

# Enhancing Sustainability of Water and Sanitation Facilities

Through Mobile Phone Technology

Technology Solution from SkyFox



# Introduction

- SkyFox limited is an international company with offices in Burkina Faso, Guinea, Sierra Leon and Ghana
- In 2010, SkyFox developed a Multi-Purpose transactions platform for the water sector
- In 2012/2013, an SMS portal was customized to strengthen the Spare Parts supply chain to improve reliability of rural water supply in Ghana
- Funding was provided by the Dutch Government under a PPP project called SMARTerWASH.
- The system was initially developed with a Canadian grand Challenges fund won by the Kwame Nkrumah University of Science and Technology and the Triple-S Project

# Introduction Cont.....

- The business sector have not been able to fill the gaps in the rural water spare parts supply chain due to:
  - The high transaction costs in setting up distributions points to enable easy access to spare parts is expensive
  - Small profit margins,
  - infrequent purchases
  - Lack of access to Area Mechanics,
  - High cost of parts, coupled with long distance travel to source spare parts and over pricing by middle players

# Introduction Cont.....

- This motivated the development of the sms platform which by SkyFox Limited allows for the scaling up of the spare parts distribution chain nationally at a very low cost.
- it makes it cheaper as compared to the existing business model of setting up stores at locations close to customers.
- It greatly lowers the cost for both users and service providers by erasing the need for community members to travel long distances for hours, at a high cost in order to check prices, check availability, order a part, or find a mechanic

# USING THE SMS PLATFORM

- You can use the SkyFox system for the following transactions
  - (a) Report broken or repaired pump facilities
  - (b) Check the prices of spare parts
  - (c) Purchase or order for spare parts.
- This can be done by dialing \*714\*55# or \*417# ( tigo ) with any type of phone in Ghana.
- After dialing the \*714\*55# or \*417#, the user simply presses the number corresponding to the menu prompts which allows the user to perform the above transactions

# Cont.....

- This does not require the use of any smartphone, internet or phone credit.
- If a pump is reported as not working the system alerts the Area Mechanic to diagnose the pump and fix it.
- Codes are required to purchase spare parts
- Orders for spare parts are paid via mobile money in full before spare parts are dispatched to the community.
- Communities receive spare parts within 24hrs averagely through an effective engagement with the transport operators.
- Training must also be provided before communities can use the sms platform.

# AREA MECHANIC TRAINING IN WA



# BENEFITS

- Area Mechanics are given 5% commission on all purchases of spare parts
- It promotes transparency for both communities and stakeholders
- Communities have their hand pumps fixed within 24 hrs
- SkyFox gets commission on sales made on spare parts
- The spare parts supplier JOISAM benefits because their customer based is expanded
- The GoG benefits through the accurate data we provide.

