



# ADAPTIVE FARMS



CANADA-UNDP  
Climate Change Adaptation Facility



*Empowered lives.  
Resilient nations.*

APPE-TEASER  
VERSION!



# RESILIENT TABLES

**Building secure food systems  
and celebrating distinct culinary  
traditions in a world of climate  
uncertainty**



Expanding on this  
short teaser, the  
full publication  
will be available  
in early 2017,  
showcasing more  
delicious recipes





SUDAN

The Canada-UNDP Climate Change Adaptation Facility (CCAF) incorporates six national projects and one global project. Each of the six national projects focuses on strengthening resilient approaches to agriculture and water management, with an emphasis on gender-responsive strategies. These national projects are located in: Cambodia, Cape Verde, Haiti, Mali, Niger and Sudan. In addition, a complementary global component aims to promote south-south cooperation between the six countries and enhance understanding and analysis of these adaptation initiatives, especially the gender dimensions. This global component has three outcomes: i) establishing cooperation and communication among the six national projects, ii) enhancing effective knowledge management on the experiences and lessons emerging from this portfolio, and iii) ensuring that results related to gender are documented and shared to inform broader gender-responsive adaptation practices.

To meet these outcomes, the global component has worked on three areas of activities:

1. Community of Practice: Establish a community of practice amongst the six national project teams to share experiences and lessons learned that will inform and strengthen project activities
2. Substantive Analysis and Knowledge: Analyze and document substantive experiences and lessons learned from the CCAF portfolio and disseminate them to inform adaptation projects both within the CCAF and outside
3. Communication and Outreach: Showcase results and communicate successes of CCAF national projects to the global community

*More information on the CCAF and specific products generated on the activities implemented in the six countries is available at the CCAF website here: <http://adaptation-undp.org/projects/ccaf>*





As the world gets hotter and rainfall more erratic, the type and availability of ingredients for daily meals are changing.

As the world gets hotter and rainfall more erratic, the type and availability of ingredients for daily meals are changing. For some countries these changes are more dramatic; we recognise that climate change has already cut into the global food supply and many communities are struggling to get enough food on their plates. However, there is another story to tell: one of resilience and adaptation.

With support from the Government of Canada and the Global Environment Facility's Least Developed Countries Fund, the Canada-UNDP Climate Change Adaptation Facility (CCAF) has been supporting six least developed countries and small island developing states (Cabo Verde, Cambodia, Haiti, Mali, Niger and Sudan) to strengthen climate resilience and enhance food security. The CCAF is working with rural farmers to improve water access and management, introduce new varieties of crops, and strengthen alternative livelihoods that are not dependent on climate-sensitive natural resources.

Additionally, these efforts contribute directly to the United Nation's efforts to enhance food security and support communities in achieving *Sustainable Development Goal 2: Zero Hunger*.

CCAF activities are also working in all six countries to build gender-responsive resilience to climate change by supporting women to increase food production, diversify their livelihoods and transform gender-based social norms in food production.

To better understand and share the experiences from these six countries, and to celebrate some of the successes of the CCAF projects, this cookbook examines and raises awareness on the links between food security and climate change. The CCAF Cookbook showcases traditional recipes and compares culinary and agricultural traditions across the six countries. It also explores how climate change is impacting specific ingredients and recipes, and how each country's adaptation efforts are changing the ingredients (meals instead?) and cooking methods traditionally used.

Our hope is that the recipes and information provided in this publication will highlight the dynamic and delicious world we live in, and inform and inspire future adaptation.

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UNDP





# FOOD SECURITY

## & CLIMATE CHANGE

As climate change increasingly threatens crop yields, it also threatens food security.

Some of the most fundamental effects of climate change are the negative impacts on food. Changing temperatures, unpredictable rainfall patterns, shorter and more erratic growing seasons, and an increased frequency of extreme events like droughts and floods all directly affect productivity of traditional crops, livestock and fisheries. Many food producers around the world, particularly in developing countries, are rural smallholder farmers, often women. These farmers are dependent on agricultural production for both subsistence as well as income generation. As climate change increasingly threatens crop yields, it also threatens food security.





HAITI

Nonetheless, food production is only one part of this food security equation. The UN Food and Agriculture Organization (FAO) has identified four pillars of food security: Availability, Access, Utilization, and Stability. Climate change will impact all four of these pillars. *Availability* is directly affected when production is impacted. As livelihoods and income generation are negatively disrupted by these same climatic changes, vulnerable communities are less able to *access* the food that is available, without sufficient incomes. Further, climate change impacts *utilization* of food by threatening other non-food inputs to food security, such as access to clean water, sanitation and healthcare. And finally, the unpredictable rainfall patterns, seasonal shifts, and extreme events caused by climate change make the *stability* of food also a challenge.

This is why investing in climate change adaptation is imperative to ensuring food security in these vulnerable communities. The global community has committed to this effort under *Sustainable Development Goal 2 – Zero Hunger*. To reach this goal, we must consider climate-related impacts on food and continue to design and implement resilient solutions, at scale.



CAMBODIA



CABO VERDE





## HOW THE CANADA-UNDP CLIMATE CHANGE ADAPTATION FACILITY IS ADDRESSING FOOD SECURITY

The Canada-UNDP Climate Change Adaptation Facility (CCAF) is implementing adaptation solutions to enhance food security in six least developed countries and small island developing states: Cabo Verde, Cambodia, Haiti, Mali, Niger and Sudan.

