Programme Title	**RESILIENT LANDSCAPES FOR SUSTAINABLE LIVELIHOODS:** A Joint Programme on climate change adaptation and disaster risk reduction with a focus on long-term food security in northern Ghana
METASIP Programme	Programme 4: Sustainable Management of Land and Environment
UNDAF Outcome	Outcome 3: National systems and existing institutional arrangements for climate change mitigation and adaptation and for disaster risk reduction, as defined in the Hyogo Framework for Action at the district, regional and national level are functional
UNDAF Outputs	Output 3.2 -Adaptation and mitigation strategies and practices integrated into climate resilient development policies, plans and programmes Output 3.7 - Biodiversity and land management issues, with a special focus on water bodies and afforestation, assessed and integrated at the national and local level
Beneficiary Country	Republic of Ghana
Location	Northern Ghana (Upper West Region, Upper East Region, Northern Region)
Government Executing Agent	Ministry of Food and Agriculture (MoFA)
Government Executing Partners	National Disaster Management Organization (NADMO), Savannah Accelerated Development Authority (SADA), Ministry of Environment, Science, and Technology (MEST), National Development Planning Commission (NDPC)
UN Administrative Agent	United Nations Development Programme (UNDP)
UN Executing Partners	Food and Agriculture Organisation (FAO), United Nations University Institute for Natural Resources in Africa (UNU-INRA), World Food Programme (WFP)

Programme Period: 2012 – 2015
Atlas Award ID: TBD
Project ID: TBD
PIMS #: TBD
Start date: 28th October 2012
End date: 31st December 2015
Management Arrangement: NEX (National Execution)
LPAC Meeting Date: TBD
Total Resources Required: US$ 3,362,656

SIGNATURE PAGE

For the Government of Ghana

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Mr Maurice Tanco Abisa-Seidu
Chief Director
Ministry of Food and Agriculture

Date: .....

For the United Nations System in Ghana

.....
Ms Harmandip Ruby Sandhu-Rojon
UN Resident Coordinator

Date: .....

For the Food and Agriculture organization of the United Nations (FAO)

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Mr Kamil Kamaluddeen
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Date: .....

For the United Nations University Institute for Natural Resources in Africa (UNU-INRA)
..... **Dr. Elias Takor Ayuk** **UNU-INRA Director** **Date:** .....

For the World Food Programme (WFP)
..... **Mr Ismail Omer** **WFP Representative** **Date:** .....

EXECUTIVE SUMMARY

Strong economic growth in Ghana over the past two decades has seen a dramatic reduction in poverty and a shift to middle income status. However, this progress has been concentrated in the southern parts of the country, with disproportionately high rates of poverty and food insecurity remaining in northern Ghana. The key drivers of these high levels of food insecurity include natural disasters and environmental degradation, which affect the high proportion of people who rely on subsistence agriculture for their livelihoods.

In northern Ghana, recurrent floods and droughts regularly devastate communities, infrastructure and livelihoods. Climate change is expected to cause more severe and unpredictable weather patterns, expand the degradation of the natural resource base and increase the frequency and severity of disaster events. This will further reduce the ability of Ghana's most vulnerable communities to maintain their fragile landscapes and livelihoods. It is the poorest people in these vulnerable regions who will bear the brunt of disasters and climate change.

In recognition of these significant challenges, the Government of Ghana has identified climate change adaptation and disaster risk reduction as key development priorities. In particular, through Programme 4 of the Medium Term Agriculture Sector Implementation Plan (METASIP 2011 – 2015), the Government is committed to conserving the natural resource base on which the agriculture sector, and Ghana's economy, depends.

It is against this backdrop that the Government of Ghana is joining forces with the United Nations to strengthen the resilience of vulnerable communities in northern Ghana and deliver on the sustainable land management objectives of METASIP 2012 – 2015. Led by the Ministry of Food and Agriculture, and building on the experiences and expertise of other Government departments and four UN agencies, this Programme will result in a total of 16 climate resilient communities across 6 districts in the three northern regions of Ghana, with climate change adaptation and disaster risk reduction mainstreamed into district and sector plans, community action plans developed and implementation of adaptation measures commenced. The Programme will also provide a package of materials that can be used to strengthen the resilience of agriculture in other districts and communities.

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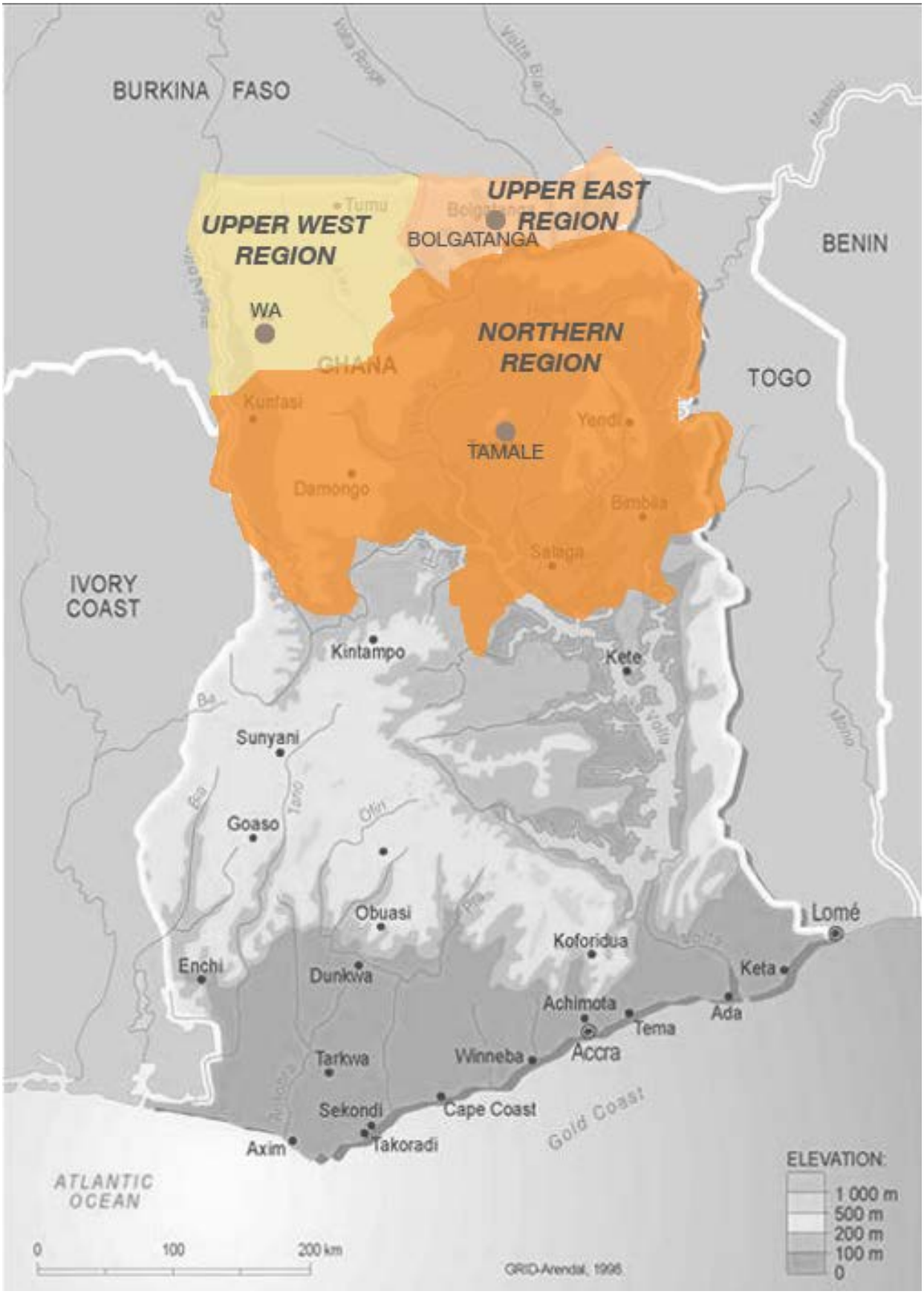


1. BACKGROUND

Strong economic growth in Ghana over the past two decades has seen the poverty rate almost halved from 52.0% in the early 1990s to 28.6% in 2005/06[1]. This growth in GDP, however, has been concentrated in the southern parts of the country, with disproportionately high rates of poverty and food insecurity in the three northern regions of Ghana. In the Upper West Region, rates of food insecurity are 34%. Rates of acute malnutrition in the Upper West Region are considered to be 'serious' by the World Health Organization at 14%.

