

CLIMATE CHANGE AND WOMEN FARMERS IN BURKINA FASO

IMPACT AND ADAPTATION POLICIES AND PRACTICES

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GLOSSARY

| | |
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| AGSDS | Accelerated Growth and Sustainable Development Strategy |
| FAO | Food and Agriculture Organization of the United Nations |
| G&D | Gender and development |
| IDS | Institute of Development Studies |
| IO | Interión Oxfam |
| IPCC | Intergovernmental Panel on Climate Change |
| IUCN | International Union for Conservation of Nature |
| NAPA | National Action Programme for Adaptation |
| NGO | Non-government organisation |
| NPRS | National Programme for the Rural Sector |
| PS/NCESD | Permanent Secretary of the National Council for the Environment and Sustainable Development |
| SL | Sustainable livelihoods |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |
| W&D | Women and development |
| WB | World Bank |
| WHO | World Health Organization |

EXECUTIVE SUMMARY

Burkina Faso's geographical situation makes it particularly vulnerable to climate change. As a country in the Sahel in the heart of western Africa, Burkina Faso suffers an extreme, variable climate: the same area can be affected by both flooding and drought within only a few months. The economy of this largely rural country is essentially based on agriculture and stockbreeding. According to various predictions,¹ climate change will have an impact on agricultural production and food security, and will therefore affect inhabitants of rural areas, especially those who are most vulnerable, such as women.

This document aims to 1) analyse the specific impact of climate change on women in Burkina Faso's agricultural sector, 2) analyse how gender and women are taken into account in national adaptation and rural development policies and programmes, and 3) examine adaptation practices aimed at women and the outcomes of such practices in terms of both gender and adaptation. This report combines the results of three research documents prepared by Intermón Oxfam² in 2010–11: 'Analysis of the impact of climate change on women in Burkina Faso's agricultural sector', 'Women, agriculture and adaptation in Burkina Faso: plans and policies' and 'Analysis of adaptation practices aimed at women'.

Agriculture and climate change in Burkina Faso

Burkina Faso's national economy is based on agriculture, the exploitation of natural resources and stockbreeding. Together, these three sectors are the livelihood for 92 per cent of the population,³ and agriculture alone accounts for around one-third of GDP.⁴ The vast majority of the population of Burkina Faso lives in rural areas and practises subsistence farming. Each family has a small farm for growing cereals and, very occasionally, other commercial crops. These are small, family-run farms that grow cereals for self-consumption.

The climate of this Sahel country is characterised by significantly varying levels of rainfall from one year to the next, with rainfall decreasing from south to north. Climate change in Burkina Faso has led to an increase in temperatures, increased frequency and severity of extreme weather phenomena and a general decrease in rainfall.⁵ According to predictive studies,⁶ the sectors most vulnerable to climate change will be water, agriculture and forests. Climate change is expected to have serious consequences for both food security and the national economy.

The country is particularly vulnerable to climate change due to its low level of development, its weak institutions, the degradation of its natural resources and the economy's dependence on those resources.

The impact of climate change on women

The effects of climate change on a region are the same for all its inhabitants, but men and women have different assets and resources at their disposal with which to tackle these effects. Women are therefore more vulnerable, and the impact on their livelihood is greater.

The degradation of natural resources as a result of climate change has a more drastic impact on women's livelihood, since they are more dependent on 'natural capital' to make a living (since men are able to look for a paid job).

With regard to 'physical capital', plots cultivated by women are more vulnerable to climate change. The land where they grow their crops, either as part of a group or individually, is usually of poorer quality. Because they do not own these plots, women do not invest in them. Moreover, they do not use adaptation techniques such as *zai* pits⁷ or stone walls,⁸ since they do not have the necessary physical strength and support. They do not have access to the appropriate tools (which are reserved for men's plots), and fertilisers are

usually used on family-owned land. As a result, these plots produce lower yields and are more vulnerable to climate change.

The main impact of climate change on women's 'human capital' is an increased workload. Droughts, floods and a lack of rainfall all damage harvests, meaning families do not have enough to feed themselves throughout the year. Moreover, during the period between harvests, women are responsible for providing food for the family, which means they have to redouble their efforts to seek alternative activities that will bring in income with which to buy the food they need. They spend more and more time looking for water or wood, which are increasingly scarce as a result of desertification and overexploitation. The increased workload leaves women with very little time to dedicate to income-generating activities or take part in community life. One indirect effect of this on families is that girls are often taken out of school so that they can go and look for water or take on the responsibilities that their mother does not have time for.

Furthermore, when food is scarce it is women who reduce the amount of food they eat, despite the physical work they do, which has long-term consequences on their health and fatigue levels, as well as those of their babies.

'Financial capital' is also negatively affected by climate change, owing to the numerous losses caused by harsh weather conditions: smaller harvests due to insufficient rainfall, water shortage, damage to the environment and loss of animals in the event of flooding, and sometimes even the loss of human lives due to drought or flooding. Families (men and women) are forced to look for alternative activities to obtain income to meet their basic needs and regain their livelihood. However, this is more difficult for women, who have no savings, since they spend all their income on their children's food, health and education, and who usually find it hard to access formal credit, since they have no assets to serve as security in order to obtain a loan (whereas men may have land or livestock). When women participate in women's groups, they can obtain credit more easily from credit unions, and this money is then invested in the productive activities carried out by the group.

Although women depend on natural resources for their livelihood, they have very limited control over these resources because they do not have access to land ownership. Moreover, they do not participate in plans and programmes for the conservation and management of these resources, and do not have control over forests and sources of water, which are controlled by men (women are scarcely represented in local or institutional authorities).

Men have a productive role: they are responsible for growing cereals, as well as building and maintaining the home, buying and selling livestock and, in some cases, doing paid work. Women have a reproductive role: they are in charge of providing food for the whole family, taking care of children and sick family members, cooking, finding water and wood, gathering and processing forest products, and working on the family farm. They also carry out productive tasks, such as selling and marketing products, feeding the livestock and growing crops in an individual or collective plot. Because of climate change, while women still have their reproductive role, their productive role is increasing. Despite this negative impact on women's livelihood, no changes are being made to promote a fairer distribution of responsibilities and tasks between men and women or fairer access to and control over assets. As a result, women farmers are more vulnerable to climate change.

Consideration given to women in adaptation and rural-development plans

Burkina Faso has carried out an in-depth assessment of its vulnerability to change and climate variability with a view to drawing up a National Action Programme for Adaptation (NAPA) to enable it to tackle climate change.⁹

The NAPA is designed to enable the country to anticipate and mitigate the negative effects of the climate in the short term on sectors under development and on the vulnerable groups that are most exposed. It was drawn up using a participatory process involving various stakeholders, with the aim of identifying priority actions based on urgent and immediate needs for adaptation for vulnerable populations. With regard to the consideration given to gender and women in the NAPA, various people involved in

formulating the programme have pointed out that gender was one of the pre-selection criteria for projects. However, the NAPA does cover a majority of projects aimed at men: 67 per cent of the projects benefit men in particular, while the remaining 33 per cent are beneficial to both men and women.

The National Programme for the Rural Sector (NPRS) is a key programme for rural areas, and forms the framework for implementing a series of rural development measures in the main areas covered by three ministries in the sector: the Ministry of Agriculture and Water and Fishing Resources (MAWFR); the Ministry of the Environment and Quality of Life (MEQL); and the Ministry of Animal Resources (MAR).

The NPRS takes climate change into account in its broad guidelines, but only as far as the environmental aspect is concerned; it does not deal with its impact on the national economy. With regard to the consideration given to women in the NPRS, the matter of gender appears to have been borne in mind throughout and is referred to in the language used in the programme, but a more detailed analysis shows that these intentions have not been put into practice in the proposals, and no reference is made to women's needs or the crucial role they play in the programme's broad guidelines. It should be pointed out that this process is still ongoing.

Adaptation practices aimed at women

In general, climate change adaptation practices in Burkina Faso are aimed more at men than at women. Many of these involve reforestation programmes and initiatives, water- and soil-conservation techniques, the use of organic fertiliser, etc. These programmes are aimed at men, since they are the ones responsible for growing cereals within the existing social structure. The adaptation projects, initiatives and programmes aimed at women that have been identified during this research are projects that seek to diversify income generating activities. These projects attempt to offset with other productive activities the losses in cereal harvests caused by climate change.

An analysis of adaptation measures designed for women shows that they do not apply the gender-based approach consistently. Although these projects enable women's role in the farming sector to be considered, they do not deal with their strategic interests, such as access to and control over assets, or decision-making power. Sometimes, due to a failure to take gender into account beforehand, these projects aimed primarily at women actually have a negative impact by increasing their workload without giving them any more control over assets. In this sense, it is difficult to class these projects as 'good practices', even though they do show some encouraging results in terms of adaptation, since they meet practical needs (access to financial resources, training, etc.) and sometimes have an indirect impact by including women's groups in decision-making processes.

Recommendations for taking women's vulnerability into account in climate change adaptation

At institutional level

- Involve rural communities, especially women, in the planning and carrying out of climate change adaptation initiatives in development and adaptation plans and policies.
- Develop awareness and information campaigns about climate change and its effects for inhabitants of rural areas.
- Promote awareness raising and training among those involved in rural development (at national, regional and local levels) with regard to the specific impact that climate change has on women.
- Involve rural communities, and women in particular, in the sustainable management of resources such as water and forests.

- Promote adapted farming systems, the use of water- and soil-conservation techniques, reforestation and sustainable resource management.
- Improve women's access to land ownership; develop awareness raising programmes within communities and among those involved in development at local, regional and national levels. Promote the amendment of laws to grant women the right to ownership.
- Promote women's access to agricultural-extension services and training on farming adaptation techniques. Improve women's access to credit and the inputs needed to increase agricultural yield.
- Promote access for both men and women farmers to information about the climate, including weather forecasts, so that they can decide on the best time to plant seeds.
- Promote suitable frameworks and tools for analysing interactions between climate change and development, with a view to consistently incorporating climate change into planning at national, regional and local levels.
- Support a long-term assessment of the NAPA and the rewriting of a programmatic, fairer and gender-sensitive NAPA.

At organisational level

- Work on identifying and eliminating factors that limit women's capacity to adapt. Give women training so that they can develop their adaptation skills, and promote medium- and long-term strategic changes in order to achieve greater gender equality.
- Promote participation by women in the planning and carrying out of adaptation measures so that their needs and priorities are taken into account.
- With regard to adaptation, work on adaptation measures with a view to responding to known risks (heavy and irregular rain and extreme events) and information on weather conditions (rainfall measurement) so that people can be better prepared.
- Promote women's access to adaptation techniques: water- and soil-conservation techniques, use of improved seeds, diversification of crops, composting and horticulture.
- Strengthen women's organisations in rural communities and support their participation in the planning and carrying out of adaptation measures so that their needs and priorities are taken into account. Promote active participation in community decision making.
- Develop credit and storage systems to support families during the period between harvests so that they do not have to sell their assets to buy food when market prices are higher.

1. PRESENTATION OF THE STUDY: OBJECTIVES AND APPROACH

Burkina Faso's geographical situation makes it particularly vulnerable to climate change. As a Sahel country located in the heart of western Africa, Burkina suffers an extreme, variable climate: the same area can be affected by both flooding and drought within only a few months. The economy of this largely rural country is essentially based on agriculture and stockbreeding. According to various predictions,¹⁰ climate change will have an impact on agricultural production and food security, and will therefore affect inhabitants of rural areas, especially those who are most vulnerable, such as women.

This document aims to analyse the specific impact of climate change on women in Burkina Faso's agricultural sector, analyse how gender and women are taken into account in national adaptation and rural-development policies and programmes, and examine adaptation practices aimed at women and the outcomes of such practices, in terms of both gender and adaptation. This document combines the results of three research documents prepared by Intermón Oxfam:¹¹ ' Analysis of the impact of climate change on women in Burkina Faso's agricultural sector' , ' Women, agriculture and adaptation in Burkina Faso: plans and policies' and ' Analysis of adaptation measures aimed at women' .

Section 2 looks at the agricultural and climatic context of Burkina Faso. The country's vulnerability to climate change is due mainly to a low level of development, institutions that are still weak, severely degraded natural resources and the national economy's heavy dependency on these resources. The effects of climate change on agriculture include soil degradation, reduced water availability and crop yields, lost harvests due to drought and flooding, reduced pastures and grasslands, and loss of livestock.

Section 3 analyses the specific impact of climate change on women in Burkina Faso's farming sector, using the Sustainable Livelihood (SL) approach. This approach is based on an analysis of 'capital' (natural, physical, human, social and financial), access to and control over this capital, and the strategies used by families and their members to meet their needs and to prosper. This section explores how and to what extent climate change has an impact on the various types of capital and on access to them by women.

The effects of climate change on a region are the same for all its inhabitants, but men and women have different assets and resources at their disposal with which to tackle these effects. Women are therefore more vulnerable and the impact on their livelihood is greater. They are more dependent on natural capital and, with regard to physical capital, women's plots are more sensitive to climate change. Moreover, in terms of human capital, women's workload is increasing due to the side effects of climate change. Financial capital is reduced by the numerous losses caused by harsh weather conditions: reduced harvests caused by insufficient rainfall, water shortage, damage to the environment and loss of animals in the event of flooding, and sometimes the loss of human lives as a result of drought or flooding. As a result of climate change, women's productive role is increasing, to add to their reproductive role.

Section 4 compiles the results of an analysis of how women in the farming sector are taken into account in the National Action Programme for Adaptation (NAPA) and the National Programme for the Rural Sector (NPRS). Both plans were subject to an in-depth review in order to find out how they incorporate women's needs and gender. With regard to the consideration given to gender and women in the NAPA, various people involved in drawing up the programme pointed out that gender was one of the pre-selection criteria for the projects. However, the NAPA projects are more oriented towards men. As far as the NPRS is concerned, the matter of gender appears to have been borne in mind throughout and is referred to in the language used in the programme, but a more detailed analysis shows that these intentions have not been put into practice in the proposals, and

no reference is made to women's needs or the crucial role they play in the programme's broad guidelines.

