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Entrepreneurial opportunities for women in animal husbandry: a review

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ABSTRACT

For a landless or marginal farming household in rural India, a pair of milch animals or a small flock of goats can matter far more than the size of the family's landholding. It is against this backdrop that live-stock rearing has come to be seen as one of the more realistic routes to entrepreneurship for rural women, who make up nearly half the country's population yet remain a small minority among its entrepreneurs. Dairying, small ruminant rearing, backyard poultry and piggery ask for relatively little starting capital, fit around household routines, and pay out at frequent intervals, which is precisely why they have taken root among women in a way that few other business options have. This paper draws together the scattered literature on the subject — writing on the idea of entrepreneurship itself, the socio-economic profile of rural India, the qualities that mark out successful women entrepreneurs, and the day-to-day participation of women across dairy, small ruminant, pig and poultry enterprises — into a single account. It also looks at what has actually worked on the ground through a set of documented success stories, surveys the government schemes and institutional mechanisms meant to support women in this space, and is honest about the financial, technological and social barriers that still hold many of them back. The extension efforts of institutions such as Guru Angad Dev Veterinary and Animal Sciences University (GADVASU) are discussed as a working model of how capacity can be built at the grass-roots. Taken together, the evidence suggests that no single intervention will be enough on its own; progress will depend on better access to credit, stronger market linkages, sustained skill-building, and closer coordination between government departments, financial institutions, universities and civil-society organisations working with rural women.

Keywords: Women entrepreneurship, Animal husbandry, Livestock sector, Rural livelihoods, Gender empowerment, Extension education

1. Introduction

Entrepreneurship rarely gets defined the same way twice, but most accounts agree on what it is not: it is not simply the act of opening a shop or a farm gate and hoping for the best. It is closer to a way of thinking — one built around spotting an opportunity before others do, being willing to try something unproven, and staying the course when things do not go as planned (ESMT Berlin, 2025) [1]. The word itself has a long history. Richard Cantillon, an eighteenth-century economist working in France, is usually credited with coining the term, using it to describe someone who takes on risk in exchange for uncertain reward (Cantillon, 1931) [2]. A century later, Francis Walker pushed the idea further, arguing that what set entrepreneurs apart was not risk-bearing alone but a talent for organising land, labour and capital into something productive (Walker, 1876) [3]. It was Joseph Schumpeter, however, who gave the concept its most influential modern form, casting the entrepreneur as an innovator whose new products, processes and markets act as the engine of economic growth (Schumpeter, 1934) [4]. Read together, these three strands — risk, organisation and innovation — still shape how the term is used today, where an entrepreneur is generally understood as someone who spots a gap, pulls together the resources to fill it, and accepts the financial exposure that comes with doing so (Hébert *et al.*, 2018) [5].

There is a useful distinction to be made here between the entrepreneur and the ordinary businessperson. The latter tends to work within markets that already exist, following business models that are more or less proven, and consequently carries less risk (Hébert *et al.*, 2018) [5]. The entrepreneur, by contrast, is trying to do something that has not quite been done before, or at least not in that particular market — which is what makes the venture both riskier and, when it works, more transformative (Schumpeter, 1934; Hébert *et al.*, 2018) [4, 5]. Nowhere is this distinction more relevant than in Indian livestock keeping, an activity long dominated by women's labour but rarely, until recently, thought of in entrepreneurial terms. Women feed, milk, breed and nurse the animals that keep rural households afloat, yet they are seldom the ones who decide what to sell, when to sell it, or where the profits go. This review sets out to bring together what is known about that gap — the ideas that frame entrepreneurship, the ground realities of rural India, the traits that mark out

women who have managed to build real enterprises, the support structures meant to help them, and the obstacles that keep getting in the way.

