Food Security and Risk Management by Local Communities
Lessons Learned and Recommendations on Development Policy (Niger, India)
Policy Brief
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For
THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, FAO

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Table of Contents

1. Summary .................................................................................................................................. 1

2. Introduction ................................................................................................................................ 1

3. Production, market and climatic risks in rural areas ................................................................. 1

4. Management of market – food security risk and the purchasing power of rural communities .................................................................................................................................. 4
   4.1. Tontines in Niger ............................................................................................................................. 4
   4.2. Grain banks in Niger ............................................................................................................................. 5

5. Production risk management through improved access to credit ........................................... 6
   5.1. Warrantage and warranted credit in Niger ............................................................................................. 6
   5.2. Self Help Groups in India ...................................................................................................................... 7
   5.3. Solidarity in progress groups (Pragati Bandhu groups) .................................................................................. 7
   5.4. Group guarantee or mechanism for solidarity pots .................................................................................. 8

6. Recommendations and innovative steps ............................................................................ 8
   6.1. Tontines as an interface for credit support ............................................................................................. 8
   6.2. A local or regional solidarity fund based on tontines ............................................................................. 8
   6.3. Expansion of grain banks ...................................................................................................................... 9
   6.4. Linking warrantage and grain banks .................................................................................................... 9
   6.5. Combining solidarity pots with warrantage and tontines ..................................................................... 9

7. Conclusion .................................................................................................................................. 9

8. Readers’ Notes ........................................................................................................................ 10
   8.1 EASYPol Links .................................................................................................................................. 10

9. References and Further Reading ............................................................................................... 10

Metadata table............................................................................................................................... 10
1. **SUMMARY**

In view of the increasing pressure to adapt to climate change, risk management activities of rural communities highly exposed to climate change impacts are gaining importance. Using the examples of Niger and India, this brief highlights the potential of well-proven traditional, community-based risk management mechanisms and suggests ways to strengthen them by mobilizing rural communities’ resources and capacities and by enhancing them with modern risk management tools.

2. **INTRODUCTION**

**Objectives**

This policy brief aims to present the experiences of vulnerable rural households and farmers in Niger and India in addressing production risks. These experiences show that by means of organization and mobilization of local resources and with relatively small inputs from donors, government and other stakeholders, rural people can substantially increase their food security and improve their access to markets while gaining valuable experience in the informal financial sector. The paper presents traditional risk management and response mechanisms that have been enhanced with modern risk management tools and mechanisms, such as small loans and cereal banks. Recommendations are provided on how policy makers and other stakeholders can better serve the interests and strengthen the risk-management capacities of the local groups described in this brief.

**Target Audience**

National Policy makers and rural planners or food security officers working on updating risk management tools and policies within agriculture strategies and programmes or on climate change adaptation and resilience building of rural communities.

**Required Background**

No technical background is required for understanding the concepts put forth in this paper.

Readers can follow links included in the text to other EASYPol modules or references. See also the list of EASYPol links included at the end of this policy brief.

3. **PRODUCTION, MARKET AND CLIMATIC RISKS IN RURAL AREAS**

In order to provide an overview of the risks that affect the rural sector we have used the example of Niger. We make a distinction between natural hazards that bear the risk of turning into disasters that require emergency relief responses, and more common risks that

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1 EASYPol hyperlinks are shown in blue, as follows:

a) training paths are shown in **underlined bold font**

b) other EASYPol modules or complementary EASYPol materials are in **bold underlined italics**

c) links to the glossary are in **bold**; and

d) external links are in **italics**.
are managed by rural communities in every day life. The following diagram describes three groups of risks: (i) natural disasters (e.g. droughts and floods), (ii) producer/entrepreneur risks, and (iii) consumer/household risks.

