

GRAMEEN FOUNDATION

SOLUTION STATEMENT AND IMPLEMENTATION PLAN

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1.1 Basic Project Data

a. **Title:** Building Resilience of Smallholder Farmers in Southeast Asia

b. **Region:** Southeast Asia

c. **Lead Organization:** Grameen Foundation USA

d. **Target start date:** October 1, 2015 **Finish date:** May 31, 2017

e. **Any matching funds offered:** Currently seeking funding from variety of sources including corporate foundations, bi-lateral governments, and some of our partners below – Nutiva Nourish Foundation: ~\$100,000 in-kind,

f. **GRP Team Members:**

| Team Role | Name | Title | Email | Phone Number | Organization |
|----------------|-----------------------------|-------------------------------------|--------------------------------|---------------------------|-------------------------------------|
| Team Lead | Whitney Gantt | Director, Agriculture | wgantt@grameenfoundation.org | +1.575.6133188 | Grameen Foundation USA |
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| Team Member | Theodore Garcia | Vice Chairman | csi_trade_ventures@yahoo.com | +63.917.7009000 | Chokolade de San Isidro |
| Team Member | Cesar Galvez | VP Operations | Cesar.galvez@franklinbaker.com | +63.2.8102222, ext. 120 | Franklin Baker |
| Team Member | Charita Puentespina | Director | puentespinafarms@yahoo.com | +63.82.2211545 | Malagos |
| Team Member | Gretchen Grani | Director of Sustainability | GretchenG@nutiva.com | +1.510.2552706 | Nutiva |
| Team Member | Zach Romanow | Agriculture Lead Engineer | zromanow@palantir.com | +1.617.966.5500 | Palantir Technologies |
| Team Member | Carmellita Bilaoen | Executive Director | cabulaon@yahoo.com | +63.085.3438529 | People's Bank of Caraga, Inc. (PBC) |
| Team Member | Francis Pangilinan | Chairman, PCA Governing Board | Kiko.Pangilinan@gmail.com | +63.2.9284501 | Philippine Coconut Authority (PCA) |
| Team Member | Joe Mascaro | Program Manager, Impact Initiatives | Joe.Mascaro@planet.com | +1.734.612.7656 | PlanetLabs |

2.1 SOLUTION STATEMENT AND THEORY OF CHANGE

Background. The Philippines is the 2nd largest producer and exporter of coconut products in the world. Coconut is the top agricultural export and industry with over 2 million smallholder farmers (SHFs) and 23 million people dependent on coconut for their livelihood. However, key challenges like climate change and extreme weather events, e.g. typhoons and pest and disease outbreaks make the Philippines one of the most vulnerable countries in Southeast Asia. Coconut SHFs are among the least resilient to economic stresses and environmental shocks, such as market volatility, crop failure, and resource scarcity. Their ability to build assets as well as manage and mitigate risk, is constrained due to the following barriers: 1) low productivity due to lack of both information and good agricultural practices (GAP), 2) lack of income diversification and market options, 3) exclusion from the formal financial sector, and 4) limited visibility into the incidence of pest and disease. (*Annex I.*)

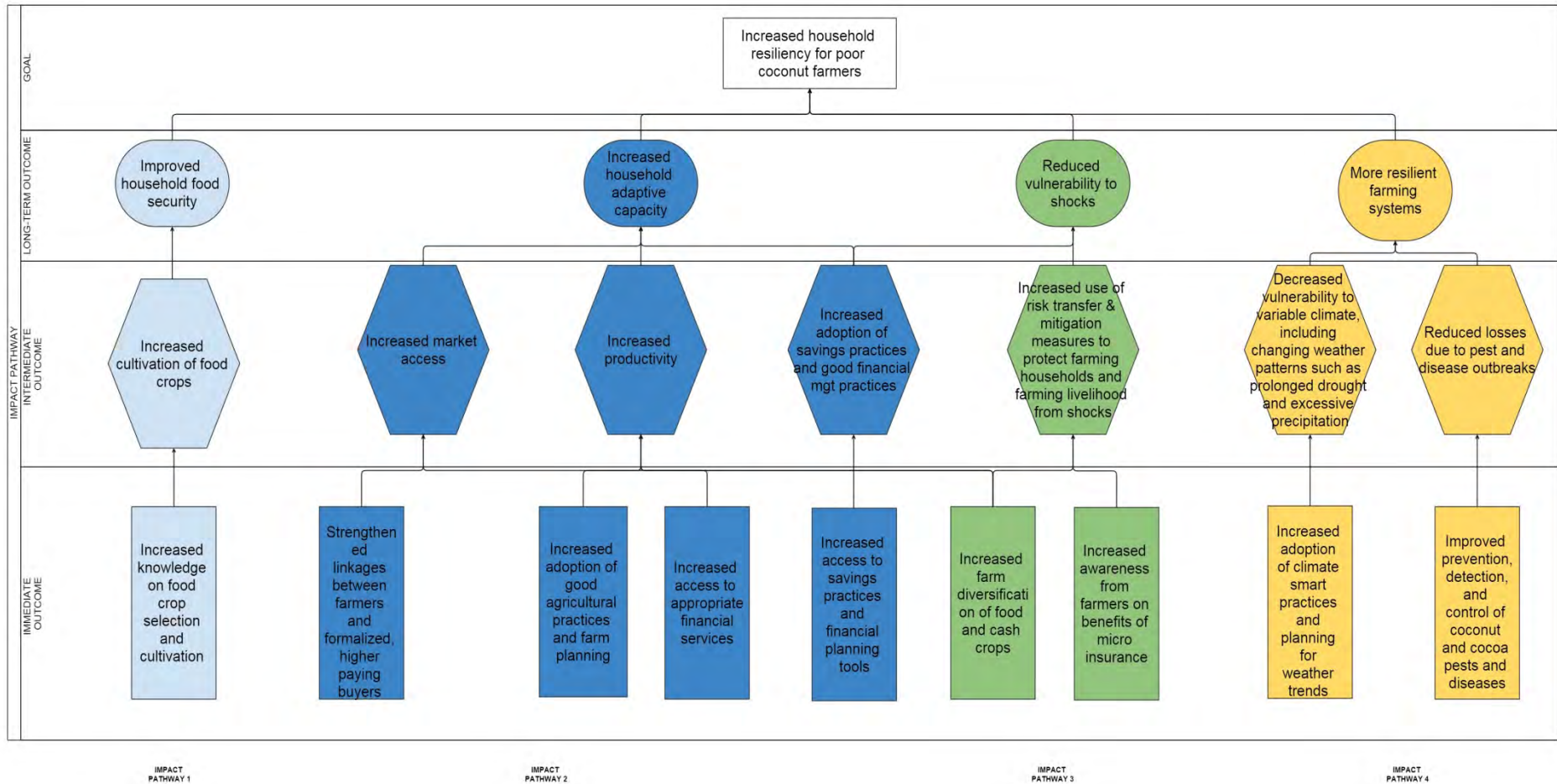
Our Vision, Our Solution. Grameen Foundation (GF) will consider this 18-month project successful once SHFs achieve household resiliency through delivery of these integrated solution components:

1. **Improved Productivity:** Working with agribusiness and public research and extension partners, we will help SHFs improve productivity via access to mobile-enabled extension services that promote adoption of GAP. These services will help SHFs achieve economic resilience by increasing their revenue through enhanced productivity, increased reliability of supply to meet demand, and improved resiliency of farming systems through climate smart and other practices.
2. **Improved Market Access:** We will reduce SHF vulnerability to economic stresses and shocks by a) diversifying livelihood strategies mainly through intercropping of cacao and other crops such as fruits and vegetables to sell to local markets and/or to improve food security; and b) promoting organic, Fair Trade and Rainforest Alliance certification to access higher paying global markets that reduce price variability while promoting environmentally sustainable practices.
3. **Improved Access to Financial Services:** We will work with a local agricultural bank to a) identify and assess root causes for low uptake of existing financial services with a focus on products that mitigate risk such as insurance and savings; b) improve financial literacy of the SHF's household, targeting wives who are often responsible for managing budgets; and c) collaborate with the bank and agribusiness partners to increase access to appropriate credit products. Access to financial services will focus on providing safety nets in the face of environmental shocks and economic stresses, such as calamities, low farming returns, illnesses or death in the family.
4. **Early Warning System (EWS):** Working with research institutes and international technology providers, GF will triangulate a) on-farm, geo-referenced mobile data b) real-time satellite weather data, historic climate data, and imagery; and c) climatic and pest and disease models to generate alerts and recommendations for SHFs via SMS and interactive voice response (IVR) messages.

Creating Change. To create systemic change for coconut SHFs through our innovative integrated solution, GF considered key factors, barriers, and incentives for farmers, ecosystem service providers, and extension agents (*Annex II-IV*). We applied a well-established GF methodology to co-design and co-develop solutions that not only align incentives of stakeholders in the ecosystem but leverage the key strengths, capabilities and resources of each partner to create a platform that can be replicated and scaled.¹ Our model focuses on embedding technology in the operations of private and public partners to enable the sustainable, cost-effective provision of integrated services that ultimately benefit SHFs. In particular, the solution uses human-centered design and behavior change principles at the farm level paired with proven financial literacy curriculum to help SHF's proactively plan for the future and build capacity to adapt to change and achieve resilience.

¹ Stakeholders are listed in the GRP Team and Next Users sections.

2.2 IMPACT PATHWAY DIAGRAM



2.3 INNOVATION AND IMPACT

Our Model and Approach. GF's integrated services model employs the mobile channel for last-mile extension to reduce transaction costs of reaching SHFs and facilitates dynamic, two-way data exchange. These feedback loops enable real-time data to inform decisions and better targeting, design, and delivery of services to SHFs for system-wide transformation. Accountability is critical; we will monitor SHF interactions, provide transparency and visibility into SHF needs, and assess the effectiveness of the solution. Our multi-sectoral approach illustrates a new model for aligning stakeholders' incentives to cost-effectively deliver complementary products and services to SHFs.

- **Component I: Improved Productivity:** Together with Franklin Baker, Malagos, Chokolade de San Isidro (CSI) and Philippine Coconut Authority (PCA), we will co-design data services and mobile tools, including coconut and cacao toolkits, and deploy mobile-enabled extension services. SHFs will improve productivity through GAP adoption promoted via mobile-equipped agents, or via SMS and voice messages on their own phones. The system will also enable more targeted services delivery, improving SHF access to inputs such as salt, proven to increase yields by 50%.
- **Component II: Improved Market Access:** Diversifying SHF's income is critical to improving household resilience. Through partners Nutiva, Franklin Baker, Malagos and CSI, we will promote access to resources (seedlings, inputs, and technical assistance) to enable intercropping of cocoa and coconut. We will also reduce barriers partners face in sourcing from SHFs, such as improving the efficiency of aggregating supply and SHF certification. Direct market access for SHF will help reduce the cycle of predatory debt and also increase the price per kg of product SHFs sell.
- **Component III: Improved Access to Financial Services:** We will leverage People's Bank of Caraga's (PBC) development staff as a channel to increase awareness and uptake of existing financial services among SHF. We will share farm-level data using our mobile solution to assist PBC in identifying the specific financial needs of SHFs (e.g. risk mitigating services such as micro-insurance and savings vs. microcredit). We will augment PBC's existing touch points with SMS and voice campaigns to reinforce financial education principles. In our experience, over time, tailored campaigns promote behavior change that drives adoption of financial services.
- **Component 4: Early Warning System (EWS):** With climate and agronomic experts and technology partners: Palantir, aWhere and Planet Labs, we will design an EWS that provides localized recommendations based on weather data and critical pest and disease data. Using the triangulated data (See 2.1), the EWS will generate alerts and recommendations to registered SHFs via SMS as well as generate alerts for PCA response teams and corresponding maps for PCA and agribusiness partners. The system will be deployed through PCA and partner agribusinesses to enable prioritized and targeted follow-ups to control and prevent the spread of pest and disease, and to help SHFs prepare and recover from extreme weather events.

Delivering Impact. The program will reach 20,000 coconut and cacao households (~100,000 farming family members). We anticipate the following impact: 1) SHFs are linked to services that build their adaptive capacity, measured by financial services usage, direct sales, prices secured and participation in certification schemes; 2) SHFs build assets and mitigate risks to achieve greater economic resiliency, measured by improvements in yields, food security, financial management practices and on-farm diversity; and 3) SHFs report decreased losses from pest and disease outbreaks and extreme weather, measured by EWS usage and adoption of prevention and control mechanisms.

Scaling. GF's approach to co-designing solutions with scaling partners ensures that the services developed deliver commercial and public return on investment for partners while guaranteeing benefit to SHFs. Mobile tools will be embedded within the business operations of national and international partners, who have the capacity and incentive to scale them once value is proven. By proving our value proposition in these value chains, we will establish a pathway to scale proven solutions that build household resiliency for SHF across a range of commodities in Southeast Asia. (See logframe for details on activities, indicators and assumptions).

2.4 OUTCOMES

The program aims to deliver immediate benefits to SHF while laying the foundation for farmers to shift their paradigm from reactively surviving shocks and stresses to proactively strengthening their capacity to mitigate risks, adapt to change and accumulate assets. To deliver results to the SHF, the solution must generate value across the sector and seeks to transform how market players in the Philippines interact with coconut and cocoa SHFs, ultimately viewing the SHF as a viable and profitable market segment and reducing the barriers that make it cost prohibitive and risky to include SHFs in formal markets.

Our innovation will develop a new means for reaching SHFs with diverse services to significantly improve rural household resiliency. We will leverage agribusinesses as a channel to reach SHFs with integrated bundled services, leveraging their capability to organize SHFs and penetration in rural areas to reduce transaction costs. We anticipate that, over time, PCA will use the solution to promote evidence-based decision-making and integrate mobile data collection and analytics into their way of doing business, thereby, influencing policy in the coconut sector. In the long-term, we envision that PCA will use the EWS to more rapidly control outbreaks, illustrating how the two-way feedback loops enabled by mobile technology can be used to prevent, control, and plan for pest, disease, and weather events that devastate SHF livelihoods. Once proven and refined, the EWS has the potential to be replicated globally in tree crops.

During the program, the consortium anticipates the following results for stakeholders:

Farmer

- 30% increase in coconut yields (after farmers have completed 1 year of participation)
- An increase in direct sales to commercial coconut and cacao buyers
- 10% increase in price realization for coconuts
- Increased awareness of pest and disease outbreaks and weather events and improved understanding how to plan and take action to improve their farm's resiliency against these events, such as super typhoon Haiyan which damaged \$400 million in coconut trees
- More diversified household revenue streams resulting from intercropping

Government

- Improved effectiveness of PCA extension service measured by timeliness of services delivery
- PCA will use the EWS to target quick response team follow-up in project regions

Agribusinesses and Financial Service Providers

- 20% increase in SHF enrollment in cocoa/coconut certification schemes
- 20% increase in direct sourcing from participating coconut/cacao SHF
- 15% increase in access to appropriate financial services by participating SHF

2.5. NEXT USERS AND USE

GF convened and consulted with diverse partners from the public and private sectors during the last nine months to design a program that incorporates all of the organizations listed below as active team members and implementing partners. On June 30th we hosted a solution workshop to articulate a vision for SHF resiliency, align objectives, agree on key roles, and confirm contributions to achieving the long-term outcomes of the program.

The consortium includes (*see Annex VI for diagram*):

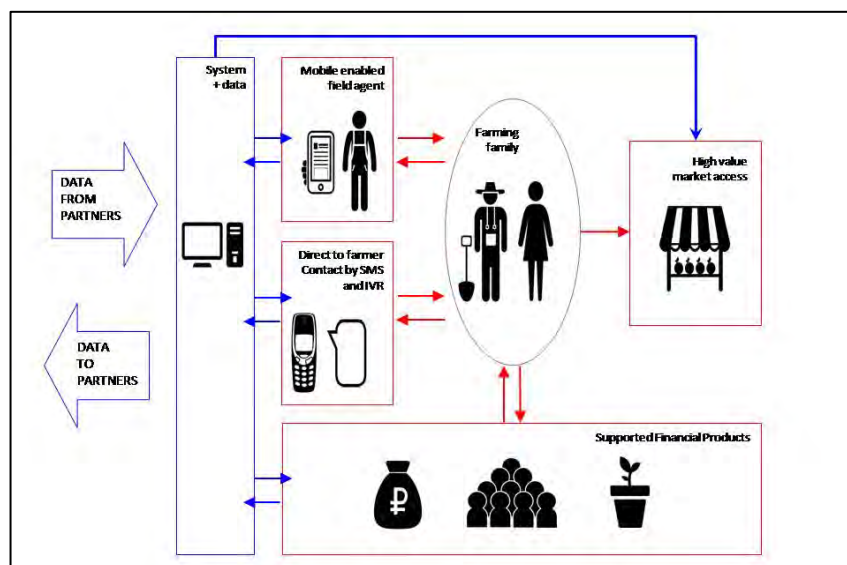
- **Philippine Coconut Authority (PCA)** is the national government agency overseeing the coconut industry. PCA currently implements four strategic programs for coconut farmers geared towards increasing productivity and income, including fertilizer application, intercropping and integrated pest and disease management. In June 2014, the national government allocated approximately \$885,000 to prevent the spread of the *cocolisap* disease in 6 major coconut hubs across the country. This incident highlighted PCA's need for a data driven decision-making process to effectively monitor programs, implement strategies and to provide support for remote coconut farmers. During the pilot, PCA coconut agents (covering 3,000 to 5,000 farmers) will be equipped with mobile devices to provide specific agricultural practices under each of the strategic programs. PCA agents will also collect data, which will auto-populate electronic reports and dashboards to enable the PCA to make program adjustments and improve targeted delivery of specific interventions, such as salt to SHFs. The system will monitor and track SHF participation in replanting and disease control schemes, and data will be used for calculating farmer reimbursement/incentive payments. In addition, PCA's quick response teams will link to the EWS to detect and respond to pest and disease outbreaks in Davao, where our project is located.
- **Nutiva**, headquartered in Richmond, California, USA is the world's leading organic superfoods brand. Its products are offered by 15,000 retailers in the U.S, Canada and the European Union, including by Whole Foods, Sprouts, Vitamin Shoppe, GNC, Public, Safeway, Loblaws, and Amazon.com. Currently, Nutiva sources coconuts from the Philippines and aims to increase its sourcing from SHFs through local partners by 20%. They are also committed to increasing the number of certified organic farmer groups from which their suppliers source, which currently only represent 1-2% of the total certifiable market in the Philippines.
- **Franklin Baker** is one the leading producers of coconut products in the Philippines, with their exports accounting for almost 50% of the country's total export market. Franklin Baker is sourcing only 10% of its supply from SHFs. By 2017, they aim to increase this number to 30% and then to 50% by year 2020. By sourcing directly, Franklin Baker increases farmers' revenue by at least 10% per kilogram. To access international markets that pay an additional 15% to 20% premium on prices, Franklin Baker designed an Organic Development Master Plan focused on sourcing organic coconuts from 10,000 hectares (Ha) to 60,000 Ha by 2020. Equipping their inspection officers with mobile devices during certification can decrease costs by 15% or approximately \$ 9,948 for every two hectares; and continuous use of mobile tools for the targeted 60,000 Ha, will result in an estimated cost reduction of \$298,440 by project end.
- **Chokolade de San Isidro (CSI)** is a Rainforest Alliance certified cacao bean exporter working with 8 SHF cooperatives. These cooperatives reach a total of 500 farmers, who are intercropping coconut with cacao and provide technical assistance on GAP. CSI aims to increase farmers enrolled in certification schemes by 20%. By using the mobile technology platform, CSI will be able to decentralize monitoring activities of certified farmer groups and increase efficiency by 20% to 30%. Using the mobile devices, field and inspection officers from its partner cooperatives will also be able to provide good agricultural practices and organic practices for coconut and cacao. Similar to PCA and Franklin Baker, CSI will also use the data collected to monitor adoption and farmer production to provide increased visibility on its cocoa supply chain.

- **Malagos**, another local cocoa company and leading Filipino manufacturer of fine chocolate, will use the solution to expand its sourcing to additional farmers to meet growing demand.
- **People's Bank of Caraga (PBC)** is a rural bank with 12 branches in Mindanao, where Davao province is located, offering a variety of agriculture financial services. PBC will equip its development staff with mobile devices to collect data that will help identify farmers eligible for and in need of appropriate financial services. PBC sees the mobile platform as an efficient channel to provide accurate product information along with non-financial services that will raise financial awareness among farmers and promote better risk management practices.

