

BORN POOR DIE POOR

Breaking the Economic Traps
of Smallholder Farmers

POLICY PAPER

To break the systemic traps keeping smallholder farmers poor despite producing one-third of global food, policymakers must "rewire" the system by enforcing land rights, mandating fair procurement, and shifting financial risk to ensure producers capture value rather than just increasing yields.

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Executive Summary

Smallholder farmers produce around one-third of the world's food yet remain locked in poverty. Despite over USD 150 billion in agricultural aid in the past two decades (OECD data, 2002–2020), most smallholders still capture less than 10% of the retail value in global supply chains for crops like cocoa and coffee. For example, West African cocoa farmers receive only about 3–6% of the final chocolate bar price,¹ and coffee growers typically earn under 10% of the retail coffee price. Women contribute 43% of the agricultural labor force worldwide but own less than 15% of farmland.² Meanwhile, small-scale farmers receive under 1% of global climate finance flows, underscoring a massive gap between climate change rhetoric and resources reaching those most affected. These figures reveal that rural poverty is not a mere accident of development failure, but the product of systems designed to extract value from those who produce food and to concentrate wealth among those who trade it.

This policy paper aims to examine the structural causes that keep smallholder farmers trapped in poverty and to present evidence-based reforms that can shift value, reduce risk, and expand control for farming households. The paper's purpose is to equip policymakers, donors, development agencies, and agricultural institutions with a clear understanding of why past interventions have fallen short and what changes are necessary to deliver meaningful and lasting improvements in farmer livelihoods. It seeks to contribute to current policy debates by outlining practical, scalable, and politically relevant measures that can transform food systems in ways that are fair, inclusive, and resilient.

The traps are systemic. Elite capture and insecure land tenure continue to undermine land reform efforts, leaving many smallholders without legally enforceable rights to their land. Subsidy regimes in high-income countries total over USD 800 billion annually more than 15 times the support for agriculture in the entire Global South undercutting the competitiveness of developing-country farmers. Formal credit meets less than 3% of smallholder financing demand, forcing millions of farmers to rely on informal moneylenders at interest rates of 25–40%, which perpetuates cycles of debt. Though climate finance pledges abound, funds have yet to reach most rural households: for instance, small-scale agrifood systems received only \$5.5 billion (0.8% of total climate finance) in 2019–2020, even as climate disasters like Pakistan's 2022 floods cause damages exceeding \$30 billion and wipe out over half of regional cropland.³ Productivity gains through new seeds or farming apps often raise yields without raising household incomes, because market governance and bargaining power remain unchanged – farmers grow more, but still sell low and buy dear, capturing only a fraction of the value chain gains.

The consequences are predictable. Smallholders remain price-takers, largely excluded from lucrative procurement channels and formal insurance. Development projects often count success in terms of training sessions or input distribution rather than actual increases in farmers' net incomes. Women's labor continues to sustain food systems without commensurate ownership or decision-making power. Digital tools (such as mobile crop advisory apps or e-marketplaces), while

¹ Terry, Angela. "How to green your chocolate. Can your choice of chocolate bar help the environment?" 4 Mar 2025.

² IFAD. "These numbers prove that rural women are crucial for a better future. But they're not getting what they need to succeed." 7 March 2022. & Ibid.

³ Qamer, Faisal M. et al. "A framework for multi-sensor satellite data to evaluate crop production losses: the case study of 2022 Pakistan floods." *Scientific Reports* volume 13, Article number: 4240, 14 March 2023.

helpful for information, cannot by themselves alter who sets prices or who controls market access in the absence of deeper structural reforms.

What must change is clear. This paper calls for a paradigm shift in how agricultural development is approached, centered on equity and power redistribution:

- **Land with teeth:** Ensure enforceable land rights (including joint spousal titles and protection against elite land grabs) so that smallholders, especially women, have secure collateral and long-term investment horizons.
- **Subsidy justice:** Rebalance global farm support by reducing distortive subsidies in wealthy countries and redirecting that value to smallholders through fair procurement policies and tax reforms.
- **Finance that works for farmers:** Deploy innovative financing credit guarantees, first-loss capital, affordable insurance, and dedicated quotas for women borrowers to meet smallholders' \$170 billion annual finance gap and de-risk their investments on fair terms.
- **Climate justice as entitlement:** Treat climate aid as a right. Implement pre-funded, parametric insurance and shock-responsive social protection so that farming households receive payouts within days of a drought or flood, with a guaranteed share reserved for smallholders. (For example, the African Risk Capacity facility has shown that rapid, automated disbursements after a drought are possible.)
- **Procurement reform:** Mandate that public institutions (schools, hospitals, food reserves) source a minimum quota from organized smallholder groups at living income reference prices. Brazil's Food Acquisition Program (PAA) offers a model, having purchased over 3.5 million tons of food from family farmers between 2003 and 2011 and influencing a law requiring at least 30% of school meal food to come from smallholders. Such structured demand can stabilize incomes and incentivize sustainable production.
- **Accountability redefined:** Shift donor and government success metrics from inputs delivered to outcomes achieved namely net farm income improvements, women's control over assets, and risk reduction. Programs should only be deemed successful if farmers are earning more and facing less risk, rather than just reporting training numbers or hectares covered.

The question is not whether technical solutions exist it is whether there is the political will to redistribute power and resources. Only by shifting value upward, shifting risk upward, and shifting control downward to those who feed us can smallholder farmers escape today's poverty traps and live with dignity.

Key Messages

- **Smallholder production vs. value capture:** Smallholder farmers produce about one-third of the world's food yet capture less than 10% of the retail value in most global commodity chains. Power imbalances allow intermediaries and multinational buyers to appropriate the lion's share of profits.

- **Gender inequality in assets:** Women provide 43% of agricultural labor worldwide, but own less than 15% of agricultural land.⁴ and receive under 10% of credit to agriculture. This asset gap undermines productivity and equity; closing it could raise women's farm yields by an estimated 20–30% and reduce global hunger by 12–17% (as studies have suggested).
- **Financial exclusion and the credit gap:** Smallholders face an annual financing gap of roughly USD 170 billion. Formal lenders supply barely 2–3% of total credit demand, leaving farmers dependent on informal lenders who charge usurious rates, trapping farmers in debt.
- **Skewed subsidies and trade injustice:** High-income countries spend over USD 800 billion per year on farm support more than 15 times what developing countries spend. These subsidies lead to overproduction and cheap exports that depress world prices, eroding smallholder incomes in Africa, Asia, and Latin America.
- **Climate finance bypassing farms:** Small-scale farmers, who produce a third of global food and are on the frontlines of climate impacts, receive <1% of climate finance. In 2019–20, only \$5.5 billion of climate funding targeted smallholder agrifood systems, and this represented a 44% drop from the previous period. When climate disasters strike e.g. Cyclone Idai 2019 caused ~\$2.8 billion in damages in Mozambique.⁵ recovery aid has covered only a fraction of needs, leaving rural communities largely on their own.
- **Poverty by design:** Rural poverty is not merely a result of development programs failing; it is the predictable outcome of systems that extract value, push risk downward, and deny smallholders control. Without structural change, well-meaning interventions risk maintaining the status quo under the guise of “development.”

Introduction

For decades, the development industry has spoken of “empowering” smallholder farmers, yet the majority remain trapped in the same cycle: they are born poor, and they die poor. Despite hundreds of pilot projects, new value-chain initiatives, and over USD 150 billion in global agricultural aid since 2000, the fundamental power imbalances in agriculture have not shifted. Farmers still sell cheap and buy dear they receive low prices for their crops and pay high prices for inputs and consumer goods resulting in smallholders capturing only around 6% of the final retail value of commodities like cocoa in West Africa. Women still carry a disproportionate labor burden without owning land or controlling income; globally, women make up 43% of the agricultural workforce but hold less than 15% of land titles.⁶ Climate finance still largely bypasses those who bear the brunt of climate change: small-scale farmers receive only about 0.8% of global climate finance.

⁴ IFAD. “These numbers prove that rural women are crucial for a better future. But they're not getting what they need to succeed.” *idem.* & *Ibid.*

⁵ USAID. “EXECUTIVE BRIEF: CYCLONE IDAI IN THE BUPUSA TRANSBOUNDARY BASINS OF MOZAMBIQUE AND ZIMBABWE: Building community resilience.” January 2021.

⁶ IFAD. “These numbers prove that rural women are crucial for a better future. But they're not getting what they need to succeed.” *idem.*

The real concern, therefore, is not farmers' poverty itself so much as the world's tacit acceptance of it as inevitable. The truth is stark: the system is not broken it is functioning as designed, engineered to extract value from those who produce food and to concentrate wealth among those who intermediate or consume it. Unless we confront the politics of land, the hypocrisy of subsidies, the injustices of global markets, and the absence of climate accountability, we will end up funding only superficial fixes "prettier" versions of the same trap. The question is not whether we can technically solve these issues, but whether we are willing to redistribute power and resources so that smallholder farmers can finally live with dignity.

In the sections that follow, we analyze the systemic traps that keep small farmers poor from value chain extraction and land inequity to skewed subsidies, financial exclusion, climate injustice, and shallow accountability metrics. We then present a set of provocations and actionable recommendations to rewire the system, along with real-world examples that illustrate emerging pathways out of these traps.

Key Findings

1. **Value extraction is engineered into global food systems.**

Smallholder farmers produce nearly one-third of the world's food yet capture less than 10 percent of retail value. Market structures dominated by oligopolistic buyers and long intermediary chains keep farmers as price-takers regardless of productivity gains.

2. **Land politics remain the biggest unspoken barrier.**

Secure land tenure is treated as "too political" for donor projects, enabling elite capture, gender-discriminatory inheritance, and insecure tenure systems that block investment and exclude women who own less than 15 percent of farmland globally.

3. **Global subsidies create structural injustice.**

High-income countries spend over USD 800 billion annually on farm subsidies more than 15 times what low- and middle-income countries spend distorting markets, depressing world prices, and undermining competitiveness of smallholders in Africa, Asia, and Latin America.

4. **Finance de-risks everyone except the farmer.**

Formal lenders cover only 2–3 percent of smallholder credit demand, forcing farmers into high-interest informal loans (25–40 percent). Women receive less than 10 percent of agricultural credit. Farmers bear nearly all climate, price, and production risk.

5. **Climate finance bypasses the farm gate.**

Less than 1 percent of global climate finance reaches small-scale farmers, even though climate shocks from Pakistan's floods to Cyclone Idai cause massive losses and push households into deeper poverty and debt.

6. **Productivity gains do not translate into power.**

Yield-focused interventions often fail to improve incomes because input costs rise, prices fall at harvest, and market governance remains unchanged. Increased production without bargaining power reinforces poverty traps.

7. **Gender interventions focus on participation, not control.**

Most “women in agriculture” programs count training attendance rather than shifts in decision-making, land rights, income control, or workload. As a result, women’s structural disadvantages persist even when participation rates rise.

8. **Digital innovations cannot bypass analog power.**

Apps, platforms, and digital marketplaces add information but cannot overcome entrenched market asymmetries, poor infrastructure, or trader dominance. Digital tools work only when combined with structural reforms.

9. **Procurement rules punish smallholders.**

Public and institutional buyers (schools, hospitals, aid agencies) often require volumes and standards that exclude small farmers, forcing them to sell through intermediaries who capture most of the value.

10. **Accountability systems reward paperwork not results.**

Development programs track inputs and training sessions rather than net farm income, risk reduction, or women’s control over assets. Without consequences for failure, the system reproduces low-impact interventions.

Key Recommendations

1. **Make net farm income and farmgate price the primary metric of success.**

Require all agricultural programs to track real income gains not only yields, participants, or training numbers. Funding continuation should depend on demonstrated improvements in farmer returns after costs.

2. **Build “refusal power” for farmers through storage, cashflow, and credit.**

Invest in warehouse receipts, community storage, and low-interest post-harvest credit so farmers do not have to sell during price crashes at harvest.

3. **Use public procurement as a poverty-reduction tool.**

Mandate that a fixed share (e.g., 30 percent) of school feeding, hospital, and emergency food purchases is sourced directly from smallholders at living-income reference prices.

4. **Treat climate loss and damage as entitlements.**

Install pre-funded, parametric, and shock-responsive cash transfer systems that automatically pay registered farmers within days of floods, droughts, or storms.

5. **Shift de-risking instruments to farmers and cooperatives.**

Place guarantees, first-loss capital, and stabilization funds under the governance of farmer organizations not only banks giving them leverage and collective control.

6. **Enforce land rights through conditionality and legal mechanisms.**

Tie development funding to reforms ensuring joint spousal titles, prevention of elite capture, and enforceable community rights. Support legal aid and administrative bodies that protect smallholders.

7. **Tax value where it accumulates and redirect it to farmers.**

Introduce levies or windfall taxes on segments of value chains capturing excessive profit (exporters, processors, agribusinesses) and ringfence proceeds for smallholder financing and price stabilization.

8. **Replace repeated agronomic training with collective bargaining support.**

Fund the establishment, governance strengthening, and professionalization of cooperatives and producer organizations to increase farmers' negotiating power.

9. **Measure gender equality through women's control, not attendance.**

Indicators should track women's income control, land rights, financial access, ability to make decisions, and reductions in unpaid labor. Project payments should be tied to improvements in these metrics.

10. **Stop piloting without pathways to scale.**

Require every pilot project to include a government-endorsed scale-up plan, budget alignment, and policy integration strategy from the beginning.

The Systemic Traps Keeping Smallholders Poor

Value Extraction Is Built In

The global food system positions smallholder farmers at the lowest end of profit margins. Research shows that even when smallholders are included in formal value chains, their share of the final retail price remains minuscule often below 10% for major commodities like cocoa and coffee. A 2022 analysis by the International Institute for Environment and Development (IIED) concluded that efforts to include smallholders more in supply chains often fall short, because the governance of those chains (pricing power, terms of trade) remains unchanged. In practice, layers of intermediaries and oligopolistic (few-buyer) markets squeeze farmer earnings:

- In **India**, studies document that small and marginal farmers may deal with 5–8 middlemen before their produce reaches the consumer. Each intermediary takes a cut, so farmers receive only a tiny fraction of the eventual retail price.
- In **West Africa's cocoa sector**, roughly 70% of world cocoa comes from small farms, but farmers receive only 3–6% of a chocolate bar's retail price.⁷ (By contrast, a few decades

⁷ Terry, Angela. "How to green your chocolate. Can your choice of chocolate bar help the environment?" *idem*.

ago they received more than double that share.) Concentrated market power among a handful of cocoa traders and chocolate manufacturers allows them to keep farmers' prices low even when consumer prices rise.

- In **Pakistan**, after the catastrophic 2022 floods, indebted smallholders were left with even weaker bargaining power. The floods caused over USD 30 billion in damage and losses and destroyed or impaired 57% of the cropland in Sindh province.⁸ Post-disaster, many farmers had to accept whatever price traders offered for their diminished harvest, as they lacked storage or alternative markets illustrating how shocks can exacerbate value extraction when farmers are desperate.
- Across **Sub-Saharan Africa**, research on staple crop markets (e.g. cassava, maize) finds that farmers "lose out in the course of product distribution" because local middlemen dominate the trade, inflating marketing costs and depressing farmgate prices. Without direct access to markets or price information, farmers remain price-takers.

In essence, smallholders operate in markets characterized by asymmetry of power. There are typically many dispersed sellers (farmers) and far fewer buyers or processors, which enables the buyers to dictate terms. Farmers often must sell immediately at harvest (when prices are lowest) due to lack of storage or cash needs, further weakening their negotiating position. Unless interventions address these structural issues, who sets the price, who has market information, who controls timing mere productivity increases will not substantially raise farmers' incomes. As one report put it, *improving yields or quality is of little benefit if farmers still sell into markets that are fundamentally unfair*.

Land Politics Are Off-Limits

Secure land rights are frequently cited as crucial for smallholder development, yet in practice land politics remain highly unequal and contentious. Elite capture, informal and customary tenure systems, gender-biased inheritance norms, and corrupt land administration all persist, undermining smallholders' ability to use land as a secure asset. Without legally enforceable and socially recognized rights, farmers are hesitant to invest long-term, cannot use land as collateral for credit, and live under constant threat of eviction or loss.