**Figure 1: Current position of the risk management tools in Niger**

In this environment, households and communities have long organized themselves to manage risk and preserve their work systems. They have adopted both individual and collective strategies aiming on the one hand to protect themselves from risks (ex ante risk management), and on the other to limit the effects of shocks (ex post risk management):

Strategies aiming to *avert* risk are based on:
- The *diversification* of activities and sources of income,
- The establishment of *precautionary savings*: stocking of grains, cereal bank, purchase of livestock or valuables (gold, jewellery or hard currency).

Strategies aiming to lessen the consequences of a shock are based on the sharing of risk through:
- Credit/reciprocity practices (practices involving the pooling of risk),
- Solidarity networks.

The risk management that households practice is not limited to defensive or reactive strategies. It is part of a broader set of institutions that include proactive strategies implemented over long periods. All of these strategies can be grouped under the concept of household *safety nets*².

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Within food security policies (just as in policies to fight against poverty), the exposure of certain populations to the risks identified above is understood through the concept of their vulnerability, generally at the household level. This vulnerability is linked to the existence of risks (the probability of enduring shocks), which in turn are the result of:

- an environment subject to sizeable fluctuations,
- the inability of existing insurance systems (traditional family and community plans, localized public or private preparation) to sufficiently protect the populations in question.

In this perspective, it seems appropriate to analyze actual experiences with risk management tools mobilized by rural communities and solidarity networks and to deliberate on how their performance may be improved in such a way as to strengthen the existing community safety nets of rural populations.

Figure 1: Women self-help groups and household Risk management tools

We will thus analyse several tools geared towards managing both supply and demand-side risk and which cover both cash flow and price inflation issues, in other words a household’s food security. These areas are widely dealt with by women’s groups who are able to acquire several complementary tools as in the example of the village in Niger (depicted to the right) with a cereal bank, weekly and monthly tontines and NGO-supplied microcredit funds.
4. MANAGEMENT OF MARKET – FOOD SECURITY RISK AND THE PURCHASING POWER OF RURAL COMMUNITIES

4.1. Tontines in Niger

Tontines represent a solidarity-based credit scheme wherein participants share certain benefits and on the death of any participant his/her benefits are redistributed among the remaining participants. Tontines are characterized by very close personal relationships among members. They are managed at the local level (neighbourhood, village), but the geographical area reached can be very large and the size of the group can vary enormously. Similarly, a tontine can be of mixed gender, or can be a grouping of only men or only women.

In the absence of statistical data it is difficult to count the exact number of tontines and their beneficiaries in Niger. However, it can be estimated that in virtually every Nigerian village with approximately 700 inhabitants, there is at least one tontine group or association. If we consider just the Mata Masa Dubara (MMD) groups organized by Care Niger, in 2004 4,484 MMD tontine groups totalling 126,202 members were counted as beneficiaries of the programme alone.

Even though it is possible to encounter some male or mixed-gender groups, the practice of tontines in Niger consists for the most part of women’s organizations, for whom the tontine provides several benefits as a result of:

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- The gradual liberation of women from the grip of speculative businessmen and loan sharks, as well as the resultant increase in the women’s income. This allows them in turn to improve both their living conditions and social status;
- A strengthening of women’s financial capacity thanks to their newfound ability to access credit. This enables the women to undertake income generating activities (IGAs) and to engage in agricultural activities;
- An improvement in the food security and the meeting of women’s nutritional needs;
- An improvement in the health of mothers and children.

The effective functioning and hence the performance of tontines depends above all on the capacity of the women who put the group together. As such, supporting the strengthening of tontines implies supporting the strengthening of the role of women’s groups with respect to solidarity-based credit.

Tontines are characterized by very close personal relationships among members. The MMD tontine groups organized by Care Niger maintain a partnership with the decentralised financing Systems (SFDs) for the funding of complementary financial resources and with the NGO Care Niger for supplemental activities in literacy, child and maternal health care, etc. The establishment of a link between microfinance institutions (MFI) and the tontines would allow the latter to access the additional financial resources necessary to develop their IGAs and to improve their management through capacity-building activities.

