

# Leveraging Agriculture through ICT-GISB Approach



# Why we need sustainability in agriculture



- Ensure food security
- 70 % of population employed in farming (smallholder, rural)
- 62% GDP impact of agriculture in developing countries

# GISB Product Portfolio – ICT solutions that address specific social problems such as low agriculture output, lack of pre-natal care and education

#### **Agriculture Early Learning** Health Phone-call-in Mobile Compute – Tablet/PC **Mobile Compute – Tablet/PC** Web registration eAgro apps for nutrient analysis Maternal and child health tracking Mobile based solution (voice, txt) Pre-K learning tools customizable and recommendations for seeds, And monitoring software using the key eAgro algorithms In any language fertilizers, and market linkage For development agencies, 2015: revenue sharing with In R&D stage telecom company with government programs, social franchises and entrepreneurs. nationwide coverage. Micro-Entrepreneurs and Download for everyone Expectant mothers, Farmers directly call Krishi newborns and toddlers in Agric. extension programs call center rural areas Freely available for download ~\$10/license \$10/license + \$12 annual \$0.10/query

on the Google Play Store

Web-hosting cost

Source: Grameen-Intel Social Business

**Direct** 

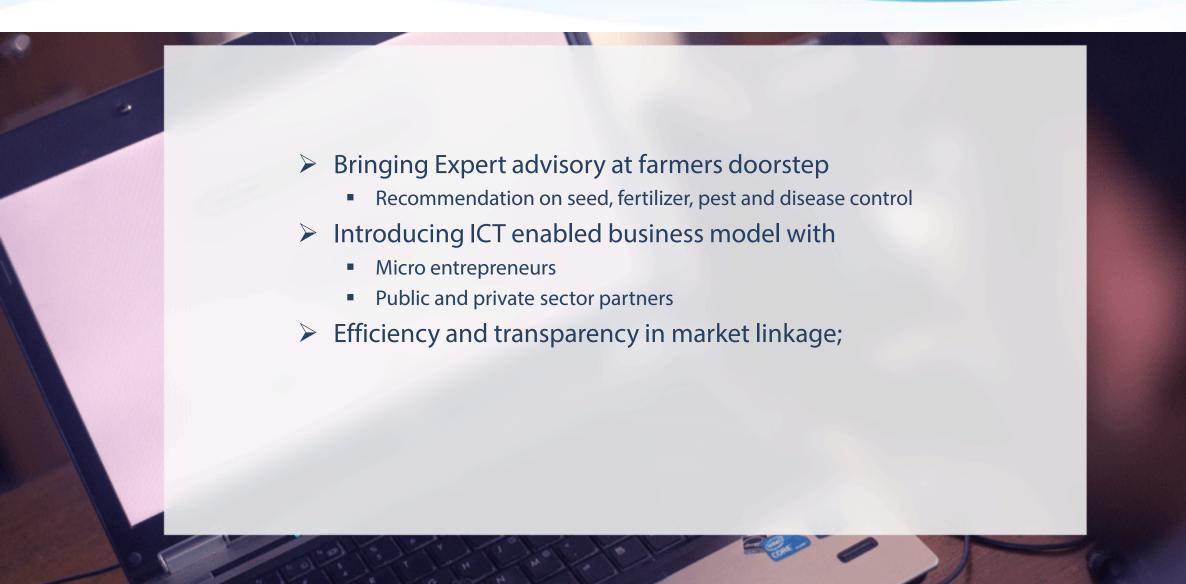
Customer

Cost

Solution

# ICT as leverage for agriculture sustainability - GISB approach





### **GISB** at a glance



We provide sustainable technology solutions and business models to improve the livelihood at the base of the pyramid.

Our goals as a **social business** are:

- Sustainably improve livelihood through entrepreneurship
- Support capacity building
- Improve food security
- Better infant and maternal health
- Increase child literacy

795 million without enough food 67.4 million children out of school 2.9 million newborns died in 2012



serving 22964 Farmers



Easily Scalable, Globally Replicable.



### **OUR SOLUTIONS**



Seed recommendation app to identify best seed options, improve input cost and increase yield.



Harvest management application to link buyers with farmers and create market transparency.