Evidence shows these barriers are systemic, not incidental:

- In **South Africa**, for instance, an audit of land reform programs found that a significant portion of redistributed farms ended up in the hands of politically connected elites rather than ordinary small farmers, and only 19% of beneficiary projects involved women. This reflects how land reform can be subverted by those with power unless strong safeguards exist.
- Globally, fewer than 15% of agricultural landholders are women, even though women make up a much larger share of the farming population. In many cultures, land is passed to sons, and women's access is mediated through husbands or male relatives. This leaves women extremely vulnerable if widowed or divorced, they often lose their land. The

⁸ Qamer, Faisal M. et al. "A framework for multi-sensor satellite data to evaluate crop production losses: the case study of 2022 Pakistan floods." *Scientific Reports* volume 13, Article number: 4240, *idem*.

imbalance also means women farmers struggle to obtain credit (since they lack title deeds for collateral) and are excluded from decision-making forums. As noted, women contribute nearly half of agricultural labor (about 43%) but own only around 15% of farmland a mismatch that perpetuates low incomes and low bargaining power for women.

- In parts of **Sub-Saharan Africa**, tenure is often governed by customary systems that may not be formally recognized. Investors or local elites can exploit this by acquiring large tracts ("land grabs") and displacing communities, who find it hard to claim legal protection. Studies have shown that insecure tenure (e.g. short-term user rights or undocumented customary rights) correlates with lower smallholder investment and productivity, because farmers fear that any improvements (irrigation, tree crops) could be appropriated by landlords or authorities.
- **Gender bias in land:** Even when land-titling programs occur, women may be excluded. Programs that mandate *joint spousal titling* (husband and wife both listed as owners) have been shown to increase women's decision-making power and security. Yet many land programs do not require this. As a result, women's contributions remain undervalued and their control tenuous.



Source: weforum.org

Land is not just an economic asset; it is power, identity, and security. By keeping control of land concentrated (often in male hands or elite hands), the current system ensures smallholders especially women stay vulnerable. Land politics is often treated as "too sensitive" to touch in development projects (hence "off-limits"), but without tackling it, other interventions will have limited impact. Secure land rights (with enforcement) are foundational for farmers to invest in soil health, adopt climate-resilient practices, and negotiate from a position of strength. Therefore, this paper later calls for "Tenure with teeth" making aid and investment conditional on real land governance reforms that put land in the hands of those who till it, including women.

Subsidy Hypocrisy: Unequal Rules, Unequal Results

While preaching free markets abroad, rich countries continue to heavily subsidize their own farmers. According to the OECD, high-income economies provided around USD 842 billion per year in total support to their agriculture sectors in 2021–2023. This is an astonishing figure about

15 times more than all low- and middle-income countries combined spend on agricultural support. The imbalance skews global markets:

- These subsidies (price supports, direct payments, crop insurance, etc.) encourage overproduction of commodities like grains, dairy, and meat in the U.S., EU, Japan, and others. Surplus production often finds its way onto world markets at artificially low prices, effectively dumping and depressing the global prices of those commodities.
- Farmers in developing countries, who cannot compete with the treasury of a rich government, suffer from chronically low world prices. For example, West African cotton farmers and Southeast Asian rice farmers have long complained that subsidies in the U.S. and EU make their products less competitive, reducing their earnings. The World Bank has documented that OECD farm subsidies reduce export opportunities and incomes in poorer countries.
- Moreover, wealthy nations often maintain tariff and quota protections on agriculture (while pushing poorer countries to liberalize). This “do as I say, not as I do” approach liberalize your markets, but we protect ours is fundamentally hypocritical and undermines the credibility of development advice.

The consequences are structural. Northern farmers enjoy income guarantees, insurance, and R&D support, while Southern smallholders face volatile prices, few safety nets, and underinvestment. As one comparison: OECD farmers as a whole receive over \$800 billion annually, whereas all of sub-Saharan Africa’s farmers together receive only a few billion in direct support. The result is not just an “accounting gap” but a system of dependency: developing countries become reliant on cheap imports (undercutting local farmers), and their own producers remain trapped in low-value activities. It’s notable that many developing countries, under IMF/World Bank advice in the 1980s-90s, removed fertilizer subsidies or price supports for their farmers as part of structural adjustment only to see rich nations continue subsidizing.

In short, current subsidy regimes create unequal rules that yield unequal results. To level the playing field, this paper argues for “Subsidy justice”: drastically reforming global subsidy policies. Either rich countries should cut the trade-distorting subsidies and allow world prices to rise to fair levels, or they should compensate poorer countries for the damage or allow them reciprocal flexibility to support their smallholders. Additionally, mechanisms like windfall profit taxes on agribusiness (when global prices spike) could be used to fund stabilization for farmers taxing value where it is captured and redistributing it to those left behind.



Source: mckinsey.com

Finance That De-Risks Everyone *but* Farmers

Access to finance is often cited as a major barrier for smallholders. Indeed, rural financial markets in most developing countries are starkly biased against the small farmer:

Formal lending to agriculture is usually a tiny portion of bank portfolios banks consider small farmers high-risk, costly to serve, and insufficiently profitable. As noted, local banks currently meet <3% of smallholder credit demand. The vast majority of small farmers therefore rely on informal sources: local moneylenders, traders who offer advances, input suppliers on credit, or microfinance institutions (MFIs) if available.

The financing gap is enormous. One estimate (by ISF Advisors and Rural Finance research) is that across Africa, Asia, and Latin America, smallholder farmers need around USD 240 billion per year in financing, but only about USD 70 billion is actually supplied, leaving an unmet gap of roughly USD 170 billion annually. This means over 70% of smallholders' credit needs go unmet each year stifling their ability to buy quality inputs, invest in irrigation or machinery, or buffer against shocks.

Moreover, the terms of credit are starkly different for the rich vs. the poor. Large agribusinesses can often borrow at single-digit interest rates (sometimes as low as 5–10% per annum) thanks to collateral and relationships. Smallholders, lacking collateral or credit history, often face interest rates in the range of 25–40% (from MFIs or informal lenders). For example, in parts of South Asia and Africa, the local “moneylender rate” might be 3–4% per month, compounding to ~40% annually. These high rates mean farmers who borrow to buy fertilizer or cover a bad harvest can end up in a debt spiral if their crop revenues fall short.

This system effectively de-risks everyone except the farmer. Banks shift risk by not lending to farmers; micro-lenders charge risk premiums that shift the burden to the borrower; traders give advances but then often force farmers to sell their crop to them at low prices as repayment. Meanwhile, farmers shoulder not only agricultural risks (weather, pests, price swings) but also exorbitant financial costs.

The outcome is a cycle of indebtedness and vulnerability: Farmers borrow at high cost to fund a season; if anything goes wrong (drought, flood, price crash), they cannot repay fully; they then roll over debt or borrow more to survive, often by pledging next season's crop at a low pre-harvest price. Many end up selling assets (land, livestock) to service debt or exit farming entirely when losses mount.

For women farmers, these financial barriers are even higher. Globally, women receive less than 10% of formal credit directed to agriculture. They often lack land titles for collateral and face discriminatory attitudes at banks. As a result, women are more reliant on informal lending and often pay higher effective interest rates, further entrenching gender inequality in agriculture.

Addressing this trap requires re-engineering rural finance so that it works *for* farmers, not against them. Later sections of this paper discuss solutions like credit guarantee schemes where the first loss is taken by a public fund or donor (so that banks are protected and thus willing to lend to farmers). Another approach is warehouse receipt systems and crop storage finance enabling farmers to store produce and get a credit advance against it, so they aren't forced to sell immediately at low prices. In Malawi, for example, when smallholders used certified warehouses

and could borrow against stored grain, they were able to delay sales to later in the season and earned higher prices, improving incomes (provided storage and interest costs were kept reasonable).

Innovative insurance, such as index-based crop insurance or community-based mutual insurance, is also key to protecting farmers from shocks without incurring debt. The African Risk Capacity (a parametric insurance pool for countries) has shown that fast payouts after drought can help communities recover before resorting to distress measures, we argue for extending similar mechanisms directly to farmers.

In summary, the current financial system expects the smallest, most vulnerable actors to bear the greatest risk. A fair system would socialise more of that risk (through insurance, guarantees, public financing) and allow farmers to access capital at affordable rates. Only then can farmers invest in productivity and resilience without fear that one bad season will ruin them.

Climate Money That Misses the Farm Gate

Smallholder farmers contribute very little to global greenhouse gas emissions, yet they suffer some of the worst impacts of climate change. Paradoxically, when it comes to international climate finance funds meant to help with mitigation and adaptation almost none of it reaches small-scale farmers themselves.

According to a recent Climate Policy Initiative analysis, climate finance directed to small-scale agriculture and food systems was just \$5.5 billion per year in 2019–2020, which is <1% of global climate finance flows. This was actually a 44% decline compared to 2017–2018. In other words, as climate urgency increased, the already tiny trickle of climate funds to small farmers shrank further.

Most climate finance is channeled into large infrastructure, renewable energy projects, or broad national programs. Very little is designed in a way that directly benefits rural households for instance, by funding community-level adaptation (irrigation, drought-resistant seeds, local insurance schemes) or providing quick disaster relief payments to farmers.

The consequences of this gap are evident in real disasters:

- **Pakistan's 2022 floods:** The worst floods in the country's history caused an estimated USD 30+ billion in damages and economic losses. Entire farming regions were submerged; in Sindh province, 57% of the cropland was affected or destroyed.⁹ Yet aid for recovery has been only a fraction of the need, and climate finance mechanisms (like the newly discussed "Loss and Damage Fund") have been slow to disburse any help. Small farmers in Pakistan largely relied on their own meager savings or local solidarity to rebuild homes and replant fields, illustrating a gaping hole in the climate finance architecture.
- **Cyclone Idai in 2019** ravaged Mozambique, Zimbabwe, and Malawi. In Mozambique alone, damages and losses were around \$2.8 billion (nearly 19% of GDP).¹⁰ International aid covered immediate relief but funded only a small part of the long-term reconstruction

⁹ Qamer, Faisal M. et al. "A framework for multi-sensor satellite data to evaluate crop production losses: the case study of 2022 Pakistan floods." *Scientific Reports* volume 13, Article number: 4240, *idem*.

¹⁰ USAID. "EXECUTIVE BRIEF: CYCLONE IDAI IN THE BUPUSA TRANSBOUNDARY BASINS OF MOZAMBIQUE AND ZIMBABWE: Building community resilience." *idem*.

needs (estimated at \$3 billion for Mozambique's recovery). Years later, many farming communities were still struggling to restore irrigation, replace lost cattle, or rebuild roads. The promised resilience-building investments largely did not trickle down to them.

- There is also a volatility aspect: climate funds tend to rise and fall with political attention. The CPI analysis noted the sharp drop in 2019–20; similarly, adaptation finance commitments often fail to materialize in reality. Smallholders cannot plan around such unreliable support.



Source: sourcetrace.com

In sum, climate finance has so far failed to reach the farm gate. The architecture often channels money through international agencies, development banks, or government budgets, where it may go to studies or large contractors rather than into the hands of farmers. What small farmers need are *direct and predictable flows* e.g., a system where if rainfall is x% below normal in a region, every registered farmer automatically gets a mobile money transfer to compensate for crop losses. That kind of entitlement-based climate support is what these paper advocates (treating it as a right, not charity).

Encouragingly, innovative models are being piloted. For instance, the African Risk Capacity (ARC) pools risk among African countries and can quickly release funds after a catastrophe; the next step is to connect those funds to village-level distribution. Similarly, some countries are integrating early warning systems with social protection so if a drought is coming, the safety net program (like Ethiopia's PSNP) can scale up payments before people lose their assets. Such approaches embody climate justice as entitlement and need to be expanded globally.

Until climate finance is designed to reach farmers quickly and reliably, rural communities will remain in reactive crisis mode, moving from one climate shock to the next with little support. This trap reinforces poverty, as each disaster knocks farmers back down and erodes any progress. Breaking it requires a re-imagining of climate funds: from top-down projects to bottom-up insurance-like mechanisms that treat hard-hit farming families as priority beneficiaries of global climate solidarity.

Productivity Gains, But No Power Shift

Over the past two decades, a great deal of development effort has gone into raising smallholder productivity higher-yielding seeds, better fertilizers, training in “Good Agricultural Practices,” introduction of cash crops, and so on. These efforts often succeed technically: farmers adopt the new seeds or methods and produce more output per hectare. Yet, puzzlingly, many studies find that these productivity gains do not translate into higher household incomes or poverty reduction. This is sometimes called the “yield paradox” yields rise, but farmers remain poor.

For example, a comprehensive review by the World Bank and IFAD found that while various interventions increased farm output, the impact on household income and resilience was inconsistent and often negligible. Why would that be?

- **High costs and thin margins:** If a new hybrid seed increases yields by 20% but also requires expensive fertilizer or pesticide, the net income may not improve because the additional revenue is eaten by higher costs. Many tech-based interventions don’t pay off once you account for the full cost to the farmer (including risk of crop failure on credit).
- **Unchanged market power:** Even if farmers produce more, they may just end up flooding the market and driving prices down (especially if many adopt the same innovation). If market structures remain the same, farmers could capture little of the added value. In extreme cases, higher production can even worsen income if prices crash a scenario observed in some contract farming where farmers had bumper crops but buyers then offered very low prices.
- **Household dynamics:** Often, increased production does not equate to more money controlled by the farmer for discretionary use. In many cultures, even if yields and total harvest increase, women farmers might not see any increase in their personal income because men may control the sale of surplus. Or added income might be spent on farm inputs rather than improving family welfare.
- **Resilience not addressed:** A focus on yield may neglect risk. A farmer might earn more in a good year but be even more vulnerable in a bad year if the new variety is less drought-tolerant, for instance. Without addressing risk (through diversification, insurance, etc.), higher productivity can come with higher volatility, leaving long-term welfare unchanged.

Recent research continues to reinforce this. A 2024 multi-country study showed that while farmers who adopted certain improved technologies (like drought-tolerant seeds or digital advisory services) did achieve higher yields, there was no consistent rise in their household incomes or assets. The reasons included high input costs, lack of bargaining power to get good output prices, and intra-household inequalities (men capturing most of the new profits, for example). In other words, productivity alone cannot overcome structural inequities.

For women farmers, the gap is even starker. Numerous case studies confirm that even when women’s plots become more productive (through better seeds or techniques), the women often do not gain commensurately in income or decision-making power. Their increased output might be sold by their husbands, or the extra labor time might not lead to personal earnings. Thus,

empowering women requires more than just giving them agronomic knowledge; it requires changes in who controls the purse strings and assets at home.

The implication is clear: technical solutions are not enough. Without complementary measures to improve farmers' market power and share of value, purely technical interventions have limited impact on poverty. As a provocation: any agricultural project that cannot show an increase in the price farmers receive (after costs) should be re-evaluated or stopped. Yield is important for food security, but to break poverty traps, raising the net income (which factors in prices and costs) is what counts.

Gender Work That Ignores Control

Development agencies have increasingly targeted women in agriculture encouraging their participation in trainings, forming women's self-help groups, promoting female "model farmers," etc. While these efforts recognize women's crucial role, many programs make a critical mistake: they measure success by women's participation rates rather than by shifts in women's control over resources.

It is common to see projects boast that "X% of participants were women" or "we trained Y thousand women." However, if those women still lack land rights, still can't make decisions on cash crop sales, and still have no say in spending the income, then the project has not truly empowered them.

The reality on the ground is that women's participation often does not equal women's empowerment. Women may attend meetings and learn new techniques, but afterward their husbands or male relatives may decide how to use (or not use) those techniques. Many women grow subsistence crops and tend family plots, but men handle the money crops and control the marketing.