4.2. Grain banks in Niger

A grain bank (GB) is an economic activity undertaken by a group or a cooperative organization whose members are known, and which consists in the supplying, storage and sale of grains in order to contribute to the food security and self-sufficiency of farmers. Village groups are the principal beneficiaries of the services provided by a GB. In 2006, 3,987 unevenly distributed GBs throughout Niger were counted, with a relatively higher concentration in the Tillabéri, Tahoua, Zinder and Maradi regions. Supposing a GB serves approximately 600 people, the number of beneficiaries can be estimated at around 2,400,000.

This instrument was essentially established through the support of development projects and partners (83% of existing structures), notably WFP, UNICEF, and the ILO (United Nations agencies), Care International and World Vision (international NGOs).

Beneficiaries highly value GBs because they offer tangible benefits, notably in terms of financial accessibility to the grains during the “soudure” (pre harvest hunger season); the ability to save time; and access to credit (farming, IGA and social). The most common problems have to do with (i) fraud on the part of management committees and (ii) loss of stocks because of poor storage methods.
5. **Production Risk Management through Improved Access to Credit**

5.1. **Warrantage and warranted credit in Niger**

Warrantage is a method for guaranteeing short-term credit by way of certifying a locked cereal stock, and which is developed for the benefit of agricultural producers. In this way, the farmer may offer a part of his/her harvest as collateral for the reimbursement of a loan requested to finance the beginning of the next production cycle or any other productive agricultural activity (notably livestock farming). In Niger, the development of producers’ organizations enabled the “communal” custody of agricultural product stocks which are in turn offered as a guarantee in a store also controlled by a producers’ organization. An agricultural warrant is a type of divisible guarantee that is also more tangible than the traditional physical guarantees usually required by banks.

This “communal” custody provides the benefit of proximity and savings on the cost of storage and/or safeguards while improving the security of the loan with respect to the option to stock the agricultural produce at home. The transaction is marked by a collateral security agreement signed by the financial institution (bank or MFI) and the owner of the stock.

The warrantage method is as beneficial for the borrower (bank or MFI) as it is for the lender (group of producers or individual producer), as well as for several categories of lenders (businessman, processors) and the state. In the absence of reliable statistics, it is hard to know the precise amount currently allocated to warrantage in Niger. Still, based on available data, in 2006 the amount of funds allocated by the Rural Financing Institutions (IFRs) under warrantage is estimated to be 850 million CFA francs (US$1,669,000 in today’s dollar), or approximately 8,500 beneficiaries (average individual credit at 100,000 CFA francs – US$196 in today’s dollar).

Warrantage allows IFRs to reduce their risks by self-insuring the credit (tangible guarantee; easily liquidated; divisible), coupling the guarantee of a communal deposit with the grouping of the small credits of the producers’ organizations. It also allows for the improvement of the credit service offer by encouraging IFRs to relocate to rural areas.

The transaction is managed at the village or intra-village level, generally lasts for several months (3 to 6 months), and occurs between two seasonal cycles of agricultural production. For the moment, the warrantage method deals essentially with cereals (millet, maize, sorghum, rice) and to a lesser extent some cash crops (cowpeas, groundnuts and truncheon). The transaction can be practiced anywhere in Niger but it is mostly concentrated in the regions of the country with high agricultural potential (Maradi, Dosso, Tillabéry, Tahoua).

The effects and impacts of warrantage on the populations’ living conditions are significant thanks to the increase in income of rural households; access to agricultural inputs at a better price for producers because of bulk purchasing; and the recuperation of an increasing portion of added value through storage. Warrantage also has the following effects:

- Strengthening of the commercial role of the producers’ organization movement;
- Easier access to fertilizers allows for increased soil fertility and improved yields;
- The ability to preserve local production which allows for the maintenance of local varieties that are better suited to the environment;
- Better access of the rural poor to credit agreements;
- Improvement in the food security of populations.

