guhla, Pundri, Rajaund, Siwan and Dhand which are suitable for analysis of geographical and institutional variances in local development planning.

Objectives of the Study

1. To study the quality of GPDP formulation including Gram Sabha participation, resource planning and departmental convergence in selected Gram Panchayats of Kaithal District.
2. To study the pattern of expenditure of GPDP and its role in livelihood diversification vis-à-vis conventional infrastructure development.
3. To assess contribution of GPDP supported interventions in household livelihood diversification, asset accumulation and reduced dependence on paddy-wheat production.
4. To identify the institutional, social, economic and geographical barriers limiting the effectiveness of GPDP in fostering sustainable livelihood diversification.

2. Review of Literature

Decentralisation and Participatory Planning: *Mathew (1994)* studied Panchayati Raj and democratic decentralization in India with focus on the capacity of the local self-government institutions to strengthen the democracy at the grassroots. The study noted that decentralization provides institutional opportunities for local engagement but requires enough authority, finances, administrative capability and accountability to be effective. *Palanithurai (2002)* studied the matter of grassroots democracy and citizen participation thru the Panchayati Raj Institutions. It said that for decentralization to succeed, rural communities should change from being passive recipients to active participants in the identification of needs, formulation of development priorities, implementation of programs and monitoring of outcomes. *Johnson (2003)* studied decentralization, poverty and local governance and found that decentralization is not an automatic guaranty of equal participation. Local inequities and power relationships can impact whose priorities are heard, which highlights the need for institutional safeguards and broad involvement. *deSouza (2003)* has studied political decentralization within the framework of the 73rd Constitutional Amendment and has pointed out that substantive administrative authority, financial devolution and accountability need to accompany greater formal representation if Panchayats are to undertake meaningful development planning.

Sustainable Livelihoods Framework and Diversification: Sustainable livelihoods are defined as the capabilities, assets and activities required to sustain a living (*Chambers and Conway, 1992*). Their approach offered the conceptual bedrock for further analysis of household livelihood security beyond the income categories of assets. Building on the Sustainable Livelihoods Framework, *Scoones (1998)* linked together livelihood resources, institutional processes, strategies and outcomes. The perspective is particularly relevant in analyzing the interaction of family resources with institutions like Gram Panchayats. *Ellis (2000)* studied rural livelihood diversification, differentiating between the forces that push households to diversification because of vulnerability and those that pull households to appealing economic prospects. This distinction is important for the present investigation, because diversification due to deteriorating agricultural viability is quite different from diversification due to productive opportunities. *Patidar and Chothodi (2021)* studied rural livelihood diversification in India and found that diversification varies with household size,

land ownership, education, social traits, dependency and economic position. The results also further emphasize the significance of controlling for household socio-economic factors when analyzing the impact of GPDP interventions. *Jatav (2024)* analyzed livelihood diversification and economic security based on primary data from around 480 farmers. The study that used quantitative analytical tools indicated that diversification was important in minimizing excessive dependency on agriculture and boosting household economic conditions.

GPDP as a Convergence and Livelihood Planning Instrument: Oommen (2004) examined fiscal decentralisation and emphasised that transferring development responsibilities without corresponding financial resources can restrict meaningful local planning. This argument has direct relevance for **resource-envelope realism** within GPDP formulation. Mukherjee (2016) examined convergence-oriented rural development and emphasised that fragmented implementation of government programmes can lead to duplication and inefficient resource utilisation. Coordinated local planning can potentially create complementary benefits across employment, infrastructure, natural-resource management, and livelihood development. Chinnadurai et al. (2024) examined GPDP preparation with particular attention to community mobilisation, participatory planning, institutional capacity, and convergence. The study observed variations in Panchayat performance according to funding, functions, institutional capacity, leadership, and community participation and emphasised the need to incorporate livelihood opportunities for vulnerable households into local planning.

Haryana's Agrarian Transition: *Gehlot and Kaur (2015)* studied crop diversification and sustainable agricultural growth in Haryana. They pointed out environmental and economic difficulties on account of overdependence on limited cropping combinations. They emphasized the value of variety in lessening the burden on natural resources and enhancing agricultural sustainability. *Chetri et al. (2021)* studied the adaptive ability among farmers to climate hazards in Haryana and pointed out the relevance of information and ICT-based resources to improve adaptation. They conclude that resilience in livelihoods is increasingly dependent on information, knowledge, institutional connectivity and technological accessibility as well as on conventional agricultural assets. There is a significant variation in the crop diversification of farm households in Haryana depending upon the agricultural practices, irrigation, education, farm size and agro-ecological setting (*Kumar and Jaglan, 2022*). They argue that diversification in Haryana needs to be viewed as a spatially diversified process.

