

# Info Note

## Scaling up climate information services through public-private partnership business models

*An example from northern Ghana*

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APRIL 2019

### Key messages

- A public private partnership (PPP) business model was developed in 2017 to sustain the delivery of climate information services (CIS) to farmers through mobile phone platforms
- Preliminary results show more than 300,000 farmers (21% women) are paying an agreed \$US0.2 monthly subscription fee to receive CIS through the PPP.
- The PPP has been strategically linked to the Planting for Food and Jobs initiative of the Government of Ghana to make a strong case for the mainstreaming of CIS into agricultural development plans, programs, strategies and policies in Ghana

Between 2011 and 2017, CCAFS West Africa piloted how the dissemination of climate information services (CIS) to farmers in its climate-smart village sites (Lawra and Jirapa) in Ghana could help them avert risks associated with climate change and variability. The pilot was executed with 1000 profiled and geo-referenced farmers (33% women) through a collaboration with a private information and communication technology (ICT) company, Esoko in Ghana and the Ghana Meteorological Agency (GMet). During the pilot, Esoko delivered processed weather information received from GMet and other sources to farmers using mobile phone platforms. The Esoko platform also allows farmers to access a call center where CIS is delivered to them vocally in their local dialect. The forecast information included the total rainfall, the onset and end of the rainy season, and a 10-day forecast during the rainy season (Partey et al., 2018). In addition to the weather forecast information, farmers receive market alerts and agro-advisories that are intended to help them understand and apply the received information.

A survey conducted in 2017 showed CIS received by farmers enabled them to make mixed strategic decisions on crop variety selection, time of planting, time of applying fertilizer, time of irrigating, time of harvesting etc. which contributed to reducing crop failures and increasing household food availability for both men and women (Partey et al., 2018).

To sustain the delivery of CIS to farmers at the climate-smart village sites and reach others in the country, Esoko adopted a public-private partnership (PPP) business model proposed by CCAFS. The PPP is particularly targeted at farmers subscribing to the “Planting for Food and Jobs” (PFJ) initiative introduced by the Government of Ghana as part of its measures to improve food security and employment in the agricultural sector. This document presents the nature of the PPP model and preliminary results.

### Development and implementation of the PPP model

The methodology for designing and implementing the PPP followed Figure 1:

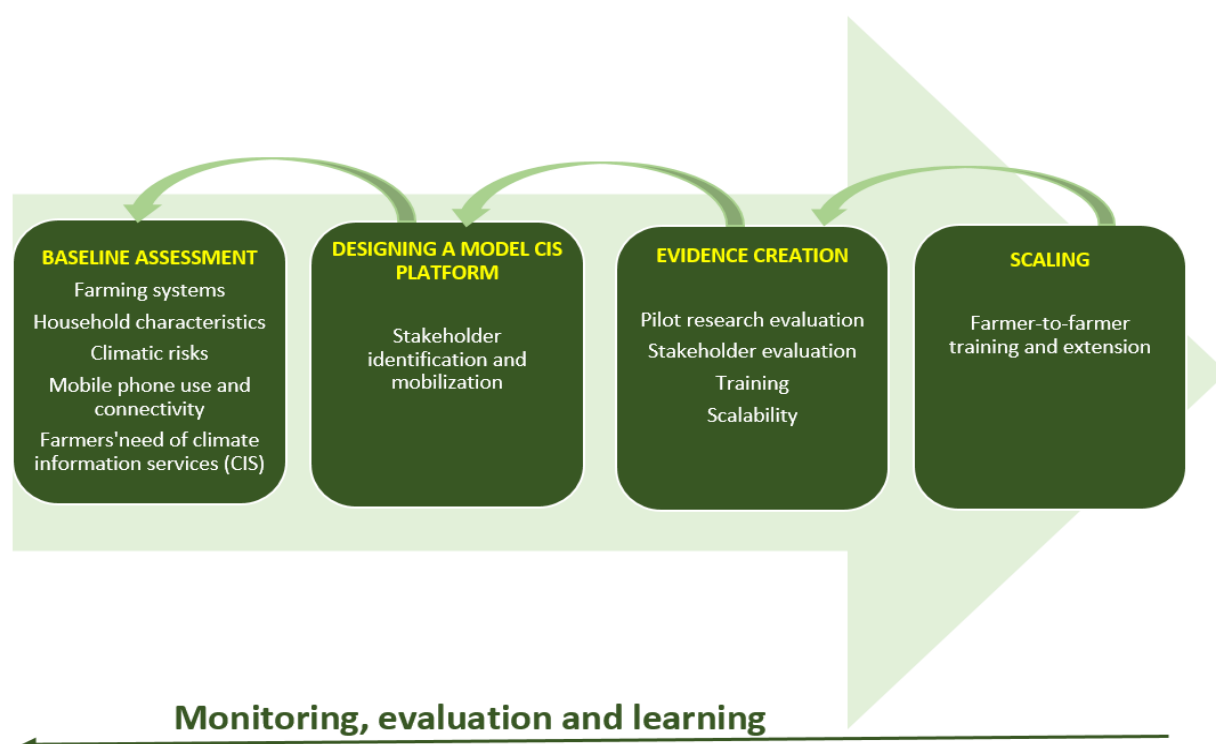
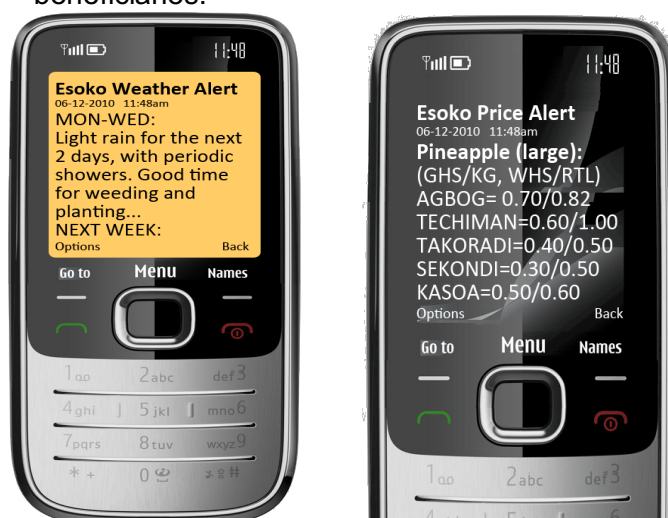
Stage1: Baseline assessment - Esoko conducted a baseline study of 20,000 farmers (for a start) to detail their demographic characteristics, farming type, crop and livestock production systems and need of CIS. The 20,000 farmers were beneficiaries of the PFJ.