The ability to implement warrantage is limited to products that are likely to be stored without damage (cereals, certain vegetables, etc.) and whose prices are subject to predictable and significant fluctuations over the course of the year. The benefit of warrantage is greatly diminished if agricultural prices stabilize or if traditional fluctuations are disrupted. Management of stocks must be rigorous: quality and quantity control at the time of stocking, regular verification of stockpiling conditions, control of predators (insects, rats, etc.).

5.2. **Self Help Groups in India**

Similar to tontines, Self Help Groups (SHG) comprised of rural women in India play a large part in the success of community activities. They have enabled the mobilization of even the poorest women’s potential for saving in the anticipation of potential risks. In this way, they have provided a bank credit service to poor people while instilling in them the habit of on-time reimbursement and have aided the strengthening of the role of women. In addition, a changing dynamic of note is occurring. The image of the rural poor as passive and disinterested in support programmes is changing with rural poor women who are demonstrating in a convincing way their capacity to mobilize themselves for collective activities, to be dynamic in expressing their rights and their requests for being treated with dignity, as bona fide economic actors.

These SHGs, as institutions, are also used as an entry point in the context of microfinance activities geared towards the poorest (second phase of microcredit growth in India). Finally, in the context of farmers’ participation in the futures market, it is proposed as a way to encourage banks, cooperatives and SHGs to assist in combining the offer on farmers’ profits through the futures’ markets. These Self Help Groups are the classic example of an artificially-created social support system. It was strongly recommended by committees of experts to strengthen and unite the SHG network in India in order to ensure the availability of an extended institutional network with a local presence.

5.2 **Solidarity in progress groups (Pragati Bandhu groups)**

Another example of a mutual solidarity group in India, Solidarity in Progress Groups (Pragati Bandhu groups), are comprised of five marginalized, small farmer neighbouring families. These families are supported by a rural development programme (Shri Kshetra Dharamshala Rural Development Programme - SKDRDP) in Karnataka. There are currently 22,500 groups, bringing together 110,000 families. The goal of these groups is to share the work among small farmers. Each group member spends one day per week on each farm, in a rotation, in this way contributing to the collective work of each farm. They also buy inputs and market their products together. Each group prepares an annual farming plan.

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and the groups help each other with this programming work, as well as with monitoring and implementation. They are advised and assisted in developing related crops.\(^7\)

5.3. **Group guarantee or mechanism for solidarity pots**

Solidarity pots or solidarity guarantees are a major innovation of microfinance, based on the mobilization of social capital instead of a material guarantee and which has enabled the poorest to access financial services. They are a guarantee principally used in rural areas (and to a lesser extent in urban areas), where farmers and other individuals working in the primary sector form associations, groups or cooperatives in order to collectively guarantee loans by applying social pressure in case a member fails to reimburse his/her credit.

The groups vary in size (5 to 40 members), are structured at the village or intra-village level and are built on criteria of physical proximity (neighbourhood); social compatibility (groups of women, youth); and socio-professional similarity (associations/groups of gardeners, fishermen, cotton farmers, etc.).

In Niger, solidarity pots have become significant within the framework of financing the activities of farmer organizations or women’s groups in the form of cooperatives or associations who resort to microcredit services from decentralized financing structures (MFIs or decentralized financial institutions, DFIs) and whose development was particularly encouraged over the course of the last several years.

6. **Recommendations and Innovative Steps**

6.1. **Tontines as an interface for credit support**

In their current role, tontines provide an institutional interface that has adopted two major functions: access to credit and the role of a solidarity network. In order to fully utilize their potential as a risk management tool, the capacity of the tontines to provide credit could be strengthened. This would involve (i) the implementation of a link between MFIs and the tontine, which would allow the latter access to additional financial resources, integration into support programmes for the promotion and development of rural finance and improvement of their management skills through capacity-building activities (For example, the MMD tontine groups organized by Care Niger maintain a partnership with SFDs for the funding of complementary financial resources and engage in other Care Niger funded activities relating to literacy, child and maternal health care, etc); (ii) legal recognition for tontines in Niger (1996 law on mutual institutions or credit and savings cooperatives) and (iii) the acquisition of safes to secure the funds (risk of theft or fire).