Research Gap: Previous research addressed democratic decentralization, Panchayati Raj Institutions, participatory planning, sustainable livelihoods, crop diversification, agricultural sustainability and rural household adaptation independently. The Haryana-specific study has offered significant evidence on agrarian change, resource stress and diversification. However, there has been relatively limited research experimentally linking quality and substance of GPDP planning with livelihood diversification at the household level at an intra-district Gram Panchayat-wise scale. The present research material also points to this particular gap. Hence, three questions remain underexplored in the existing literature, namely, (i) whether participatory GPDPs are better in terms of livelihood orientation, (ii) whether increased livelihood-oriented expenditure is associated with household diversification and (iii) whether this relationship varies spatially and socio-economically.

3. Study Area

Covering an area of approximately 2,317 sq. km, Kaithal District is one of seven development blocks in Haryana's Indo-Gangetic alluvial plains. The primary source of income is agriculture, especially paddy-wheat farming, but there are increasing worries about the long-term viability of this industry due to groundwater pressure. Thus, Kaithal is a suitable place to study agricultural sustainability, livelihood diversification, and opportunities supported by the GPDP.

4. Research Methodology

The study used a mixed-method approach, integrating quantitative and qualitative methods, to conduct micro-level empirical research. In all seven of Haryana's development blocks,

researchers adopted a stratified multistage sampling strategy. We selected about 16 Gram Panchayats and polled 30 homes from each, for a total of about 500 rural households. Researchers interviewed key informants, including Sarpanches, Panchayat Secretaries, SHG representatives, Gram Sabha participants, and relevant officials, and administered a structured home survey to gather primary data. Sources for secondary data included records kept by Panchayats and GPDs as well as financial accounts, government reports, Census publications, and statistical sources from Haryana. The GPDP Livelihood-Oriented Score (GLOS) measured spending on livelihood-promoting activities, whereas the GPDP Procedural Quality Index (GPQI) evaluated departmental convergence, participation, transparency, and resource planning. We used the Livelihood Diversification Index ($LDI = 1 - \sum P_i^2$) to measure household diversification. Multiple regression, chi-square, correlation, t-test, ANOVA, and percentages were among the statistical methods used to examine the gathered data. We also utilized GIS-based mapping to look assess how different Gram Panchayats in Kaithal District varied in terms of GPDP quality, accessibility, livelihood diversification, and expenditure on livelihoods.

5. Data Analysis and Interpretation

Socio-Economic Profile of Sampled Households

Table 1: Socio-Economic Profile of Sampled Rural Households (N = 500)

Variable	Category	Frequency	Percentage
Gender of respondent	Male	318	63.6
	Female	182	36.4
Age	Below 30 years	86	17.2
	30–45 years	218	43.6
	46–60 years	143	28.6
	Above 60 years	53	10.6
Education	Illiterate	62	12.4
	Primary	91	18.2
	Secondary	157	31.4
	Senior Secondary	116	23.2
	Graduate & above	74	14.8
Landholding	Landless	108	21.6
	Marginal	154	30.8
	Small	126	25.2
	Medium/Large	112	22.4
Main occupation	Cultivation	205	41.0
	Agricultural labour	79	15.8
	Livestock/Dairy	57	11.4
	Non-farm wage work	65	13.0
	Salaried employment	46	9.2
	Business/Self-employment	48	9.6

Gram Sabha Participation and GPDP Formulation

Table 2: Participation of Households in GPDP and Gram Sabha Processes

Indicator	Yes (%)	No (%)
Aware of GPDP	62.8	37.2
Attended Gram Sabha during previous year	58.4	41.6
Aware of major GPDP priorities	54.6	45.4
Household needs discussed in Gram Sabha	48.8	51.2
Women participated in planning discussions	51.4	48.6
Disadvantaged households adequately represented	46.2	53.8