2. Review methodology

The material for this review was pulled together from a fairly wide net of secondary sources: peer-reviewed papers appearing mainly in the Indian Journal of Extension Education and related journals, official reports and statistical bulletins from the Department of Animal Husbandry and Dairying (DAHD), the Ministry of Statistics and Programme Implementation (MoSPI), NITI Aayog, NABARD, the Food and Agriculture Organization (FAO) and the World Bank, and field-level documentation from Krishi Vigyan Kendras and Guru Angad Dev Veterinary and Animal Sciences University (GADVASU). Publications spanning roughly 2015 to 2026 were considered and grouped under themes that emerged naturally from the material itself — the conceptual grounding of entrepreneurship, the socio-economic backdrop of rural India, the traits of successful women entrepreneurs, the shape of the livestock sector, women's involvement sub-sector by sub-sector, documented success stories, government schemes, recurring constraints, and extension approaches — rather than forced into a rigid template.

3. Demographic and economic landscape of rural India

To see why livestock has become such a natural entry point into entrepreneurship for rural women, it helps to first look at who actually farms in India and how much land they have to work with. Roughly 54% of rural households derive their livelihood from agriculture, but the land beneath their feet is thinly spread — close to 70% of these households cultivate less than a hectare, and barely 0.4% hold more than ten (National Statistical Office, 2019) [6]. In other words, farming in India is overwhelmingly a smallholder affair, and for households squeezed onto a fraction of a hectare, crop income alone rarely stretches far enough. Livestock fills that gap: a cow or a few goats can be kept on a courtyard or a strip of common land, and the income they generate does not depend on how many acres a family owns.

Women make up 48.41% of the population (Registrar General & Census Commissioner of India, 2011) [7], but this near-parity in numbers has never translated into parity in the workforce (Wheebox *et al.*, 2023) [8]. The regional picture is sobering: in Haryana, only 12.7% of young women were either working or actively looking for work (PLFS, 2023) [9], and Punjab tells much the same story, with formal employment for rural women remaining thin on the ground (Department of Animal Husbandry and Dairying, 2022) [10]. It is perhaps unsurprising, then, that women account for a mere 7–8% of India's entrepreneurs despite being close to half its population (Ministry of Statistics and Programme Implementation, 2016) [11]. The reasons are not mysterious — unequal inheritance rights, social restrictions on mobility, patchy access to credit, and a general lack of institutional backing all play their part (NITI Aayog, 2022; World Bank, 2023) [12, 13] — but they are stubborn, and rural women bear the brunt of them most, given their comparatively lower education levels and their limited say over both productive assets and household decisions.

4. Imperative and multifaceted benefits of women entrepreneurship

It would be a mistake to frame support for women entrepreneurs purely as a matter of fairness, though fairness is certainly part of it. There is also a hard economic case: women-run enterprises add to household income, create jobs, and chip away at poverty in ways that ripple out well beyond the individual entrepreneur (United Nations, 2015) [14]. The numbers bear this out. The Female Labour Force Participation Rate climbed to 42.0% in 2024–25 (Ministry of Statistics and Programme Implementation, 2025) [15], more than 73,000 start-ups recognised by DPIIT now count at least one woman

among their directors (Department for Promotion of Industry and Internal Trade, 2025) [16], and by November 2024 more than 2.20 crore women-owned enterprises had registered on the Udyam platforms (Ministry of Micro *et al.*, 2024) [17] — figures that, taken together, suggest something more than incremental change.

What these statistics do not capture as easily is what happens inside a household once a woman starts earning through her own enterprise. She tends to become more attuned to markets and to the schemes available to her, her social circle widens beyond the immediate family, and her voice in household decisions — often for the first time — carries real weight (United Nations, 2015; NITI Aayog *et al.*, 2025) [14, 18]. The income itself gets spent differently too, more often finding its way into children's schooling, healthcare and household nutrition, which is part of why women's entrepreneurship keeps turning up in development literature as a lever for change that reaches well past the balance sheet (United Nations, 2015; NITI Aayog *et al.*, 2025) [14, 18].