6.2. **A local or regional solidarity fund based on tontines**

Strengthening the role of tontines as solidarity networks or as a redistribution interface or risk coverage could occur through (i) the establishment of a local or regional solidarity fund (collective, state or partners) which would assist the tontines in reducing the negative effects of natural disasters; and/or (ii) the establishment of an aggregate insurance system for each tontine in terms of risks linked to production and marketing. This would be

\(^7\) Idem.
implemented in areas with low income levels, as well as among populations not cover by the credit formal system.

Self Help Groups in India could benefit from the same type of support as proposed for the tontines in Niger. As such, V. M. Rao suggests introducing an insurance function to protect the group members from the risk of losing their harvest in climate-related disasters. As such, V. M. Rao suggests introducing an insurance function to protect the group members from the risk of losing their harvest in climate-related disasters.\(^8\) Another form of assistance that is easier to implement is to increase the cash components mobilized by the women members of the group, to the tune of a fixed percentage of the total amount raised by the group.

### 6.3. Expansion of grain banks

There also exists the potential to expand grain banks. They are rapidly becoming increasingly effective tools for the mitigation of food insecurity linked to shortfalls in production. However, it is necessary to quickly adopt a strategy of using them as a frame of reference (installation, financing, management and withdrawal methods) and establish coordination among different stakeholders, including a system through which to exchange information and experiences which would ease the support for the promotion of GBs in future projects and programmes.

### 6.4. Linking warrantage and grain banks

Warrantage was heavily used as a development tool in the implementation of FAO’s Inputs Project in 1999. It is very popular in Niger, with over 700 million CFA francs’ worth of credit disbursed since that date. This expansion of warrantage could be used as a basis for implementing a sectoral approach linking warrantages with cereal banks through licensed warehouse keepers. The warehouse keeper would be certified by the bank and by the farmers’ organizations (FO). S/he would issue a deposit certificate (the warrant) once the stock has been set up. This certificate would be presented by the FO to the bank who then provides the credit. Once the credit has been reimbursed, the FO would collect his/her deposit certificate and negotiate it with a buyer (for example, a cereal bank).

### 6.5. Combining solidarity pots with warrantage and tontines

The combination of solidarity pots with warrantage and with tontines represents other means of improvement which has already been explored at the pilot stage. A solidarity pot as a form of security enables the rural poor (excluded from the banking system) to access financial services and allows the financial institutions involved to lower their costs as a result of an increase in the volume of clients handled.

### 7. Conclusion

As the examples from Niger and India discussed in this brief have shown, a number of traditional, community-based risk management institutions exist that have proven to be very beneficial for their members in terms of reducing risk exposure and vulnerability. Policy makers are advised to build on existing, well-proven structures and enhance their effectiveness by (i) strengthening their members’ capacities and (ii) by combing existing

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tools and mechanisms with each other and (iii) complementing existing tools with innovative tools that further enhance rural communities’ purchasing power and improve their access to credit.

8. **Readers’ Notes**

8.1 **EASYPol Links**


9. **References and Further Reading**


As part of the expansion of risk management activities in rural areas initiated in natural environments most affected by climate constraints, following the strong mobilization exerted by the rising power of climate change adaptation, this brief brings out the strong capacity of rural communities to mobilize around risk management tools that are either based on traditional practices or around a communal culture whose effectiveness has been proven. It suggests ways to expand operational capacities as well as the impact of these community-based risk management tools.
<table>
<thead>
<tr>
<th>9. Subtopics covered by the module</th>
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<tbody>
<tr>
<td>☒ Poverty and food security</td>
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<tr>
<td>☐ Regional integration and international trade</td>
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<tr>
<td>☒ Rural Development</td>
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<th>10. Training path</th>
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