Diagram 1: Farmer interaction with key stakeholders, products and services (See Annex V for larger image)

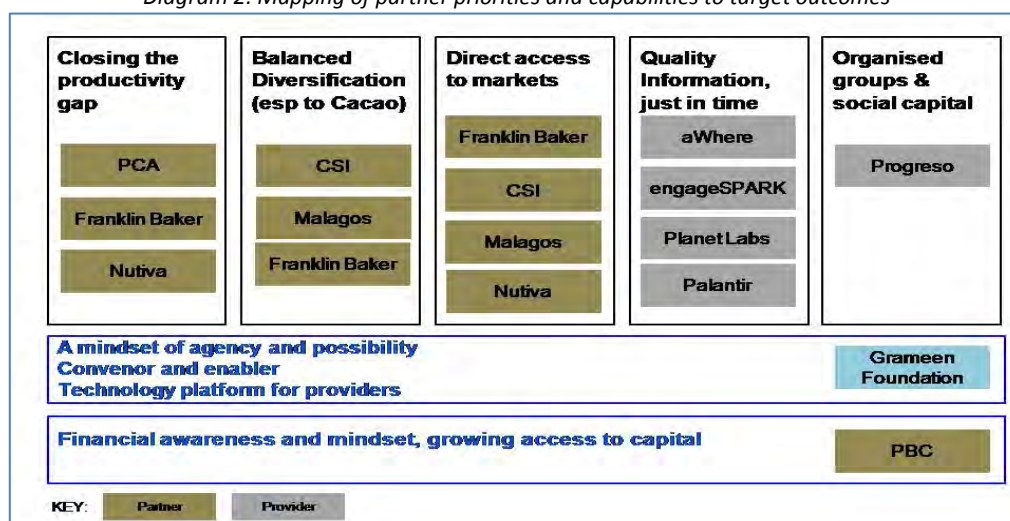
GF has also engaged aWhere, Planet Labs, and Palantir as technology service providers to complement our existing TaroWorks platform. These partners enable the platform to offer real-time satellite weather data and imagery, as well as voice message and SMS campaign capabilities.

aWhere is a US information services company based in Colorado, with experience in developing agricultural recommendations that combine crop models and



satellite weather data with images that can be sourced from **Planet Labs** to reach thousands of SHFs, providing them with localized farming recommendations and technologies. **Palantir** will assist in data analysis of the data collected from farmers and value chain players and provide expertise with EWS. GF is also partnering with **Progreso** to provide capacity building and technical assistance for farmer cooperatives.

Diagram 2: Mapping of partner priorities and capabilities to target outcomes



2.6. OUTPUTS

GF has successfully prototyped a mobile coffee toolkit in Colombia and EWS for pest and disease in Uganda. With the potential to scale across multiple value chains and countries, these mobile innovations will be customized and implemented within Philippine coconut and cacao value chains.

Output #1: Early Warning System: Partner technology service providers, aWhere, Planet Labs and select local research institutes, will leverage existing crop models, satellite images and weather information and utilize geo-referenced mobile data to design an early warning system for the coconut and cacao value chains. The system will deepen the value of services by developing rapid and reliable detection methods to address pest and disease issues as well as provide climate change alerts e.g. extended dry spells or variable and extreme precipitation. The *cadang-cadang* disease, which destroys nearly 1 million palms annually, is an example of one of the major challenges in the coconut industry.² Alerts and recommendations can be sent directly to farmer phones and to supply chain actors including co-ops, the PCA, and agribusiness agents who can then inform and follow up with SHFs in affected areas.

Output #2: Coconut and Cacao Toolkits: GF will adapt its coffee toolkit and customize it to the coconut and cacao value chains to be scaled by value chain actors. Over the past two years, we have created a mobile coffee toolkit solution that collects detailed farmer profiles, delivers customized agronomic and market content that targets the needs of SHFs, and presents custom analytics on farmer socio-demographics, farm level information, and certification readiness. GF prototyped this suite of mobile services with over 2,500 SHFs through mobile-equipped Community Knowledge Workers affiliated with coffee cooperatives in Colombia and Guatemala. GF identified community agents from the farmers and cooperative staff were then trained and equipped with Android tablets loaded with data collection and agricultural information and tools.

The coconut and cacao toolkits will provide these key features:

- Web accessible, farmer profiles that capture demographic data, e.g. poverty level, GAP adoption, access to finance, etc. that provide visibility at the farm and cooperative levels. This enables the targeting of resources to increase SHF productivity and improve sourcing and reliability of supply
- Certification readiness mobile assessment tool that uses built-in scoring for different ethical sourcing labels (organic, Fair Trade) to evaluate where SHFs need to change practices to comply with standards.
- A mobile, menu-based reference guide that supports photo searches to easily identify pest and diseases.
- A mobile multi-media interactive guide that supports audio and video.
- Web-based automated dashboards and reports with farm level data and aggregate trends.
- Field force management tools, including the ability to program tasks, to assign farmers to field agents and to track field agent performance.
- The ability to track and launch targeted voice and SMS campaigns on financial literacy, and
- Disseminate good agricultural practices and related training curriculum through customized content modules.

² Data gathered from in-person interview with Dr. Severino-Magat, retired PCA Head of Agronomy and coconut expert.

2.7 WORK PLAN & GANTT CHART

| Task | Responsible | Support | Key Deliverable | Estimated Budget | Oct | Nov | Dec | Jan | Feb | Mar | April | May-Jul | Aug-Oct | Nov-Jan | Feb-Apr |
|--|------------------------------------|-------------------------|--|------------------|------------|------|------|------|------|------|-------|---------|---------|---------|---------|
| | | | | | 2015 | 2015 | 2015 | 2016 | 2016 | 2016 | 2016 | 2016 | 2017 | 2017 | |
| 1. Project Initiation | | | | | \$ 76,219 | | | | | | | | | | |
| 1.1 Draft and execute partner contracts | Grameen Foundation | All | Executed contracts | | | | | | | | | | | | |
| 1.2 Establish partner consortium mgmt structure | Grameen Foundation | All | Project charter and steercom structure | | | | | | | | | | | | |
| 1.3 Draft communications plan | Grameen Foundation | All | Comms plan | | | | | | | | | | | | |
| 1.4 Set up budget management system | Grameen Foundation | All | Budget review system | | | | | | | | | | | | |
| 1.5 Develop detailed project management plan | Grameen Foundation | All | Project plan shared | | | | | | | | | | | | |
| 1.6 Hire content consultants - coconut & cocoa | Grameen Foundation | Project Sarai | Expert hired | | | | | | | | | | | | |
| 1.7 Hire staff | Grameen Foundation | PCA | Full team hired | | | | | | | | | | | | |
| 1.8 Onboard staff | Grameen Foundation | PCA | Staff in place | | | | | | | | | | | | |
| 2. Solution Architecture | | | | | \$ 155,729 | | | | | | | | | | |
| 2.1 Conduct HCD field research on detailed design | Grameen Foundation | All | Solution blueprint | | | | | | | | | | | | |
| 2.2 Hold solution design workshop #2 | Grameen Foundation | All | Solution blueprint validated | | | | | | | | | | | | |
| 2.3 Develop content services architecture with curriculum modules and channels | Grameen Foundation | PCA, PBC, Agribiz | Information services visual schema | | | | | | | | | | | | |
| 2.4 Design field force management system with agent performance goals | Franklin Baker (FB), PCB, CSI, PCA | GF | Performance management schema | | | | | | | | | | | | |
| 2.5 Design data collection tools & analytics dash | Grameen Foundation | All | Mockups of analytics | | | | | | | | | | | | |
| 2.6 Design early warning system (EWS) | aWhere | GF, PCA | EWS specifications | | | | | | | | | | | | |
| 2.7 Finalize financial products and services offering | People's Bank Caragas | GF, Agribiz | Product specifications write up | | | | | | | | | | | | |
| 3. Solution Development | | | | | \$ 213,214 | | | | | | | | | | |
| 3.1 Develop curriculum modules | PBC, agribiz, PCA | GF | Content modules | | | | | | | | | | | | |
| 3.2 Set up technology platform, partner accounts, and support infrastructure | Grameen Foundation | None | Configured accounts | | | | | | | | | | | | |
| 3.3 Integrate platforms | Grameen Foundation | Tech partners | Integrated platform | | | | | | | | | | | | |
| 3.4 Package and digitize information services (coconut, cocoa, financial management, food crops) | Grameen Foundation | All | Toolkits with resiliency curriculum | | | | | | | | | | | | |
| 3.5 Develop and digitize data collection tools | Grameen Foundation | All | | | | | | | | | | | | | |
| 3.6 Select agents | FB, PCB, CSI, PCA | GF | 50 agents selected | | | | | | | | | | | | |
| 3.7 Procure and configure mobile devices | Grameen Foundation | N/A | 65 devices configured on back and front end | | | | | | | | | | | | |
| 3.8 Secure expert review board approval for content | Project Sarai | GF | Certificate of content approval | | | | | | | | | | | | |
| 3.9 Field test agent content | Agribiz, PCA, PBC | GF | Test report and add modifications | | | | | | | | | | | | |
| 3.10 Develop training materials | Grameen Foundation | All | Training manual | | | | | | | | | | | | |
| 3.11 Translate direct to farmer content | Grameen Foundation | All | Translated SMS and voice scripts | | | | | | | | | | | | |
| 3.12 Field test direct to farmer content | Grameen Foundation | All | Test report and add modifications | | | | | | | | | | | | |
| 3.13 Develop and record voice message campaigns | Grameen Foundation | All | Voice campaigns | | | | | | | | | | | | |
| 3.14 Procure coconut seedlings | Nutiva, Malagos | GF, Franklin Baker, PCA | Seedlings secured for intercropping | | | | | | | | | | | | |
| 3.15 Build reports and dashboards and automation triggers to track project and business KPIs | Grameen Foundation | Palantir, engageSpark | Automated farmer profiles, reports, and dashboards built | | | | | | | | | | | | |
| 3.16 Build Early Warning System | GF, aWhere, Palantir | Project Sarai, | System built | | | | | | | | | | | | |

Building Resilience of Smallholder Farmers in Southeast Asia
Global Resilience Challenge Solution Statement and Implementation Plan



| Task | Responsible | Support | Key Deliverable | Estimated Budget | Oct | Nov | Dec | Jan | Feb | Mar | April | May-Jul | Aug-Oct | Nov-Jan | Feb-Apr |
|--|------------------------------|-------------------|---|------------------|------------|------|------|------|------|------|-------|---------|---------|---------|---------|
| | | | | | 2015 | 2015 | 2015 | 2016 | 2016 | 2016 | 2016 | 2016 | 2017 | 2017 | |
| 4. Solution Deployment | | | | | \$ 254,076 | | | | | | | | | | |
| 4.1 Train back-end administrators | Grameen Foundation | Agribiz, PCA, PBC | Admin managing tech platform | | | | | | | | | | | | |
| 4.2 Train and deploy agents | Grameen Foundation | Agribiz, PCA, PBC | 50 agents live in field offering services | | | | | | | | | | | | |
| 4.3 Hold product education sessions on financial products | People's Bank Caragas | Agribiz, PCA | Sessions conducted in each location | | | | | | | | | | | | |
| 4.4 Register farmers and collect farmer profiles | Agents | | 20,000 farmers registered with digital profiles | | | | | | | | | | | | |
| 4.5 Use farmer profile data to target farmers and conduct KYC for financial services applications | PBC | | Farmers enrolled in financial services | | | | | | | | | | | | |
| 4.6 Meet with farmers regularly to train on financial management, GAP, and certificaion and collect data | Agents | | Farmer training reports | | | | | | | | | | | | |
| 4.7 Initiate direct to farmer messaging | Grameen Foundation | engageSpark | SMS and voice campaigns live | | | | | | | | | | | | |
| 4.8 Deploy early warning system | Project Sarai | GF, aWhere | EWS live | | | | | | | | | | | | |
| 4.9 Hold agent and administrator refresher trainings | Grameen Foundation | PCA, PBC | Agents trainings done | | | | | | | | | | | | |
| 4.10 Deliver seedlings to participating farmers | Franklin Baker, CSI, Malagos | GF | Seedlings disbursement report | | | | | | | | | | | | |
| 4.11 Monitor and support agents | Agribiz, PCA, PBC | GF | Agent visit reports | | | | | | | | | | | | |
| 5. Monitoring, Evaluation, and Learning | | | | | \$ 155,211 | | | | | | | | | | |
| 5.1 Develop M&E plan | Grameen Foundation | All | M&E plan | | | | | | | | | | | | |
| 5.2 Draft baseline and other monitoring tools | Grameen Foundation | N/A | Baseline and M&E tools | | | | | | | | | | | | |
| 5.3 Conduct baseline | Grameen Foundation | N/A | Baseline data | | | | | | | | | | | | |
| 5.4 Analyze baseline | Grameen Foundation | N/A | Data analysis and recommendations | | | | | | | | | | | | |
| 5.5 Ongoing qualitative/quantitative monitoring | Grameen Foundation | N/A | Automated and manual performance reports | | | | | | | | | | | | |
| 5.6 Prepare quarterly reports and SteerComs | Grameen Foundation | N/A | Quarterly reports and steercom minutes | | | | | | | | | | | | |
| 5.7 Conduct endline | Grameen Foundation | N/A | Endline data | | | | | | | | | | | | |
| 5.8 Prepare and submit final report | Grameen Foundation | N/A | Final report & analysis | | | | | | | | | | | | |
| 6. Business Model Development | | | | | \$ 145,552 | | | | | | | | | | |
| 6.1 Conduct business process mapping and select KPIs with partners, and establish baseline cost/time per indicator | Grameen Foundation | All | Business process maps and activity costing | | | | | | | | | | | | |
| 6.2 Define sustainability hypotheses and draft business case | Grameen Foundation | All | Business case | | | | | | | | | | | | |
| 6.3 Test hypotheses by tracking key KPIs | Grameen Foundation | All | KPI reports | | | | | | | | | | | | |
| 6.4 Test agribusiness willingness to pay by offering additional services | Grameen Foundation | | Fee-for-service contract | | | | | | | | | | | | |
| 6.5 Test bundling information services costs within financial products | PBC | GF | Briefing analysis | | | | | | | | | | | | |
| 6.6 Test farmer willingness to pay for information services with sub-group of farmers | Grameen Foundation | | Briefing document | | | | | | | | | | | | |
| 6.7 Conduct evaluation of services for next users | Grameen Foundation | All | Evaluation report | | | | | | | | | | | | |
| 6.8 Refine services offering based on feedback and update value prop | Grameen Foundation | All | Recommendations on revised service offering | | | | | | | | | | | | |
| 6.9 Develop transition plan and fee-for-service terms with value proposition, and business case | Grameen Foundation | All | Transition plan done | | | | | | | | | | | | |

2.8 QUESTIONS AND METHODOLOGIES

The project will aim to establish and prove the prerequisites necessary for the solution to deliver the following long-term outcomes that will lead to increased household resiliency for coconut SHFs:

- **Improved household food security.** Our quantitative and qualitative research results from Davao province,, a major coconut producing region, show that 82% of SHF respondents conduct intercropping activities. Most of the farmers were intercropping coconut with short-term food crops that serve as reserves for food consumption rather than sources of income. Through the mobile-equipped field agents and through select SMS to farmer phones, advice on suitable food crops and related agricultural practices that can increase the productivity of these crops will be provided to farmers alongside tips on how to improve food security. Intercropping of food crops will be monitored using baseline and endline surveys, while food security levels will be measured at the start and end of program intervention using the Freedom from Hunger food security tool.
- **Increased household adaptive capacity.** Building adaptive capacity involves diversifying livelihood strategies to address economic stresses and enabling asset building including the formalization of savings mechanisms. Promotion of good agricultural activities and financial information related to intercropping coconut with cash crops such as cacao will be done by field agents equipped with mobile devices as well as through SMS and voice messages. The information will include how to access resources like seedlings and inputs that Malagos, Franklin Baker and PCA are providing to farmers, many times free of charge. Commercial buyers like Franklin Baker, Malagos and Chokolade de San Isidro who purchase both coconut and cacao products will have visibility on their supply chain through the consolidated data collected through the platform that will assist them in sourcing directly from the farmers. These activities will be monitored through surveys conducted by the agents, qualitative interviews with select farmers and sales reports of commercial buyers.
- **Reduced vulnerability to shocks.** Leveraging the relationship the agribusinesses have established with SHFs, the program will provide SHF with information on formal financial services, such as micro-credit and micro-insurance products offered by PBC. Micro-insurance will help to decrease farmers' vulnerability to shocks such as death in the household or illness of family members. Using the mobile phone, pertinent data will be collected and shared with PBC to assist them in targeting client acquisition, particularly women who serve as "financial managers" for micro-insurance, microcredit and savings products. These activities will be monitored through a combination of baseline and end-line surveys and PBC's financial product enrollment records. Diversification of farming income also promotes reduced vulnerability to market shocks and will be tracked as an indicator.
- **More resilient farming systems.** Building stronger farms entails enabling farmers to detect, control and manage pest and disease outbreaks and providing farmers with agricultural practices and cropping activities that are adapted to the farm's geographical context. These types of information will be provided through an early warning system that will send SMS campaigns and IVR messages. The EWS will also be linked to PCA's quick response teams at the municipality level. Monitoring these interventions will be done through PCA's reports and dashboards produced through the technology platform as well as consolidated data from reports produced by aWhere, Palantir and Planet Labs who are partner technology service providers.

2.9.1 INDICATORS

Approach: Given the short duration of the grant period, our monitoring activities will primarily focus on measuring outputs or short-term outcomes that are prerequisites for achieving the intended program outcomes that can serve as proxies for long-term results. We will measure these outputs (for which we will include targets) as well as select outcome measures (for which we will not include targets) at the farmer and the partner level, since both sets of actors will be crucial in affecting the theory of change. Both programmatic and operational indicators will be used to track the status of project implementation, monitor results and enable program design iteration. Monitoring programmatic results also enables implementing partners to improve their policies, strategies and programs for SHFs.

Key Performance Indicators (KPIs) will form the basis of evidence to measure the extent of intended outcomes. At the SHF level, progress against these indicators will be tracked during implementation:

- ✓ 30% increase in the yield of coconut farms after one year of implementation
- ✓ 10% price increase for participating SHFs, realized via direct sales to commercial buyers
- ✓ Increased farmer access to timely alerts to prevent and control pest and disease and protect coconut and cacao against extreme weather events
- ✓ 15% increase in access to appropriate financial services (A baseline survey will be conducted at project launch. A 10-20% increase in access to financial services is anticipated after year one but this will be verified after the baseline survey)

At the partner level, the following operational indicators will be monitored:

- ✓ Shorter response time of PCA quick response team to reported pest and disease incidences
- ✓ Shorter times in processing and delivering appropriate financial services to SHF
- ✓ 20% increase in farmer enrollment in certification schemes for coconut and cacao
- ✓ 20% increase in direct sourcing from participating SHF
- ✓ Number of reports integrated into core business processes
- ✓ Number of farmers reached by mobile-equipped extension agents
- ✓ Number of farmers reached by direct-to-farmer SMS and voice channels
- ✓ Number of farmer applications for appropriate financial services

2.9.2 BASELINES

Methodology: Results from the quantitative research conducted during the GRP problem statement phase plus the insights from the HCD research process will inform the design of a baseline that will be carried out with a sub-set of farmers targeted prior to the project's deployment. At project end, the survey will be re-administered to the farmer sample to assess change. All farmer interactions within the system will be tracked via the technology platform, enabling us to examine correlations around frequency of services usage and results, as well as how farmer characteristics or partner affiliation correlate with outcomes.

During the implementation period, extension agents will use GF's existing TaroWorks technology platform to collect profiles on participating farmers that include data on poverty likelihood and food security, socio-demographic information, access to and usage of financial services, GAP adoption, and certification knowledge. This data will generate electronic profiles for individual farmers and will be used to automate the tracking of their interaction with the solution. Agents will also use mobile surveys to monitor farmer outcomes periodically, record SHF participation in group trainings, and provide a forum for farmers to share feedback to service providers. This on-going outreach will enable a two-way feedback loop between farmers and implementation partners and will inform the consortium on needed program iterations.

