Inputs provided by: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

1. General description of mandates and objective(s) of your organization / associated network with institutional structure

In December 2009 the project "Innovative Insurance Products for the Adaptation to Climate Change" (IIPACC) was initiated to support Ghana in tackling the socio-economic costs and risks associated with climate change. The project is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety through its International Climate Initiative (ICI). It is jointly implemented by the National Insurance Commission of Ghana (NIC) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The project will run until the end of June 2014.

The key aim of IIPACC was and continues to be to assist the public and private sectors to develop and implement demand oriented and sustainable agricultural crop (and - in the future - livestock) insurance products and services for all segments of the farming community and financiers of agricultural production under a sustainable public private partnership (PPP) program.

With the support of IIPACC, the Ghana Agricultural Insurance Programme (GAIP) was officially launched in June 2011. The aim of GAIP is to offer a risk transfer mechanism in form of insurance solutions to protect farmers and other players in Ghana's agricultural industry from the negative economic effects of climate change. This is being achieved through the development of a sustainable portfolio of innovative insurance products that mitigate the financial risks associated with the predicted rise in temperature and other extreme weather events.

2. Relevant operational framework(s)

Food & Agriculture (MOFA)

POLICY & ADVOCACY Steering Committee **Public Sector Private Sector Development Sector** e.g.: National Insurance e.g.: Ghana Insurance German Development Comission (NIC), Ministry of Association, Banks

MANAGEMENT & GOVERNANCE Ghana Agricultural Insurance Programme

> Governance: Management: Operations:

19 Pool Member Companies Management Board Technical Management Unit

In October 2010 key public and private sector stakeholders involved in the development of a sustainable agricultural insurance system decided to form a Steering Committee. The Steering Committee comprises of eleven member institutions (National Insurance Commission, Ministry of Finance & Economic Planning, Ministry of Food & Agriculture, Ghana Meteorological Agency, Ghana Insurers Association, Ghana Re, farmer representatives, two local banks, GIZ, and World Bank). The Steering Committee meets regularly (every 1-2

months) to discuss government policy as well as priorities and requirements for technical, legal, regulatory, operational and financial support for agricultural insurance in Ghana.

Cooperation (GIZ)

In June 2011 the Ghana Agricultural Insurance Pool was formed comprising of 19 nonlife insurance companies. A Management Board of the Pool was established which is responsible for programme decisionmaking and strategic planning. Day-to-day operations of the Pool are managed by the Technical Management Unit (TMU) which is comprised of a project manager, an insurance underwriter and an agrometeorologist. Technical support to the TMU is provided by an advisory body, the Technical Committee on Agricultural Insurance (TCAI), which is comprised of representatives from the insurance companies, the National

Insurance Commission and GIZ-IIPACC.

In 2011, for the first time in Ghana, a drought index insurance product was developed and successfully launched. For this initiative IIPACC/GAIP entered into a **Memorandum of Understanding (MoU) with the Ghana Meteorological Agency** (GMet). GMet operates the rainfall index trigger stations and provides GAIP with the daily rainfall data on a regular basis throughout the cover period. Under this MoU, GIZ-IIPACC procured approx. 40 automated weather stations which are improving the density of GMet's weather station network.

In 2012, another product (area yield index insurance) was developed and piloted in 2013. This product makes indemnity payments to farmers if the actual average district yield of the district where the farmers' field is located in, falls short of a predefined insured area yield. The average district yield data required for this product is collected and estimated by the Statistical Research and Information Department (SRID) of the Ministry of Food and Agriculture (MOFA) under the Multi-Round Annual Crop and Livestock Survey. GIZ-IIPACC/GAIP has entered into a **Memorandum of Understanding (MoU) with MOFA-SRID** to strengthen its infield crop production and yield estimation procedures.

3. Focus areas of risk management for loss and damage associated with climate change impacts

Climate experts estimate that by 2100, the average daily temperature in Ghana will have risen by three degrees Celsius while rainfall will have decreased by between nine and 27 per cent, depending on the region. More extreme weather patterns are anticipated that will lead to higher rates of crop failure and fertile land being lost to production. This represents a significant challenge to the farmers who would see their income impacted, the banks who finance them and face higher rates of default, plus the agricultural suppliers who support the industry with seed and fertilizers and other inputs, which are often bought on credit.