Educational app for pre-school children to learn the basic foundations of language. (Currently available in English, Arabic, and Bangla)



Soil analysis solution to identify optimum fertilizer, improve input cost and increase yield.



Telecommunication based solution to leverage the high coverage of mobile network to benefit farmers.



Drawing app to encourage creativity and cognitive development among young children



Solution to prevent, control, and fight plant diseases, weeds and pests based on best practices.

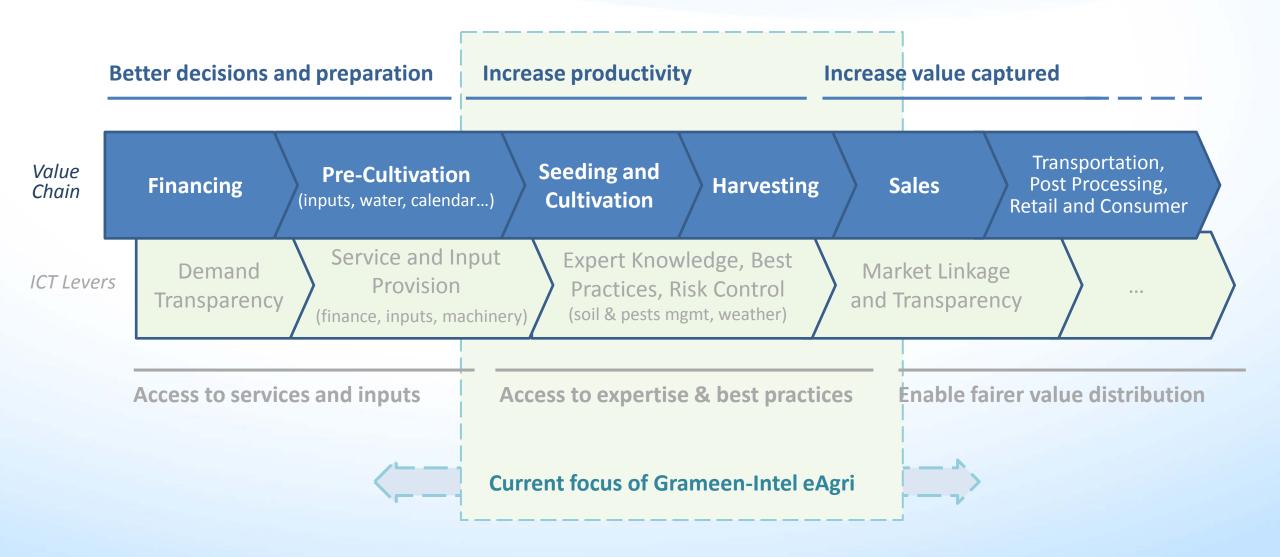


Vaccine scheduling and tracking software for newborns and toddlers.



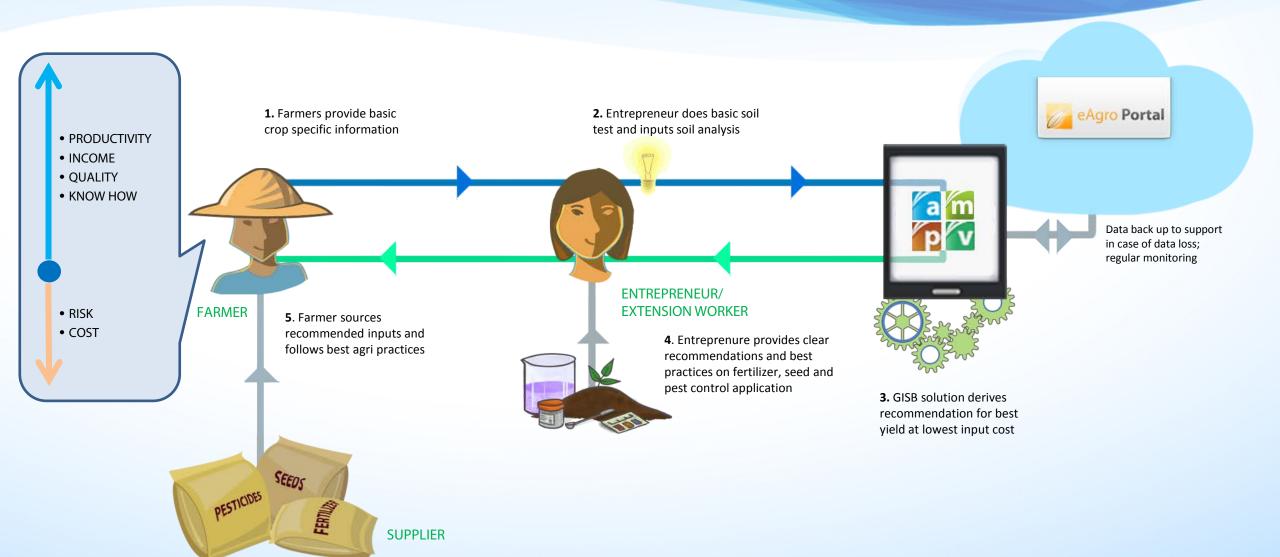
Antenatal care monitoring software for pregnant women to help identify high risk pregnancies early on for appropriate follow up.

