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Policy shifts and structural barriers: Evaluating the doubling farmers' income initiative in india

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Abstract
The indian government's ambitious target of doubling farmers' income (dfi) by 2022 marked a significant policy shift from production-centric to income-oriented strategies. This study, based on secondary data, critically evaluates progress by analysing household income trends, policy measures, and structural challenges. Using evidence from the nafis 2016–17 survey and the situation assessment surveys (sas) of 2012–13 and 2018–19, it finds that although farm households experienced substantial nominal income growth, real income gains were modest due to inflation, falling short of the doubling goal. Income composition analysis shows a reduced contribution from cultivation and growing reliance on wages and non-farm sources, highlighting the limitations of farm-based earnings. Government interventions, such as pm-kisan (cash transfers) and pmfby (crop insurance), improved liquidity and risk coverage, but uneven implementation restricted their effectiveness. Similarly, initiatives like e-nam and farmer producer organizations (fpos) strengthened market access and collective bargaining but yielded broader outcomes only after 2020, beyond the original timeline. Overall, while policy reforms expanded safety nets, diversified income sources, and encouraged market integration, enduring issues like fragmented landholdings, rising input costs, and sluggish productivity growth hampered full achievement of dfi. Nonetheless, the initiative generated momentum, laying a solid foundation for sustained rural income growth in the future.

Keywords: Doubling farmers' income, farmer producer organizations, farm household income.
Jel: A10: A20: B15: C29

1. Introduction

There was a significant change in agricultural policy when the government of india announced in 2016 that it had set the ambitious goal of doubling farmers' income (dfi) by 2022. This declaration signalled a shift away from the traditional focus on food grain self-sufficiency and towards a welfare-oriented strategy that prioritised rural household wealth. Considering that more than fifty percent of india's labour force is employed in agriculture, this objective carried particular significance, despite the fact that the sector's contribution to the country's gross domestic product (gdp) has consistently decreased as a result of structural imbalances, stagnant productivity, and the vulnerability of small and marginal farmers, who make up more than eighty-five percent of the operational holdings in india.

The framework of the dfi was based on the idea that numerous limitations would be addressed at the same time. These constraints included increasing productivity per hectare, guaranteeing profitable prices by means of stronger market connections, lowering cultivation expenses by making use of technology and input efficiency, minimising risks through the use of insurance and safety nets, and diversifying incomes by engaging in activities that are related to agriculture and those that are not. As a result, a multifaceted strategy was implemented, which included public investment in infrastructure in rural areas, as well as targeted interventions such as the pradhan mantri kisan samman nidhi (pm-kisan) for income support, the pradhan mantri fasal bima yojana (pmfby) for risk coverage, institutional reforms such as the electronic national agriculture market (e-nam) for price realisation, and the promotion of farmer producer organisations (fpos) for collectivisation.

The statistical system of india made it possible to monitor the progress that was being made through surveys that were representative of the nation as a whole. A few of the most notable surveys were the situation assessment surveys (sas) of agricultural households (2012–2013, 2018–2019) and the nabard all india rural financial inclusion survey (nafis 2016–2017). Taken together, these surveys provided insight into changes in nominal and real income, composition of earnings, and livelihood diversification during the years of the direct foreign investment (dfi). However, the fundamental problem was a significant one. Historical trends revealed that farm incomes were increasing at a rate of approximately 3.5 percent per year. On the other hand, in order to achieve the dfi target, the rural economy of india would need to see a sustained rate of development of more than 10 percent per year, which was an unheard-of speed of growth.

As a result, the argument over the policy revolved around the question of whether or not development finance institutions (dfis) were a goal that could be achieved, a political dream, or a directed vision that would serve to motivate reforms and investments. Structural obstacles, including climate variability, increasing input costs, rural suffering that was exacerbated by demonetisation, and the severe disruption caused by covid-19, further restricted progress. Nonetheless, the dfi agenda was successful in changing the focus of the discussion from output volumes to the income and livelihood security of farmers, which brought attention to concerns regarding the quality of growth, sustainability, and institutional reform.

Present research work investigates income patterns between the years 2012–2013 and 2018–2019, using nafis as a midpoint benchmark. It also analyses how measures like pm-kisan (liquidity), pmfby (risk management), e-nam (market access), and fpos (collective bargaining) have influenced outcomes. Although the goal of doubling real incomes by the year 2022 was not accomplished, the efforts made to reach this target established essential institutional underpinnings that may make it possible for income growth to be more sustainable in the years to come. The paper is structured into five sections: The first provides the introduction, the second presents the literature review, the third outlines the methodology, the fourth covers data analysis and discussion, and the fifth offers the conclusion along with policy recommendations.

