



KEY POINTS

- Physical and climatic conditions of semi-arid areas increase vulnerability while social and environmental challenges (e.g., poverty, population growth and environmental degradation) may exacerbate the impacts of climate change.
- There is a need to promote indigenous and sustainable practices that enhance people's abilities to cope.
- Communities can become more resilient to climate change impacts by working together.

Why focus on the semi-arid regions of Ghana?

Ghana's semi-arid regions are characterised by low or variable rainfall while being largely dependent on rain-fed agriculture. Low adaptive capacity, environmental degradation, gender disparities in resource allocation and food security remain critical issues underlying vulnerability.

Sustainable adaptation strategies which result in increased productivity would help people to be better able to handle changes in the climate. To achieve these and to promote long term resilience, it is important to identify the barriers to and enablers of effective adaptation.

ASSAR's regional diagnostic study in Ghana

This briefing note summarises the key findings from the Regional Diagnostic Study (RDS) recently conducted in Ghana, as part of the ASSAR project. The RDS aimed to:

- ❖ Develop a systematic understanding of existing knowledge of climate change trends, impacts, vulnerabilities, and adaptation strategies.
- ❖ Identify the key barriers and enablers of effective adaptation in semi-arid regions.
- ❖ Identify gaps in research, policy and practice related to climate change adaptation.
- ❖ Provide a foundation for developing an integrated regional research program (RRP) on climate change vulnerability and adaptation.

Expected impacts of future climate on semi-arid Ghana

Studies on the future climate of semi-arid Ghana point to delays in the onset of rainfall, decreases in rainfall events by 3% and increase in the length of dry spells by as much as 20%.

These events are expected to lead to a reduction in the growing season and ultimately to a reduction in agricultural productivity (e.g., a decrease in maize production by 11% due to lack of rains, and an overall 7.5% decline in maize production by the year 2050 across Ghana).

Barriers to and enablers of adaptation and wellbeing

The barriers and enablers that were identified in the RDS reflect a wide array of actions that different institutions and actors are taking (e.g., decentralization of government authority, actions that conserve or overexploit the natural resource base, inclusion or exclusion of different land users, and new policy measures) that have clear implications for constraining or promoting adaptive capacities and adaptation outcomes. **Important barriers and enablers to adaptation comprise development, gender and governance dimensions.**

BARRIERS

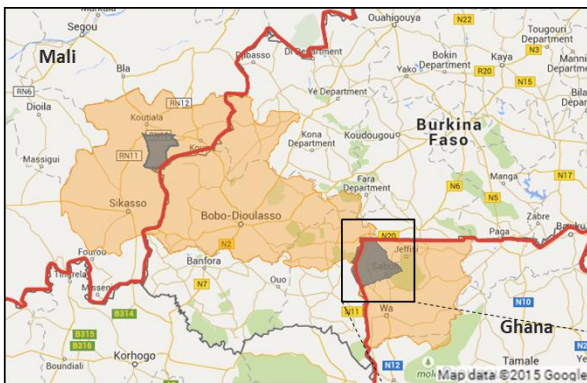
- ❖ Diverse, and sometimes conflicting, interests in terms of policies, strategies, investment priorities and organisational objectives.
- ❖ Complex management systems where people have conflicting interests.
- ❖ Capacity variation (different skills and capacities across institutions and individuals).
- ❖ Differing monitoring and evaluation systems, language and terms used. These often marginalise farmers.
- ❖ Knowledge gaps such as the role of government in the decentralisation of adaptive capacity.

ENABLERS

- ❖ Increased understanding of the different contributions of different actors towards adaptation and wellbeing.
- ❖ Policy measures that support greater availability and sharing of climate and agricultural production data.
- ❖ Increased use of established, data quality control protocols to validate climate and agriculture data sources.
- ❖ Use of more comparable language with appropriate and consistent definitions and terminology.

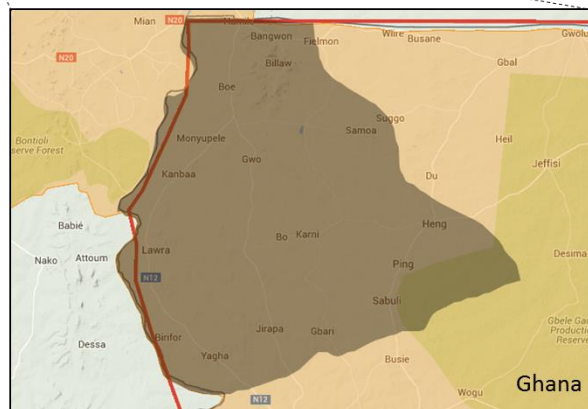
Way forward

- ❖ The active participation of all social groups – especially women, youth and the disabled – at the local level will be crucial for establishing the appropriate adaptation needs within climate change policies, and for eliminating social inequalities in the adaptation process.
- ❖ Already-existing adaptation strategies that have sustained semi-arid communities over the years should be the starting point for addressing climate change impacts at the local level.
- ❖ Governance structures should be put in place to ensure the effective implementation of adaptation policies across scales and levels.
- ❖ Given the climatic sensitivities of the region, adaptation strategies and climate change policies should be context specific and multi-scalar.



ASSAR is a research project being undertaken in the semi-arid regions of Africa and Asia, examining the dynamics and drivers of vulnerability, while exploring ways to enhance the resilience of people, local organisations and governments. ASSAR aims to promote climate adaptation policies and practices that are effective, widespread and sustainable.

In West Africa, ASSAR focuses on the dry sub-humid band that extends from the Upper West Region of northern Ghana through to southern Mali, referred to as the Wa-Bobo-Sikasso transect.



- DRYLAND STUDY AREAS OF WEST AFRICA**
- ASSAR study areas
 - ASSAR countries
 - Wa-Bobo-Sikasso transect

The Institute for Environment and Sanitation Studies (IESS) is working with ASSAR partners to undertake this research in the Lawra and Nandom districts of the Upper West Region of Ghana

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