Innovation in Humanitarian Assistance

Worldwide scan of innovation projects in Humanitarian Assistance

August 2015

Overview of Research Products

Innovation Projects

- **Overview and Insights**

  The project team has conducted a worldwide scan of innovation projects with regards to humanitarian assistance. The scan focuses on;

  1) the type of innovation project, 2) parties involved, 3) value for stakeholders and 4) cases countries where the innovations

  were implemented. The scan is based on English open-source information. It provides a non-exhaustive overview of 88 projects.

- Success strategies and bottlenecks (Case studies)

Humanitarian Innovation Programs

- Overview and Insights
- Success strategies and bottlenecks

Inventory of Humanitarian Principles for Innovation

Steering Commitee Questions

- What are your first thought concerning the main findings?

- Are there insights or experiences in regard to innovation projects in humanitarian assistance which are not reflected in these findings?

- What do you think the implications of these findings will be for the development of the Coalition?

Main Findings (1/2)

The humanitarian sector worldwide is confronted with an increasing demand for humanitarian aid and emergency response services. In the last 10 years the number of people affected by crises has almost doubled and the cost of international humanitarian assistance has tripled. The needs and conditions of people affected by these crises have also changed. Over the recent years, there is a growing recognition that, in many cases, traditional humanitarian assistance tools, services and models would need to better reflect these changing emergency contexts.

1. **Amount of Innovation Projects**
The initial motivation for carrying out the global scan was to gain a better understanding of the amount and type of innovations in the humanitarian domain. Although the sector faces innovation challenges, the project team without difficulty found 88 humanitarian innovation projects. Considering that this is not an exhaustive list, many more could have been included; the findings suggest that there is no lack of initiative for innovation projects in the humanitarian domain. However, the sheer amount of humanitarian innovation projects alone obviously does not guarantee effective and successful innovation related to the challenges stated above.

2. **Type of innovation**
To facilitate a quick overview and insight, the innovation projects are clustered in five categories; product, process, marketing, communication and organizational. The definitions of these type of innovation are provided on slide 8. Although clustering provides clear benefits, it may at times also be considered arbitrary. However, the findings suggests that most innovation projects focus on (some sort of) items or tools such as 'Mwater' and 'Cold Climate Shelters'; illustrating a tendency to focus on product innovation. On the other hand, innovation projects which focus on new ways of organizing humanitarian assistance and partnerships were less readily available.

Main Findings (2/2)

3. Cooperation and partnerships

Most of the cases reviewed are multiparty innovation projects, such as for example 'Voices of Children in Emergencies' and the 'Haiti Mobile Money Initiative'. The findings suggest that, although exceptions exist, the majority of these partnerships involve organizations with a similar background; be it public, private or academic in nature. Cooperation between organizations with different backgrounds on specific innovation projects in humanitarian assistance seems quite rare.

4. Value creation

The findings suggest that in theory humanitarian innovation projects can provide value for victims, professionals as well a investors. However, the findings suggest that the focus varies per specific innovation project and the exact value cannot always easily be quantified. It is also difficult to establish if the innovations are based on sustainable business models and if they meet the most important needs of the victims.

5. Cases and countries

The specific cases and countries where the innovations are implemented, and even the number of potential use cases, is dependent on the type of innovation project. The findings indicate that heavily specialized innovations tend to be implemented in less cases and countries than more generic ones. We also found a tendency where process oriented innovations such as 'LMMS mobile solutions' and 'CaLP money transferring' and prevention oriented innovations such as 'WakaWaka lights' and NLRC ecosystem DRR) have been implemented in more cases than immediate disaster recovery innovations such as NETRA drones.

Study & Method

Research Objective and Research Questions

- Identify innovations in humanitarian assistance which have taken place over the last five years, using publically available English-language sources.

- Categorize these into the 5 types of innovation which have been recognized by the Netherlands Red Cross:
  - Product innovation
  - Process innovation
  - Marketing innovation
  - Communication innovation
  - Organizational innovation

- Identify least ten examples of each type excluding initiatives by the Netherlands Red Cross.

- Provide specific attention to:
  - Parties involved
  - Value created for victims
  - Value created for professionals
  - Value created for investors
  - Cases and countries where the innovation projects are implemented

- Due to the fact that the scan provides a non-exhaustive overview specific attention is given to 'innovation intenstity'. *See slide 41* , the level of effort to find examples indicates innovation intensity.

Types of Innovation*

- **Process innovation:**

  such as (Peer-to-Peer) Cash Transfer Programming to assist affected families in restoring their livelihoods, or forecast-based financing as a promising approach to catalyze humanitarian response based on extreme weather and climate forecasts.

- **Marketing innovation:**

  including approaches to improve the uptake and use of innovative relief services or products(as prepaid credit cards) through business development.

- **Communication innovation:**

  including better gathering, analysis, and distribution of actionable information, such as making more effective use of big data – ranging from satellites and other observation systems to beneficiary needs information from mobile platforms to warn, alarm, and support vulnerable people affected by disasters.