Section 5 summarises three measures set out in the document ' Analysis of adaptation practices aimed at women' . In general, climate change adaptation practices in Burkina Faso are aimed more at men than at women. Many of these involve reforestation programmes and initiatives, water- and soil-conservation techniques, the use of organic fertiliser, etc. These programmes are aimed at men, since they are the ones responsible for growing cereals within the existing social structure. The adaptation projects, initiatives and programmes aimed at women that have been identified during this research are projects that seek to diversify income generating activities. These projects attempt to offset the cereal-harvest losses caused by climate change with other productive activities. An analysis of adaptation practices designed for women shows that they do not apply the gender-based approach consistently, but deal primarily with women's practical needs. These projects do not deal with their strategic interests, such as access to and control over assets, or decision-making power. By avoiding gender analysis, these initiatives aimed primarily at women sometimes actually have a negative impact on them by increasing their workload without giving them any more control over assets.

Section 6 provides an overview of the results obtained and gives some recommendations for giving greater consideration to women in climate change adaptation.

2. AGRICULTURE AND CLIMATE CHANGE IN BURKINA FASO

2.1. Climate and agriculture

The climate of Burkina Faso is characterised by annual rainfall levels that decrease from south to north, with significant variability from one year to the next. It has two seasons: the rainy season, which lasts from May/June to September/October,¹² and the dry season, which runs between November and May. Temperatures are very high between February and June, sometimes reaching more than 40°C, and are somewhat milder from November to February. Annual rainfall varies, depending on the location, from 300mm to 1200mm.¹³ The country's poverty is attributable mainly to its dry climate, a lack of water for agricultural production and human consumption, the degradation of natural resources and high demographic pressure.

The national economy is based on agriculture, the exploitation of natural resources and stockbreeding. Together, these three sectors are the source of work for 92 per cent of the population¹⁴ and represent 32 per cent of GDP.¹⁵ The majority of the population lives in rural areas¹⁶ and practises subsistence farming, working small, family-run plots with some livestock.

Each family owns a small farm for growing cereals (millet, sorghum, maize, etc.) and sometimes other commercial crops, such as beans, sesame or peanuts. The small-plot crops and cereals are intended for self-consumption. Maize, sorghum and millet represent between 85 per cent and 90 per cent of basic food in Burkina Faso, and in rural areas cereals represent almost 100 per cent of food products consumed.¹⁷ The country is almost self-sufficient in cereal production, although there are some areas that are not.

2.2. Vulnerability to climate change in Burkina Faso

The Intergovernmental Panel on Climate Change (IPCC) defines vulnerability as the extent to which a system is capable of facing up to and combating the negative effects of climate change, including continuous changes and climatic phenomena such as droughts and flooding. Vulnerability depends mainly on three factors: the nature and scope of the climate change affecting the system; the system's sensitivity to the effects of this change; and its capacity to adapt.

Africa will be one of the continents most affected by climate change. Several of its regions, including the Sahel, where Burkina Faso is situated, experience the most extreme and variable climates in the world: floods and droughts can take place within only a few months of one another. One-third of Africa's population is believed to live in regions that suffer from recurring droughts.

In 2007 Burkina Faso drew up a National Action Programme for Adaptation to Variability and Climate Change (NAPA), which set out various scenarios by taking into account the facts ascertained by local populations and analysing climate data. According to these two main sources of information, there has been a general increase in temperatures, an increase in the frequency and severity of extreme climatic phenomena, and a decline in rainfall.¹⁸

Increase in temperatures

Studies predict a probable increase of 3°C/4°C in the average temperature during all seasons in 2080–99 compared with 1980–99 for most of Africa. These figures are 1.5 times higher than the predicted global increase.¹⁹ Burkina Faso, and the Sudanese zone in particular, will experience higher temperatures. This temperature increase will prompt a rise in the level of potential evapotranspiration and an increase in the amount of water

lost from seas and reservoirs. As a result, there will be less water available for human and animal consumption and irrigation. Economies that depend primarily on natural resources will be the hardest hit.

Reduced rain levels have also been observed in the Sahel, where annual rainfall during the last 30 years fell by 20–40 per cent compared with rainfall for the period 1931 to 1969.²⁰ However, an increase in rainfall has also been observed since the end of the 1980s, and the 1996–2006 period showed an upward trend in the North-Sudanese and Sahelian zones of Burkina Faso and a downward trend in part of the South-Sudanese zone, particularly in the south west of the country.²¹ Despite this recent increase, average rainfall for the period was lower than in the periods prior to 1970.

It is apparent that in general Burkina Faso's climate has become drier since the beginning of the 1970s. That was the time when desertification began to be visible, mainly in the north of the country. In the last few years, farmers in the south of the country have begun to suffer from water shortage and severe soil and forest degradation.

Future rainfall patterns are still unknown. The various models presented in the IPCC fourth evaluation report²² (and by other institutions, such as the Royal Netherlands Meteorological Institute²³) show very contradictory results, ranging from the aridification to the humidification of the Sahel in the coming decades. The conclusion of the report states that rainfall levels for the Sahel, the Guinea coast and the southern Sahara are not known for the 21st century.

Droughts and floods

According to a number of studies,²⁴ changes in the rain cycle affect soil humidity, aquifer regeneration and agricultural soil quality, but also cause extreme phenomena such as droughts and floods, the frequency and intensity of which are expected to increase.²⁵

Droughts and flooding are frequent in Burkina Faso. The 1970s (1973–74) saw severe droughts, which continued into subsequent decades (1983–84, 2000–2001),²⁶ and there have been several floods in the last few years: the country suffered heavy flooding in August/September 2007 and again in 2009, with a total of 22,200 hectares flooded in September. The rains caused considerable damage in various regions of the country, particularly the capital, Ouagadougou, where 150,000 people lost their homes or their animals.²⁷ In July and August 2010, the country suffered further flooding, which affected 105,480 people and destroyed a great deal of infrastructure (bridges, roads, schools, health centres) and crops.²⁸

Life story: Moustapha Guédraogo, 72

Commune of Kerá-Douré, province of Zondoma (Nord region)

Moustapha Guédraogo has lived in this commune all his life. He works in farming, producing millet, maize and peanuts, and also rears goats, sheep and chickens. He was badly affected by the floods of August and September 2010, in which he lost several animals and part of his cereal harvest.

'We have never had floods here like these in recent years. The water literally destroyed the animals. It was like nothing we had ever seen before. We have also suffered droughts. In the '70s the droughts were very severe. When it started to rain we planted cereals, because after that we would not have any more rain for almost the whole year. The harvest was ruined, and the animals died due to a shortage of water and fodder. We had to walk 7 kilometres to find water. At that time a lot of young people left the country in search of a better life. We stayed here. Afterwards, in the mid-'90s, the soil became increasingly degraded and the harvests were bad. We then started using traditional rainwater-retention and soil-protection techniques, and now the harvests are better. For years now our cereals have lasted for 6 to 8 months in the family granary; and if there is enough rain and the harvest is good, the cereals can feed the family for the whole year.'

Most studies²⁹ predict an increase in the intensity and frequency of these phenomena. This means that, in the next few years, the country will face higher temperatures, an increased intensity and frequency of extreme phenomena, and unknown rainfall patterns.

A vulnerable country that is very sensitive to climate change

Burkina Faso's vulnerability to climate change can be attributed primarily to a low level of development, institutions that are still weak, severely degraded natural resources and a national economy that is heavily dependent on these resources.

The poverty level is high in Burkina Faso, where 46 per cent of the population live below the poverty line and 20 per cent below the extreme-poverty line.³⁰ The country is extremely sensitive and vulnerable to climate change because of the following factors: a low level of education and lack of information among much of the population, a lack of suitable transportation infrastructure, a lack of access to adequate adaptation technologies, the absence of weather forecasts to keep the population, and farmers in particular, informed, and inadequate public health and education services. Moreover, the essential role played by women in taking care of their families in rural areas is not visible, and is not taken into account to the extent it should be as part of climate change adaptation programmes and policies.

There is a severe degradation of natural resources: inadequate management of these resources (because the farming techniques used are not adapted) and climatic risks (recurring droughts and floods), combined with demographic growth,³¹ give rise to forest and soil erosion and to deforestation. Soil, which is already lacking in organic material and is poorly protected by scant vegetation, deteriorates further still due to storms and intense surface run-off. Forests are also threatened by the ever-growing need for wood and the uncontrolled cutting down of trees and shrubs. Overgrazing has contributed to soil degradation. Moreover, demographic growth is exerting tremendous pressure on natural resources, causing degradation of soil and forests. This over-exploitation has been reinforced by the fact that, in recent decades, inhabitants of the north have migrated in search of land and forests towards the south of the country, to escape the extreme climate of the Sahel. As a result of this growth, in years with scant rainfall or bad harvests, cereal production is insufficient to feed the population.

Table 1: Impacts of and vulnerability to climate change in Burkina Faso

| Impacts | Sectoral vulnerability | Capacity to adapt |
|--|--|--|
| <p>Temperature</p> <p>Increase in temperatures</p> <p>Rainfall</p> <p>Considerable variability in the frequency and intensity of rainfall and changes in seasonality</p> <p>Extreme phenomena</p> <p>Increased frequency and intensity of droughts and floods</p> | <p>Water</p> <p>Increased water scarcity</p> <p>No aquifer regeneration</p> <p>Soil</p> <p>Poor quality of soil</p> <p>Agriculture and food security</p> <p>Increasingly poor harvests due to scant rainfall</p> <p>Increase in food insecurity</p> <p>Livestock</p> <p>Loss of animals during floods and severe droughts</p> <p>Insufficient grasslands</p> <p>Health</p> <p>Loss of human lives during floods</p> <p>Malnutrition</p> <p>Diseases associated with climatic shocks</p> <p>Land ecosystems</p> <p>Desertification</p> <p>Soil and forest degradation</p> | <p>Poor capacity to adapt due to the country's level of development: poverty, low level of education among the rural population and national services, lack of training, lack of access to appropriate technology, lack of high-quality weather forecasting services to keep the population informed, failure to consider the role of women within the family, inequality and imbalance between men and women, national adaptation programmes that do not include a gender-based approach.</p> |

Source: based on 'Climate Vulnerability Monitor 2010'. DARA and Climate Vulnerable Forum.³²

2.3. Climate change in Burkina Faso and its impact on agriculture

In 2006 the National Council for the Environment and Sustainable Development of Burkina Faso (CONNED, to use its French acronym)³³ identified the sectors most vulnerable to climate change as water, agriculture and forests. The effects of climate change on agriculture include the following factors:

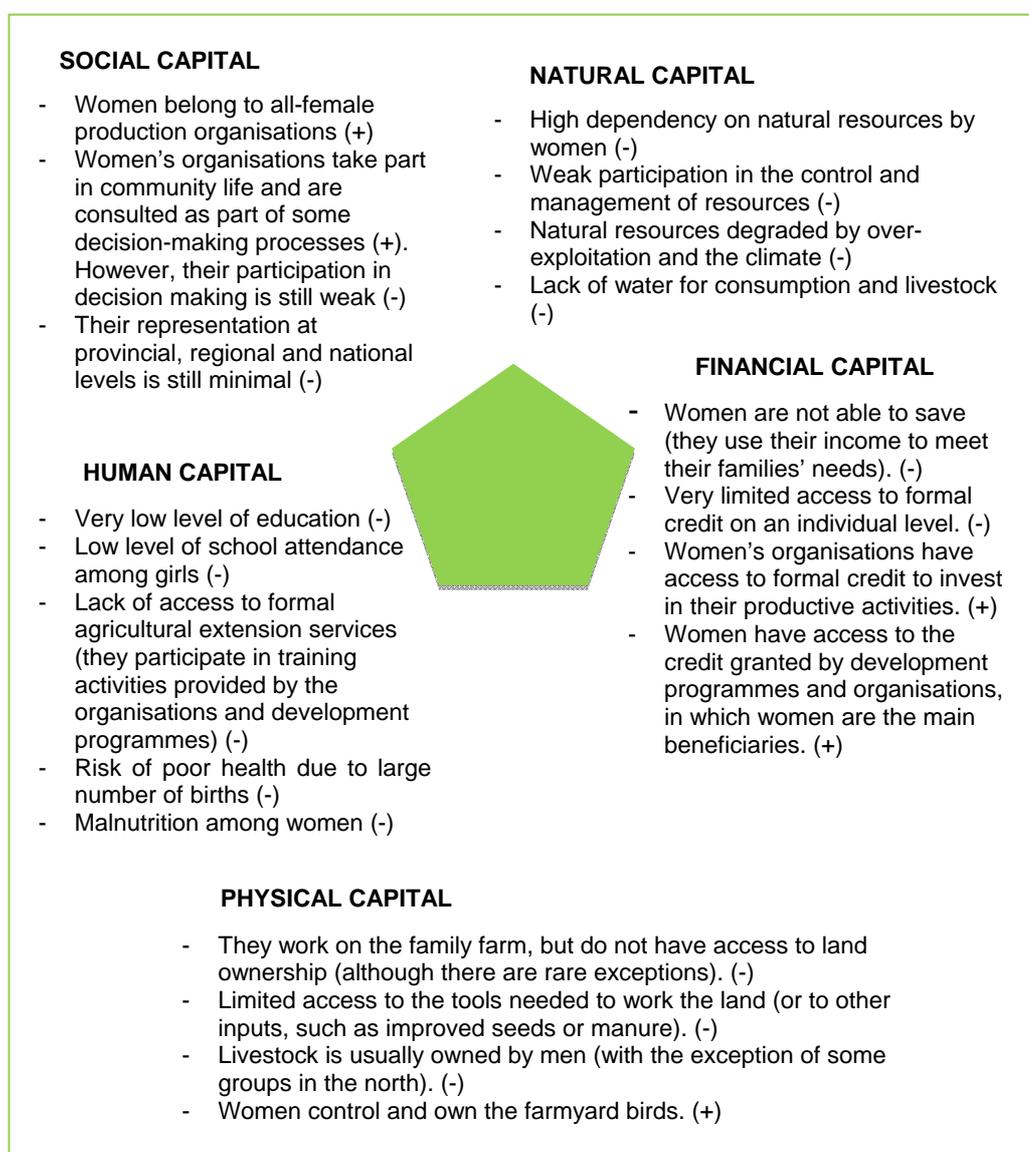
- **Soil degradation** caused by recurring droughts, water shortage and intense surface run-off when there is heavy rain;
- **Reduced water availability** for irrigation and livestock;
- **Reduced crop yields** (due to water shortage and poor-quality soil), which leads to the over-exploitation of other natural resources, such as forests;
- **Loss of harvests** due to **drought**;
- **Loss of harvests** due to **floods and heavy rains** during the rainy season;
- **Reduced grasslands and meadows** for livestock due to soil degradation and water shortage;
- **Loss of animals** due to extreme events such as droughts and floods;
- **Reduced cereal production and loss of harvests** due to extreme phenomena affect the country's food security, which is already very fragile, as well as the national economy.

