Income for farmers is the quantity of produce they market multiplied by the price at which they sell it. Smallholder farmers have few ways to protect themselves against the risk of extreme weather destroying their crops, or of selling prices plummeting due to volatility in far-away markets. This means they are vulnerable to such shocks, often leaving them trapped in a cycle of poverty.

To reduce poverty and food insecurity in rural areas, both production and prices need to be protected against climate-related shocks and international price falls. The International Fund for Agricultural Development (IFAD) has introduced a novel, simple, low-cost solution to offer such revenue protection – like those that large agribusinesses have been using for decades.

This pioneering initiative is called Climate and Commodity Hedging to Enable Transformation (CACHET). Its innovative approach gives smallholders access to the protection benefits of risk management products available on financial markets. Thanks to a grant from IFAD’s Adaptation for Smallholder Agriculture Programme (ASAP), CACHET is the prelude to creating a comprehensive risk management package to protect the incomes of smallholder farmers. The ultimate aim is to offer such farmers more predictable incomes – and hence more sustainable livelihoods.
When smallholder farmers raise crops for sale, their income is a function of the quantity produced and the price at which they sell.

Five main risks affect quantity and price:

- **Market risk** – prices may fall;
- **Political risk** – political actions may affect farmers’ freedom to sell when and where they want;
- **Climate risk** – weather events may reduce output;
- **Crop pest and disease risk** – may or may not be related to climate/weather;
- **Producers’ health risk** – farmers may fall sick, reducing their output or ability to sell.

For smallholder farmers, climate and market risks are the most significant.

### Climate variability and change, and price volatility

Climate-related disasters and climate change have direct and indirect impacts on smallholder farmers’ revenues through commodity prices and volatility:

- Farmers who sell when prices rise may be unable to obtain the same prices the next time they sell. This is because price spikes trigger oversupply, which leads to price falls.
- Price volatility often surges following large increases in prices, for example, after droughts in main production centres.
- By the 2030s, agricultural price volatility could rise fourfold owing to climate change.

![Wheat prices graph](https://example.com/wheat_prices_graph.png)

Source: Bloomberg
A sustainable solution beyond “business as usual”

CACHET is a pioneering approach because it goes beyond just price or production protection. It offers a package that combines both, and focuses on revenue protection for smallholder farmers whose incomes are affected by climate-related disasters and falls in commodity prices.

Providing smallholder farmers with solutions to protect them against price falls and weather shocks faces two key challenges:

- As much as intermediaries in value chains are protected against price volatility, such protection rarely extends to smallholder farmers, who are therefore increasingly exposed to price risks.
- Despite innovations in climate risk transfers (e.g. index insurance), existing agricultural insurance schemes face sustainability issues that limit their potential for being scaled up.

With CACHET, IFAD intends to address both challenges.

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Connecting smallholder farmers to financial markets

To provide smallholders with cost-efficient climate and price protection, CACHET gives them access to financial derivatives traded on international financial markets (e.g. ICE or CME).

To minimize the cost of implementing hedging operations on behalf of smallholder farmers, CACHET also works with existing value-chain intermediaries: traders, exporters, cooperatives or rural finance institutions. Building on the relationship of trust established between intermediaries and smallholders facilitates the extension of price and climate protection down to small-scale farmers.
It is not easy to “sell” risk management solutions to smallholder farmers. Their financial literacy is often poor, their links to markets are generally weak, and they may lack cash to buy hedging instruments and/or lack the production volumes required to enter a risk management agreement.

To circumvent these issues, IFAD’s hedging approach relies on market intermediaries and rural financial institutions:

- **Smallholder farmers’ production is aggregated by cooperatives or private-sector companies.** If the price falls below a predetermined level, production aggregators would pay the floor price to the farmers and receive a payout in compensation once the hedging instrument is triggered.

- **Rural financial institutions could offer bundled products that combine loans with commodity or weather hedging products.** Similarly, for weather risks, if the climatic conditions during the crop season cross a predetermined threshold, financial institutions (even cooperatives in some cases) could compensate the losses incurred by smallholders in exchange for a payout after the hedge is triggered.

**CACHET’s vision and approach**

CACHET’s vision aligns with the 2030 Agenda for Sustainable Development: extending private-sector risk management solutions to smallholder farmers to overcome climate and price shocks. CACHET is a results-focused initiative built on three main components:

- **Support pilot programmes to be increasingly embedded in IFAD operations.**

- **Use evidence-based analytical tools to bring to fruition modern instruments for revenue protection.**

- **Based on components 1 and 2, CACHET aims to support the development of policies that foster inclusive rural transformation.**
Partnerships and South-South and Triangular Cooperation

CACHET fully encompasses the spirit of partnership. It brings together a range of stakeholders from different sectors and geographical regions, all committed to making the initiative a success. Behind the planning and development of CACHET is a steering committee of experts from IFAD, governments, financial markets, the private sector and academia.

The initiative has South-South and Triangular Cooperation at its core. The Multi Commodity Exchange of India Limited is a project partner – collaborating on country studies in Nigeria and Senegal, and sharing its in-depth knowledge of commodity markets and smallholders with IFAD’s project teams and with public- and private-sector operators in both countries.

Achieving the Sustainable Development Goals

Successful implementation of CACHET will bring significant benefits for smallholder farmers. It will help IFAD achieve its mission to end rural poverty. CACHET will also contribute to achieving the Sustainable Development Goals and the aims of the Paris Agreement on climate change.

CACHET is designed to contribute to development by enabling smallholder farmers to increase and stabilize their household income. It provides:

- increased resilience to local climate shocks and global commodity price falls;
- more stable and predictable incomes;
- safer integration into global trade;
- reduced risks on investments for farmers, facilitating their access to financial services.
Project implementation and next phases

CACHET started in 2018 through pilot activities with small-scale producers of cocoa in Nigeria and maize in Senegal. It will be scaled up in the coming years, reaching more beneficiaries in more low- and middle-income countries. These are the planned phases:

- **Price protection:** In 2018, CACHET pilots a hedging approach for smallholders’ price protection. The implementation of hedging strategies using derivatives sets a floor to the price paid for smallholders’ agricultural commodities. This ensures that such prices are always above the cost of production, protecting farmers against selling at a loss and, thereby helping ensure they avoid falling into poverty.

- **Climate protection:** Starting in 2019, the initiative pilots the use of financial derivatives to transfer climate-related risks.

- **Revenue protection:** Starting in 2020, CACHET pioneers revenue protection for smallholders by combining the lessons learned and experiences of the mechanisms implemented in phases 1 and 2.

At all stages, CACHET will explore the possibility of integrating market-based risk transfer instruments into IFAD’s Programme of Loans and Grants. Progressively, CACHET intends to embed the piloted and tested instruments into IFAD’s business activities – integrated as a comprehensive risk management package.

Going mainstream

The science behind price and weather hedging is sound. International traders and insurance companies are today able to make extensive use of hedging instruments. IFAD aims to use ASAP funding to enable smallholder farmers to benefit from these risk transfer techniques. IFAD is looking to other development partners – private and public – to help perfect this approach and scale up available funding so that hedging can become a mainstay of protection for the world’s smallholder farmers.