5. Core attributes and competencies of successful women entrepreneurs

Ask a woman who has built a successful dairy or poultry enterprise what got her there, and risk-taking usually comes up early in the conversation — not recklessness, but a willingness to weigh a risk and go ahead anyway once the odds seem worth it (Balasundaram *et al.*, 2024) [19]. That same steadiness has to hold up against things no business plan can fully anticipate: a sudden jump in feed prices, an outbreak of disease in the flock, a heatwave that cuts milk yield overnight (Fayaz *et al.*, 2023) [20]. Layered on top of this is the ordinary logistics of running a household and an enterprise at the same time, which puts a premium on tight time management (Singh *et al.*, 2023) [21], and the everyday people-skills needed to keep workers, buyers and even the animals themselves in good order (Kovid *et al.*, 2023) [22].

Money management turns out to matter more than is often assumed — keeping honest records, watching cash flow, and ploughing profits back into the enterprise rather than spending them immediately (Singh *et al.*, 2023) [21] — and none of it works without the kind of stubbornness that livestock farming demands, given that animals need attention every single day of the year (Fayaz *et al.*, 2023) [20]. The entrepreneurs who go furthest tend to set goals they can actually reach, keep learning through whatever training or extension contact comes their way, and are comfortable enough talking to buyers, banks and officials to get what their enterprise needs (Singh *et al.*, 2023) [21]. Research on the subject converges on a similar shortlist of traits: confidence in one's own abilities (Fayaz *et al.*, 2023) [20], sound business judgement (Singh *et al.*, 2023) [21], a drive to achieve (Kovid *et al.*, 2023) [22], a taste for calculated risk (Balasundaram *et al.*, 2024) [19], and the ability to make decisions without being swayed by bias (Kuhar *et al.*, 2024) [23] — rounded out by leadership (Fayaz *et al.*, 2023) [20], a knack for building networks (Singh *et al.*, 2023) [21], and the emotional resilience to keep going when things go wrong (Kovid *et al.*, 2023) [22].

6. Macro overview of the Indian livestock sector

It is worth pausing on just how large the livestock sector has grown, because the scale of it is easy to underestimate. It now accounts for 30.23% of Agricultural Gross Value Added and 5.5% of the country's overall GVA (Department of Animal Husbandry and Dairying, 2024) [24] — figures that place it well ahead of many crop sub-sectors in terms of economic weight. India produced 239.3 million tonnes of milk in 2023–24, more than any other country in the world (Ministry of Fisheries *et al.*, 2024) [25], and sits just behind China as the second-largest egg producer, turning out about 149.11 billion eggs and over 5 million tonnes of poultry meat in 2024–25 (Department of Animal Husbandry and Dairying, 2025) [26]. None of this happens without women's labour. They feed, breed, milk, nurse and clean up after the animals that make these numbers possible (Department of

Animal Husbandry and Dairying, 2024) [24], and the data reflects it: the Female Labour Force Participation Rate in agriculture and allied activities had risen to around 41.7% by 2023–24 (Ministry of Statistics and Programme Implementation, 2024) [27].