The key drivers of these high levels of food insecurity are the environmental conditions in the three northern regions, where natural disasters and environmental degradation have restricted the abilities of farmers to produce food. This disproportionately affects the large number of households who are dependent on subsistence agriculture. Low soil productivity, soil erosion, high temperatures, drought and seasonal flooding already impact the food production and consumption of poor households and farmers. In addition, shocks such as flood or drought leave people with reduced food stocks, damaged livelihood assets and a subsequent shortage of access to food. Implementing strategies to reverse the decline in land condition, adapt agricultural practices to the changing climate and reduce the risk and impact of disasters on production systems are key development challenges for Ghana.

1.1 DISASTER RISKS IN GHANA

Ghana's exposure to disaster risks from multiple weather-related hazards is one of the highest amongst African countries[2]. The climatic influence of the Sahel and two nearby oceans contribute to a high frequency of droughts and floods. This exposure is particularly high in northern Ghana where, compounded with the high vulnerability and low adaptive capacity of the deprived population in this region, disaster risks are most severe.

For example, the catastrophic floods in the north in 2007 affected more than 300,000 people with close to 100,000 requiring some form of assistance to restore their livelihoods. Because this flood event immediately followed a period of drought that damaged the maize harvest from the previous year, the negative impacts of these multiple weather-related hazards were magnified. These events are indicative of the typically high variability in climate and hydrological flows in northern Ghana. The long-term impacts of these disaster events on the regional economy are still unknown, however, they can be high - the 2007 floods alone are thought to have cost more than US$130 million worth of direct damages[3].

1.2 CLIMATE CHANGE IN GHANA

Various studies have been conducted to model and project the specific changes to climate that Ghana is likely to face. While the precise conclusions of these studies vary, they agree on two key points. First, there are clear signals of warming in Ghana. An increase of 1°C has been seen over the past 30 years. One recent projection estimates temperature increases of 1.7°C to 2.04°C by 2030 in the northern Savannah regions, with average temperatures rising as high as 41°C. The second area of agreement is that rainfall projections in Ghana are uncertain; rainfall may increase or decrease. As an indication, 20-year observed data suggests that rainfall levels in Ghana have been generally reducing and patterns are becoming increasingly erratic in Ghana[4].

[1] GSGDA, 2010
2 GFDRR et. al., 2011
3 GFDRR et. al., 2011
4 Ghana's Second National Communications to the UNFCCC, 2011

These likely shifts in temperature and rainfall patterns due to climate change are widely recognized as significant developmental challenge in Ghana. The 2008 national sectoral climate change vulnerability and adaptation assessments revealed the substantial impact of climate change on the national economy, with clear evidence that many of the key economic assets – the coastal zone, agriculture and water resources – were affected, as well as social development in terms of poverty reduction, health and women's livelihoods.

The main concerns regarding the potential impacts of climate change based on sectoral impacts, vulnerability, and adaptation assessments that are highlighted within Ghana's Second National Communications to the United Nations Framework Convention on Climate Change (SNC) include:

- Increased pressure on water, reducing the potential for hydropower.
- Impact on agriculture, with reduced yields leading to increased poverty and food insecurity, and the loss of national revenue from cash crops such as cocoa.
- Increased migration from the north with growing pressure on urban services.
- Deteriorating health as a result of increased incidence of diseases and reduced access to water and food, compounded by the disruption of the delivery of health services. Severe impacts on land use, leading to loss of biodiversity and soil fertility, land degradation and increased deforestation.
- The impact on women, who are particularly vulnerable to the impact of climate change, given their higher levels of poverty and their responsibilities for household water, food and fuel.
- Potential conflicts over use of scare natural resources.
- Loss of human settlements due to sea level rise and coastal erosion.

Of particular concern is the likelihood that climate change will exacerbate disaster risks. Under climate change, Ghana's already variable climate can expect more intense weather patterns such as torrential rains, excessive heat and severe dry winds. The country's vulnerability to extreme weather events is becoming more severe with predictions of strong floods, rising temperatures and changing rainfall patterns in the northern parts of the country as a result of climate change.

1.3 LAND DEGRADATION IN GHANA

Land and its resources form the critical resource base upon which the social, economic, and political life of Ghanaians depend. With 28-29% of its GDP derived from the agricultural sector, land access and quality influence the livelihoods of many, and the degradation of land continues to challenge efforts in poverty alleviation, food security improvement and development[5]. In Ghana, it is estimated that 69% of the land area is affected by moderate to severe soil degradation, which is significantly higher than the sub-Saharan Africa average of 43%[6]. Furthermore, degradation is particularly severe in northern Ghana, where the three regions of northern Ghana account for 58% of the total severe sheet and gully erosion in the country.

The cause of land degradation can be natural or anthropogenic. Land degradation may be categorized into four major types: deforestation, soil erosion, declining soil fertility, and deterioration of rangelands, all of which threaten food production.

[5] GSIF SLM, 2011
[6] GSIF SLM, 2011

1.4 VULNERABILITY IN NORTHERN GHANA

Ghana has made major progress on poverty reduction in recent decades, to the extent that it has recently been reclassified as a lower middle-income country. Despite Ghana's rapid economic growth, studies show that there is a large income disparity between northern and southern Ghana. People in the North are still experiencing significantly lower standards of health, education and living conditions.

Of the18 percent of Ghanaian population that lives in extreme poverty, 54 percent live in northern Ghana where poverty is highest among food crop farmers[7]. More than 65 percent of the population who remain in northern Ghana rely on agriculture as their major source of livelihood[8], and therefore require a healthy natural resource base to support their production systems. The underpinning drivers of food insecurity in the three northern regions are human-induced land and soil degradation, high dependency amongst small holder farmers on rain-fed agriculture in an environment in which increasing water scarcity and land degradation are projected and the occurrence of recurrent droughts, floods, and erratic and unpredictable weather patterns. It is the poorest people in these vulnerable regions, without adequate alternative livelihood and/or adaptation options, who bear the brunt of disasters and climate change.

Northern Ghana, especially the Upper East region, is the most exposed to land degradation and soil erosion. Land degradation accelerates run off, reduces soil productivity and capacity of ecosystems to provide critical functions and services, including regulation of floods in key watersheds and resilience to climate variability. Within this context, the poorest households are also the ones less resilient to climatic variability, more involved in detrimental coping strategies and most affected by food insecurity.

Lower agricultural productivity, as well as the occurrence of seasonal drought and flooding, is also increasing the pressure for people to migrate to the South. Migrants arriving in the cities, many of them young women who make a precarious living as porters, are exposed to new vulnerabilities on the streets and add to the pressures on existing services and stripping the north of a much needed labour force.

Among the economic sectors, agriculture suffers the most from climate change. The distribution of rainfall is the single most important factor affecting agriculture. The increasing variability of rainfall increases the risk associated with farming as prediction is made almost impossible. Investments in agriculture are therefore becoming expensive, risky and less profitable. The situation is also sometimes compounded by floods resulting from discharge of excess water from the Bagre Dam in Burkina Faso around the time of crop harvests (August-October). In the light of the above, systemic changes in production systems and land management practices are needed to avert the pre-harvest losses. While the areas prone to drought and flooding are well recognized, in general, communities living in these areas possess little capacity to adapt to these kinds of hazards.

1.6 POLICY CONTEXT

It is evident that climate change and regular disasters present a significant threat to the achievement of the Millennium Development Goals, especially those related to reducing poverty and hunger (MDG1) and promoting environmental sustainability (MDG7). It will

[7] GFDRR, 2011
[8] MoFA (2010). Agriculture in Ghana: Facts and Figures 2009. Accra: MoFA

exacerbate the existing inequalities between the north and the south of the country and undermine previous efforts in poverty reduction and sustainable development.