3. THE IMPACT OF CLIMATE CHANGE ON WOMEN IN THE FARMING SECTOR

3.1. Women's assets in the rural sector: access and control

Men and women have different resources and assets with which to tackle climate change. The approach used to analyse the impact is the Sustainable Livelihoods Approach (SLA), which is based on the analysis of capital (natural, physical, human, social and financial), access to and control over it, and the strategies used by families and their members to meet their needs and prosper (see methodological details, Appendix 1). Figure 1 shows women's access to the various sources of capital.

Figure 1: Sustainable livelihoods for women in rural areas of Burkina Faso



Women are most dependent on **natural capital** for their livelihood. In a year of drought, men have the opportunity to look for a paid job (seasonal work in the cities, road-repair

work or gold-mining work), whereas women need resources (water, forests, land) to be able to feed their families and obtain income with which to meet their families' needs. Despite this dependency, they have very limited control over these resources, since they are unable to own land. Women almost never participate in resource management and conservation plans and programmes. In general women have no control: the forests and sources of water are controlled by men (since women are scarcely represented in village or institutional authorities).³⁴

Women's groups cultivate vegetable gardens on land allocated to them by their husbands or another male relative.³⁵ Normally this land is of poor quality, and tends to be land that has been left fallow and produces a lower yield. Moreover, women do not have the physical strength needed to use soil-conservation techniques such as *zai* pits³⁶ or stone walls,³⁷ which means that their land suffers more damage when there are floods or heavy rains.

Women also have less **physical capital**. They have no access to land ownership, since land is passed down from fathers to their sons (although there are rare exceptions) and the owner is always the male head of the family.³⁸ Consequently, women do not invest much in their plots, because they have no guarantee. They lack inputs such as organic fertilisers. The products of manure pits and chemical fertilisers are used mainly on family-owned land, even though women contribute fairly significantly to creating the pits.³⁹ Equipment is also usually reserved for family-owned land, meaning that women have limited access to it (they can use the equipment only when their husbands are not using it).⁴⁰

Although women take care of the livestock, animals (except farmyard birds) belong to the men. Even when women have enough money to buy some animals, these are still controlled by their husbands. The men (husbands and sons) take care of the livestock for the purposes of producing meat and buying and selling animals on the market,⁴¹ as tradition dictates, deciding on a price at the time of sale.⁴² However, in some cases, such as that of the Fulani, women own sheep, cattle and goats for the production of milk, and they are the ones who make decisions about the sale of the milk and control the income.

Women's **human capital** (their level of education and health) is far inferior to that of men. Families always prioritise the education of the male children, while the girls are forced to stay at home to help their mother or get engaged at a very young age.⁴³

Adult women do not have access to farming training or to adequate training to carry out their work. Agricultural extension services are always aimed at the males at the head of the family, since they are responsible for growing cereals.⁴⁴ The only way in which women have access to agricultural training is in the context of NGO development programmes, in which women's groups benefit from training activities.

With regard to health, women take care of sick family members and are responsible for buying medicines. They give priority to the needs of their children and husband. Sometimes they are the last ones to go to hospital when they are ill or to give birth, which is one of the causes of the high mortality rate among pregnant women (more than 2,000 women die each year in Burkina Faso due to pregnancy or birth complications).⁴⁵

When food is scarce, women are usually the last to eat and have the smallest portions. Moreover, frequent pregnancies (an average of 6.21 births per women), breastfeeding, women's excessive daily workload and malnutrition give rise to deteriorating health and extreme fatigue.

As regards **financial capital**, it should be pointed out that women do not have a vast capacity to save, since they spend all their income on their children's food, health and education. Access to formal credit is usually difficult, particularly for women who do not have assets, such as land or livestock, which can be used as security in order to obtain a loan.

It is easier for women to obtain loans from a credit union if they are part of an organisation than if they apply for credit individually. This money is invested in the productive activity carried out by the group. They can also access credit through projects and programmes run by national or international entities that provide funds to be used to grant microloans to women.

In terms of social capital, in the heart of the **community**, women's organisations are consulted more frequently in the making of decisions that affect them, which increases their participation in the community. However, most decisions are still taken by heads of the community or village councils, where women are scarcely represented.⁴⁶

Life story: Fati Tondé, 65

Commune of Nobéré, province of Zoundwéogo (Centre-Sud region)

Fati Toundé has lived in this commune since she got married. She is 65 years old. She works on the family farm, helping her husband. She also carries out other activities to earn the income she needs to take care of her large family: she makes and sells *soumbala* (a local food made from seeds). She is the president of a group of 13 women who produce *soumbala* within the commune.

'For years now cereal production and forest-product harvesting have been much reduced, because the soil and the forest itself are severely degraded. They no longer have the yields that they used to. We make *soumbala* from the *nééré* seeds that we harvest from the forest, but now we cannot find enough of them, and we often have to buy them from the market. This increases the cost of producing *soumbala*, and what we earn is not sufficient to cover our families' needs.

We have also suffered heavy rains in the last three or four years, causing us to lose crops. The 2010 floods took away our grain stocks, as well as our animals and houses. We had to rebuild our homes.

Women have always made *soumbala*; it is something that mothers teach their daughters. Doing it as part of a group makes it more feasible. The existence of an association means that people give us greater consideration within the community and consult us when decisions need to be made within the village. This week a commission came to our commune to ask our permission to build a school. The women from the association were invited and they asked us for our opinion. Moreover, the association has opened an account with the Caja Popular and this year we were able to apply for a loan to buy a large quantity of *nééré* seeds when market prices were low.'

3.2. Roles, responsibilities and control

The definition of the roles of men and women in the rural sector is dictated by tradition. Table 2 summarises the responsibilities and control over the main activities within families in the rural sector.

Table 2: Roles, responsibilities and control within farming activities by gender

| Activity | Role/responsibility of men | Role/responsibility of women | Control |
|---------------------------|--|---|--|
| Cereal cultivation | The men are responsible for cultivating cereals (production and sale) intended to feed the family. | <p>The women cultivate cereals, but do not make any decisions. As well as working on the family farm, in some regions women work a plot of land assigned to them by their husband/father.</p> <p>They grow vegetables to sell, and sometimes also cereals (as is the case for Mossi women).</p> | <p>The male heads of the family make decisions about cereals: what to plant and when, what to buy or sell and at what price, and they control the income obtained from the sale of cereals, as well as the issuing of rations to women with which to feed the family.</p> <p>The women control the vegetables that they grow to sell on their plots and the income that they obtain from selling them.</p> |
| Cattle | The men are responsible for buying and selling cattle. | If there are not many animals and they are kept in a cow shed, the women are responsible for rearing them, but they do not make a profit from this activity. Large, migrating herds are the responsibility of the men. | <p>The men decide when to buy or sell livestock and at what price. It is the men (the husband or a son) who go to the market to buy and sell the animals. They also control the income.</p> <p>In the case of the Fulani people, women can own cattle and have control over the sale of their milk.</p> |
| Sheep | The men are responsible for buying and selling sheep. | If there are not many animals and they are kept in a pen, the women are responsible for rearing them, but they do not make a profit from this activity. Large, migrating flocks are the responsibility of the men. | <p>The men decide when to buy or sell livestock and at what price. It is the men (the husband or a son) who go to the market to buy and sell the animals. They also control the income.</p> <p>In the case of the Fulani people, women can own animals and have control over the</p> |

| Activity | Role/responsibility of men | Role/responsibility of women | Control |
|--|---|---|--|
| | | | sale of their milk. |
| Farmyard birds | The men do not participate in this activity. | The women are responsible for taking care of the farmyard birds. | Both men and women control this activity and can make decisions. |
| Processing and sale of forest products (<i>shea, néré, honey, soubala, baobab leaves</i>) | The men participate little, except in the large-scale farming and sale of wood in regions close to forests. Men do not participate in the harvesting and sale of small quantities of wood and other products. | The women are responsible for harvesting, processing and selling non-timber-yielding forest products. | The women decide when to sell and at what price. They are also in control of the income. |
| Horticulture | The men do not participate in this activity very much. | The vegetables are grown in plots of land assigned by the men, but the woman is responsible for them. | The women are responsible for selling vegetables on the market and control income from these sales. |
| Gathering water | Generally men do not participate in this activity. | Gathering water is the responsibility of women and both male and female children. | Women have access to sources of water, but these are controlled by the heads of the community or institutions. |
| Gathering wood | Generally men do not participate in this activity. | It is women who gather wood for cooking, with the help of their sons and daughters. | Women have access to forests, but do not control them or make decisions about them, since they are managed by the Ministry of the Environment and the commune council. |
| Sale of food and drinks | Generally men do not participate in this activity. | Women are responsible for this activity. | Women control this activity and decide what to produce and at what price. They also control income from this activity. |
| Migration | It is the men (the head of the family and young men) who migrate temporarily, during the dry season, to look for paid work. Young men migrate to neighbouring countries (mainly Côte d'Ivoire), but | The women take care of the family, home and animals during their husbands' absence. | The men control this activity; they decide where to look for work and when they will return home. |

| Activity | Role/responsibility of men | Role/responsibility of women | Control |
|--------------------------------------|---|---|---|
| | this migration is normally long-term or permanent. | | |
| Paid work | It is men who look for paid work on farms, road-repair work, day work, etc. | It is practically impossible for women to find a paid job in the rural sector. | The men control this activity; they decide when and where to look for work, as well as how much money to give to their family. |
| Children's care and education | The men make the decisions about their children's education, but the day-to-day responsibility for the children falls with women. | The women are responsible for paying school fees and looking after sick family members, taking them to see the doctor and buying their medicines. | It is the woman who is responsible for the children's health and education on a day-to-day basis, but men make the decisions, with some participation from women. |

Source: Oxfam

These roles and responsibilities vary slightly between different ethnic groups.⁴⁷ However, in the majority of cases in Burkina Faso, the male head of the family is responsible for growing cereals on the family farm. Once the cereals have been harvested, they sell part of this harvest, enabling them to have their own funds. This money is used for their personal expenditure or to finance family parties and celebrations. The rest of the cereals are stored and used to feed the family.⁴⁸ It is the husband's role to distribute supplies and to periodically provide women with rations. The women are responsible for processing the cereals into flour, making the food and producing sauce or extra ingredients (this means providing all the food, in addition to the cereals).

Men have a **productive role**: they are responsible for growing the cereals, as well as building and maintaining the house, buying and selling livestock and, in some cases, doing paid work. Women have a **reproductive role**: they are responsible for providing food for the entire family, looking after children and sick family members, cooking, looking for water and wood, harvesting and processing forest products, and working on the family farm. They also perform some productive tasks, such as selling and marketing products, feeding livestock and growing crops in an individual or collective plot.

Cereals form the basis of these families' diets, which means that the amount of cereals harvested is sometimes not enough to last until the following harvest. Once the cereal stocks have been used up, the women are responsible for providing food for the family. The period between harvests (from the time the cereal stocks from the first harvest run out to the beginning of the second harvest), between June and August,⁴⁹ is hard.

3.3. The impact of climate change on women

The effects of climate change on a region are the same for all its inhabitants, but women are more vulnerable, and the impact on their livelihood is greater.

i) At individual level

Natural capital

The degradation of natural resources affects women's livelihood. The productive activities carried out by women depend on these resources, which are being degraded due to climate change. Women are therefore severely affected by the lack of the means

necessary for both food and the production of goods to sell. They have limited strategies at their disposal to ensure the survival of their families.

Water shortage forces women and the sons and daughters who usually help them with this task to travel increasingly long distances and walk for kilometres to find it.

Physical capital

Women's plots are more vulnerable to climate change. Climate change intensifies the degradation of soil and cultivated land, and women's plots are usually the worst affected, since they are of inferior quality (poor-quality land, restricted access to water, etc.) and they do not have the necessary tools and inputs (chemical fertilisers, compost, improved seeds), which are always allocated to the family farm. Moreover, techniques such as *zai* pits and stone walls, which require considerable physical strength, cannot be implemented on women's plots. As a result, heavy rains and run-off water sweep away much of the plant coverage.

Human capital

The main impact of climate change on women is the increase in their workload. Droughts, floods and a lack of rain damage cereal harvests, meaning that families do not have sufficient quantities of cereals to feed themselves. As a result, women have to redouble their efforts to find alternative activities and obtain income with which to buy the food they need, since they are responsible for providing food. In addition to this, women must invest more time and effort in finding water and wood, because these have become scarcer as a result of desertification and over-exploitation.