7. Sub-sector analysis: the diverse role of women in livestock production

7.1 Women in the dairy sector

If there is one enterprise that rural women have made unmistakably their own, it is dairying. For landless and marginal households in particular, a milch animal or two provides something crop farming cannot — income that arrives every few days rather than once a season. Women now form close to 70% of the dairy workforce, and the cooperative structure built around milk has grown to include more than 48,000 women-led societies, with women making up about 35% of all cooperative members (Department of Animal Husbandry and Dairying, 2024) [24]. Field surveys back this up in granular detail: women handle 86.25% of milk-handling tasks, 81.88% of utensil cleaning and 75.63% of milking, and still show up heavily in shed cleaning (58.13%), moving animals in and out (44.37%), disposing of dung (41.88%) and even selling surplus milk (35.00%) (Kaur *et al.*, 2019) [28]. A newer study from Hisar district in Haryana finds much the same pattern — women dominate general herd management and feeding, contribute moderately to healthcare and breeding decisions, but fall away sharply once the activity shifts to markets or institutional finance (Himanshi *et al.*, 2026) [29]. That last gap is telling: women are doing the work of dairying but not, for the most part, deciding what happens to its proceeds, which is exactly where financial literacy and leadership training could make the most difference. Evidence from Punjab's own border districts tells a closely related story. Surveys of farm women in the Indo-Pak border areas of Gurdaspur, Amritsar, Tarn Taran and Ferozepur found that while women had reasonably sound working knowledge of everyday dairy husbandry practices, this did not extend to record-keeping, credit access or institutional engagement, and barely half were even aware of GADVASU's own extension services (Kaur *et al.*, 2017) [30]. A companion participation-appraisal of the same border belt confirmed the pattern in behavioural terms: women were found to participate heavily in the physical, non-financial tasks of dairy husbandry, but participation dropped away sharply in activities such as farm record maintenance and securing loans or credit from banks (Kaur *et al.*, 2019) [31]. Taken together with the Punjab- and Haryana-wide surveys above, this reinforces the review's central point — the constraint is not effort but access to the financial and institutional side of the enterprise.

7.2 Women in goat and sheep farming

Goat rearing has a different appeal — it asks for almost no land, next to no starting capital, and can be squeezed into whatever time a woman has left over from other work, while still paying off through milk, meat and the sale of young stock. In practice, women end up being the ones who actually keep the flock alive: a study from Erode district in Tamil Nadu found them responsible for 78.33% of the care given to pregnant animals, 76.66% of manure collection, 63.33% of fodder cutting and chopping, and 60.00% of day-to-day grazing (Rajkumar *et al.*, 2018) [32].

7.3 Women in pig farming

Pig keeping tells a similar story, particularly among tribal and small-holder communities, where women are estimated to carry out around 54% of all rearing tasks — feeding, housing, sanitation, breeding and basic health care (Gangadhar, 2020) [33]. This is especially visible in India's North-East, where backyard piggery is a common household activity and women effectively run it, with real consequences for household income and food security (Pator *et al.*, 2022) [34]. FAO has flagged piggery as one of the more promising entry points for rural

women's enterprise precisely because of this existing base of skill and involvement (FAO, 2023) [35].

7.4 Women in poultry farming

Backyard poultry is often the first enterprise a rural woman ever runs, and it is not hard to see why — the birds live in the courtyard, need little daily investment, and the eggs sell locally without much fuss. Women handle 80–90% of egg collection, feeding and watering, and 70–85% of brooding, chick care and disease management, but their role thins out once money enters the picture: only 40–60% involvement in selling the produce and 30–50% in buying inputs (Shweta *et al.*, 2024) [36]. The pattern repeats across every sub-sector examined here — women do most of the physical and technical work of livestock keeping, yet are pushed to the margins the moment an activity turns into a financial or marketing decision. Closing that gap, rather than simply celebrating women's labour contribution, is really the crux of what entrepreneurship development in this sector needs to achieve (FAO, 2023; Department of Animal Husbandry and Dairying, 2024) [35, 24].

8. Inspiring success stories of leading women livestock entrepreneurs

Numbers and participation rates only tell part of the story; the individual cases fill in the rest. Navalben Dalsangbhai Chaudhary, from Banaskantha district in Gujarat, started with a handful of dairy animals and, through balanced feeding, preventive healthcare and disciplined clean-milk practices, built a business that now turns over more than ₹1 crore a year, selling through the Amul network (Department of Animal Husbandry and Dairying, 2024; Gujarat Cooperative Milk Marketing Federation, 2024) [24, 37]. Not far away, Daryaben Rajput runs a herd of nearly 300 cattle generating roughly ₹1.85 crore annually and employing 14 people [24]. In Punjab, Kulwinder Kaur Ghumaan of Patiala expanded a small dairy unit into an enterprise with about 30 animals — 17 of them milking — producing 60 to 70 quintals of milk a month and a monthly income in the range of ₹2.5–3.0 lakh, work that earned her the Sardarni Jagbir Kaur Grewal Memorial Award from Punjab (Agricultural University) [38].