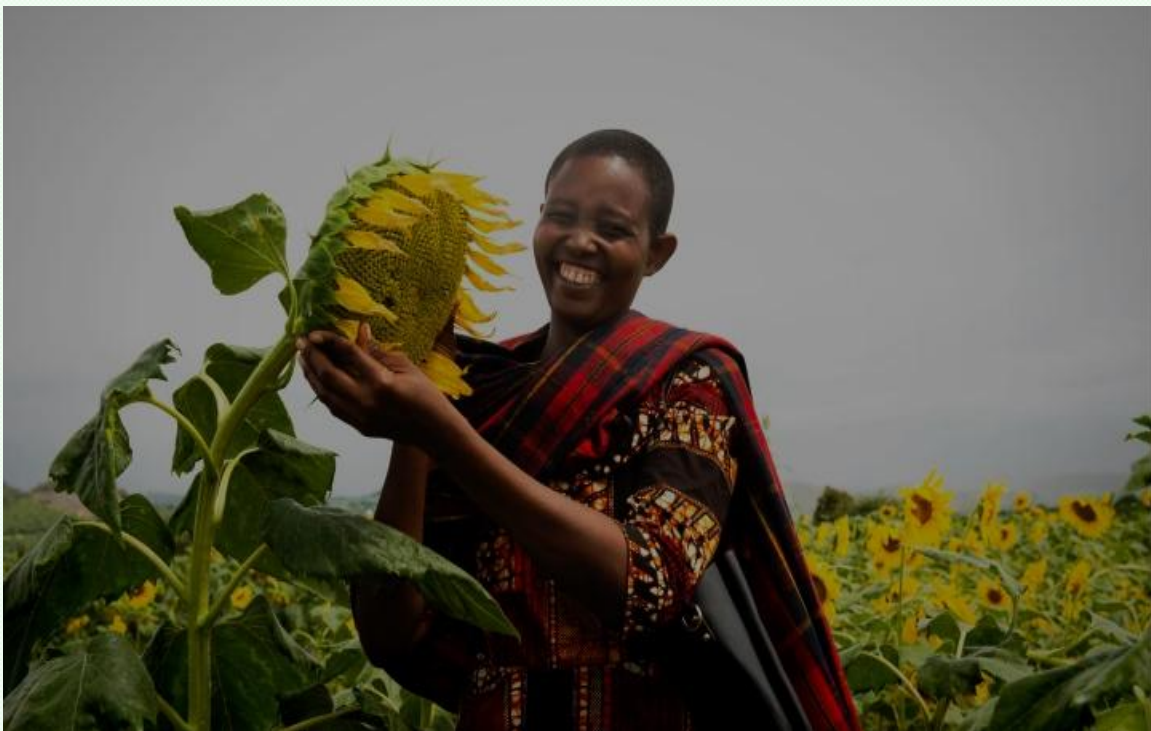
Research indicates that closing the gender gap in control of resources could have massive benefits. FAO simulations have famously suggested that if women farmers had equal access to inputs and land, their yields could increase by 20–30%, potentially lifting 100–150 million people out of hunger. Moreover, households where women have greater influence tend to spend more on nutrition, education, and health of children. Yet, progress is slow:

- Women's land ownership remains very low globally (around 15%). In countries where legal reforms gave wives joint title, studies show women's decision-making power and economic status improved. Still, many places have not implemented such reforms.
- Access to credit and extension services for women is limited. Female farmers often rely on informal saving groups because banks require collateral or have bias. Interventions like dedicating a portion of credit lines or extension officer time to women have shown positive results for example, using women extension agents can increase women farmers' adoption of new practices since cultural barriers are reduced.
- Projects that solely count women trained miss the point. A more meaningful metric is: did women's income under their control increase? Did they obtain joint title or their own bank

account? Did their workload change (many “women-focused” programs unintentionally increase women’s labor without remuneration)?

In short, gender equality in farming is not just about including women in activities; it is about shifting the underlying power relations. This paper later recommends that success indicators be tied to women’s control (e.g., number of women with land titles, or proportion of farm income controlled by women). Only by ensuring women can make decisions and benefit from their labor will interventions truly “empower” them.

Ignoring this and focusing only on shallow indicators can even be counterproductive. It might create backlash (men feeling disempowered and restricting women more) or simply burden women further. Thus, any genuine solution must put women’s agency and rights at the center not just their labor.



Source: globalgiving.org

Digital Optimism, Analog Politics

The last decade has seen an explosion of digital solutions for agriculture: mobile phone apps giving price information or weather updates, digital trading platforms connecting farmers to buyers, drone and satellite services for precision farming, blockchain for supply chain traceability, and so on. There is a strong current of “digital optimism” the belief that technology will leapfrog traditional barriers and empower smallholders by connecting them to information and markets.

While digital tools do have value (they reduce information asymmetry, lower some transaction costs, and can help farmers make better decisions), there is a danger in viewing them as panaceas. Without addressing the analogy politics the offline power structures of who owns land, who sets prices, who has market access digital innovations may have only marginal impacts on farmer incomes.

Some observations from studies and pilots:

- **Adoption gaps:** Typically, better resourced and larger farmers adopt digital tools more than poorer smallholders. A 2024 study in East Africa found that mobile market platforms were used mostly by medium-scale farmers, while the smallest farmers lacked access to smartphones or faced connectivity and literacy barriers. Thus, digital initiatives can inadvertently widen inequality among farmers unless deliberate measures are taken to include the poorest (e.g., via radio or simple SMS services).
- **Information vs. power:** Knowing the market price via an SMS is useful, but if a farmer still has to sell to a monopsonistic local trader (perhaps because that trader offers transport or pre-harvest credit), the price info alone might not improve her bargaining position. Many pilots found that providing price information alone had mixed results on farmer income it helped in some cases, but often the structural issues (few buyers, collusion) meant farmers still sold at low prices. In Tanzania, for instance, research on a digital market information service showed that large buyers still controlled the terms of trade; farmers had more knowledge but little leverage to negotiate better prices.
- **Platforms and monopolies:** Some countries have launched electronic marketplaces (like India's National Agriculture Market, e-NAM). These can improve price discovery and reduce local monopoly of middlemen. Indeed, evidence from e-NAM indicates better market integration across states and slightly better prices for farmers in integrated markets. However, benefits were uneven regions with poor storage or road connectivity saw limited gains. Additionally, if a digital platform simply formalizes existing trading relationships, it might not fundamentally shift who profits (middlemen can also participate on the platform).
- **Digital finance and insurance:** Mobile banking and credit scoring have begun to reach farmers (e.g., via mobile money loans). While these can increase access, there is also a risk of farmers taking high-interest digital loans and getting into debt, or being ineligible due to lack of data. So, digital finance needs strong consumer protection and fair interest rates to be genuinely helpful.



Source: worldbank.org

In essence, technology is not a substitute for policy. Digital tools must be embedded in supportive ecosystems: farmers need organization (cooperatives) to aggregate volumes and negotiate, they need fair competition among buyers, they need infrastructure like storage to actually exploit price info. Without those, an app on the phone can only do so much.

Therefore, this paper views digital solutions as complements to, not replacements for, the hard work of institutional reform. We caution against the “appification” of development where the assumption is that a new platform or AI tool can solve age-old inequalities. As one might say, bytes can’t break chains people and policies must do that.

Governments and donors should use digital tools in service of broader goals (e.g., transparency, inclusion) rather than seeing them as magic bullets. For example, a digital procurement system could be great if it’s designed to include smallholders and publicly scorecard buyers (as recommended, publishing buyer scorecards on fairness). But if it just makes existing procurement more efficient for big suppliers, it won’t help small farmers.

Procurement That Punishes the Poor

Large institutional buyers whether government agencies, aid programs, or private food companies often have procurement rules that systematically exclude smallholders. Public tenders may require volumes or standards that only big suppliers can meet or have complex paperwork that small farmer groups struggle with. As a result, the very markets that could provide stable demand (e.g., school feeding programs, relief food purchases, hospital food contracts) usually bypass small farmers, sourcing instead from traders or agribusiness firms.

For instance, the World Food Programme’s regular food procurement historically mostly purchased from international or big local traders, not directly from small farmers, until the Purchase for Progress (P4P) pilot around 2008–2013 sought to change that. The P4P experience showed both the potential and challenges of inclusive procurement:

- When rules were adapted (allowing WFP to buy in smaller lots, offering some capacity building and forward contracts to farmer organizations), many farmer organizations were able to sell to WFP and earned higher prices than they would on the open market. An evaluation found participating farmers’ incomes did improve modestly and they had a more stable buyer.
- However, issues like delayed payments (if WFP or government buyers take months to pay, small farmers with thin cashflow suffer) and quality standards still posed problems. Some farmer groups delivered grain that didn’t meet stringent quality specs, leading to rejections.
- The lesson is that simply declaring procurement open to smallholders isn’t enough; the whole chain (financing, storage, transport, prompt payment) needs adjustment to truly work for them.



Source: Gemini.ai

Other examples highlight successes: Kenya's Home-Grown School Feeding Program sources food for school lunches from local farmers. By design, a portion of school food funds is used to buy from smallholder farmer organizations in the surrounding communities. This has reportedly increased incomes for those farmers and injected money into rural economies, while feeding children a win-win. Key to success was simplifying the process for farmer groups and guaranteeing a portion of demand to them at fair prices.

Meanwhile, many developing countries still have public grain reserve or procurement schemes (like buying rice or wheat at a support price). If these are made smallholder-friendly for example, Egypt's wheat procurement recently began offering higher prices and promptly paying small farmers for their wheat deliveries they can stabilize farm income. In 2025, Egypt purchased nearly 4 million tonnes of local wheat from hundreds of thousands of small farmers by raising its price and ensuring cash on delivery, showing how policy can encourage farmers to sell to the state rather than to exploitative middlemen.

Conventional procurement, by contrast, often “punishes the poor.” When agencies insist on large delivery lots, high insurance/performance bonds, or stringent auditing, smallholders and their organizations are effectively shut out. They end up selling to intermediaries who then aggregate and fulfill the contracts, taking most of the margin. This not only deprives farmers of income, but also of the experience of dealing directly with big markets (which could encourage upgrading and investment).

The recommendation emerging is clear: redesign procurement to include the little guy. This can mean reserving quotas for smallholder-sourced goods, simplifying bidding processes, providing capacity-building on quality control, and very importantly paying on time. Late payment is a common complaint that can break small suppliers.

Innovative models such as municipal procurement of agroecological food (e.g., in Brazil or Senegal's local purchase programs) demonstrate it's feasible to prioritize small producers while meeting procurement needs. These models treat procurement not just as a logistical task but as a tool for development channeling funds into rural communities and encouraging sustainable practices (since small family farms often use diversified, eco-friendly methods).

In conclusion, reformed procurement can transform a vicious cycle (smallholders excluded -> remain uncompetitive) into a virtuous cycle (smallholders included -> incomes rise -> capacity grows). It's one of the most direct levers governments hold to ensure farmers get a fair deal.

Accountability Without Consequences

A final trap is subtler but pervasive: the way success is measured in agricultural development often allows failure to hide. Programs are typically judged by outputs (like number of farmers trained, seedlings distributed, demo plots established) rather than true outcomes (like sustained increase in farmers' income, resilience or reduced poverty). This creates an accountability gap intervention can appear successful on paper yet fail to improve farmers' lives.

Donor reports might proudly state that “50,000 farmers attended our financial literacy workshops” or “200 irrigation pumps were provided,” but these say nothing about whether farmers' profits increased or if those pumps are still functioning after a year. In worst cases, a project might spend

millions, hit all its output targets, and then an evaluation finds no significant impact on yield or income essentially wasted effort from the perspective of farmer welfare.

Two notable syntheses underline this problem:

- A systematic review of farmer organization impacts (covering sub-Saharan Africa and India) found that while 57% of studies reported positive impacts on farmers' income from being in an organization, only 19% showed any improvement in yields and only 20% in product quality. This indicates many organizations helped farmers get better prices or value (hence income up) without necessarily producing more but it also means a large share of cases saw no improvement in technical performance or quality. It suggests that many initiatives might increase revenue in the short term (maybe via premium prices or collective marketing) but do not make farmers more productive or competitive in the long run.
- A Campbell Collaboration review of 289 agricultural market interventions across 53 countries found generally *small to moderate* improvements in outcomes, and critically, it noted that impacts on food security and long-term resilience were inconsistent and limited. In other words, while many projects had some positive effect (maybe a slight income rise or production increase), few fundamentally changed the game for food security or risk reduction. Most interventions did not lift farmers out of vulnerability; they just provided incremental gains.

Why do so many programs have underwhelming impact? One reason is the lack of consequences for poor performance. If a project delivers the inputs and spends the budget, everyone moves on, even if farmers remain as poor as before. There is often no penalty for not achieving meaningful change.

Moreover, implementing agencies might have incentives to chase easily measurable outputs (like number of trainings) because that's what the funding contract requires, rather than focusing on tougher long-term outcomes. It is much simpler to tick off deliverables than to actually ensure incomes rose (which might depend on factors beyond the project's direct control, like market prices).

This calls for a redefinition of accountability in development projects. The paper advocates that donors and governments rewrite results frameworks so that the key indicators are things that truly matter to farmers: net farm income, share of value captured, women's control over income, risk reduction metrics (e.g., variance in income or time to recover from a shock). If, say, a \$10 million project ends with zero increase in these, it should be seen as a failure regardless of how many workshops it held.

Furthermore, feedback loops from farmers themselves should inform evaluations. Farmers know if something is working or not in their lives. Incorporating participatory evaluation (where farmers score the usefulness of interventions) could add accountability.

Ultimately, *accountability without enforcement is wishful thinking*. Therefore, perhaps funding should be partially contingent: for example, some portion of payment to implementing contractors could

depend on measured income gains among target farmers (with independent verification). That would certainly get NGOs and consulting firms to prioritize real impact!

Without such shifts, we risk continuing a cycle where reports are glossy and full of “success stories,” but rural poverty statistics barely budge. Breaking out of that requires courage to admit what doesn’t work and to hold ourselves (the development community) to a higher standard one set by the lived reality of the farmers we aim to serve.

Having outlined the key systemic issues, the paper now turns to recommendations provocations to fundamentally rewire how we approach smallholder development, followed by concrete examples of these ideas in action.

Provocations to Rewire the System

To truly break the economic traps, incremental tweaks are not enough. We need bold changes in mindset and policy. The following provocations are proposed as guiding principles for donors, governments, and development practitioners, each paired with a concrete policy recommendation:

1. Make Price the First Metric

Provocation: *“If an intervention cannot demonstrate a sustained increase in the prices that farmers receive for their products (after accounting for production costs), then it should be stopped.”* In other words, success should be measured not just in yields or volumes, but in farmers’ unit price and profit. Too many projects focus on increasing output and assume income will follow, which, as we’ve seen, often isn’t the case.

- **Why this matters:** If farmers continue to sell at low prices often below cost of production producing more just means losing money faster. A sustained higher farmgate price (relative to costs) is a direct indicator that farmers have improved terms of trade. It reflects better bargaining power or market conditions in their favor.
- **Example:** A dairy project that gives farmers more cows is pointless if milk prices at the farm remain low due to a local monopoly processor. But if an intervention helps farmers organize a cooperative that negotiates a better milk price or bypasses the monopsony, and thus farmers get, say, 20% more per liter than before, that’s a real gain.

Recommendation: Governments and donors should mandate farmer price tracking as a primary indicator in all agricultural programs. Baseline and endline surveys must include the prices farmers actually receive (and the net income after costs). Funders could require that continued funding is conditional on demonstrable improvements in net farm income or price share. For instance, a value-chain project must show that farmers’ share of the final consumer price has increased from, say, 8% to 12% otherwise it doesn’t get phase 2 funding.

2. Fund Refusal Power

One of the reasons farmers are exploited is they often cannot afford to refuse a bad offer. They must sell at harvest (when prices are lowest) or accept a low price because they desperately need cash. Refusal power means giving farmers the capacity to say “no” and wait for a better deal.

- **Components:** This involves investing in storage facilities, warehouse receipt systems, and affordable working capital so that farmers are not forced into distress sales. If a farmer can store her grain safely and get a small loan against it to meet immediate needs, she can wait and sell when prices improve.
- **Evidence:** In Malawi, programs that provided improved on-farm storage (like hermetic storage bags) and community warehouses found that farmers were able to delay selling maize by a few months and obtained significantly higher prices (often 20–30% higher) than at harvest time. Similarly, when farmers had access to credit at harvest (using stored crop as collateral), they avoided selling all their output at rock-bottom prices.

Recommendation: Establish national storage-linked finance facilities and guarantee funds that extend cheap credit to smallholders at harvest time. For example, a government or development bank could finance a program where farmers can deposit grain in certified silos and immediately receive, say, 60% of its value as a loan. The storage operator or a guarantee fund takes the risk, and the farmer can later sell the grain to repay the loan and pocket the difference when prices have risen. Additionally, government could provide a floor price scheme or buy grains for reserves if market prices fall below a threshold, thereby giving farmers confidence that storing won't backfire.