In recognition of this, the Government of Ghana (GoG) has highlighted Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) as key development priorities within the Ghana Shared Growth and Development Agenda (GSGDA, 2010). Particular attention is paid to dealing with the increasing levels of desertification in the northern savannah zone, which will threaten the agricultural potential and the economic viability of this region and its capacity to contribute to national development.

The GoG's commitment to addressing CCA and DRR is translated into action through a range of policies and plans:

- ***Ghana's National Climate Change Adaptation Strategy*** aims to ensure a consistent, comprehensive and targeted approach to increasing climate resilience and decreasing vulnerability.
- ***Programme 4 of the Medium Term Agriculture Sector Investment Plan*** focuses on conserving the natural resource base through sustainable land management. CCA and DRR are central concepts in ensuring the sustainability of agricultural systems.
- With the support from the UN system, GoG developed a ***five-year National Plan of Action on Disaster Risk Reduction***. This plan is articulated according to the 5 pillars of the Hyogo Framework of Action and represents a coordinated national framework which will guide the interventions of the Government of Ghana in its task of making the country resilient to natural and man-made disasters.
- The ***Savannah Accelerated Development Agency (SADA)*** was established to guide and promote the sustainable development of northern Ghana. SADA puts long-term adaptation to climate change as one of their three main issues of focus in the Northern Savannah Development Initiative.

Fundamental to the Government's approach to CCA and DRR is a paradigm shift from a focus on disaster response to a disaster prevention and risk reduction approach. This shift recognizes that the financial and human costs of climate change and disasters can be vastly reduced by strengthening institutional and community preparedness.

As this is a relatively new approach, much work remains, especially in identifying the nexus between DRR and CCA and sustainable land management (SLM). Determining effective approaches for mainstreaming risk reduction and adaptation into various sector policies and agendas, and supporting communities to implement strategies that lower their vulnerability are key priorities.

2. PROGRAMME CONCEPT

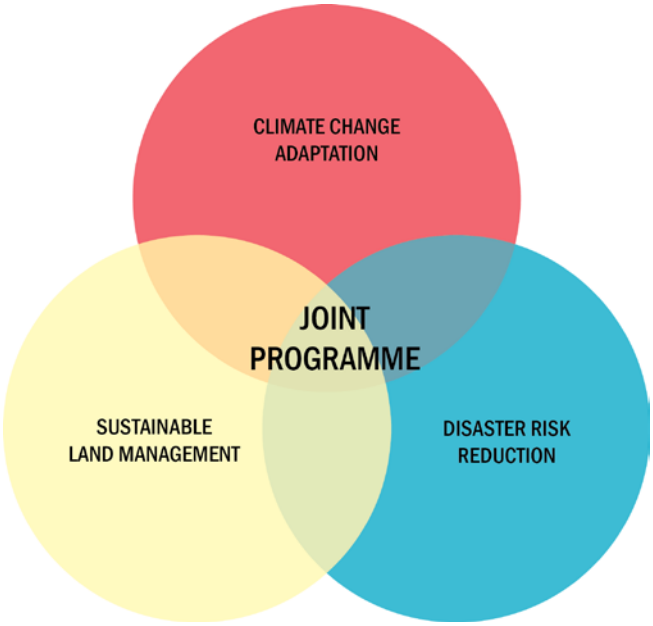
The multi-faceted nature of managing climate change and recurrent disasters means that no single agency or organization can tackle them alone. An integrated and coordinated approach is clearly required. A Joint Programme has been devised to bring together the comparative advantages of Government of Ghana agencies with expertise and responsibility for sustainable management of land, and the specialist knowledge, skills and capabilities of the United Nations to tackle this complex and pervasive issue.

With a focus on strengthening long-term food security and improving the natural resource base on which food production relies, this project is being lead by the Ministry of Food and Agriculture. MoFA will work in close partnership with other Government and United Nations agencies that have expertise and responsibility in this field.

2.1 PROGRAMME SCOPE

This Joint Programme aims to enhance the resilience of livelihoods and landscapes in northern Ghana, while developing and implementing efforts that utilize a harmonized approach to CCA, DRR and SLM.

Climate change, disasters, and land degradation are major issues that impact economic activities and socio-cultural well-beings of people (livelihoods), and the quality of land and its natural services that provide an economic and environmental base for people and its surrounding environment (landscapes).



Therefore, enhancing the overall resilience of livelihoods and landscapes require a harmonized approach of CCA, DRR, and SLM. Climate change and disasters such as flood and drought can exacerbate land degradation, while unsustainable land management practices such as slash-and-burn farming can lead to further risks of climate change and disasters. Because of the inter linkages between the challenges and issues of climate change, disasters, and unsustainable land management, the solutions too must be coordinated to be effective.

2.2 PROGRAMME FRAMEWORK

To strengthen the backbone of Ghana's economy, this Joint Programme will focus on building the resilience of the agriculture sector, in particular on the sustainable management of natural resources in small-scale agricultural systems. The overall goal of the programme will be to:

> ***Develop the capacity of national and local institutions and strengthen the resilience of districts and communities in northern Ghana to climate change and disaster risks through development and implementation of the Sustainable Land Management approaches.***

This will be achieved through four project outcomes:

Outcome 1: *Assets, needs and priorities for enhancing local capacity for CCA, DRR and SLM are understood, including indigenous knowledge*
Lead Agency: UNU-INRA

A strong knowledge base is critical for the planning and implementation of effective CCA, DRR, SLM interventions. The appropriateness of interventions will depend on a broad range of factors, including expected weather and climate impacts, local needs and aspirations and local capacities. With great diversity in the communities, landscapes and land uses in districts across northern Ghana, no single approach will be suitable for all areas. Interventions therefore need to be tailored to the local context, and based on scientific, economic and particularly local knowledge. Outcome 1 will employ literature review, policy analysis and participatory community processes to create a clear understanding of the local climate change, disaster, and land management situation, and develop a shared understanding of priority interventions that are likely to be effective in the local context. A gap analysis of district and

regional plans, policies and projects will also be undertaken to determine opportunities for mainstreaming CCA and DRR.

Outcome 2: *CCA and DRR are effectively mainstreamed into district and sectoral plans with strong ownership for implementation at the community level*
Lead Agency: UNDP

CCA and DRR cannot be managed in isolation from other programmes and policies. Building resilience means realigning existing activities to take account of the additional stresses and changes that are caused by climate change and disaster impacts, and the impacts that these have on the condition of the natural resource base. This outcome will therefore focus on mainstreaming CCA and DRR perspectives into existing plans, policies and programmes that are related to agriculture. To ensure that the mainstreaming is effectively translated into on-ground changes, this outcome will also include building community support and capacity for the implementation of CCA and DRR measures.

Outcome 3: *Climate adaptation and disaster risk reduction measures are implemented in targeted districts and communities*
Lead Agency: WFP

Outcome 3 will focus on initiating the implementation of CCA and DRR measures identified by communities and included in plans and policies. As the Joint Programme focuses on small-scale agriculture operations, measures are likely to include promoting sustainable land management and good agricultural practices, the development of CCA and DRR assets, and the development of alternative livelihoods and nutritious food production systems. The combination of interventions to be implemented in a given community will be determined by the information gathering and mainstreaming processes undertaken through Outcomes 1 and 2. The expectation is that this Programme will kick off implementation of planned activities that the district government and local community can continue with over time.

Outcome 4: *Knowledge and institutional capacity for mainstreaming and implementing CCA and DRR plans, policies and measures are improved*
Lead Agency: FAO

This outcome has two key purposes – to ensure that the scaling up of the pilot phase of the Joint Programme to the additional districts is done effectively, and to build the capacity of government and communities to continue embedding CCA and DRR considerations into their plans and actions. This will ensure the sustainability and replication of the benefits of the Joint Programme. An evaluation of the pilot phase will be undertaken to inform the implementation of the scaling. At the completion this phase, knowledge products and sensitization activities will be used to disseminate the learning.