GAIP contributes to the following focus areas of risk management for loss and damage (for more information visit www.gaip-info.com):

- (a) Assessing the risk of loss and damage:
 - Extensive scientific research has been undertaken to improve the understanding of climate impacts on Ghana's agriculture: A feasibility study was published in August 2010 which analyzes regulative and climatic conditions for implementing agricultural insurance products in Ghana. Weather influence on harvest was examined for different crops (e.g. maize, banana, cocoa, rubber). The meteorological data availability was enhanced in cooperation with GMet (approx. 40 automated weather stations were installed throughout Ghana and GMet staff trained in data processing). In collaboration with the University of Ghana, the impacts of different risks (e.g. drought) on crops during the various crop growth stages have been tested to understand potential damages. The ongoing research activities include greenhouse experiments, farmers' surveys and the continuous assessment of weather station maintenance and crop cutting practices.
- (b) Identifying options and designing and implementing country-driven risk management strategies and approaches:
 - GAIP provides a means for basically two clientele bases to transfer risks associated with climate change: At the 'micro level' are the farmers, who can buy insurance policies directly from GAIP to cover their crops. At the 'meso level' are financial institutions and input suppliers, who can purchase insurance to protect their portfolios against weather events that cause higher default rates.
- (c)The systematic observation of, and data collection on, the impacts of climate change

IIPACC's capacity building for GMet and MoFA contributes to an improved quality, quantity and systematization of data gathering on crop yields and climate data on a national level. GAIP furthermore gathers and analyzes data on crop yield and key risks received from commercial farmers and regular research activities on agricultural risk management. In combination with historic data conclusions on extreme event trends in Ghana can be drawn.

 (d) Implementing comprehensive climate risk management approaches, including scaling up and replicating good practices and pilot initiatives;

GAIP is aware of the need for a comprehensive risk management approach and therefore tries to position agricultural insurance in the existing landscape of risk management measures in Ghana. Various agricultural insurance products have been piloted on a regional level and are now being upscaled to the national level. The product design is based on best practices from similar approaches in other countries and GAIP seeks the regular exchange with other agricultural and climate risk insurance initiatives from all over the world.

- (e) Promoting an enabling environment that would encourage investment and the involvement of relevant stakeholders in climate risk management:

IIPACC facilitates Ghana's insurance sector to invest in agricultural insurance via the promotion of an enabling regulatory framework and political environment (e.g. in collaboration with NIC) and the setup of a functioning framework for agricultural insurance. Further, it builds capacity in governmental organization (GMet, MoFA) to be involved in the collection of meteorological and agricultural data that provide a basis for agricultural insurance products and other climate risk management measures.

- (f) Involving the private sector and other relevant stakeholders in the assessment of and response to loss and damage:

GAIP collaborates closely with GMet on compiling the relevant weather data for the calculation and claims management of insurance products. With MOFA, close cooperation is needed for data collection on crop yields and losses associated with adverse climatic events. GAIP is an insurance pool composed of and run by private insurance companies. Swiss Re provides technical support in terms of product development and re-insurance capacity.

4. Geographic coverage

In 2011, the first weather index insurance products were sold in three regions in Northern Ghana. As of 2013, GAIP offers agricultural insurance products in seven out of the ten regions in Ghana. Currently, GAIP works on the further expansion of its coverage to all ten regions of Ghana.

5. Key stakeholders

The key stakeholders are described in section 2.) (please see above). The Steering Committee of agricultural Insurance in Ghana is comprised of 11 public and private member institutions which represent the key stakeholders in the development of an agricultural insurance system in Ghana.