The pattern holds outside dairy too. Shobha Dangi in Madhya Pradesh began with just two goats and, with support from the National Livestock Mission, built up a flock of around 525 with a mortality rate kept below 5%, an annual income near ₹18 lakh, and 15 people on her payroll (Department of Animal Husbandry and Dairying, 2024) [24]. In Karnataka, Shakuntala Patil manages roughly the same number of sheep, turning over about ₹24 lakh a year (Department of Animal Husbandry and Dairying, 2024) [24]. Anupinder Brar of Bathinda took a slightly different path, moving from raw animal sales into value addition after training at Krishi Vigyan Kendra, Mansa, and now sells hand-spun woollen yarn and garments alongside her sheep and goats (Krishi Vigyan Kendra *et al.*, 2024) [39]. Elsewhere, Mula Sujatha in Srikakulam district grew a handful of backyard birds into a flock of over 1,500, while Jyoti Sharma of Pathankot expanded her piggery from 30 animals to nearly 350 with the help of an institutional loan and government subsidy, later winning the 'Best Pig Breeder' title at her district's livestock championship (Krishi Vigyan Kendra *et al.*, 2023) [40].

Punjab's own dairy belt has also produced a notable, more recent case. Daljeet Kaur Toor of Khosa Kotla village, Moga, became the first woman farmer to be conferred a Chief Minister's Award by GADVASU across any livestock category, honoured in the buffalo category at the university's Pashu Palan Mela. Having set up a modern dairy unit in 2019, her farm now maintains a herd of 32 Nili-Ravi buffaloes, with about 150 litres of milk produced daily from 13 milking animals and a peak yield of 22 litres per animal per day (The Tribune, 2025) [41]. What these stories have in common is not luck but a fairly consistent formula — technical training, access to institutional credit, and a willingness to keep reinvesting rather than cashing out early.

9. Government schemes and institutional support frameworks

None of the success stories above happened in a policy vacuum, and it is worth knowing what infrastructure of support actually exists. The Animal Husbandry Infrastructure Development Fund (AHIDF) is probably the most substantial of these — it offers a 3% interest subvention, finances up to 90% of project cost, and backs this with credit guarantees for anything from dairy processing plants to vaccine production units, with women entrepreneurs given priority in appraisal (Department of Animal Husbandry and Dairying, 2024) [24]. The National Livestock Mission (NLM) works at a smaller scale, offering capital subsidy and training for goat, sheep, poultry, piggery and feed enterprises [24], while the Deendayal Antyodaya Yojana–National Rural Livelihoods Mission (DAY-NRLM) routes revolving funds and skill-building support to women mainly through Self-Help Groups (Ministry of Rural Development, 2024) [42]. Complementing this, GADVASU's own extension research has documented tangible gains among rural women organised into livestock-based Self-Help Groups — including improved technical knowledge, group bargaining power, and better access to institutional credit and markets — though officials running these Self-Help Group Promoting Institutes continue to report their own constraints in sustaining the model (Jadoun *et al.*, 2021) [43].