2.3 IMPLEMENTATION PHASES

The three-year Joint Programme will take pilot communities in northern Ghana through a process to become climate resilient.

This process involves several steps:

1. Conducting risk, vulnerability, and capacity assessments in order to understand the impacts of climate change and disasters on water scarcity and food and agricultural production in Northern Ghana.
2. Analysing existing policies and plans to identify needs and opportunities to integrate CCA and DRR.
3. Understanding the needs, opportunities and local capacity for CCA and DRR and identifying preferred CCA and DRR measures, in consultation with community and district stakeholders.

4. Mainstreaming CCA and DRR into district plans and policies and supporting the development of community action plans.
5. Kick starting implementation of the agreed adaptation measures.

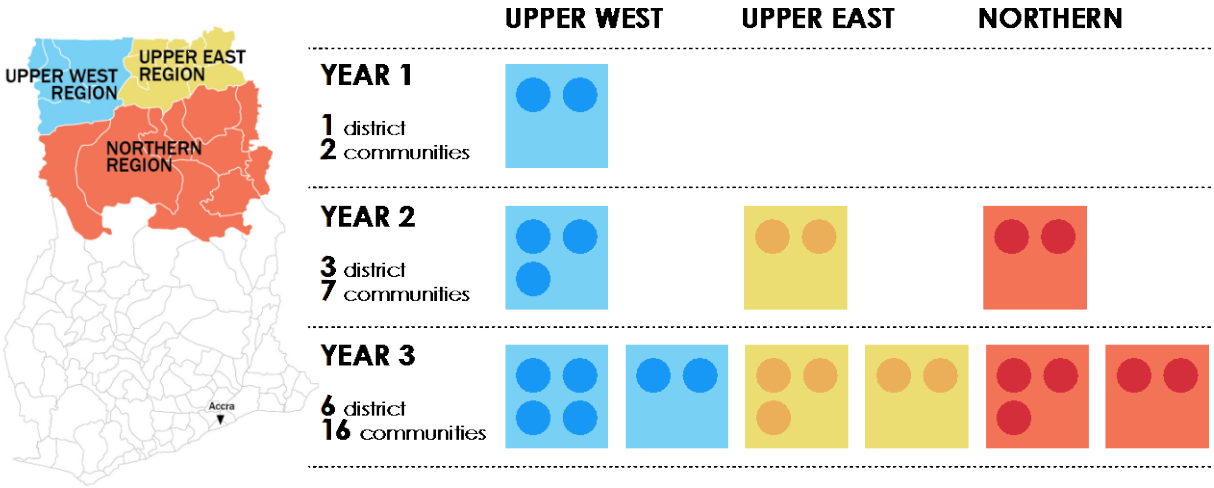
Pilot districts will be selected on the basis of:

- Vulnerability to disasters and climate change
- Dependence on small-scale agriculture
- High food insecurity and low adaptive capacity
- Accessibility
- Demonstrated capacity to mobilize communities for development programmes
- The potential for synergies and complementarity with other programmes or activities

Initially, two communities in one district will be taken through the process to become climate resilient. Learning from these experiences, additional communities and districts will be added across the three regions in the second year. In the final year, the process will be expanded further. The expansion will be informed by an evaluation of the earlier trials and codification of the lessons and the process.

The Joint Programme is expected to result in a total of **16 climate resilient communities across 6 districts in the 3 northern regions of Ghana**, with CCA and DRR mainstreamed into district and sector plans, community CCA/DRR action plans developed and implementation of adaptation measures commenced. The Programme will also provide a package of materials that can be used to strengthen the resilience of agriculture in other districts and communities.

Pilot Districts and Communities



3. POLICY ALIGNMENT

The Joint Programme aligns with the Government of Ghana's Shared Growth and Development Agenda, the draft National Climate Change policy , the Northern Savannah Development Initiative, and the Government's efforts to achieve Millennium Development Goals 1 and 7.

Specifically, the Joint Programme will focus on contributing to the delivery of Programme 4 of the Government's Medium Term Agriculture Sector Investment Plan (METASIP) 2011 - 2015. Programme 4 – sustainable management of land and environment – sets out an agenda for reducing and reversing the degradation of natural resources that underpin agriculture and livelihoods in Ghana. Addressing risks posed by disasters and climate change is key to this sustainable resource management strategy. This joint program will directly deliver on the following aspects of Programme 4:

- Establishing baseline information on land degradation and sustainable land management practices
- Strengthening sustainable land management aspects of Government policies
- Building institutional capacity within the food and agriculture sector to promote and implement sustainable land management, particularly with respect to climate change adaptation skills
- Documenting and publicizing successful sustainable land management interventions

Additionally, it will contribute to the Ghana Strategic Investment Framework for Sustainable Land Management 2011-2015, which is the implementation plan for Programme 4. In particular, the Joint Programme will deliver on:

- Investing in field-based programmes and projects focused on agricultural land management, community tree planting programmes, integrated watershed management, drought management and mitigation and off-farm enterprises.
- Mainstreaming sustainable land management within national, district and community level development plans
- Building the capacity of policy makers, development planners and advisory (extension) service providers
- Strengthening/ enhancing Indigenous knowledge
- Enhancing the management skills of agricultural producers
- Reviewing and improving the policy environment for sustainable land management

The Joint Programme will also contribute to the implementation of disaster preparedness activities outlined in Ghana's Plan of Action for DRR and CCA, being championed by the National Disaster Management Organization (NADMO), as well as the work of the Savannah Accelerated Development Authority (SADA) in their comprehensive development agenda for the Northern Savannah Ecological Zone.

This joint effort serves as an integral part of delivering as one on the United Nations Development Assistance Framework (UNDAF) Action Plan for 2012-2016, in particular:

> Thematic area 1: Food security and nutrition
> Outcome 1 – An additional 15% of medium and smallholder farmers, including 50% women, in at least 5 regions have access to MOFA approved and timely agricultural extension services and access to markets.
>
> Thematic area 2: Sustainable environment, energy and human settlements
> Outcome 3 – National systems and existing institutional arrangements for disaster management as defined in the Hyogo Framework for Action, and for climate change mitigation and adaptation, are reinforced at district, regional and national levels.

4. PARTNERSHIP APPROACH

Four UN agencies (FAO, UNDP, UNU-INRA and WFP) will collaborate to support the Ministry of Food and Agriculture (MoFA) to develop and implement this Joint Programme, in partnership with other relevant ministries, departments and agencies at the national, regional and district levels.

4.1 PARTNER ANALYSIS

The Government of Ghana and UN agencies will bring together their skills and experience to strengthen the resilience of vulnerable communities in the three northern regions of Ghana. Taking the Joint Programme approach is not only in line with United Nations' commitment to "Deliver as One," but will also enable the type of interagency collaboration for knowledge building and implementation that is much needed in the interdisciplinary field of CCA and DRR.

Four executing partners have been identified, namely:

1-National Disaster Management Organization (NADMO)
2-Savannah Accelerated Development Authority(SADA)
3-Ministry of Environment, Science, and Technology (MEST)
4-National Development Planning Commission (NDPC)

The Ministry of Food and Agriculture will take the lead in engaging the executing partners upon signature, supported by UN team.

Each participating ministry and agency brings their own comparative advantages to take on specific roles in the Joint Programme, which are summarized in the table below:

Agency	Comparative advantages
MoFA	• Responsibility for agriculture sector • Extensive field presence and skill base in sustainable land management
NADMO	• Responsibility for disaster management and prevention and mainstreaming DRR into sector level plans and policies
SADA	• Oversight of development activities across northern Ghana • Strong capabilities in coordination and facilitation
MEST	• Responsibility for climate change portfolio • Technical expertise in environmental analysis
NDPC	• Responsibility for development and coordination of development policies and plans
MLNR	• Manage Ghana's land, forest, wildlife and mineral resources
MESW	• Promote sustainable employment opportunities, management and vocational skills development, training and re-training, harmonious industrial relations, safe and group formation and social integration of vulnerable, excluded and the disadvantaged for the development and growth of the economy
FAO	• Technical agricultural knowledge, climate change impact and adaptation expertise and research capability • Extension and community engagement expertise • Existing implementation mechanisms
UNDP	• Strong partnerships and networking capabilities • Capacity building and project coordination experience in Joint Programmes • Expertise in disaster risk reduction, emergency preparedness and climate change adaptation strategies
UNU-INRA	• Focus and expertise in natural resource management, climate change adaptation • Existing research projects and linkages with other universities and research institutions • Experience in research methods
WFP	• Programmatic focus on climate change adaptation, disaster risk reduction and livelihood protection • Established implementation mechanisms • Existing field presence, local knowledge and logistical capacity • Existing relationships in northern regions

4.2 PROGRAMME GOVERNANCE

Implementing Agency (MoFA) is responsible for the overall implementation of the project. Coordinating with the Steering Committee and the Project Management Team, the Implementing Agency will have the ultimate responsibility for developing, implementing, and reporting on the annual work plan (AWP).