Refusal power shifts a key dynamic: instead of selling out of desperation, farmers sell out of strategy.

3. Buy from the Poor at a Premium

Harness the power of public procurement and institutional buyers to create markets for smallholders at fair prices. This means not just including smallholders but paying a premium that reflects a living income.

- **Rationale:** Governments and large NGOs purchase huge quantities of food (for schools, hospitals, food aid, etc.). If even a portion of that is sourced from organized small farmers at a decent price, it can significantly boost their incomes and stability. It also sets a market reference price that can influence others.
- **Successful model: Brazil's Programa de Aquisição de Alimentos (PAA)** is a standout example. Between 2003 and 2011, the PAA bought 3.5 million tons of food directly from family farmers, injecting income into rural areas. Additionally, Brazil's school feeding law mandates at least 30% of the food budget be spent buying from local family farms. Evaluations showed participating farmers saw income gains, and some locales even exceeded the 30% quota, demonstrating absorptive capacity. The key was that these purchases were at fair, predefined prices (often above the prevailing market rate) to ensure farmers earned a living margin.

Recommendation: Enact "smallholder quota" procurement laws. For instance, require that all public institutions (schools, hospitals, prisons, food assistance programs) source a minimum of 30% of their food from smallholder farmer organizations. Furthermore, stipulate that these purchases use living income reference prices i.e., prices calculated to allow an average farm family to earn a decent living. An independent body (or multi-stakeholder process) can determine what

a living income price for, say, maize or milk is in that country (taking into account cost of production and basic needs). The procurement agency then uses that as the floor price for smallholder purchases.

This approach directly redirects value to the poorest producers and sets an example that poverty in the supply chain is not acceptable. It's a shift from procurement focused solely on cheapest price, to procurement as a tool for equity and sustainability.

4. Pay for Loss & Damage as Entitlements

Climate disasters should trigger automatic support to affected farmers, not ad-hoc charity. The concept of "Loss and Damage" in climate negotiations can be brought down to the community level: when a drought, flood, or cyclone hits, there should be pre-arranged, fast payouts to farmers for their losses effectively a climate relief payment that's seen as a right, not a favor.

- **Current problem:** After disasters, aid often arrives late and is unpredictable. Farmers might wait months for any help, by which time they may have sold assets or migrated. This worsens the long-term impact. Also, reliance on voluntary humanitarian aid treats climate victims as passive recipients.
- **A better model: Parametric insurance** and contingency funds. Parametric insurance pays out based on an index (like rainfall below a certain level or windspeed above a threshold), not on assessed individual losses. The African Risk Capacity (ARC) is a continental risk pool that pays member governments within days or weeks of a qualifying drought, for example. ARC has shown funds can be disbursed to governments within a month of a drought event. The next step is ensuring that money reaches farmers immediately e.g., via mobile money rather than getting stuck in bureaucracy.

Recommendation: Operationalize the international Loss and Damage Fund (agreed in principle at COP27) to work in synergy with national systems, and design it so that when triggered, it channels direct cash transfers to smallholder households. For example, a country could register its small farmers (maybe via cooperatives or local administrations) and have a system ready such that if a major disaster is declared or an index threshold is hit, each registered farmer gets a payment (perhaps scaled by family size or loss estimates) in their mobile wallet or bank account within, say, 7 days. This could be funded by the Loss & Damage Fund, ARC payouts, or other climate finance sources.

Additionally, set aside a certain percentage of climate adaptation funding specifically as contingency funds for rapid disbursement to farmers post-disaster. Think of it as a "farmer disaster insurance" line in every climate project.

The principle is to treat these payments not as pity or emergency charity, but as insurance entitlements the same way people in rich countries expect that if their house is insured and it burns down, they get money without begging. Smallholders facing climate extremes deserve no less.

5. Redirect De-Risking to Farmers

Currently, when we talk about “de-risking” finance in agriculture, it often means making it safer for banks or investors e.g., donors provide a guarantee so banks will lend to farmer cooperatives. While that’s useful, we also need to put risk capital in the hands of farmers themselves and their organizations.

- **First-loss capital for farmers:** Normally, “first-loss” capital or guarantees are given to banks (to cover their first losses on a loan portfolio). If instead that kind of cushion were held by farmer cooperatives or unions, they could use it to backstop loans or investments they make. It empowers them to negotiate better with banks or even to on-lend directly to members.
- **Example:** A cooperative could have a grant or junior capital that takes the first 10% of any loss in a storage business or processing facility they run. This makes the venture safer for everyone else and encourages external investors or lenders to participate, but crucially the coop controls it and can deploy it where members need.

Recommendation: Create farmer-centered finance facilities where risk-sharing instruments (like guarantees, insurance, first-loss funds) are placed under the governance of farmer organizations. For instance, a development bank could capitalize a guarantee fund that is managed by a federation of cooperatives. Those cooperatives can then leverage it to borrow from commercial banks. Or set up a publicly funded “risk reserve” for a network of producer companies, which they can draw on in bad years to cover loan defaults or price collapses.

Another angle is crop price stabilization funds taxing windfall profits upstream (as mentioned earlier) and putting that money into funds that pay farmers when market prices fall below a certain level. Essentially, shifting the burden of volatility off farmers.

Overall, the idea is to socialize risk at the farmer level don’t make each farmer bear all risk individually (which leads to conservative choices and poverty traps), but rather pool it and back it with public/private support.

6. Tenure With Teeth

Land reforms and land rights initiatives must have enforcement and legal “teeth.” Too often, land tenure programs produce paperwork (titles, registries) but fail to prevent powerful interests from overriding the rights of the poor. We must condition development funding on actual, verifiable land governance improvements:

- **Joint titles and women’s rights:** Make it standard that any land titling or registration effort supported by aid includes joint spousal titles (husband and wife) or at least guarantees women’s names on documents. There is evidence that women’s control over land improves when they have formal joint ownership.
- **Preventing elite capture:** Establish independent oversight (e.g., ombudsman or land rights commissions) to investigate and nullify fraudulent land allocations. In countries with known issues (e.g., large farms being grabbed), tie infrastructure or budget support to actions like removing illegal fencers-off of community lands or redistributing idle estates.

- **Collateral without dispossession:** One problem is banks won't lend without collateral, but when land is collateral, smallholders fear losing it. Some countries have tried creative solutions like group collateral or government guarantee of last resort to prevent land loss. Another approach is land liens that don't transfer ownership on default but allow managed restructuring. We need innovation here such that land can be leveraged for credit *without* creating a wave of landlessness if loans go bad.

Recommendation: Condition public investment and donor funding on enforceable land reforms. For example, a donor could say: we will fund this rural roads program only if the government passes and implements a regulation that at least 50% of new land titles in the project area go to women or joint names, and that any large land acquisition in the area is subject to community consultation and approval. Another condition: if evidence emerges of project-related land grabbing or evictions, funding is suspended until addressed.

Additionally, support legal aid for smallholders help them actually defend their rights in court. And support the establishment of land tribunals that include community representatives, to give teeth to the concept of free, prior, informed consent for land deals.

"Tenure with teeth" means paper rights alone are not enough; there must be enforcement mechanisms and consequences when rights are violated. This puts power behind the principle that land belongs in the hands of those who work it, not those with wealth or connections.

7. Tax Value Where It Is Captured

We discussed how value is extracted upstream in supply chains (traders, processors, retailers often take high margins). One way to redistribute value is through targeted taxation of those segments, funneling the proceeds back to producers or rural communities.

- **Windfall profit taxes:** When coffee prices spike, traders and roasters sometimes enjoy record profits while farmers see little. A temporary windfall tax on corporate profits in such scenarios could create a fund for farmer support (stabilization, diversification).
- **Export levies for local development:** Some countries use export taxes on agricultural commodities; these often just go to general revenue. Instead, earmark a portion directly for smallholder development. For instance, a 2% levy on cocoa exports could finance a stabilization fund that tops up farmer prices when world prices fall below a threshold.
- **Input supplier taxes:** Large fertilizer or seed companies sometimes have high margins in developing markets. A modest tax on those sales (or better, persuading them to offer differential pricing) could fund subsidy schemes or research for smallholder-appropriate technologies.

Recommendation: Introduce targeted taxes or levies on points in the value chain where excessive profits are made and earmark the revenue for smallholder support programs. For example, a country could enact a "fair trade levy" on coffee exporters a small fee per ton exported, with all funds going into a Coffee Farmers Trust that provides price insurance or farm rehabilitation loans to coffee smallholders.

Another policy could be to increase corporate taxes on large agribusiness firms or plantations that benefit from cheap smallholder produce, and ring-fence that extra tax revenue for extension services, rural roads, or farmer cooperatives.

The guiding principle is to tax where the money accumulates and invest where the money is scarce (i.e., at the farm). This also creates incentives: if middlemen know that extraordinary profits will be partly taxed away to help farmers, it may encourage fairer pricing upfront (or at least society recoups some for redistribution).

8. Replace Training with Bargaining

Donors love training farmers how to plant in rows, how to prune trees, how to manage accounts. While capacity building has its place, it does not alter the fundamental issue that individual farmers have no power bargaining alone. We need to shift support towards building collective organization and bargaining power (unions, cooperatives, producer associations) rather than endless one-off trainings.

- **Rationale:** A cooperative or farmer association can negotiate contracts, aggregate produce to attract better buyers, and lobby for policies things an individual farmer cannot do. Studies in several countries show members of cooperatives often achieve higher incomes. For example, in Kenya's dairy sector, smallholders in co-ops get more stable prices and services (cooling, credit) that independent farmers lack. A study of maize farmers in Ethiopia found that those in cooperatives had better market access and price outcomes than those outside.
- Yet, historically, donors have been wary of anything that sounds like "unionizing" farmers, and many co-ops have failed due to mismanagement. But supporting good governance and professionalization of farmer organizations can pay off significantly.

Recommendation: Reallocate funding from stand-alone farmer trainings to long-term support for farmer organizations and unions. This could mean financing the startup costs of new cooperatives, training cooperative leaders in business and governance (as opposed to training each farmer in agronomy for the tenth time), and supporting apex federations that give farmers a voice in policy dialogues.

Concretely, a donor project might say: instead of training 5,000 farmers on marketing individually, we'll facilitate the formation of 50 marketing groups and train their elected representatives, help them get legal status, and maybe provide initial capital for joint storage or transport. We would measure success by whether these groups are still active and negotiating better deals a few years later.

In addition, encourage policy reforms for collective bargaining rights for instance, laws that allow farmers to form bargaining cooperatives or that require industry to negotiate with farmer representatives (similar to how labor unions operate). In sectors like dairy or sugar, where coordination is possible, farmers could collectively set a minimum price or terms.

The point is that farmers don't need infinite agronomic training; they often already know how to farm. What they need is market power, which comes from acting together. Supporting that is likely more transformative than another demonstration plot.

9. Measure Gendered Effects by Income Control

As discussed, it's not enough to involve women; we must track whether women actually gain control over income and assets. Projects should be judged on closing the gender gap in empowerment, not just participation.

Recommendation: Redefine gender indicators so they focus on women's control of resources and tie a portion of funding to achieving these. For example:

- Instead of "50% of trainees are women," use indicators like "Number of women in the project who have their name on a land title (alone or joint) increased from X to Y" or "Proportion of project households where the woman reports she has decision-making power over the use of farm income increased from A% to B%."
- Track how many women open bank accounts or mobile money wallets in their own name as a result of the project.
- Measure shifts in labor burdens: did the project reduce, or at least not increase, the total hours women spend on farm and domestic work? (No empowerment if they are just working more.)
- Qualitative indicators could complement e.g., women's self-reported confidence in public speaking or negotiating prices.

Then, crucially, make these indicators matter. For instance, a project's continuation or a bonus disbursement could depend on showing that a certain percentage of women beneficiaries have gained asset ownership or significantly increased their personal income.

This will force implementers to design activities that truly benefit women (such as facilitating joint titling, creating women-led enterprises, etc.), rather than just including them nominally.

10. Move Pilots to Policy

The development world is littered with "pilot projects" that work on a small scale and then fizzle out because they never get institutionalized. We must end the perpetual piloting by ensuring any pilot that proves successful comes with a concrete pathway to scale through policy adoption or budget support.

Recommendation: Every donor-funded pilot should be required to have a scale-up roadmap integrated into government policy from the outset. This means working with the relevant ministry so that if the pilot delivers positive results, there are already plans (and roughly identified resources) to expand it via government programs or regulatory change.

For example, if an NGO pilots a new agro-insurance scheme in two districts and it works, there should be an agreement that the government will, say, incorporate it into the national agricultural insurance program within X years. Or if a digital market platform is piloted, have a plan for the government marketing boards or private sector to take it countrywide.

Donors can make this a condition: they only fund pilots that have buy-in from a public institution ready to mainstream it if it succeeds, including committing some of their own budget. This prevents the common scenario of “pilot to pilot,” where each remains an isolated success story.

One way to do this is to involve policymakers in pilot design and require that pilot results be presented formally to government with a policy proposal. The OECD–FAO pilot on responsible ag supply chains, for instance, tied into developing guidelines that then were taken up by governments.

In summary, stop doing pilots just for learning’s sake; do pilots as precursors to policy or large-scale investment. Farmers don’t need another interesting 2-year project that vanishes they need systemic change which comes through government adoption and wide replication.

These provocations are intentionally bold. They aim to flip the script: measure what matters (price, income), empower farmers to refuse exploitation, use public money to reward the poor, make climate aid automatic, put risk capital with farmers, enforce land rights, tax the rich links of the chain, prioritize collective power over individual training, focus on real gender empowerment, and institutionalize what works.

Next, we illustrate some of these ideas with examples of emerging pathways in different countries, showing that these aren’t just theories they are already happening in places and can be learned from and expanded.

Examples of Emerging Pathways

To ground these recommendations, we highlight real-world cases where elements of the above approach are being implemented. These examples, from different regions, demonstrate that transformative change is possible and they provide lessons on both successes and challenges:

Brazil: Public Procurement through the Programa de Aquisição de Alimentos (PAA)

Brazil’s PAA (Food Acquisition Program) is a flagship example of using institutional procurement to support smallholders. Initiated in 2003 under the Zero Hunger strategy, the PAA directly purchases food from family farms for redistribution to schools, food banks, and vulnerable groups.

- **Impact:** Between 2003 and 2011, the program purchased more than 3.5 million tons of food from smallholder family farmers. This injected stable demand and income for thousands of small farmers. Furthermore, Brazil introduced a law that at least 30% of the national school feeding program (PNAE) budget must be used to buy from family farms. Many municipalities embraced and even exceeded this target.
- **Outcomes:** Evaluations reported income gains for participating farmers and improved dietary diversity for consumers of the food. In regions where the 30% quota was well implemented, farmers could count on a reliable market each year at fair prices, which reduced their risk and encouraged investment. By stabilizing prices (the program often paid a premium above market to ensure fair compensation), it helped insulate farmers from middlemen exploitation.

- **Challenges:** The PAA has faced budget fluctuations and political changes (funding was cut in some years). There were also instances of elite capture (larger farms trying to benefit) and the need for technical assistance to ensure consistent quality and supply from small suppliers. But overall, it directly reinforced the concept of “buy from the poor at a premium” using public funds to guarantee living-income prices to those who need it most.

Lesson: High-level political commitment (Zero Hunger was a presidential initiative) was key to scaling this. Also, combining it with legal mandates (30% rule) locked in the market space for smallholders. Other countries can adapt this by starting with a smaller quota (say 10% local purchase) and then increasing it. The Brazil case shows that government procurement can be redesigned to prioritize social outcomes (smallholder inclusion, nutrition) alongside quantity.

Ethiopia: Social Protection and Resilience in the Productive Safety Net Programme (PSNP)

Ethiopia’s PSNP is one of Africa’s largest social safety nets. Since 2005 it has provided food or cash transfers to food-insecure households in exchange for participation in public works (like soil conservation, roads) during the agricultural off-season. Crucially, it’s predictable and multi-year, unlike emergency food aid.