- **Organizational innovation:**

  aims to transform humanitarian actors in the way humanitarian response is delivered, for example through the replication of the Dutch Surge Support initiative that aims to create (Netherlands-based NGO and private sector) surge capacity for emergency WASH response

- **Product innovations :**

  as deployment of Unmanned Aerial Vehicles (potentially in combination with crowd sourcing) to gather critical reliable humanitarian data or restore communications networks, off-grid energy solutions to ensure safety and dignity of disaster-affected people, or wearable devices for early warning, search and rescue, and mobile health.

*As defined by the Netherlands Red Cross for this scan

Overall Observations

Overall findings (1): Quantity of innovation projects

- The number of innovation projects over the last five years is significant. This overview should therefore certainly not be considered exhaustive, neither should it be considered representative of the field in a statistical sense

- The research indicates a difference in innovation intensity between the five types of innovation; innovation intensity is greater for some types of innovation than for others. *Slide 37* provides more information on this.

- Many individual projects are supported by broader programs. These innovation programs operate on a meta level, as they are often set up to stimulate, finance or advise individual innovation project. The research on humanitarian innovation programs will provide insight into these innovation programs.

Overall findings (2): Type of innovation (1/2)

Typical examples of Process innovation:

- New and easy ways of facilitating payments for victims (including mobile, electronic payments, vouchers, loans, etc).
- Games for potential victims in anticipation of calamities and for professionals in anticipation of their missions
- Crowd funding for easy, targeted and quick fundraising

Typical examples of Marketing innovation:

- Awareness programs (Twitter campaigns / social media campaigns)
- Humanitarian aid used as marketing tool by private companies (Amazon, Apple, etc.) to raise funds by selling products

Typical examples of Communication innovation

- Digital ways of reporting, finding or mapping damage after disasters
- Digital ways of contacting (potential) victims and persuading them to register themselves
- Digital ways of providing information to victims (e.g. on health, food, etc.)

Overall findings (3): Type of innovation (2/2)

Typical examples of Organizational innovation

- Digital monitoring of humanitarian (e.g. the progress of food distribution, safety of aid workers, etc.)
- Networks of volunteers providing digital support to aid worker in an disaster area
- Innovation in the supply chain (including software, using existing supply chains of multinational companies, etc.)
- New ways of transporting goods and expertise to disaster areas (e.g. 3D printing, digital education modules, etc.)
- Digital innovation knowledge sharing and collaboration between aid organizations
- Promoting local resilience, skills, healthcare, access to clear drinking water

Typical examples of Product innovation

- Water filters, any tools for accessing water
- Shelters for specific conditions
- Energy supply (for lighting, mobile phones, computers, heaters, etc.)
- Using drones and satellites for information collection
- Medical products and tools (including an OR floor)

Overall findings (4): Parties involved

- There are often multiple parties involved, with the exception of Marketing innovation and selling Product innovation
- There are relatively many innovations where only public parties are involved
- Private parties often operate alone, while public parties often collaborate with others
- Public – private partnerships are seemingly still quite uncommon overall
- Public – private partnerships are somewhat more common in Product innovations and in Organizational innovation

Overall findings (5): Value creation (1/2)

Value for victims

- Many innovations benefits victims directly (e.g. through payments, vouchers, electricity, water, etc.)
- Many innovations ensure that humanitarian assistance reaches victims faster and better
- Quite a few innovations help victims prepare for disasters or mitigate the risks (e.g. through games, kits, etc.)
- Many innovation provide victims with important information on what to do (e.g. food, health, family, do's & don'ts, etc.)
- ➤ Most initiatives seem focussed on the phases during and shortly a disaster: few are focussed on prevention and preparation

Value for professionals

- Many innovations improve ease of working for professionals (e.g. aid workers)
- Many innovations improve speed of working
- Many innovations improve safety
- Many innovations improve expertise, often through training or education
- Many innovations improve the quantity and quality of available information
- Many innovations improve the chain of financing; getting newly raised funds quickly to local aid workers
- ➤ Innovations focused on relations and knowledge transfer of aid workers to the local populations (i.e. improving resilience) are rare
- ➤ Innovations focused on the evaluation phase of humanitarian assistance are rare to nonexistent in this overview

Overall findings (6): Value creation (2/2)

Value for investors

- Much focus on one-sided value: cheaper accessing or buying of products and services by aid organisations

- Some one-sided value for private companies (especially in product innovation)

- Some value in improved reputation / brand image with employees, customers and the community (SCR)

- Little two-sides value in innovation, where improvements for one party also mean improvements for another party (e.g. by introducing new business models, opening up new markets, scaling up toward new geographies, etc.)

Overall findings (7): Cases implemented

- Process innovation is relatively often applied in multiple geographies (countries, areas, global)

- Marketing, Communication, Organizational and Product innovation are relatively often applied in just a single geography or just in a single event