The **Steering Committee**, co-chaired by MoFA and UNDP, is responsible for providing guidance in advice to the Implementing Agency by reviewing and approving annual work plans, and agreeing on overall direction and strategy for programme implementation.

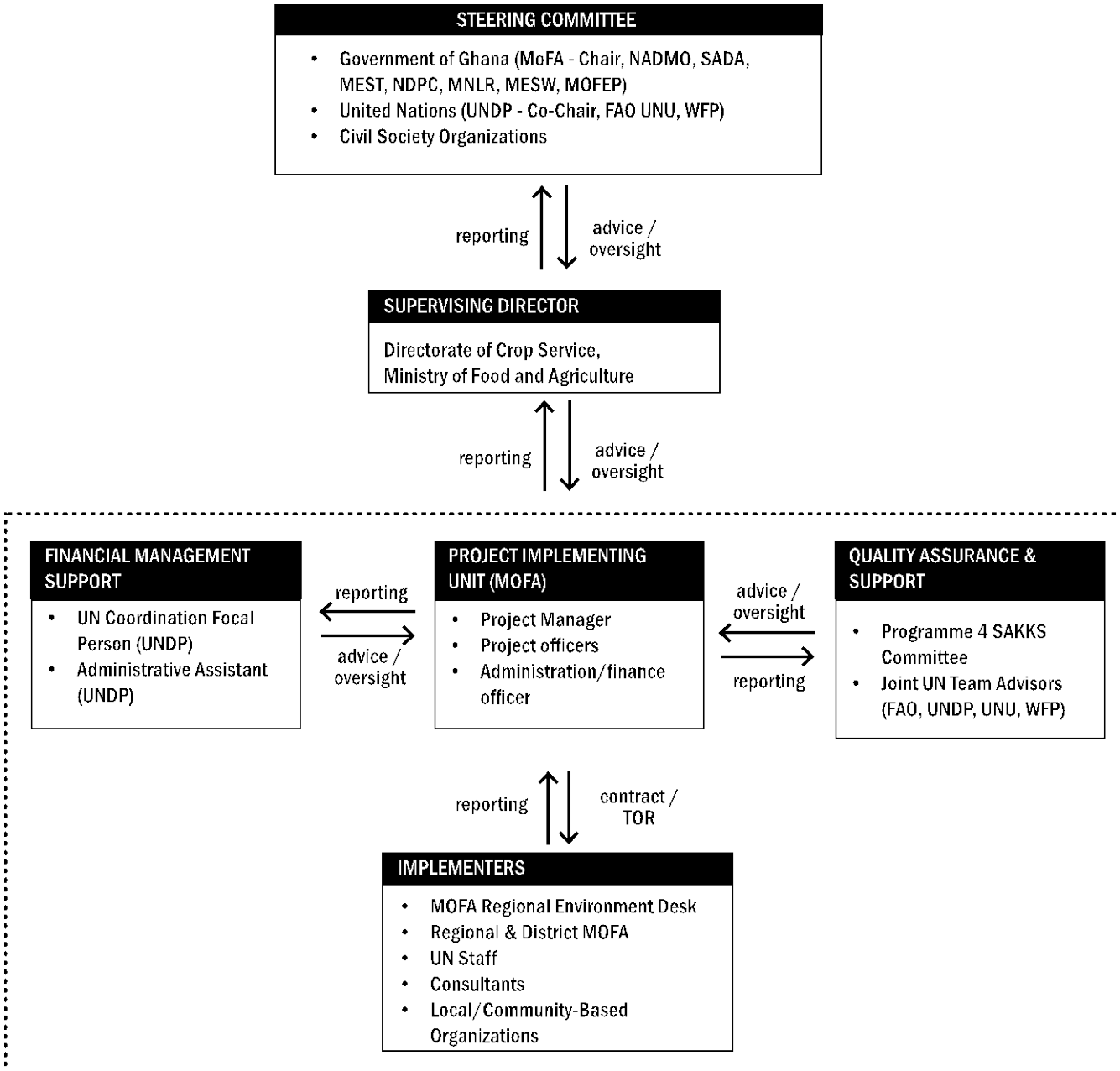
Project Implementation Unit, which will sit within MoFA, led by the Project Manager, will provide the day to day project management and implementation support. They will be accountable to UN policies and procedures, financial management of the project, project contracting, personnel management, procurement, and travel, etc. It is also required that the

Project reports to the Project Steering committee, MoFEP, and the United Nation's Systems. The four participating UN agencies will appoint / assign focal points where neccessary to liase with the PIU to support project implementation.

Quality Assurance and Support will be provided by the Strategic Analysis and Knowledge Support System (SAKSS) of METASIP, expanded to include the UN joint team. The Managing UN Agency (UNDP) will provide the overall oversight and quality assurance to support the Implementing Agency, MoFA. A volunteer technical expert will be as be assigned to support project implementation.

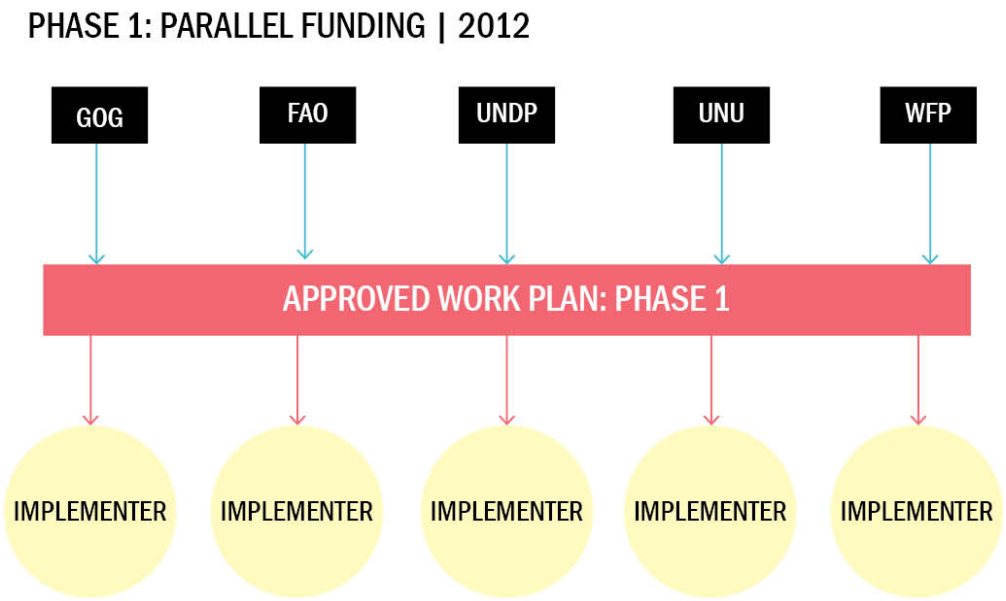
Implementers will be existing staff of MoFA or contracted / appointed (where necessary) to work with the Project Implementation Unit to implement the activities outlined in the work plan.