. These projects contribute to enhancing resilience of staple crops, diversifying crop varieties, introducing alternative livelihoods that are less dependent on climate-sensitive resources (e.g. livestock rearing, fish farming and juice processing), and adopting resilient water management systems and approaches.

The Canada-UNDP Climate Change Adaptation Facility supports a portfolio of national climate change adaptation projects implemented in Cabo Verde, Cambodia, Haiti, Mali, Niger and Sudan. These projects were initially supported by the Global Environmental Facility's Least Developed Countries Fund (GEF/LDCF). In 2014, these ongoing LDCF-funded adaptation projects in each country received additional funding from the Government of Canada and UNDP to further enhance the adaptive capacity of vulnerable communities, particularly in the context of food security and water management. The CCAF also includes a global component, which acts as an umbrella initiative aiming to document, analyse and share experiences and lessons learned from across the six countries.

For more information, visit the project page at: <http://adaptation-undp.org/projects/ccaf>



These adaptation strategies are proving valuable in increasing *food availability* - through enhanced crop production, ensuring *food and market access* - to increase nutrition and health and strengthen livelihoods and income generation, improving *food utilization* - by introducing clean water and new cooking methods, and sustaining *food stability* - by adapting agricultural practices to the changing conditions providing access to reliable sources of water.

While each country's experiences and adaptation approaches are unique to their local context, CCAF efforts all had a similar focus on not only enhancing food security, but also in generating additional income and diversifying livelihood options.

Positive results are already being seen across all six countries. In Niger, increased yields from crop production are reducing the number of food insecure days, and ameliorating the need to earn additional income to purchase food. This therefore reduces the need for men to migrate for work. In cases where they leave, it is for shorter periods. In Cambodia and Mali, women are enhancing their vegetable gardens to produce a wider variety of crops for families to eat, which helps strengthen nutrition. In Cabo Verde and Sudan, farmers are demonstrating and introducing new varieties of crops that are more resilient to increasingly drier conditions. In Haiti, farmers are developing and implementing

individualised farming plans based on the specific family needs, vulnerabilities and opportunities, to achieve both subsistence food production and income generation.

Through these efforts, CCAF-supported communities have seen significant changes in their food security status. The communities have also reinforced food production and provisioning which has increased income and improved health.

This cookbook represents the fruits of these efforts, restoring food to its position as a celebration of life, local culture, and the environment.



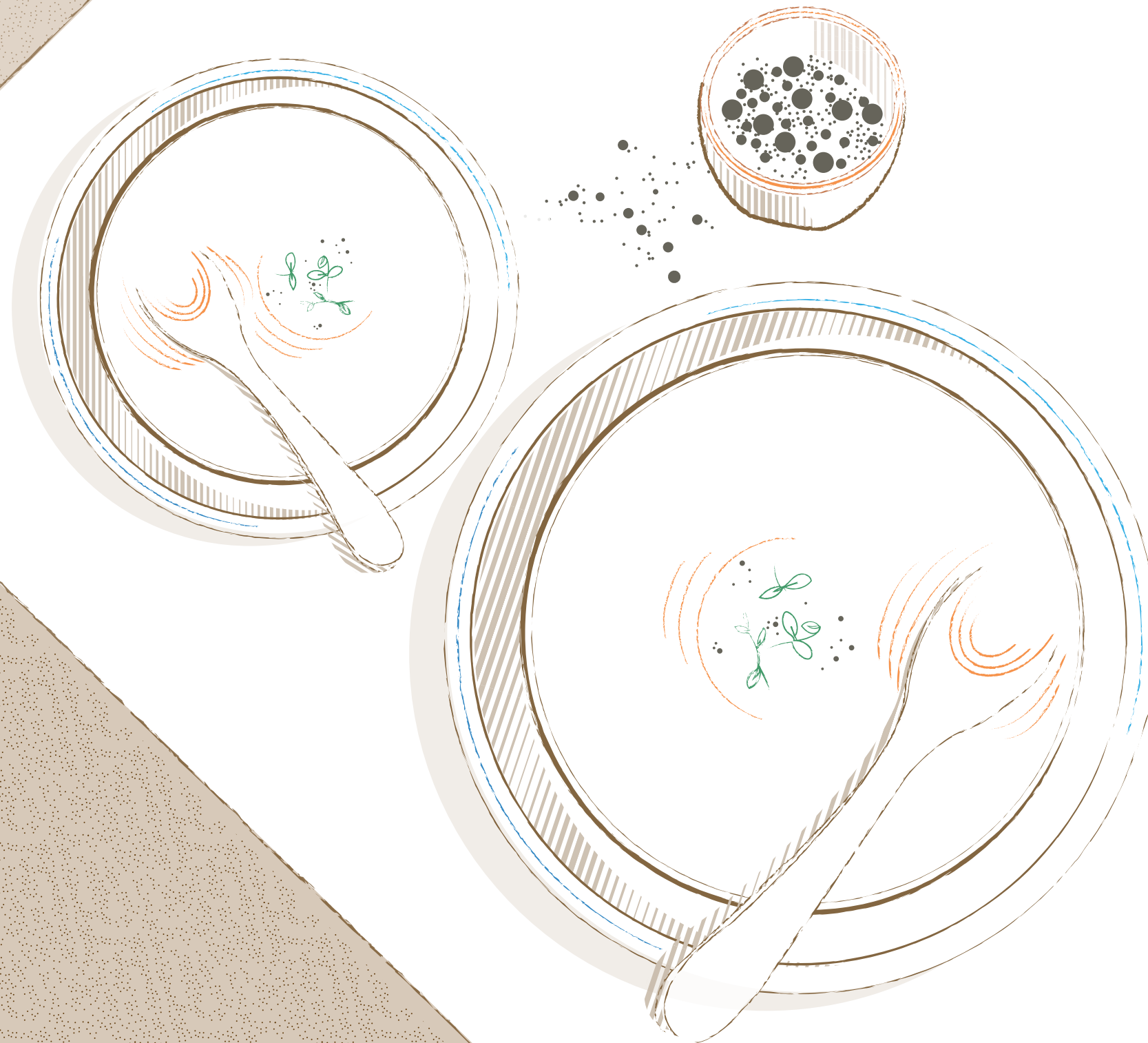
# Bon appétit!