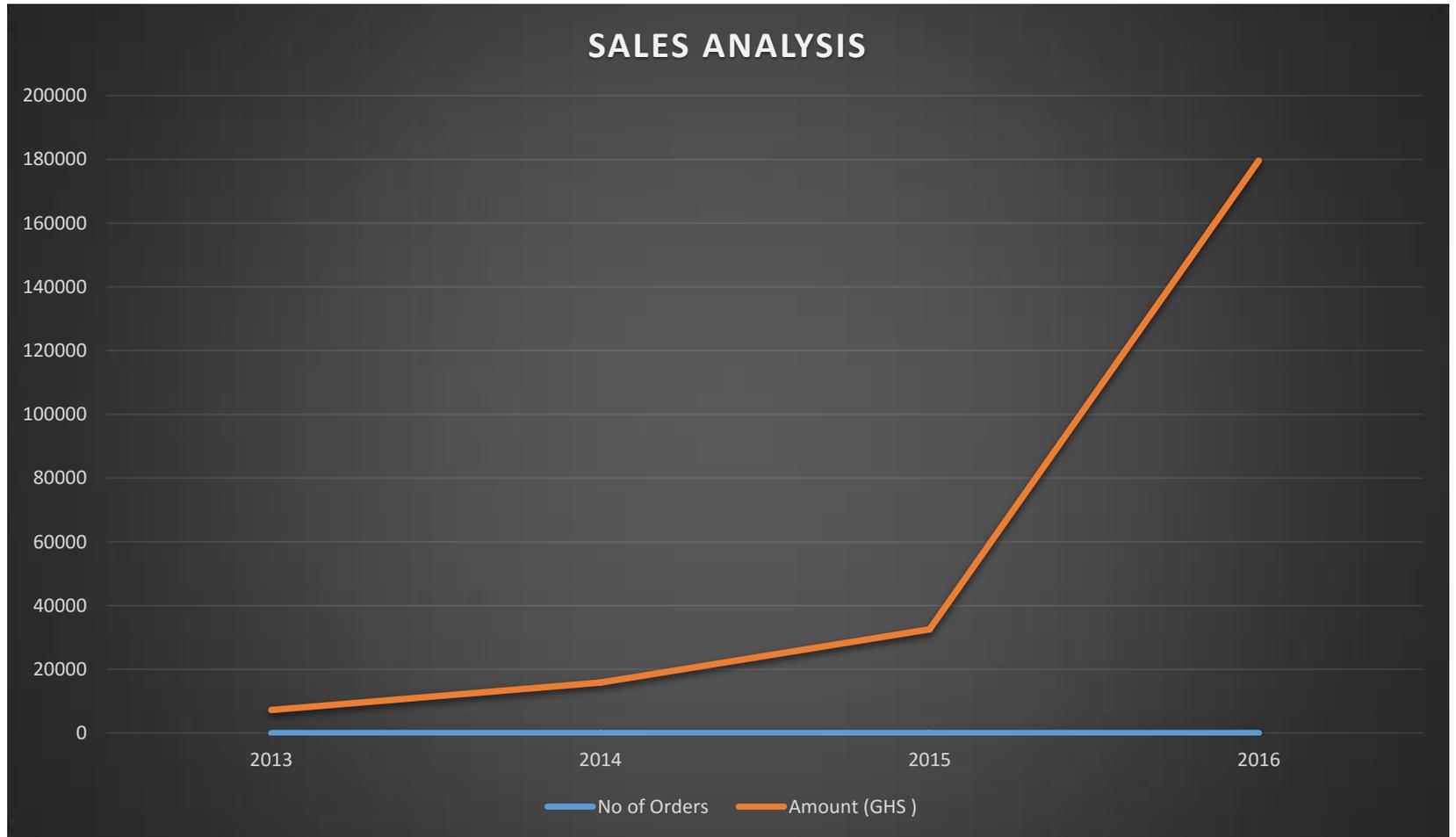
# CHALLENGES

- WATSANs and Area Mechanics are very reluctant in using the sms to report status of hand pumps and also order for spare parts.
- Communities do not implement pay as you fetch or a monthly tariff system making it difficult to mobilize funds for repairs
- Some Area Mechanics were not able to follow along with the training program due to inability to operate their mobile phones or the mobile phones they brought to the training was without functional key parts.

# RESULTS AND LESSONS

- The platform has linked up 1,955 communities and 5,059 facilities with the elements needed to monitor or repair a hand pump.
- 117 unique phone numbers used the system to report functionality, check a price, or make an order in July 2016.
- Broken hand pumps which would have been repaired within a month are now being repaired in an average of 48 hours.
- Switching the targeted market from the WATSANs to the AM increased sales tremendously

Cont.....



## Cont.....

- The system allows for conflict resolution between Area Mechanics and community members because of its transparent nature.
- There is the need for Follow-up trainings and phone calls
- There is overwhelming interest among area mechanics, communities and some major stakeholders such as Members of parliament and District Assembly staff.

# Conclusions and Recommendations

- The SMS platform has brought smiles to communities and Area Mechanics who until now have travelled long distances to check the price of parts and to make purchases.
- It has helped reduced down time of hand pumps in Ghana
- The platform, if deployed similarly across other developing countries may drastically reduce down time of hand pumps and extend business services to underserved rural communities.

# A FACILITY BEEN FIXED WITHIN 48 HRS

