The PineApple Project

Problem: Forty percent of the world's population are estimated to be subsistence farmers.[1] Unfortunately, farmers in developing countries are less productive than their peers in developed countries; one reason proposed is a lack of access to critical information such as the crops that are best suited to regional conditions.[2] As a result, far too few of these farmers manage to produce enough food and income to provide a secure existence for their families. Even worse, farmers may waste valuable resources due to inaccurate or lacking information regarding what to plant.

Proposed Solution: A web-based system that combines crowd-sourced intelligence about growing conditions, crop types, and market yields with open-source databases to provide farmers with crop growing recommendations targeted to their location and planting season.

Expected Benefits: Yields for subsistence farming can be improved through better information about crop types, growing conditions, and market values. By providing farmers or organizations assisting farmers with user friendly technology that is readily available that contains critical regional insights, information needed to improve their food and financial security will no longer be restricted to commercial companies, government agendas and or fee based services. Additionally, the crowd source element of the product will help ensure that recommendations can evolve with climate change, natural disasters and pollution, unlike current projects which are rely on static data points and often are only funded for a couple of years before being abandoned.

Progress to Date: The PineApple Project has been developed over three hackathons in 2012: the NASA International Space Apps Challenge, June/ Dec Random Hacks of Kindness Events, and USAID's Hacking for Hunger. Over this period, valuable partnerships have been formed in four continents, a community recruitment tool has been established, a high-level design has been documented, critical components have been prototyped, and a detailed infrastucture has been initiated. As a result of the multiple hackathon awards the project garnered, it was invited to be shared at the World Food Prize where it received a tremendous reception. Organizations around the world that attended offered to test the alpha product and give feedback on future iterations. They also offered their expert community to contribute to crop data once the alpha user interface and crowdsourcing mechanism was established. While, it should be noted that crowdsourcing does expose the Project to potential error or sabotage, the project participants feel strongly that the opportunity to provide a resource that is dynamically evolving with unrestricted inputs is invaluable. It is hoped that with enough input, the tool could self educate and reduce the potential for misinformation.

The contributions to date are the culmination of a global community of over 50 volunteers. Recognizing that the Pineapple Project may need to rebrand itself for regional strategic partnerships and that the community was committed to providing agricultural opportunities to the disadvataged beyond the duration of the Pineapple Project, root2market.org was established as

a vehicle to organize and share information & needs pertaining to the Pineapple Project and sister projects like Grower's Nation in the UK. However, organizing the project and supporting initial expenses has primarily been supported by Dan Stomont (Technical Lead) and Samantha Snabes on their personal time.

Next Steps: The detailed design for the system needs to be completed, taskings appropriate to the involved organizations need to be identified and scheduled, a beta product needs to be developed, and a field test needs to be initiated to continuously collect feedback from the end users of the system.Dan and Samantha have facilitated some messaging and storytelling efforts, but more time and energy needs to be dedicated branding should the project continue.

Resource Needs: The project needs funding for a permanent project lead and a system architect/technical lead, as well as for at least one field trial. (Preferably two: one in the Western Hemisphere and one in Africa.) There is also a need for infrastructure support (server space, web and SMS services, and data feeds), data aggregation, and partnerships with NGOs to provide long-term onsite support. The project could be expedited by part or full time equivalent salaries for Dan and Samantha and restricting the initial alpha prototype to less than 6 crops and less than 4 growing conditions. Market inputs are a nice to have feature and will be obtained through regional strategic partnerships once the beta product is established and adequate resources are available to manage the project.

After iterations have been made from initial field trials, the Pineapple Project might benefit from introductions to the Bill & Melinda Gates Foundation. However, current needs relate to identifying persons or groups able to provide project funding, partnerships with cell phone providers, and travel resources for field tests.

References:

1. http://www.greenpeace.org/usa/en/campaigns/genetic-engineering/our-vision/small-scale-farming/
2. GSMA, The World Bank : http://www.gsma.com/mobilefordevelopment/gsma-magri-publishes-new-infographic-agricultural-productivity-gap-the-opportunity-for-mobile/