# SOUPS

**RECIPES FROM  
CABO VERDE AND  
CAMBODIA**





# Caldo Peixe

(Fish soup) Cabo Verde

## Ingredients

1 kg (2.2 lbs) grouper fish  
500 g (1.1 lbs) cassava  
2 (400 g, 14 oz) orange flesh sweet potatoes  
2 (250 g, 9 oz) taro root  
4 (350 g, 12 oz) green bananas  
2 (200 g, 7 oz) onions  
2 medium size tomatoes  
1 green pepper  
3 cloves of garlic  
1 bay leaf  
Salt – to taste  
Parsley– to taste  
Cilantro– to taste  
50 ml (3 tbsp) olive oil

## Directions

1. Season the prepared, washed and sliced fish with thinly sliced garlic, salt, green pepper, tomato, onion, bay leaves and chili peppers. Note that the green pepper, onion and tomato should be sliced in rings. Let sit for 30 minutes to season.

2. Meanwhile, peel the green banana, the taro, the sweet-potatoes and the cassava. Slice the banana in half and cut the other ingredients into cubes. A useful tip for removing the peel of the green banana is to place it in a pot with water and boil for 3 minutes. After peeling the slightly-boiled banana let it sit in cold water (prior to starting the soup preparation). The taro should also be peeled and placed in cold water prior to going to the pot.

3. Place the fish with the seasoning ingredients in a saucepan with olive oil and sauté for 3 minutes. Afterwards, remove only the fish from the pan and set aside. The fish should be removed with care in order not to break it. Add the peeled and cubed taro to the pan and simmer, stirring constantly with a wooden spoon. Next, add a liter of water (1 quart) and bring to a boil. When the water starts boiling add the green banana,

sweet potato and cassava. Check for salt and, if necessary, add a little more. Make sure that the liquid in the pan covers all of the ingredients. If not, add water to the same level of the ingredients.

4. When all the ingredients are cooked (you can check with a fork), add the fish that was previously removed and simmer for an additional 5 minutes or until the fish is cooked. Check for salt and turn off the heat. Add the cilantro and parsley and cover the pot for 5 minutes. The fish soup is ready and should be served with rice or xerém.

Caldo Peixe (fish soup) is a traditional Caboverdean recipe made with fish, vegetables and tubers. It is a nutritionally rich dish. The soup can be made with Tuna or other fish, such as, Grouper or Atlantic Bonito. The type of fish used depends on seasonality and personal preference. Caldo Peixe can be served with white rice or xerém (a traditional dish made with cornmeal).

This recipe uses orange flesh sweet-potatoes, which are a high-nutrition crop. They are part of a package of high-nutrition crops that the CCAF project has researched and distributed to the farmers in the project's targeted communities.



# Kako soup

(Samla Kako) Cambodia

## Ingredients

### Green “Kroeung”

- o 30 g (1 oz) of lemon grass (sliced finely); 3 parts leaves to 1 part stalk
- o 1 tbsp of greater galangal (cut small)
- o 1 tsp of turmeric (cut small)
- o 4 garlic cloves
- o 2 shallots
- o Chicken<sup>1</sup> or frog or fish, 250 to 300 g (7-10 oz)
- o 1 tbsp of Prahok<sup>2</sup>

### 400 to 500 g (14-18 Oz) of vegetables and fruits<sup>3</sup>:

green papaya, green banana, green jackfruit, young palm fruit (sliced thinly), pumpkin (cut into cubes), purple eggplant (sliced into cubes), long bean or green beans (cut into 10-cm pieces), pea eggplant (small bunch). And 4 to 6 cups of water.

½ cup of rice (roasted and ground into powder) to make rice powder

Salt

2 tbsp palm sugar

2 tbsp of sauce of water

1 cup of Sesbania leaves and 1 cup of Moringa leaves /

Alternatively you can use spinach or other leafy greens

3 stems of Curry Leaf leaves

2 cups of bitter gourd leaves

## Directions

1. Prepare the Green “Kroeung” by pounding all kroeung ingredients either in a mortar or food processor until a smooth paste consistency. Always add shallots last.
2. Prepare chicken into bite-size pieces.
3. Remove leaves from Sesbania and Moringa stems and place in one bowl – or use spinach.
4. Remove bitter gourd leaves and keep them separately.
5. Fry the “Kroeung” with Prahoc in vegetable oil in a large pot over medium-low heat.
6. When the sauce turns green and the aroma intensifies, add chicken, salt, palm sugar and ¼ cup of water.

