

PROJECT OVERVIEW

EXECUTING AGENCY | Ministry of Science Environment and Technology (MEST)

IMPLEMENTING AGENCY | Environmental Protection Agency (EPA)

MANAGEMENT ARRANGEMENTS | National Execution

PROJECT PARTNERS | Ghana Meteorological Agency (GMet), National Disaster Management Organisation (NADMO), Ministry of Finance and Economic Planning (MoFEP), National Development Planning Commission (NDPC), CARE International, Ghana Wildlife Society, Abantu for Development, University of Ghana, Ministry of Local Government and Rural Development, Ecobank Ghana Ltd., Agricultural Development Bank

DONOR | Government of Japan

PROJECT BUGET | US\$ 2.709 million

PROJECT PERIOD | 2010 - 2012

5 KEY AAP OBJECTIVES IN GHANA

1 MAINSTREAMING CLIMATE CHANGE

 Capacity for long-term planning to manage both existing and future risk associated with climate change are enhanced

2 CAPACITY BUILDING AND LEADERSHIP DEVELOPMENT

 Leadership and institutional framework to manage climate change risks and opportunities in an integrated manner at the local and national levels are strengthened

3 DISASTER EARLY WARNING SYSTEM

 Policies and measures that are durable and can withstand impacts are implemented for disaster early warning systems in Ghana

4 CLIMATE CHANGE ECONOMICS AND FINANCE

 Financing opportunities for adaptation at the regional, national, sub-national, and local levels are expanded

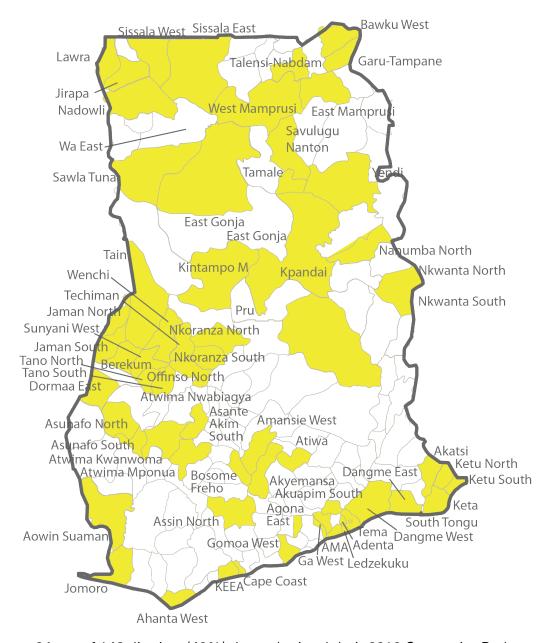
5 KNOWLEDGE MANAGEMENT

 Knowledge management systems and information sharing accross all levels are built and widely disseminated

1 MAINSTREAMING CLIMATE CHANGE

KEY ACHIEVEMENTS & RESULTS

- Supported the development of the National Climate Change Policy (NCCP) which was approved by Cabinet in May 2013.
- All 170 Districts were trained on mainstreaming Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) in 2011
- **32 new districts** (created in addition to the 138 districts in 2010) were further trained on CCA and DRR using the Mainstreaming Tool in 2011 through workshops.
- Supported the integration of climate change (CC) into the Functional Organisation Assessment Tool which is a prerequisite for budgetary allocations to District Assemblies development projects and programmes.
- AAP's effort to mainstream CCA and DRR at the district levels led to 64 out of 149 districts (43%) that submitted their 2012 Composite Budget to have CCA activities mainstreamed and budgeted within their budgets. As a result, in 2012, districts in Ghana allocated over 27 million Ghana Cedis to implement CCA activities in their districts.
- AAP championed the incorporation of CCA and DRR into the Ghana Building Code.



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2 CAPACITY BUILDING AND LEADERSHIP

KEY ACHIEVEMENTS & RESULTS

- Members of Parliament, Council of State, the Government's Economic Management Team, Regional Ministers, Regional Coordinating Directors, District Chief Executives, Chief Directors and Directors of Ministries, Departments and Agencies (MDAs), Reiligious leaders, and Commissioners of the National Development Planning Commission were engaged through High Level Interactive Workshops to create awareness on climate change and deliberate on how they could support mainstreaming of CCA and DRR in their various areas of authority. In all, more than 160 high level leaders in Ghana were engaged and commitments made to facilitate the mainstreaming process at various levels.
- AAP supported 32 mentors and mentees (drawn from the public service, academia and civil society) to enhance their knowledge and skills through mentoring and coaching on climate change adaptation and disaster risk reduction and soft skills (such as facilitation).
- AAP tested approaches to enhance CCA capacity in 5 pilot districts through in-depth planning and implementation of CCA measures such as construction of a foot bridge (Keta District), relocation of markets and light industrial sites to a higher ground (Aowin-Suaman District) and providing pumps for dry-season farming (Sissala East and West Mamprusi Districts)