2.9.3 MONITORING AND EVALUATION PLAN (M&E) (Note: This will be developed in detail prior to implementation.)

| Outcomes | Indicators | Means of Verification | Assumptions |
|---|---|--|---|
| GOAL: Increased household resiliency for poor coconut farmers | | | |
| Long Term Outcome I Improved household food security | -% increase of families who are food secure | -Freedom for Hunger food security tool | - Increased household consumption of crops contribute to food security |
| Intermediate Outcome Increased cultivation of food crops | -% increase in cultivation of food crops for household consumption | -Baseline surveys -Endline surveys | - Farmers have access to resources and knowledge to cultivate food crops |
| Immediate Outcome Increased knowledge on food crop selection and cultivation | -Number of farmers selecting(additional) food crops to cultivate | - Baseline surveys - Endline surveys | - Farmers have access to resources and knowledge to cultivate food crops |
| Long Term Outcome II Increased household adaptive capacity | -% increase in farmer revenues -% increase in investment in livelihoods | NOT MEASURED IN GRANT PERIOD | |
| Intermediate Outcome Increased market access | -20% increase in sourcing directly from participating SHF (to be validated after baseline survey) -10% increase in price realization for coconut | Agribusiness sales records | - There is existing and increasing demand for coconut and cocoa products |
| Immediate Outcome Strengthened linkages between farmers and formalized, higher paying buyers | -Number of farmers supplying to agribusiness partners -20% increase in farmer enrollment in certification schemes for coconut/cacao | - Sales reports - Baseline surveys - Endline surveys | - Buyers are willing to source directly from smallholder farmers |
| Intermediate Outcome Increased productivity | - 30% increase in coconut yield | - Baseline surveys - Endline surveys | - There is existing and increasing demand for coconut and cocoa products - Farmer can have access to inputs and resources to increase their productivity |
| Immediate Outcome Increased adoption of good agricultural practices and farm planning | - % increase in SHF adopting (5) key good agricultural practices in coconut and cocoa | - Baseline surveys - Endline surveys -Mobile surveys - Farm interviews and visits | - Availability and constant supply of inputs needed to apply good agricultural practices - Defined good agricultural practices by the PCA can be the promoted practices for program implementation |

| | | | |
|---|---|---|--|
| Immediate Outcome Increased access to appropriate financial services | - 15% increase in financial services access (to be validated after baseline survey) | - Baseline surveys - Endline surveys - Bank records | - Existing financial services can be refined and linked to farming households in selected areas of implementation |
| Intermediate Outcome Increased adoption of financial products and good financial management practices | - % increase in uptake of formal financial products for farming households | - Baseline surveys - Endline surveys - Bank records | - Existing financial products appeal to and meet the needs of farming households |
| Immediate Outcome Increased access to savings practices and financial planning tools | - Number of farmers trained in financial literacy through PBC development officers - Number of farmers provided with financial literacy programs via SMS/Voice message campaigns | - Baseline surveys - Endline surveys - Bank records - Program dashboards | - Existing financial services can be refined and linked to farming households in selected areas of implementation |
| Long Term Outcome III Reduced vulnerability to shocks | - % increase in farming households who are protected against various shocks - % increase of SHF with diversified livelihood strategies- | - Baseline surveys - Endline surveys - Bank records | |
| Intermediate Outcome Increased use of risk transfer and mitigation measures to protect farming households and farming livelihood from shocks | % increase in farmers enrolled in micro insurance product through PBC - % increase in farmers who are intercropping food and cash crops | - Baseline surveys - Endline surveys - Bank records | - Existing micro insurance products are available in selected areas of implementation |
| Immediate Outcome Increased farm diversification of food and cash crops | - Number of farmers who've established cocoa or another crop on their coconut farm | - Baseline surveys - Endline surveys - Farm interviews and visits | - Farmers have access to planting materials to practice intercropping - Farmers have resources to pay for the establishment of intercropping activities or are able to access free resources through program partners |
| Immediate Outcome Increased awareness from farmers on benefits of micro insurance | - Number of farmers provided with product information on micro life insurance | Program dashboards Bank records | - Existing micro insurance products are available in selected areas of implementation |
| Long Term Outcome IV More resilient farming systems | % decrease in crop losses due to variable weather and pest and disease | NOT MEASURED IN GRANT PERIOD | |
| Intermediate Outcome Decreased vulnerability to variable climate, including changing weather | - % increase of farmers adopting climate smart agriculture practices | NOT MEASURED IN GRANT PERIOD | - Access to localized info on climate change effects is available through implementing partners - Adaptation measures are defined and accessible to |

| | | | |
|--|--|---|---|
| patterns such as prolonged drought and excessive precipitation | | | develop actionable information for farmers - Existing micro-insurance products can be linked to farmers in areas of implementation |
| Immediate Outcome Increased adoption of climate smart practices and planning for weather trends | - Number of farmers with improved knowledge of climate and weather patterns | - Baseline surveys - Endline surveys - Farm interviews and visits | - Localized climate smart agricultural practices are defined and available for selected areas of implementation - Access to localized info on climate is available through implementing partners - Adaptation measures are defined and accessible to develop actionable information for farmers |
| Intermediate Outcome Reduced losses due to pest and disease outbreaks | - % increase in SHF adoption of prevention and control practices for pest and disease outbreaks in coconut and cacao | NOT MEASURED DURING GRANT PERIOD | - Existing prevention methods are effective in prevention and control - Resources for prevention and control are accessible |
| Immediate Outcome Improved prevention, detection, and control of coconut and cocoa pests and diseases | - % increase in farmers knowledge on how to detect, prevent and control pest and diseases - Early warning system developed and deployed - Number of incidence surveys conducted - Number of early warning messages delivered to SHF, companies, and PCA - Number of institutional farm visits and follow ups to control pest and disease | - Baseline surveys - Endline surveys - Farm interviews and visits - Program dashboards | - Major coconut and cacao diseases can be prevented with early detection methods |

Knowledge Management. GF established a knowledge exchange series to share lessons learned among the existing partners in the consortium. GF also plans to capture learnings throughout implementation using the M&E system and project management activities. During business case development, we will develop business process maps with partners and identify key indicators for which we will document the return on investment and track reductions in time and cost associated with services delivery. For example, GF developed this methodology with volunteers from Wells Fargo on a food security initiative sponsored by the Colombian government, where the ability to quantify savings and value strengthened government support and buy-in for continuing the program. GF will also share project learning internally through quarterly reports and steering committee meetings, as well as externally through blogs, websites and select public conferences (subject to availability of funding).

2.9.4 VALUE FOR MONEY PLAN

Based on the value for money framework provided by the GRP, GF identified the key metrics below to capture effectiveness, economy and efficiency.

| Value for Money Consideration | Key Indicators | Methodology |
|---|--|---|
| Effectiveness (improvements in farmer outcomes) | <ul style="list-style-type: none"> SHF's adoption rate of good agricultural practices. | GF will register SHFs provided with data services on GAP through extension agents from the PCA, partner agribusinesses and FSPs equipped with the mobile device. During registration, baseline data on current agricultural practices will be collected. Monitoring activities will be performed by extension agents by using mobile tools to track changes on adopted practices. SMS and Interactive Voice Response (IVR) messages may also be used to monitor adoption and behavior change. |
| Economy (improvements in partner operations) | <ul style="list-style-type: none"> Number of SHFs who supply coconut and cocoa to agri-partners | Partner agribusinesses will provide current % of total supply and target supply sourced directly from SHFs throughout the project. |
| | <ul style="list-style-type: none"> Response time of the PCA in managing pest and disease incidences. | Current response rate will be gathered from PCA's quick response team and will be compared with the response time once the PCA quick response teams are linked with the early warning system. |
| Efficiency (cost per improvement) | <ul style="list-style-type: none"> Cost / adoption for the PCA and partners agribusinesses Cost / transaction for partner agribusinesses Cost per client acquisition for financial service providers (FSPs) | <p>GF will gather this data from agribusinesses and FSPs:</p> <ul style="list-style-type: none"> Current training and monitoring cost per farmer for PCA and agribusinesses Current recruitment costs per farmer client of financial service providers Current sourcing and monitoring costs of agribusinesses from sourcing directly for farmers <p>This data will be compared to the cost per farmer who adopted GAPs, supplied directly to partners and bank clients of FSPs during program implementation. Revenue increases and cost decreases from the use of the tech platform will be monitored through reports and dashboards to demonstrate efficiency and pathways to sustainability.</p> |

3.1. GENDER AND EQUITY

In our research, we learned that women are often the cornerstones of household resiliency, taking a proactive approach to planning for the future and saving resources for hard times. More broadly, the Philippines has long been recognized for its efforts empowering women and responding to gender concerns, adopting legislation to protect women against economic, cultural and political discrimination³. In rural households, there is significant equality between men and women in terms of access to and control over agricultural production resources. Nevertheless, given cultural gender norms related to division of labor and the fact that 39% of coconut farming households are headed by women, a gender conscious approach to project design and implementation will be fundamental to address persistent inequality in access to services as well as an opportunity to leverage household dynamics and gender strengths to maximize benefits for both female and male farmers⁴.

The Consortium recognizes that SHF have diverse needs and that the solution must address these needs, guarantee equitable access, and deliver equitable results while mitigating unintended negative consequences for any particular group. To achieve these goals we will conduct research to understand: i) barriers that prevent female farmers from accessing services (e.g. workloads or cultural taboos that prevent women's participation as agents or in training) ii) which financial, household, and farm topics and activities are of most interest to female and male farmers iii) which channels women and men prefer and access (e.g. phone ownership) iv) what times and which mediums different farmers prefer and v) household dynamics that influence resource allocation.

By understanding women's role in building safety nets and managing assets, the program will explore gender roles and empower women with knowledge and tools to help their household strengthen their livelihood strategy. For example, 33.88% of women aged 15+ years have formal bank accounts compared to 21.97% of men in the same age bracket, thereby affirming our qualitative research that women play a central role as the family *treasurer*.⁵ GF will leverage this and other gender insights to design and target services. For example, we are considering a couple agent model in which female farmers would assist PBC agents in outreach and training on financial and household planning and management while male farmers would share cash crop GAP. Lastly, wherever possible, the project will gender disaggregate data and monitor user experience, product usage, and results by gender and poverty level using GF's Progress Out of Poverty Index.



³2011 World Economic Forum's Global Gender Gap Report. The Philippines ranks 8th of 135 countries on gender parity, ranks 1st for gender parity in health and education, and is the only country in Asia, one of 8 worldwide, to have closed the gender gap in these areas

⁴USAID Philippines FY2012-FT2016 Country Development Strategy Document,

⁵2014 data in the Global Financial Inclusion Database (Findex)

3.2. RESILIENCE

To address the drivers of vulnerability and promote SHF household resiliency, the team is employing a multi-sectoral approach to bring together public, private and NGO actors to deliver integrated solutions that enable SHFs to anticipate, manage, and mitigate complex risks. In particular, our proposed solution leverages the agricultural ecosystem to address resilience by focusing on key vulnerabilities of SHF households identified in quantitative and qualitative research conducted earlier this year. (See *Annex III and IV*). To this end, we will target SHF households, where 92.6% of total income is dependent on the farm, and where building farm resiliency is the foundation of building household resiliency. Thus, increasing household adaptive capacity involves building farm assets, strengthening farming livelihoods through crop diversification, decreasing farmers' vulnerability to typhoons as well as pest and diseases, and building strong farming systems.

In addition, we incorporated the following principles found in resiliency approaches and frameworks to design a comprehensive program to build SHF's household adaptive capacity while reducing rural poverty:

- ✓ **Building awareness so farming households can address immediate challenges while preparing for long-term outcomes.** We will provide targeted information campaigns to raise awareness, diversify market options and increase access to risk transfer mechanisms and credit to reduce SHF dependency on traders and to break the cycle of predatory debt. Information campaigns on how to diversify livelihoods and the benefit of formal savings will encourage behavior change to generate surpluses that can be invested in the farm or consumed when shocks occur.
- ✓ **Diversified Livelihoods Approach.** We will introduce market options to connect SHFs directly to commercial buyers by a) promoting certification i.e. organic and b) encouraging intercropping of cash crops-coconut and cacao. In addition, we will provide information on intercropping of key fruits and vegetable to help SHFs meet household consumption and nutrition requirements.
- ✓ **Adaptation through Integrated Services and Comprehensive Solutions.** Delivery of agricultural extension alongside financial services with a focus on behavior change ensures that SHFs have the resources they need to adapt to change. Tight feedback loops integrated in our mobile technology and last-mile networks also ensures that organizations have the data they need to design and deliver appropriate products and services that meet SHF needs; and based on direct farmer feedback, make necessary adjustments for different SHF segments.

3.3. SUSTAINABILITY

The proposed solution presents a farmer-focused pathway to systemic rather than incremental improvement for SHF participation in the coconut and cocoa value chains. Our commercial consortium partners are committed to sourcing directly from SHFs and are willing to invest in quality and productivity measures that are economically viable. They require these systemic changes to lower SHF transaction costs, boost productivity and improve trade linkages that together can enhance the economic viability of actors across the sector. We have designed that investment in a phased way, to allow partners and other collaborators to learn, test their own business benefits and then attract others to participate in scaling-up the adoption of these new services.

The solution has both strong public sector buy-in and clear commercial sector backing. The PCA has engaged with the consortium to discuss potential cost-sharing and possible use of existing infrastructure and planned coconut hubs for market linkages, thus reducing required investment. This in-kind support reflects the value of public goods created by the solution for the benefit of all actors in the sector. GF has secured letters of commitment from leading global and local agribusinesses to ensure complementary private sector market adoption and creation of shared value. To this end, we actively solicited initial commitments to span the entire production and supply cycle. This provides the linkages necessary to enable parties to identify mutual interests and to enhance sector-wide benefits:

- Franklin Baker Company is committed to investing substantially in SHF quality and productivity support and increasing direct transactions with the goal of sourcing from 60,000 Ha by 2020, with 50% of suppliers being SHFs, provided support and transaction costs can be reduced.
- Nutiva is committed to investing 55,000 seedlings in 2015 with related support, together with providing resources to enable moringa intercropping and boost farmer certification uptake.
- Chocolate de San Isidro is committed to contributing funds to deliver best practices and market linkages for certified SHF cocoa, while Malagos Agri-Venture Corporation is committed to supporting intercropping and post-harvest quality improvements at SHF level for direct sales.
- People's Bank of Caraga is committed to offering more appropriate financial services and improving the financial literacy of farming families to support asset-building.

We propose a three-phase pathway to achieving sustainability:

- ✓ **Phase I:** Grant funding largely supports pilot implementation but each partner makes a material contribution (cash or in-kind). This will demonstrate functionality in the field, allow us to perform economic modeling and enable partners to evaluate their own business cases for expansion.
- ✓ **Phase II:** Combined funding of (i) supplemental grant support and (ii) a levy on commercial transaction volumes will enable the build-out of a larger footprint and deeper functionality.
- ✓ **Phase III:** Smaller scale grant funding will enable greater partner recruitment and deeper commitments to a user-pays regime by agribusiness or public sector partners that achieves significant scaling.

4.1 RISK MATRIX

| Risk | Impact | Probability | Mitigation Proposed |
|---|--------|-------------|---|
| SHF coconut quality improvements are not achieved. | Medium | Medium | Our partners purchase significant quantities of coconut; but SHF training is needed to ensure that higher quality becomes consistent and reliable. Through strong M&E (via mobile toolkit), we can detect deficiencies in a timely manner, fine tune project activities, and deploy training and resources, as needed, to ensure goals are met. |
| SHF productivity fails to increase. | High | High | SHFs are motivated to boost yields per Ha for increasing income. However, most SHFs have received little support for improving agricultural practices. Project staff will monitor productivity using mobile tools to capture real-time data to adjust project activities to achieve target gains. |
| SHFs cannot command a higher price in global markets, despite quality and supply increases. | Medium | Medium | By partnering with committed buyers e.g. Nutiva and Franklin Baker, early sales, price and market positioning are assured. As the coconut industry sees quality and supply increase, perceptions will change, and interest and price will follow. |
| Identified agribusiness partners shift strategy from sourcing directly from SHFs. | High | Low | We will ensure program alignment with partners at the onset and sustain business development efforts throughout implementation to build a pipeline of partners to build in sustainability for SHFs. |
| Lack of partner retention due to difficulties in managing multiple partnerships. | High | Low | We are carefully vetting partners to ensure mutual interest, requiring letters of commitment, and hosting multiple workshops to ensure stakeholder engagement. |
| PCA's systems for pest and disease ineffective; cannot deploy response program. | High | Medium | We are examining the ability of agribusinesses and input suppliers to provide resources to manage pest and diseases. |
| Existing microfinance products inappropriate for SHFs. | Medium | Medium | Identification of FSPs and analysis of preselected FSPs based on their financial products and service offerings. |
| Recruitment of project staff delays project launch. | Medium | Low | Existing staff have the capacity to launch the proposed project while recruiting for key project staff. Our team is also actively seeking referrals to hire for this project. |
| Localized recommendations generated with satellite data and crop models are inaccurate. | High | Low | Collaborate with agricultural experts to review content prior to info dissemination to SHFs. Ensure two-way M&E of expected vs. actual weather, pest, and disease trends to calibrate model and improve recommendations over time. |
| Dependency on satellite imagery for EWS may result in difficulty capturing images | Medium | Medium | Clearly define technology architecture, functionalities and capabilities to determine cost and timeline. |
| Use of technology platform is too costly for implementing partners preventing uptake, scale and sustainability. | High | Medium | Articulate business model hypotheses for agribusinesses and PCA. Test and iterate to illustrate efficiency gains and revenue streams that will balance on-going operational costs. Identify optimal platform services to achieve greatest ROI and further develop and market these capabilities. |
| Overspending due to delivery of integrated services. | High | Medium | Determine cost share (cash/in-kind) of team. Track spending and set clear expectations re: scoping of services to be delivered as part of the grant. |

4.2 SOCIAL AND ENVIRONMENTAL IMPACT ASSESSMENTS



Social Impact Assessment:

- ✓ Demographic, e.g. size and composition of population,
- ✓ Economic, e.g. new patterns of income, quality of life
- ✓ Environmental, e.g. loss of livelihood in resource dependent community, health
- ✓ Institutional, e.g. in the structure of local government or traditional leadership

Environmental Impact Assessment:

Together with our partners in the Philippines, GF will reach 20,000 coconut and cacao SHFs in Davao province. GF is aware of agriculture's harmful impact on forests, throughout the Philippines, which is ranked 18th in the world in terms of biodiversity. Davao province, in particular, is located in the Eastern Mindanao Biodiversity Corridor and is experiencing increased rates of deforestation due to agricultural expansion and peri-urbanization. SHFs' efforts to increase yields can also lead to increased use of agrochemicals, resulting in significant hazards both to plant and animal biodiversity and to the health of rural communities. To address this, we have partnered with coconut and cacao value chain actors that hold sustainable management of natural resources as a central element of their business practices. By providing transparent data on farm level practices and certification compliance, we will help ensure that our agribusiness partners, such as Nutiva, Franklin Baker Inc, CSI and Malagos have the data they need to invest in the stewardship and protection of environmental assets and protected areas where they source.

Furthermore, our project will target SHFs who are already certified organic or seeking organic, Fair Trade and/or Rainforest Alliance certifications, which require adherence to strong environmental standards. Therefore, we do not expect environmental impact as a result of program implementation. We will promote environmental production standards of partner agribusinesses including: (i) Enhancing soil by applying sustainable irrigation practices, such as crop rotation; (ii) Sourcing water sustainably and reducing water use over time; (iii) Reporting benefits to ecosystems and current methods of carbon emission reductions; (iv) Reporting new methods to improve biodiversity or limit carbon output; (v) Option to focus on specific targets by incorporating environmental goals into a development plan; (vi) No selling, using or distributing any prohibited materials, including GMOs; (vii) Handling and storing all agrochemicals safely; (viii) Avoiding aerial spraying over rivers and other water; (ix) Controlling pests in a safe and sustainable way; (x) Ensuring that SHFs are educated on the use of approved organic-based pesticides; (xi) Exploring alternatives to chemical pest control; and (xii) Developing disposal plans for hazardous waste in an environmentally sustainable manner.

6.1 GRP Team Members

- ✓ **Team Lead: Grameen Foundation USA** – Global nonprofit organization with expertise in financial services, agriculture, and health and employing the mobile channel.
- ✓ **Agronomist Consultant** – Bong M. Salazar, Assistant Agronomic Professor at University of the Philippines
- ✓ **aWhere** - US based satellite data company focusing on ecological models
- ✓ **Chokolade de San Isidro (CSI)** – Filipino social enterprise focused on improving the cacao value chain
- ✓ **Franklin Baker** – Philippines based coconut processor and global supplier of coconuts
- ✓ **People’s Bank of Caraga (PBC)** – Filipino rural bank focused on serving agrarian clients
- ✓ **Malagos** – Filipino food and cocoa corporation
- ✓ **Nutiva** – Leading US based organic super foods brand and coconut buyer
- ✓ **Palantir** – US based computer software company specializing in big data analysis
- ✓ **Philippine Coconut Authority (PCA)** – Government agency responsible for developing the coconut industry
- ✓ **Planet Labs** - US based satellite imaging company focused on solving environmental and humanitarian challenges through its global imaging network
- ✓ **Progreso** – Dutch NGO specializing in technical assistance for agribusiness and climate change

6.2 Team Strengths & Experience

Creating a Team of multi-sectoral organizations is critical to accurately define and execute programs to build resilience. In addition to Grameen Foundation's expertise in creating effective and scalable mobile agriculture and financial service solutions, our GRP team includes experts in both coconut and cacao value chains, climate change, financial services, and data analysis - partners who will work together to improve the lives of smallholder farmers in Southeast Asia.

Team Lead – Grameen Foundation USA (GF) is a global nonprofit that helps the world's poorest people reach their full potential by providing access to essential financial services and information on agriculture and health. We partner with effective institutions to create and scale financial and information products and services targeted to the poor – traditionally delivered and delivered via the mobile phone and other forms of technology. GF is experienced in managing and executing multi-million dollar projects to create lasting change.

Agribusiness Partners: **Franklin Baker**, a leading producers of coconut products in the Philippines; **Malagos**, a Filipino food and cacao corporation; and **Chokolade de San Isidro Inc. (CSI)**, a Philippines based social enterprise focused on improving the cacao value chain to best support local cacao farmer cooperatives, will work together to strengthen coconut and cacao value chains in the Philippines by investing in quality and productivity measures benefiting SHFs. **Nutiva**, the world's leading organic superfoods brand based in the US, will also provide coconut value chain expertise, resources (i.e. coconut seedling, certification support and intercropping), and a conditional commitment to buy organic certified coconuts from Filipino SHFs.