7. Stir well.
8. Cook the chicken in the pot for about 15 minutes (10 minutes for frog and fish).
9. Add the vegetable fruit combo. Stir constantly.
10. Add the rice powder (which is dry toasted rice, heated with no oil and ground finely). Stir and add the rest of water.
11. Increase the heat to medium-high and bring soup to the boil. Once it bubbles, add the fish sauce, Sesbania and Moringa leaves and remove from the heat immediately.
12. Brush the Curry Leaf leaves over the flame about four times so the leaves burn slightly, and then remove with thumb and index fingers up the stem. Add to soup before serving.
13. The fresh bitter gourd leaves set aside in a bowl will be added individually.

“Kroeung” (herbal paste) is fundamental to the Khmer cuisine. Most of the recipes rely very much on the quality of this paste. “Kroeung” could be classified into three categories: Green, Yellow and Red. Seven main vegetables/spices are used. For the Kako soup, one needs to prepare beforehand the Green “Kroeung”.

Through the CCAF project, the introduction of vegetable gardens near the homes of beneficiary communities has led to better access and availability of the range of vegetables and species used for herbal pastes and other recipes like this. Farmers are more resilient and less dependent on one cash crop (e.g. rice) which could be vulnerable to climate change. The gardens have also led to increasing income through the sale of vegetables on the market, improving women’s livelihoods, who are usually the primary managers of these gardens.

<sup>1</sup> Could be replaced by others meat e.g. catfish, chicken, pork, beef, fish or frog.

<sup>2</sup> Fermented fish paste.

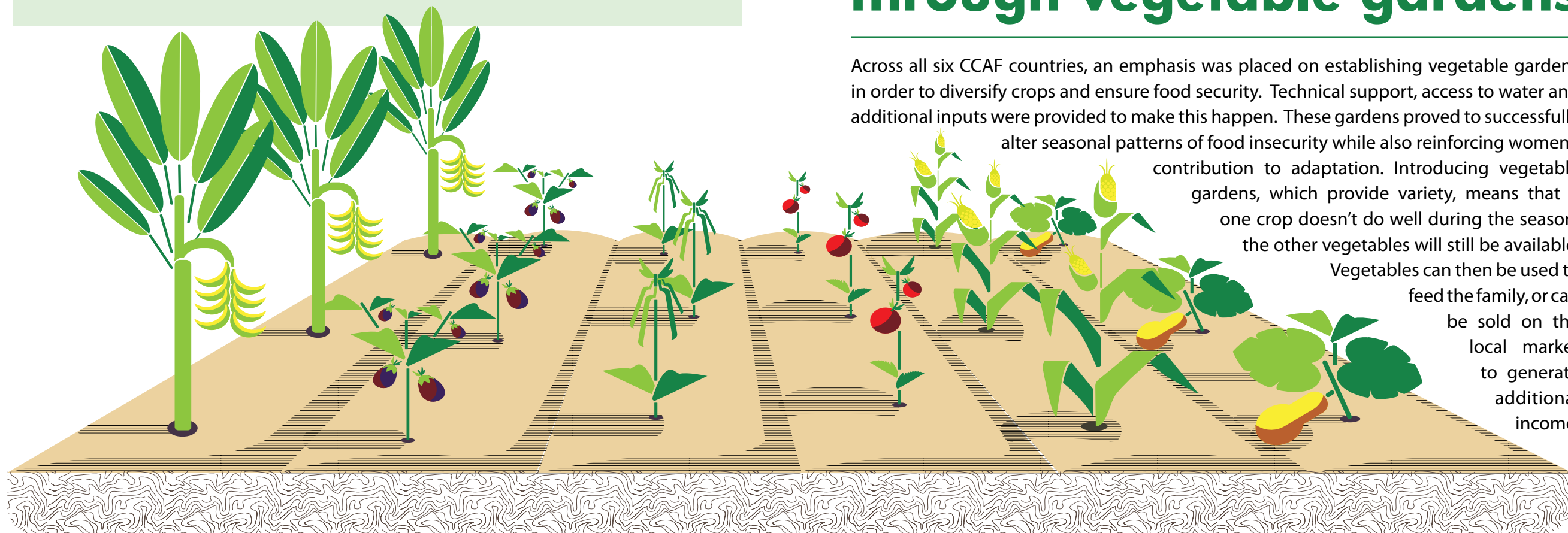
<sup>3</sup> Others vegetables/fruits could be also used e.g. Coccinia, Yard long bean.



This type of intervention also addresses underlying issues of gender inequality. Given that tending home gardens is often a female practice (particularly in Cambodia, Sudan, Mali and Niger), supporting it can expand women's role in food production. The vegetables can help improve family nutrition and/or generate profit that women themselves can control.

# DIVERSIFYING CROP PRODUCTION through vegetable gardens

Across all six CCAF countries, an emphasis was placed on establishing vegetable gardens in order to diversify crops and ensure food security. Technical support, access to water and additional inputs were provided to make this happen. These gardens proved to successfully alter seasonal patterns of food insecurity while also reinforcing women's contribution to adaptation. Introducing vegetable gardens, which provide variety, means that if one crop doesn't do well during the season, the other vegetables will still be available. Vegetables can then be used to feed the family, or can be sold on the local market to generate additional income.