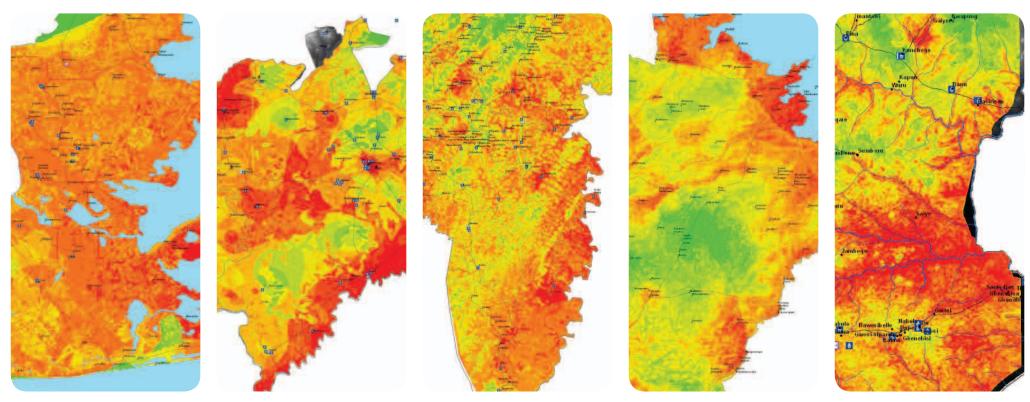




3 EARLY WARNING SYSTEM

KEY ACHIEVEMENTS & RESULTS

- AAP supported the Ghana Meteorological Agency (GMet) to improve its frequency, volume, and quality of weather data by installing **8 Automated Weather Stations (AWS)** and **1 High Speed Computer** and provided **training** on early warning signs to build the capacity of GMet Staff to gather, monitor, and utilize weather data for improved weather forecasting, early warning, and future climate projections.
- **Flood and drought vulnerability maps** were created for communities in all 5 AAP pilot districts using GPS and GIS. Safe havens were also identified and mapped and evacuation plans prepared for the flood-prone areas.
- A Climate Change Community of Practice (CoP) was established comprised of experienced and young professionals and researchers who collect and analyze local climate data and use models for making future climate projections. They have been working in collaboration with the University of Cape Town Climate Systems Analysis Group (CSAG)
- Government of Ghana and UNDP developed a project focusing on to **continue AAP's efforts in EWS** establishment for the next 3 years called the Community Resilience through Early Warning (CREW)

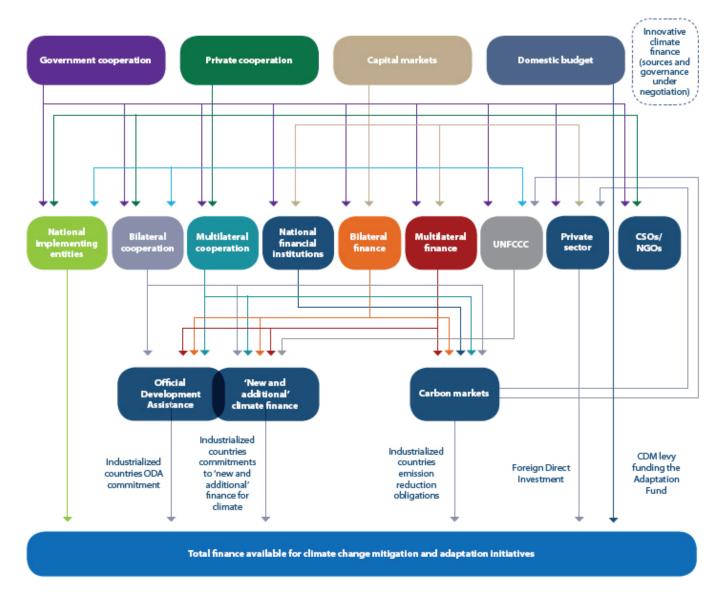


Flood risk maps in Aowin Suaman, Keta, Fanteakwa, Sissala East and West Mamprusi districts (5 AAP Pilot Sites)

4 CLIMATE CHANGE FINANCE AND ECONOMICS

KEY ACHIEVEMENTS & RESULTS

- AAP supported 2 international workshops on climate change economics and finance for 58 Ghanaians and 53 International participants drawn from relevant institutions. These training workshops explored, in great detail, various climate change finance options (including modalities) as well as the economic analysis of various adaptation options
- An initial design document for establishing a Functional Institutional Finance Mechanism for climate change in Ghana was developed based on recommendations and good practices from other countries gathered through the workshop.
- UNDP continues to support the Government of Ghana become "climate-finance ready" through facilitation provided through the establishment and access of various itnernational climate finance such as the Green Climate Fund and the Adaptation Fund, where Ghana's proposal for the Adaptation Fund was technically approved in 2013.