In the case of extreme phenomena such as floods, women work together with men to rebuild their homes and recover their livelihood. They combine their usual tasks within the home with productive activities in order to raise enough money to buy food and replace dead animals. Moreover, if a member of the family falls ill (elderly people and children are worst affected by high temperatures),⁵⁰ it is up to the women to look after them.

If there is a lack of food caused due to bad harvests as a result of climate change, it is the women who reduce their food portions, despite the physical work they do, which increases malnutrition. Insufficient food, an excessive workload and breastfeeding mean that malnutrition is more prevalent among mothers and young children.

The increased workload leaves women with very little time to dedicate to income-generating activities or take part in the life of the community.

Financial capital

Climatic phenomena give rise to a number of risks: poor harvests if there is a low level of rainfall, water shortage, damage to homes, and loss of animals and even human lives in the case of droughts or floods. Families (both men and women) must join together in seeking alternative activities that will bring in the income they need to meet their basic needs and recover their livelihood.

In order to offset the impact of the loss of assets and bad harvests, women must seek alternative sources of income that will enable them to buy food. However, their options are increasingly limited and it is more and more difficult to earn income with which to feed their families.

Women have neither the training nor the tools they need to adapt to climate change. Their plots and garden crops are the worst affected by droughts or flooding. When forests deteriorate, it is harder for women to find the products they need to process (*shea* nuts, *nééré* seeds or baobab leaves). They are unable to harvest a sufficient amount, and the money they make from selling the products is not enough to meet their families' needs.

Social capital

In situations of climatic stress, women are faced with an excessive workload, which prevents them from actively participating in community life and increasing their involvement in decision making. In this context, where women's organisations and associations exist, they can play an important role in offsetting the impact of climate

change, since the whole community works together after a disaster (flooding or droughts).

ii) Within the home

When climate change has an impact, family members (both men and women) work on regaining their livelihood. However, women have to combine these tasks with their day-to-day responsibilities. Climate change therefore intensifies the inequality that exists between men and women.

School absenteeism among girls

Children, and girls in particular, help their mothers with the household chores. When extreme weather conditions occur, the girls usually leave school to go and look for water⁵¹ or take on the responsibilities that their mother no longer has time for.

Migration

There are various migratory movements in the west and south-east of Burkina Faso, which are expanding as a result of climate change. In these cases, the wife is in a more difficult situation, because she is the only one looking after the family, but has no control over physical or natural capital, and depends on the money her husband sends her.

Life story: Salimata Ouédraogo, 72

Commune of Kerá-Douré, Zondoma province (Nord region)

Salimata has lived in this commune all her life. Although she has given birth 10 times, only five of her children have survived. She now has a great many grandchildren and some great-grandchildren.

She is part of the Kerá-Douré women's group, which farms a communal plot of land, alternating between cereal crops in the rainy season and vegetable production (mainly onions and peppers) in the dry season.

'Our work is very hard, but two or three of us work the land as a group, which makes it more bearable. We have been working together like this for nine years. Before we had this plot our lives were more difficult; all we had was our husbands' cereal harvest. We worked from morning to night, but that was not enough to feed our families. This meant that we were forced to do other jobs to earn some money (spinning cotton, cooking food, preparing local drinks, etc.), as well as looking for water and wood and cooking. I have worked as a cotton spinner for years.

In spite of my age, I still come to our plot every day. We have spent many years working to make things work, and we are very happy, because the money we earn from selling our products enables us to feed our families. That money is for us, and we can decide what we want to do with it.

Now we not only grow vegetables during the dry season, but we also produce cereals during the rainy season. At first our husbands were not happy about the idea of us coming to work here on our plot during the rainy season, instead of spending out time working on the family farm. But little by little they began to realise that our work here is important for the family, because it enables us to buy food, pay the children's school fees and buy them clothes.

This money gives us independence, and we feel that we have a stronger position within our homes. Our husbands now consult us before making decisions, and the association is sometimes consulted when decisions are made within the community. The group has made us stronger as women.'

As a result of climate change, women are seeing their productive role (sales activities) increase, while still maintaining their reproductive role (they are responsible for providing food and taking care of the family, etc.). In this context, the distribution of responsibilities and tasks no more equal, and women's access to and control over capital is not increased. The result is that women farmers are increasingly vulnerable to climate change.

4. THE CONSIDERATION GIVEN TO THE NEEDS AND KEY ROLE OF WOMEN FARMERS IN ADAPTATION AND RURAL DEVELOPMENT PLANS

4.1 Analysis of the attention paid to women in the farming sector in the adaptation plan (NAPA)

Burkina Faso has carried out an in-depth assessment of its vulnerability to climate change and climate variability with a view to drawing up a National Action Programme for Adaptation⁵² (NAPA) to enable it to tackle climate change. The NAPA is designed to enable the country to anticipate and mitigate the negative effects of the climate, in the short term, on sectors under development and on the most exposed vulnerable groups. It was drawn up based on a participatory process involving various stakeholders (decision makers, experts, technical experts, producers, communities, etc.), with the aim of identifying priority actions based on urgent and immediate needs for adaptation for vulnerable populations.

Although the NAPA was adopted in 2007, the first projects only began to receive financing in 2009 and to be implemented on the ground in 2010. Other projects are still being negotiated. This process of putting the projects into practice is a slow one because of a lack of capacity to find funding, as well as administrative delays.

With regard to the attention paid to women and gender, various documents from the NAPA creation process indicate that the issue has been taken into account as a criterion. In accordance with the guidelines for developing national action programmes for adaptation,⁵³ the 'consideration of a gender aspect' features among the principles that influenced the drawing up of the NAPA in Burkina Faso. Workshops and surveys effectively involved all social and professional groups (young people, women, men, elderly people, ministers, etc.) in order to learn their views, their previous and current adaptation measures, the limits they have encountered and the actions they consider to be priority and urgent. Gender was also taken into account in terms of the composition of the group of experts.

However, in spite of the provisions that made it possible to tackle women's real concerns (getting value out of non-timber-yielding forest products, promoting irrigation, energy-saving equipment, small livestock, etc.), there is a predominance of men in the NAPA projects. In fact, 67 per cent of the projects are beneficial to men in particular, while the remaining 33 per cent are beneficial to both men and women.

4.2. Analysis of the attention paid to climate change and gender in the National Programme for the Rural Sector (NPRS)

The NPRS and climate change

The National Programme for the Rural Sector (NPRS) is a key programme for the rural sector, and is the framework for implementing a series of rural-development measures in the main areas of competence of three ministries in the sector: the Ministry of Agriculture and Water and Fishing Resources (MAWFR); the Ministry of the Environment and Quality of Life (MEQL); and the Ministry of Animal Resources (MAR). The national broad guidelines for rural development were subjected to debate in the Joint Review of the sector (July 2010). In December 2010 and January 2011 the NPRS was still an ongoing process.

Of the five national broad guidelines⁵⁴ for rural development set out in the NPRS pact, the first is 'the improvement of food and nutritional security and sovereignty in a context of climate change, desertification and demographic growth'. It can therefore be considered that the NPRS takes into account the problem of climate change in its broad guidelines.

However, this programme's analyses are generally carried out in an incomplete way, since very frequently they only take into account the environmental aspect, even though no sector of the economy is unaffected by climate change.

The NPRS mentions climate change in these three sub-sectors:

- **Farming, water and fishing sub-sector:** it explains the available potential, the restrictions on its performance and the main risks it faces. It deals with issues including the persistence of climatic risks (droughts, floods and wind) and the insufficiency or lack of adaptation of responses to climate change.
- **Animal resources sub-sector:** it identifies the main sources of tension affecting the sub-sector, giving a description of the following specific points: impact of the higher temperature and forecast reduction in rainfall, increased climatic variability, and increase in the frequency of extreme climatic phenomena and their consequences (droughts, floods, locust infestations, etc.).
- **Environmental sub-sector:** it describes the available potential in terms of land and water, and forest, fauna, fishing, pastoral and mining resources. It also explains the main environmental problems the country faces, which include soil degradation, the degradation of water resources, growing problems in urban environments, biodiversity erosion and climate change.

The NPRS and gender

The NPRS does take into account the guidelines of the Accelerated Growth and Sustainable Development Strategy (AGSDS), one of the objectives of which is 'to ensure fair access to and control over resources and decision-making processes for men and women, whilst respecting their fundamental rights'. In the same way, one of the seven strategic guidelines of the Rural Development Strategy (RDS) is based on the consideration of gender, and focuses on improving the economic situation and social status of women and young people in the rural sector. Furthermore, one of the eight basic principles of the NPRS is based on the consideration of gender. In the detailed description of the programmes and the justification of the priorities of the NPRS, there is an emphasis on the importance of improving the economic status of women and young people in the rural sector and holding rural populations responsible as implementers of development, which means that actions and investments are planned in a bottom-up, decentralised way, and that investments at the local level are managed by the beneficiaries themselves, within the framework of the representative structures that act as forums for reflection, dialogue, collaboration and decision making.

Gender is considered in the theoretical plan, but in this phase of drawing up the NPRS, analysis of the practical needs and strategic interests of women is superficial or non-existent. The gender-based approach is borne in mind throughout, but at the moment is not clearly reflected in the budgets and activities, although it should be pointed out that this process is still in the preparation phase.

5. ADAPTATION PRACTICES AIMED AT WOMEN

Burkina Faso's climate change adaptation programmes and measures are generally geared more towards men than women, because it is the men who are responsible for growing cereals and are 'socially' responsible for farming, even though the whole family works the land.

The adaptation projects, initiatives and programmes aimed at women that have been identified during this research are focused on diversifying income generating activities. These projects attempt to offset the cereal harvest losses caused by climate change with other productive activities. When there is less food available, women, who are responsible for providing their families with food, must seek alternative ways of finding the means to meet their families' needs.

The initial objective of this research was to capitalise on good agricultural adaptation measures aimed at women, but the information gathered and checked led to an unexpected conclusion: the adaptation measures that work with women do not incorporate a gender-based approach. These measures deal with women's practical needs, but not their strategic interests (access to and control over capital, decision-making power, etc.).

Table 3: Practical needs and strategic interests

| Practical needs | Strategic interests (or gender strategic interests) |
|--|---|
| Particularly immediate and short-term | Particularly long-term |
| Involve women as beneficiaries, rather than active participants | Involve women as agents, or enable them to become agents |
| Deal with everyday living conditions: water, food, health, accommodation, income, etc. | Deal with the disadvantageous position of women in society, and their lack of resources and education |
| Easily identifiable by women | Not easily identifiable by women |
| Can be met with specific material provisions: food, health services, training, etc. | Can be met by raising awareness about gender issues, through education and training, political mobilisation, etc. |
| Can generally be met without changing roles and relationships | Can give women power and transform inter-gender relations |
| Types of action taken in response to women's practical needs: <ul style="list-style-type: none"> - Provision of drinking water - Improved access to health services - Opportunities to gain income for the family - Provision of basic services linked to the home - Distribution of food | Types of action taken in response to women's strategic needs: <ul style="list-style-type: none"> - Lightening the burden of housework and childcare - Abolition of institutionalised forms of discrimination (laws and legal systems that tend to favour men) - Provision of reproductive health services that offer women control over their fertility - Measures against male violence - Creation of opportunities for collective organisation |

Source: C. Moser, 'Gender planning in the Third World: meeting practical and strategic gender needs'⁵⁵

Although these projects have the advantage of making women's role in the farming sector more visible, they do not incorporate a gender-based approach and do not take account of women in the context of their relations with men or their role in taking care of the family. In this sense, it is difficult to clearly class these measures as 'good' measures, even though they can have some positive results in terms of adaptation and certain practical needs (access to financial resources, training, etc.) and can sometimes have an impact on women's participation in decision making.

Three examples of measures aimed at women are described below: vegetable production, poultry farming and mini-farms. These measures were initially selected because of their positive orientation towards women, but an analysis of them led to the conclusion that some of the measures actually have a negative impact on women.

5.1. Horticulture project

| | |
|---|---|
| Project name | Post-Flood Food Security Support Project (PFFSSP)⁵⁶ |
| The good practice involved | Horticulture |
| Justification for the good practice | The communities of the province of Zondoma are constantly exposed to latent crises and disasters (droughts, floods, etc.). These risks of disaster increase the region's physical, social, economic and environmental vulnerability. The practice of vegetable production by the Sougrin Manegdé women's organisation began as a way to reduce risk and prepare for crises. In this sense, the implementation of the project enabled an alternative way of adapting to climate change to be promoted. |
| Duration and execution period of the project | April 2008 to March 2011 (3 years) |
| Main organisation | Christian Aid, RMARP |
| Main stakeholders | Christian Aid, RMARP, municipalities of Bassi and Tougo |
| Location | Province of Zondoma |
| Number of participants (women/men) | 21 villages within the municipalities of Bassi and Tougo; 2,100 families divided between 30 organisations, of which 17 are all-women groups. |

Horticulture⁵⁷ is practised in the village of Kiera Douré by the Sougrin Manegdé women's organisation, which has 25 members (24 women and one man). The total surface area of their garden measures one hectare; it has two wells and is fenced off. Under the system that has been set up, each woman has a plot on behalf of the organisation and a plot for herself. When the harvest is finished, the organisation's members hold a general meeting in order to organise their horticultural activities: a clear calendar is set out (weeding, installing fence and grille), the plots are divided up and the nurseries are put into action.

The organisation's funds are used to buy seeds, and manure is also bought and converted into compost. The women are organised into four groups to take care of irrigation in shifts. The organisation has appointed a sales supervisor to the horticulture committee, who promotes sales of the produce. Part of the produce is sold during the harvest (particularly onions), while the rest is stored to be sold for three or four times

more during periods of food scarcity. A store in which to keep the produce was built for the organisation by AFRICARE, an NGO.

