



# New Technology Enhancing Humanitarian Cash and Voucher Programming

Main Findings and  
Ways Forward

*29<sup>th</sup> March*

**CONCERN**  
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Oxford Policy Management

# Background to the Research



- The humanitarian sector engages with the poorest people in challenging environments. A reliance on technology until recently was considered an additional burden, rather than a tool for improving programme effectiveness.
- Advances in technology in low income countries has led to interest from donors, practitioners and governments in how technology can serve humanitarian response.
- One area of humanitarian programming driving this change is the rapidly expanding field of cash and voucher programming.

A review of the current use of new technology in humanitarian aid applied to CTP encompassing every stage of the programme cycle.

- Targeting
- Registration
- **Delivery of payments**
- Monitoring and evaluation

Exploring the following themes:

1. Preconditions for use
2. User-friendliness
3. Accountability
4. Broader consequences of using new technology

Within this, to highlight:

- evidence of cost effectiveness of using new technology
- **bottlenecks and barriers to upscale**
- **possible 'next steps'** in adopting technologies to enhance aid provision



## Context

- Low income and disaster-affected countries experiencing humanitarian crisis in last 5 years (**Kenya, Niger, Zimbabwe, Somalia, DR Congo, Pakistan, Philippines, Haiti**)
- Slow onset and rapid onset emergency; conflict; early recovery
- Include lessons from the use of technology in other contexts where appropriate

## Activities

- Literature Review & Mapping
- Interviews with +100 key stakeholders, including visits to Niger and Haiti:
  - International NGOs
  - Agencies (*WFP, UNICEF, UNHCR, UNOPS, FAO, OCHA, IFRC*)
  - Service providers (*Telecoms; Financial Services; Open source and commercial co's*)
  - Consulting (*Accenture, Financial Sector Deepening, CGAP*)
  - Bodies (*CALP; GSM Association; NetHope*)
  - Donor (*USAID, DFID, ECHO, Gates Foundation*)
  - Research (*Tufts, IDS, ODI*)

# Electronic Payment Solutions



	Pre-paid card	Smart card	Mobile money	Mobile voucher
<b>Description</b>	Debit card read in any valid ATM or POS	Plastic card with chip, read in any valid Point of Sale machine	Cash transferred between 'mobile wallets' on mobile phone via sms	Voucher code and unique ID sent via sms
<b>Initiatives included</b>	Philippines Chile <b>Pakistan</b>	<b>Kenya</b> Zimbabwe Malawi Niger DR Congo (under development)	Kenya Niger Philippines Cote d'Ivoire Haiti	Syria Zambia Zimbabwe Kenya (under development)
<b>Context</b>	Flood response	Social Protection Food insecurity Displacement	Displacement Early recovery Food insecurity Livelihoods	Food insecurity Displacement
	Urban, Rural	Urban, Rural	Urban, Rural	Urban
<b>Scale (HH)</b>	300 <> 1.3m	1000 <> <b>60,000</b>	100<>8,000	1000<>20,000

# Other Technology Solutions



	Mobile communication	Digital Data Gathering	E-registration and Data Management	Crisis mapping
<b>Description</b>	Text and voice tools to relay info to disaster affected people and get feedback	Collection of survey data through mobile or handheld device, and upload to data management system	Tools for improving HH registration and the management of HH data	Innovative solutions for real time tracking of disasters to inform response
<b>Experience</b>	7 programmes, 4 countries	11 programmes, 10 countries	Non-cloud: 8 countries Cloud: 3 countries	Haiti
<b>Initiatives</b>	Hotlines Mass text alerts Automated message system CRM	Camp registration Needs assessment Market monitoring SMART surveys M&E	ID card production Capture of biometric info Beneficiary management system Cloud based services	Crowd sourcing Population tracking through mobile phones
<b>Context</b>	Disaster response Food insecurity	Food insecurity Disaster response Displacement <b>Non-emergency</b>	Early recovery Food insecurity Disaster response	Disaster response

# Experiences



	Benefits	E-pay	Mobile comm	DDG
<b>Accountability</b>	Reduces leakage, increases likelihood cash reaches recipient <b>Increased transparency</b>	X X	X	X
<b>Security</b>	Reduces exposure of staff and beneficiaries	X	X	X
<b>Partnership</b>	Service provider reduces burden of implementation Active partner contributing skills and resources	X X	X X	X X
<b>Accessibility</b>	User friendly: Generally understood; people want it Convenience: Reduced opportunity cost	X X	X X	X X
<b>Cost</b>	<b>Cost efficiencies over time</b> Is possible delivered without significant investment in hardware	X X	X X	X X
<b>Efficiency</b>	Can function without network connectivity Generally technology performed well <b>Time savings for agency</b>	x X X	X X	X X X
<b>Wider impacts</b>	Potential for wider usage of technology by recipients/ agencies Time saving leads to greater programme impact	X X	X x	X X