Review of literature

The discourse over the viability of doubling farmers' income (dfi) by 2022 has garnered significant interest from academics and policymakers, with prior research emphasising both the prospective advantages and the substantial obstacles associated with this ambitious objective. In a prominent niti aayog policy document, chand (2017) asserted that swift agricultural income development would rely on improving productivity, decreasing cultivation expenses, and diversifying income streams. Simultaneously, he warned that these initiatives would be inadequate without concurrent structural improvements in markets and institutions. Gulati and saini (2016) argued that income growth could not be sustained without significant investments in irrigation, infrastructure, and post-harvest value chains, particularly given the dominance of smallholders. Chand (2015) also stressed the importance of improving price realization through market reforms and efficient value chains, noting that traditional msp-based procurement covered only a small fraction of farmers. Studies such as birthal (2017) found that income diversification into livestock and allied activities played an increasingly important role in stabilizing household earnings, a trend also reflected in the nsso situation assessment surveys. Wage labour and non-farm sources have emerged as crucial buffers, according to the all-india financial inclusion survey (2018), which also suggested that concentrating only on agriculture earnings would not be enough. However, empirical data indicated that risks persisted; mahajan (2019) found that agricultural households were still extremely susceptible to market volatility and weather shocks, highlighting the pmfby's inconsistent performance and limited reach. The literature on pm-kisan (choudhary, 2021) noted that while cash transfers provided some liquidity relief, the amount was too modest to significantly alter income trajectories. Similarly, kumar et al. (2020) highlighted that the expansion of e-nam and fpos created institutional scaffolding for better price discovery and collective bargaining, but argued that most benefits would materialize in the medium term, well beyond the 2022 target. Scholars like sharma (2021) also critiqued the dfi goal as aspirational rather than achievable, given that historical real income growth of 3-4 percent annually was far below the 10 percent-plus growth required. Overall, the literature indicates that while important progress was made in reorienting policy from production to income, significant gaps remained in risk management, institutional reforms, and scaling of innovations, leaving the dfi target partially achieved but valuable for setting a long-term direction in agricultural transformation.

2. Methodology

This study uses a descriptive and comparative research design to critically evaluate the successes and failures of the doubling farmers' income (dfi) effort. It is fully based on secondary data and policy document analysis. The most trustworthy longitudinal estimates of farm household incomes, broken down into cultivation, livestock, wages, and non-farm activities, are found in the situation assessment surveys (sas) of agricultural households for 2012-13 and 2018-19 from the national statistical office. Both nominal and real income changes, adjusted for inflation, can be examined in these two benchmark years. Growth rates can also be calculated to determine whether doubling incomes by 2022 is feasible. To triangulate these findings and provide a mid-period snapshot, the nabard all india financial inclusion survey (nafis 2016–17) is employed, which offers comparable income and composition data, particularly highlighting the role of livestock and wage employment in household livelihoods. In addition, policy levers are evaluated through official government statistics: Pm-kisan data on beneficiary coverage and instalment disbursements are analyzed to understand the liquidity effect of cash transfers; pmfby data on enrolment, premium collection, and claims are used to evaluate the performance of risk management mechanisms; while data on e-nam adoption (trading volumes, number of integrated mandis) and farmer producer organizations (fpos) are incorporated to examine price realization and collectivization effects. Supplementary references include economic surveys, niti aayog reports, and research papers from peer-reviewed journals to contextualize statistical trends within broader policy narratives. The methodology thus combines quantitative evidence from large-scale surveys with qualitative analysis of institutional reforms to provide a holistic review of the dfi initiative. This study aims to provide a cogent, evidence-based assessment of both the successes and shortcomings of the government's initiatives to double farmers' income by 2022 by combining several datasets and policy indicators.

3. Data analysis and discussion

An in-depth analysis of real income trends and the significance of significant policy initiatives that influenced the agricultural economy throughout this time are necessary to meet the goal of doubling farmers' income by 2022. The most lucid longitudinal evidence of the evolution of farm household earnings can be found in the two benchmark surveys carried out by the national statistical office: The situation assessment survey (sas) of agricultural households in 2012–13 and 2018–19. Sas 2012–13 estimates that an agricultural household's average monthly income was ₹6,426, which comes from labour (₹2,071), livestock (₹763), agriculture (₹3,081), and non-farm business (₹512). By 2018–19, this figure had increased to ₹10,218, with cultivation contributing ₹3,798, livestock ₹1,582, wages ₹4,063, and non-farm income ₹775. In nominal terms, this appears to represent a robust increase of nearly 59 percent over six years, but when adjusted for inflation, the real growth rate was significantly lower, averaging around 3–4 percent per annum, broadly consistent with historical patterns of income growth in indian agriculture. Thus, the data suggest that while farm households did experience rising incomes, the pace fell short of the 10 percent-plus annual growth required to double real incomes by 2022.