# ICT driving agriculture impact across the value chain



Source: Grameen-Intel Social Business

# **eAgriculture Working Model**



# Partnership and collaboration for sustainable agriculture development



#### HVAP in **Nepal**

Partnership with eKutir in Odisha, **India** 

Project Harvest in **Bangladesh**local entrepreneur and institutional partners

krishē – Call-center based fertilizer reommendation service launched in **Bangladesh** 

ePADEE in **Cambodia** funded and supported by IFAD, SNV, iDE



### Offering:

- Capacity building
- Expert agro knowledge
- Leveraging access to ICT tools

### **Positive changes in:**

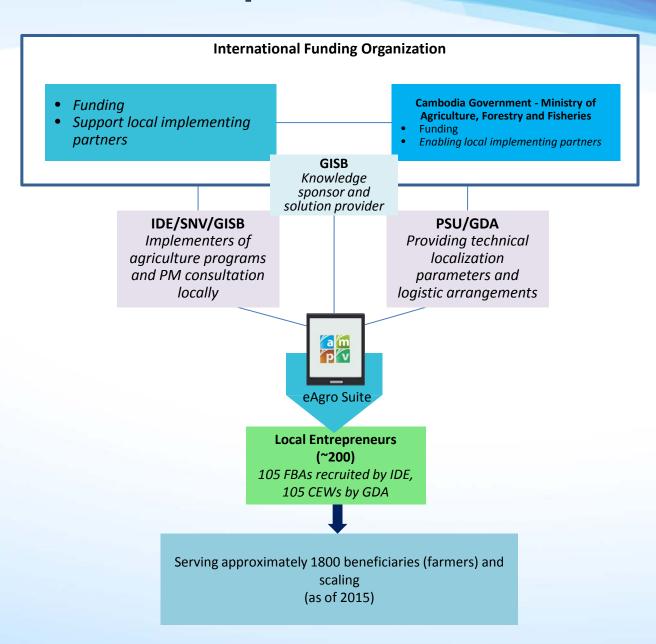
- Livelihood development
- Food security
- Income generation
- Soil health maintenance

### **Sustainable development by:**

- Reduced barrier in ICT education
- Entrepreneur creation
- Reducing environmental impact

### e-PADEE – an example





eAgronomy suite is a mobile solution (Tablet, Notebook) that brings affordable expert advisory services for crop and soil management to small holder farmers to maximize yields and improve the quality of the harvest. The SW suite comprises of

- seed selection and recommendation ānkur
- soil nutrient analysis and fertilizer recommendation **mrittikā**
- crop protection recommendation **protikār**
- direct market or buyer information to farmers **vistār**

#### **PADEE Goal**

- introducing information and communication technology (ICT) to increase rice productivity to become a net exporter, highlighting importance of rice experts, knowledge based agro expert system and the usage of ICT for enabling rural development
- Enable small holder farmers to achieve sustainable high yield on crops



# DIGITAL STRATEGIES FOR DEVELOPMENT SUMMIT 2015

Accelerating Inclusive Development through ICT Innovation
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