# Experiences



	Challenges	E-Pay	Mobile comm	DDG
Accountability	Still some potential for corruption/deception	X		
	<b>Increased 'Control' for agency reduces choice for recipient</b>	X		
	Some problems with accuracy	X	X	x
Partnership	Capacity issues of service provider	X	X	X
Accessibility	User friendly: Literacy is a barrier to full usage; trust	X	X	x
	Convenience: Delays in cash flow or long distance to agents	X		
	Barriers to access: Lack of formal ID, political environment	X		X
Cost	<b>Initial set up costs can be high</b>	X	X	X
Efficiency	Lack of network connectivity impacted on programme	X	X	x
	Technical glitches: new system, technology not fool proof	X	X	X
	Technology didn't perform well in the context			X
	<b>Set up (service selection, contracts, preparation) takes time</b>	X	x	X
Wider impacts	<b>Data protection and privacy issues</b>	X	X	X
	Barriers to wider uptake of technology or services	X	X	

# Lessons Learned (Headlines)



## Suitability:

- Experiences over all have been positive
- People want it
- No single solution: assess the options available to select the best for the context
- Cost/efficiency gains increase with scale and duration

## Factors key to success include:

- Strong delivery partners
- Functioning branchless banking
- On the ground support
- Adequate training for all stakeholders
- Reliable connectivity

## Engaging with the private sector:

- Realistic expectations based on capacity of both partners
- Proactive approaches to the private sector can generate results

## Preparedness:

- Contractual negotiations take time
- **After an emergency is too late**
- Build on what exists

# Constraints to Wider Adoption of New Technology



	Issue	
TECHNICAL	<ul style="list-style-type: none"><li>• Whilst the landscape is changing rapidly network coverage is lacking especially in Africa</li><li>• Limited coverage and cash flow of branchless banking systems</li><li>• Concerns over error rates of fingerprint recognition technology</li></ul>	
	FINANCIAL	<ul style="list-style-type: none"><li>• Lack of business case to justify expansion of network services to remote areas</li><li>• High set up cost is at odds with the time horizons of humanitarian programming</li><li>• Donors tend to restrict capital costs to a percentage of the total budget</li></ul>
		INSTITUTIONAL

# Constraints to Wider Adoption of New Technology



	Issue
OPERATIONAL	<ul style="list-style-type: none"> <li>• Researching, costing, selection and set-up of new technology requires time and resources</li> <li>• Undertaking these activities post-disaster interferes with rapid response</li> </ul>
	<ul style="list-style-type: none"> <li>• Lack of willingness of agencies to share information, experiences, systems</li> <li>• Donor focus on 'innovation' and competition for funding fuels this</li> <li>• Concerns about data protection issues</li> <li>• Wariness of involving private sector actors in the humanitarian sphere</li> </ul>
ATTITUDINAL	<ul style="list-style-type: none"> <li>• Tendency of humanitarian agencies to be risk averse</li> <li>• Technology seen as a 'black box' requiring specialist knowledge outside of programme remit</li> </ul>
LEGISLATIVE	<ul style="list-style-type: none"> <li>• Regulatory environment can constrain roll out of branchless banking and other technology</li> <li>• Lack of clear national policies or humanitarian standards on data protection</li> <li>• Proprietary issues around custom-designed solutions can limit uptake</li> </ul>