Public Sector Partner: **Philippine Coconut Authority (PCA)**, the national government agency overseeing the coconut industry, currently implements four strategic programs for coconut farmers geared towards increasing productivity and income - replanting, fertilizer application, intercropping, and integrated pest and disease management. PCA coconut officers covering 3,000 to 5,000 farmers will be equipped with mobile devices to provide specific agricultural practices under each of the strategic programs. The coconut officers will also collect information which will then be used to produce reports and dashboards that will enable PCA to make program iterations and improve the targeted delivery of specific interventions, such as salt to farmers.

Technology Providers: GF engaged **aWhere**, **Planet Labs**, and **Palantir Technologies** as technology service providers to complement our existing TaroWorks™ technology platform with real-time satellite weather data, satellite imagery, and voice message and SMS campaign capabilities. Most recently, **Palantir** has worked with GF to derive insights from over one million farmer data points to track farmer behavior and enhance GAP adoption. This led to the creation of an early warning system to identify potential pest and disease outbreaks that will be localized for Southeast Asia.

Agriculture Technical Assistance Provider: **Progreso Foundation** is focused on building strong value chains with producer groups and partners to improve SHFs' lives. With expertise in agriculture, climate change and resilience projects, Progreso will help build farmer resilience and better coconut value chains in Southeast Asia.

Financial Service Provider: **People's Bank of Caraga (PBC)**, a Filipino rural bank with 12 branches in Mindanao offering a wide variety of agriculture financial services, is committed to improving the social and economic status of SHFs and their families, and aims to raise financial awareness among farmers.

APPENDIX

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ANNEX I

Refined Problem Statement

Summary. The archipelago nation of the Philippines is one of the most vulnerable countries in Southeast Asia due to its exposure to natural hazards and the effects of climate change, such as typhoons, flooding, and sea level rise. These factors pose significant risk not only to the national economy, but also to the livelihoods of the most vulnerable populations, particularly those in the agricultural sector. Coconut smallholder farmers (SHFs) are among the least resilient in the face of economic stressors and environmental shocks such as natural disasters, market volatility, crop failure, and resource scarcity. Their ability to build assets as well as manage and mitigate risk is also severely constrained due to exclusion from the formal financial sector, propensity to cycles of low productivity, high levels of indebtedness, late detection of pest and disease outbreaks, lack of income diversification and limited market options.

Background. The Philippines is the 2nd largest producer and exporter of coconut products in the world. Produced by over 3.5 million SHFs in 68 of 81 provinces, coconut is the Philippines' top agricultural export and industry with 23 million people dependent for their livelihood in various coconut related enterprises. However, major challenges, including climate change related weather events such as typhoons, as well as pest and disease outbreaks, threaten coconut SHF livelihoods and pose major risks for the national economy. For example, super typhoon Haiyan caused \$400 million in economic loss and damaged 33 million coconut trees, wiping out all productive assets of 1 million coconut SHFs, while *cadang-cadang* disease decimates ~1 million trees annually.

Barriers to SHF Resilience. In the last two months, Grameen Foundation USA (GFUSA) conducted research involving stakeholders from private, public and NGO agricultural and financial sectors. GFUSA used Human Centered Design techniques to perform qualitative research with 71 coconut and cacao SHFs; and also collected quantitative baseline data from 276 SHFs in Quezon and Davao provinces. Based on analysis, GFUSA identified four key barriers to achieving household resilience of SHFs:

- 1) **Low productivity due to lack of information, low adoption of good agricultural practices and calamities (i.e. typhoons)** at the farm level prevents SHFs from achieving economic resilience through increased incomes and environmental resilience of crops.



- 2) **Lack of farm income diversification and low market prices** increase vulnerability to economic stress and shocks, reduce food security, and reduce crop resiliency to environmental stresses.
- ✓ 99% did not recognize certification seals i.e. Fair Trade, which pays higher prices for SHF products.



- 3) **Lack of access to financial services i.e. loans, savings, household and crop insurance products.** SHFs are unable to tap financial tools that can provide a critical safety net in the face of environmental shocks and unable to overcome economic stressors, such as low farming returns that contribute to cycles of indebtedness. With access to financial services, SHFs can engage in risk mitigation and asset building. This enables farm investments to both improve productivity through higher yielding varieties or plant renovation, and to meet market requirements, such as organic certification to secure higher prices and income. Over time, SHFs can reinvest in their household through financial products, continue building assets and achieve greater household economic resiliency.
- ✓ 66% of coconut SHFs state they borrow additional funds needed from family and friends.
 - ✓ 49% of all SHFs surveyed cite lack of access to capital as their number one challenge.
 - ✓ 11% reported have savings, but 9% use it as a primary coping strategy outside of farming.
 - ✓ SHFs use capital for income smoothing, food purchases, or various aspects of farm management but rarely do they have the means to invest in their farms.
- 4) **Limited visibility into the incidence and spread of new diseases,** and lack of understanding of mitigation techniques lead to SHFs' inability to detect, prevent and control pest and diseases.
- ✓ 100% of coconut SHFs report being affected by pest and disease, i.e. scale insects and rodents.
 - ✓ 78% are unfamiliar with integrated pest management practices.
 - ✓ 12% of cocoa SHFs site pest and disease as a key challenge.

Profile of a Coconut SHF. Despite being part of a multi-billion dollar industry, coconut SHFs are among the poorest in the Philippines with 60% living at or below the poverty line of 20,000₱ (US\$444) per year. A typical coconut SHF is on average 45 years of age or older, heads a family of 6 and works on a 2.21 hectare (Ha) plot of land with trees averaging 30 years of age. Household income averages 20,000-25,000₱ (US \$450-\$564) based on securing 5₱ per kg (1 coconut = 1kg) with farms harvesting 4,000 kg per Ha annually. Female members are generally involved in farming activities with 39% reporting as female heads of the farming household. (See *Social Safeguards* section for role of gender). In terms of farming practices,

- ✓ 99% do not apply any form of fertilizer because they consider it too expensive.
- ✓ 99% have never received any extension service from local government or the Philippine Coconut Authority, despite recognizing the importance of receiving farming advice and training.
- ✓ 82% perform intercropping as a coping strategy with banana and corn as the top two crops planted.
- ✓ 80% lack integrated pest management practices to control pest and disease spread.

For trade and financial needs, SHFs also travel 13.16 km to the nearest trading center and 24.15 km to access the nearest bank. In fact, 58% of respondents have not availed of any financial services from organizations or banking institutions with 25% relying on securing credit from traders and suppliers.

Although there is considerable global market demand for coconuts, SHFs are trapped in a cycle of low-productivity as they have limited access to the resources and information needed to improve yields due to aging trees, soil nutrient deficiencies, pest and disease and typhoons. Combined with existing value chain structures, low productivity and consequently low supply limit SHFs from capitalizing on global market access and opportunities through soaring demand for all types of coconut products, such as coconut water and coconut oil.

Project Approach. To address the drivers of vulnerability and promote resiliency among SHFs, the team is employing a multi-sectoral approach to bring together public, private and NGO actors: value chain actors, agronomists, technical experts, government agencies and financial institutions to deliver

integrated solutions that enable SHFs to anticipate, manage, and mitigate complex risks. GFUSA will serve as a convener, driving collaboration between and among coconut stakeholders to better serve SHF households through our Community Knowledge Worker model, which mobile equips a network of trusted rural agents. This network of last mile agents will optimize existing services, coordinate access and delivery of resources, and accelerate the effectiveness of mobile solutions to build household resiliency of SHFs. To this end, GFUSA will work with SHF households, where 92.6% of total income is dependent on the farm, and where building farm resiliency is the foundation of building household resiliency. Therefore, increasing household adaptive capacity involves building farm assets and diversified livelihood strategies, through crop and product diversification, decreasing farmers' vulnerability to typhoons as well as pest and diseases, and building strong farming systems.

Community Knowledge Worker (CKW) Model. GFUSA will deploy its CKW model of trusted rural agents to reach and empower last-mile coconut SHFs through mobile devices and tailored mobile solutions. Our human-centered mobile solutions are designed to help strengthen CKW networks to build dynamic, two-way channels to collect and share data, and help catalyze behavior change through access to information and extension services that leads to increased SHF resiliency. The model helps increase efficiency, effectiveness and scalability of reaching SHFs with timely, accurate and relevant information. The model also builds the capacity of coconut SHFs to become reliable, skilled and preferred value chain actors in the coconut market. As part of our intervention, GFUSA will provide SHFs with localized data about their farm localities that contain weather trends, which increases their capacity to adapt their cropping cycles and farming practices to changing weather patterns. At the same time, GFUSA will share data collected from cooperatives of SHFs with identified agribusinesses focused on intercropping to diversify SHF income sources and with financial service providers to access capital needed for crop diversification.

Sustainability and Scaling. GFUSA has secured commitment from Nutiva, a leading US certified organic and Fair Trade coconut buyer and retailer, to invest resources for resilient coconut varieties, intercropping and organic and Fair Trade certification initiatives. Through certification, SHFs can access higher paying markets and earn more income for their coconuts as well as intercropped fruits and vegetables. GFUSA will also work with local partners: Franklin Baker and Malagos, who source directly from SHFs and are willing to invest in quality and productivity measures. By paying SHFs directly and rewarding them for higher quality coconuts, they can earn more for each coconut sold. By investing in quality and productivity measures, partners like Nutiva and Franklin Baker not only help SHFs increase quality supply, which leads to increased income, but also strengthens and builds more resilient supply chains to achieve long-term economic growth and stability. In addition, GFUSA is in the process of securing a partnership with Philippine Coconut Authority (PCA) to scale nationally. PCA has an existing network of 1,800 coconut extension officers that can be deployed to provide information to SHFs via mobile phones, and serve as response teams to manage pest and disease outbreaks once early detection systems are created. However, GFUSA will pilot and test solutions with a smaller group of extension officers in select provinces.

Notably, our approach both ensures sustainability for SHFs through market partners who will buy increased supply and offers scalable mobile tools and solutions to strategic private and public partners. By focusing on increased stakeholder participation, greater access to resources, efficient resource management, and collaborative development of innovative mobile tools and solutions, together we can build more durable business relationships and achieve sustainable development for SHFs. Our approach also creates shared responsibility, knowledge and technology among stakeholders enabling SHFs to build assets, diversify livelihood strategies, access risk management strategies and information. In turn,

these factors promote farm resiliency, and ultimately improve household food security, increase household adaptive capacity, reduce vulnerability to shocks, and build more resilient farming systems through initiatives like intercropping and organic production systems that promote environmental resiliency.

Scaling. Coconut SHFs identified insufficient capital, low productivity, and low product market price as the top key challenges in achieving household resiliency. These are similar to challenges SHFs face in other tree crop value chains like coffee and cacao in Southeast Asia. We originally intended to scale in the Philippines first, then in Indonesia with coconut and cacao SHFs. However, given the project scope, anticipated timeframe of 24 months, and resources, we recognize the need to focus on coconut SHFs with cacao as an intercrop in key coconut production regions of the Philippines. The team also recognizes the potential to scale proven solutions to build farm resiliency and address challenges in other strategic commodities and countries upon securing additional funding following completion of the GRP.

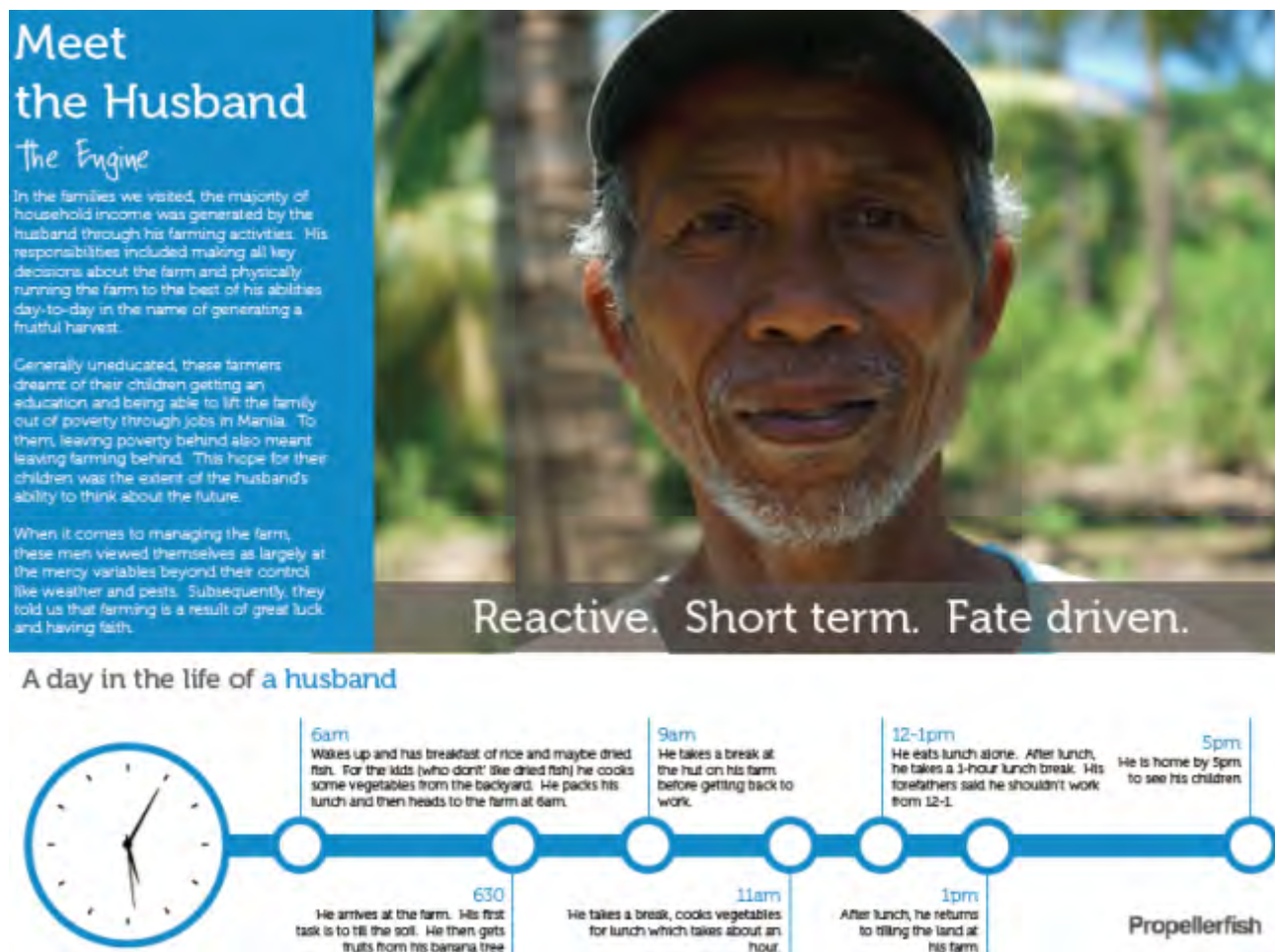
Annex II
Key Factors, Barriers and Incentives

| Value Chain Actor | Factors and Incentives | Barriers |
|----------------------------|--|--|
| Farmers | <ul style="list-style-type: none"> Improved food security leads to improved childhood nutrition and better health Premium prices from certification Additional income from diversification Additional income from increased productivity Psychological well-being from improved household security achieved through micro-insurance and savings (resilience fund) | <ul style="list-style-type: none"> SHFs' dependency on traders reflects the need for flexible financing, debt cycles and continuing relationships from generation to generation. This prevents SHFs from accessing higher paying markets and formalized services SHF's perception of their own ability and capacity due to relationship with traders. This undermines SHF's incentive to invest in alternative risk mitigation strategies that focus on long-term asset building. Effort, time and cost associated with achieving certification and income diversification SHFs' perception of risk in formal financial institutions and purchase agreements |
| Ecosystem Service Provider | <ul style="list-style-type: none"> Growing market demand for premium products directly sourced from SHF FSP regulation requiring a certain percentage of portfolio to be agriculture based Government investment in coconut and cocoa sectors Strategic alliance between coconut and cocoa agribusiness to cross buy and promote intercropping | <ul style="list-style-type: none"> Although the solution will likely prove more cost-effective overall when taking into account improved outcomes in the coconut sector, the inability of the public sector to increase its expenditure or lack of willingness to change how expenditures are spent due to entrenched interests, may prevent PCA from adopting the system Inherent complexity in aligning players with different interests |
| Extension Agents | <ul style="list-style-type: none"> Community respect and influence Higher performance Additional opportunities to increase revenue | <ul style="list-style-type: none"> Time required to provide in-depth assistance and additional services to SHF beneficiaries. |

Annex III

Qualitative Human Centered Design (HCD) Research: Coconut SHF Profile, Key Pain Points & Challenges Identified by SHFs

A video¹ detailing the HCD process conducted and highlights of the findings can be viewed here: <https://vimeo.com/127490273> password: Grameen



¹ Note that the video still needs to be finalized to include GRP branding, add graphs, and final edits

Key Pain Points



Storms

Typhoons are the most devastating events to a farmer. Many don't get the information they need in time to respond, and even when they do, there is very little they can do to secure their crops. Recovering from a typhoon takes time and devastates family income. The crops they earn the most from (e.g., bananas) are often the hardest hit. The only thing farmers told us you can do is save up enough to cover the loss of income.



Health

While not as destructive as storms, sickness can devastate a family's finances by eliminating the manpower that keeps farms on track for a successful harvest. Families where men had fallen sick talked to us about the economic impact it had on the family and the importance of men staying healthy in order to keep the family harvests on track.



Pests

Concerns about pests were usually reactive to previous experience having seen pests impact a harvest, either theirs or that of a community they know of. And while pests were seen as an issue, many farmers felt pests were manageable either through traditional solutions passed down through generations (e.g., burning a fire at the base of an infected tree) or solutions they could access as needed.



Pricing Fluctuations

Small holder farmers lack leverage in negotiations with traders and as a result rarely feel they are compensated fairly for their harvests. In many cases, they feel their harvests are poorly timed for the marketplace but can't be held long enough for the market to change. In other cases, they simply do not have the financial ability to wait. In both cases, farmers end up feeling they aren't compensated fairly for their harvests.



Accessing Transportation

Many of the people we spoke to lived and farmed quite far from the nearest road. As a result, many farmers struggle to get their crops to the marketplace. The farmers we spoke to talked about wanting to go directly to buyers but that those buyers were often 2 or 3 towns away and they don't have the transportation or infrastructure to make that happen.



Accessing Information

Farmers struggled to get the information they needed to make smarter decisions about their crops. They are among the last to know about everything from typhoons to pests and rarely are armed with the appropriate response in time.

Key Challenges

Access To Market

How do we help farmers who lack the transportation and infrastructure reach the marketplace more efficiently in order to, ideally, trade at a higher level within the value chain?

Leverage

How do we help small hold farmers increase their leverage in negotiations with traders in order to secure fair prices for their harvests?

Access To Knowledge

How do we help farmers who currently lack connectivity to telco networks or internet access to knowledge and information they need in order to make smarter decisions about their farms?

Risk Management

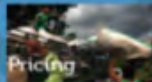
How do we help farmers minimize the inherent risk and impact of uncertainty on their livelihood?

Prosperity

Resiliency



Transportation



Pricing



Information



Pests



Storms



Pests



Pricing

Insights from Human-Centered Design Research



"Let's try it with a small harvest."

- Coconut Farmer's Wife, San Andres, Philippines

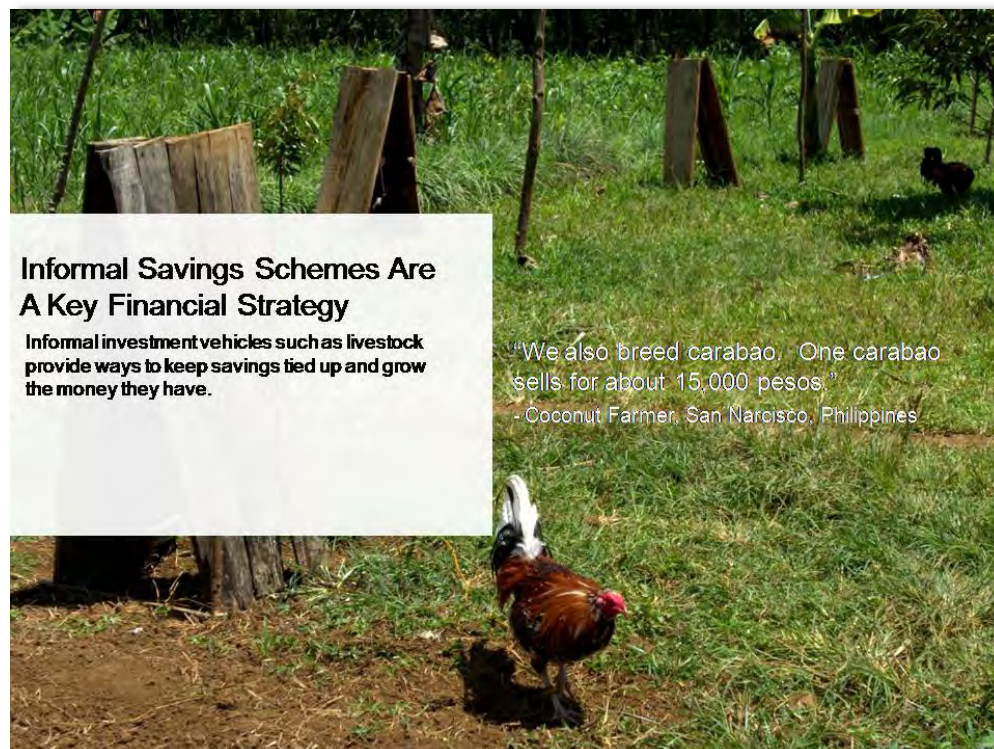
The Future Is An Uncertain Place

Commitment to a future outcome, even in exchange for better pricing, is seen as very risky.