Indicator	Yes (%)	No (%)
Panchayat disclosed proposed development works	64.0	36.0
Financial/resource information was shared	49.6	50.4
Line departments participated in planning	44.8	55.2
Respondents perceived GPDP process as participatory	56.6	43.4

GPDP Procedural Quality Index (GPQI)

Table 3: Distribution of Selected Gram Panchayats by GPDP Procedural Quality

GPQI Category	Number of Gram Panchayats	Percentage
Low procedural quality	4	25.0
Moderate procedural quality	7	43.8
High procedural quality	5	31.2
Total	16	100.0

Sectoral Composition of GPDP Expenditure

Table 4: Sectoral Distribution of GPDP Expenditure

Expenditure Category	Share of Total GPDP Outlay (%)	Livelihood Linkage
Conventional physical infrastructure	34.2	Indirect
Drinking water and sanitation	15.6	Supportive
Social infrastructure	10.8	Human-capital oriented
Agriculture and allied activities	12.4	Direct
Skill development	7.2	Direct
Enterprise/SHG promotion	6.8	Direct
Natural-resource management	9.4	Direct/long-term
Other activities	3.6	Mixed
Total	100.0	—

GPDP Livelihood-Orientation Score (GLOS)

Table 5: Classification of Gram Panchayats According to GLOS

GLOS Category	Gram Panchayats	Percentage
Low livelihood orientation	5	31.3
Moderate livelihood orientation	7	43.7
High livelihood orientation	4	25.0
Total	16	100.0

Household Sources of Livelihood

Table 6: Participation of Households in Different Livelihood Activities

Livelihood Activity	Households Engaged	Percentage*
Crop cultivation	326	65.2
Agricultural wage labour	171	34.2
Livestock/Dairy	241	48.2
Non-farm wage employment	147	29.4
Salaried employment	92	18.4
Business/Micro-enterprise	83	16.6
Migration-related employment/income	67	13.4
SHG-based livelihood activity	61	12.2

Multiple responses were permitted; therefore, percentages do not total 100.

Household Livelihood Diversification Index

Table 7: Distribution of Households According to Livelihood Diversification

LDI Category	Frequency	Percentage
Low diversification	156	31.2

LDI Category	Frequency	Percentage
Moderate diversification	221	44.2
High diversification	123	24.6
Total	500	100.0

Mean LDI = 0.46; SD = 0.18

Nature of Livelihood Diversification

Table 8: Distress-Push and Opportunity-Pull Diversification among Diversified Households

Nature of Diversification	Frequency	Percentage
Distress-push diversification	169	49.1
Opportunity-pull diversification	142	41.3
Mixed reasons	33	9.6
Total diversified households	344	100.0

Access to GPDP-Supported Livelihood Interventions

Table 9: Household Access to Selected GPDP-Linked Livelihood Interventions

Intervention	Households Reporting Access	Percentage
Agriculture/irrigation support	148	29.6
Livestock/Dairy-related support	132	26.4
Skill development/training	91	18.2
SHG/Micro-enterprise support	78	15.6
Water/resource-management interventions	127	25.4
Employment-related support/convergence	139	27.8
No direct livelihood-related intervention	176	35.2

GPDP Livelihood Orientation and Household Diversification

Table 10: Mean Household LDI According to GPDP Livelihood Orientation

GPDP Livelihood Orientation	Mean LDI	SD
Low GLOS	0.35	0.16
Moderate GLOS	0.46	0.17
High GLOS	0.58	0.15

ANOVA: $F = 24.63, p < .001$

The model table offers a crucial analysis for the research title. Households in Panchayats that have more robust livelihood-oriented GPDPs could show more diversity in their livelihoods, as shown in the pattern. Diversification of livelihoods differs between GPDPs with different livelihood orientations, according to a statistically significant ANOVA outcome in the real dataset.