# Supporting Wider Adoption: Improving the Technological Environment

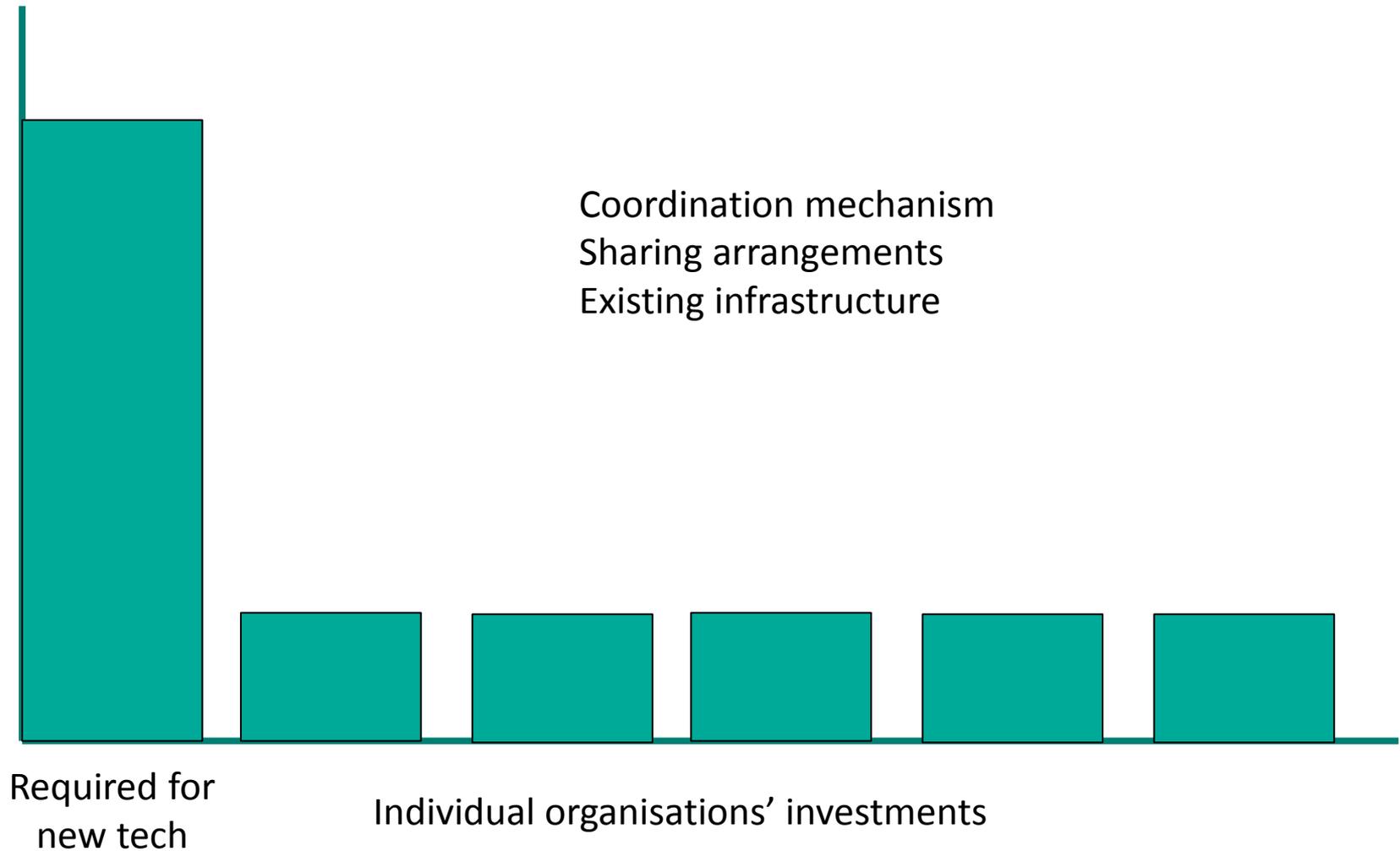


- Proactive approaches by agencies to service providers to inform the development of branchless banking and network to where it is needed.
- Collective approaches have greater influence.
- Consider co-financing arrangements between donors, governments and mobile network operators to support the extension of networks.
- Where feasible, realise efficiencies by 'piggy backing' emergency payments on the e-payments systems of government such as those used to deliver social protection.
- Advocate for improvements in the regulatory environment for new technology.