When the farmers we spoke to complained about not getting a fair price from traders, the thought of getting an upfront pricing commitment in exchange for a pre-order was seen as daunting. The accountability of having to deliver a set order was seen as a tremendous risk as they are not sure they're able to meet the standards and demands of a buyer. When the farmers were clear on the criteria the buyer was after in a harvest, farmers were more open to the idea and suggested trying it out on a small scale as a test. At the end of the day, any form of commitment and accountability to a future outcome made these farmers very nervous.

"If you can show me an example of what the harvest needs to look like, that would be better because then I know what they want."

- Coconut Farmer's Wife, San Andres, Philippines

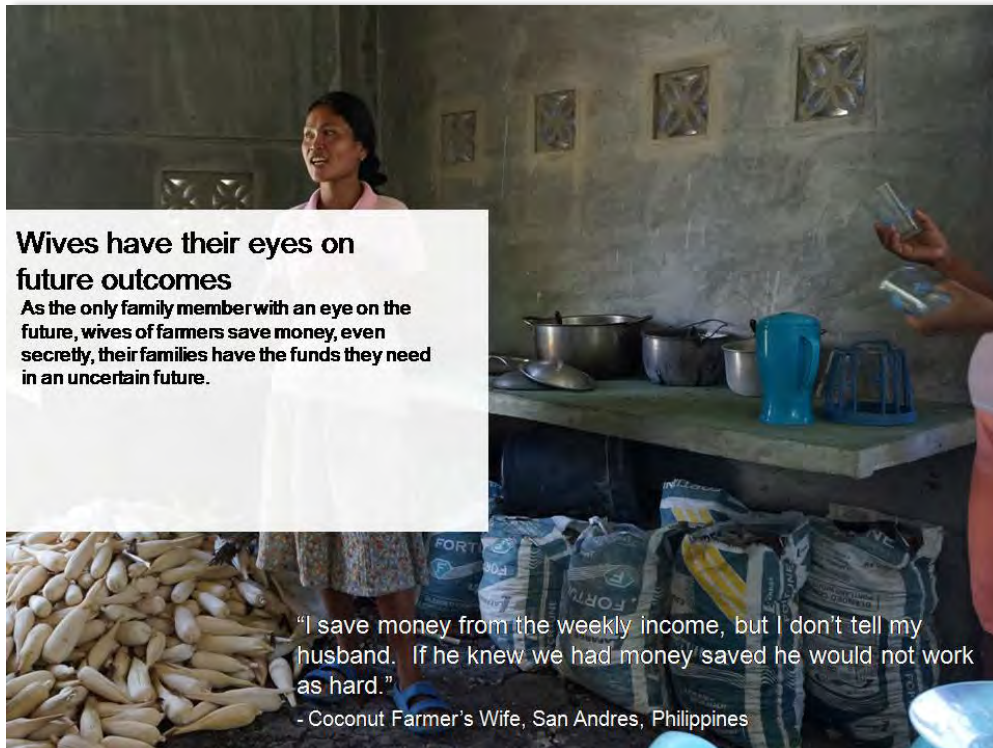


Informal Savings Schemes Are A Key Financial Strategy

Informal investment vehicles such as livestock provide ways to keep savings tied up and grow the money they have.

"We also breed carabao. One carabao sells for about 15,000 pesos."

- Coconut Farmer, San Narcisco, Philippines

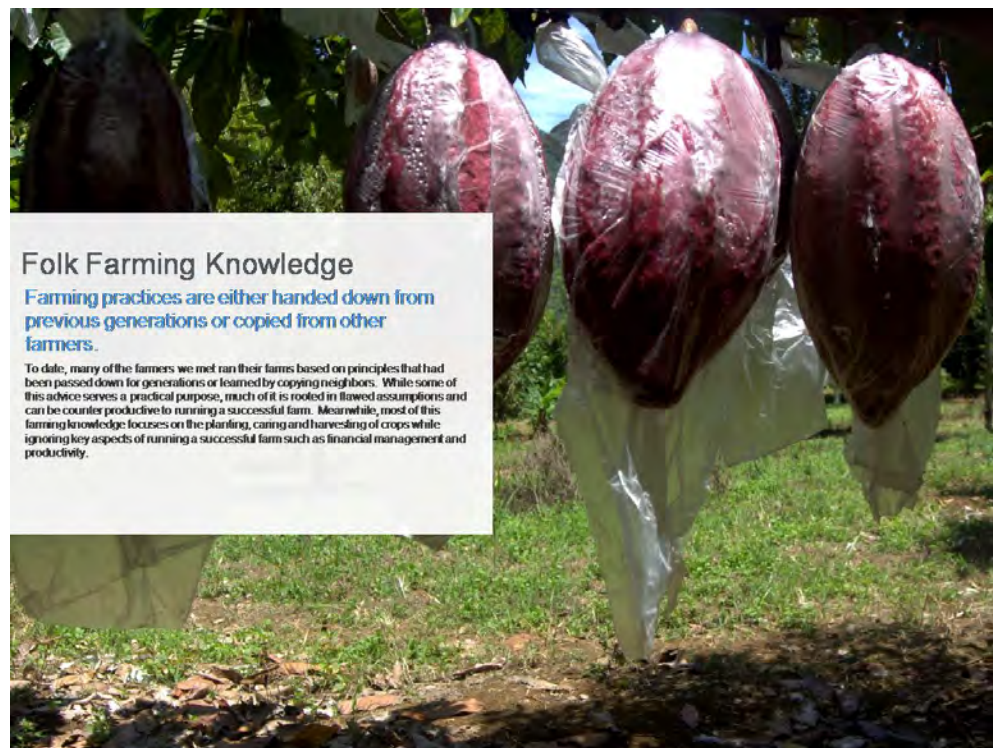


Wives have their eyes on future outcomes

As the only family member with an eye on the future, wives of farmers save money, even secretly, their families have the funds they need in an uncertain future.

"I save money from the weekly income, but I don't tell my husband. If he knew we had money saved he would not work as hard."

- Coconut Farmer's Wife, San Andres, Philippines



Folk Farming Knowledge

Farming practices are either handed down from previous generations or copied from other farmers.

To date, many of the farmers we met ran their farms based on principles that had been passed down for generations or learned by copying neighbors. While some of this advice serves a practical purpose, much of it is rooted in flawed assumptions and can be counterproductive to running a successful farm. Meanwhile, most of this farming knowledge focuses on the planting, caring and harvesting of crops while ignoring key aspects of running a successful farm such as financial management and productivity.

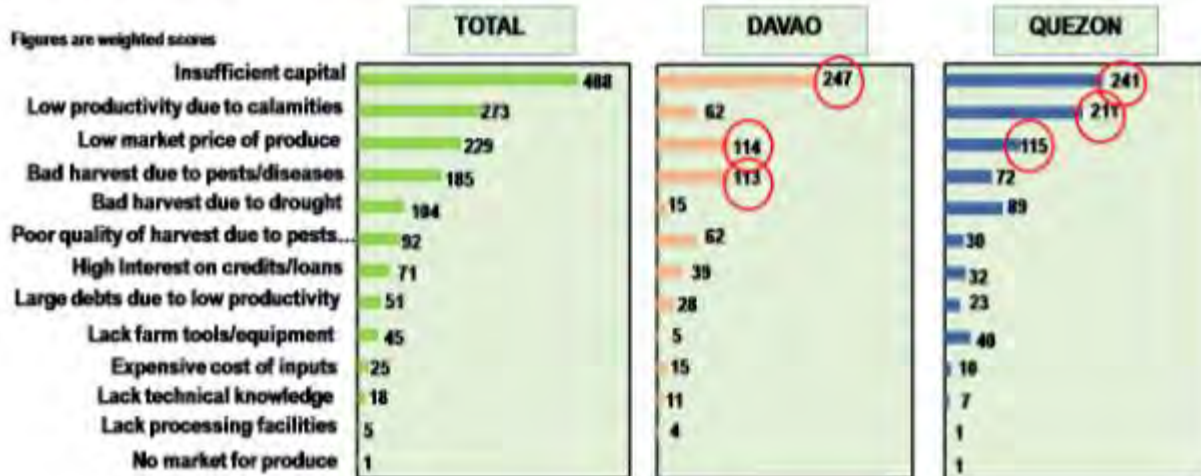
Annex IV

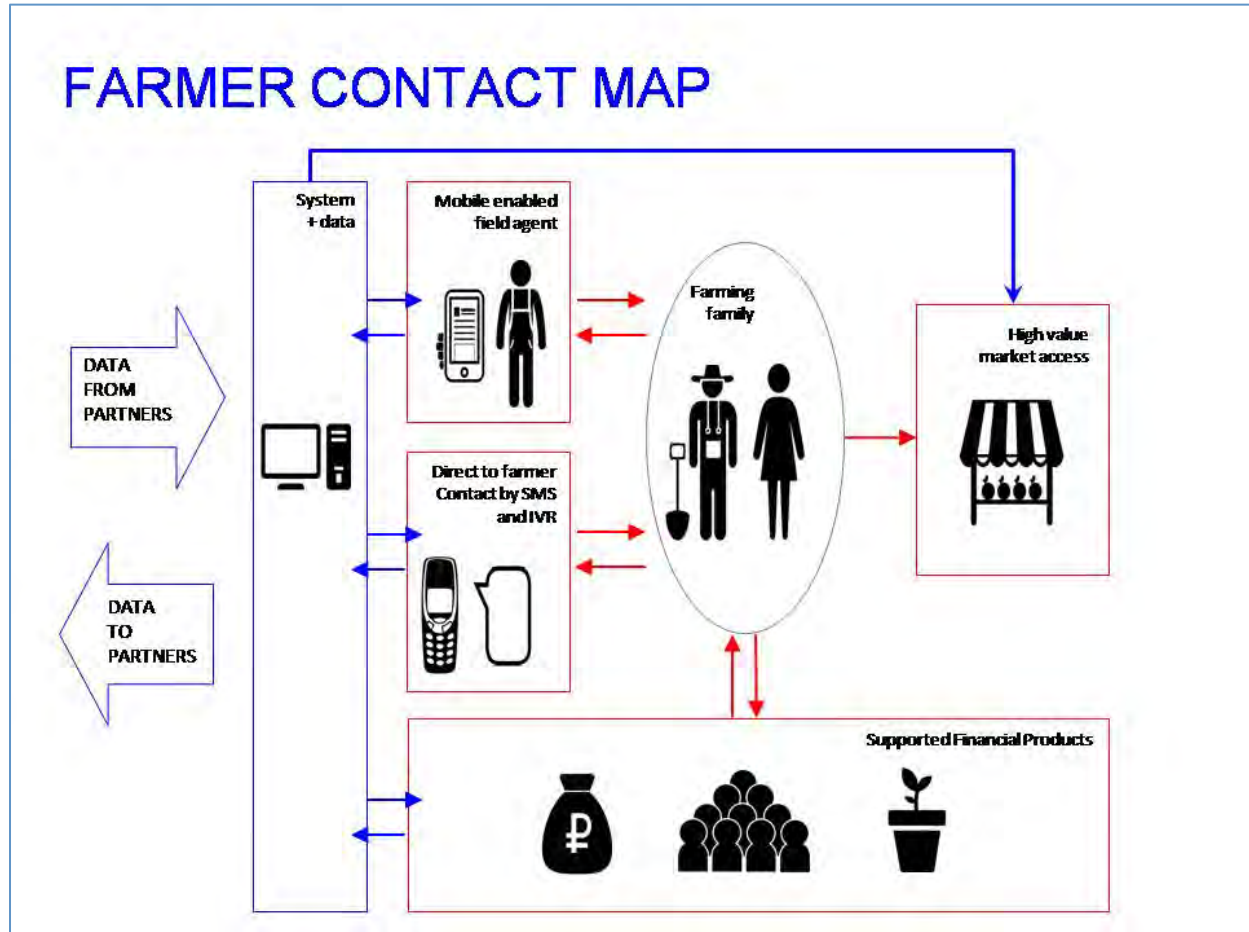
Quantitative Research: Key challenges identified by SHFs in 2 research sites (Quezon and Davao)

Top challenges identified by smallholder coconut and cacao farmers

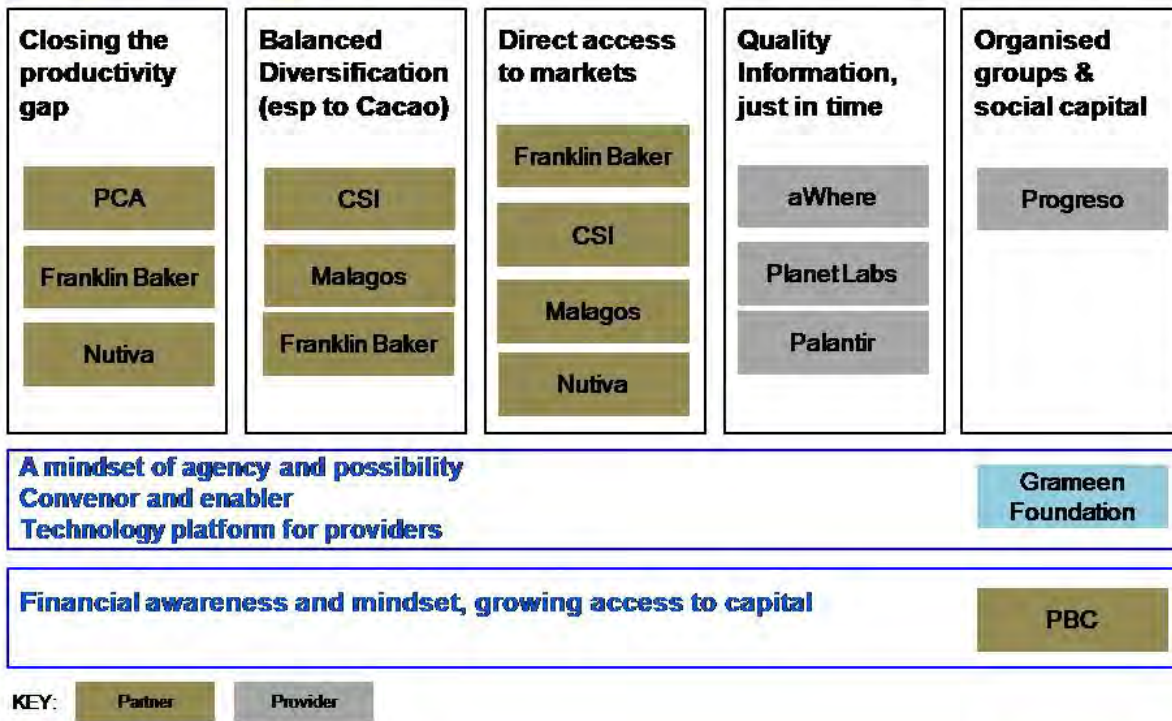
- Insufficient capital, low productivity due to calamities and low market price of produce are top 3 challenges affecting farmers.

Figures are weighted scores





MAPPING PARTNER PRIORITIES & CAPABILITIES





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James F. Sams, 1998-2000

Reed J. Oppenheimer, 1997-1998

November 20, 2014

To Whom It May Concern:

As Chief Financial Officer and Chief Operating Officer of Grameen Foundation, I'd like to provide written commitment convening Grameen Foundation's willingness to lead the proposed plans for the project entitled **"Building Resilience for Smallholder Farmers in the Southeast Asia"** as outlined in the Global Resilience Challenge (GRC) pre-proposal.

Grameen Foundation, a global US based nonprofit organization, will act as the Team Leader across a multi-disciplinary team for the GRC to build resilience among poor households in the Southeast Asia. Grameen Foundation helps the world's poorest people achieve their full potential by providing access to essential financial services and information on health and agriculture that can transform their lives. Founded in 1997, it delivers solutions that respond to the needs of the poor, as well as tools that help poverty-focused organizations become more effective. It focuses on initiatives that can achieve widespread impact and uses an open-source approach that makes it easy for other organizations to adopt them broadly.

Our headquarters is in Washington D.C., USA, but we also have offices in Seattle, USA, Colombia, Uganda, Ghana, Kenya, India, and Manila, Philippines.

Sincerely,

Joshua Tripp
Chief Financial Officer / Chief Operating Officer
Grameen Foundation



Grameen Foundation is a tax-exempt organization under section 501(c)(3) of the Internal Revenue Code.

Grameen Foundation Resume

Organizational Overview

Founded in 1997, Grameen Foundation is a global nonprofit organization that helps the world's poorest people reach their full potential by providing access to essential financial services and information on agriculture and health. We also develop tools to improve the effectiveness of poverty-focused organizations. We partner with financial institutions, telecommunications operators, private sector corporations, and other providers to create and scale products and services targeted to the poor – traditionally delivered, as well as those delivered via the mobile phone and other forms of technology.

Project Experience

Agriculture Extension Agent “Community Knowledge Worker” Programs

Grameen Foundation's approach focuses on empowering smallholder farmers (SHFs) by combining access to relevant, timely and actionable information and financial services through tailored mobile solutions and networks of trusted rural agents, “Community Knowledge Workers (CKWs)”.

Uganda CKW Program (2009 – Present) funded by USAID and Gates Foundation - Grameen Foundation operates a network of over 1,000 mobile-enabled agriculture extension agents in Uganda, CKWs that deliver accurate, timely information to more than 250,000 smallholder households. Through an extensive mobile-enabled database of 42 crops and 10 livestock, our trusted CKWs disseminate information about new farming techniques to improve productivity and yield, diagnose and treat diseases, and deliver important updates on weather, market prices, and other timely factors affecting the way that farmers manage their business, and opening up new opportunities along the agricultural value chain¹. Data collected from smallholder farmers through this “last mile” CKW network, pulls into real-time analysis and visualization dashboards, provides a new level of market transparency and reduces information asymmetry and risk for financial service providers and agribusinesses that want to serve this market. In a recent study², this service was found to have increased knowledge of local commodity prices by 20-35%, led to the adoption of new farming practices including a 27% increase in crop spacing, and resulted in a 22% increase in maize prices that participating farmers received.

In Asia, in 2014, Grameen Foundation conducted a landscape analysis in the Philippines and Indonesia to examine key pain points of SHFs and key commodity value chains including coconut, cocoa, coffee, seaweed, and bananas. We researched and interviewed key value chain players, and conducted rapid assessments of 1,800 coconut and 10,000 cocoa farmers via our partner, Chokolade de San Isidro (CSI), in the Philippines. Staff members also consulted with major cacao value chain players to identify and research certified cocoa and coconut farmers in Indonesia. Lastly, Grameen Foundation conducted a survey of financial behavior and agriculture practices of rice farmers in Bicol, Philippines, which is to be published in January 2015.

Solutions Innovation Process (SIP)

Grameen Foundation has a lengthy history of innovating financial products and services for the world's poor. Our proven approach to product design, called the **Solutions Innovation Process (SIP)**, combines human-centered design principles with scalable business practices that help our financial services partners pilot and scale next generation products for the poor. Under SIP, Grameen Foundation conducts in-depth market research and interacts extensively with its target population to develop a deep understanding of the population's needs and challenges, the context in which the population lives and makes decisions, and how its members are influenced. This information is then used to design products and services that deliver maximum impact in low-cost, sustainable, and scalable ways.

¹ More information can be found here: <http://grameenfoundation.org/resource/lessons-learned-2009-2014-community-knowledge-worker-uganda-program>

² International Food Policy Research Institute 2014

Enabling Microsavings and Mobile Financial Services Program (2011 – Present)

funded by Gates Foundation and CARD - In the Philippines, Grameen Foundation works with Center for Agriculture and Rural Development (CARD) Bank to apply mobile technology as a front end channel for its microfinance and savings transactions. The program introduced the integration of mobile technology to CARD Bank's operations, and integrated its banking system with a front end-mobile banking solution; develops new and re-engineered business processes; and establishes an agent network with support from recruitment to liquidity management. The approach is designed to build immediate, recurring transaction volume through loan releases and payments, cash-in and cash-out services, and balance inquiries using a savings account that is insured and interest bearing. Part of this project is to mobile-enable other products of the CARD MRI group, which includes insurance premium payments and claim payouts. In 2014 and for Typhoon Glenda alone, CARD MRI released a total of PHP 62M in disaster aid.

Agriculture Financing

eWarehouse Program (2012 – Present) funded by USAID - In Kenya, Grameen Foundation brought together financial service providers, agribusiness, and extension providers to deliver a system that uses mobile equipped last-mile agents to provide smallholder maize farmers with training on household storage. The system helps farmers properly store and manage crops, link to a financial institution to attain partial advances against the value of their stored crop, and connect with markets for final sale when prices rebound. The system registers farmers to receive loans, enabling them to hold grain for later sale. This led to an increase in price realization of over 50%³.

