



nextmap

needs assessment milestone

Current Status

CRS disaster management

- Eager to fix system from last semester
- Have strict technology requirements (must use MSFT products & platform)

InnovGreen environment conservation

- Straightforward requirements
- More open to suggestions

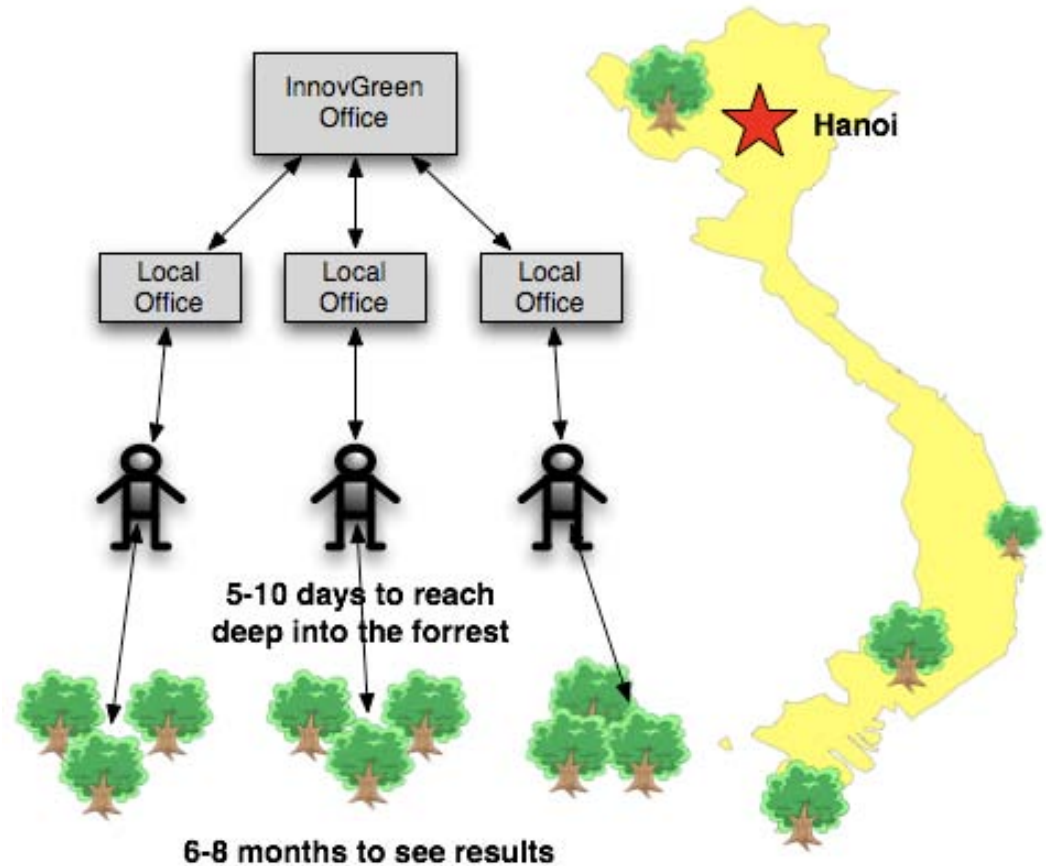
InnovGreen : Social Context

Project sponsored by InnovGreen

Social enterprise in Vietnam that promotes "sustainable forest management" by transforming bare hills and vast unproductive land into green, productive forest.

The role of Flow...