For smaller, first-time borrowers, the Pradhan Mantri Mudra Yojana offers collateral-free loans up to ₹10 lakh across its Shishu, Kishore and Tarun tiers, which is often the entry point for a small dairy or poultry unit (Ministry of Finance, 2024) [44], while Stand-Up India steps in at a larger scale, financing greenfield enterprises worth ₹10 lakh to ₹1 crore (Stand-Up India, 2024) [45]. NABARD, meanwhile, works less through direct lending and more through its SHG-Bank Linkage Programme and enterprise development initiatives (NABARD, 2024) [46], and the PM Formalisation of Micro Food Processing Enterprises (PMFME) Scheme offers a 35% capital subsidy specifically for processing ventures such as paneer, cheese, ghee or meat products, again with women prioritised (PMFME, 2024) [47]. Beyond these headline schemes sits a longer tail of support — the Dairy Processing and Infrastructure Development Fund, the Khadi and Village (Industries Commission) [48], women-specific credit lines such as Dena Shakti, Udyogini, Cent Kalyani, Mahila Udyam Nidhi, Oriental Mahila Vikas Yojana and Annapurna — backed by training and handholding from NABARD, the Indian Institute of Entrepreneurship, NI-MSME, MANAGE, State Agricultural Universities and the Krishi Vigyan Kendra network (Department of Animal Husbandry and Dairying, 2024; Verma *et al.*, 2023) [24, 49]. The sheer number of schemes is, in one sense, a strength; in another, it is part of the problem, since navigating this landscape is itself a skill many rural women have had no chance to acquire.

10. Persistent challenges faced by women entrepreneurs in the livestock sector

For every Navalben or Shobha Dangi, there are far more women whose enterprises never get off the ground, and the reasons tend to recur. Credit is the most obvious sticking point: a bank asking for collateral gets nowhere with a woman who owns no land in her own name, and financial literacy gaps compound the problem (World Bank, 2024) [50]. This connects to a deeper issue of asset ownership — land, livestock and equipment are still registered mostly in men's names, which leaves women with weaker bargaining power both at the bank and within the household (FAO, 2023) [35]. Even where an enterprise gets started, weak market linkages often mean selling to the nearest trader at whatever price is offered, and poor roads, patchy cold-chain infrastructure and thin veterinary coverage push up costs at every stage (Department of Animal Husbandry and Dairying, 2024) [24]. Add to this a general lack of exposure to newer production technologies and digital advisory tools, plus few opportunities for structured business training, and it becomes clear why productivity gains are so hard to sustain (FAO, 2023) [35].

There are softer barriers too, which are no less real for being harder to quantify. Few women sit on the boards of cooperatives or producer companies, which cuts them off from collective bargaining and, often, from simply knowing that a relevant scheme exists (World Bank, 2024) [50]. Social expectations still constrain how freely a woman can travel to a market or a bank branch, or how much say she gets in decisions involving money (FAO, 2023) [35], and this sits on top of an already full day of housework and childcare that leaves little time or energy for growing a business (World Bank, 2024) [50]. Livestock enterprises also carry their own operational risks — a disease outbreak or a spike in feed prices can wipe out months of income overnight — and small, women-led operations tend to have the thinnest cushion against such shocks, given how little access they have to insurance or climate-resilient practices (FAO, 2023) [35]. Underlying all of this is a simple representational problem: with so few women in leadership positions across cooperatives and policymaking bodies, it is hardly surprising that programmes are not always designed with their actual constraints in mind (Department of Animal Husbandry and Dairying, 2024) [24].

11. Extension strategies and institutional interventions

Good policy design is only half the job; someone still has to carry it to a woman standing outside her cattle shed in a village that the nearest bank branch has never visited. That is where extension work earns its keep. Awareness has to travel through whatever channels actually reach rural women — radio and television still matter, but so do mobile advisories, WhatsApp groups and plain community meetings — carrying not just information about livestock rearing but also about the schemes meant to fund it (Department of Animal Husbandry and Dairying, 2024) [24]. Building and strengthening Self-Help Groups and Farmer Producer Organisations gives women collective weight in markets and credit negotiations that they would never have individually. Seeing is often more persuasive than hearing, which is why exposure visits and live demonstrations tend to work better than lectures, and why street plays, puppet shows and short videos have proved effective in villages with lower literacy (MANAGE, 2023) [51].