## Cabo Verde

**BANANA,  
PAPAYA,  
SWEET POTATO,  
CASSAVA, SUGAR CANE**

In sites targeted by the project, drip-irrigation was introduced to increase fruit and vegetable production in terraced fields.

## Cambodia

**EGGPLANT,  
MORNING GLORY,  
YARD LONG BEANS,  
CHILI, CABBAGE**

The CCAF project supported home gardens, a traditional practice, by providing access to water in the off-season, to provide food and generate revenues throughout the year.

## Haiti

**BEANS,  
PINEAPPLE,  
PEPPER, MELON,  
EGGPLANT**

*Le Plan de Ferme* supported farmers to develop individualised farming plans, in order to adapt their farming plots to grow more diverse and resilient crops.

## Mali

**TOMATO,  
GROUNDNUTS  
(PEANUTS), BEANS,  
LETTUCE, POTATO**

Women's collective action groups established cooperative vegetable gardens with access to water, tools and land by the project, to diversify their food and livelihoods.

## Niger

**GREEN MAIZE,  
CABBAGE,  
LETTUCE,  
TOMATO, CASSAVA**

The CCAF project helped groups of women secure collective plots of land to grow vegetables by facilitating leasing of land from private landowners.

## Sudan

**SQUASH/PUMPKIN,  
TOMATO, POTATO,  
OKRA, CUCUMBER**

Individual home gardens, or *Jubraka* are supported under the project to diversify food crops, particularly in the dry season



# FISH, MEAT, VEGETABLES

RECIPES FROM HAITI  
AND MALI







# Bannann peze Kabrit Kreyòl

(Fried Plantains and Haitian Stew)  
Haiti



## BANNANN PEZE - FRIED PLANTAINS

### Ingredients

3 green plantains  
500 ml (2 cups) corn or vegetable Oil  
250 ml (1 cup) water  
1 tbsp. salt  
2 tbsp. vinegar or sour orange  
1 Tostonera (Plantain Press)

### Directions

1. Peel the plantains and slice them diagonally into 1-inch pieces
2. Place oil in a deep frying pan on medium heat.
3. Place cut plantains in hot oil. Cook plantains for 5 to 7 minutes on each side until golden brown. Then, remove plantains and lower heat.
4. Use quickly a wooden plantain press (Tostonera) or 2 plantain's skins to flatten each slice to a thickness of about 1/3-inch.
5. Soak flattened plantains in salted water flavored with 2 tbsp. of sour orange juice or vinegar and place back in oil on medium heat.
6. Turn plantains on each side until crispy and golden.
7. Remove fried plantains; place them on paper towels to get rid of excess oil.

## KABRIT KREYÒL - HAITIAN STEW

### Ingredients

500g (1.1 lbs) meat cubed beef  
2 tbsp. seasoned salt  
2 limes cut in half  
2 sweet potatoes  
1 small plastic bag of spinach  
2 potatoes  
1 malanga  
1 green pepper, sliced  
3 carrots  
2 onions-sliced  
1 tsp thyme  
1 tsp parsley  
1/4 cup scallions  
3 tbsp. tomato paste  
salt, black pepper, and hot pepper to taste

### Directions

1. Clean the meat with hot water and lemon.
2. Add seasoning salt and set aside for 2 hours in a bowl. Combine meat and spinach in a stockpot with 2 liters (quarts) of water until meat is tender.
3. Add remaining ingredients and cook for an additional 20 minutes or until potatoes are cooked.

Through the CCAF project, support was provided to farmers to establish individualized farming plans for their own plots of land, introducing resilient crops, such as sweet potatoes and manioc, as well as citrus grafting and new fruit varieties. This has become an alternative livelihood to cash crops, such as coffee, which is threatened by drought or heavy rain. These new farms, which use simple techniques and small spaces near farmers' homes, has led to diversified crops, which farmers use to make traditional dishes like this stew for their family.



# Riz au gras

(Rice in fat) Mali



## Ingredient

3 tbsp vegetable oil  
1 small onion, chopped (or half a big one)  
4 cloves garlic, crushed  
450g (1 lb) stew beef, cubed  
1 eggplant  
1 cup cabbage  
½ cup potatoes  
½ cup sweet potatoes  
2 cups white rice  
1 liter (4 cups) water  
350 mls (1 1/2 cups) tomato puree  
1 tsp oregano  
1/2 tsp chili powder (for medium heat)  
salt & pepper

## Directions

1. Heat the oil in a heavy bottomed pot. When shimmering, add onion and garlic. Cook on medium until translucent and fragrant.
2. Next, increase the heat to medium-high and add seasoned beef.
3. A generous sprinkle of salt and pepper goes a long way to seasoning the entire dish.
4. Once the meat is browned, let the white rice rain down like confetti.
5. And then pour on the water.
6. Stir in the tomato puree. This will give the dish its characteristic rosy hue, as well as mild tomato-saucy flavour.
7. Sprinkle in a blast of chili powder and a gulp of oregano.
8. Finally, throw in veggies.
9. Simmer, covered, for about 20 minutes.



This is a meal served when you receive important people or for important events like a wedding.