- **Scale:** The PSNP currently reaches over 8 million people (roughly 8–10% of Ethiopia’s population) annually. It is a rights-based program people in chronically food-insecure districts are enrolled for several years, not just one-off aid.
- **Resilience impacts:** Studies (including panel data analyses) have found that households receiving PSNP support were less likely to sell assets during droughts and had improved food security compared to non-participants. Over multiple years, participants showed **higher resilience**: they maintained their livestock and tools, and had fewer “distress sales” of assets in bad seasons. Essentially, the program prevented short-term shocks from causing long-term poverty spirals.
- **Climate linkage:** This program illustrates treating climate/disaster support as an **entitlement** people get help every year during the lean season and extra help during droughts. It aligns with the call to pay for loss and damage as a right. In fact, the PSNP has components for rapid scaling up in drought years using contingency funds, very much a model of shock-responsive social protection.
- **Lessons:** Success factors include strong government ownership, donor commitment for funding (though Ethiopia contributes significantly itself now), and integration with community-chosen public works that also build resilience (like irrigation, terracing). It shows that safety nets can be developmental protecting households and their productivity. The challenge is ensuring transfer amounts keep up with needs/inflation and that it eventually becomes fully locally funded for sustainability.

For other low-income countries, PSNP offers a template on how to systematically support rural poor and smallholders, treating assistance not as charity but as an expected annual investment in human capital and infrastructure. It’s basically insurance at a community scale. As climate shocks intensify, scaling such programs globally is urgent.

Malawi: Refusal Power through Warehouse Receipts and Storage Finance

Malawi, a country heavily dependent on smallholder maize farming, has experimented with warehouse receipt systems (WRS) to address the classic price trough at harvest.

- **What they did:** With donor and government support, Malawi established certified warehouses where farmers (individually or via cooperatives) can store their grain after harvest and receive a warehouse receipt, which is essentially a negotiable instrument. Farmers can then use this receipt to obtain a loan (often from a bank or microfinance partner) worth a portion of the grain's value (e.g., 60-70%). This gives them immediate cash to meet needs, while allowing them to delay the sale of grain for several months.
- **Impact:** Studies in Malawi documented that farmers who participated in WRS were able to sell later in the year when prices were higher, resulting in higher average maize prices received compared to those who sold at harvest. In good implementations, farmers' net incomes increased because the price rise outweighed storage costs and loan interest. It effectively gave them refusal power they didn't have to take the lowball offers at harvest. Moreover, access to loans meant they could pay school fees or buy inputs without selling their grain.
- **Caveats:** The gains depended on the costs of storage and the interest rate. In some cases, high interest could eat much of the profit from waiting. Also, it requires trust in the system (some farmers are initially wary of not keeping their grain at home). Malawi had to improve warehouse management and ensure quality to maintain trust (one rotten batch can ruin reputation). Nonetheless, many farmers saw the benefit and enrollment grew.
- **Link to policy:** The government supported this by creating an enabling legal framework for warehouse receipts and sometimes by acting as a buyer of last resort via the grain reserve (to prevent market glut).

Lesson: Storage + finance = market choice. It shows that relatively straightforward facilities can change the market dynamic for smallholders. Similar systems exist or are emerging in countries like Tanzania, Zambia, and Uganda. Key is to subsidize or facilitate low-interest loans for these receipts, otherwise commercial bank rates might be too high. Donors can initially capitalize a revolving fund for loans against receipts.

This directly relates to our earlier recommendation on refusal power and first-loss financing. It's basically giving farmers a short-term loan (with the crop as collateral) to empower them. The concept can also be extended to other products, not just grain e.g., milk chilling plants that allow delay of sale for a day to get better collective bargaining, etc.

Kenya: Collective Bargaining in Smallholder Dairy Cooperatives

Kenya's dairy industry is a success story of smallholders dominating a commercial sector through cooperative organization and supportive policy. Approximately 80% of Kenya's milk is produced by small-scale farmers, most owning just a few cows.

- **Organization:** Since independence, Kenya invested in dairy cooperatives for milk collection, bulking, and marketing. Today, hundreds of dairy co-ops collect milk from

villages daily, chill it, and transport to processors or urban markets. This collective system gives farmers bargaining power a lone farmer with 5 liters has no sway, but a co-op with 5,000 liters can negotiate a contract with a milk processor at a decent price.

- **Services:** Co-ops also provide inputs on credit (feed, AI services, vet services) and even finance to members, which helped improve productivity and quality. The cooperative structure means profits are shared or reinvested, and farmers have voice.
- **Stability:** Because co-ops assure a market and usually pay regular (even daily) income to farmers, dairy became a reliable source of livelihood. This is a case of replacing isolated individual selling (which could be to local middlemen who might exploit farmers) with an organized, collective market presence.
- **Evidence of impact:** Sector analyses confirm that smallholder cooperative members generally get a higher portion of consumer price than they would individually. Also, the cooperative movement lobbies the government on behalf of dairy farmers (for favorable policies, tariffs on milk powder imports, etc.), showing the power of collective voice.

Lesson: Strong producer organizations can transform a sector. However, Kenya's dairy co-ops did have ups and downs some collapsed in 90s due to liberalization shock and mismanagement, but many rebounded. It shows need for continuous capacity building in management. Donors like the Swedish (Sida) and others supported training cooperative boards. The government recently has worked through the Kenya Dairy Board to ensure quality and fair practices.

This example underscores the recommendation to emphasize collective bargaining. It's essentially "Replace training with bargaining" in action the success didn't come from training each farmer on how to milk a cow better (though extension was there); it came from building an infrastructure (co-ops + cooling + transport) that let farmers bargain and access markets effectively.

India: Digital Market Access via the Electronic National Agriculture Market (e-NAM)

India launched e-NAM in 2016 as a digital platform integrating traditional wholesale markets (mandis) across states into one unified online marketplace. The idea is farmers or traders in one state can discover prices and trade with buyers in another state, increasing competition and transparency.

- **Progress:** As of mid-2020s, e-NAM connected over 1,000 regulated mandis across 18+ states. Commodities like onions, potatoes, pulses, etc., have been traded inter-state on the platform. It's basically creating a national digital marketplace where licenses, fees, etc., are harmonized.
- **Improvements observed:** Studies by India's agriculture ministry and independent economists noted better price discovery i.e., less variance in prices of the same commodity across markets, indicating arbitrage and integration. In some cases, farmers in remote areas got higher prices because buyers from deficit regions could bid via e-NAM. Transaction costs (like multiple licenses fees) reduced for traders, potentially allowing them to pay farmers a bit more.

- **Limitations:** Not all smallholders directly use e-NAM; many still rely on local middlemen who then may use e-NAM. Also, if storage/logistics are weak, farmers can't easily exploit a good price offer from far away. The uneven adoption by states (some states enthusiastically joined, others lagged due to local politics) meant patchy benefits. So while promising, e-NAM by itself hasn't revolutionized farmer incomes yet it needs the analog supports.
- **But directionally:** It underscores that digital integration of markets can remove some local monopolies. If one mandi cartel tries to keep prices low, sellers can now see higher prices elsewhere and potentially sell there if transport feasible. Over time, this pressure could force local traders to be more competitive.

Lesson: Digital markets work best with enabling reforms. India, for instance, had to amend laws to allow inter-state trading and unify standards. And they provided some funds for upgrading infrastructure in mandis to participate (computers, quality labs). It shows that even a government-led digital platform can gain traction if it aligns with stakeholders' interests (traders liked access to more markets, farmers liked transparent price info).

This resonates with our caution: digital tools need structural backup. In India's case, e-NAM needed policy changes (removing movement barriers) and investment in logistics to fully deliver benefits. Still, it's an example of scaling an innovation nationwide via policy it moved from pilot to policy, which is commendable.

Senegal: PAA Africa and Institutional Procurement for Smallholders

Senegal piloted an approach inspired by Brazil's PAA, under an initiative called PAA Africa (a partnership involving FAO, WFP, Brazil, and African governments). It aimed to use institutional procurement (like school feeding programs) to buy from local smallholders while also providing them support.

- **Case:** In Kédougou region, the project combined giving farmer groups improved seed and training with guaranteed procurement of their rice for local school canteens and food reserves.
- **Results:** Farmer yields reportedly increased from ~0.8 tons/ha to ~2.5 tons/ha over a couple of seasons, thanks to inputs and training. More importantly, they had a ready market at a fair price for that increased output. The participating smallholders saw improved income and some shift from subsistence to selling surplus. Communities benefited by having local rice (fresh and culturally appropriate) in school meals.
- **Significance:** It reinforced that combining support (training/inputs) with assured demand is powerful. Often projects do one or the other; doing both ensures that increased production doesn't just lead to glut and price drops. Farmers responded because they had confidence they would sell what they grow.
- **Challenges:** Scaling beyond pilot was an issue it needed government commitment to continue buying locally after the pilot external funding ended. Also, ensuring quality of local rice to meet standards took effort (introducing small mills, etc.).

Lesson: Institutional demand can be localized even in poorer countries, not just big ones like Brazil. It aligns with “Buy from the Poor at a Premium.” The key is adjusting procurement rules (which they did: e.g., allowing schools to buy in smaller quantities from many farmers). This example shows North-South knowledge transfer (Brazil to Africa) can work, adapting to context. Political will at local level (district officials) was a factor those who championed it saw success.

India: Climate-Smart Investment for Small Tea Growers

In India’s Northeast states, a program targeted small tea growers (who usually sell green leaves to factories without much value addition). It provided them with equity-like investments and support to adopt organic and climate-resilient practices, and helped them collectively process and directly market specialty tea.

- **Approach:** Instead of a loan or grant, an equity investment was given to farmer producer companies run by small tea growers. This capital was used to build mini-processing units and certify organic tea gardens. The idea was growers would move up the value chain by producing made tea themselves and accessing premium markets (organic, fair trade, etc.). The project also linked them to buyers willing to pay higher prices for sustainable tea.
- **Outcomes:** Several small tea producer companies were set up, and some were able to sell branded tea at prices significantly above the old pattern (where they sold raw leaves cheaply). The financing helped cover initial conversion costs (as organic transition can lower yields for a bit, and new processing needs investment). Farmers who participated saw improved incomes when the model worked, and importantly, gained a sense of ownership and entrepreneurship beyond just farming.
- **Supports climate goals:** By framing it as climate-resilient organic production, they also tapped climate funds. The shift to organic, shade-grown tea reduced chemical use and improved biodiversity. These practices are better for long-term soil and micro-climate resilience. So it ties into the “Redirect De-risking to Farmers” in that climate finance was given as direct capital to farmers, not big companies, treating it as an investment in their adaptive capacity.
- **Challenges:** Not all groups succeeded equally some struggled with marketing or quality control. Equity investment also means shared risk: a few farmer companies didn’t yield profits initially, so the returns for investors were slow. But since it was impact investment oriented, that was acceptable to a degree. Governance of the producer companies was a learning process.

Lesson: Even smallholders can be entrepreneurs beyond farmgate if given capital and know-how. Equity investments (rather than just loans) can be a patient, risk-sharing way to finance smallholder ventures, aligning with treating them as legitimate market actors not charity cases. Climate finance can be channeled in innovative ways here it wasn’t just training on climate adaptation, it was giving money to farmers to invest in a new, greener business model.

It exemplifies “climate finance and investment as rights, not charity” farmers weren’t just aided, they became co-owners of a new value chain with external support. This could be replicated for

other crops where smallholders usually are stuck as raw material suppliers (cocoa, coffee, spices, etc.) helping them capture more value while adopting climate-friendly methods.

Sub-Saharan Africa: Land Rights Reform and the Limits of Redistribution

Numerous African countries have attempted land reforms or formalization to improve smallholder security, with mixed results. A comprehensive review across Sub-Saharan Africa found smallholders still face many restrictions and insecurities:

- In several countries, land rental markets are restricted (officially or informally), limiting efficient land use small farmers can't easily rent more land to expand, or landowners hesitate to rent out for fear of losing rights. This keeps some smallholders land-poor while others have underused land, stifling opportunities.
- Even where redistributive land programs exist (e.g., Kenya's historical resettlement schemes, South Africa's post-apartheid redistribution, Zimbabwe's redistribution, etc.), their success depends on enforcement and support. Without follow-up credit and extension, simply giving land may not yield big gains. Also, elite capture often rears up better-off individuals maneuver to get the land meant for the poor.
- A World Bank-led analysis noted that in places with weak land administration, titling alone doesn't solve disputes; courts and local institutions need strengthening. Corruption in land offices can mean titles are duplicated or fraudulently issued.
- **Case:** In one West African country, despite a new land law recognizing customary rights, implementation lagged and many small farmers didn't know to register, while speculators did resulting in continued tenure insecurity.

This highlights why we emphasized "Tenure with teeth." Without oversight, those with power find loopholes.

For example, Ghana's attempts at documenting customary land rights show promise when coupled with community land committees, but scaling that is slow. In places like Rwanda, where a nationwide low-cost land tenure regularization was done, it increased investment and women's land ownership (because joint titling was mandated) a success story. However, in some cases fees or complexity keep poorest from participating unless subsidized.

Lesson: Land reform is structural and political. The Africa experience suggests that to truly secure smallholders' land:

- You need political champions at high level to push it and resist elite pushback.
- You should incorporate gender safeguards explicitly (like Rwanda did).
- It must be affordable and accessible for villagers (mobile land clinics, etc.).
- Community involvement is crucial so local norms align with formal law (else you have paper vs reality divergence).
- Crucially, after legal rights are given, farmers often need complementary support (credit, skills) to fully utilize land, else land by itself isn't enough.

This case reinforces our call: donors should insist on concrete land governance progress as part of aid. E.g., MCC compacts have tried this in places: money flows if land laws change and implementation hits targets (like % of women titled). We might need more of that conditionality to overcome inertia.

Malawi, Nigeria, Zambia: Targeted Subsidy Reform and Smallholder Income

These countries have been re-evaluating their farm input subsidy programs (which historically were blanket subsidies on e.g. fertilizer or seed) to see if they can achieve more with targeted or market-smart approaches.

- **Traditional approach:** Malawi's famed Farm Input Subsidy Program (FISP) gave coupons to millions of small farmers for fertilizer/maize seed, boosting production but at a high fiscal cost and sometimes benefiting larger or non-poor farmers too. Similar programs in Zambia and a newer one in Nigeria aimed at broad reach but had issues with diversion and sustainability.
- **Reforms:** Recently, studies (some published ~2024/25) compared the old model to more **targeted voucher schemes or e-vouchers** that target truly vulnerable farmers and involve private agro-dealers in input delivery. They found that:
 - ✓ **Efficiency improved** by better targeting poorer farmers and making distribution more efficient through electronic vouchers, governments could spend less to achieve the same yield gains.
 - ✓ **Market development:** In Nigeria, shifting to e-vouchers that farmers redeem at private input shops helped stimulate those rural businesses (rather than government distributing everything). It also reduced corruption since e-vouchers are harder to divert than physical coupons.
 - ✓ **Outcomes:** By freeing up some budget from universal subsidy, governments could invest in other areas like extension or research. And when poor farmers were targeted, the income gains per dollar spent were higher (because a little fertilizer for a poor farmer who couldn't afford any has bigger marginal impact than giving a second bag to a better-off farmer who would have bought one anyway).
- This aligns with "Tax value where captured" and "Subsidy justice" in that it's about repurposing subsidy in smarter ways to truly benefit smallholders who need it, rather than blanket subsidies that often favor larger or well-connected farmers. The example of these three countries shows a trend: moving from politically popular but often regressive blanket subsidies to more nuanced support that still helps production but in a pro-poor way.

Lesson: Reforming subsidies is politically tough (farmers come to expect them), but when done, it can both save money and better help smallholders who really require assistance. Key is communication and phasing: e.g., in Zambia, they gradually shifted a portion of beneficiaries to e-vouchers and left others on old system, to show it works, then expanded.

From a power perspective, reducing blanket subsidies (which sometimes mainly benefit fertilizer companies and bigger farmers) and using those funds to directly empower smallholders (through targeted vouchers or other support) is a way to capture value (the foregone subsidy rents) and redirect it. It's an example of internal reform that aligns with value capture idea.