- National Insurance Commission (NIC)
- Ministry of Food and Agriculture (MOFA)
- Ministry of Finance and Economic Planning (MoFEP)
- Ghana Insurance Association (GIA)
- Ghana Agricultural Insurance Pool with 19 member non-life insurance companies
- Ghana Re
- Ghana Meteorological Agency (GMet)
- Two banks which are the major provider of agricultural finance (Agricultural Development Bank and Stanbic Bank)

- Farmer representative of the "National Farmers and Fisherman Award Winners Association"
- Development Partners (e.g. GIZ-IIPACC)

6. Implementation modality / delivery mechanisms

The Ghana Agricultural Insurance Programme is implemented under a public private partnership (PPP) program as explained in section 1.) and 2.). The Ghana Agricultural Insurance Pool is a co-insurance pool arrangement between 19 commercial non-life insurance companies that follows private sector principles.

Supply side:

- Capacity Development for the insurance sector (including product development, business planning and financial projections, marketing and distribution, claims management)
- Linking up the national insurance pool with international re-insurance capacity (Swiss Re)
- Capacity development for GAIP in the structural and organizational set-up of its governance, management and operations
- Development of an integrated agrometeorological index-insurance software for the Pool's operations
- Support the Technical Management Unit of GAIP with technical, operational, logistical and management back-up

Demand side:

- Information and sensitization campaigns for clients (farmers, banks, other actors in the agricultural value change) about:
 - agricultural production risks including climate change
 - principles of (index-based) agricultural insurance and its benefits for the agricultural value chain
 - general principles of insurance as a risk transfer mechanism
 - consumer protection
- Sensitization is done in the following forms: sensitization and/or community events, presentation on conferences or workshops, bilateral meetings, brochures, flyers, sms services, radio programmes, radio jingles, newspaper articles, website, etc.

Data Provider:

- Procurement and installation of automated weather stations and capacity building for GMet officers on maintenance of the stations, data collection and compilation
- Capacity building for MOFA-SRID officers in strengthening of their annual crop cutting and yield estimation as well as procurement of equipment (e.g. GPS-devices) to enhance efficiency

All key stakeholders of GAIP report regularly to the Steering Committee of Agricultural insurance in Ghana. Since September 2010 the Steering Committee has met 21 times (every 1-2 months). Detailed minutes of the discussions are available.

The GIZ-IIPACC project provides annual reports to the BMU ICI as its funding body.

7. Key activities / outputs to date

- March August 2010 : Feasibility study conducted
- September 2010: Steering Committee set up comprising of 11 public and private key stakeholder institutions
- January 2011: Training and the beginning of capacity building for stakeholders

- June 2011: Formation of Ghana Agricultural Insurance Pool and the Technical Management Unit as the operational arm of the Pool
- June 2011: First weather index insurance product sold to four institutions in Ghana, covering over 3,000 small holder farmers
- December 2011: Procurement and installation of 18 automated weather stations in five regions of Ghana
- Crop season 2012: Expansion of the drought index insurance coverage to six regions, crops insured: maize and sova
- October 2012: First payouts under the drought index insurance product received by 136 farmers in the Northern Region
- December 2012: Procurement and installation of additional 18 automated weather stations
- December 2012-February 2013: Training of Pool member companies to serve as contact points for marketing of drought index insurance products
- February 2013: Introduction of named-peril and multi-peril crop insurance for commercial farmers in Ghana in cooperation with international reinsurers
- May 2013: Area-yield index insurance piloted in three selected districts in Upper West Region
- July 2013: Finalization of a five-year business plan (2013-2017) for GAIP

8. Any additional information and contact details

GIZ is currently working on a structured evaluation of lessons learned from its various projects on insurance solutions to address climate risk. Besides GAIP in Ghana, this includes other projects in Africa, Asia and Latin America and as well as cooperation with international private insurance partners. The evaluation builds the basis for identifying success factors for the development of sustainable insurance solutions for climate risk. In this endeavor, GIZ collaborates closely with the Munich Climate Insurance Initiative (MCII) with the objective to discuss lessons and recommendations with delegates to the Conference of the Parties (COP) to the UNFCCC. (For more information on a respective side event at the Climate Change Conference 2013 in Bonn, please visit: http://www.climate-insurance.org/front_content.php?idart=3600.

Contact details:

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GIZ project: "Innovative Insurance Products for the Adaptation to Climate Change" (GIZ-IIPACC)

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