Diverse climate finance options explored at the Climate Change Finance Workshop in Accra (March 2012)

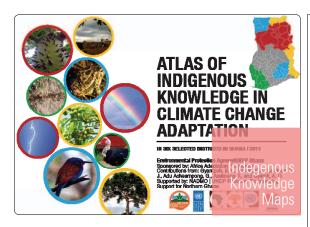
5 KNOWLEDGE MANAGEMENT

KEY ACHIEVEMENTS & RESULTS

- 19 "Policy Advisory Series" document on climate change issues were developed with the support of AAP and widely disseminated. The themes include:
 - 1. Development Planning / 2. Agriculture / 3. Disaster Risk Reduction / 4. Coastal Zone and Resources / 5. Education 6. Energy / 7. Forestry / 8. Health / 9. Human Settlement
 - 10. Tourism / 11. Transport / 12. Water Resources
 - 13. Technology / 14. Public Finance / 15. Private Finance
 - 16. Opportunities / 17. Indigenous Knowledge
 - 18. Gender / 19. Capacity Building

These Policy Briefs have been utilized in Parilimentary Briefings and are still utilized by MEST and EPA for their policy and advocacy work on CCA.

- AAP supported the development of a **Guide for Mainstreaming Climate Change and Disaster Risk** into national development policies and planning. The guides were disseminated and utilized by District Budget Officers to incorporate CCA into their district plans and budgets.
- AAP published an **Indigenous Knowledge Atlas** that compiles local knowledge related to cliamte and weather through research conducted in the 5 pilot districts.
- **Drought and Flood Hazard Maps** were developed for 5 AAP pilot districts
- Various **audio-visual materials** were developed such as: A documentary on CCA in Ghana, local adaptation in Norther Ghana and Burkina Faso. These documentaries were utilized as materials for the high level awareness raising events
- Local **theater groups** were trained to perform informational skits on CCA performed at the various awareness raising events





Climate Change Adaptation and Disaster Risk Reduction: Policy Action for Technology Impact in Agriculture

no option but to formulate policies and strategies to ensure that technology drives all socio-economic activities as has been done by many developed and emerging economies. This is especially critical for the agricultural sector which constitutes a leading economic sector for Ghana. In the case of climate change and disaster risk reduction, technological solutions are critical given the challenges posed by poverty and ineffective agricultural practices. Ghana's scientific institutions have developed some technologies which can be transferred to farmers and other actors in the agricultural sector to enable adaptation and for disaster risk reduction. This has to be done within the appropriate policy frameworks. In this regard, the linkage between the relevant policy institutions and the scientific agencies must be strengthened to ensure focus of Research and Development on climate change adaptation in agriculture The vital political will and commitment to the application of technology must be reinforced. Sectorspecific policy actions to address the challenges in technology transfer, adoption and application to enhance agricultural productivity in areas where climate change impact is evident needs to be initiated.

Context and Importance of the Problem

Technology is the application of knowledge activities, especially if the country wants to reduce embodied in tangible and intangible forms. The the impact of climate change and disaster risks. tractor, combine harvester, corn mill, car, train, chain saw, microscope and telescope are all examples of tangible technology. The techniques for producing palm wine, fermenting cocoa, planting corn for optimal yields and appropriate application of agro-chemicals are examples of intangible technologies. plays in national development is clearly seen in the experiences of advanced and emerging economies. Any country with a strong capacity to produce, adapt and use technology, industrializes and adapt and use technology, industrializes and advances socio-economically. Today, emerging of fertilizer constrains the achievement of economies like China, India, Brazil, Korea and Malaysia are what they are today partly because of their national capacities to generate and use technology. Therefore, every country must create the vital capacity to use technology in all its forms. vields of many creates the consumers. The generate the vital capacity to use technology in all its forms. With Ghana aiming at achieving an upper middle-income status by attaining a per capita income of at least US\$2,000 by the year 2020 and the Millennium Development Goals (MDGs), there is

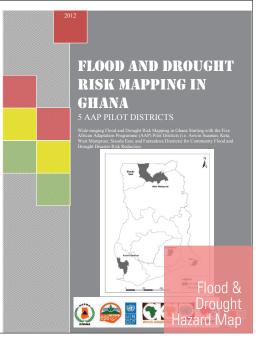
no option but to formulate policies and strategies to ensure that technology drives all socio-economic activities, especially if the country wants to reduce

in Gnana, Gimate change errects and associated risks are well visible in the key sectors of agriculture which primarily depends on good climatic conditions. The majority of small-holder farmers plant according to rain cycles and the use of technological inputs such as Technology is a major factor of production and in tractors and farmmachinery islow. Even where there is enhancing productivity. The crucial role technology the people may inhibit its adoption. A classic example

optimal yields on the farms. More importantly, the irresponsible use of pesticides especially for

achievable vields and







FINANCIAL OVERVIEW

TOTAL RESOURCES

| SOURCE | AMOUNT |
|---------------------|----------------|
| Government of Japan | US\$ 2,709,000 |
| UNDP | US\$ 57,000 |
| TOTAL AAP RESOURCES | US\$ 2,766,000 |

YEARLY EXPENDITURE

| YEAR | EXPENDITURE |
|-----------------------|----------------|
| 2010 | US\$ 658,787 |
| 2011 | US\$ 825,181 |
| 2012 | US\$ 1,179,339 |
| 2013 | US\$ 97,350 |
| TOTAL AAP EXPENDITURE | US\$ 2,760,657 |

As of March 2013.

USE OF RESOURCES (thousand US dollars)