Tanzania: Institutional Procurement and the P4P Experience

Tanzania piloted WFP's Purchase for Progress (P4P) approach in the late 2000s, aiming to buy staples like maize and beans from smallholder groups for WFP's food assistance, instead of from large traders. The pilot, implemented in a few regions, had mixed but instructive results:

- **Achievements:** Farmer organizations were mobilized to aggregate crops and some managed to win WFP contracts. Those who did often got a better price than local market (especially because WFP had quality standards and paid a premium for quality, which incentivized improvements). Market access improved for participating co-ops; they learned how to meet big buyer specs.
- **Challenges:** Several issues arose delayed payments from WFP strained the groups' finances (if it took 2-3 months to pay, farmers got restless). Also, some groups struggled with assembling the required volumes or quality, leading to defaults or partial deliveries. Inadequate storage meant some grain deteriorated. And critically, even after selling to WFP, these groups had to compete in the market in other seasons, where they still faced powerful middlemen.
- The pilot showed that procurement alone isn't enough; you must simultaneously strengthen farmer org capacity, ensure financing (so they can pay farmers on delivery even if buyer delays), and ideally help them find other buyers too to not depend solely on WFP.
- Tanzania's government, seeing the potential, later started a program to buy food domestically for its reserve and social programs, trying to include smallholders. But scale was limited by budget.

Lesson: It validated that structured demand can work but identified the complementary measures needed: timely payment guarantees (perhaps via a financial intermediary or government backing), investment in rural storage and training on quality standards, and policy support like price information or floor prices so co-ops aren't undercut by traders.

In essence, it echoes earlier points inclusive procurement must be designed holistically. If any link (payment, storage, bargaining clout) is weak, the benefits won't fully reach farmers. However, many Tanzanian farmers who did participate saw the potential and some co-ops continued to operate, supplying other institutional buyers like schools later.

It reinforces the call for not leaving these programs as pilots governments should adopt and adapt them, and fix those bottlenecks as part of scaling up.

Egypt: Public Wheat Procurement for Smallholders

Egypt, one of the world's largest wheat importers, also buys millions of tons of wheat from its own farmers every year to stock the public bread program. In recent years, Egypt has actively raised

the domestic procurement price and improved logistics to encourage more small farmers to sell to the government rather than to middlemen or for animal feed.

- **Stats:** In 2025, by May (peak harvest), authorities had already procured about 3.5 million tonnes from local farmers, and by end of the buying season ~3.93 million tonnes. This was a record high, attributed to attractive prices and an efficient collection system.
- **Policy moves:** The government significantly increased the procurement price in 2022 and 2023 (above the previous year's and trying to stay above world price). They also expanded the network of collection points to villages, making it easier for small farmers to deliver a few sacks without long travel. They mandated prompt payment often within 48 hours of delivery to compete with traders who pay cash on spot.
- **Effect:** Many smallholders responded by selling more to the state. They got a better price than the private traders were offering in many cases, plus the guaranteed market meant they were confident planting wheat. It effectively functioned as a support price system ensuring farmers a decent return. For Egypt, it also improved food security by securing local grain.
- **Considerations:** This kind of assured purchase plus price support is a classic tool that many countries abandoned under liberalization but Egypt maintained due to strategic need. It shows that with proper management (preventing excessive smuggling to government stores, ensuring quality control to avoid buying subpar grain), such a system can benefit both the state and farmers. A challenge is fiscal cost paying above market costs money, but Egypt rationalizes it as money that would otherwise go to imports or subsidies anyway.
- **Small farmer impact:** It provides income certainty to hundreds of thousands of small wheat farmers. However, timely payment and adequate storage have been key if either falter, farmers might revert to selling to traders who sometimes even advance credit pre-harvest. So the government has had to maintain trust through reliable operations.

Lesson: Even in a heavily market-driven world, there is a place for good old-fashioned price support procurement if done smartly. It can be pro-poor if it targets crops that smallholders grow (like wheat in Egypt, rice in smallholder Asia, maize in parts of Africa). The lesson is to ensure it's *accessible* (lots of buying stations, no complex requirements) and *fair* (no corruption or delays). It aligns with our recommendation on procurement reform and subsidy justice instead of subsidizing consumers blindly or letting traders reap margins, channel funds to farmers by paying them a fair price for their product, then use it for food security programs (two birds with one stone).

Morocco: Land and Market Access through the Green Morocco Plan

Morocco's Plan Maroc Vert (Green Morocco Plan), launched in 2008, was a major agricultural modernization and investment strategy with two "pillars": Pillar I focused on high-value, large-scale agriculture and agribusiness, while **Pillar II** focused on smallholder and solidarity farming support.

- **Investments:** By 2020, over **USD 13 billion** had been invested, including in irrigation, fruit tree planting (like olives and almonds in small farms), and livestock projects targeting smallholders. Agricultural GDP growth accelerated relative to pre-plan.
- **Outcomes:** Productivity did increase in many cases (e.g., yields of olives rose with new orchards, dairy yields improved with better breeds). However, evaluations noted **uneven outcomes**:
 - ✓ Larger commercial farms, often those who could co-invest and had land, captured a disproportionate share of the benefits (like subsidies for drip irrigation or machinery).
 - ✓ Many smallholders did benefit from new plantations and value-chain projects, but improvements in income or bargaining power were limited for some. For instance, lots of olives were produced, but processing and marketing were still dominated by bigger players, so small farmers selling olives didn't always get much better prices.
 - ✓ FAO assessments pointed out that while there were positive aspects (productivity up, exports up), the plan didn't sufficiently address structural inequalities like land concentration or traditional water rights.
- **Implication:** Morocco's experience shows both the potential of big investments in smallholder sector and the pitfalls if underlying power issues aren't fixed. They poured money in (which is good), but because land distribution and market power issues weren't tackled head-on, bigger farmers often advanced more.
- Under the new plan after 2020 ("Green Generation"), Morocco aims to focus more on youth and small farms, learning from those lessons, e.g., aggregating small farmers into co-ops for better market access.

Lesson: Even a well-funded program can inadvertently widen gaps if not consciously pro-equality. This underscores that "subsidy justice" requires retargeting not just more money. It's a cautionary tale aligning with our calls: ensure that subsidies/investments don't just make the strong stronger. For example, one could require that any subsidy to a large farm comes with inclusion of nearby small farms in contract farming or training, etc.

However, the successes (like widespread adoption of modern practices) shouldn't be ignored it shows that given resources, small farmers can adopt new systems. It's just that the rich might adopt faster unless policy guards against it.

Jordan: Credit Guarantees and Smallholder Finance

Jordan's case is an interesting one of using state institutions and international partnerships to expand credit for small farmers in a middle-income context facing water scarcity and climate stress.

- **Agricultural Credit Corporation (ACC):** A government entity that is the main agri-lender, including to smallholders. Historically, it gave subsidized loans but often to medium farmers and with limited outreach.
- **Recent initiatives:** In 2024, the ACC announced a plan to lend JD 55 million (USD ~77 million) targeting around 10,000 farmers, a ~10% increase over the previous year. They also, in 2025, partnered with WFP to offer interest-free loans up to JD 10k for individuals (and larger for SMEs) focusing on climate-resilient and water-saving projects.
- **Significance:** Interest-free loans are essentially a subsidy likely funded by WFP or donor money to encourage things like drip irrigation, hydroponics, or drought-tolerant crops among small farmers. This directly ties climate finance to farmers (a positive example of channeling to farm level). It also tries to reduce the collateral barrier because these special loans likely have guarantee support by WFP.
- **Gaps:** Despite these efforts, it's noted that women farmers still account for <10% of credit beneficiaries (reflecting cultural and collateral biases), and collateral requirements remain an issue for the poorest who lack land or property. So while the volume of credit is up, inclusion needs improvement.
- **Moving forward:** The case highlights need for quotas or tailored products for women (maybe group lending or requiring a certain % of loans go to female-headed farms). And looking into alternative collateral (like value-chain finance or guarantees for the poorest).

Lesson: This shows a public bank using its mandate to push more credit out, and leveraging a UN agency partnership to do so in a targeted area (climate-smart ag). It's a model where international support improved local financing terms. It aligns with "Finance that works for farmers" reduce collateral barriers (maybe WFP guarantee replaces collateral) and specifically aim at climate resilience rather than just more debt for any purpose.

It also underscores that even in conservative banking cultures, creative partnerships can open access. But also that simply pumping more funds won't automatically include marginalized groups design matters (e.g., maybe they needed outreach and technical help for women applicants).

These examples collectively demonstrate that the change we seek is possible. Elements of value redistribution, risk-sharing, empowerment, and accountability have been tried with success in various contexts:

- We see **procurement models** paying fair prices (Brazil, Senegal, Egypt).
- We see **safety nets and insurance-like schemes** protecting farmers (Ethiopia PSNP, ARC payouts).
- We see **financial innovations** (warehouse receipts in Malawi, interest-free climate loans in Jordan).
- We see **cooperative power** in markets (Kenya dairy, P4P experiences).
- We see **land and subsidy reforms** attempted (Morocco, Zambia's voucher shift, etc., with lessons to refine).

The challenge is to take these promising approaches to scale and combine them so that all aspects of the system land, finance, markets, climate response, gender equity improve together. In the next section, we consider what near-term breakthroughs could look like if these ideas were implemented decisively, and propose metrics to track real progress.

What Would Count as a Real Breakthrough in 12 Months?

Given the urgency, here are some tangible milestones that, if achieved within the next year, would signal we are moving the needle for smallholder farmers:

- **Living-Income Pricing Adoption:** At least three national governments announce policies adopting Living Income Reference Prices for major commodities (e.g., cocoa, coffee, cotton). They not only announce but start enforcing measures against predatory buying (like penalizing buyers who consistently pay below the reference price). For example, Ghana and Côte d'Ivoire's recent moves on cocoa pricing could be strengthened and count as a breakthrough if expanded and enforced.
- **Mandatory Smallholder Procurement Quotas: Public institutions in at least three countries** implement new rules that a significant share (e.g., 20–30%) of their food procurement must come from smallholder organizations at fair prices. For instance, a country's school feeding program or a World Bank-funded relief program could formally adopt such quotas.
- **Rapid Climate Disaster Payout Facility:** One country (or a state/province) establishes a parametric climate insurance scheme that guarantees cash transfers to smallholder households within 7 days of a drought/flood trigger. This could be via mobile money and would set a precedent. If, say, Bangladesh or a Sahel country did this before the next flood season, it would be game-changing.
- **Public Working-Capital Window:** A central bank or government creates a low-interest working capital fund specifically for farmer cooperatives with provisions that in a bad season the loans are partially forgiven or carried over (so co-ops don't collapse). This could be a policy by a development bank or AgriFund. If one major agri-finance player (like NABARD in India or CRDB in Tanzania) did this regionally, it's a breakthrough model.
- **Joint Land Title Mass Implementation:** Legal reform delivering joint spousal land titles at scale in one country. For example, a nation issues 100,000 new land titles in 2025 and ensures women's names are on all of them (unless opted out). This would show commitment to gender equity in land.
- **Regional Smallholder Bargaining Alliance:** Smallholder farmer organizations across at least 2 countries form a bargaining alliance that successfully negotiates with two multinational buyers in a value chain. For instance, coffee cooperatives from Rwanda and Uganda collectively strike a deal with a coffee roaster for better terms. This would demonstrate cross-border farmer solidarity and bargaining power.
- **Donor Program Metric Overhaul:** Major donor programs rewrite their results frameworks so that bonus payments or continuation depend on net farm income gains,

women's income control, and risk reduction achieved, not just on training numbers. If even one big USAID or World Bank project publicly does this, it sets a standard.

Achieving any of these within a year requires bold leadership, but it's feasible with the right coalitions. These breakthroughs align with our provocations and would create models for others to follow.

Metrics That Matter

To track progress in reorienting the system toward fairness and resilience, we propose a set of key metrics some existing, some new that together paint a picture of whether we are making life better for smallholders in a structural way. These "Metrics That Matter" should be adopted by governments and development partners as core indicators of success (aligning with SDGs but filling important gaps):

1. **Net Farm Income per hectare (and per labor-day):** This is a true measure of livelihood. It's already partly captured under SDG 2.3 (doubling smallholder productivity and incomes). By tracking net income (after input costs and finance costs) per hectare and per labor unit, we see if farmers are actually earning more from their work and land. Data can come from household surveys FAO and World Bank track this. An increase indicates improvement; stagnation means all the interventions aren't translating to better livelihoods.
2. **Producer Share of Retail Value:** What percent of the final consumer price does the farmer get? This is critical for global value chains (cocoa, coffee, cotton, tea, etc.). Currently underused, but studies exist (Fairtrade, ISEAL have benchmarks, and FAO/OECD have done chain studies). If we can raise this percentage (e.g., cocoa farmers from 6% to 10%, coffee from 7% to 12%, etc.), it's a direct sign of value redistribution. Could be an indicator under SDG 10 on inequality.
3. **Women's Control over Land, Income, and Finance:** Rather than just participation rates, measure:
 - ✓ % of agricultural land holders who are women (already SDG 5.a.1).
 - ✓ % of women in farming households who have a bank account or mobile money in their name and use it (data from World Bank Findex).
 - ✓ % of households where women report having decision-making power over agricultural income or major expenditures. These are collected in some surveys and are key to see if gender programs work. An increase in these shows real empowerment, aligning with SDG 5 and 8.
4. **Price-Variance Absorption:** A new metric looking at who or what absorbs market shocks. For instance, if world price of a crop drops 30%, does the farmer's income drop 30% or do mechanisms (like stabilization funds, warehouse storage, insurance) buffer it? We could measure the proportion of price volatility buffered by instruments vs. passed to farmers. If a country has a grain reserve that stabilizes prices, this metric would show high absorption (good). It aligns with SDG 1.5 on resilience. Essentially, in a bad year, how much

of the loss do external supports cover? We want this percentage to rise over time (meaning farmers less exposed).

5. **Shock Payment Speed and Adequacy:** Average time from a disaster trigger (drought, flood) to when farmers receive support, and what percent of their minimum survival or recovery needs that support covers. For example, after a declared drought, did farmers get say \$100 within 2 weeks (fast and maybe 50% of what they needed)? Current pilots like ARC or the new Global Shield are testing this. The Loss & Damage funding and insurance initiatives need this metric to prove effectiveness. Goal: bring it down to <1 month and >50% needs covered, for instance. Aligns with climate agreements (Paris Agreement adaptation, etc.).
6. **Procurement Timeliness and Inclusivity:** Of total public procurement in ag/food, what % in volume or value is sourced from smallholder organizations, and what % of payments are made on time as per contract. SDG 12.7 talks sustainable procurement but doesn't have an inclusivity sub-metric. We add that. If we see this % rising (say from 5% to 15%), it means more business for smallholders. And tracking payment timeliness ensures reforms are meaningful (if they buy but pay late, it's bad).
7. **Debt Stress Indicators:** For smallholders: effective interest rate paid on loans, frequency of having to roll over loans, and incidence of distress sales of assets or crops due to debt. These can be gathered through rural finance surveys. If reforms work, interest rates should drop (e.g., through competition or subsidies), and fewer farmers should be selling off land or livestock to pay debts. It complements SDG 1.4 on access to resources/financial services but adds qualitative nuance of how benign that access is.

By monitoring these metrics, policymakers and stakeholders can stay focused on what really matters: are farmers earning more for their effort? Are they capturing more value? Are women gaining power? Are shocks less devastating? Are governments putting money where their mouth is (buying from their farmers)? Are farmers less preyed upon by high interest and forced sales?

If these indicators move in the right direction, we can be confident that the myriad programs and policies are actually making a difference on the ground. If they don't, it will be a clear sign that something is off, no matter how many reports of trainings and input distributions we produce.

In implementation, data for these should be collected and reported annually (many through existing instruments like LSMS surveys, FAO monitoring, etc., with some new modules). The table provided in the paper outlines which are existing vs. new and how they align to global frameworks (as summarized above).

Design Choices to Implement Now

Finally, beyond grand policy shifts and metrics, there are some practical design principles that should guide any new program or initiative targeting smallholders. These are insights derived from past experiences (successes and failures) that can increase the chance of real impact:

- **Use Trusted Local Channels:** *"Channel cash through trusted local conduits farmers already use rather than layering new intermediaries."* For example, if village saving groups or local

post offices are where farmers normally get money, route payments (be it aid, loans, or subsidies) through those it's faster and builds on trust. Many projects fail by creating new committees or payment systems that farmers find alien or cumbersome. Building on what exists (co-ops, local MFIs, agro-dealer networks) accelerates adoption and reduces leakage.