The sheep, goat meat, or beef is prepared in a sauce (made with meat, tomato and onions) and then the vegetables (i.e. aubergines, chilli pepper, cabbage, potatoes and sweet potatoes) are added in the order desired so that each vegetable is well cooked. Then the meat and vegetables are taken off and the rice is cooked in the sauce. All the ingredients are then served together.

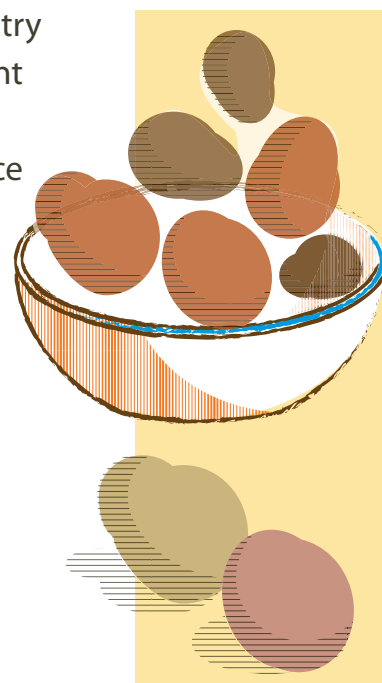
These ingredients are often a luxury for rural smallholder farmers, who have limited income. However, with the support of the CCAAF project, water access has been provided for women's collectives to grow vegetables and land has been secured through its earnings from the sale of food crops and the leasing of agricultural equipment provided by the project. Not only do these activities provide access to the ingredients to make nutritious and traditional dishes like this, but it also increases resilience by providing alternative livelihoods, increasing income and strengthening food security.



The livelihoods of many rural communities in CCAF countries is dependent on rain-fed agriculture. As crops fail, farmers and their families are faced with dwindling income, limited food sources and no safety net to cope. Introducing new types of crops and agricultural practices that are better able to cope, can help increase crop production and food security of these vulnerable households. Under the CCAF, yields of principle staple crops have been boosted across all six countries. Access has been provided to more resilient crop varieties, alongside training and technical support to introduce more resilient agricultural and water management practices.

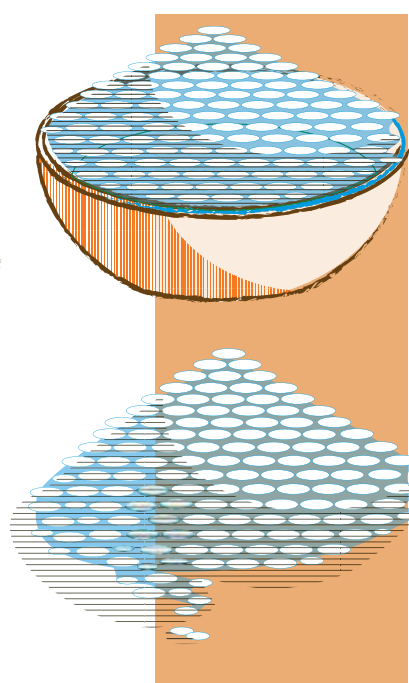
# STRENGTHENING THE RESILIENCE of staple and cash crops

Each CCAF country targeted different staple and cash crops, to enhance their resilience.



**Cabo Verde**  
**POTATO**

The project supported the National Institute for Agricultural Research and Development (INIDA) to undertake research on the adaptive potential of different potato varieties, which they then tested with local farmers.



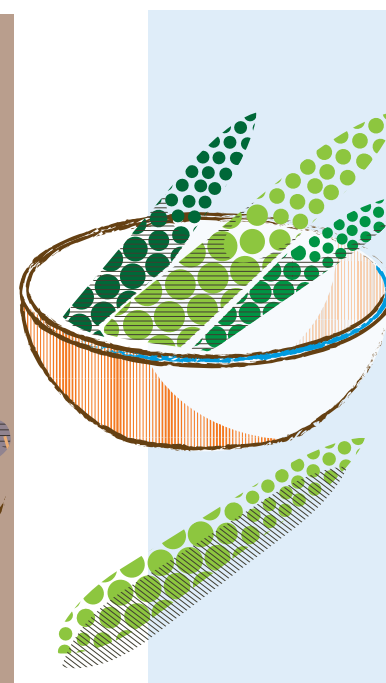
**Cambodia**  
**RICE**

Studies have been undertaken on the suitability of various rice varieties for specific and changing conditions, as well as introducing new irrigation systems to produce two crop cycles per year instead of one.



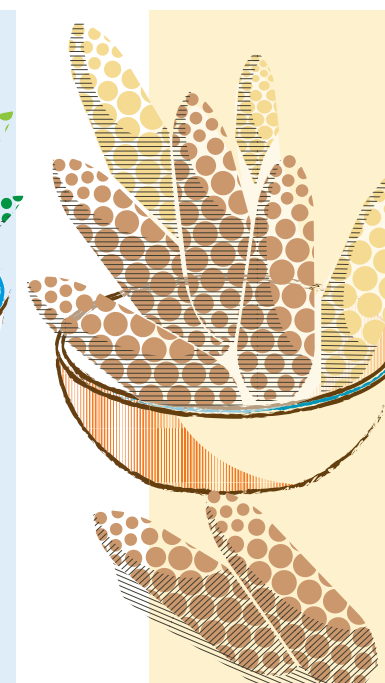
**Haiti**  
**MANIOC**

Due to increased drought and heavy rain, many of the farmers introduced manioc as part of their "farmer plans", which is more resilient to these changing conditions.