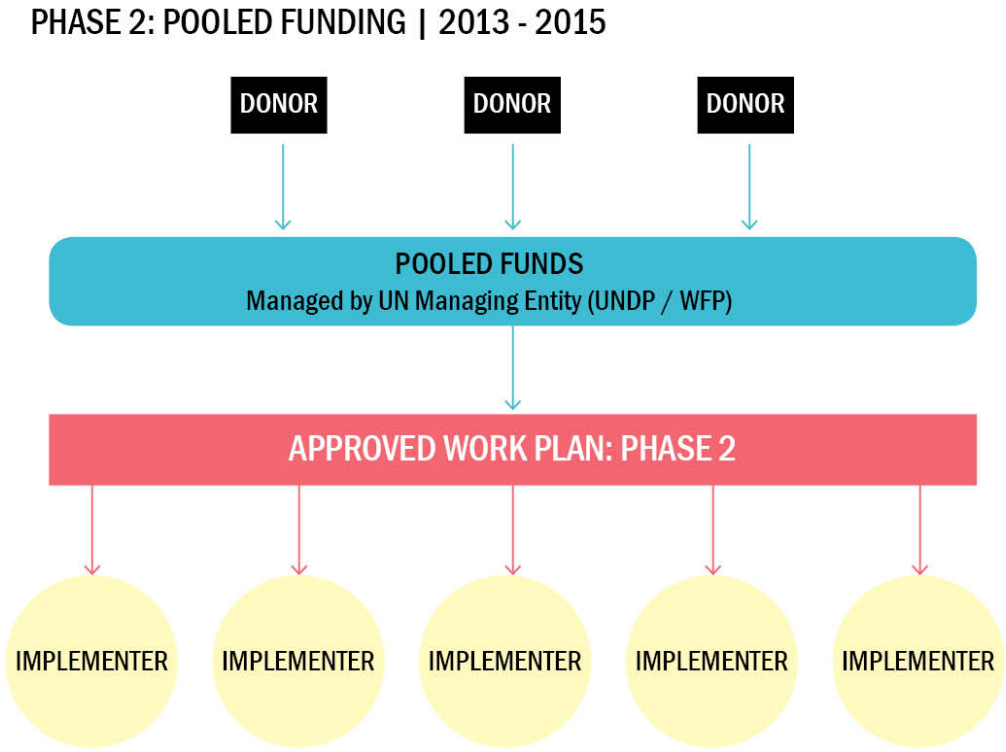
The Programme will be managed according to the following governance structure.



4.3 FINANCIAL MANAGEMENT

UN partners will assist the Government with financial administration of this Joint Programme. A combination of pooled and parallel funding will be employed, as per the following financial diagram. For the kick-start phase (Phase 1) of the Joint Programme, parallel funding will be used with implementing agencies disbursing their own contributions;30,000 USD from FAO, 50,000 USD from UNDP; in-kind support of food from WFP worth 100,000USD) to deliver elements of an agreed work plan. Agencies will be encouraged to collaborate on activities wherever joint capability will provide benefit. During this phase, resource mobilization will be undertaken. Resources for Phase II are expected to come from a number of sources, including Government of Ghana, UN agencies and other development partners. Once financial accountability mechanisms are in place, this funding will be pooled and administered directly to project implementers. UNDP will act as administrative agent for this pooled funding. Any funding that is allocated outside the scope of what has been approved in the project plan will need approval by the MoFA project director (Director of Crops Services/Chief Director). The financial management structures of the two phases are illustrated below.





4.4 INTELLECTUAL PROPERTY RIGHTS

All data, information, and knowledge products obtained or generated from the collaborative project shall become the joint property of MoFA and the Four UN agencies (FAO, UNDP, UNU-INRA and WFP) unless otherwise agreed upon in writing. The UN partners and MoFA also agree that all information developed during the collaborative project, which have value for scientific, industrial or other social relevance, may in principle be made available for public use by either Party.

All such knowledge products shall acknowledge the project and the collaborators (MoFA and Four UN agencies)

5. WORK PLAN

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME												RESPONSIBLE AGENCY	SUPPORT AGENCIES
		2012	2013				2014				2015				
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
OUTCOME 1: Assets, needs and priorities for enhancing local capacity for CCA and DRR are understood, including indigenous knowledge															
Output 1.1 A report on the scientific and socio-economic impacts of climate change and disaster risks in the three northern regions	1.1.1 Develop and implement a process for collating indigenous knowledge on the indicators and impacts of climate change and disasters in northern Ghana 1.1.2: Analyse existing efforts and information on scientific and socio-economic impacts of climate change and disaster risks in the three northern regions													MoFA (PIU)	UNU-INRA FAO MEST SADA NADMO
Output 1.2 A report of relevant projects, plans and policies with potential for mainstreaming CCA and DRR**.**	1.2.1 Analyse existing and relevant plans and policies at the national, district and regional levels and in the food and agriculture sector to identify where CCA and DRR considerations would add value													MoFA (PIU)	UNDP FAO GoG
Output 1.3 Profiles of selected pilot communities	1.3.1 Develop criteria for selection of districts and communities, and collate baseline data													MoFA	UNU-INRA FAO
	1.3.2 Consult with national and regional stakeholders to select pilot districts, using the criteria													MoFA	UN Team
	1.3.3 Consult with representatives in pilot districts to select pilot communities, documenting rationale													MoFA	UN Team
	1.3.4 Profile selected districts and communities, including information on general characteristics, vulnerability and risk factors and existing capacity													MoFA	UNU-INRA UNDP
Output 1.4 Plans outlining preferred climate change adaptation measures at the community level	1.4.1 Develop a methodology for participatory adaptation planning at the community level													MoFA	UNU-INRA
	1.4.2 Conduct focus group discussions and workshops with community members, district assemblies, and key stakeholders to identify climate change adaptation measures		1			2				3				MoFA	UN Team
	1.4.3 Support platforms for collaboration amongst key stakeholders on CCA/DRR/SLM		1			2				3				MoFA	UNDP UNU-INRA SADA
	1.4.4 Develop an action plan in the pilot communities that outlines the list of potential CCA and DRR measures		1	1		2	2			3	3			MoFA	UN Team
OUTCOME 2: CCA and DRR are effectively mainstreamed into district and sectoral plans with strong ownership for implementation at the community level															
Output 2.1 CCA and DRR	2.1.1 Assess the CCA and DRR mainstreaming			1			2							NDPC/MMD	UNDP

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME												RESPONSIBLE AGENCY	SUPPORT AGENCIES
		2012	2013				2014				2015				
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
mainstreamed into district development plans of the three pilot districts.	status of district and community development plans (building on Output 1.4)													A	
	2.1.2 Consult with district government, communities and other stakeholders to identify challenges and bottlenecks hindering implementation of CCA and DRR measures			1			2							NDPC/MMDA	UNDP
	2.1.3 Implement mainstreaming and capacity building activities at the community level.			1	1		2	2						NDPC	UNDP
Output 2.2 CCA and DRR are mainstreamed into food and agriculture policies and plans. (Initiated concurrently with Output 1.2)	2.2.1 Analyse sectoral policies and plans (including. METASIP and the DRR and CCA Action Plan.) to see whether CCA and DRR considerations are effectively addressed													MoFA	UNDP FAO
	2.2.2 Identify gaps and challenges for implementation and develop strategies to overcome them.													MoFA	UNDP FAO
OUTCOME 3: Climate adaptation and disaster risk reduction measures are implemented in targeted districts and communities															
Output 3.1 Increased agricultural productivity and use of Good Agricultural Practices among small-scale farmers.	3.1.1 Promote conservation agriculture, improve post-harvest handling practices and strengthen plant pest and disease control.			1	1	1		2	2	2		3	3	MoFA	FAO
	3.1.2 Improve productivity through the supply of selected seed of high yielding varieties into the seed crop production cycle.			1	1	1		2	2	2		3	3	MoFA	FAO
	3.1.3 Strengthen local capacity (logistics and personnel) for the production of seed and planting materials.			1	1	1		2	2	2		3	3	MoFA	FAO
Output 3.2 Climate change adaptation and disaster risk reduction assets developed, built or restored by targeted communities.	3.2.1 Provide food for work, capacity development, tools, technical assistance and project management support for communities to build resilience by improving community assets.			1	1	1		2	2	2		3	3	MoFA	WFP
	3.2.2 Develop integrated silvo-pastoral systems that reduce deforestation and promote the sustainable exploitation of nutrient-rich non-wood forest products, in particular in areas with traditional agro-forestry knowledge.			1	1	1		2	2	2		3	3	MoFA	FAO WFP
Output 3.3 Vulnerable groups empowered with income generation and economic activities to diversify livelihood opportunities.	3.3.1 Provide food for skills training, support and incentives for communities to develop income-generating activities that are alternative to farming			1	1	1		2	2	2		3	3	MoFA	WFP FAO MESW
Output 3.4 Improved access to a diversified and nutritious diet to prevent a deterioration of the	3.4.1 Promote home-based food production - mainly vegetables, fruit and poultry from improved kitchen gardens and legume and dairy products from			1	1	1		2	2	2		3	3	MoFA	FAO WFP