- **Pre-negotiate Market Commitments:** *"Pre-negotiate commercial terms (price, quantity, delivery) before giving agronomy support."* Don't train farmers to grow a new crop or increase yield without ensuring there's a buyer at a fair price for the extra produce. Otherwise, you get the common story: big harvest, price crash. Instead, as a project, line up say a food processor to commit to buy X tons at Y price *if* farmers produce them, then go do the production push. Contract farming models sometimes do this (out-grower schemes), but it can be done at project level too.
- **Bundle Support (Storage, Info, Finance):** *"Bundle storage, price info, and working capital so farmers can choose **when** to sell, not just what to grow."* This speaks directly to refusal power. A project that introduces a new crop should also perhaps provide portable silos or access to a warehouse, give farmers market price bulletins, and provide a short-term credit line. With all three, farmers have agency in timing sales. Without storage, they must sell immediately; without info, they don't know *when* is better; without finance, they can't wait even if they know.
- **Digitize Payments to Women & Protect Them:** *"Digitize payments to women's accounts while protecting against intra-household capture via grievance mechanisms."* This means if you are giving subsidies or cash transfers, ideally send them to women's phone/bank. But be aware of potential backlash so set up ways women can report if husbands try to take away their phone or force them to withdraw money. Maybe link to social services or community watch. Some countries have had success with mobile money to women for safety net programs with such safeguards (e.g., in some polygamous households, ensuring each wife gets her due).
- **Name and Shame Unfair Buyers:** *"Publish buyer scorecards on price, payment time, rejection rates to create reputational incentives for fair treatment."* If governments or NGOs publish an annual ranking of say the main milk processors or cocoa exporters on how they treat smallholders (average price paid relative to market, % of payments delayed, % of deliveries they unfairly rejected claiming quality issues, etc.), it can prod companies to improve. Many companies care about their brand, and such transparency can push them to be fairer even without new law. This kind of "soft" regulation via transparency is akin to how some industries self-regulate when under spotlight.
- **Enable Platform Cooperatives:** *"Enable platform cooperatives for logistics and sales, reducing margin leakage."* This means help farmers use digital platforms *that they own* to reach markets directly. For instance, a cooperative could run an e-commerce platform for urban consumers to buy produce straight from farmers (there are examples emerging). Or a taxi-like app for tractors that co-op manages to cut out middlemen in hiring services. The idea is to marry cooperative principles with tech platforms, so value doesn't all go to

a Silicon Valley app or middleman. Governments can support by favorable regulations or seed funding such ventures.

These design choices are actionable immediately in projects and policies. They each tackle a specific leverage point:

- Payment channels -> reduces corruption and delays, increases reach.
- Pre-negotiation -> ensures production translates to profit.
- Bundling -> empowers farmer choice and resilience.
- Women's payment -> concretely empowers women, with caution for safety.
- Scorecards -> uses transparency to enforce fair practices.
- Platform co-ops -> puts technology in farmers' hands rather than in rent-seekers'.

By integrating these into new programs (be it a loan scheme, a value-chain project, a safety net), we can avoid common pitfalls. They are like a checklist for farmer-centered design.

Risks to Confront, Not Avoid

Any change comes with risks. It's important to acknowledge them upfront and have strategies to mitigate them, rather than using them as excuses to maintain status quo. Some key risks in the agenda we propose include:

- **Elite Capture of Reforms:** When new resources flow or organizations are formed, local elites (wealthier farmers, chiefs, officials) might take disproportionate advantage. e.g., land titling could end up giving more land to those who already have influence. **Mitigation:** Build governance and transparency into reforms (community monitoring, independent audits). Ensure quotas or focus on marginalized in implementation (like requiring certain % of beneficiaries to be small or female farmers). Strengthen farmer org governance to be democratic.
- **Buyer Retaliation/Blacklisting:** If farmers organize for better prices, powerful buyers might retaliate not buying from those co-ops, or colluding to drop prices (or in extreme, using political influence to suppress unions). **Mitigation:** Governments should enact and enforce producer protection laws, similar to labor laws protecting unionizing workers. Also, diversifying market options for farmers (through platforms, co-op marketing, alternative buyers like public procurement) reduces a single buyer's power to punish.
- **Climate Payouts Causing Dependency or Crowding Out Adaptation:** If we give easy cash after shocks, will farmers not invest in adaptation? **Mitigation:** Pair payouts with conditions or parallel programs for resilience (e.g., to be insured or in safety net, you must also attend climate-smart training or plant certain resilient crops). Ensure payouts are adequate for relief but not so large as to disincentivize other risk management. Essentially, do both: immediate relief and long-term public goods (irrigation, drought-resistant seeds) so that over time the need for payouts might decline.
- **Backlash Against Women's Empowerment:** Changing intra-household dynamics (like money to women) can create domestic conflict, even violence, as some men may resist

losing control. **Mitigation:** Include gender sensitization with men in programs, create community dialogues on benefits of women's economic role, and have support systems (like local women's groups, legal aid, shelters if needed). Also, introduce changes gradually and with community buy-in, highlighting how it benefits whole family (e.g., better nutrition for kids if women control income, as evidence shows). Use male champions to advocate.

- **Short-term Inflation from Fair Procurement:** If governments start buying a lot from smallholders at higher prices (e.g., guaranteeing above-market prices), could this cause food price inflation that hurts urban consumers? Possibly, if done abruptly and without productivity gains. **Mitigation:** Increase supply in parallel (productivity programs), phase in gradually, or use targeted consumer subsidies for vulnerable groups during transition. Also, better logistics can reduce other costs, offsetting price rises. Monitoring is key if food inflation spikes, adjust procurement volumes or release stocks to stabilize.

These are real risks, but none are insurmountable:

- Elite capture: fight with transparency and inclusion.
- Retaliation: counter with collective action and legal protection.
- Payouts vs adaptation: design integrated strategies.
- Gender backlash: accompany economic changes with social support.
- Inflation: manage pacing and complementary measures.

The worst risk is doing nothing which guarantees the current unacceptable situation continues. By proactively addressing these risks, we can refine the approach rather than abandon it.

Monitoring and Accountability Framework

As emphasized, traditional monitoring focuses on easy counts (trainings, inputs, etc.) and often misses whether farmers' lives improved. We propose a new Metrics That Matter framework (described above) that centers on farmers' welfare and power, aligning with global goals but filling gaps.

To implement this:

- Donors and governments need to revise their M&E systems. Many of these metrics already exist in the SDG framework (e.g., farm income is SDG 2.3, women's land is 5.a). Where they exist, use them vigorously. Where they don't (like price variance absorption, shock payout speed, procurement inclusivity, debt stress), start pilot-testing their collection.
- It's critical to integrate these into project logframes and national ag statistics. For instance, a country's agricultural survey should include a module on farmers' debt and interest rates, to inform the debt stress metric. Or the national disaster management agency should track how fast relief reaches villages in quantifiable terms.
- Align indicators with global frameworks where possible for buy-in. For example, connect the procurement inclusivity metric to SDG 12 on sustainable consumption/production, but explicitly note we're extending it to social inclusion. Or promote price-variance absorption as a resilience indicator under SDG 1.5/climate adaptation.

- Close blind spots: The reason to introduce new metrics is because current systems have blind spots on risk shifting and power imbalances. By making these visible, we force programs to address them. For example, if a program reports proudly that yields increased 20% but our metrics show net income didn't change and price volatility was still all borne by farmers, that's a red flag that something structural didn't change.

The framework table (Annex 1) in the paper details each indicator, its status (existing or new), who tracks it if existing (e.g., FAO, World Bank), how to measure, and alignment to global commitments (SDGs, Paris Agreement, etc.). It's a roadmap for how to incorporate these into mainstream monitoring.

By adopting this framework, decision-makers will have a more farmer-centered dashboard:

- Are incomes rising *per unit effort*?
- Are farmers gaining a bigger slice of pie?
- Are women gaining rights?
- Is someone cushioning farmers from shocks?
- Do funds reach them quickly in crises?
- Are we putting public money into their markets?
- Is their debt manageable?

If the answers are yes and trending better each year, then we know we're on course.

In conclusion, breaking the traps is not about one silver bullet; it's about systemic realignment. It requires political courage, multi-faceted strategy, and persistent accountability to the outcomes that matter. The evidence and examples in this paper show that every piece of the solution puzzle exists somewhere our task is to put them together, at scale, and not settle for "business as usual" in any domain of agriculture and rural development.

Only by doing so can we ensure that being born a small farmer no longer means living and dying poor, but instead means a viable, dignified livelihood and a path to prosperity for the next generation.

Conclusion: Rewiring the System for Dignity and Justice

Smallholder farmers have fed the world for generations, yet the systems that govern food production continue to trap them in cycles of low income, high risk, and limited control. Their poverty is not an accident, nor a reflection of insufficient knowledge or effort. It is the predictable outcome of global and national architectures that extract value from those who produce food and concentrate it among those who trade, process, insure, and regulate the system. These architectures have been built through political choices and maintained through institutions that privilege the powerful while keeping the poorest at the bottom of the value chain.

Breaking these traps requires more than another round of pilot projects, input packages, or digital solutions. It demands a shift away from fragmented interventions toward structural reforms that

redistribute power, value, and risk. Dignity for farmers begins with fair and predictable prices, not just higher yields. Justice begins with enforceable land rights and accessible finance, not with temporary participation in training sessions. Resilience begins with guaranteed disaster payments and procurement systems that intentionally buy from the poor at a fair price, not with isolated climate activities disconnected from real protection.

The evidence is clear. Farmers thrive where they have bargaining power, secure tenure, collective voice, fair procurement channels, and predictable climate support. Where these are absent, even the best technologies fail to improve incomes or reduce vulnerability. The way forward is neither unknown nor untested. It is politically difficult, yet technically feasible and morally urgent.

Rewiring the system requires a fundamental reorientation of how value flows. It calls for market governance that favors producers rather than intermediaries, subsidy reforms that support local livelihoods rather than global distortions, climate mechanisms that deliver resources directly to households instead of stopping at national borders, procurement systems that prioritize smallholders, and gender frameworks that measure control rather than attendance.

It also requires redefining success. No agricultural or climate program should be judged by the number of trainings delivered or inputs distributed. Real success lies in measurable increases in net farm income, women's control over resources, reduced exposure to climate and market risks, and an expansion of farmers' choices. These are the outcomes that reflect dignity and justice. These are the outcomes that matter.

Ultimately, this paper calls for a shift in mindset. Smallholder farmers are not passive beneficiaries of development. They are rights-holders whose labor sustains food systems worldwide. Their dignity rests on fair compensation, secure land, the ability to refuse exploitation, and the certainty that they will not be abandoned after the next flood, drought, or price collapse. Justice requires that the systems around them be rebuilt with equity at the center.

A world where farmers are born poor and die poor is not inevitable. It is the result of choices. And because it is built by choices, it can be rebuilt through choices. Rewiring the system means replacing a food economy dependent on rural poverty with one grounded in fairness, resilience, and human dignity. The path is clear. What remains is the will to act.

Annex 1: Integrated Monitoring and Accountability Framework for Smallholder Justice

Transforming global food systems requires more than new projects, new technologies, or new pilots. It requires new ways of measuring what matters. For decades, monitoring systems have reinforced the very inequities they were meant to solve. They counted trainings instead of power shifts, recorded outputs instead of justice, and tracked yield increases while ignoring the fact that farmers continue to sell cheap and buy dear. The result is a landscape where programmes appear successful on paper even when smallholders remain poor in practice.

To break this pattern, this paper introduces an Integrated Monitoring and Accountability Framework designed to realign agricultural development with equity, dignity, and structural justice. The framework is intentionally ambitious. It proposes indicators that capture value distribution, bargaining power, income control, climate risk, tenure security, and procurement fairness. These are the factors that truly determine whether farmers escape or remain locked in systemic poverty. The framework does not rely on traditional proxy indicators. Instead, it measures the real drivers of change. These include farmgate prices, women's decision-making power, direct climate payouts, the governance of risk sharing instruments, and the degree to which public procurement rewards or penalizes smallholders.

This framework is not meant to replace existing systems but to upgrade and integrate them. It draws from global commitments including the SDGs, CEDAW, the Paris Agreement, the Sendai Framework, the Voluntary Guidelines on Land Tenure, and responsible agricultural supply chain standards. At the same time, it fills the gaps those frameworks leave unaddressed. Each indicator is paired with guidance on who should track it, how it should be measured, and how it links to global obligations. By doing so, it provides governments, development partners, donors, climate funds, and civil society with a shared language to monitor progress in a way that is both technically sound and politically meaningful.

Above all, this framework establishes a clear principle. Development success must be judged by whether smallholder farmers gain more value, more power, and more control. If the system shifts upward the value they capture, upward the protection they receive, and downward the risks they bear, then progress is real. If not, no number of trainings, pilots, or platforms can be claimed as success.

The table below presents the full indicator set. It offers a roadmap for governments, institutions, and practitioners to rewire monitoring and accountability away from process metrics and toward structural transformation. It is designed to be adopted, adapted, and institutionalized across national systems, donor portfolios, climate programmes, agricultural strategies, and gender equality frameworks.

Domain or provocation	Indicator	Status (existing or new)	Primary custodian or data source	How to measure and data collection	Alignment to global commitments
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Make price the first metric	Net farm income per smallholder household (real, post-cost)	Existing but underused	National statistics offices, World Bank LSMS, FAO Rural Livelihood Surveys, project household surveys	Calculate average annual net farm income per smallholder household. Use farm business income formula: value of production minus input costs minus hired labour minus finance costs. Disaggregate by gender of landholder and by farm size. Baseline and update at least every three years.	SDG 1.1, 1.2, SDG 2.3, CFS smallholder guidelines, IFAD results frameworks
	Farmer share of final retail value in key value chains	Mostly new for public reporting	Value chain studies, OECD, FAO, IFC, company disclosures, NGO research	For selected commodities (for example cocoa, coffee, tea, wheat, dairy) compute percentage of consumer price accruing to smallholders. Use cost of production and farmgate price versus wholesale plus retail margins. Track change over time.	SDG 10.2, SDG 12.2, UNGPs on Business and Human Rights, OECD Responsible Agricultural Supply Chains
	Average farmgate price as percentage of living income reference price	New	National agriculture ministries, farmer organizations, living income reference price initiatives (Fairtrade, ISEAL members)	Define living income reference price per commodity and region. Compare actual average farmgate price received by smallholders to this benchmark and express as percentage.	SDG 1.2, SDG 2.3, ILO decent work, human rights to adequate standard of living
Fund refusal power	Percentage of smallholders with access to safe storage and crop-backed finance	New	Ministries of agriculture and finance, warehouse receipt regulators, farmer cooperatives	Estimate share of smallholders using certified warehouses, hermetic storage or collective stores and able to obtain credit against stored produce at affordable interest rates. Use administrative data from warehouse receipt systems plus farmer surveys.	SDG 2.3, SDG 8.3, CAADP, GCF results areas on climate-resilient livelihoods
	Seasonal price gap captured by smallholders (harvest price versus lean season price)	New	Market information systems, FAO GIEWS, national price bulletins	For key staples, track average harvest price and lean season price. Measure proportion of this seasonal price gain captured by smallholders who store and sell later, versus intermediaries.	SDG 2.c on price volatility, CFS policy recommendations on price volatility and food security
Buy from the poor at a premium	Share of public food procurement volume sourced directly from organized smallholders	Emerging in some countries	Ministries of education and health, school feeding units, WFP, procurement authorities	Compute percentage of total volume and value of food purchased by public institutions that is sourced from smallholder organizations under direct contracts, not through large traders.	SDG 2.3, 2.4, SDG 12.7 on sustainable public procurement, FAO home grown school feeding guidelines