Stage 2: Designing a model of CIS platform – Esoko enhanced its existing partnership with private companies (Toto agric. and aWhere, Vodafone Ghana) and public institutions (GMet, the Council for Scientific and Industrial Research - CSIR, the Ministry of Food and Agriculture - MoFA) and farmers. Defined roles and responsibilities of partners in the PPP (Figure 2) are as follows:

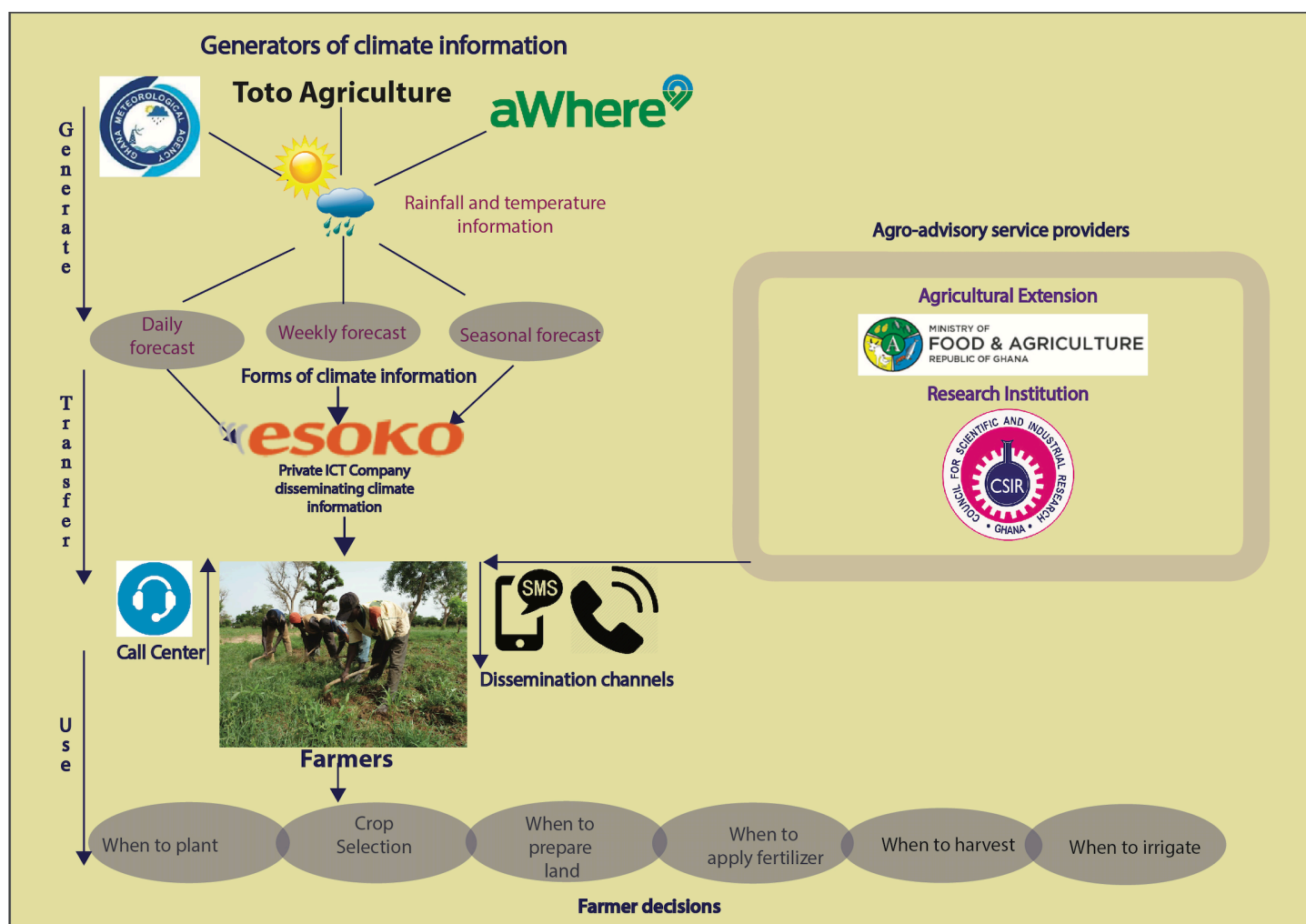
- Toto Agriculture, aWhere and GMet provide daily, weekly and seasonal weather information to Esoko which is processed and delivered to farmers;
- CSIR and MoFA train Esoko staff to better understand and interpret CIS to farmers as well as advising farmers on the most applicable climate-smart agricultural options based on weather information. CSIR runs periodic quality checks on agro-advisories delivered through the Esoko platform. Esoko and CSIR/MoFA capacitates farmers on how to notice text messages, how to navigate the mobile phone, how to access information, how to interpret the information and how to access the Esoko farmer helpline (call center).
- Vodafone provides mobile services and ensures successful transmission of CIS to farmers. Vodafone also subscribe all farmers who applied to receive CIS through the PPP to its network of farmers called the “Vodafone Farmers Club” (VFC). In the current VFC, farmers have agreed to pay US\$ 0.20 per month to receive timely market alerts and CIS on their mobile phones. These payments are made as direct debits and deducted when farmers recharge their phones with Vodafone scratch cards. VFC members also receive free airtime to call members of the group.