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME												RESPONSIBLE AGENCY	SUPPORT AGENCIES
		2012	2013				2014				2015				
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
nutritious status of rural people living in the most severely flood / drought affected areas.	improved farming operations.														
	3.4.2 Enhance the capacity of Agricultural extension services to promote better crop diversity and biodiversity for improved nutrition.			1	1	1		2	2	2		3	3	MoFA	FAO
OUTCOME 4: Knowledge and institutional capacity for mainstreaming and implementing CCA and DRR plans, policies and measures are improved															
Output 4.1 Knowledge product outlining processes and lessons for mainstreaming and implementing community-based CCA and DRR.	4.1.1 Evaluate the process of mainstreaming CCA and DRR at the district level													MoFA	UN team
	4.1.2 Develop a manual or knowledge product outlining options (including funding) and approaches for mainstreaming CCA and DRR													MoFA	UN team SADA
Output 4.2 Training for government agencies and community and sector leaders in addressing CCA and DRR issues.	4.2.1 Develop and deliver a training module for CCA and DRR awareness, planning and implementation													MoFA	UN team
Output 4.3 Effective communication of findings and outputs that lead to behavioral change	4.3.1: Develop communication materials for multiple channels (including web and radio.) that ensure findings and outputs of the programme are communicated and utilized by the public.													MoFA	UN team
	4.3.2; Disseminate communication materials to key stakeholder groups.													MoFA	UN team

1 – Activity implemented in initial communities/districts in year 1
2 – Activity implemented in expansion communities/districts during year 2
3 – Activity implemented in final expansion communities/districts in year 3

6. MONITORING AND EVALUATION

Project Monitoring and Evaluation will be conducted in accordance with established MoFA and UN procedures and will be coordinated by the project team and the UN administrative agent, with support from other UN agencies. A Monitoring and Evaluation Plan will be prepared that aligns with monitoring and evaluation requirements of METASIP, UNDAF and other relevant policies and action plans. Existing indicators and targets will be used wherever possible.

Commencement:
An inception workshop will be held within the first 3 months of the project formally commencing and will include key stakeholders in decision-making, advisory or implementation roles in the Programme. The inception workshop is crucial to building ownership for the project results, to plan the detail of the first year annual work plan and to agree on implementation processes. The Inception Workshop will address a number of key issues including:

- Assisting all partners to fully understand and take ownership of the project, detailing the roles and responsibilities of all partners and clarifying decision-making structures, reporting and communication lines and conflict resolution mechanisms.
- Developing the first annual work plan, including indicators, targets and monitoring activities
- Reviewing and updating the risk management framework.
- Discussing financial reporting procedures and obligations, and arrangements for annual auditing.
- Planning and scheduling Steering Committee meetings.

Reporting:

- Periodic monitoring of activities will be undertaken by MoFA and UN advisors. Monitoring site visits will be scheduled in the annual work plan. Findings of periodic monitoring will be reflected in quarterly progress reports.
- Quarterly progress reports will be submitted to the Steering Committee, including outputs delivered, expenditure and issues to be addressed.
- An annual implementation report will be prepared by the project team documenting progress towards objectives and outcomes according to the agreed indicators. The annual report will look at the effectiveness, efficiency, and timeliness of project implementation and will highlight issues requiring decisions and actions. It will include a review of the risk management framework and present initial lessons learned about project design implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the remainder of the project's term. The evaluation component of this report will be used to inform the development of a manual for handover to government.
- An independent final evaluation will take place just prior to the completion of the project. The final evaluation will focus on delivery of the project's results against those planned, and will look at the impact and sustainability of project outcomes. It will include recommendations for any follow-up activities and lessons learnt.

7. BUDGET AND FUNDING SOURCES

Outcome	Outputs	Activities	Estimated Budget (USD)	Justification	Identified Fund Sources
Outcome 1: Assets, needs and priorities for enhancing local capacity for CCA and DRR are understood, including indigenous knowledge	1.1 A report on the scientific and socio-economic impacts of climate change and disaster risks in the three northern regions	1.1.1 Develop and implement a process for collating indigenous knowledge on the indicators and impacts of climate change and disasters in northern Ghana	3,000	Field research 3K (combined with Activity 1.4.1)	
		1.1.2 Analyse existing efforts and information on scientific and socio-economic impacts of climate change and disaster risks in the three northern regions	2,000	2K to follow up on literature review efforts conducted during project inception period	
	1.2 A report of relevant projects in the three northern regions that contribute to CCA and DRR	1.2.1 Analyse existing and relevant plans and policies at the national, regional and district levels and in the food and agriculture sector to identify where CCA and DRR considerations would add value	3,000	5K to gather and analyze policies and plans	
	1.3 Profiles of selected pilot communities	1.3.1 Develop criteria for selection of districts and communities, and collate baseline data	5,000	Meeting amongst project team. 1 technical stakeholder meeting with 25 members in Accra	FAO
		1.3.2 Consult with key national and regional stakeholders to select project districts using the criteria	10,000	1 week mission to 3 northern regions for 10 people (DSA: 6350, Transport: 2650, snacks, material printing)	UN RC Office
		1.3.3 Collaborate with representatives in the pilot district stakeholders to select pilot communities documenting rationale	-	Combined with above	
		1.3.4 Profile selected districts and communities, including information on general characteristics, vulnerability and risk factors and existing capacity	5,000	5K for field research and analysis	
	1.4 Lists of potential climate change adaptation measures at the community and district levels for the pilot districts	1.4.1 Develop a methodology for participatory adaptation planning at the community level	2,000	2K for methodology development (combined with Activity 1.1.1)	
		1.4.2 Conduct focus group discussions and workshops with community members, district assemblies and key stakeholders to identify climate change adaptation measures.	50,000	Year 1: 2 WS/year in 2 communities. 1st WS mission from Accra. 2nd WS, conducted by locals. (10K) Year 2: 2 WS/year in 7 communities. (10K) Year 3: 2 WS/year in 16 communities (30K)	
		1.4.3 Support platforms for collaboration amongst key stakeholders on CCA/DRM/SLM	6,000	Workshops - Venue, lunch, printing (2K), 5 participants from Accra (4K)	
86,000		1.4.4 Develop an action plan in pilot communities that outlines the list of potential CCA and DRR measures.	-	Combined with 1.4.2	
Outcome 2: CCA and DRR are effectively mainstreamed into district and sectoral plans	2.1 CCA and DRR mainstreamed into district development plans of three districts	2.1.1 Assess the CCA and DRR mainstreaming status of district and community development plans	8,000	1 consultancy for 5K to gather and analyze policies and plans (UDS). Two 5-day long missions to the 3 northern regions for 2 researchers (3K). To be coordinated with Activity 1.2.1	
		2.1.2 Consult with district government, communities and other stakeholders to identify challenges and bottlenecks hindering implementation of CCA and DRR	-	To be combined with Activity 2.1.1	