	Share of public food procurement purchased at or above living income reference prices	New	Procurement agencies, school feeding units, local governments	For commodities purchased from smallholders, compare contract price per unit to living income reference price. Record percentage of contracts that meet or exceed this threshold.	SDG 1.2, SDG 2.3, human right to adequate food, zero hunger initiatives
Pay for loss and damage as entitlement	Share of smallholder households enrolled in shock-responsive social protection or climate risk schemes	Existing concept but rarely disaggregated	Social protection agencies, ministries of agriculture, disaster management authorities, WFP, World Bank ASPIRE database	Count households with regular access to cash transfers or public works that scale up during climate or price shocks, and those covered by public climate or crop insurance. Disaggregate rural smallholders and women headed households.	SDG 1.3, SDG 13.1, UNFCCC Loss and Damage discussions, Sendai Framework
	Average number of days between climate shock trigger and cash or in-kind payout to farmers	New	Social protection management information systems, insurance providers, early warning systems	Define shock triggers (rainfall index, flood level, drought declaration). Track the number of days from trigger to first transfer reaching farmers accounts or hands.	SDG 13.1, humanitarian Grand Bargain, anticipatory action frameworks
Redirect de-risking to farmers	Share of public agricultural risk-sharing instruments governed by farmer organizations	New	Ministries of finance and agriculture, development banks, farmer federations	Map guarantees, first loss funds, stabilization funds and blended finance facilities in agriculture. Record how many have formal farmer representation with decision making power on their boards.	SDG 16.7 on inclusive decision making, SDG 2.3, GCF and IFAD governance principles
Finance that works for farmers	Ratio of average effective interest rate for smallholder loans to rate for large agribusiness borrowers	Existing pieces, new ratio	Central banks, financial regulators, banks, MFI datasets, Findex	Calculate average annual percentage rate including fees for smallholders and compare with average rate for corporate agribusiness loans. Express as ratio.	SDG 8.10, SDG 10.3, G20 financial inclusion indicators
	Percentage of smallholder women with access to formal savings or credit products	Existing but often not linked to agriculture	Findex, national financial inclusion surveys, bank and MFI data, UN Women	Track share of women farmers who own an account and have used at least one formal credit product for agriculture in the last 12 months.	SDG 5.a, SDG 8.10, CEDAW, GEF and GCF gender policies
Tenure with teeth	Percentage of agricultural land plots with legally enforced, documented rights held by smallholders	Existing in some land sector indicators	Land administration agencies, land registries, FAO, World Bank LSMS, Prindex	Measure share of agricultural plots held by smallholders that have legally recognized and enforceable tenure documentation, including customary rights where recognized.	SDG 1.4, SDG 2.3, SDG 5.a, VGGT on land tenure

	Percentage of new or updated land titles that include women as sole or joint right holders	Existing but not systematic	Land registries, cadastres, legal aid organizations	For new registrations or formalizations, record proportion of titles where women are listed as owners, either individually or jointly with spouses or relatives.	SDG 5.a, CEDAW, Beijing Platform for Action
Tax value where it is captured	Revenue generated from value chain levies or windfall taxes earmarked for smallholder support	New	Ministries of finance, tax authorities, commodity boards	Track annual revenues from specific export levies, windfall profit taxes or sectoral charges on traders, processors and retailers that are legally earmarked for smallholder services, stabilization or price support.	SDG 10.4 on fiscal policies, SDG 17.1, Addis Ababa Action Agenda
	Share of earmarked value chain tax revenue actually disbursed to smallholder programs	New	Ministries of finance, audit institutions, parliamentary budget oversight	Compare planned versus executed budget for smallholder funds financed from value chain levies and record execution rate.	SDG 16.6 on effective institutions, SDG 2.3, SDG 1.b on pro-poor public spending
Replace training with bargaining	Percentage of smallholders who are active members of producer organizations with basic governance standards	Existing but scattered	Ministries of agriculture, cooperative registries, FAO, IFAD, farmer federations	Count smallholders that belong to active farmer groups or cooperatives that meet minimum governance criteria (annual assemblies, audited accounts, elected leadership).	SDG 2.3, SDG 8.3, ILO rural workers conventions
	Average price premium obtained by members of producer organizations compared to non-members	New	Impact evaluations, cooperative records, mixed methods research	For selected crops and regions, compare average farmgate price for cooperative members versus similar non-members. Express premium as percentage.	SDG 2.3, SDG 10.2, inclusive business standards
Digital optimism, analog politics	Share of digital agriculture services designed with smallholder and gender safeguards and used by the poorest quintile	New	Ministries of ICT and agriculture, regulators, private providers, GSMA, research consortia	Identify registered agri-digital services, examine inclusion and safeguarding features, and track usage among poorest income quintile and among women farmers through user analytics and surveys.	SDG 9.c, SDG 5.b, Principles for Digital Development, responsible AI and data use norms
	Evidence of digital interventions linked to improved bargaining power or price outcomes	New qualitative and quantitative	Independent evaluations, academic studies, farmer focus groups	For major digital programs, assess whether documented results include improved prices, shorter intermediary chains or better contract terms, rather than only knowledge or adoption metrics.	SDG 2.3, SDG 9, human rights based approaches to data
Measure gendered effects by income control	Proportion of women in smallholder households who report control over use of farm income	Existing in some empowerment indices	Women's Empowerment in Agriculture Index (WEAI), LSMS, UN Women studies, project surveys	Ask in household surveys who decides on use of income from different crops or livestock products and whether women can decide alone or jointly. Compute percentage of women with meaningful control.	SDG 5.c, SDG 5.a, SDG 2.3, CEDAW

	Percentage of smallholder households where women hold land or productive assets in their own name or jointly	Existing but needs scaling	WEAI modules, LSMS, land registry data	Record share of households where women own or co-own land, livestock, equipment or enterprises and can legally transact them.	SDG 5.a, SDG 1.4, Voluntary Guidelines on Tenure
	Change in women's total work time and distribution between unpaid and paid work	Existing concept, underused in agriculture	Time-use surveys, WEAI time modules, national statistics	Track average daily hours women spend in unpaid domestic work, unpaid farm work and paid work before and after interventions. Ensure no increase in total hours without corresponding gains in control and income.	SDG 5.4, decent work agenda, care economy commitments
Stop pilots without pathways to scale	Percentage of donor-funded agricultural projects that adopt net farm income and power-shift indicators as primary success metrics	New	Donor portfolios, OECD CRS, project documents and evaluations	Review logical frameworks of new projects to see whether primary outcomes include net income, price share or empowerment indicators rather than only yields and participation counts.	SDG 17.14 on policy coherence, effectiveness principles, OECD DAC results agenda
	Percentage of successful pilots that are integrated into national policy, law or budget within five years	New	Government policy reviews, donor evaluations, national budget documents	Track pilots with positive independent evaluations and record whether elements have been adopted in national programs, regulations or financed at scale through domestic resources.	SDG 17.15, 17.16, national development plans, CAADP compacts
Climate money that reaches the farm gate	Share of total climate finance for agriculture that reaches small-scale producers and their organizations directly	Emerging but incomplete	Climate Policy Initiative, OECD DAC climate markers, GCF and GEF portfolios, national climate finance tracking	Calculate percentage of climate finance tagged for agriculture and food systems that is channelled directly to smallholder households, cooperatives or local organizations rather than only via central budgets or large firms.	SDG 13, Paris Agreement climate finance goal, GCF results areas, Loss and Damage decisions
	Proportion of climate adaptation projects in agriculture that include direct cash, in-kind support or insurance coverage for smallholders	New	Project documents from multilateral banks, GCF, IFAD, FAO, bilateral donors	Review adaptation projects and record those with explicit farmer entitlements or direct benefit schemes, as opposed to only infrastructure or technical assistance.	SDG 13.1, SDG 2.4, UNFCCC adaptation communications
Accountability with consequences	Percentage of large agriculture and rural development programmes with independent impact evaluations on income, risk and gender empowerment	Partly existing	Donor evaluation units, 3ie, J-PAL, World Bank IEG	Count programmes above a defined budget threshold that commission independent impact evaluations measuring income, risk reduction and gendered control, not only outputs.	SDG 17.18, SDG 16.6, evaluation principles of OECD DAC

	Share of programmes that meet or exceed agreed targets for net farm income, women's control and risk reduction	New	Donor results systems, national monitoring frameworks	For programmes with agreed outcome targets, record proportion that achieve them within tolerance ranges, and tie part of agency or contractor remuneration to these outcomes.	SDG 1, SDG 2.3, SDG 5, effectiveness and accountability compacts
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Acronym

ARC: African Risk Capacity

CEDAW: Convention on the Elimination of All Forms of Discrimination Against Women

CFS: Committee on World Food Security

COP: Conference of the Parties under the United Nations Framework Convention on Climate Change

CPI: Climate Policy Initiative

DAC: Development Assistance Committee of the Organisation for Economic Cooperation and Development

FAO: Food and Agriculture Organization of the United Nations

Findex: Global Financial Inclusion Database of the World Bank

GCF: Green Climate Fund

GEF: Global Environment Facility

GIEWS: Global Information and Early Warning System

HGSF: Home Grown School Feeding

IFAD: International Fund for Agricultural Development

IFC: International Finance Corporation

ILO: International Labour Organization

LSMS: Living Standards Measurement Study

MFI: Microfinance Institution

NDC: Nationally Determined Contribution

NSO: National Statistics Office

OECD: Organisation for Economic Cooperation and Development

PAA: Programa de Aquisição de Alimentos

PNAE: Programa Nacional de Alimentação Escolar

PSNP: Productive Safety Net Programme

SDG: Sustainable Development Goal

SMS: Short Message Service

UNDP: United Nations Development Programme

UNEP: United Nations Environment Programme

UNFCCC: United Nations Framework Convention on Climate Change

UNGPs: United Nations Guiding Principles on Business and Human Rights

UN Women: United Nations Entity for Gender Equality and the Empowerment of Women

VGGT: Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests

WEAI: Women's Empowerment in Agriculture Index

WFP: World Food Programme
WRS: Warehouse Receipt System
WTO: World Trade Organization

Glossary for Non-Technical Readers

Agricultural Aid: Money provided by governments or international organisations to support farming, food production, or rural communities.

Agricultural Value Chain: All the steps that take food from the farm to the consumer, including growing, processing, transporting, and selling. Each step adds value and takes a share of the final price.

Bargaining Power: The ability of farmers to negotiate better prices, better contracts, and better treatment in the market.

Climate Finance: Money that countries and organisations provide to help people prepare for climate change or recover from climate disasters.

Climate Shock: A sudden climate related event such as a drought, flood, cyclone, or heatwave that harms people, crops, and livelihoods.

Farmgate Price: The price a farmer actually receives when selling their product from the farm. This is usually much lower than the final retail price.

First Loss Capital: Money set aside to absorb losses first so that farmers or cooperatives are protected when things go wrong. It reduces their risk.

Informal Lender: A person or private trader who gives loans without formal contracts, often at very high interest rates.

Institutional Procurement: When governments, schools, hospitals, or aid agencies buy food in large quantities. These purchases create important markets for farmers.

Land Tenure: The legal or customary rules that determine who owns land, who can use it, and who can make decisions about it.

Living Income Reference Price: A benchmark price that tells us how much a farmer needs to earn from a product to live a decent life with basic dignity.

Net Farm Income: The money a farmer earns after subtracting all production costs such as seeds, fertiliser, tools, loans, and hired labour.

Parametric Insurance: Insurance that pays automatically when a measurable trigger happens such as rainfall falling below a certain level without requiring an inspection of each farm.

Power Shift: A change that gives farmers more control over decisions, markets, prices, land, or income.

Price Volatility: Sharp price changes for crops over short periods of time, which make it difficult for farmers to plan or survive.

Public Works Programme: A programme where people receive cash or food in return for helping build or repair community infrastructure such as roads, terraces, or irrigation canals.

Refusal Power: The ability of farmers to say no to unfair prices because they have storage, savings, or access to finance that lets them wait for better market conditions.

Shock Responsive Social Protection: Social protection systems that can quickly expand and give extra support to people when a crisis or disaster happens.

Smallholder Farmer: A farmer who works on a small plot of land, usually family managed, and often dependent on farming for survival.

Warehouse Receipt System: A system where farmers store their crops in certified warehouses and receive a receipt that they can use to get a loan or sell later when prices are better.

Women's Income Control: The degree to which women can decide how household or farm income is used. It is a key indicator of empowerment.

Sources

African Risk Capacity (ARC). (2023). *ARC Annual Report 2022/23*. African Union. (Describes ARC's parametric insurance payouts within weeks of droughts and their impact)

Bizikova, L., Nkonya, E., Minah, M., et al. (2020). A scoping review of the contributions of farmers' organizations to smallholder agriculture. *Nature Food*, 1(10), 620–630. <https://doi.org/10.1038/s43016-020-00164-x> (Finds 57% of studies show farmer organizations increased income, but only 19% showed yield gains)

Campbell Collaboration. (2024). *The effects of agricultural output market access interventions on outcomes in low- and middle-income countries: A systematic review*. Campbell Systematic Reviews 2024:6. (Concludes output market interventions yield small to moderate welfare improvements, with inconsistent food security impacts)

Climate Policy Initiative (CPI). (2023). *The Climate Finance Gap for Small-Scale Agrifood Systems*. (Report by Daniela Chiriac et al., November 22, 2023). CPI. (Notes that only USD 5.53B – 0.8% of global climate finance went to small-scale agriculture in 2019/20, a 44% drop from prior period)

Food Empowerment Project. (2021). *Bitter Brew: The Stirring Reality of Coffee*. FoodIsPower.org. (Highlights that coffee farmers typically receive only 7–10% of retail coffee price; less than 2% in Brazil)

International Fund for Agricultural Development (IFAD). (2022, October 15). *These numbers prove that rural women are crucial for a better future*. IFAD News. (States that worldwide, 43% of agricultural workers are women, yet women represent only 15% of landholders).¹¹

Malawi Ministry of Agriculture & FAO. (2018). *Evaluation of Warehouse Receipt System Pilot in Malawi*. (Unpublished report). (Finds that participating farmers using warehouse receipts delayed sales and earned higher prices relative to immediate post-harvest sales, though gains varied with costs)

Morocco Ministry of Agriculture & FAO. (2021). *Assessment of the Green Morocco Plan (2008–2020)*. Rabat: FAO Partnership. (Noted significant productivity gains and over \$13B invested, but also that larger farms captured disproportionate benefits, with structural inequalities remaining)

¹¹ IFAD. "These numbers prove that rural women are crucial for a better future. But they're not getting what they need to succeed." *idem*. & *Ibid*.

Opportunity International. (2016, March 14). *Propagate: A coalition of smallholder finance practitioners launches to advance financial inclusion of smallholder farmers worldwide* [Press release]. Opportunity.org. (Notes that only 3% of smallholder financing demand is met, representing a huge opportunity)

Our World in Data – Ritchie, H. (2021, August 6). *Smallholders produce one-third of the world's food, less than half of what many headlines claim*. OurWorldInData.org. (Clarifies that smallholder farms <2 ha produce about 32% of the world's food supply)

Reuters – Rumney, E. (2019, April 15). *Cyclone Idai's death toll over 1,000, hundreds of thousands displaced*. Reuters. (Cites World Bank estimate that affected countries would need over \$2B to recover from Idai, and provides data on damage)

Senegal Ministry of Agriculture & WFP. (2016). *PAA Africa Kédougou Pilot Evaluation*. Dakar: Government of Senegal. (Reported that smallholder rice yields increased from ~0.8 to 2.5 t/ha under the institutional procurement program, with improved incomes for participating farmers)

Terry, A. (2025, March 4). *How to green your chocolate: Can your choice of chocolate bar help the environment?* OneHome.org.uk. (States cocoa farmers earn just 6% of a chocolate bar's value, citing Fairtrade UK).¹²

World Bank. (2022, October 28). *Pakistan: Flood damages and economic losses over USD 30 billion – new assessment* [Press release]. WorldBank.org. (Reports 2022 Pakistan floods caused \$14.9B in damages and \$15.2B in losses; 33 million people affected)

World Bank & IMF. (2019). *Mozambique Cyclone Idai Post-Disaster Needs Assessment*. (Estimates Mozambique's damages and losses at USD ~\$2.8 billion and recovery needs \$3 billion; Mozambique's share ~2.8B or 19% of GDP).¹³

World Food Programme (WFP). (2014). *Purchase for Progress: Final Evaluation*. WFP Office of Evaluation. (Finds that when procurement rules were adapted for smallholders, e.g., in Tanzania, participating farmer orgs saw increased market access and income, but issues like delayed payment and storage limited benefits)

Young, S., et al. (2024). *The effects of agricultural output market access interventions... (Campbell Systematic Review)*. (See Campbell Collaboration reference above for small/moderate improvements and limited food security impact)

Each of these sources provides evidence for the data points, claims, or examples used in this paper, and they have been formatted in APA 7th edition with hyperlinks where available for verification and further reading

¹² Terry, Angela. "How to green your chocolate. Can your choice of chocolate bar help the environment?" *idem*.

¹³ USAID. "EXECUTIVE BRIEF: CYCLONE IDAI IN THE BUPUSA TRANSBOUNDARY BASINS OF MOZAMBIQUE AND ZIMBABWE: Building community resilience." *idem*.