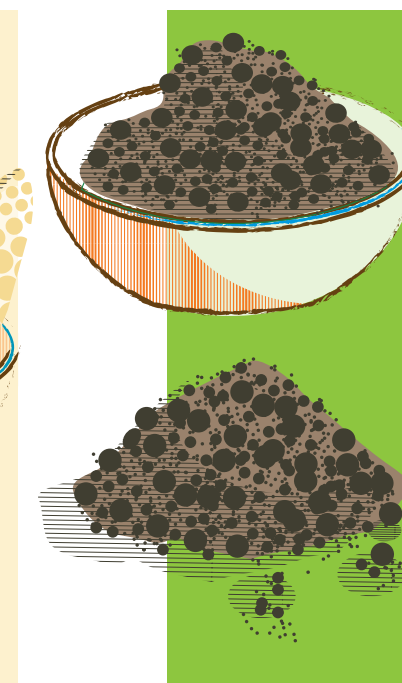
**Mali**  
**MILLET**

New, drought-resilient varieties of Millet are being tested by farmers, along with resilient growing techniques, which have proven to greatly increase productivity.



**Niger**  
**SORGHUM**

New varieties of sorghum are introduced that help strengthen the crop under climate change conditions, while village seed banks are established to ensure these resilient varieties are distributed and shared to reach more farmers.



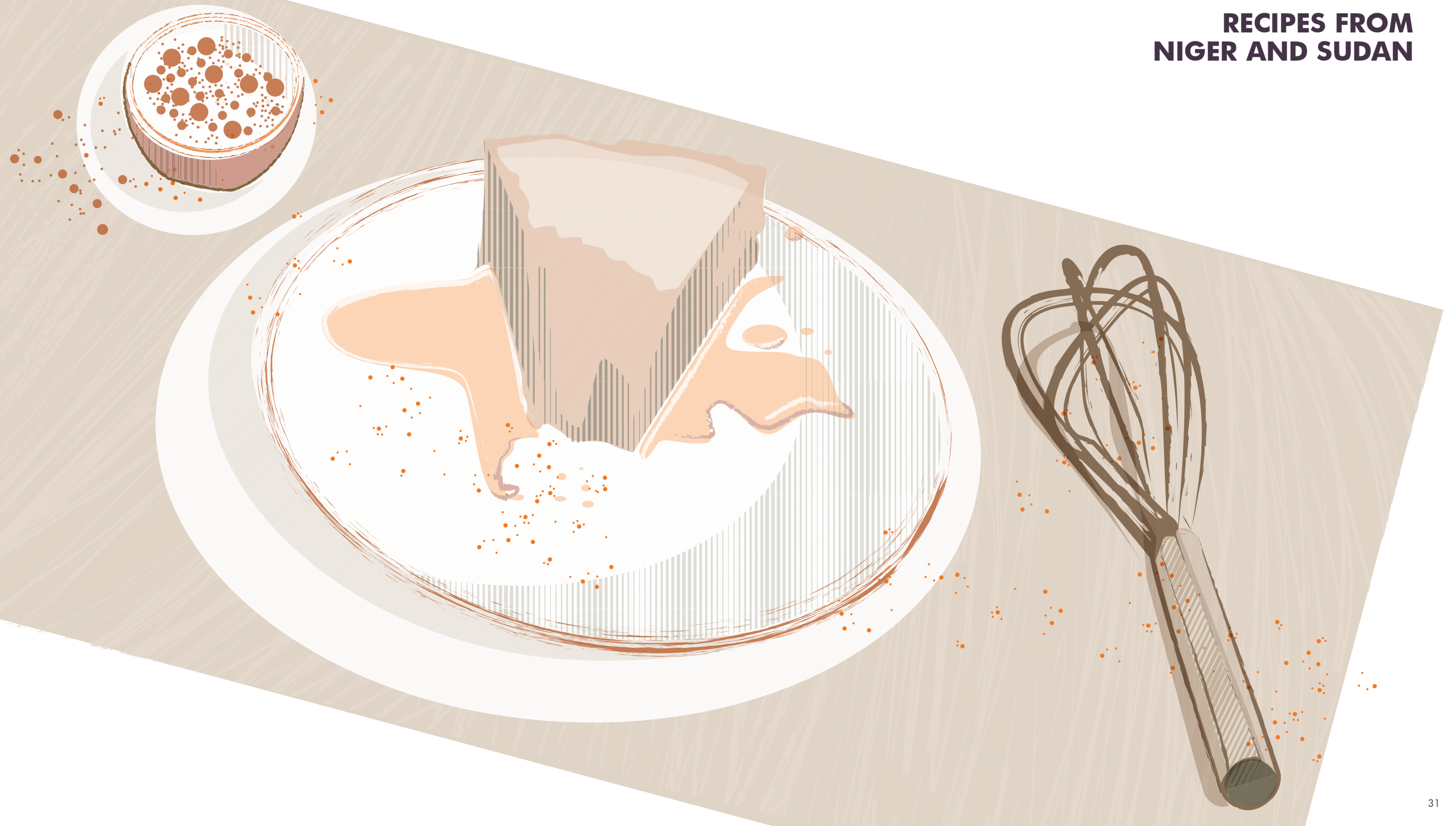
**Sudan**  
**LEGUMES**

Demonstration farms for legumes were established, using a technical package of more resilient and productive varieties.