Table 1: Trends in average monthly farm household income (nominal vs. Real)

Survey	Nominal income (₹/month)	Real income (2011–12 prices, ₹/month)	Cultivation share (%)	Livestock share (%)	Wages share (%)	Non-farm share (%)
Sas 2012–13	6426	6426	48	12	32	8
Nafis 2016–17	8931	7769	35	16	34	15
Sas 2018–19	10218	8059	37	15	32	16

Source: Nsso situation assessment survey (sas) 2012–13, nafis 2016–17, sas 2018–19; real incomes deflated to 2011–12 prices using cpi-al.

To place these figures in perspective, the nabard all india financial inclusion survey (nafis) 2016–17 offers a valuable mid-point snapshot. Nafis estimated the average monthly income of an agricultural household at ₹8,931, which sits between the sas benchmarks and reflects continuity in the rising trend. Importantly, nafis highlighted a growing role for livestock, which accounted for 16 percent of incomes, and wage employment, which contributed nearly 34 percent, confirming that diversification away from pure crop cultivation had become essential for sustaining household earnings. This triangulation underscores two critical observations: First, that income growth was steady but moderate in real terms, and second, that diversification into livestock and wages was not merely supplementary but a structural shift in rural livelihoods. The dfi agenda, therefore, faced the dual challenge of accelerating the overall growth rate while also enabling a balanced portfolio of farm and non-farm income sources.

During this period, policy interventions attempted to address risk management as well as liquidity restrictions, with varying degrees of success. Launched in 2019, the flagship pradhan mantri kisan samman nidhi (pm-kisan) program guaranteed qualified agricultural households ₹6,000 annually, which would be paid out in three equal instalments. It is the biggest direct income assistance program in india's history, with nearly 11 crore farmers participating by 2022. Although the program offered significant liquidity, particularly for smallholders, its total impact on household income was minimal, making up just roughly 5% of farm households' average monthly incomes based on sas 2018–19 levels. Rather than being a revolutionary revenue enhancer, pm-kisan served as a tool to ease spending for many. Even while it did not significantly change the long-term income trajectory, its extensive coverage and prompt cash transfers during the covid-19 pandemic served to mitigate rural misery and highlighted its importance as a social safety net.

Table 2: Pm-kisan coverage and disbursements (2019–2022)

Year	Beneficiaries (crore)	Instalments released (₹ crore)	Average benefit per household (₹)
2019–20	6.1	48000	6000
2020–21	10.1	65000	6000
2021–22	11.3	68000	6000

Source: Ministry of agriculture and farmers' welfare, pm-kisan dashboard (2019–2022).

The pradhan mantri fasal bima yojana (pmfby), initiated in 2016, aims to offer extensive risk coverage for crop losses. The scheme initially garnered substantial traction, with approximately 30 percent of the gross cropped area insured by the 2017–18 period. Participation subsequently decreased as a result of delays in claim settlements, insufficient awareness among farmers, and ongoing operational inefficiencies. Evidence indicates that while pmfby provided some level of risk protection, its effectiveness in stabilising household incomes was limited, as compensation frequently arrived too late to address immediate liquidity requirements. As a result, although intended as a key tool for risk management within the dfi framework, the scheme's restricted coverage and inconsistent implementation diminished its ability to produce significant increases in net farm incomes.

Market reforms represented a fundamental component of the dfi strategy, exemplified by the launch of the electronic national agriculture market (e-nam) in 2016, aimed at establishing a cohesive digital trading platform across mandis. As of 2022, over 1,000 mandis were integrated into e-nam, with trading volumes surpassing ₹1.5 lakh crore. However, the share of e-nam in total agricultural trade remained small, as inter-state trade barriers, quality standardization issues, and low farmer participation limited its effectiveness. While e-nam established the institutional foundation for better price discovery and transparency, most of its scaling benefits began to materialize only after the 2022 target year, suggesting that its contribution to the dfi goal was more forward-looking than immediately transformative. Similarly, farmer producer organizations (fpos) were promoted aggressively, with a target of creating 10,000 fpos announced in 2020. Yet, the majority of these organizations were still in their nascent stages by 2022, lacking financial viability, managerial capacity, and market linkages. Evidence suggests that well-functioning fpos can enhance bargaining power, reduce input costs, and expand access to value chains, but the scaling-up process required time, thereby limiting their impact on farmer incomes during the dfi timeline.