Flow is a social enterprise company in Taiwan that started InnovGreen



InnovGreen Key Requirements

Target user: Forestry department / InnovGreen inspector

Device: HTC Touch Diamond / Windows Mobile

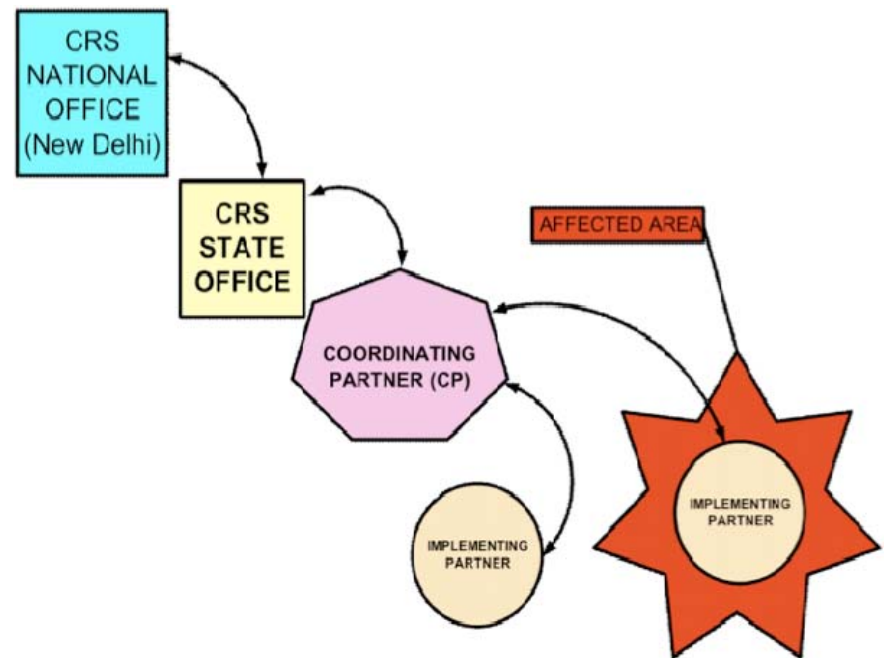
- Collect information such as images (tree height, growth) and GPS location with a mobile phone
- Be able to upload the data from the phone to a central server
- Be able to view the data on a map (Google Earth)

Questions for InnovGreen

- **Optimizing existing system**
 - How is the current process in inspecting fertilization/growth in a remote area?
- **Financial sustainability**
 - What are the sources of financing for this project?
 - IT costs: cost of cell phones devices, service, hosting service, maintenance, training
 - Hiring costs: cost of contracting farmers
- **Operational sustainability**
 - partnership structure with forestry management department
 - availability of system maintenance personnel

CRS - Social Context

- CRS is an international humanitarian agency of the U.S. Catholic community.
- They provide assistance to people in need **without regard to race, religion or nationality.**
- Major flooding in India annually
- Infrastructure damage and people displacement



Courtesy of Catholic Relief Services. Used with permission.

CRS Requirements

- Need for quick dissemination of information
- Need for an easy-to-use solution available for CRS partner organizations and potentially for villagers themselves.
- Must fit in with CRS's current systems to ensure sustainability, and ease of use.
- Must work on both high-end and low-end cellphones
- Must allow for limited proficiency in written English.

Questions for CRS

Optimizing the Existing System:

- What features of the current phone-based system are appealing to the field user?
- What are the key features of the current system for disaster relief coordinators at the central office?

Financial Sustainability:

- What are CRS's financial resources, and how much can they afford to sustain the network?
- What are other possible sources of revenue for the network?

Operational Sustainability:

- What caused the existing system to crash, and how could this be prevented in the future?
- How many simultaneous users will need to be supported?
- At what level does CRS want to be involved in maintaining the system?

Major Differences

Phone platform: Baseline phone for CRS is low on features and possibly heterogeneous, InnovGreen using standardized smartphone (HTC Diamond)

Scale:

- InnovGreen is about control of information - or rather, validating location and possibly photographic information.
- CRS is about reducing latency in a communications system, and in a broader sense, allowing people to manage group-based trust/communication.

Common Denominators

- Mapping information
- Organization of large amounts of location-specific data
- Network is internal, so finding revenue sources outside the organization is difficult
- Dealing with an inconsistent cellular network

And ideally:

- User-modifiable code. (Warana rebuilt their original software themselves, with a better understanding of the problem)

Next Steps

- Get all questions answered
- Get a working version of the old CRS application
- User Interface design

MIT OpenCourseWare
<http://ocw.mit.edu>

MAS.965 / 6.976 / ES.S06 NextLab I: Designing Mobile Technologies for the Next Billion Users
Fall 2008

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