Detailed findings

Examples of Process innovation (1/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Last Mile Mobile Solution(LMMS)	Suite of applications aimed at improving the effectiveness, efficiency and accountability	World Vision	Accurate target recipient identification	Able to provide input on effort spent on the work	High visibility on relief beneficiaries, wage management to aid workers.	LMMS has been deployed in 23 countries in Africa, Asia and Latin America,
International Humanitarian Law (IHL) Serious Games	Serious gaming to educate armed forces on IHL	ICRC, Bohemia Interactive	Less violations of IHL by Armed forces	Easy and cost effective method of training	Bought by armed forces as a relatively cheap training tool	Australian Armed Forces
ICRC Money transferring	Transferring small amounts of money through mobile phones	ICRC, DG ECHO	Refugees can buy items in towns near refugee camps	Easy and safe; no need to bring actual cash to camps	Funded by ICRC and DG EHCO innovation programs	Somalia, 2014
M-PESA	Mobile phone service for cash transfer	Safaricom Limited, Concern Worldwide	Cash available to sustain livelihood	Empowerment of victims, potentially limiting the victims dependent on aid	Fee for users	Kenya, post-election emergency in early 2008 in the Kerio Valley
Catastrophe bonds	Emergency loans to governments of area's faced by disaster	World Bank, private financial sector	Governments have money to cope with crises	Local government can rebuild quicker as funds are now available	If no disaster occurs, investors get their deposits back with interest	Not yet

Examples of Process innovation (2/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Cash learning Partnership(CaLP)	Cash transfers and vouchers to victims affected by disasters.	Funding by ECHO,USAID, DFATD of Canada, SDC of Switzerland, DFAT of Australia. Implementation by UNHCR, Spanish Red Cross, IFRC livelihoods research center	The victims can choose what they need to buy	Faster relief to victims and easier implementation of relief measures . Training to humanitarian agencies to better run their relief process	Creation of sustainable processes and improved methods to equip aid organizations	Niger, Zimbabwe, Philippines and Kenya, Haiti earthquake, the Pakistan floods, Ivory Coast post-election violence and the Horn and East Africa drought crisis
Start Fund (Parametric drought Insurance)	Insurance payouts based on early warning index due to evolving drought conditions	The Start Network and GlobalAgRisk	To provide monetary relief to residents in slow onset draught conditions	Payouts available to NGOs to help mitigate the effect of drought through financial aid to the residents	Risk management and risk pooling with advancement in early warning systems	Pilot in 20 countries
Micro insurance for local market recovery	Insurance policy for micro and small businesses against disaster	All India Disaster Mitigation Institute (AIDMI), Harvard Humanitarian Initiative	Improve recovery of the small businesses post disaster which are critical in providing goods and services to vulnerable populations	Payouts will help to reduce delay in market recovery	Help to create financially viable insurance products targeting the segment	Pilot in 3 large urban sites in the states of Assam, Odisha and Tamil Nadu in India

Examples of Process innovation (3/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Catastrophe Drawdown Option (Cat DDO)	Line of Credit provided in case of disaster or natural calamity	Philippines government, World Bank	Funding used to initiate rescue/relief in case of calamity	Contingent line of credit available to the various agencies	World Bank ensures that macro economic framework and disaster risk management program is running	2009 Typhoons Ondoy and Pepeng in Philippines
WATAN Card	Pre-paid card to provide cash transfer to the affected	VISA, UBL Bank	Flood victims could use the card to make purchases, withdraw cash at ATMs	Faster delivery of moneteary relief through a banking solution	Positive impact on reputation of the bank through participation is social cause	Pakistan floods in 2010
Treatment and safe disposal of excreta	Low cost process to dispose human waste for sanitation	Univesite Laval	A simple process being developed to manage sanitation in emergency situations	Help in safe guarding the public health	System once developed can be scaled up	The method is in development stage and being tested in Quebec, Canada

Examples of Process innovation (4/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Haiti Mobile Money Initiative(HMMI)	Mobile money where majority of the people do not have access to financial sector	USAID, Bill & Melinda Gates Foundation with multiple Mobile Network Operators	Mobile accounts preloaded with cash was used by victims to purchase items based on needs	Easy provision and roll out of cash benefits to the victims	Mobile operators created a new business model	2010 Haiti earthquake
Hunger Safety Nets Program	Cash transfer program through smart cards	The Department for International Development(DFID), Government of Kenya	Beneficiaries can redeem all or part of the cash following fingerprint recognition	Faster transfer of benefits and easier monitoring through biometrics	The use of electronic payments and biometrics reduces fraud instances	Since 2009 in four most drought affected counties in Kenya
E-voucher system	E-voucher system to support food distribution to open market purchase by the beneficiaries	World Food Program Kenya	Can use vouchers to purchases food from the open market rather than wait for food distribution	Interlinking traders, banking system and beneficiaries eased delivery of benefits	Opportunity to upscale the system to other geographies	Kenya, Democratic Republic of Congo
Stop Disasters Game	Online game to teach people to understand the measures in case of natural calamities	UN, International Strategy for Disaster Reduction(ISDR), Playthree	Online games to help disaster prone zone population to prepare better through simulations	Volunteers can learn from the simulation before reaching the disaster site	Creating awareness and skill needed to tackle disaster situation	Children and adults participate in the sessions conducted through workshops

Examples of Process innovation by Netherlands Red Cross

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Climate Games	Games to help learning, dialogue and action on climate risk	NLRC, Parsons the new school for Design, Engagement lab at Emerson college	Local population can be included to play the games and understand the climate risk	Effective way of teaching and creating awareness about environmental concerns	Experiential learning and interaction	Global
Cash Transfer Programs	Transfer of monetary benefits to the beneficiary through a reputable platform	NLRC, IFRC, OCHA, UNHCR, Cash Learning Partnership, ECHO, DFID	Provide monetary benefits to allow independence of choice to beneficiary	The various platforms can be used to provide faster relief	Access to funds reduce provisioning of items which may not be required by the affected population	Global
Ecosystem based DRR	Methods to improve ecosystem and make communities resilient	NLRC, Wetlands International	Hill stabilization, planting of mangroves in particular topographies to save environment	Help to make communities resilient and minimize impact to local population	Minimizing effect of disasters through preventive improvement of ecosystem	Haiti, Ethiopia, Philippines