Once a woman decides to start, the training has to go beyond generalities — she needs to know the specifics of disease prevention, hygienic milk handling, value addition, and enough financial management to keep her own books, alongside practical help drafting a business plan or securing a quality certification (NABARD, 2024) [46]. None of this holds up without follow-through: an extension worker who visits once and disappears leaves an enterprise exposed the moment something goes wrong, so ongoing advisory support and mentoring matter as much as the initial training (FAO, 2023) [35]. Universities have a part to play here that goes beyond research. GADVASU, Ludhiana, runs regular awareness camps and, through its Farmer FIRST Programme, offers hands-on training — often free of charge — in clean milk production, dairy processing, scientific goat and poultry rearing, and the basics of running an enterprise, while also helping women form Self-Help Groups and connect with banks and government departments [52]. This model has continued to bear out in practice: a week-long, free-of-cost goat farming training conducted by GADVASU drew women from across Punjab — ranging from a 68-year-old first-time trainee already running a small poultry and dairy unit to younger women looking to convert backyard rearing into a scaled livelihood — and covered housing, disease control and marketing strategies alongside the basic husbandry skills, underlining how a genuinely cost-free, hands-on format can draw in women who might otherwise never enrol in formal training (Mander, 2025) [53].

12. Discussion and strategic recommendations

Pulling the threads of this review together, one thing stands out: the constraint on women's entrepreneurship in Indian livestock keeping is rarely a lack of effort or ability. Women already do most of the physi-

cal work that sustains the sector. What holds them back is access to finance, to markets, to technology, and to a seat at the table where decisions get made. Closing that gap probably starts with entrepreneurship training that is actually built around how rural women live, fitting around their schedules and starting from their existing knowledge rather than assuming a blank slate, with a sharper focus on financial literacy, digital marketing and value addition [24]. On the credit side, simplifying loan paperwork, easing collateral demands where feasible, and making sure women actually know which schemes exist for them would likely do more good than adding new schemes to an already crowded list (NABARD, 2024) [46].

Markets matter just as much as money. Cooperatives, producer organisations and the newer digital marketplaces all offer routes past the middleman, and pairing these with basic branding, packaging and certification could meaningfully lift what women-led enterprises actually earn (FAO, 2023) [35]. Veterinary and advisory support needs to keep pace too — mobile clinics and digital platforms can reach households that a fixed office never will — alongside the unglamorous but necessary investment in cold storage, processing units and rural roads (World Bank, 2024) [50]. And ultimately, none of this will stick unless women themselves get more seats on the boards of cooperatives and producer bodies, and unless government departments, universities, banks and NGOs start working from the same page rather than in parallel (Department of Animal Husbandry and Dairying, 2024) [24].

13. Conclusion

Livestock keeping will not solve rural India's gender gap on its own, but it is one of the few economic activities where women already hold genuine expertise and where the entry barriers, at least on paper, are relatively low. The cases discussed here show what becomes possible when that expertise is paired with scientific know-how, institutional credit and a functioning market — dairying, goat and sheep rearing, poultry and piggery all turn out to be capable of supporting real, income-generating enterprises rather than mere subsistence activity (Department of Animal Husbandry and Dairying, 2024) [24]. Schemes such as AHIDE, NLM, DAY-NRLM, the Mudra Yojana, Stand-Up India and NABARD's various programmes have widened the door considerably over the past decade. But the door being open is not the same as women being able to walk through it, and the barriers documented here — patchy credit access, weak markets, thin infrastructure, entrenched gender norms and genuine climate risk — are not going to resolve themselves. What is needed now is less a new scheme than better coordination of the ones that already exist, backed by sustained investment in women's own entrepreneurial skills, so that the labour women already contribute to India's livestock economy translates more fully into the income, independence and voice it should (FAO, 2023; World Bank, 2024; Department of Animal Husbandry and Dairying, 2024) [35, 50, 24].

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