After the sales have been made, each woman receives the income generated by her produce. The profits of the collective plot go into the organisation's account with Caja Popular de Gourcy, although part is kept by the treasurer to fund the organisation's current expenses. This account enables the organisation's members to have access to credit with which to buy manure. The loan must be repaid in eight months, but members pay monthly.

The women in the organisation participate in the secure storage⁵⁸ scheme in Kiera Douré. The cowpeas produced on the collective plot are kept in the secure store and the money received for them is distributed among the women so that they can carry out various income generating activities.

The group also organises paid farming, weeding and other activities on plots belonging to other private individuals. The women receive remuneration in exchange for their labour, and these payments are also deposited in the group account. On market days (every three days) each member makes a contribution of 100 FCFA, and this money is also used to cover the organisation's day-to-day expenses.

The credit obtained by the organisation in 2010 totalled 1,200,000 FCFA,⁵⁹ of which 70,500 FCFA⁶⁰ was invested in horticulture and the rest was distributed among the members for their various income generating activities (sheep rearing, small trade, etc.).

Analysis of how the project functions and the inclusion of a gender perspective

An analysis of how the women's organisation functions reveals both strengths and weaknesses, which can be summarised as follows:

- As regards good governance, it should be pointed out that the members of the group's management board have not been re-selected; this is not necessarily a symptom of poor functioning, since many people believe there is no need to change a team that is doing its job well.
- With regard to the management of finances, no cases of embezzlement have been mentioned. Some complaints have been made by women who had had plots and not farmed them. In these cases, the committee took the plots away from them and assigned them to other women.

The project shows that investing in women's organisations has a positive impact on the position of women within their community and within their families. The increased contribution that women can make to their family's income thanks to these activities improves their position and enables them to participate in decisions about their capital and their families.

Within the community, the women's organisation is considered a stakeholder and is consulted when decisions have to be made. The organisation also facilitates women's access to bank credit. The fact that the organisation has an account with the Caja Popular acts as a security, enabling the women to negotiate loans.

This project has enabled women to have access to the tools they need to carry out their activities more efficiently and profitably. They have also received training in farming and marketing techniques. Although the collective plot does not belong to the women (the land is allocated to them by a male at the head of a family), working as part of an organisation enables women to have access to collective land ownership.

The project also contributes to a change in behaviour and roles. Although women should work with their husbands on the family farm (cereal plots) according to cultural tradition, the women in this group have begun to grow cereals for themselves during the rainy season. Some of them have started to reduce their daily workload on the family farm to

spend more time on the collective plot, where they control the work they do and the income they earn from selling their produce.

Carrying out this income-generating activity and belonging to an organisation helps to change the relation of power for women within both the home and the community, and to improve the unfavourable position of rural women.

5.2. Project 2: Village poultry farming

| | |
|---|---|
| Project name | Post-Flood Food Security Support Project (PFFSSP)⁶¹ |
| The good practice involved | Village poultry farming |
| Justification for the good practice | The post-flood food security support project was introduced following the floods of 2007 that destroyed the province's habitat and livestock. Support for village poultry farming began with a view to reducing disaster risk, replenishing stocks and preparing for crises. The introduction of the project enabled an alternative way of adapting to climate change to be promoted. |
| Duration and execution period of the project | April 2008 to March 2011 (3 years) |
| Main organisation | Christian Aid, RMARP |
| Main stakeholders | Christian Aid, RMARP, municipalities of Bassi and Tougo |
| Location | Province of Zondoma |
| Number of participants (women/men) | 21 villages within the municipalities of Bassi and Tougo; 2,100 families divided between 30 organisations, of which 17 are all-women groups. |

Since the droughts of the 1970s, short-cycle animals, specifically farmyard birds, have occupied an important place in Burkina Faso's animal production development strategy. These birds play several significant roles on farms as both circulating capital and a means of access to farming equipment among small farmers.

Since 2008, the villages of Wétiguè and Pèlla in the municipality of Bassi have received support from the PFFSSP to develop village poultry farming, generating income for a number of women. Short-cycle animals are easier for women who lost everything after the 2007 floods to access. The project offers several opportunities to improve village poultry farming: improved habitat, health coverage, marketing mainly through training, organisation, etc.

In the poultry farming that is traditionally practised, the habitat is the main problem, because it is cramped, poorly aired and not large enough in height, which makes it difficult to clean. The dietary supplement given to the birds essentially consists of termites and cereals. However, it is not guaranteed that these foods will be available in sufficient quantities. Moreover, the cost and limited quantities of the ingredients that make up the foods (abattoir waste, fish flour, minerals, etc.), as well as the supply restrictions, limit their use in villages. In the case of Witiguè and Pèlla, the rural inhabitants are never able to keep the birds in coops (this applies in particular to women, who are not entitled to build them), and the birds are usually left to roam free due to a lack of basic facilities.

In each of the villages mentioned, the first year saw 50 people benefit from the first course of training on improved village poultry farming. The training covers topics such as building coops, buying birds, feeding them and taking care of their health. When the

training has been completed, the project ensures monitoring of coop construction and the health of the birds.

The project consultancy resulted in the construction of a type of improved chicken coop made out of local materials. Awareness has also been raised about the use of other additional sources of food that can easily be found in the area.

The village of Wétigué has set up a group that is recognised as a professional agricultural organisation of poultry farmers from Wétigué and managed by a seven-member committee. There are three poultry farmers' organisations in the village of Pèlla.

The members of these organisations are mostly women. In each village, a number of both men and women have been selected and trained as community vaccinators in order to monitor the health of the birds. The members of the organisations express their needs in terms of treatments and ask the vaccinators to provide the products requested.

When it comes to selling poultry-farming products, travelling buyers usually do the rounds and purchase the birds at extremely low prices that do not stimulate business. As a result, women have no alternative and are forced to sell. In this context, the project has introduced an element of support to the sale of poultry-farming products, and helps the organisation's committee to arrange small-scale fairs that enable them to do better deals.

An analysis of how the women's groups and the committee function shows that the groups are still relatively new and require assistance to strengthen their abilities in order to obtain better results with regard to:

- their organisation and functioning, in order to hold regular meetings and improve participation and abilities;
- their administrative and financial management, in order to develop management tools and regularly draw up meeting minute books;
- good governance, in order to ensure transparency in financial and material resource management;
- management skills, with a view to developing economic initiatives and other alliances.

Including a gender perspective

The project was intended for women from its inception. Of the 50 people trained in each village in its first year, more than 75 per cent were women. For example, in Pèlla, two of the three poultry-farming groups were all-women associations, with 17 and 27 members respectively, while the other group was mixed and had 32 members.

This practice provides the opportunity to do an income generating activity aimed at women. The women use this income to buy food and meet their families' education and health needs. However, the results for women are diminished, since they do not have total control over the activity. Although they take care of the birds (vaccination and food), the sales are made by both women and men. This means that the income is controlled by both men and women, whereas the women must do all the work and look after the animals.

5.3 Project 3: Women's mini-farm in Gnagna

| | |
|---|--|
| Project name | Sustainable agro-pastoral production support project in the province of Gnagna. ⁶² |
| The good practice involved | Women's mini-farm in Gnagna |
| Justification for the good practice | A mini-farm is a system that integrates the use of technology to boost adaptation to climate change and improve yields from agro-pastoral production, with the implementation of income-generating activities that enable women to have resources that allow them to participate more in the project activities and ensure the sustainability of these activities when the project comes to an end. It mainly involves a cattle credit facility, which provides an alternative way of reducing households' vulnerability to the effects of climate change that put harvests at risk. |
| Duration and execution period of the project | January 2008 to December 2010 (3 years) |
| Main organisation | SOS Sahel, FIIMBA |
| Main stakeholders | SOS Sahel, FIIMBA |
| Location | Province of Gnagna |
| Number of participants (women/men) | The Fiimba association has 8,000 members, of whom 7,752 are women, and 190 member groups. All members benefit from the entire range of activities carried out as part of the project, except for the credit facility, which is available to 50 chosen organisations, each with 10 recipients. |

The mini-farm is an initiative that is carried out within the framework of the project designed to provide support to agro-pastoral activities and to fight poverty and food insecurity in the province of Gnagna.

The project is made up of three components:

- The equipping component, which includes help with the construction of *zai* pits, stone walls and half moons, support in terms of improved seeds and soil fertilisation, and support in building and stabilising manure pits for the production of organic fertiliser.
- The micro-credit component, which consists of a loan of 175,000 FCFA to each woman for cattle-related activities (buying calves, fattening them up and selling them after six months).
- The contract reforestation component, which is aimed at anyone who voluntarily undertakes to reforest land and maintain the reforested land for two years. After two years, a sum of money is awarded based on an assessment of the survival rate.

The term 'mini-farm' refers to a family farm where agricultural activities are carried out using various techniques (*zai* pits, half moons, stone walls, manure pits) and farming and livestock activities are integrated so that the cycle is not interrupted.

The support provided for the project consists of advice, technical monitoring, training, the provision of water- and soil-conservation equipment and water-transportation equipment kits (water trolleys, shovels, wheelbarrows, picks, etc.), transportation of stones, cattle credit, and the stabilisation of manure pits with cement.

The Fiimba association, which is carrying out the project, was founded in 1996 and has 8,000 members, of whom 7,752 are women. It is made up of 190 groups, spanning seven municipalities within the province of Gnagna. All members benefit from the entire range of activities carried out as part of the project, except for the credit facility, which is available to 50 chosen organisations, each with 10 recipients. The loan facility is now entering its third year, and some women have received two or three separate loans after repayment, if they have a warehouse that can house a cow shed; have sufficient stocks of fodder; are a member of the Fiimba association and have an account.

The repayment term of the loans is six months. Once the selection has been made, the women receive training in how to carry out the activities before they receive the loan.

On the farm, the head of the family and the chosen woman gather stones. The project provides them with a lorry to transport the stones to their plots. The women who have already received training help to construct the stone walls, with support from the local project leader. The men help them to build the warehouse and excavate and stabilise the manure pit.

Thanks to these women, the family receives cement to use for stabilisation and basic equipment (cart, pick, hammer, crowbar). A vet based at the Fiimba headquarters takes care of the cows' health, while the project team's livestock experts provide advice on matters such as choosing, looking after and feeding the animals.

This practice is useful in that it involves an effort to integrate agriculture and livestock. In fact, rearing cattle produces the raw material needed for the manure pit. The produce from the pit is spread over fields fitted with stone walls, resulting in better agricultural yields. The leftovers from the harvests are in turn used to feed the cattle. There is also an increase in the surface area cultivated, thanks to water and soil conservation techniques, *zai* pits and half moons.

Analysis of how the project functions and inclusion of the gender perspective

The project is influenced by Fiimba, which has 8,000 members, including 7,752 women. Fiimba was founded in 1996 and is made up of 190 groups, spanning all seven municipalities within the province of Gnagna. An analysis of women's group 'Toodi Yaaba' (which means 'let's help each other') shows that it is a medium-sized organisation. It has 32 members, of whom only five are literate.

An analysis of Fiimba reveals that it functions well, with clear provisions to govern the life of the organisation; the implementation of a decision making process, a system of democratic control and information flows; a process for planning, executing, monitoring and assessing the implementation of actions in time and space; a system for mobilising and managing material and financial resources that functions transparently; permanent collaboration with member groups; and an ongoing search for solutions. The fact that the organisation functions well means that the rate of repayment of loans given to its members is high (87 per cent) and agreements are signed with Ghanaian cattle buyers, thanks to the support provided by the project, to provide 75 head of cattle each month.

This project does not include a gender perspective, since its impact on women is mainly negative. The end result is that men reap the benefits, at the cost of an excessive workload for women. The project's target group consists mainly of women, but the activities it supports and facilitates (cereal growing and cattle rearing) are controlled and managed by men.

Women receive training in how to carry out certain water and soil conservation (WSC) techniques and are responsible for repaying the loan, but it is the male head of the family who benefits the most from the project. The WSC work is aimed at the family cereal-growing farm, which is owned by the men. Therefore, the men benefit from the WSC work carried out by the women, as well as the organic fertiliser the women have produced, while also controlling and making all the decisions about the cereal growing and controlling the profits from cereal sales.

As far as credit is concerned, the women receive a loan with which to buy calves. They are the ones responsible for rearing the cattle, but it is the male heads of the family who make the decisions and control the income from sales, since it is the husbands or grown-up sons who go to the market to buy the animals, and the husbands decide when and at what price to sell. Women have no control over this activity or the income it produces.

5.4. Results and impacts of adaptation practices aimed at women

Improved agricultural production

Measures implemented to adapt agriculture to climate change that target men aim to improve the production of cereals intended for human consumption. Using techniques such as *zai* pits, stone walls and the use of fertilisers or short-cycle seeds, farmers manage to obtain better cereal harvests in regions with adverse weather conditions. However, measures of this type are not aimed at women, who do not have access to good-quality land or to legal ownership of the land. The horticulture practised by some women is carried out on plots of land allocated to them by their husbands (normally the less fertile land) and in these cases they do not use specific adaptation techniques.

There is only one of the practices identified, the mini-farms in Gnagna, in which women receive some inputs and the technical training and support they need to apply soil-conservation techniques, and even then these techniques are implemented on the family cereal farm, which is owned by the male at the head of the family.

Food security for families

The entirety of the income women earn from their productive activities is used to meet the family's needs, the main one being food. The men provide the cereals, meaning that the head of the family gives the women a cereal ration for the family for a specified period, and the women are responsible for processing the cereals into flour and making the food with sauce or other ingredients (this means providing all the food, except the cereals, all year round). A higher income therefore allows women to buy the food they need.