# SWEET DISHES

RECIPES FROM  
NIGER AND SUDAN





# Hooray

(Millet Balls) Niger



To eat, break some millet balls into a bowl and mix with milk. When there is no milk, monkey bread can be used (fruit baobab) or tamarind juice. Add some more dairy to thin it out and sweeten it with sugar if you want to.

## Ingredient

400 g (14 oz) millet flour  
1/2 to 1 tsp ginger powder  
1/4 tsp ground cloves  
Pinch of salt  
300mls (1 1/4 cups) water  
1 liter (1 quart) milk  
Sugar (Optional)

## Directions

1. In a large bowl, mix the millet flour with all the spices.
2. Add the water to the flour mixture a little at a time until a thick paste is formed. You might not need all the water and you might need a little bit more.
3. Shape the millet paste into small millet balls, the size of golf balls.
4. Place the millet balls in a pot, add some water and boil them for about ~60 minutes. Make sure that the pot has enough water so that the balls are covered. You want the balls to be cooked all the way through. After 30 minutes, break a millet ball to see if it is properly cooked or if the inside still looks lighter in color and raw. If it is still raw, keep cooking until it is done. The cooking duration will ultimately depend on the size of your millet balls.
5. After the millet balls have cooked, place them in a mortar and pound them into a paste. This is to make the millet balls even in texture and easy to break later on. A stand mixer or a food processor can also be used.
6. Shape the cooked millet paste into millet balls again. Roll them in some additional millet flour to coat them and keep them from sticking to each other.



A recipe for a typical lunch for farmers / rural beneficiaries of the project. Traditionally, whole grain millet is locally processed to flour using a mortar. The grains are pounded with a little bit of water to loosen the chaff. After blowing away the chaff, the hulled millet is then pounded and sifted to get millet flour.

The dough is made from millet flour which is sometimes spiced with ginger, cloves and perhaps pepper. It is a very healthy and satisfying dish

Under the CCAAF project, new and improved varieties of millet and other staple crops (like sorghum) have been introduced. These varieties, which are more resilient to changing climatic conditions, particularly drought, have led to significant increases in yield and revenues.



# Gurasa

Sudan



## Ingredient

500g (18 oz) of wheat flour  
1/2 tsp. baking powder  
500ml (0.5 quarts) water  
tsp. salt

Sweet version: 50g (2 oz) dates (stone less)  
125g (4.5 oz) butter  
4 tsp sugar

## Directions

1. In a bowl, mix the flour, the baking powder and the salt (If making sweet version, add dates at this stage.)
2. Add and stir in water until it becomes thick and smooth batter (e.g. pancake texture).
3. Using a pancake fryer or a nonstick flat pan (at medium heat) spread an amount of ½ cup evenly and flip to the other side when golden on one side. Repeat till finished.

Savory version: Serve with Tagalia

Sweet version: With the dates mixed in the batter and cooked, top with butter and sprinkle with sugar.

This is a typical lunchtime/daytime meal for the rural farmers in the Sudan CCAF project. It can also be a dessert when mixed with dates and topped with butter and sugar.

Wheat, a staple crop in Sudan, is also vulnerable to changing climatic conditions. Diversifying crops and increasing access to water has helped to ensure resilience of important ingredients such as these.







## FOOD IS PERSONAL, FOOD IS CULTURAL.

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Whether farming millet in the deserts of Mali, cattle in the semi-arid regions of Sudan or mangoes on the coast of Haiti, the environments we inhabit and our cultural history shape the meals we eat. With climate change increasingly affecting all these environments, cultural practices and types of food will need to adapt to keep pace with changing environmental conditions.

The countries profiled in this cookbook have made extensive strides in addressing the negative impacts of climate change. They have developed and implemented climate-resilient initiatives that simultaneously enhance food and nutritional security, and update agricultural practices to be more suited to the current and expected conditions. Concrete results are being seen in terms of increased income generation, strengthened resilience of livelihoods, and enhanced developmental outcomes – like better health and more children in school.

The cookbook sharpens our focus from the projects and programs of governments right down to the food on our plates, and in doing so places issue global environmental change right where our mouths are: in our farms and on our kitchen tables and dinner plates. We see that the food people eat is changing and must change in order to adapt to the changing environmental

conditions under which we produce food. By switching the focus to consider what affects what ends up on our plates, we understand better the close interaction between climate change and food security.

**Full Cookbook Publication:**  
Expanding on this short teaser, the full publication will be available in early 2017, showcasing more delicious recipes, specific country adaptation profiles, as well as additional comparative “infographic” analyses of culinary traditions and experiences across the six CCAFF countries.





UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in more than 170 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations.

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Pages 4 and 12 - Imen Meliane  
Page 2 - UNDP Sudan  
Page 8 - UNDP Haiti, UNDP Cambodia and UNDP Cabo Verde  
Page 32 - UNDP Niger  
Page 38 - UNDP Haiti

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"A well-fed household  
is a household with  
tranquillity," a woman  
from Santa Cruz  
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Canada-UNDP Climate Change  
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