**Stage 3: Creating evidence** - CCAFS and Esoko continue to monitor the effectiveness of the PPP in delivering CIS tailored to the needs of farmers. Questionnaire interviews, focus group discussions are periodically conducted in establishing linkages between CIS delivered through the PPP and livelihood and productivity indicators. At least 5000 farmers are used in the evaluation of impacts of CIS. In addition, key drivers and critical factors of risks and success shall be determined with costs and benefits analyzed to accentuate implications on adoption.

**Stage 4: Scaling** - With evidence of success, CIS delivered through the PPP shall be scaled out and up across regions in Ghana, especially to benefit the PFJ beneficiaries.



**Figure 1:** Steps for the design and implementation of a PPP model for disseminating CIS. Implementation steps shall be based on stakeholder engagements and seldom follow a simple linear model



**Figure 2:** Public-private partnership model for climate information services in Ghana

## Preliminary results

[Recent surveys](#) indicate that more than 300,000 (21% women) farmers subscribed and are now being served with CIS and market alerts through the PPP. This also includes farmers from the PFJ program. Interviewed farmers indicated their interest to continuously receive weather forecast, market alerts and agro-advisory services through the Esoko platform.

## Conclusions and policy implications

With over 300,000 subscribers within 2 years, this on-going PPP has the potential to reach millions of farmers in Ghana with climate information services (CIS). The linkage with the Planting for Food and Jobs initiative of the Government of Ghana is strategic to make a strong case for the mainstreaming of CIS into agricultural development programs, strategies and policies in Ghana. This notwithstanding, more evidence on the drivers of success and risks of the PPP are needed to ensure successful operationalization and long-term sustenance of the model.

## Further Reading

- Etwire PM, Buah S, Ouédraogo M, Zougmore R, Partey ST, Martey E, Dayamba, SD and Bayala J (2017) An assessment of mobile phone-based dissemination of weather and market information in the Upper West Region of Ghana. Agriculture and Food Security 6: 8. DOI 10.1186/s40066-016-0088-y
- Partey ST, Dakorah AD, Zougmore RB, Ouédraogo M, Nyasimi M, Kotey GN, Huyer S (2018) Gender and climate risk management: evidence of climate information use in Ghana. Climatic Change pp 1-15 (in press). <https://doi.org/10.1007/s10584-018-2239-6>
- Blog: [A CCAFS-informed public-private partnership reaches 300,000 farmers with climate information](#)

*This Info Note summarizes the nature and preliminary findings of a Public Private Partnership Business Model developed to sustain the delivery of Climate Information Services to farmers in Ghana. It is jointly undertaken by researchers at CCAFS West Africa based at ICRISAT, Bamako, Mali and Esoko Ghana Ltd, Accra, Ghana*

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Ministry of Foreign Affairs of the Netherlands