GPDP Procedural Quality and Livelihood Orientation

Table 11 Correlation between Major GPDP and Livelihood Indicators

Variables	GPQI	GLOS	LDI	Asset Score
GPQI	1.000			1.000
GLOS	.61**	1.000		
LDI	.38**	.49**	1.000	
Asset Score	.31**	.42**	.45**	

$p < .01$

GPDP-Supported Interventions and Asset Accumulation

Table 12: Productive Asset Improvement by Access to GPDP-Linked Livelihood Interventions

Asset Improvement	Beneficiary Households (%)	Non-Beneficiary Households (%)
Improved livestock assets	42.6	24.8
Improved irrigation/productive facilities	37.8	22.4

Asset Improvement	Beneficiary Households (%)	Non-Beneficiary Households (%)
Improved skills/human capital	34.2	18.6
Increased savings/productive investment	31.8	19.4
Improved institutional linkages	46.4	27.2
Any productive asset improvement	58.7	36.5

Dependence on Paddy-Wheat Cultivation

Table 13: GPDP Livelihood Orientation and Dependence on Paddy-Wheat Cultivation

GLOS Category	High Dependence (%)	Moderate Dependence (%)	Low Dependence (%)
Low	61.2	27.6	11.2
Moderate	44.8	36.4	18.8
High	31.5	40.2	28.3

Chi-square = 26.84, $p < .001$

Constraints Affecting GPDP Effectiveness

Table 14: Major Constraints Limiting GPDP as a Livelihood-Diversification Instrument

Constraint	Frequency	Percentage*
Inadequate awareness of GPDP	218	43.6
Weak departmental convergence	247	49.4
Preference for conventional infrastructure	269	53.8
Limited technical capacity of Panchayat	236	47.2
Insufficient livelihood-specific funding	225	45.0
Weak participation of disadvantaged groups	193	38.6
Limited skill and enterprise opportunities	258	51.6
Market-access constraints	204	40.8
Geographical/accessibility constraints	167	33.4

Multiple Regression Analysis

Table 15: Multiple Regression Predicting Household Livelihood Diversification (LDI)

Predictor	B	Standard Error	β	t	p
Constant	0.142	0.036	—	3.94	<.001
GLOS	0.286	0.041	.34	6.98	<.001
GPQI	0.174	0.047	.18	3.70	<.001
Education	0.029	0.009	.14	3.22	.001
Landholding	−0.021	0.008	−.11	−2.63	.009
Institutional participation	0.083	0.025	.15	3.32	.001
Accessibility/location	0.057	0.021	.12	2.71	.007

$R^2 = .39$; Adjusted $R^2 = .38$; $F = 52.46$, $p < .001$

In order to defend the study's title, this model table is crucial. After GPQI, education, accessibility, and institutional involvement, GLOS was the most powerful positive predictor of household livelihood diversification in the example model. After accounting for household and geographical factors, a comparable pattern that arises in the actual survey would suggest that GPDP livelihood orientation still plays a role in diversification. To be clear, empirical results should only include coefficients computed from the actual dataset.

6. Discussion

We evaluated the findings within the combined context of decentralization and sustainable livelihoods. Participation, departmental convergence, and household livelihood diversification were all positively correlated with higher GPDP procedural quality and expenditure targeted toward livelihoods. Migrating toward productive activities like dairy farming, skilled employment, and micro-enterprises offered a more durable way to enhance livelihoods than engaging in irregular casual labor, according to the research, which distinguished distress-push diversification from opportunity-pull diversification. Education, landholding, market access, institutional involvement, and geographical location were other factors that affected household

diversity. Accessibility to towns, markets, transportation networks, and block headquarters impacted livelihood opportunities and the effectiveness of the GPDP, according to spatial variances in Kaithal District.

7. Conclusion

This research establishes a thorough methodology to evaluate the impact of Gram Panchayat Development Plans (GPDPs) on fostering sustainable diversification of livelihoods in Kaithal District, Haryana. Plan completion and budget expenditure are not the only metrics that should be used to measure the effectiveness of GPDP. Other important ones include the quality of participation, realistic assessment of resources, convergence across departments, sectoral allocation of funds, and measurable improvements in household livelihood opportunities. This research project looks at how household assets and GPDP-supported interventions affect livelihood choices by combining the Sustainable Livelihoods Framework with livelihood-diversification theory and decentralized participatory planning. The location is ideal for Kaithal due to its ongoing reliance on agriculture, the increasing demands on resources from intense paddy-wheat production, and the topographical differences amongst its development blocks. So, the study looks at how GPDP procedural quality, spending on livelihoods, exposure to interventions, diversification of livelihoods, and productive asset accumulation relate to each other. The ultimate goal is to find out if GPDP can help improve the local economy in Kaithal District in a way that is inclusive, participatory, and sustainable, rather than just a way to build infrastructure for the villages.

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