Mobile Technology Tools for the Last Mile

Developed by Grameen Foundation, Taroworks is a suite of mobile technology tools designed for use by field staff working in remote areas. It is built on the Salesforce platform and accessed in the field via Android devices.

mSourcing and Purchasing Program (2012 – Present) funded by Mastercard Worldwide – In Colombia, Grameen Foundation is promoting efficiency to increase farmer revenue and expand SHF participation by helping SHFs sell their produce to large grocery chains. Via Taroworks, daily orders for produce are taken, payments received, deliveries from farmers are made, and individualized performance reports are created. This new system is reducing travel costs, increasing farmer profitability, and improving revenue predictability. Thus far, 2,024 orders by 4 grocery clients across 21 stores have been completed to source 45,993 kilos worth of product through 75 crops across 7 farmer associations. On average, 40 hours per week is saved in payment processing, and farmer payment time is reduced by 80%.

Key Personnel

- **Whitney Gantt - Director, Mobile Agriculture.** Whitney brings seven years experience in designing and executing mobile agriculture programs in emerging markets including Latin America and Africa. Prior to joining Grameen Foundation, Whitney worked in the public and non-profit sectors in education, civil society, and national resource management in the US and abroad. She excels in building and leading cross-functional teams who work closely with end-users and public and private sector partners to co-design and co-implement solutions to reduce poverty.
- **Gigi Gatti – Country Director, Philippines & Director, Mobile Financial Services.** Based in Manila, Gigi leads Digital Financial Services initiatives in Asia, facilitates strategic partnerships for program implementation and provides oversight on program deliverables. She has over 20 years work experience in the IT, banking, insurance and microfinance industries. Her previous positions include Vice President at BPI Globe Bank, Technical Program Officer of Grameen Foundation USA, National Officer (OGA) at the Asian Development Bank and Professor at the Graduate School of Business of De La Salle University.
- **Ana Herrera - Program Officer, Agriculture.** Based in Manila, Ana is experienced in agriculture program implementation across Sub-Saharan Africa and Southeast Asia including a project to help increase farmers productivity and food security through the promotion of seed technologies using ICT tools. Previously, Ana worked at Habitat for Humanity, Callaway Golf, Synergia Foundation.

³ As of October 2014



20 November 2014

INTENT TO PARTICIPATE AND SUPPORT

To Whom It May Concern:

CSI Trade Ventures (CSITV), the marketing and liaison arm of Chokolate de San Isidro, Inc. (CSI) would like to provide a written commitment conveying our willingness to engage with the proposed plans for the project entitled **"Building Resilience for Small Shareholder Farmers in the Philippines"** as outlined in the Global Resilience Challenge (GRC) pre-proposal.

With the help of funding from the Global Resilience Partnership, CSI is prepared to directly work with Grameen Foundation to define problem and solution statements, then provide support for implementation of the program as we work to help smallholder farmers and their households in the Philippines build resilience.

CSI, a Philippine registered company headquartered in San Isidro, Davao del Norte, Philippines, will act as the Team Member across a multi-disciplinary team for the GRC and provide advice on cacao agricultural best practices, market linkage, and connecting cacao farmers to this program.

Chokolate de San Isidro, Inc. is a social enterprise located in the municipality of San Isidro, Davao del Norte, whose composition integrates players in the value chain. Notably, 30% of the corporation is owned by 6 farmer cooperatives in the area. It's business model is one that is based on participatory management, giving importance to the role of farmer cooperatives, private investors and private-sector marketers, as important components to achieve competitiveness and participate in international cacao trading.

Taking off from its conceptualization to organization, the company became one of the pioneers in cacao exporting in the Philippines, and by far one if not the biggest exporter of cacao beans (in terms of volume) in the country since 2009. Having penetrated marketing channels mainly in Europe, the US and other Asian countries, it is also advocating for its clients to support production initiatives for small holder farmers. In 2015, CSI is poised to undergo expansion and rehabilitation of farms, between 500 to 1,000 hectares, as a production base to meet the demand of its clients.

Notable too, is its commitment to sustainable agriculture, considering that it is the only company in the country today which is certified to Sustainable Agriculture Network/Rainforest Alliance Certification, emphasizing its thrust of preserving natural resources through responsible agriculture and espouse social and cultural responsibility in business operations. (see attachment)

The "CSI Cocoa Communities (CCC)" program provides a unique opportunity for concerned consumers, industry stakeholders such as terminal market clients / chocolate producers / chocolate shops / community groups and others to engage a network of experienced cocoa farmers to be trained as "cocoa specialists", aimed to help small holder cocoa farmers. Through CCC, we can provide the necessary tools, materials and training to improve productivity in the farms and increase incomes of farmers and their families.




CSI looks forward to providing expertise on the GRC, subject to further negotiations on its specific role in implementing the project in the future.

This letter of intent and all attachments (i.e. company profile) is issued by CSI Trade Ventures to Grameen Foundation for the Global Resilience Challenge (GRC) proposal, and is limited for such purpose.




Prepared by:


Dante R. Muyco, Jr.
Marketing Director
CSI Trade Ventures

Noted by:


Theodore Delfin M. Garcia
Vice Chairperson
Chokolate de San Isidro, Inc.

ATTACHMENTS

| | |
|---|--|
|  Sustainable Farm Certification International, Ltd. certifies that CSI Trade Ventures and Chokolate de San Isidro Farmer's Group Philippines |  Sustainable Farm Certification International, Ltd. certifies that CSI Trade Ventures and Chokolate de San Isidro Farmer's Group Philippines Complies with Sustainable Agriculture Network Chain of Custody requirements as stipulated in "Chain of Custody Standards and Policy, Version March 2014" Certification valid from: November 12, 2017 to November 11, 2017 Certification Code: SPC C-000532 Inspection body: RA-Cert Asia Pacific |
| CONTROLLED For intended use only | |
|  Luis Diego Verdésia M., General Manager Sustainable Farm Certification International, Ltd., IOAS (International Organic Accreditation Service) accredited certification body number: 71 P.O. Box: 11002-1000 San José, Costa Rica www.sustainablefarmcert.com Phone: (506) 2236-4000 | Costa Rica BOLIVIA PERU |



Chokolade de San Isidro Resume

1. Company Profile

Chokolade de San Isidro, Inc. is a social enterprise located in the municipality of San Isidro, Davao del Norte, whose composition integrates players in the value chain. Notably, 30% of the corporation is owned by 6 farmer cooperatives in the area. It's business model is one that is based on participatory management, giving importance to the role of farmer cooperatives, private investors and private-sector marketers, as important components to achieve competitiveness and participate in international cacao trading.

Taking off from its conceptualization to organization, the company became one of the pioneers in cacao exporting in the Philippines, and by far one if not the biggest exporter of cacao beans (in terms of volume) in the country since 2009. Having penetrated marketing channels mainly in Europe, the US and other Asian countries, it is also advocating for its clients to support production initiatives for small holder farmers. In 2015, CSI is poised to undergo expansion and rehabilitation of farms, between 500 to 1,000 hectares, as a production base to meet the demand of its clients.

Notable too, is its commitment to sustainable agriculture, considering that it is the only company in the country today which is certified to Sustainable Agriculture Network/Rainforest Alliance Certification, emphasizing its thrust of preserving natural resources through responsible agriculture and espouse social and cultural responsibility in business operations.

2. Expertise:

- Food Processing: Cocoa liquor or Tablea
- Domestic and international marketing of products
 - Market negotiations
 - Product packaging
 - Market linking
 - Product consolidation
- Quality Assurance on cacao processing (both post-harvest and food processing)
- Nursery Operations: The company is operating a nursery for its expansion and rehabilitation projects
- Production Assistance:
 - Quality control in the farms
 - Training of farmers
- Business Modelling
 - Application of appropriate models for social enterprises and small farmer holders
- Investment Promotions
 - Promotion of projects for investment infusion
- Application of International Standards: Rainforest Alliance Certification / Chain of Custody Certification

Our current experience can be summed up to the following realizations:

1. With a working system from production to marketing, small farmer-holders can keep up to quality requirements.
2. Cooperatives are the key to uplifting the lives of small farmer-holders.
3. Big Brothers/SMEs work with cooperatives to strengthen organization.
4. Fair trading throughout the value chain, especially in the farms, is attainable and now working.
5. Small enterprises or social enterprises have the capability of becoming 'international'.
6. Nurturing of expertise is essential in building up social enterprises.
7. Client as "partners" is important in building the industry.
8. Productivity in the farms is the key to improving the livelihood of farmers.



3. Relevant Projects/Products/Partnerships

3.1 The Chokolate de San Isidro Model:

- Established in 2008 as a social enterprise
- Applied a sustainable model for agribusiness development
- The corporation integrated the players in the value chain to work together, notably the role of cooperatives (30% of the company is owned by farmer cooperatives)
- Primary focus: Marketing of cacao for local and international markets
- Partners of farmers cooperatives / peoples' organizations
 - San Isidro, Davao del Norte
 - Paquibato, Davao City
 - Calinan, Davao City
 - Maragusan, Compostela Valley
 - Davao Oriental
 - Compostela Valley
 - Surigao del Sur

3.2 Trademarks:

- Started as OTOP, conceptualized by DTI and the LGU, developed "ground-up"
- With ample client partnerships, Chokolate de San Isidro, Inc. is now one of the biggest exporter of cacao beans in the Philippines since 2009, buying from cooperatives and consolidators throughout Mindanao.
- Market for cacao beans include Europe and the U.S.
- Established the SIKWATE! Tablea brand, now being used by food processors, hotels and restaurants.
- The company is known in the industry for being able to apply fair trading practices towards small-holder farmers and cooperatives
- Financing: From informal to formal (non-bank) lending
- Effectuated stability in cacao farm-gate pricing
 - In 2008, buying of cacao in Davao was at a level of PhP 30-40 per kilo
 - When CSI started buying in 2009, farm-gate prices stabilized at PhP 70 per kilo
 - Since then, CSI has been the benchmark in farm-gate pricing, providing competition and effecting fair trading for the industry
- Expanded reach in product sourcing from other cooperatives outside of San Isidro
- To date, the only cacao group in the country to have been certified to Rainforest Alliance or Sustainable Agricultural Standard (SAS).

4. Key personnel in the organization:

1. Chairperson – Dr. Gil Yarra, M.D., a medical doctor (ENT) by profession and invested in the San Isidro, Inc. during its inception.
2. Vice Chairperson – Theodore Garcia, a businessman/restauranteur based in Davao, who heads the CSI Trade Ventures, a marketing outfit based in Davao City.
3. Member of the Board – Ms. Linda Sarmiento, Chairperson of the San Miguel Farmers Cooperative based in San Isidro, representing the farmer cooperatives-incorporators in CSI.
4. Member of the Board – Engr. Dexter Coquilla, an engineer-contractor by profession, based in Tagum City.
5. Member of the Board – Nenita Nazareno, formerly the Provincial Director of the Department of Trade and Industry in Davao del Norte, whose family business is into coconut trading in Surigao.
6. Member of the Board – Ria dela Vega, a cacao trader based in San Isidro, Davao del Norte.
7. Member of the Board / Managing Director – Carlos Barsicula, a businessman (Carenderia owner) and cacao farmer based in San Isidro.
8. Marketing Representative / Liaison Officer – Dante Muyco, Jr., a professional marketer and business consultant by profession.



November 26, 2014

To whom it may concern:

Re: Letter of Support for Grameen Foundation's Pre-Proposal Submission to the Global Resilience Partnership Convened by the Rockefeller Foundation and USAID

Nutiva is pleased to provide this letter of support for Grameen Foundation's Pre-Proposal submission "*Building Resilience of Coconut and Cocoa Smallholder Farmers in Southeast Asia*" for the Global Resilience Partnership. Nutiva views this as an important project for reaching, empowering and strengthening household resilience of the poorest coconut smallholder farmers, their families and rural communities in the Philippines and Indonesia.

Nutiva is committed to collaborating with the Grameen Foundation by leveraging its coconut expertise and experience to further define the problem and solution statements as well as provide program related support for implementation, such as helping new coconut farmer groups obtain organic certification. Nutiva currently sources certified organic, non-GMO and Fair Trade virgin coconut oil, coconut flour, coconut sugar, pureed coconut from suppliers and smallholder coconut farmers in the Philippines and is interested in identifying new coconut supply sources in Indonesia.

About Nutiva. Nutiva is the world's leading organic superfoods brand, is headquartered in Richmond, California, USA. Nutiva is dedicated to a healthy and sustainable world, demonstrating its mission to nourish people and planet by using delicious organic ingredients, enriching the soil, and donating 1% of sales to sustainable agriculture. Founded in 1999, Nutiva is the world's bestselling brand of nutritious organic hemp foods, extra-virgin coconut oil, chia seeds and red palm oil. Nutiva's products are offered by 15,000 retailers in the U.S, Canada and the European Union, i.e. Whole Foods, Sprouts, Vitamin Shoppe, GNC, Public, Safeway, Loblaws, and Amazon.com.

Social and environmental responsibility is a core part of Nutiva's culture and business. We are committed to nourishing people by providing the purest quality product and reducing our negative impact on the planet. From sourcing 100% organic products, to obtaining fair trade certification, to greening our facilities and operations, to funding tree planting at schools in our local community, we are constantly seeking ways to better protect our environment and ensure a better quality of life for employees, customers, and the communities we serve.

Nutiva looks forward to identifying areas of mutually beneficial and overlapping objectives and participating in this effort to improve household resilience of smallholder coconut farmers in the Philippines and Indonesia.

Sincerely,

A handwritten signature in black ink, appearing to read "John Roulac", is written over a horizontal line.

John Roulac
Founder & CEO

213 W. Cutting Blvd., Richmond, CA 94804 • tel (510) 255-2700 • fax (510) 255-2705

www.nutiva.com



ABOUT NUTIVA. Nutiva is the world's leading organic superfoods brand, is headquartered in Richmond, California, USA. Nutiva is dedicated to a healthy and sustainable world, demonstrating its mission to nourish people and planet by using delicious organic ingredients, enriching the soil, and donating 1% of sales to

sustainable agriculture groups. Founded in 1999, Nutiva is the world's bestselling brand of nutritious organic hemp foods, extra-virgin coconut oil, chia seeds and red palm oil. Nutiva's products are offered by 15,000 retailers in the U.S, Canada and the European Union, i.e. Whole Foods, Sprouts, Vitamin Shoppe, GNC, Public, Safeway, Loblaws, and Amazon.com.

We introduced America's first hemp food bar at a time when the extraordinary nutritional value and ecological benefits of hemp foods were little known. We then went on to introduce key superfoods such as hemp oil, shelled hemp seeds, and hemp protein powder— named Best New Supplement at the Natural Products Expo Show in Washington, D.C. the year it debuted.

Social and environmental responsibility is a core part of Nutiva's culture and business. We are committed to nourishing people by providing the purest quality product and reducing our negative impact on the planet. From sourcing 100% organic products, to obtaining fair trade certification, to greening our facilities and operations, to funding tree planting at schools in our local community, we are constantly seeking ways to better protect our environment and ensure a better quality of life for employees, customers, and the communities we serve.

ABOUT NUTIVA NOURISH FOUNDATION: BUILDING HEALTHFUL COMMUNITIES.

In 2013, Nutiva created the Nutiva Nourish Foundation to strengthen the capabilities and permanence of Nutiva's philanthropic pursuits. We are excited about this development because it gives us the opportunity to support initiatives that we are passionate about and contribute in a meaningful way. The Nutiva Nourish Foundation seeks to advance healthy communities and ecologically sustainable agriculture by supporting causes related to four areas of focus:

- **Sustainable Farming** – We support biodiversity, seed diversity, composting, native planting, integrated pest management, conservation, organic farming, and the cessation of pesticide and herbicide use.
- **Food and Environmental Activism** – We support labeling/awareness, industrial hemp farming, fair trade, food justice, food sovereignty, and environmental leadership
- **Trees and Gardens** – We support community tree planting, school gardens, community gardens, education, backyard gardens, farmers markets, and community supported ag programs (CSAs).
- **Healthy Communities** –We support healthful school lunches, nutritional awareness, community restoration, local organic food programs, and healthful community initiatives.

KEY PARTNERSHIPS. Nutiva, along with several other organic food brands including Numi Organic Tea, Alter-Eco Foods, Guayaki, and Traditional Medicinals, joined forces to create OSC2

213 West Cutting Blvd Richmond, CA 94804 United States 1-800-993-4367 www.nutiva.com

(One Step Closer to an Organic Sustainable Community). OSC2 is a coalition of like-minded, socially responsible brands who have come together to drive positive and sustainable change in the food industry. Like Nutiva's CEO, the others participating in OSC2 are passionate leaders who believe in the power of collaboration to affect social change.

COCONUT FARMER SUPPORT. To date, we have donated 35,000 coconut seedlings to smallholder farmers in the Philippines, and we have pledged to donate 100,000 total trees by 2015. In only five years, the seedlings will grow into profitable, producing coconut trees, known as "money trees." We also sponsored a conference and training on organic farming for coconut growers in the Philippines. Because of the high growth of our coconut sales, a new factory bringing 1,400 jobs is opening up in an area of the Philippines where jobs are scarce.

COMPANY BIOGRAPHIES

John Roulac, Founder and CEO. Through his leadership, Nutiva has become the fastest-growing superfoods company on the planet, with a 55% annual growth rate since 2002, and has for five years in a row been named one of Inc. magazine's fastest-growing companies in America. This growth keeps bringing John closer to his dream of a world that places people above profits—one where people everywhere have access to wholesome, organic foods.

A longtime advocate for healthy people and ecosystems, John has founded four nonprofit ecological groups, one of which, Forests Forever, placed the California Forest Protection Act, Prop 130, on the state ballot in 1990. In the fall of 2012 John founded GMO Inside, a group dedicated to educating people on the dangers of GMO foods. John is respected for his expertise on whole foods, organic farming, natural healing, hemp agriculture, forestry, permaculture, recycling and composting, and the conservation of water and energy. He helped jumpstart the modern home-composting movement in the early 1990s, successfully sued the US DEA to keep hemp foods legal in 2001, and has written four books on environmental topics that have combined sales of over one million copies. He has been interviewed on more than 150 radio programs and is widely quoted in the media—from Wired magazine to the Los Angeles Times and the Wall Street Journal.

Gretchen Grani, Director of Sustainability and Corporate Giving: Gretchen brings 20 years of management experience in the corporate and non-profit sectors, focusing on socially responsible and green companies. Her broad background in project planning and non-profit management and finance gives her the tools to lead Nutiva's corporate giving, community outreach, and sustainability programs, while also directing the administration of the office. Gretchen is thrilled to serve as Nutiva's goodwill ambassador, promoting the company's core values of community and well-being. She has a bachelor's degree from UC Berkeley and a master's degree in environmental planning from University of Pennsylvania. On the weekends, she enjoys spinning, strength training, and experimenting with Nutiva's superfoods to create new pressed juices and vegan recipes.



20 November 2014

To Whom It May Concern:

Palantir Technologies (Palantir) would like to provide a written commitment conveying Palantir's willingness to engage with the proposed plans for the project entitled "**Building Resilience for Small Holder Farmers in the Southeast Asia**" as outlined in the Global Resilience Challenge (GRC) pre-proposal.

With the help of funding from the Global Resilience Partnership, Palantir is prepared to directly work with Grameen Foundation to define problem and solution statements, and based on findings from the planning stage, provide support for implementation of the program as we work to help small shareholder farmers and their households in the Philippines and Indonesia build resilience.

Palantir, an American computer software and services company, specializing in data analysis, headquartered in Palo Alto, California, USA, will act as the Team Member across a multi-disciplinary team for the GRC and provide advice on data collection and analysis. Our primary clients are US government customers, and since 2010, financial institutions.

Palantir looks forward to providing expertise on the GRC.

Sincerely,

Sincerely,

11/25/2014

Zachary Romanow

Signed by: Zach Romanow

Zach Romanow

Agriculture Lead, Philanthropy

Palantir Technologies

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Palantir Technologies Resume

Company Profile

Palantir Technologies ('Palantir') builds software products that enable organizations to solve their hardest problems by enabling them to better understand datasets that are often large and complex. Our technology enables organizations to fuse together disparate data sources into a single, human-understandable model so non-technical users can perform powerful, interactive analysis and solve their hardest problems. Our products are deployed at many of the most critical public institutions, private enterprises, and non-profit organizations in the world.

Palantir Technologies builds state-of-the-art software platforms for data integration and analysis at scale. Palantir is a fully featured platform that allows users to intuitively explore, analyze, and generate actionable insights from any data source, volume, or format, all within a single intuitive environment. Palantir engineers work closely with users to deploy and configure each platform to meet their specific needs.