Examples of Marketing innovation (1/2)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Humanitarian Aid Program	Provide medical implants and introducers to patients	Caldera Medical	Implants and introducers provided for medical conditions	Valuable support to treat the patients in distressed situation	Creating a positive image among the community	Across many countries
One for One	When a consumer purchases a pair of shoes or other items, the company donates	TOMS shoes	Provide safe birth kits, training for skilled birth attendants, Healthy delivery	Donation for providing skill sets to medical workers	Social marketing to drive the business	More than 70 countries
(Product)Red	Purchase of product red merchandise and Apple donates part of the sales to AIDS charity	Apple Inc.	The donation is used to fund AIDS treatment in Africa	Donations provided to Global Fund	Apple creates a socially aware business	Africa
The Footprints Network	Travel insurance product sold, encouraged customers to make small donations to Water Aid	World Nomads Group, Water Aid Australia	The donation is used to improve sanitation	Money collected through small donations help to complete various projects	World Nomads Group created a positive image through the initiative	Papua New Guinea, Timor Leste
AmazonSmile	Purchase products online through Amazon smile website and 0.5% of sale goes to charity of choice	Amazon Inc.	The proceeds are used for various causes concerning aid	Donations can be made online to various groups registered	AmazonSmile foundation manages the CSR activity of the company	Multiple

Examples of Marketing innovation (2/2)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Gaza SMS Donation	Pledging donations through SMS from mobile account	Wataniya , Oordeoo Group	Rapid assistance to affected families	Help aid workers with cash to mobilize resources	Oordeoo can build CSR through use of technology	Gaza Strip, Palestine
GCASH	Mobile Money donation to the population in Philippines	Globe Telecom, Kiva,, World Food Program (WFP)	Donations to provide aid to the flood affected population	Funds send to the local affected households	Create a positive brand image in the society	Philippines
The world needs more campaign	Twitter campaign on world humanitarian day by UN to generate awareness about need for humanitarian aid	United Nations(UN), OCHA, International Council for Volunteer Agencies,, David Guetta	Tweets posted by participants created awareness about aid need globally	Top influencers (artists and others) participated in the campaign to create awareness	Creating awareness about the need for aid. Also, sponsor pledge of USD 1 million per tweet by corporate	World Humanitarian Day(Nov 22,2013) event on twitter with hashtag #theworldneedsmore
Voices of Children in Emergencies	Social media campaign to raise voices of children living through humanitarian emergencies	UNICEF, ECHO European Commission	Awareness about the challenges faced by children in emergency situations	Outreach through social media	Individuals can lend a voice to children via their Facebook wall/timeline or twitter through posts of the children	Videos of children affected by Typhoon in Philippines, civil war affected children of Syria, etc
The Autocomplete Truth	Cross channel campaign to raise awareness about gender inequality	UN, Memac Ogilvy, BBC, Time, CNN, Twitter, etc.	Creating awareness of gender inequality	Cross channel communication creating awareness	Campaign reached 1.2 billion impressions which included 224 million tweets	Global campaign

Examples of Marketing innovation by Netherlands Red Cross

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Crowd funding via the Princess Margriet Fund	The online platform allows part funding of projects by individual contribution	Individual project champions, NLRC	Fund projects to benefit affected victims	Contribution to drive the projects in various field	Crowd funding helps individual connect to various cause	Haiti, Ethiopia

Examples of Communication innovation (1/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Ushahidi	Crisis mapping platform: Victims use this platform to report damage	Ushahidi Inc, local governments	Can quickly report what the local damage is, which help they need	A crowd sourced report: Quickly find where help is needed most	Endowments. E.g. from Omidyar Network	Used after 2008 Kenya crisis, 2010 Haiti earthquake, 2010 Russia fires
Network Emergency Response Vehicle (NERV)	A command and communications resource for responders	Cisco	Response delivered faster and more coordinated	Communication among responders met	Provided through Cisco Corporate Social responsibility Program	Various ex. Haiyan Typhoon and floods
ODK and Mega V	ODK and Mega V are handheld devices used to register and analyze affected citizens. Providing info on water and sanitation needs	Panamanian Red Cross	Beneficiary registration and prioritized relief to the most vulnerable population	Easy data capture to run the relief and distribution of water	The tools help to deploy relief at the earliest	zuero, Panama where the contamination of La Villa river had left them without clean water supply
Emergency Market Mapping Innovation Toolkit (EMMA)	EMMA is an analysis toolkit for assessing effect of a crisis on local market	International Rescue Committee (IRC), Oxfam, InterAction, Practical Action and USAID and others	Provides a guidance on addressing survival needs, livelihood protection and economic recovery for affected	Provides a road map to the volunteers to assess crisis situations and prioritizing efforts	The toolkit EMMA cost to be borne by sponsors. The toolkit is available in online and book form	Used in Jordan, Haiti, Kyrgyzstan, Pakistan, Vietnam, Liberia, Sri Lanka and others