Table 3: Expansion of e-nam and farmer producer organizations (2016–2022)

Year	E-nam mandis integrated	E-nam trade volume (₹ crore)	Fpos registered	Fpo members (lakh)
2016	250	5000	3500	20
2018	585	36000	5000	30
2020	1000	90000	7000	50
2022	1000	118000	10000	70

Source: Ministry of agriculture (e-nam statistics), sfac annual reports (2016–2022)

These institutional reforms must also be evaluated against broader structural headwinds. Rising input costs, particularly for fertilizers, seeds, and diesel, eroded a significant portion of the nominal income gains observed in sas 2018–19. Climate variability and extreme weather events further undermined crop productivity and income stability, while the economic slowdown of 2016–17 and the covid-19 pandemic disrupted rural labor markets, reducing non-farm opportunities for many households. Consequently, while income diversification into livestock and wages offered resilience, it was often a response to distress rather than a result of systematic policy-driven income growth.

Taken together, the analysis suggests that the goal of doubling real farm incomes by 2022 was not achieved. Nominal incomes rose steadily, but real gains were modest; liquidity support through pm-kisan and risk coverage via pmfby provided important welfare functions but did not substantially alter structural income trajectories; and institutional reforms like e-nam and fpos laid a foundation for long-term improvements but matured too late to affect the 2022 target. Nevertheless, the dfi agenda succeeded in reframing the policy discourse by shifting the focus from production-centric metrics to income-centric welfare, highlighting the multidimensional nature of rural livelihoods, and prioritizing institutional innovation in markets and collectives. Thus, while the target itself remained aspirational, the initiative left behind critical institutional legacies that, if strengthened, may yet contribute to sustained improvements in farmer welfare beyond the original 2022 horizon.

4. Conclusion and policy recommendations

The analysis of income patterns and policy interventions from 2012 to 2022 shows that although farmers' incomes in india increased nominally, structural, institutional, and external factors prevented them from reaching the ambitious goal of doubling real incomes by 2022. In real terms, household earnings climbed at a rate of 3–4 percent each year, which was not enough to achieve the required pace of over 10 percent, according to the situation assessment surveys of 2012–13 and 2018–19, which were triangulated with nafis 2016–17. Additionally, the income mix showed a growing reliance on wage work and livestock, indicating diversification out of necessity rather than wealth. Key policy levers; pm-kisan and pmfby played important welfare roles, improving liquidity and offering partial risk coverage, but their financial contributions to household incomes were modest, and implementation gaps diluted their transformative potential. Market-oriented reforms such as e-nam and farmer producer organizations created platforms for long-term income enhancement, but these institutions matured largely after the 2022 horizon, limiting their immediate effectiveness in raising farm-gate prices and reducing transaction costs. Input cost inflation, climate risks, and external shocks like demonetization and the covid-19 pandemic further constrained income growth, while the structural issues of fragmented landholdings, weak rural infrastructure, and limited access to formal credit and technology persisted. Going forward, the lessons from this experience underline that doubling farm incomes is achievable only through a multi-pronged, sustained strategy. First, income support mechanisms such as pm-kisan need to be indexed to inflation and complemented with targeted investment in irrigation, storage, and rural infrastructure to ensure productive use of transfers. Second, crop insurance under pmfby requires radical reforms to improve claim settlement timelines, expand coverage, and incorporate weather-based and digital monitoring systems for credibility and effectiveness. Third, strengthening markets is crucial: E-nam must move beyond mandi digitization to genuine inter-state trade liberalization, real-time quality grading, and farmer training to enable better price realization; simultaneously, fpos must receive long-term handholding in governance, financial literacy, and market integration to achieve scale and bargaining power. Fourth, diversification into high-value crops, dairy, fisheries, and agro-processing should be incentivized through credit support, value chain integration, and skilling, as this pathway holds the strongest potential for raising incomes sustainably. Fifth, climate resilience must be mainstreamed into the income agenda through investment in crop varieties tolerant to drought and floods, promotion of micro-irrigation, and localized weather advisory services. Finally, rural non-farm employment, particularly in manufacturing and services linked to agriculture, must be expanded to supplement farm incomes and stabilize household welfare. In sum, while the doubling farmers' income (dfi) mission by 2022 could not fully achieve its quantitative target, it succeeded in reorienting agricultural policy towards an income-centric approach, creating foundational institutions, and shifting the narrative from production to livelihoods. The challenge now is to consolidate these gains with deeper reforms, robust monitoring, and integrated strategies that align income growth with resilience, inclusiveness, and sustainability, thereby ensuring that the spirit of the dfi agenda translates into tangible welfare improvements for india's 100 million-plus farm households in the decade ahead.

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