- **Data Integration:** Fuse data into a single environment from any source in any format (structured, unstructured, and semi-structured).
- **Search, Discovery, and Advanced Analytics:** Rapidly search and conduct multi-faceted analysis across enterprise-wide data.
- **Knowledge Management:** Maintain and understand the pedigree, lineage, and history of every piece of data.
- **Secure Collaboration:** Share information or subsets of data securely across teams and organizations without compromising data integrity.
- **Civil Liberties and Data Protection:** Safeguard data with granular access controls and audit logs of all system and user activity.

Palantir engineers have deep experience deploying the proposed data integration and analytical capabilities within government, commercial, nonprofit and regulatory communities around the world. These platforms are used at over 200 organizations around the world to quickly implement analytics-driven solutions to their hardest problems. For more information, visit <http://www.palantir.com>.

Relevant Projects

Through its philanthropy work, Palantir provides a dedicated team of software engineers and deploys its technology platforms to help global development partners use data analysis to better address challenges in agriculture, health, human trafficking, disaster relief, and other fields.

Philanthropy clients include: Direct Relief (disaster relief in the Philippines), the Grameen Foundation (mobile agriculture), the Carter Center (Syria conflict mapping project), Physicians for Human Rights (disease tracking system), Community Solutions (anti-homelessness), National Center for Missing and Exploited Children, the Clinton Global Initiative/ Team Rubicon (disaster relief), and Polaris National Human Trafficking Resource Center.

The following examples illustrate how Palantir technology and engineering support can be leveraged to analyze large-scale, complex data sources to identify trends and target services:

Grameen Foundation: Mobile Agriculture

Palantir has worked with Grameen Foundation since 2012 to help derive insights from farmer data in Uganda, Colombia, and Guatemala. Palantir's tools and the automated analytics developed specifically for Grameen Foundation enable local teams to target service delivery, track farmer behavior, inform the design of services, and identify pest and disease outbreaks. For more information, see: <https://www.youtube.com/watch?v=gsPRC4HGDvU&feature=youtu.be>

Clinton Global Initiative and Direct Relief

Palantir partnered with the Clinton Global Initiative and Direct Relief to improve Philippines typhoon response with satellite technology and better data analysis. Palantir also worked with the Clinton Global Initiative, Direct Relief, and Team Rubicon to enable more effective targeting of disaster relief after Hurricane Sandy, and flood and tornado events in the US. For more information, see: <https://www.youtube.com/watch?v=Ch0yCcTRSa4>

National Center for Missing and Exploited Children

Palantir has helped the National Center for Missing and Exploited Children to integrate multiple data sources and effectively sift through the vast volume of data it receives to draw links that assist the Center in locating missing and exploited children. For more information, see: <https://www.youtube.com/watch?v=CO0poW-WaaU>

Community for Disease (CDC) Control

Palantir worked with the CDC to develop a “Multistate Foodborne Disease Outbreak Investigation System” that integrates relevant surveillance data sources and feeds; rapidly visualizes foodborne disease outbreak data, and provides a secure platform for collaboration. For more information, see: <http://www.iom.edu/Activities/PublicHealth/HealthData/2011-JUN-09/Morning-Session/Presentations/Palantir.aspx>



PEOPLES BANK OF CARAGA, INC.
National Highway, Barangay 5, San Francisco, Agusan del Sur
Tel. No. 085-343-8529 Fax No. 085-839-1445

28 November 2014

To Whom It May Concern:

The People's Bank of Caraga, Inc. (PBC) would like to convey its commitment and willingness to engage with the proposed plans for the project entitled "**Building Resilience for Small Shareholder Farmers in the Philippines**" as outlined in the Global Resilience Challenge (GRC) pre-proposal.

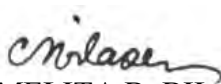
With the help of funding from the Global Resilience Partnership, PBC is prepared to directly work with Grameen Foundation to define problem and solution statements, then provide support for implementation of the program as we work to help smallholder farmers and their households in the Philippines build resilience.

PBC, a Bangko Sentral ng Pilipinas (BSP) regulated rural bank headquartered in San Francisco, Agusan del Sur, Philippines will act as a Team Member across a multi-disciplinary team for the GRC and provide its financial products and services like loans, savings, and micro-insurance specifically to cacao smallholder farmers in San Isidro, Davao del Norte, that will be covered by this proposed project.

The bank added to its lending programs a financial package for small cacao farmers to significantly augment their household income. The Kasaganaan sa Kabuhayan galing sa Oportunidad sa Cacao (sustainable financial services for small cacao farmers) or the KaKaO Program of PBC also aims to promote cacao production and marketing through a clustering approach, in partnership with institutions having the common mission of helping farmers become socially resilient and financially stable.

PBC looks forward to providing its financial services expertise on the GRC.

Sincerely yours,


CARMELITA B. BILAOEN
President
Peoples Bank of Caraga, Inc.

People's Bank of Caraga, Inc.

Company Profile

The Peoples Bank of Caraga, Inc., a rural bank, was established on October 24, 1972 primarily to provide financial services to agrarian reform beneficiaries (ARBs), the smallholder farmers in the Agrarian Reform Communities of the province of Agusan del Sur, Philippines. In 1998, it became a microfinance institution to make available a lending program for the housewives of the ARBs for them to establish microenterprises to help increase family income. The bank's microfinance program expanded to ten (10) other provinces in Mindanao, Philippines with over forty thousand (40,000) microfinance clients being served by its twelve (12) branches and twenty one (21) Micro-banking offices. In 2005, PBC launched an agri-microfinance program that now serves over 2,800 small farmers. The bank's total microfinance loan portfolio is P 436 Million as of October, 2014.

The bank's microfinance program includes cycled microenterprise loans, allied undertaking loans, micro-savings, agri-microfinance, non-financial services such as livelihood trainings, technical assistance and business development services, as well as micro-insurance services provided by its PBC-Mutual Benefit Association.

Relevant Projects/Products/Partnerships

PBC undertakes various agricultural and related projects in cooperation with other cause-oriented institutions such as the Microfinance and Climate Smart Agriculture: Integrated Farming System (IFS) Project with the Microfinance Council of the Philippines (MCPI) and the Catholic Organization for Relief and Development Aid (CORDAID); Microenterprise and Micro-Agri Capacity Building for the Indigenous People in Agusan del Sur Project with the Interchurch Organization for Development Cooperation (ICCO); Energy Inclusion Initiatives with MCPI; Cacao Production Program with the Kennemer Foods International; and the Farmer's Entrepreneurship Program with the National Livelihood Development Corporation (NLDC), Catholic Relief Services (CRS) and the Jollibee Group Foundation (JGF). The bank provides not only financial services for these projects, but also technical and other non-financial services.

Company Resume

PBC's President, Mrs. Carmelita B. Bilaoen, has been serving the small farmers with financial services of the bank since its establishment in 1972. She has consistently been the driving force in the bank's mission to help improve the countryside through financial services. The microfinance program head, Ms. Epifania A. Bulaon, a Christian Education and Social Science graduate who spearheaded the program in 1998, had undergone extensive trainings and exposures in microfinance. The bank's Agri-Microfinance program, Isa-isang, Sama-samang Pag-unlad Project (ISAPA) is led by its Program Officer, Arnold Arbutante B. Arbutante, an Agriculturist who has been with the bank to serve small farmers since 2006. The area being considered by the project with Grameen Foundation on the GRC is under the Kapalong, Davao del Norte Branch of PBC whose Branch Manager, Ms. Pinky B. Tuares has been with the bank since 2002 and started as a Development Officer for the microfinance program, and now a manager of a micro-finance-oriented branch.



Amsterdam, the Netherlands, November 26, 2014

To whom it may concern:

Re: Letter of Support for Grameen Foundation's Pre-Proposal Submission to the Global Resilience Partnership

Progreso is pleased to provide this letter of support for Grameen Foundation's Pre-Proposal submission "*Building Resilience of Coconut and Cocoa Smallholder Farmers in Southeast Asia*" for the Global Resilience Partnership. Progreso views this as an important project for reaching, empowering and strengthening household resilience of the poorest coconut and cocoa smallholder farmers, their families and rural communities in the Philippines and Indonesia.

Progreso is committed to collaborating with the Grameen Foundation by leveraging its cocoa expertise, climate change agricultural experience, and history of working with smallholder farmers to further define the problem and solution statements and provide program related support.

About Progreso. Launched in 2001, Progreso's objective is to contribute to the sustainable coffee and cocoa production practices and trade for smallholder farmers to improve their income and build strong and independent organizations. Progreso also assists and supports smallholder farmer organizations to improve the living conditions of their members through sustainable production and trade. To achieve its goals, Progreso develops a long-term integral plan based on the MIDCA Model and four components of its core program:

1. Access to Finance: Support organizations to access timely and affordable financial resources to be able to collect and export the produce from their members.
2. Access to Markets: Promote and facilitate added-value trade relationships for the organization to sell their product under the best possible conditions, maximizing profit.
3. Technical Assistance: Support organizational strengthening to improve their productive, organizational and administrative performance.
4. Diversification: Diversify agricultural production to generate higher and alternative income for producers and to decrease dependency on a single-product agricultural system.

In addition, Progreso serves as an incubator for new initiatives to support new insights and ideas, such as ProClimate to counter land/soil degradation and support producers to adapt to changing weather patterns. Launched in 2010, ProClimate works on land restoration, plantation renovations and/or creating an agricultural system that is resilient, supports livelihoods as well as the future crops. ProClimate offers an innovative model, engaging the carbon markets and the supply chain partners, to co-finance climate adaptation and implementation costs.

Progreso looks forward to identifying areas of mutually beneficial and overlapping objectives and participating in this effort to improve household resilience of smallholder coconut and cocoa farmers in the Philippines and Indonesia.

Sincerely,

Angel Mario Martinez Garcia

Executive Director



Progreso Foundation

Progreso Foundation believes that organized smallholder have the potential to improve their lives. Progreso works hand in hand with producer groups and their partners to build strong value chains that will improve the living conditions of the smallholders, their families and their communities. The Progreso Foundation implements two main programs: Progreso and ProClimate, and manages the funds for the Resilience Fund.

Progreso Program

Progreso is a Producer Development Program that aims to improve the living conditions of organized coffee, cocoa – and other crops - producers and is working towards more sustainable sectors through the four components of the Program:

- (1) Access to Finance,
- (2) Access to Market,
- (3) Technical Assistance and Institutional Development, including agronomical trainings for farmers, capacity for the organization's governance, etc., and,
- (4) Diversification of conventional production

In the past fourteen years, Progreso has been a development catalyzer, with tangible and visible innovations for organized smallholders. The results of the programs are being achieved in alliances with different parties, such as national coffee and cocoa institutions, (local and international) NGO's, exporters, importers and roasters. In the past years, the program has worked with more than 80 producer groups in several countries in Latin America, Africa and Asia.

Progreso has developed together with producer organizations, tools and methodologies to make sure that the intervention is cost effective and produces the highest impact possible. The Progreso approach is valid and recognized as the best way of working with (coffee and cocoa) organized farmers. This approach is flexible and neutral, which allows us to work with a variety of organized farmers in different structures that are beneficial for the different actors. Thanks to its neutrality and a clear agenda (pro-smallholders) Progreso is most of the times the link between these different partners (trades, producers, importers, consumers) and facilitates collaborations.

ProClimate

The main objective of the ProClimate program is to build up resilience, secure long-term yield increases, quality improvements, reduced production costs and improved soil conditions, among other objectives, and this can be achieved by:

- 1) Land restoration,
- 2) Farm renovation and/or
- 3) Climate smart agriculture.

The implementation costs and payback periods of these strategies are often a serious and systemic obstacle for scale. Therefore, since 2008, several projects were developed and implemented, together with partners from the private sector. Today, these projects clearly demonstrate the potential for environmental health, poverty alleviation, and sustainable trade & finance. And, there is considerable potential for growth as it offers multiple and accumulating benefits for multiple stakeholders.

By including (but not limiting to) carbon finance in the equation, ProClimate creates a financial leverage and an opportunity of engaging both industry and financial stakeholders to take an active role in this restoration work. The focus of our work remaining, of course, the long term sustainability and resilience of the smallholders.

Resilience Fund

To respond to the growing crisis, Root Capital launched a holistic initiative to combat the devastating effects of *roya* (leaf rust) across Latin America: the Coffee Farmer Resilience Initiative (CFRI). The initiative is supported by a coalition of leading foundations, coffee importers, roasters and multilateral institutions. Through CFRI, Root Capital is pioneering long-term renovation and rehabilitation loans for affected producer organizations. Climate-smart agronomic training, managerial training, income diversification and technical assistance complement the financing offered. Our team of local experts, spread across Latin America, provides the trainings through workshops and on-site trainings.

flowering shoots any time of the year, an alternative production technology for coconut ubod (heart of palms) so that harvesting can be done in 2-3 years, a cryopreservation protocol for embryos of the 'Laguna' coconut, a potted flowering plant technology for the difficult-to-root Doña Eva and on-tree storage or delaying maturity of mango for at least a month by treatment with 50-200 ppm gibberellic acid such that harvesting is delayed by a month to catch the higher mango prices in June/July.

His findings were presented in 10 national meetings counting only those since year 2000. Since 1989, he has presented 9 mostly oral papers at international conferences in the USA, Canada, Israel, Thailand, Indonesia, South Africa, and lately in Hainan, China.

Extension Activities

Extension work included coordinating/participation in training courses on coconut (local and international) and roundtable discussions on coffee and cacao as a commodity. Lately, however, his extension work focused on serving as resource person on various aspects of mango production. He has spoken at several mango congresses, at the National Mango Action Team- Technical Working Group (NMAT-TWG), in three cities in Mindanao on Good Agricultural Practice. He has also served on numerous occasions as consultant, with DOST-TAPI Science and Technology Experts Volunteer Pool Program. His services have been engaged by DA, DAR, DENR, DOST, FAO, Dole Asia Philippines, and several private growers.

At the national level, he has served as member of the evaluation team for BAR-funded research projects under the Ornamentals RDE Network from 2001 to 2003, and recently for projects dealing with plantation crops like rubber, coffee and cacao. He is also presently the Chair of the National Commodity Research and Development Team of PCARRD for Industrial Crops (Coffee, Rubber, and Abaca), and a member of the Fertilizer and Pesticide Authority (FPA) Technical Advisory Committee from 1995 to 1996.

Lately, he was involved in communication and advocacy campaigns in maintaining the use of aerial spraying in banana plantations and in the agroforestry aspect of the National Greening Program.

Professional Advancement

He is a member of 3 international professional societies and three at the national level including the Crop Science Society of the Philippines where he served as Past President in 2000. His most significant recognition include the M.S. Swaminathan Outstanding Research Award, June 2005, the Best Research Paper Award in Agriculture and Natural Resources awarded by PCARRD (November 10, 2004), the Best Paper Award given by Crop Science Society of the Philippines (March 11, 2004) and the AFMA Best Paper Award given by DA-BAR in 2003. To date, he has been awarded 5 professorial chairs and the Outstanding Teacher Award for the U.P. College of Agriculture in 2011.

New Team Member Letter of Commitments & CVs



Dave Lundberg
Executive Vice President
aWhere, Inc.
2655 West Midway Blvd, Suite 235
Broomfield, CO 80020

July 12, 2015

To Whom It May Concern,

This letter is to provide and confirm aWhere's support for Grameen Foundation USA and work related to the Global Resilience Partnership program.

aWhere has provided its data and agronomic information to sustainable projects targeting small holder farmers in numerous geographies. This type of information enables farmers to make better decisions, reduce their risk, and increase their resiliency. We believe that working with Grameen Foundation and its other key partners will extend those capabilities to small holder farmers in the Philippines through the GRP program.

The recent pre-workshop in Manila has identified the potential of a strong and productive working relationship and we look forward to the next steps.

Regards,

A handwritten signature in blue ink, appearing to read "Dave Lundberg", is positioned above the printed name.

Dave Lundberg
Executive Vice President
aWhere, Inc.



ABOUT aWhere. aWhere captures over a billion points of data across the planet each day to create unprecedented visibility and insights from farm level to national policy. aWhere delivers agricultural intelligence into the hands of farmers, commercial growers, and policymakers everywhere, from decision-making on a single field to informing national policy and corporate objectives. Our ag software captures over a billion points of data every day to create unprecedented visibility and insight anywhere on the planet, from California's Central Valley to smallholder farms in Ghana. We also equip organizations to integrate their own data into a predictive analytics platform to gain, share and collaborate on game-changing insights on a global scale. aWhere's ag software is transforming our agricultural future by providing a level of visibility and insight that has never existed before.

aWhere has been a viable and growing corporation since its founding in 1999. The management team hails from major technology corporations such as Microsoft, Hewlett-Packard, and Dunn & Bradstreet as well as agricultural research, including CGIAR and Syngenta. aWhere is staffed by knowledgeable professionals with backgrounds in agriculture, technology, international aid and development. aWhere became a Certified B Corporation in 2014, solidifying its position as a socially, economically, and environmentally responsible company committed to accountability and transparency.

aWhere's mission is to close the information gap in agriculture and global development through innovative, timely, and locally relevant solutions. We foster sustainable economic growth and human development by connecting people with actionable information from farmers to corporate and national policy makers.

aWhere's Values:

- **Enrichment** - We value our people and seek to foster an enriching workplace and culture which encourages continued learning to support rewarding careers for our employees and the best outcomes for our clients.
- **Excellence** - We demonstrate excellence and professionalism in all that we do and strive to deliver the best possible results for our clients and partners.
- **Impact** - The work we do has a lasting and positive impact on people's lives. Integrity We are committed to a workplace culture that promotes courtesy, respect for diversity and the highest ethical behavior and corporate integrity.
- **Innovation** - We inspire creative problem solving to break new ground across our organization thereby creating uniquely valuable solutions for our markets and customers.
- **Value** - We bring quantifiable value to our customers as a profitable company supporting motivated and effective teams that provide real and lasting value to the world.

AGRONOMIC DATA PRODUCTS

Weather aWhere. Weather aWhere opens a window into rich, customized agronomic insight and agricultural weather data for your customers. Enhanced through aWhere's globally accessible API, your farming weather app will generate new sources of revenue while delivering agricultural intelligence to your customers to optimize their operations today and plan for the future.

- **Weather Kit™** Quickly and easily integrate our weather and agronomic data into your software solution. Using aWhere's RESTful APIs and code samples, you can rapidly provide the value of localized weather and agronomic intelligence to your customers.
- **Weather Agronomics™** Advanced agronomic models combine our weather data with additional inputs such as planting date and crop variety, empowering site-specific models for plant growth stages, pest and disease indices and moisture accumulation. Offer better decision support to your customers immediately.
- **Weather Support™** Equip your customer support team with the information they need to answer incoming customer inquiries. Whether your farm weather app pushes information to

end users via SMS messages, an iPad application or a web site, aWhere provides a support UI for an in-depth look into the data that your customers receive.

Grow aWhere. In order to realize the most profit from operations and the most return on investment from your assets, you must cut waste to a minimum and pay for extra labor only when you need it, all while meeting your production obligations. Using our suite of field management, yield prediction and plant/harvest applications you can: Optimize harvest scheduling, establish better transparency and enable data-driven conversations with your retailers, reduce costs and waste, mitigate risk with earlier visibility of production flow, better anticipate labor scheduling, and gain efficiency and profitability. Every field in your operation can be managed individually based on short- and long-term climate trends and increasing weather variability, including daily agronomic information. Grow aWhere gives you that control.

Dev aWhere. Dev aWhere solves the problems that have crippled impact assessment, performance measurement, collaboration and retaining or sharing institutional knowledge. Dev aWhere is a technology and expert solution tailored specifically for international agricultural development planning and implementation. aWhere's data management solution is a combination of agronomic and weather data, technology and services that enables evidence-based decisions from projects to policies. By integrating the Dev aWhere data management platform and best practices into your existing processes, organizations derive more value out of their data.

COMPANY BIOGRAPHIES

John D. Corbett, PhD. Co-Founder, President & CEO. After graduating with honors at Dartmouth, then earning a Ph.D. from the University of Minnesota, Dr. Corbett spent the next 20 years becoming an expert in geo-spatial tool applications. Working closely with national and international organizations in the US, Kenya, Africa, Switzerland, and Mexico, John built and managed systems to utilize geo-analytics to increase positive outcomes. Leveraging his expertise with GIS, John identified a major need in the marketplace that became the framework for aWhere's products. Prior to aWhere, John worked with Syngenta as Head of Global GIS where he managed the business operations of the GIS division for that global corporation.

Stewart N. Collis, Co-Founder, Chief Technology Officer. Mr. Collis graduated from the University of New South Wales, Sydney Australia earning a Bachelor of Geomatic Engineering (with Honors) and a Master of Engineering Science with a specific focus on Geographic Information Systems and Remote Sensing. Stewart worked at the International Center for Research in Agro-Forestry (ICRAF) in Kenya then Texas A&M University System as a software developer focusing on climate and agriculture modeling and easy to use GIS systems. As a co-founder of aWhere, Inc., Stewart's principal role is establishing aWhere's technology direction and leading key research initiatives.