Examples of Communication innovation (2/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
American Red Cross Digital Operations Center (DigiDOC)	Tracking of social media posts from the disaster affected zones and allowing communication with the victims	Dell Computers and American Red Cross	Volunteers remotely engage affected people, providing information, comfort and confidence via social media tools	Connection of relief workers through social media with the affected people	Dell computers has been able to create a strong CSR footprint	Hurricane Sandy in north-eastern coast of the United States in October 2012
MEDBOX	MEDBOX is an innovative online library aimed at improving the quality of healthcare in humanitarian action, worldwide	Medical Mission Institute Wurzburg Partners :- German Humanitarian Assistance, HIF, German Red Cross, etc.	Can be used as a library to aid workers to deliver health care	Aid workers have access to professional guidelines, textbooks and practical documents on health action	Input collated can be shared for better health management.	Manage Ebola, Polio and Cholera. In conflict zones in Syria, South Sudan. For natural disaster such as Typhoon
MapGive	Crowd sourced mapping to create map for disaster affected geographies	United Department of State's Humanitarian Information Unit	Disaster affected regions can be better served	Volunteers can be active in providing inputs and support indirectly in aid work	Government bodies/ NGOs can be helped with building maps	Kathmandu, Nepal in April 2013 with volunteers from 17 cities in the US
emergency.lu	Field setup of communication network (onflatable antenna) linked to a satellite	HITEC Lux, SES, Luxembourg Air Ambulance. Technical partners Skype, Ericsson, World Food Program	Rapid communic-ation to facilitates rescue and relief in remote areas cut off from any form of communication	Wireless local networks allows aid workers on the spot to use laptops and cell phones. Using satellite at no cost	Luxembourg government has funded the program	Philippines, the Republic of South Sudan, in Mali and in Nepal in close coordination with WFP

Examples of Communication innovation (3/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Refugees United	Free online platform for refugees to register and search family and friends	Open source platform, UNHCR and Kenyan Red Cross	Refugees can register and search for family and friends	Professionals are able to use the portal to help the refugees in search	Open source platform can be used by all	Used in East Africa
Radio One Haiti	The radio service was started following 2010 earthquake	Radio One host Carcel Pedre	Information to people affected by the earthquake	Providing short term response using the existing com-munication network	No investment as done using existing infrastructure	Used during 2010 earthquake in Haiti
Mama	Via SMS and Facebook page "mama", the community shares thoughts on questions posed	The Women's Refugee Commission and Social media and development company M4ID	Better healthcare practices and knowledge available	community feedback on healthcare knowledge available to the professionals	Using open source social media, participants can provide pro bono support to tools and mentoring	Online participation
Vulnerability Map of Lebanon	Vulnerability map of Lebanese population and Syrian refugees	UNICEF Lebanon and Prime Minister of Lebanon's office	Prioritizing interventions in the most vulnerable population	Clear understanding of the most affected area	Greater impact resulting from focused approach	Mapping of territories in Lebanon post due to Syrian Crisis
The Pi for learning(Pi4L) Programme	Education to refugee children in Lebanon through tailored courses	International Edu-cation Association (IEA), UNICEF, Lebanon's Ministry of Education	Access to non formal teaching to the refugee children	Software tools and video aids to help volunteers help deliver quality skills to the children	To be deployed sponsored by UNICEF	Launched in Lebanon post migration of Syrian refugees in 2011

Examples of Communication innovation (4/4)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
RapidFTR	An app to collect and distribute information on the children separated from their families	UNICEF, Thoughtworks, New York University	Streamlining the information sharing on separated children, helping to unite families rapidly	The various aid organizations can share data on the platform to facilitate reunification	The technology will enable the various agencies to collaborate rapidly	Uganda during 2013 unrest in Democratic Republic of Congo
mVAM (Mobile Vulnerability Analysis and Mapping)	Mobile voice technology for food security data collection	United Nations World Food Program	Food security inputs collected to understand the needs of victims	IVR process will help to save time on face to face interviews	Cost effective and time saving approach to data collection for food security monitoring	Democratic Republic of Congo and Somalia
Humanitarian Genome (HG)	Knowledge management tool to search for know-how, best practices, etc	University of Groningen, Geneva International Center for Humanitarian Demining (GICHD)	Organizations can use the input for best practices and know how for a particular situation	Online access to search engine tool	Platform to help build knowledge on shelter, protection, and recovery of affected populations	Hosted in May, 2014 in Netherlands to be used by humanitarian staff globally
Indiegogo	Crowd funding platform for business and non profit organizations	Indiegogo, multiple individuals and organizations have raised funds	Funds collected through the website can be used to directly fund a requirement	Various agencies can leverage the platform to raise funds online	Processing fee based usage to be paid by NGOs or campaign originators	Global
Classy.org	Crowd funding platform dedicated to raise funds for non profit and social enterprises	Classy.org , agencies such as Oxfam America, WFP,, etc. have raised funds	Peer to peer and crowd funding can be used to provide funds for the cause	Donors create campaigns on the website to raise funds	The volunteers can contribute to the individual causes as per their desire	Global