Reduced vulnerability for women

Women are vulnerable for various reasons: a heavy dependency on the natural resources most affected by climate change; a lack of access to and control over the main resources (lack of access to land ownership, a good education, agricultural training, the appropriate tools or other inputs, credit, etc.); their excessive workload and responsibilities, which do not give them time to receive training and become better informed about climate change and its consequences; and their lack of participation in decision making at all levels (family, community, regional and national), which means that their specific needs are not taken into account. In this sense, some practices produce positive results, because they give women improved access to resources such as tools and training. Belonging to an association makes it easier for women to obtain credit.

Moreover, some projects have an impact in terms of participation. Women's participation in the community increases when they are affiliated with an organisation in order to carry out a productive activity, since organisations are consulted when community decisions have to be made. However, it should be pointed out that these women do not always participate in resource management. Women who belong to an organisation and contribute resources also see their position within the family improve, and the men consult them more often on decisions that affect the family.

However, the improved participation of women in making some family or community decisions is the result of their contribution to the family income, although it is not considered one of the goals of the projects. These initiatives do not seek to create a balance of power between men and women as decision makers, or to transform power relations, but to improve families' economic, food and health situation.

It is worth noting that the approach used when formulating and executing the projects in question was 'Women and Development' (W&D) rather than 'Gender and Development'

(G&D). The projects relegate women to a position of beneficiaries and retain a stereotypical vision of the reproductive role of women.⁶³ W&D focuses on meeting women's practical or immediate needs, as well as satisfying the needs of the family through the work done by women. The goal is to integrate women into the existing development process so that they can benefit and enable better community development. None of the practices adopts the G&D approach, which seeks to meet women's strategic (and longer-term) needs of emancipation, power, access and control. This approach seeks equal development for men and women by transforming power relations.

Without the integration of a gender-based approach, projects may even have a negative impact, as is the case with the mini-farm in Gnagna. This project accentuates the inequality between men and women, since the end result is a positive outcome (in both economic and power terms) for men, but an excessive workload for women. This project is essentially aimed at women, but by supporting activities that are controlled and managed by men (cereal production and cattle rearing), it prevents women from having more control.

Lastly, women still do not have access to other important resources, such as land ownership and information about climate change. They still do not have control over the different types of capital, and men continue to control their income.

6. CONCLUSION AND RECOMMENDATIONS

Despite the risk Burkina Faso faces in terms of the effects of climate change, and the evidence about the direct impact on women's livelihood in rural areas, the country's plans and policies on climate-change adaptation and rural development have not had any effect on the structural causes of women's vulnerability.

The activities carried out by women to meet their families' needs are dependent on natural resources (water, soil, forests), which means that the degradation of these resources puts their subsistence strategies at risk. Moreover, they do not have access to or control over much of the capital that can help them to adapt to changes (access to land ownership, education and agricultural training, appropriate tools or other inputs, and participation in decision making processes), and the plans and policies do not incorporate changes in this sense.

There are not many current adaptation practices aimed at women in Burkina Faso, since most of these projects target men. The projects aimed at women focus on diversifying income generating activities: they seek to offset lost cereal harvests with other productive activities. An analysis of these practices shows that, in the majority of cases, the gender-based approach is not applied consistently throughout, and some practices even have a negative impact on women: excessive workload, loss of control over capital and income.

In light of all these points, this report sets out the following recommendations with a view to taking into account women's vulnerability in climate change adaptation:

At institutional level

- Involve rural communities, especially women, in the planning and carrying out of climate change adaptation initiatives in development and adaptation plans and policies.
- Develop awareness and information campaigns about climate change and its effects, aimed at inhabitants of rural areas.
- Promote awareness raising and training among those involved in rural development (at national, regional and local levels) with regard to the specific impact that climate change has on women.
- Involve rural communities, and women in particular, in the sustainable management of resources such as water and forests.
- Promote adapted farming systems, the use of water- and soil-conservation techniques, reforestation and sustainable resource management.
- Improve women's access to land ownership; develop awareness raising programmes on the matter within communities and among those involved in development at local, regional and national levels. Promote the amendment of laws to grant women the right to ownership.
- Promote women's access to agricultural-extension services and training on farming adaptation techniques. Improve women's access to credit and the inputs needed to increase agricultural yield.
- Promote access for both men and women farmers to information about the climate, including weather forecasts, so that they can decide on the best time to plant seeds.
- Promote suitable frameworks and tools for analysing interactions between climate change and development, with a view to consistently incorporating climate change into planning at national, regional and local levels.
- Support a long-term assessment of the NAPA and the rewriting of a programmatic, fairer and gender-sensitive NAPA.

At organisational level

- Work on identifying and eliminating factors that limit women's capacity to adapt. Give women training so that they can develop their adaptation skills, and promote medium- and long-term strategic changes in order to achieve greater gender equality.
- Promote participation by women in the planning and carrying out of adaptation measures so that their needs and priorities are taken into account.
- With regard to adaptation, work on adaptation measures with a view to responding to known risks (heavy and irregular rain and extreme events) and information on weather conditions (rainfall measurement) so that people can be better prepared.
- Promote women's access to adaptation techniques: water- and soil-conservation techniques, use of improved seeds, diversification of crops, composting and horticulture.
- Strengthen women's organisations in rural communities and support their participation in the planning and carrying out of adaptation measures so that their needs and priorities are taken into account. Promote active participation in community decision making.
- Develop credit and storage systems to support families during the period in between harvests so that they do not have to sell their capital to buy food when market prices are higher.

APPENDIX: SUSTAINABLE LIVELIHOOD METHODOLOGY

In line with the study's objectives, the following questions were identified:

1. What **climatic changes have been observed**? What events or disasters are most frequently associated with the climate? How often do they occur and how intense are they?
2. What **means and strategies** are used by men and women who make their living from farming?
3. What are the **power relations** in rural households and **how are tasks, roles and responsibilities divided** between the sexes?
4. What are the **gender factors** that have an influence on livelihoods in a context of vulnerability?
5. How do continuous climate change and extreme events affect **livelihoods and relations between men and women**?
6. What **adaptation measures are used** by women farmers?

Sustainable Livelihoods Approach – SLA

The approach used in this study is the Sustainable Livelihoods Approach (SLA). This approach is based on the analysis of capital (natural, physical, human, social and financial), access to and control over it, and the strategies used by families and their members to meet their needs and prosper. A livelihood is considered sustainable when it is capable of resisting and overcoming external tensions and shocks, while simultaneously maintaining and improving skills and assets without damaging existing natural resources.⁶⁴ This study analyses how and to what extent climate change has an impact on capital and access to it by women.

This methodology enables us to analyse the ways of life of the people, organisations and families that make a living from agriculture in Burkina Faso; it places people at the heart of the study and asks the following questions: How are families organised? What impact does climate change have on livelihoods, families' ability to maintain or improve their capital, and their access to capital? What adaptation and recovery strategies are employed after a climatic shock (such as droughts or floods)?

Families' livelihoods are defined by a number of factors, which is why it is important to consider the following aspects.

Vulnerability: this refers to factors that may have an impact on families' livelihoods, giving rise to a risk of loss of capital or limiting access to capital. In this case, vulnerability is analysed based on the elements of climate change that may affect families' activities and capital. Both gradual changes (such as increasing temperatures, reduced rainfall, seasonal variations and water scarcity) and more intense shocks and natural disasters (such as droughts and floods) were reviewed. There are also other factors that influence families' vulnerability, such as population growth, the degradation of soil and other natural resources, etc.

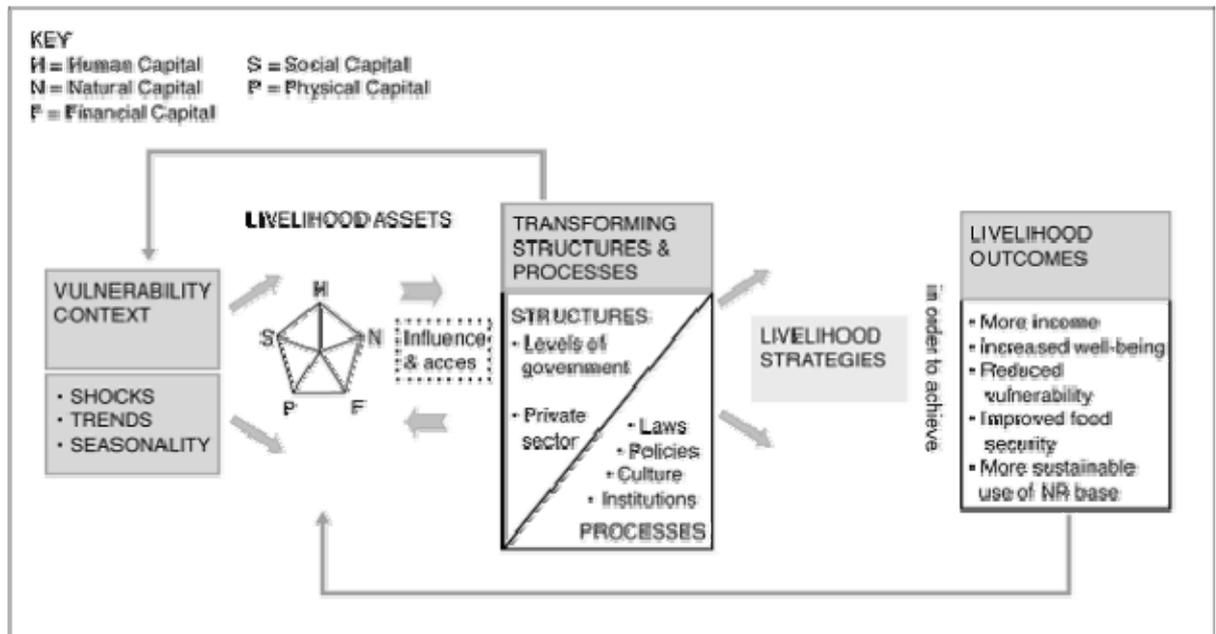
Capital: this is the collective name for the material and non-material resources that families use in order to live and prosper. Capital can be physical (livestock, land, housing, tools, equipment or machinery, roads, etc.), natural (water, forests, farming soil), financial (income, savings, loans), human (education, health) or social (membership of an association, community networks).

Livelihood strategies: this refers to all the activities and choices carried out by stakeholders in order to meet their goals (for example, productive activities, investment or saving strategies, membership of organisation or associations, family relations, division of work within the family and distribution of roles, etc.). Strategies for adapting to external

shocks, which are of a temporary nature, were also analysed. These strategies are temporary because their objective is to overcome the shock by attempting to minimise damage to livelihoods.

Policies and institutions: this section is examined in more detail in the document 'Women, Agriculture and Adaptation in Burkina Faso: Plans and Policies', another component of the study, which examines the coherence and structure of national and regional plans, programmes and policies on farming, as well as national and regional adaptation to climate change.

Figure 1: Sustainable Livelihoods Chart



Source: DFID 2001: livelihoods@difd.gov.uk

Gender analysis

On the other hand, the sustainable livelihoods approach was also combined with gender analysis when collecting and processing data, since the aim of this study is to analyse the impact of climate change on women in Burkina Faso's agricultural sector. Livelihoods are not the same for men and women, and their roles and responsibilities differ from one case to the next. Each family divides up the various roles and establishes power relations that affect men and women in different ways. Women have access to different types of capital to men. Their needs and priorities are not the same, which means that their vulnerability to external shocks and the effects of these shocks are also different.

The following table drawn up by the Institute of Development Studies (IDS) was used to gather basic information on the communities in question.

Table A1: Questions and topics for gathering gender-analysis data

| Questions | Aspects to take into account |
|--|---|
| <p>Roles and responsibilities</p> <p>Which <u>activities</u> are carried out by men and women?</p> <p>Which <u>activities</u> are men <u>responsible</u> for? And women? When are these activities carried out (all year round, seasonal, at specific times)? Where are they carried out?</p> | <ul style="list-style-type: none"> - <u>Productive</u> roles (paid work, farming and subsistence farming) - <u>Reproductive</u> roles (domestic chores, children's education, caring for elderly and sick people, feeding the family) - <u>Community</u> activities (participation and decision making in the community) |
| <p>Capital</p> <p>What <u>types of capital</u> do men and women have <u>access</u> to (ownership rights)?</p> <p>What <u>difficulties</u> are encountered when <u>accessing</u> this capital?</p> | <p>Human, physical, natural, social and financial <u>capital</u>.</p> |
| <p>Power relations and decision making</p> <p>Which <u>decisions are controlled</u> by men and by women in the home? In the community? Which decisions do men participate in? And women?</p> | <ul style="list-style-type: none"> - <u>Decision making in the family</u> (about family expenditure, the children's education and future, etc.) - <u>Decision making in the community</u> |
| <p>Needs</p> <p>What are men's most important needs? And those of women?</p> | <ul style="list-style-type: none"> - 'Practical needs' (needs within the existing division of roles and responsibilities) - 'Strategic needs' (changes needed to create a situation of balance and equality/fairness between men and women) |

Source: Oxfam, based on the framework drawn up by the IDS (www.genie-ids.ac.uk)

The information obtained during the interviews and community visits was combined with the data obtained during the bibliographic review.