Outcome	Outputs	Activities	Estimated Budget (USD)	Justification	Identified Fund Sources
with strong ownership for implementation at the community level		measures			
		2.1.3 Implement mainstreaming and capacity development activities at the community level	15,000	5K consultancy to design district level mainstreaming and capacity development materials and conduct capacity building activities in the 16 districts. To be combined with Activity 1.4.2 & 4.3.1	
	2.2 CCA and DRR are mainstreamed into food and agriculture policies and plans	2.2.1 Analyse agriculture sector policies and plans (including METASIP and the CCA and DRR Action Plan) to recommend ways of better integrating and addressing CCA and DRR	5,000	5K consultancy to provide practical information/recommendations to support METASIP/SACS/NCP policies. To be coordinated with Activity 1.2.1	
28,000		2.2.2 Identify gaps and challenges for implementation of CCA and DRR measures and develop strategies to overcome them	-	To be combined with Activity 2.2.1	
Outcome 3: CCA and DRR measures are implemented in targeted districts and communities	3.1 Increased agricultural productivity and use of Good Agricultural Practices among small-scale farmers	3.1.1 Promote conservation agriculture, improve post-harvest handling practices and strengthen plan pest and disease control	500,000	Establishment of farmer demonstration plots	
		3.1.2 Improve productivity through the supply of selected seed of high yielding varieties into the seed crop production cycle	250,000	Procurement and distribution included	
		3.1.3 Strengthen local capacity (logistics and personnel) for the production of seed and planting materials	150,000	Practical training and farmer demonstration plots; Build capacity of seed producers	
	3.2 CCA and DRR assets developed, built or restored by target communities	3.2.1 Provide food for work, capacity development, tools, technical assistance and project management support for communities to build resilience by improving community assets	800,000	$50,000 per community for a combination of dams, afforestation etc. Food priced at an average rate of $1000/mt, includes transport and logistics	$100,000 WFP (in kind – food
		3.2.2 Develop integrated silvo-pastoral systems that reduce deforestation and promote the sustainable exploitation of nutrient-rich non-wood forest products, in particular in areas with traditional agro-forestry knowledge	200,000	Supply of materials, training and initial maintenance	
	3.3 Vulnerable groups empowered with income generation and economic activities to diversify livelihood options	3.3.1 Provide food for skills training, support and incentives for communities to develop income-generating activities that complement farming	250,000	$10,000 per community for a range of training and IGA activities. Food priced at an average rate of $1000/mt, includes transport and logistics	
	3.4 Improved access to a diversified and nutritious diet of people living in the most severely drought/flood affected areas	3.4.1 Promote home-based food production - mainly vegetables, fruit and poultry, from improved kitchen gardens and legume and dairy products from improved farming operations	150,000	Establishment of kitchen gardens, training - WIAD to support implementation	
2,400,000		3.4.2 Enhance the capacity of agricultural extension services to promote better crop diversity and biodiversity for improved nutrition	100,000	Practical training on Agricultural Biodiversity and nutrition linkages	

Outcome	Outputs	Activities	Estimated Budget (USD)	Justification	Identified Fund Sources
Outcome 4: Knowledge and institutional capacity for mainstreaming and implementing CCA and DRR plans, policies and measures are improved	4.1 Knowledge product outlining processes and lessons for mainstreaming and implementing community-based CCA and DRR	4.1.1 Evaluate the process of mainstreaming CCA and DRR at the district level	10,000	5 M&E Missions	
		4.1.2 Develop a manual or knowledge products outlining options (including funding) and approaches for mainstreaming CCA and DRR	13,000	5K Consultancy for mainstreaming methods. 5K consultancy for upscaling methods. 3K material production. To be coordinated with 2.1.3	
	4.2 Training for government agencies and community and sector leaders in addressing CCA and DRR issues	4.2.1 Develop and deliver a training module for CCA and DRR awareness, planning and implementation	26,000	DSAs, transportation and venue. For 3 WSs	
	4.3 Effective communication of findings and outputs that lead to behavioral change	4.3.1 Develop communication materials for multiple channels (including web and radio) that ensure findings and outputs of the programme are communicated and utilized by the public	15,000	UNIC will provide technical support. 10K for content development (survey and partnership building mission to the local communities)	
79,000		4.3.2 Disseminate communication materials to key stakeholder groups	15,000	UNIC will provide technical support. 10K for dissemination	
Implementation Support	Human resources	Assign Programme Manager	-	MoFA Staff	
		Assign Programme Officer: Northern Region	-	MoFA Staff	
		Assign Programme Officer: Upper West Region	-	MoFA Staff	
		Assign Programme Officer: Upper East Region	-	MoFA Staff	
		Assign Administration Officer	30,000	UNDP Contracted staff for 1 year to build capacity for MoFA Staff; 30K for 1 year	
		Hire Programme Driver	28,800	SB (800*36)	
		Hire UN Liaison Officer	210,000	70K per year x 3 years - sit in UNDP (NOC)	
	Programme monitoring and evaluation	Undertake periodic M&E missions	-	4 Missions. Included in 4.1.1	
		Undertake mid-term evaluation	-	1 Mission. Included in 4.1.1	
		Prepare final evaluation and project reports	20,000	Based on Recovery Project final evaluation	
	Programme Management costs	Office Supplies	50,000	Computers 2K x 7 / Desks printers etc. 10K / Monthly expenses 500 per month	
		Communication (Internet/Phone/Website/Softwares)	6,000	Internet 50USD/month, Phone 50USD/month = 3600 per year / website development 500 / maintenance 600 for 3 years / softwares 1000 = 5700	
430,800		Transportation (Vehicle/Transportation Budget)	86,000	Vehicle: 50K / Fuel and Transportation 1000 per month	
Project Inception	A functioning programme management framework	Undertake MoFA micro-assessment	15,000		UNDP
	Programme launch	Host a Programme launch event to inform and engage relevant stakeholders regarding the Programme	10,000		UNDP
	Existing baseline data gathered	Gather relevant district level baseline information and develop database and maps	15,000	5K for consultant for data gathering. 1 mission to 3 northern regions for 1 week for 2 people: 3K. Data purchases: 7K	UNDP

Outcome	Outputs	Activities	Estimated Budget (USD)	Justification	Identified Fund Sources
50,000	Literature review	Conduct a review of relevant literature related to climate change, disaster risk reduction, food security, sustainable land management, and community-based/indigenous resilience building that would inform efforts in Northern Ghana	10,000		FAO
		SUB TOTAL	**3,073,800**		
		Implementation Support Services: 5% fee	153,690		
		General Management Services: 7% fee	215,166		
		GRAND TOTAL	**3,442,656**		

Once finalized, the project documentation will be used as the basis for seeking funding from a range of international development organizations. UN and Government partner organizations will also look internally at what funding is available, if any, from existing or carry-over budgets to implement this joint programme.

8. RISK MANAGEMENT

The following risks to the Joint Programme and associated mitigation measures have been identified.

RISK		MITIGATION	LIKELIHOOD	IMPACT	RISK RATING
1	Change of priority due to political change	Foster local level ownership; engagement of various stakeholders	Uncertain	Impact on project success and outcomes	Medium
2	Major disaster event	Create contingency plans	Uncertain	Impact on project implementation, success, and outcomes	Medium
3	Lack of baseline information	Prepare to conduct baseline study while avoiding duplications	Likely at the district/community level. It may also depend on the accessibility of household survey data	Impact on project success and outcomes	Low
4	Lack of local and national level interests/ownership	Engagement of key stakeholders in project development; alignment with existing mandates and priorities; institutionalize positive incentives	Preventable	Lack of project implementation, success, and outcomes	Low

9. PROGRAMME SUSTAINABILITY

The aim of the Programme is to develop a methodology of planning and implementing CCA and DRR through sustainable land management practices at district and community levels, not only in the pilot sites during the lifetime of the Programme, but throughout the entire country. The intention and commitment of Government of Ghana to achieve this goal is outline in various policies and action plans, as discussed in the Policy Alignment section of this Project Document.

More specifically, this Programme is designed to achieve targets and goals of Programme 4 of the Medium Term Agriculture Sector Investment Plan 2011 – 2015 (METASIP). Therefore, from it's design, the achievements, information, and gathered through the Programme is fully mainstreamed within the Government of Ghana priorities and programming, particularly under the Ministry of Food and Agriculture mandate. Therefore, the sustainability and continuation of efforts and impacts of the Joint Programme will be achieved through the formal government processes, i.e. policies and plans that succeed the METASIP.