Examples of Communication innovation by Netherlands Red Cross

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Community Resilience Through Innovative communications	Information through various media channels during a crisis situation	NLRC, RCCC, IFRC	Early warning mechanism helps people to move away from harms way	Impact of natural calamity can be reduced by early warning and hence reduce effort	Use of media and messages leads to wider reach	Philippines, Ethiopia, Caribbean, Kenya, Nicaragua, Guatemala, Indonesia, Uganda

Examples of Organizational innovation (1/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Digital Humanitarian Network	Volunteer network of organizations that provide digital services in crises	o.a. OCHA, Google, Translators without borders	Better helped as aid organizations receive free digital services	E.g. Mapping, translating, social media monitoring	Members join voluntarily	Not yet, Still includes few private sector companies
Supply Chain Software	Software to manage supply chain centrally	Helios Foundation	Goods delivered faster and to higher quality	Control over supply chain, efficiency boost	Sold by private parties to (I)NGO's	Various NGOs
UPS Relief Link	Tracking application suite to improve tracking and distribution of relief. logistics support from UPS Foundation	The UPS Foundation	Speedy distribution, providing verifiable receipt of vital provisions ,ensuring equitable distribution, and minimizing theft	UPS Relief Link produces automated inventory and data reports	Relief Link has driven improved operational efficiency for aid organizations	Mbera camp, Mauritania (2011 Mali crisis)
ColaLife	Health products items transported through the Coca Cola Company Supply Chain	Coca Cola, UNICEF, etc	Essential health products such as AidPods - mother kits, anti diarrhea kits supplier	Health products manufacturers can use supply chain of Coca Cola to supply their products to the local market	Coca Cola's CSR initiative to help poor communities	In Zambia between 2009-11 the products such as AidPods were supplied through the supply chain

Examples of Organizational innovation (2/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
The Minimum Reporting Package (MRP)	MRP is standardized guideline and access based software to monitor nutrition programmes	Save the Children UK , Centers for Disease Control Atlanta	Standardized program to provide nutrition to the affected children	NGOs, donors, local and national government can compare program performance with other programs	Facilitate improved design as well as account the benefit reach to the targeted population	Launched in 2012 in Kenya, Ethiopia to gather input on Supplementary feeding program
Rapid Manufacturing for Quick Onset Disaster	Change logistics by manufacturing required items by using new, faster manufacturing techniques such as 3D printing	Field Ready, TiKay Haiti, Haiti Communitere, The Medical Humanitarian Air Service, Red R (Australia), HK Logistics, Oxfam	Faster availability of the required items in affected areas	Reduced/eliminated procurement costs, waste reduction due to need based manufacturing	Savings and faster relief in remote and low resource area	Port-au-Prince, Haiti, Kenya, and other African countries
NOMAD (Humanitarian Operations Mobile Acquisition of Data)	Platform to help aid organizations choose the right data and provide list of personnel available for deployment based on specific needs	CartONG, iMMAP are a NGOs involved in geographic information tools CartONG is based in France, iMMAP is French /American	Aid workers and inputs pertaining to affected regions	Helps to select the right tools for data collection	Usage of right resources by aid organizations	Globally any aid organization can access the platform

Examples of Organizational innovation (3/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Accountability System for humanitarian aid monitoring	Combination of SMS based and open source applications deployed to receive beneficiary and third party feedback	Danish Refugee Council (DRC), UNICEF through the CDRD project(community driven recovery and development)	Feedback from beneficiaries to understand demand, planning, monitoring, and formulation of humanitarian interventions	Third part monitoring and beneficiary monitoring to help improve service standards	Encourage accountability and transparency	Somalia
Knowledgepoint	An application platform to help share expertise and cross organizational collaboration	I RC International Water and Sanitation Centre, Water Aid, Practical Action, RedR UK, EngineerAid, IRC	Sharing of best practices across various programs will be facilitated in WASH sector organizations	Developing and implementing shared processes and a supporting program Allowing sharing of expertise	Tracking of all the programs and dissemination of critical information among various programs	The tool is in development phase with a global scope for implementation
Effective monitoring for insecure and remotely managed projects	Remote project management and monitoring	Tearfund	Ensure continuous aid to the affected in the conflict zones	Ensuring safety of the volunteers in case of insecure regions	Learning will help donor agencies to monitor from remote locations	Afghanistan
Visa Innovation Grants Program	Help aid organizations to move from cash to electronic payment	VISA and NetHope (a consortium of more than 50 organizations)	Opportunity for the unbanked and underserved to gain access to more formalized financial services	Improved speed, security and long-term impact of disbursements	Provision of services to unbanked	Freedom from Hunger, Mercy Corps have been enabled with this initiative