# Coordination benefits: an illustration



Investment



# Supporting Wider Adoption: Develop the Capacity of Stakeholders



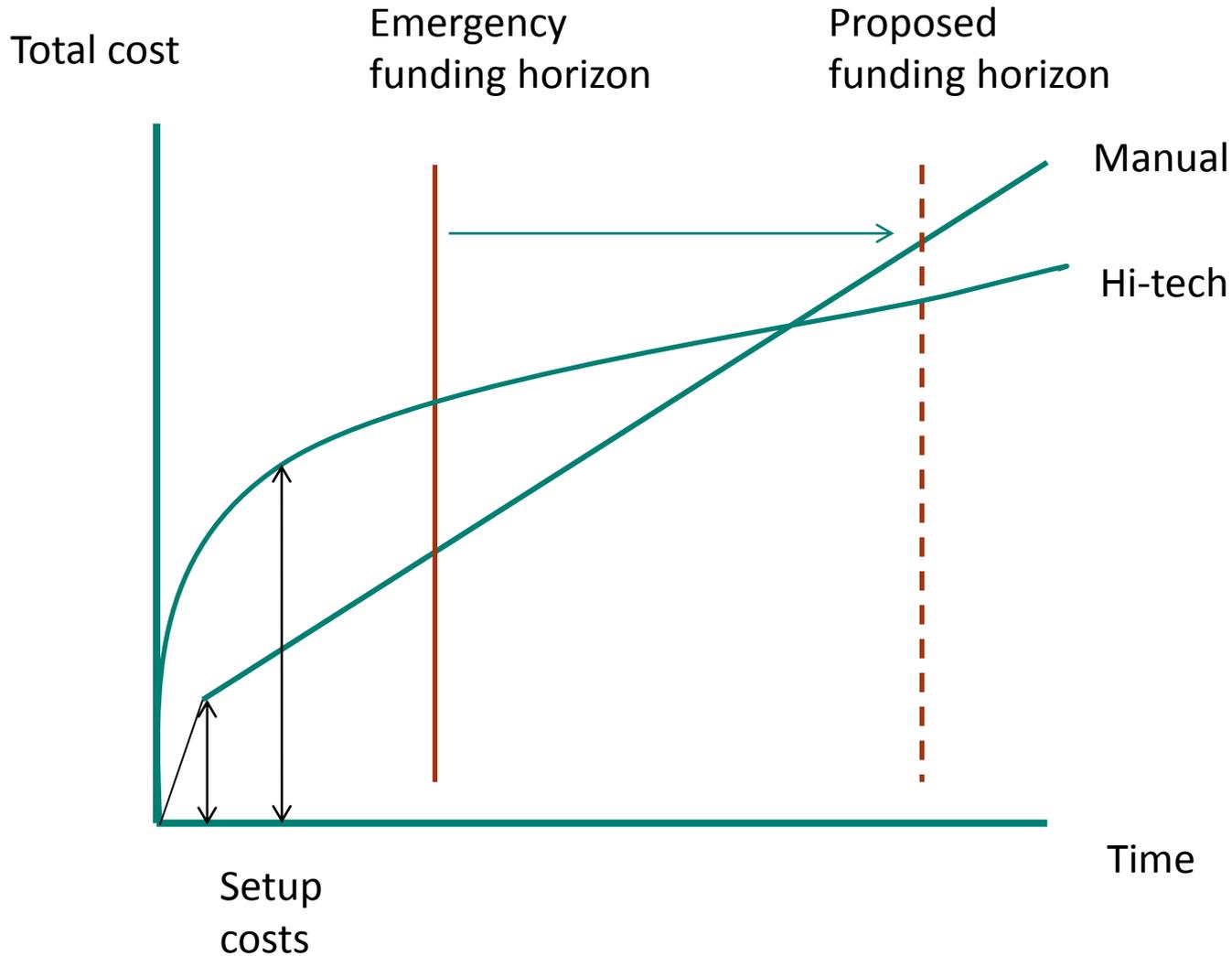
- Increase familiarity of staff with technology solutions that are available, through practical training use of these systems in everyday work.
- This would also mean new technologies become cost effective more quickly.
- Invest in actions to build recipients' capacity to use mobile technology and branchless banking.
- Invest in building capacity of service providers
- Investment in mobile literacy programmes.
- Build the evidence base to fill critical gaps:
  - value for money of technology-based systems
  - wider social impacts of the increased utilisation of technology

# Supporting Wider Adoption: New Ways of Working



- Partner with external expertise
- Incentive structures for the private sector to develop technology platforms that meet humanitarian needs
- Establish commitments with service providers as part of contingency planning and develop preparedness frameworks between all stakeholders.
- Donors to finance and coordinate adoption and scale-up of technological solutions by their implementing partners and disseminate lessons learned.
- Consolidate experience to move towards a 'tool box' of standard approaches.
- Develop codes of conduct for the management and sharing of personal data.
- Linking humanitarian and development funding.

# Overcoming funding constraints: an illustration





Thank you

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Find the report here:

<http://www.cashlearning.org/resources/library/272-new-technologies-in-cash-transfer-programming-and-humanitarian-assistance>