Franklin Baker Company of the Philippines

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Franklin Baker Company of the Philippines

Unit 1702 BDO Equitable Tower
8751 Paseo de Roxas, Makati City

To whom it may concern:

**Re: Letter of Support for Grameen Foundation's Proposal Submission to the
Global Resilience Partnership**

Franklin Baker Company of the Philippines is one of the world's largest global suppliers of desiccated coconut, with a market share of close to 50% of total Philippine coconut exports to the USA. With plants located in Laguna and Davao, Philippines, Franklin Baker has expanded its product lines to include virgin coconut oil, coconut water and organic coconut sugar.

With a target to source organic coconuts from 60,000 hectares of farm lands in Davao and Southern Tagalog, Franklin Baker plans to work directly with smallholder farmers and will engage a number of farmers' cooperatives and organizations to reach this target. Franklin Baker agrees to collaborate with Grameen Foundation to understand the farmers' needs and challenges, and identify & implement projects that will improve farm productivity and increase their earning capacity. Franklin Baker also intends to improve traceability and visibility of supply and leverage mobile technology in the goal of enhancing linkage and communication with the supply chain bases.

Franklin Baker - in its commitment to improve the quality of life of the coconut farmers - aligns closely with Grameen Foundation's proposal for *Building the Resilience of Smallholder Farmers in Southeast Asia* and is pleased to provide its letter of support for the Global Resilience Partnership.

Sincerely,

3 July 2015

JERRY LORENZO

President and Chief Executive Officer





ABOUT FRANKLIN BAKER. The story of the Franklin Baker Company began in 1894, when Mr. Franklin Baker, Sr. (1846-1923), a flour miller from Philadelphia, Pennsylvania received a boatload of fresh coconuts as payment from a Cuban merchant for flour he shipped to Cuba. Today,

Franklin Baker is a privately-held company and one of the largest global suppliers of desiccated coconut products with plants are located in the Philippines at San Pablo, Laguna and Davao, Mindanao. Our products are shipped to over 50 countries worldwide across the US, South America, Europe, Middle East, Africa and Asia Pacific. We are the leading and preferred supplier of desiccated coconut to major food manufacturers in the U.S accounting for close to a 50% share of total Philippine coconut exports to the USA. With our proprietary pasteurization process you can be assured of high quality products supported by extensive food safety certifications: ISO 9001 & 22000, HACCP, Halal, Kosher and BRC.

Franklin Baker's mission is to grow from its roots of being the gold standard producer of desiccated coconut by leveraging our expertise to expand into higher-value food products. We will expand our product line and market reach through strategic investments in the food supply chain.

PRODUCTS

Our highly diversified product line supplies one of the broadest lines of coconut ingredients in the industry which gives our customers a wide choice of cuts and forms for various applications including pastries, cakes, confectionery, beverages, ice cream, cereals, food coatings, candies, cookies, entrees and much more. Our products include:

- Desiccated Coconuts
- Toasted Coconuts
- Sweetened Coconuts
- Coconut Water
- Coconut Sugar
- Virgin Coconut Oil
- Coconut Flour
- Coconut Concentrate
- Coconut Chips

COMPANY BIOGRAPHIES

Jerry Lorenzo, President and CEO, Philippines. Mr. Lorenzo has held the position of president and CEO at Franklin Baker Group since December 2013. He has also acted as Chief Financial Officer of Footprint Investments since March 2011 up to the present. Prior to his tenure at Franklin Baker, Mr. Lorenzo was the Chief Financial Officer of Chemoil Energy Ltd in Singapore. Mr. Lorenzo received his professional degree at the Asian Institute of Management in 1995 and his BS in Finance from California State University-Northridge in 1993.

Cesar Q. Galvez, VP, Operations. Mr. Galvez has over 20 years of experience as a mechanical engineer and technical expertise in **food manufacturing and supply chain operations and management.** Had worked in the following multinational companies in leadership roles, acquiring and demonstrating stated technical and functional competencies: Franklin Baker, Splash Corporation, DDC Foods, Kraft Foods Philippines, Bristol- Myers Nutrition, and Nestle Philippines. His expertise includes 'lean' manufacturing, and management in dairy, pharmaceutical, nutrition, food & beverage and FMCG industries. Cesar holds a BS in mechanical engineering from National University, Manila.

**Franklin Baker Company of the Philippines, Unit 1702 BDO Equitable Tower, 8751
Paseo de Roxas, Makati City 1226 Philippines**



MalagosAgri-Ventures Corporation
Puentespina Compound
Bolcan St. Agdao, Davao City

To whom it may concern:

**Re: Letter of Support for Grameen Foundation's Proposal Submission to the
Global Resilience Partnership**

MalagosAgri-Ventures and Puentespina Farm is pleased to provide this letter of support for Grameen Foundation's proposal submission on *Building the Resilience of Smallholder Farmers in Southeast Asia* for the Global Resilience Partnership. Malagos is the producer of Malagos Chocolate, a single-origin chocolate made from ethically grown and processed beans that have been fermented, solar-dried and carefully graded in Davao, Philippines. Malagos is also an exporter of cocoa beans and a supplier for a number of European companies. Furthermore, Puentespina Farm, is a cacao nursery operator and operates a fermenting & drying facility and a cacao farm. Both are members of the Puentespina group of companies.

Malagos and Puentespina Farm is committed to collaborating with the Grameen Foundation to build small holder farmers adaptive capacity by training farmers in intercropping activities and increasing the quality of their yield to meet market demands. Malagos and Puentespina Farm, also aims to source its supply directly from farmers enabling farmers to diversify livelihood their strategies and increase their income.

Malagos and Puentespina Farm, sees a tremendous opportunity to improve coconut and cocoa farmers resiliency through Grameen Foundation's program and is looking forward to further collaboration and alignment of vision and objectives to ensure the project's success.

Sincerely,


Charita Puentespina
Director, MalagosAgri-Venture Corp
Proprietor, Puentespina Farm



DAVAO HEAD OFFICE
BOLCAN STREET, AGDAO, DAVAO CITY | T: (82) 2211545/ F: (82) 2240173
MANILA SEEDLING BANK ENVIRONMENTAL CENTER COMPOUND



ABOUT MALAGOS AGRI-VENTURES CORPORATION. Malagos Food, Inc., a Filipino corporation, holds office in Davao City. It envisions to provide the Philippine market with prime products harvested from the fertile land of Mindanao and processed using time tested procedures with loving care and great passion.

Primarily a food processor specializing in artisan cheeses, we use raw materials from the family farm in Barangay Malagos, Baguio District, Davao City, hence the name. Barangay Malagos, Baguio District in Davao City is also known for its dairy farming. Its lush vegetation, cool weather and fertile soil make it an ideal enclave for dairying. Our milk comes from over 200 dairy goats and 22 dairy cows the farm keep. Although we are more known for our goat milk cheeses, we also have in our product line, cheeses made from cow's milk. Our most sought after product is the Blue Goat Cheese and Feta which is used by Philippines Airlines' international and regional business class flights.

Our premium virgin coconut is processed only from our more than 1,000 coconut trees while the native tableya (Philippine native chocolate) comes from our own small plantation of cacao trees.

Malagos Farmhouse, the brand name of Malagos Food, Inc. wishes to convey the spirit with which we nurture our products. "Farmhouse" evoke the simplicity of rural life the corporation embraces. Often handmade and using relatively small-scale farmhouse batches, our products are carefully nurtured every step of the way. We proudly produce products of high quality in limited quantity.

PRODUCTS

- **Fresh Goat Cheese:** Fresh Goat Cheese, so fresh we process the cheese on the same milking day, with only 3% salt. Our take on the "kesong puti" using fresh goats' milk.
- **Chevre:** French style fresh cheese, pleasantly tart and wonderfully creamy.
- **Blue Goat Cheese**
- **Blue Peppato:** Mildly aged cows milk cheese with whole green peppercorn.
- **Feta Cheese:** Made from pure goats milk and aged in brine.
- **Blush:** Young semi-soft cow's milk cheese, aged with both white and blue mold.
- **Malagos Fruit Wine:** Dessert wine, made from *Bignay*, (*Antidesma Bonius L.*) or Currant Tree Berries. Grown and processed at Malagos Garden Resort. Served chilled or as preferred. 14% alcohol by volume, 750 mL.
- **Fermented Cacao Beans:** Malagos Farmhouse, through Puentespina Farms, produces its cacao beans from its 24-hectare farm situated in Malagos District, Davao City, Philippines. We also source beans from other cacao growers in the area within a 10-kilometer radius of the farm. Total dried beans presently available from the vicinity are conservatively estimated at 2,300 tons a year. Even more bean production is projected as the rehabilitation of existing farms is completed and the newly developed farms start to be productive. To ensure bean quality, all beans are fermented, solar-dried, then sorted and graded based on internationally-accepted standards. Fermentation enhances the aroma and flavor of the chocolate made from the beans. There is no chocolate without fermentation. Solar-drying in enclosed dryers ensures that the beans are not contaminated by undesirable odors and keeps the beans free from dirt and other debris.
- **Tableya – Native Chocolate:** Unlike powdered cocoa used to make chocolate drinks, our tableyas have nothing removed from them, and nothing added to them. Our chocolate tableyas, being pure cocoa, cannot be powdered as pure cocoa resists being transformed into powder. They are real, dark chocolate in their raw, untreated, and healthily beneficial form. Just dissolve the tableyas thoroughly in boiling water, add your own sweetener and milk, stir and mix well, and you have your thick, frothy and antioxidant-rich cocoa drink.
- **Ostrich Eggs:** Empty ostrich eggs available for purchase.
- **Ostrich Leather:** Great for bags, wallets, and belts.

Malagos Farmhouse, Bolcan Street, Agdao, Davao City 8000 Philippines



USING SPACE TO HELP LIFE ON
EARTH

July 12, 2015

Joseph Mascaro, Ph.D.
Program Manager for Impact Initiatives
Planet Labs
346 9th Street
San Francisco, CA 94103

BUILDING RESILIENCE OF SMALLHOLDER FARMERS

Dear Gigi, Whitney and Ana,

I am writing in my capacity as Program Manager for Impact Initiatives at Planet Labs, a San Francisco based satellite start-up company, to express Planet's support for the Global Resilience Challenge team led by the Grameen Foundation.

Planet is committed to provide data—at no cost—throughout the life of the project. During 2016, Planet will reach an operational capability to take imagery of the whole terrestrial surface of the Earth, every single day. We are eager to explore—with Grameen and her partners—how this data can support the smallerholder farmers of the Philippines and surrounding communities throughout Southeast Asia.

Planet Labs was founded to use space to help life on Earth. On behalf of my colleagues at Planet, I cannot imagine a more perfect use of our technology, data and tools.

Please don't hesitate to contact me should you have any questions.

Sincerely,

Joe Mascaro



ABOUT PLANET LABS. From our home in San Francisco, we design, build and operate a network of satellites that we call “Doves.” In January 2014, we delivered Flock 1, the world’s largest constellation of Earth-imaging satellites, made up of 28 Doves. Planet creates commercial and humanitarian value with the market’s most capable global imaging network. Fresh data from any place on Earth is foundational to solving commercial, environmental, and humanitarian challenges. Our global sensing and analytics platform unlocks

the ability to understand and respond to change at a local and global scale.

At Planet Labs, we’ve made it our mission to make global change visible, accessible and actionable -for those who need it most. That starts with our flock of satellites, ground stations, and data centers, which will provide the highest cadence imagery of Planet Earth ever collected—everywhere, every day, on demand, at an affordable price. Access to unique, timely data can change the way we approach global stewardship and help us tackle some of the world’s most complex problems. And the applications are limitless: from carbon monitoring and forestry to insurance and city services, new products and services that advance social good are waiting to be born.

We care deeply about creating positive change and commercial value. Space and information technologies are our tools. We’re committed to transparency for the planet, for our company, and for our customers and partners. We fly in low orbits to mitigate space debris, and we use a resolution that cannot touch personal privacy -- we can see the canopy of a tree, but not people or faces. Our philosophy is to move fast: design, build, learn, repeat.

SOLUTIONS

Once our satellites are operational in orbit, they each complete a full circuit of the planet in about 90 minutes, capturing images as they travel. When a satellite makes contact with a ground station in our network, we receive images and migrate them to the cloud, as well as transmit additional instructions to the satellites. Planet Labs provides the industry's most frequently updated imagery of any place in the world at 3-5m resolution. Our data supports customers who need easily accessed, fresh imagery to inform their day-to-day operations, data analysis, and products. Each image is processed through our automated data pipeline and delivered to customers via API and web tools. Our imagery is utilized across several sectors, including agriculture, civil government, natural resources, and geospatial. The data is applied in managing logistics, site development, crop monitoring, urbanization, natural resources, and assets.

SOCIAL IMPACT

Planet Labs works closely with a range of partners in environmental, social, and humanitarian sectors. We’re determined to help collaborators strengthen their data literacy, develop progressive monitoring tools and gain meaningful insights about our changing planet.

We’ve been fortunate to partner with forward-looking foundations and thought leaders to shape our Impact program. Recently, these have included:

- The Packard Foundation: piloting new ways for foundations, NGOs and technical nonprofits to use our data
- Humanity United: exploring satellite imagery's future role in humanitarian response
- The Rockefeller Foundation, USAID and Sida: integrating our data into the Global Resilience Challenge

A host of NGOs and nonprofits are also experimenting with our data, integrating it into tools that can do everything from crowd source crisis response to monitor the fragile ecosystems.

COMPANY BIOGRAPHIES

William Marshall, PhD, Co-Founder and CEO. Will Marshall is the Co-Founder and CEO of Planet Labs. Prior to Planet Labs, Will was a Scientist at NASA/USRA where he developed a low-cost planetary bus, was Deputy System's Engineer on lunar orbiter mission "LADEE", a Science Team member for the lunar impactor mission "LCROSS", served as Co-Principal Investigator on PhoneSat, and was the technical lead on research projects in space debris remediation. Will has published over 30 articles in scientific publications including Science magazine and he has written a variety of space related op-eds including in the New York Times and Boston Globe. Will received his Ph.D. in Physics from the University of Oxford and his Masters in Physics with Space Science and Technology from the University of Leicester. Will was a Postdoctoral Fellow at George Washington University and Harvard University.

Joe Mascaro, Program Manager for Impact Initiatives. Joe has served as the Program Manager for Impact Initiatives at Planet Labs since January 2015. Prior to his current role, Joe was a Science and Technology Policy Fellow at AAAS from August 2013 to December 2014. He held postdoctoral fellowships at both the Carnegie Institution for Science and the Smithsonian Tropical Research Institute. Joe received his PhD in Ecology from the University of Wisconsin - Milwaukee and his Bachelor of Science in Resource Ecology and Management from the University of Michigan.



REPUBLIC OF THE PHILIPPINES
OFFICE OF THE PRESIDENTIAL ASSISTANT
FOR FOOD SECURITY AND AGRICULTURAL MODERNIZATION
PHILIPPINE COCONUT AUTHORITY

Elliptical Road, Diliman, Quezon City
P.O. Box 3386, Manila, TIN # 000724616
Tel No. (02) 928-4501 to 09
<http://www.pca.da.gov.ph>



July 9, 2015

GLOBAL RESILIENCE PARTNERSHIP

To whom it may concern:

Re: Letter of Support for Grameen Foundation's Proposal Submission to the Global Resiliency Partnership

Philippine Coconut Authority (PCA) is pleased to provide this letter of support for Grameen Foundation's proposal submission on *Building the Resilience of Smallholder Farmers in Southeast Asia* for the Global Resiliency Partnership. **PCA** views this as an important project for improving the effective use of mobile phone-based agricultural services, such technical assistance, data collection and access to information, by smallholder coconut farmers, who are among the poorest in the Philippines.

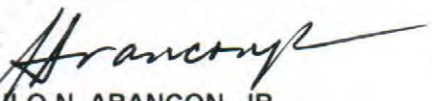
PCA is committed to collaborating with the Grameen Foundation by leveraging its coconut expertise and field experience to provide project related support in design and implementation, where needed, to help smallholder coconut farmers address key productivity challenges.

PCA a Government-Owned and Controlled Corporation (GOCC) under the Office of the Presidential Assistant for Food Security and Agricultural Modernization (OPAFSAM) is mandated to pursue sustainable development of a globally competitive coconut and other oil palm industry in the Philippines. To this end, the PCA implements projects and programs in these key service areas:

- 1) Production: rehabilitation/fertilization, planting/replanting, nurseries, intercropping, farm diversification, coco-based enterprise, institutional building;
- 2) Market Development Services: investment and trade promotion;
- 3) Research and Development: farming systems, crop agronomy, crop protection and crop development; and
- 4) Regulatory Services: implementing Coconut Preservation Act of 1995, registering coconut value chain actors, and setting quality standards for high-value coconut products for export.

PCA looks forward to identifying areas of mutually beneficial and overlapping objectives with Grameen Foundation related to improving mobile phone-based agricultural services.

Very truly yours,


ROMULO N. ARANCON, JR.
Administrator



Philippine Coconut Authority (PCA) is a national agency of the Philippine government within the Office of the President responsible for developing the coconut industry. With a vision of a united, globally competitive and efficient industry, PCA is tasked to ensure that coconut farmers become direct participants in, and beneficiaries of, successful coconut industry growth.

Core Organizational Functions

- Formulate and promote a strategic and comprehensive development program for the coconut and other palm oil industry in all its aspects;
- Implement and sustain a nationwide coconut planting and replanting, fertilization and rehabilitation, and other farm productivity programs;
- Conduct research and extension works on farm productivity and process development for product quality and diversification;
- Establish quality standards for coconut and palm products and by- products; and, develop and expand the domestic and foreign markets;
- Enhance the capacities and ensure the socio-economic welfare of coconut and palm farmers and farm workers.

PCA implements these functions in four key program areas: **Production Services** to increase coconut production, **Market Development Services** to promote the coconut trade, **Research & Development** on the coconut crop, and **Regulatory Services** for the coconut industry within the Philippines.

Key Production Services

- **Rehabilitation thru Fertilization (Salt Fertilization)** - Aimed at fertilizing fruit-bearing coconut trees using common salt or sodium chloride to increase coconut productivity and improve coco resistance to pest and diseases.
- **National Coconut Planting/Replanting (Participatory Coconut Planting Program)** - Coconut planting and replanting hectares using open pollinated varieties (OPVs) in identified idle open areas suitable for coconut planting, and in area where senile coconut trees are cut in accordance with the implementation of RA 8048.
- **Maintenance of Coconut Seedfarm/Seedgarden** - Maintenance of seedgardens are continuously being operated/undertaken in support of the long-term coconut planting/replanting program of the Authority.
- **Institutional Building** - Involves the continuing build-up of coconut cooperatives and coconut farmers organizations to enable the coconut farmers to become self-reliant producers and entrepreneurs towards the ultimate goal of self-empowerment to uplift their standard of living.
- **Farm Diversification (Intercropping)** - This involves the growing of short season and high value crops in between spaces of coconut trees such as corn, peanut, banana, cacao, coffee, pineapple, among others.
- **Kasaganahan Sa Niyugan ay Kaunlaran ng Bayan (KAANIB)** - This project seeks to promote coconut-based farming system as a lucrative agribusiness venture.

Market Development Services - Investment/Trade Promotion that involves the participation in trade fairs/exhibits and conduct of missions, market match, industry dialogues to promote coconut products, both in local and foreign markets.

Research and Development

- **Varietal Improvement** involves continuing researches on breeding and genetics, tissue culture and biotechnology.
- **Bio-Technology/Tissue Culture** involves continuing researches on the aforementioned to improve techniques for incremental productivity. This includes embryo culture, germplasm exchange, cryo preservation and apply these bio-technological measures for better coconut varieties.
- **Crop Agronomy, Nutrition and Farming Systems** involves ongoing studies on mineral nutrition (MN), integrated soil fertility management under CBFS and sustainable cropping systems (SCS).
- **Integrated Crop Protection** is concerned with studies on the development of integrated pest management strategies for the control of *Oryctes rhinoceros*, slug caterpillar, phytophthora, weed management in coconut and the use of botanical biocides for the control of major pests of coconut and intercrops.
- **Product Development** involves ongoing researches and studies to lessen the industry's dependence on traditional coconut products and develop new coconut products and thereby broaden domestic and foreign exchange revenues.
- **Special Projects** involves ongoing researches and studies to develop alternative uses of existing coconut resources, coconut technology, and coconut by-products.

Regulatory Services

- Strict implementation of RA 8048, otherwise known as Coconut Preservation Act of 1995.
- Registration of coconut products/by products traders/dealers, manufacturers and processors.
- Quality standard for high-value coconut products and by-products for export and referential purposes.

Key Advocate - Secretary Francis “Kiko” Pangilinan – Chairman, PCA Governing Board & Presidential Assistant for Food Security and Agricultural Modernization. Secretary Pangilinan currently leads PCA to establish the Philippines with a globally competitive and efficient coconut industry. With over 21 years of civic and public service, Secretary Pangilinan was the youngest elected city councilor of Quezon City, and served as a Senator of the Philippines from 2001 – 2013, and Senate Majority Leader from 2004 – 2008. He was the Chairman of the Committees on Agriculture and Social Justice, and also served as Chairman of the Senate Committees on Justice and Human Rights, Housing and Urban Planning, Education, and the Ethics and Public Accountability. Secretary Pangilinan has a BA in Comparative Literature from the University of Philippines Diliman, and a MPA and MPP from Harvard University.