Examples of Organizational innovation by Netherlands Red Cross

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Partners for Resilience (PfR)	Community resilience program: capability building of civil society organizations and policy dialogue	Netherlands Red Cross(NLRC), CARE, Cordaid, Wetlands International	Increase the effectiveness and efficiency of the programs	Building skills and learning through initiatives	Cross sector and local community engagement	Ethiopia, Guatemala, Kenya, Nicaragua, Mali, India, Indonesia, Philippines, Uganda
Value Chain Creation	Innovation hubs facilitating the improvement of the livelihood of local communities	NLRC, ICRC, IFRC, PNS, Philips	Creation of products to improve health, mobile, livelihood and other services	Linking of various partners among local community	New way to collaborate to deliver innovative , local products and services	Pilot project in Ivory Coast, Haiti
Access to clean drinking water and sanitation in Urban Area	Extension of Cebu Water District distribution system	NLRC, Vitens, MCWD, Cebu City, Philippines	Drinking water access to additional 80,000 people in slums of Cebu	Partnership between Philippines and Netherlands' Red Cross	Public private partnership enabling large scale project in urban slum	Cebu, Philippines
Forecast based Finance(FbF)	Innovative funding mechanism to provide based on advanced indication	NLRC,RCCC, NSs, German RC, WFP	Funds to facilitate pre positioning of supplies or moving people and assets out of danger	Linkage of funding to early warning will help to minimize damage	Policy shift towards preparedness can minimize damage through pre-emptive steps	Togo, Uganda, Mozambique, Peru, Bangladesh (GermanRC), Ethiopia (NLRC)
Platform to increase WASH surge capacity in emergencies	Platform facilitating the deployment of Dutch water and sanitation experts to humanitarian NGOs	NLRC, MoFA, RVO, UN, NWP	Expert help in disaster situation to tackle WASH	Knowledge transfer, mediation to provide support in planning and expert match	New method to deploy skills and knowledge in disaster relief	Global

Examples of Product innovation (1/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
WakaWaka Light	Lamps and mobile phone chargers on solar energy	Clinton Global Initiative, 1% Club, etc.	More access to light after catastrophes	Can improve safety and communication in refugee camps	Crowd funding; bought by NGO's & governments. For sale in the West	Used after Haiti earthquake and in use in all sub-Sahara countries
Usage of Tomnod	Satellite imagery analysis to estimate internally displaced persons (IDPs)	UNHCR, DigitalGlobe, Tomnod	Aid workers better equipped to provide assistance	Better understand the situation on the ground.	Service of experts sold to organization	Somalia Afgooye corridor
Lifesaver Cube	Handheld water filter which can filter 5000L water	Lifesaver Systems Inc, UN OCHA, Oxfam, Unicef,	Easy to use water filter which can be used at home	No more need for central water distribution	Product is bought by NGOs but also militaries and private companies	2004 Tsunami
Cold Climate Shelters	Tents and other shelter which can keep a 15°C temperature	SRU of Red Cross, Mongolian NEMA	Better shelters which can provide thermal comfort (> 15 °C)	Better camps	Sold by private parties to NGOs and other customers	Tested by the Red Cross in Mongolia. Many tents cannot provide >15 °C
Digital Drum	Rugged solar powered computer. Provides info on health& more	UNICEF's Technology for Development unit	Access to internet and information for youth	Support in educational efforts	Manufacturer sells to UNICEF directly	Uganda
INDIGO	Pay as you go, solar powered lighting and charging device.	Azuri	Reduces dependency on kerosene by half for the poor and making it affordable	For professionals for their own use and for distribution among the needy	Cheap solar units @ $5/$10. Then pay $1 per week to use further.	In Kenya Pilot projects have commenced

Examples of Product innovation (2/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Shelter Box	Kit providing fast response to basic shelter needs	Rotary Club	Basic needs met	Direct short term shelter for independent use.	Sold by private party to organization	Flooding Malaysia and Malawi, conflict in Gaza
NETRA	Use of unmanned aerial vehicle in disaster affected zones	IdeaForge and DRDO, Ministry of Defense, Government of India	Aerial survey and video relay help to estimate damages in the disaster zone	Access to inputs on the ground situation	Can be funded by Large NGOs and Government Agencies	April 2015 Nepal earthquake t
EDV-01 Emergency Shelter (Emergency Disaster vehicle)	Storage shelter for medical aid, storage, logistics, etc	Daiwa lease Co.,Ltd (Japanese Firm)	Can be setup for use as shelter by family in disaster affected region	Used as medical aid temporary hospital. Can be set up in less than 5 minutes	Can be sold to aid agencies	Under development
Anti seismic surgical floor	The floor can be used to keep surgical tables steady in case of earth quake	Nippon Steel & Sumitomo Metal Products Co. and contractor Shimizu Corp (Japanese)	Medical aid can continue in emergency situation	Non interference of aid process during earth quake	Can be sold to aid agencies	Under development
Lifestraw - The Carbon for Water Program	Lifestraw is a water filter	Vestergaard Frandsen	Clean drinking water system which eliminates the need of boiling the water	Water treatment facility help aid workers to provide alternate support	Carbon savings used by the company can be sold to other organizations	Kenya
Vodafone Foundation - Instant Network Program	Ultra portable communication network deployment	Huawei, Vodafone, Aid organizations Spanish Red Cross, Kenyan Red Cross,	Access to communication network to the affected	Reduced local network congestion and gaps plugged in damaged network	Build on the CSR front	Deployed in Philippines post Typhoon Yolanda in 2013