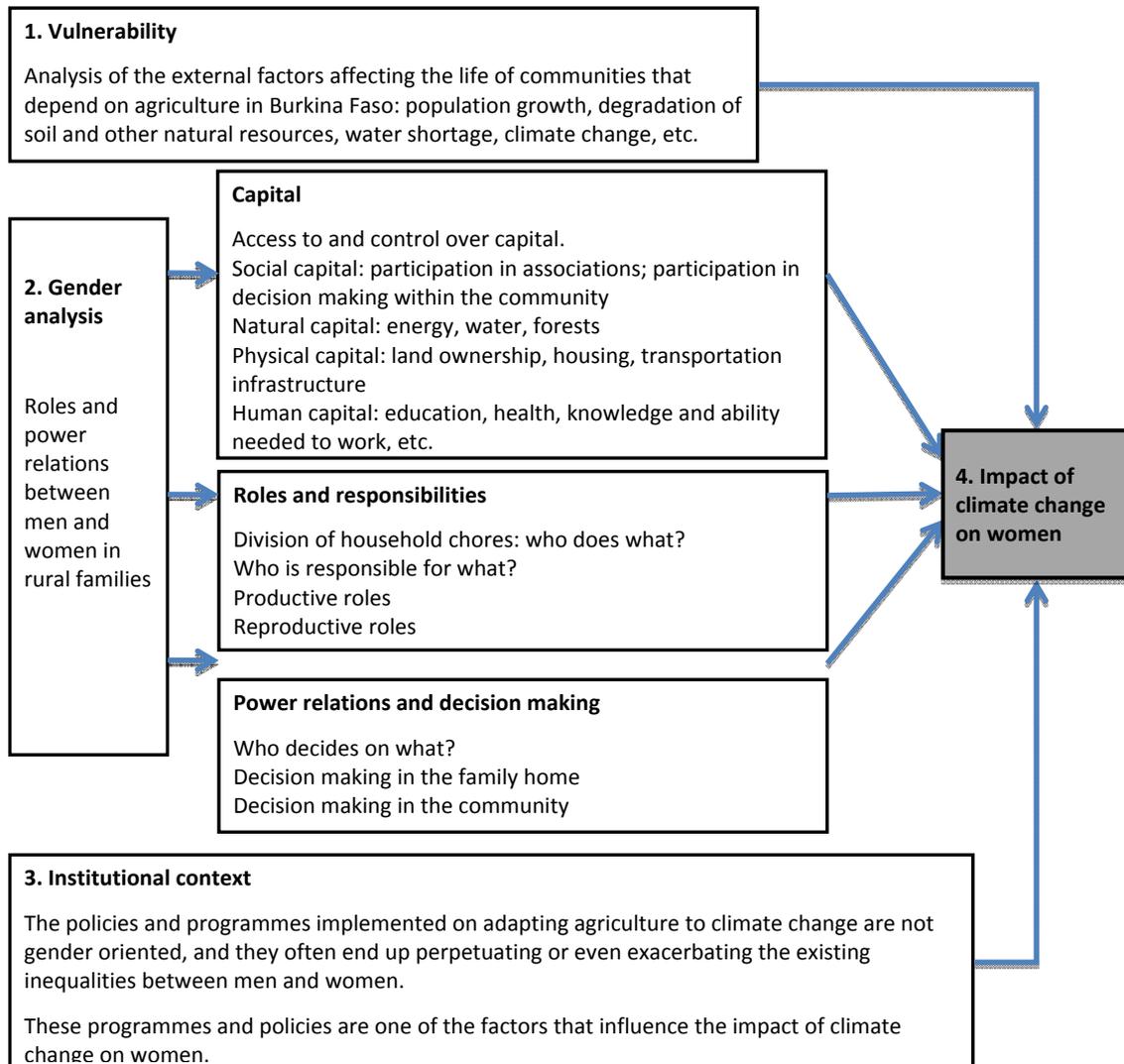
This analytical framework enabled us to analyse the situation of women in Burkina Faso's agricultural sector: their resources and abilities, opportunities, needs and priorities. Power relations, as well as the division of household chores between the sexes, determine the strategies used by men and women. Climatic changes and events are additional factors that define rural women's vulnerability.

The analysis of the SLA and the level of vulnerability enabled us to identify the strategies used by families in the agricultural sector in Burkina Faso, as well as the external factors that have an impact on their lives (continuous climate change, shocks and natural disasters such as droughts and floods, degradation of natural resources, water shortage).

On the other hand, gender analysis enabled us to learn about the structural vulnerability facing women and their specific vulnerability to external shocks. Power relations and traditions influence the division of household chores, as well as women's access to the main types of capital; they restrict certain fundamental rights, such as the right to land

ownership. These aspects have an impact on women's capacity for resistance to and recovery from climate change.

Chart 1: Methodological approach of the study



Source: Oxfam/UNDP Vietnam ('Responding to Climate Change in Vietnam: Opportunities for Improving Gender Equality' 2009) and internally prepared information

BIBLIOGRAPHY

African Development Bank. 2010. 'Assessing Progress in Africa toward the Millennium Development Goals'. African Development Bank and UNDP/Regional Bureau for Africa. New York.

Agrhymet. 'Climate Change in the Sahel'. Agrhymet Regional Centre/Permanent Interstate Committee for Drought Control in the Sahel.

Ashley, C. 2000. 'Applying Livelihood Approaches to Natural Resource Management Initiatives: Experiences in Namibia and Kenya'. ODI Sustainable Livelihoods Working Paper, n° 134. Overseas Development Institute. London.

Black, R., Skeldon, R., Murata, A., Kniveton, D., Coppard, D., Schmidt-Verkerk, K. 2008. 'Demographics and Climate Change: Future Trends and their Policy Implications for Migration'. University of Sussex/Development Initiatives. Wales.

Brody, A., Demetriades, J. and Esplen, E. 2008. 'Gender and climate change: mapping the linkages'. BRIDGE, Institute of Development Studies. University of Sussex. Brighton.

Campbell, B., Mitchell, S. and Blackett, M. 2009. 'Responding to Climate Change in Vietnam. Opportunities for Improving Gender Equality'. Oxfam – UNDP Vietnam. Hanoi.

CILSS. 2008. Evaluation des impacts biophysiques et socioéconomiques des investissements dans les actions de gestion des ressources naturelles au Nord du Plateau Central du Burkina Faso. Summary Report, May 2008.

CILSS. 2009. Rapport de l'atelier international sur l'adaptation de l'agriculture aux changements climatiques en Afrique de l'Ouest Ouagadougou, Burkina Faso.

DANIDA. 2008. Appréciation des Impacts des Changements Climatiques sur les Programmes de Développement de la Coopération Danoise au Burkina Faso. Programme d'Action Climat et Développement. 104. Dan.4-52-9-2, June 2008.

Denton, F., Masika R. 2002. 'Climate change vulnerability, impacts, and adaptation: why does gender matter?' Oxfam GB. Oxford.

DFID. 1999. 'Sustainable Livelihoods Guidance Sheets: Framework'. DFID. London.

Ducommun, G., Cecchini, H., Ouedraogo, S. and Bengaly A. 2005. Commercialisation vivrière paysanne, marchés urbains et options politique au Burkina Faso. Rapport final de synthèse. HESA / CEDRES.

EarthTrends Country Profile: Burkina Faso. EarthTrends 2003. http://earthtrends.wri.org/country_profiles/

ECHOS. 2009. L'adaptation des agriculteurs aux changements climatiques. Bulletin pour les partenaires des radios rurales internationales. December 2009, No. 89.

Economic Commission for Africa. 2008. 'Climate change: African Perspectives for a Post-2012 Agreement'. United Nations Economic and Social Council. Economic Commission for Africa. Third meeting of experts. New York.

United Nations International Strategy for Disaster Reduction (ISDR). 'Hyogo Framework for Action 2005-2015: Increasing the Resilience of Nations and Communities to Disasters'.

Evenson, R., Siegel, M. 1999. 'Gender and Agricultural Extension in Burkina Faso'. Africa Today 46(1):75–92.

- FAO.** 2010. 'Climate-smart Agriculture: Policies, Practices and Financing for food Security, Adaptation and Mitigation'. Technical input for The Hague Conference on Agriculture, Food Security and Climate Change. FAO. Rome, Oct–Nov 2010.
- FEWS-NET.** 2010. 'Zones et Profils de Moyens de Vie d'Existence au Burkina Faso'. FEWS-Net. USAID. Ouagadougou, 2010.
- DARA Foundation.** 2010. 'Climate Vulnerability Monitor 2010'. DARA and Climate Vulnerable Forum. Madrid/Geneva, 2010.
- IPCC.** 2007. 'Fourth Evaluation Report'. UN Intergovernmental Panel on Climate Change.
- Global Donor Platform for Rural Development.** 2010. 'Agriculture and Climate Change Beyond Copenhagen'. Global donor Platform for Rural Development. Bonn, 2010. www.donorplatform.org
- Gurung, J.** 2006. 'Gender and Desertification'. IFAD Technical Network. Rome, 2006. http://www.ifad.org/pub/gender/desert/gender_desert.pdf.
- Hedger, M.,** Greeley, M., y Leavy, J. 2008. 'Evaluating Climate Change: Pro-poor Perspectives' in Thomas Tanner and Tom Mitchell, 'Poverty in a Changing Climate'. IDS Bulletin no. 39. Institute of Development Studies. University of Sussex. Brighton.
- Hulme, M.,** Conway, D., Kelly, P., Subaks, S., and Dowing, T. 2001. 'The Impacts of Climate Change on Africa'. Centre for Social and Economic Research on the Global Environment (CSERGE). University of East Anglia and University of Oxford. Oxford.
- Intermón Oxfam.** 2008. 'The Sustainable Livelihoods Approach'. Barcelona.
- Kandki T.S,** Verchot L. and Mackensen J. 2006. 'Climate Change and Vulnerability in the Sahel Region: Impacts and Adaptation Strategies in the Agricultural Sector'. World Agroforestry Centre (ICRAF) and United Nations Environment Programme (UNEP). Nairobi.
- Lara, S.** 2004. 'Poverty and Environment: gender makes the difference'. International Union for Conservation of Nature (IUCN).
- Lindskog, P.** and Tenberg, A. 1994. 'Land Degradation, Natural Resources and Local Knowledge in the Sahel Zone of Burkina Faso'. *GeoJournal* Volume 33, No. 4, 365-375, DOI: 10.1007/BF00806418
- Honadia, M.** 2009. Communication sur l'expérience du Burkina Faso en matière de mobilisation de financement pour l'adaptation à la variabilité et aux changements climatiques : le cadre intégré pour des options communautaires d'adaptation. Accra, July.
- Mendelshon, R.,** Dinar, A. and Dalfelt, A. 2000. 'Climate Change Impacts on African Agriculture'. World Bank /Yale University. Washington.
- Ministère de l'Agriculture,** de l'Hydraulique et des Ressources Halieutiques. 2010. Programme Mondial pour l'Agriculture et la Sécurité Alimentaire/Burkina Faso, PMASA/GAFSP/BF. 2011-215, Document de requête. September 2010.
- Ministère de l'Agriculture,** de l'Hydraulique et des Ressources Halieutiques. 2008. Capitalisation des initiatives de bonnes pratiques agricoles au Burkina Faso.
- Ministère de l'Environnement et de l'Eau.** 2001. Etat des lieux des ressources en eau du Burkina Faso et de leur cadre de gestion. Ministère de l'Environnement et de l'Eau. Ouagadougou, Burkina Faso.
- Ministère de l'Environnement et du Cadre de Vie.** 2006a. Evaluation de la vulnérabilité et des capacités d'adaptation aux changements climatiques du Burkina Faso. Rapport provisoire. Groupe d'experts sur les changements climatiques. Ministère de l'Environnement et du Cadre de Vie, Ouagadougou, Burkina Faso.
- Ministère de l'Environnement et du Cadre de Vie.** 2006b. Programme d'action national d'adaptation à la variabilité et aux changements climatiques (PANA du Burkina Faso).

- Ministère de l'Environnement et du Cadre de Vie.** 2007. Programme d'Action National d'Adaptation à la Variabilité et aux Changements Climatiques (PANA du Burkina Faso)». Secretariat Permanent du Conseil National pour l'Environnement et le Développement Durable. Ouagadougou, November 2007.
- Ministère de l'Environnement et du Cadre de Vie.** 2007a. Etude thématique sur les Changements Climatiques. Ministère de l'Environnement et du Cadre de Vie, Ouagadougou, Burkina Faso.
- Ministère de la Promotion de la Femme.** 2009. 'Politique National de Genre de Burkina Faso'. Ouagadougou, 2009.
- NEPAD.** 2002. Programme détaillé pour le développement de l'agriculture africaine.
- NEPAD.** 2005. Plan d'actions régional 2006-2010 pour la mise en œuvre de la Politique Agricole de la CEDEAO (ECOWAP) et du PDDAA/NEPAD en Afrique de l'Ouest.
- Nouaille, C.,** Locatelli, B., Caron, P. y Dingkuhn, M. 2009. ' Changement Climatique et Agriculture' . CIRAD, Direction de la Recherche et de la Stratégie. Paris, 2009.
- Okali, C.** 2006 'Linking Livelihoods and Gender Analysis for Achieving Gender Transformative Change'. FAO. Rome, 2006.
- Olmos, S.** 2001. 'Vulnerability and Adaptation to Climate Change: Concepts, Issues, and Assessment Methods'. (July 2001). Climate Change Knowledge Network. www.cckn.org
- Oxfam GB,** 2010. 'Gender, disaster risk Reduction and Climate Change Adaptation: A learning companion'. Oxfam GB. Oxford.
- Oxfam International.** 2007. 'Adapting to Climate Change: What's needed in poor countries and who should pay'.
- Pasteur, K.** 2002. 'Gender Analysis for Sustainable Livelihoods Frameworks, tools and links to other sources'.
- Pehu E.,** Lambrou Y. and Hartl, M. 2009. 'Gender in Agriculture Sourcebook'. The World Bank, FAO, IFAD. Washington D.C.
- Pettengell, C.,** Sharma, A. and Bailey, R. 2009. 'Beyond help. Adapting to climate change without forgetting about the poor' Oxfam International.
- PNUD-KIBAI,** 2010. Bulletin bimensuel du PNUD Burkina Faso. Number 164. Friday 19 Nov.
- Premier Ministère.** 2004. Document de stratégie de développement rural a l'horizon 2015.
- Programme National du Secteur Rural,** 2010. Plan d'investissement, Burkina Faso. November 2010.
- Prowse M.,** Peskett L., Braunholtz T. 2007. 'Millennium Development Goals, Agriculture and Climate Change'. ODI Opinion. ODI. London, 2007.
- Raj Lejmi B.,** Morcrette A., Paudyal A., Bastakoti R., and Pradhan S. 2010. 'Participatory Tools and Techniques for Assessing Climate Change Impacts and Exploring Adaptation Options'. Livelihoods and Forestry Programme, UKaid. London, 2010.
- Reij C.,** Scoones I. and Toulmin C. 1996. 'The Zaï: a traditional technique for the rehabilitation of degraded land in the Yatenga, Burkina Faso. Sustaining the Soil; Indigenous Soil and Water Conservation in Africa'. London: Earthscan. 264 pp.
- Reij C.,** Tappan G. and Smale M. 2009. 'Agroenvironmental Transformation in the Sahel: Another Kind of Green Revolution'. IFPRI Discussion paper 00914. International Food Policy Research Institute. Washington, D.C., November 2009.
- Renton, A.** 2009. 'Painful evidence: climate change, people and poverty'. Oxfam International Report. 2009.