Examples of Product innovation (3/3)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
IKEA Solar powered flat pack shelter	Transportable weatherproof shelter. Deflects solar heat keeping the interior cool.	IKEA Foundation and United Nations High Commissioner for Refugees(UNHCR)	Emergency shelter which can accommodate 5 people	Can be deployed in 4 hours time. Eliminates need for candles and lamps	Affordable($1000) and can be used multiple times	War-torn places like Syria . Testing conducted in Lebanon and Iraq
Cash Atlas	CaLP's cash mapping tool	CaLP	Targeted delivery of relief	Clear knowledge of benefit distribution	Key view of sectors covered under the various programs	Humanitarian emergencies in Haiti and Pakistan
Hand Rub	Hand rub to aid medical workers for hand hygiene	Saray Co. Ltd	Reduced risk of infection through better hand hygiene	Hand hygiene and WHO "5-moments" guideline	Saray to tap bottom of the pyramid market	Used in hospitals in Uganda
Liter of light/ Moser Lamp	Bottles filled with water and bleach used as lighting bulb	MyShelter Foundation in the Philippines, Alfredo Moser	Inexpensive light . People can grow food on small hydroponic farms	Alternative to electric lighting and savings which may be used elsewhere	Used by NGOs such as MyShelter Foundation	Individuals in 15 countries such as India, Bangladesh, Tanzania,Fiji
MWater	Crowd funded water testing kit	USAID, the water trust, water.org, the water keeper, river keeper	Informed about clean water locations	Maintenance of health, sharing of info limits number of tests required.	Crowd funded, water sample kit costs 3 dollars.	For sale in Tanzania

Examples of Product innovation by Netherlands Red Cross (1/2)

The Netherlands Red Cross

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Speedkits	Product containing a jetting kit to drill water points and a water container	NLRC, Waste, Practica, MSF, Sioen	Emergency kit to help provide access to water	Manual drilling kits to help professionals	The product is expected to be durable	Ethiopia
Off grid energy solutions	Solar powered devices and fuel efficient stoves for households	NLRC, Practica, Wetlands International, Technical University of Eindhoven(TUE)	Cost effective heating and cooking solutions which are fuel efficient	Initiatives to improve hygiene, indoor air quality and reduction in eye and respiratory ailments	Cost effective solutions to help the most affected population	Ethiopia
Flood Resistant Huts	Huts designed to withstand floods	NLRC, IFRC, PfR, Makerere University School of Public Health	Reduced human , financial and material loss due to flood	Minimizing the effort in rebuilding of shelter	Cost effective and safe shelters mitigate effort of relief work	Uganda
Community Shelters	Rapidly deployable shelters	NLRC, Shelter Research Unit, Technical University of Eindhoven (TUE)	Helps in providing immediate shelter post disaster	Use of new technologies and material to aid workers to deploy relief shelter	Use of new technologies and materials to help development of shelters	Use cases not known yet
Sanitation in complex settings	Raised latrines and new technique to treat fecal waste	NLRC, IFRC, Waste Foundation, UNESCO-IHE, Flexxolutions, ROM, Aircell	Provide new methods to improve sanitation for the affected population	Improves response and methods to treat human waste	The solutions can be replicated at other locations	Malawi

Examples of Product innovation by Netherlands Red Cross (2/2)

Innovation	Summary	Involved parties	Value for Victims	Value for Professionals	Value for Investors	Use cases
Rapid Assessment Using Mobiles (RAMP)	Use of mobile based technologies to conduct surveys	NLRC, IFRC, PNS	Use of technology to conduct survey and provide input on the outcome of the programs	Use of technologies reduce time to survey	Triangulation of qualitative inputs with quantitative data can be done rapidly	Zambia, South Sudan, Malawi, Burundi, Sudan, Cote d'Ivorie, Benin & Ethiopia
Satellite based assessment and Support	Providing maps of the disaster affected area	NLRC, IFRC, British Red Cross, American Red Cross, ITC, University of Twente	Vulnerability mapping using satellite data and ground based assessment	Help in prioritizing relief work	Investment in accurate information enables planning	Global
Household water treatment and storage(HWTS)	Adoption and increase use HWTS products through business development	NLRC, Basic Water Needs, ProPortion	Provision of clean water for the community and elimination of water borne ailments	New technology access HWTS	Financially viable HWTS model envisaged in next 5 yrs	Design phase. will be piloted in Malawi, Benin

Innovation intensity

Assessing Innovation Categories

Innovation Category	Methods Employed	Innovation Intensity
Process Innovation	Cash transfer programs, mobile money transfer, catastrophe bond, crowd funding, catastrophe drawdown option , parametric insurance, micro insurance, smart card, prepaid card, simulation games	🟡
Marketing Innovation	Crowd funded product marketing, sale to bottom of pyramid, market mapping tool, SMS donation campaign, share of online/offline sale donated to aid, social media campaign to raise awareness about issues	🔴
Communication Innovation	Crisis mapping tool, crowd sourced maps, handheld devices for tracking relief, online database, radio broadcasts, platform to track refugees	🟢
Organizational Innovation	Volunteer network, supply chain software, leveraging corporate supply chain, reporting tools, learning programs for children, WASH initiatives, remote program management	🟡
Product Innovation	Low cost water, light and solar products, temporary shelters, unmanned aerial vehicles, emergency communication network, off grid energy solution, low cost sanitation solutions	🟢

🔴 Low intensity   🟡 Medium intensity   🟢 High intensity