- Ribeiro, N.** and Chaúque A. 2010. 'Gender and Climate Change. Mozambique Case Study'. Heinrich Böll Stiftung Southern Africa. Cape Town, 2010.
- Sawadogo, J.M.** 2007. 'Coping with less rain in Burkina Faso'. United Nations Africa Renewal. Ouagadougou, 2007.
- SIDA.** 2004. 'Towards Gender Equality in Burkina Faso'. SIDA. Department for Policy and Methods. Stockholm, March 2004.
- Somda, C.** 2007. 'Approche Genre au Burkina Faso'. Association pour l'Aide et Développement Agricole et l'Autonomie de l'Afrique (ad3a). Ouagadougou, 2007.
- SOS-SAHEL.** 2009. 'Désertification, changements climatiques et adaptation. Expérience de SOS Sahel International au Burkina Faso'. SOS-Sahel. Ouagadougou, 2009.
- SOS-SAHEL.** 2009. 'Désertification, changements climatiques et adaptation. Expérience de SOS Sahel International au Burkina Faso'. SOS-Sahel. Ouagadougou, 2009.
- Traoure L.B.** 2004. 'Vulnérabilité et Adaptation aux Changements Climatiques dans le Secteur de l'Agriculture'. UNFCCC. Bonn, 2004.
- IUCN,** 2010. Inventaire des cadres et outils d'analyse changement climatique et pauvreté au Burkina Faso. Provisional version.
- Ulsrud K.,** Sygna L. and O'Brien K. 2008. 'More than Rain: Identifying Sustainable Pathways for Climate Adaptation and Poverty Reduction'. The Development Fund. Oslo, 2008.
- UN FCCC.** 2007. 'Impacts, Vulnerabilities and Adaptation in Developing Countries'. UN FCCC- United Nations Framework Convention on Climate Change. Bonn.
- UNEP/WMO.** 2001. 'Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change'. Intergovernmental Panel on Climate Change. UNEP/WMO. Geneva.
- UNISDR.** 2010. 'GAR (Global Annual Report) 2010'. United Nations International Strategy for Disaster Reduction. Geneva.
- West, C.T.,** Roncoli, C. and Ouattara F. 2007. 'Local Perceptions and Regional Climate Trends on the Central Plateau of Burkina Faso'. Institute of Social and Economic Research, University of Alaska, Climate Forecasting and Agricultural Resources Project, University of Georgia, Direction Générale de la Météorologie de Burkina Faso.
- World Bank.** 2007. '2008 Report on Global Development: Agriculture for Development'. Global Bank. Washington, D.C.
- WRI.** 2009. 'The National Adaptive Capacity Framework: Key Institutional Function for a Changing Climate'. Washington, D.C., 2009.

NOTES

1 DANIDA. 2008. *Appréciation des Impacts des Changements Climatiques sur les Programmes de Développement de la Coopération Danoise au Burkina Faso*. Programme d'Action Climat et Développement. DANIDA. 2008.

2 www.intermonoxfam.org

3 Statistiques du Burkina Faso - The World Factbook - <https://www.cia.gov>

4 www.fao.org/countries/55528/fr/bfa/

5 DANIDA. 2008. *Op. cit.*

6 www.napa-pana.org/files/workshops/burkina/12_Some_Etude_de_cas_Burkina.pdf

7 *Zai* is a cultivation technique that makes water and organic fertilisers more concentrated and optimises their use; the water and fertilisers are placed in a pit dug into the ground, where cereal seeds are planted. During the dry season, farmers dig pits 30-40 cm wide and 10-15 cm deep. Just before the rainy season starts, organic material is placed in each pit and covered with soil. This organic material attracts termites, which dig tunnels, improving water and oxygen penetration. Several seeds are then planted in each pit.

8 The construction of stone walls is a technique used to improve rainwater retention. The walls are made out of rows of small rocks. This method of soil conservation enables the water that accumulates on the surface of the ground to circulate more slowly when it collides with the stone wall, resulting in a better rate of infiltration. Another way of doing this is to incorporate all the material swept away by the rain into the soil.

9 Programme d'action national d'adaptation à la variabilité et aux changements climatiques

PANA du Burkina Faso <http://unfccc.int/resource/docs/napa/bfa01f.pdf>

10 DANIDA. 2008. *Appréciation des Impacts des Changements Climatiques sur les Programmes de Développement de la Coopération Danoise au Burkina Faso*. Programme d'Action Climat et Développement; GIEC. 'Fourth Evaluation Report'. 2007. UN Intergovernmental Panel on Climate Change.

11 www.intermonoxfam.org

12 When the research was carried out on the ground, a number of the farmers interviewed said that before, it was easier to predict when the rains would begin. Now, the beginning of the rainy season is extremely variable and unpredictable. This is one of the main changes in climate observed by those interviewed.

13 Annual rainfall: South-Sudanese Zone - 900 to 1200 mm; North-Sudanese Zone - 600 to 900 mm; Sahelian Zone – less than 300 to 600 mm. In: Programme d'action national d'adaptation à la variabilité et aux changements climatiques

PANA du Burkina Faso <http://unfccc.int/resource/docs/napa/bfa01f.pdf>

14 Statistiques du Burkina Faso - The World Factbook - <https://www.cia.gov>

15 www.fao.org/countries/55528/fr/bfa/

16 Around 80 per cent in 2009 (<http://datos.bancomundial.org/pais/burkina-faso>)

17 www.fao.org/isfp/informacion-por-pais/burkina-faso/es/

18 <http://unfccc.int/resource/docs/napa/bfa01f.pdf>

19 IPCC, Fourth Evaluation Report. www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_sp.pdf

20 Hulme M., Conway D., Kelly P., Subaks S., y Dowling T. 2001. 'The Impacts of Climate Change on Africa'. Centre for Social and Economic Research on the Global Environment (CSERGE). University of East Anglia and University of Oxford. Oxford.

21 www.danidadevforum.um.dk/NR/rdonlyres/7F7E9503-9665-4C19-AF13-879590C5C497/0/BurkinaFaso.pdf

22 IPCC, 2007. Fourth Evaluation Report. www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_sp.pdf

23 http://www.knmi.nl/research/global_climate/

24 *Ibid.*

25 IPCC, 2007. Fourth Evaluation Report. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_sp.pdf

26 www.fao.org/giews/countrybrief/country.jsp

27 Intermón Oxfam internal report, 2010.

28 <http://reliefweb.int>

29 IPCC, 2007. Fourth Evaluation Report. http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_sp.pdf

30 <http://datos.bancomundial.org/pais/burkina-faso>

31 According to UNICEF data, the annual population-growth rate has increased from 2.3 per cent (1990) to 3.3 per cent (2008), compared with 0.9 per cent in Spain (2009) and 1.2 per cent worldwide.

32 <http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2010/>

33 Interministerial council that includes independent experts and civil-society organisations.

34 Ouoba, R., Tani, M., et Toure, Z. 2003. 'Analyse Stratégique des Enjeux Liés au Genre au Burkina Faso'. Ouagadougou, 2003.

<http://siteresources.worldbank.org/EXTAFRREGTOPGENDER/Resources/BurkinaFasoSCGA.pdf>

35 The average size of the plots of land given to women to work is 0.25 ha, compared with 2.5 ha for the land controlled by men; moreover, this land is usually less fertile or has been left fallow. (Ouoba, 2003)

36 (see note 7)

37 (see note 8)

38 SIDA. 2004. 'Towards Gender Equality in Burkina Faso'. SIDA. Department for Policy and Methods. Stockholm, March 2004.

[http://lnweb90.worldbank.org/Caw/CawDocLib.nsf/vewAfrica/A4A9090DAC3381848525706100313AC0/\\$file/GP+Burkina+Faso,+english.pdf](http://lnweb90.worldbank.org/Caw/CawDocLib.nsf/vewAfrica/A4A9090DAC3381848525706100313AC0/$file/GP+Burkina+Faso,+english.pdf)

39 'Etude Diagnostique sur les Inégalités de Genre dans les zones d'Intervention du Programme Moyens d'Existence Durable' (diciembre, 2010). Intermón Oxfam.

40 'Etude Diagnostique sur les Inégalités de Genre dans les zones d'Intervention du Programme Moyens d'Existence Durable' (diciembre, 2010). Intermón Oxfam.

41 SIDA, 2004.

42 *Ibid.*

43 Ouoba, R., Tani, M., et Toure, Z. 2003.

44 Evenson, R., Siegel, M. 1999. 'Gender and Agricultural Extension in Burkina Faso'. *Africa Today* 46(1):75-92.

<http://www.accessmylibrary.com/article-1G1-54473637/gender-and-agricultural-extension.html>

45 www.amnesty.org/fr/news-and-updates/report/pregnant-women-burkina-faso-dying-because-discrimination-20100127

46 'Etude Diagnostique sur les Inégalités de Genre dans les zones d'Intervention du Programme Moyens d'Existence Durable' Intermón Oxfam. December, 2010.

47 According to the study 'Towards Gender Equality in Burkina Faso', which was carried out by SIDA in 2004, there are four cases: 1) In the first case, the women participate in all farming activities on the family farm, as well as working on their personal plot. This is the case for the Mossi, Gourmanche, Bissa and Samo (in the central and eastern regions of the country) and the Bwa, Gouin, Turka, etc. (in the west); 2) In the second case, the men prepare the soil for cultivation and the women take part in the planting and harvesting. They also take care of their personal plot. This is the case for the Bobo, Gourunsi and Senoufo; 3) In the third case, the women do not have a personal plot to cultivate, and instead are responsible for preparing food and drinks for sale on the local market (local beer, soumbala in communities nearest to the forest, etc.). This is the case for

the Dagara and Lobi (in the south east); 4) In the fourth and final case, the women do not work on the family farm. This is the case for the groups that essentially live off animal rearing, such as the Fulani, Rimaible and Bella (in the north). Sometimes the women have a personal plot and also rear animals.

48 SIDA, 2004.

49 Cereals are planted in May and June and harvested in September and October. In bad years or in drier regions, there are sufficient cereals for 6 to 8 months, but as of June the family no longer has any grain in their stock.

50 Campbell B., Mitchell S., Blackett M. 2009. ' Responding to Climate Change in Vietnam. Opportunities for Improving Gender Equality' . Oxfam – UNDP Vietnam. Hanoi.
http://www.oxfam.org.uk/resources/policy/climate_change/climate-change-gender-equality-vietnam.html

51 Somda, 2007. ' Approche Genre au Burkina Faso' . Association pour l'Aide et Développement Agricole et l'Autonomie de l'Afrique (ad3a). Ouagaodougou, 2007.

http://ad3a.com/dossiers/dossiers.php?val=12_les+femmes+burkina+faso

52 <http://unfccc.int/resource/docs/napa/bfa01f.pdf>

53 UNFCCC, 2007. ' Impacts, Vulnerabilities and Adaptation in Developing Countries' . UN FCCC- United Nations Framework Convention on Climate Change. Bonn.
<http://unfccc.int/resource/docs/publications/impacts.pdf>

54 The national broad guidelines for rural development are the result of the debates held during the Joint Review of the sector that took place on 14 and 15 July 2010. As a result of this work, the representatives of the various categories of stakeholders involved in the rural sector set out the following guidelines with a view to promoting sustainable development: (i) the improvement of food and nutritional security and sovereignty in a context of climate change, desertification and demographic growth; (ii) increased income for rural populations thanks to easier access to markets (local, regional and international), the modernisation of family farms, the professionalisation of stakeholders, the processing of products, the diversification and promotion of the agriculture/forestry/livestock, animal and fishing sectors and the emergence of a dynamic private sector; (iii) sustainable development and management of natural resources; (iv) the development of alliances between stakeholders in the rural sector, according to the roles and responsibilities defined and the strengthening of their capacities.

55 www.tanmia.ma/guidegenre/accueil_legenreentheorie_lesbesoinspratiques.htm

56 For more information on the project, please refer to the document: ' Femmes, agriculture et adaptation au Burkina Faso : Analyse de pratiques d'Adaptation dirigées aux femmes' . www.intermonoxfam.org

57 The cultivation of vegetables and some fruits for consumption.

58 Decentralised credit system based on the secure storage of agricultural produce by producers' organisations.

59 Equivalent to 1,830 euros.

60 Equivalent to 107 euros.

61 For further information about the project, please refer to the document: ' Femmes, agriculture et adaptation au Burkina Faso : Analyse de pratiques d'Adaptation dirigées aux femmes' . www.intermonoxfam.org

62 For further information about the project, please refer to the Intermón Oxfam document ' Femmes, agriculture et adaptation au Burkina Faso : Analyse de pratiques d'Adaptation dirigées aux femmes' . www.intermonoxfam.org

63 Women provide food for the family, take care of children and sick family members, are responsible for paying their children's school fees, prepare meals, look for water and wood, harvest and process products for sale on local markets, and feed the livestock.

64 Intermón-Oxfam. ' The Sustainable Livelihoods Approach' . Barcelona, 2008.

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