



## Payments and Transactions

18 March 2014

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# Payments and Transactions

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Arastoo Khan, Additional Secretary, Economic Relations Division, Ministry of Finance, Bangladesh

## Background

Many poor people in developing countries still rely on the physical delivery of cash to receive payments and access financial services. One of the major impediments to providing convenient payments and financial services to the poor has been the high cost inherent in the traditional “brick-and-mortar” branch model. But with the recent emergence of new technologies and delivery models, the economics of banking is changing drastically. The rapid growth of mobile phones and point-of-sale (POS) devices has now created an opportunity to reach more poor people than ever before.

Increasingly, governments and donors are looking to transition their social transfer payments from cash to electronic payments and, in some cases, incorporate financial inclusion objectives into these payment schemes. This momentum toward e-payments rests on the promise of improving transparency, reducing leakage, and decreasing costs on the one hand, and facilitating value-added services for beneficiaries through financial access on the other.

This transition in payment mechanisms should be studied from the perspective of the three main stakeholders in the system: the government is focused on the affordability of e-payments in social transfer programs; the payment service provider (PSP) is focused on the profitability of offering such services; and the beneficiary is focused on the ease, cost and regularity of the payment process.

Research to date has shown that by leveraging existing payments infrastructure for social transfers, governments are able to reduce the cost of making these payments. The Government of Brazil saves 5.8 percent of the cost of payments to *Bolsa Familia* beneficiaries by having 15 percent of payments land in bank accounts and paid out by agents. But in countries where the infrastructure (such as an agent distribution network) needs to be built up in order to make e-payments, the cost to governments may increase in the short-term. In Colombia, the government

paid US\$6.24 for account-based payments through agents, a substantial increase from the previous cash payment fee of US\$5.20.

Research also shows that beneficiaries welcome the convenience of e-payments over cash, but few recipients use the bank account, when offered, for much else beyond withdrawing benefits. In some remote areas, however, cash payments may still prove to be more convenient and cheaper for beneficiaries.

The social protection industry is increasingly enthusiastic about the promise of e-payments for social transfers. Such promise rests largely on the assumption that payments technology and infrastructure is sufficiently advanced to support more efficient and more transparent payment schemes. But technology will never be a panacea to substitute for robust processes and solid preparation. The ongoing dialogue about social transfer payments and transactions needs to be honest and recognize that the feasibility of e-payments for social transfer programs will vary across payment methods and across countries.

## Country Cases

There has been a flurry of innovation in social transfer payments and transaction schemes. While many countries have experiences to share on this topic, this session will highlight three specific country cases.

### Kenya

Kenya is arguably the most advanced ecosystem for mobile payments in the world with the early and enormous success of M-PESA, a mobile phone-based money transfer service. Likewise, both bank and nonbank agent networks are very well developed throughout the country. Various social transfer programs in Kenya have experimented with new payment mechanisms transitioning from direct cash payouts, to semi-manual cash payouts through the Postal Corporation, to the use of e-payments through both mobile phones and smart cards offered by mobile network operators and banks.

### Egypt

Starting in 2006, Egypt implemented a smart card system for its subsidized food program that covers three-fourths of its population. The Ministry of State for Administrative Development (MSAD) maintains the registry of the individual members of families that have a “family card” which entitles them to receive subsidized food under a program run by another ministry. The same card is used for social assistance payments from a third ministry. The transaction information flows to the MSAD and is then accessible to the other two ministries who use the information to allocate cash and food, respectively and to track their transactions. Although there are different points of transaction – food shops and post offices for cash – the transaction process and the back-end information system are the same. There is a discussion underway to extend the same infrastructure for other subsidies such as subsidized fuel.

## Bangladesh

Bangladesh has several recent experiences using mobile financial services to make government-to-person (G2P) payments in various social protection programs. Electronic Post Office debit cards are being used to make conditional cash transfers to poor mothers. Electronic Post Office debit cards and mobile phones are also being piloted to make wage payments linked with work site attendance in the country's flagship public works program. These innovative payment options are motivated by the goal to minimize leakage as well as decrease transaction costs. The G2P payment modalities will be further facilitated by the national database of poor households that will be linked to a biometric-enabled electronic identification system which is currently underway.

# Payments and Transactions

## Session Summary

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Global trends in electronic payments are unclear. Around, 27% and 25% of lower-middle and low income countries, respectively, process G2P payments electronically (self-reported by 130 regulators).

However, there is a move towards financially-inclusive social protection payments. For example, as of 2012, 61% of G2P payments occur in a manner that allows for savings either through store of value or more financially-inclusive methods. However, big distinction between savings-enabled (programs allowing some store of value) and savings-encouraged (programs that either provide direct incentives for saving or at the very least inform beneficiaries proactively about the ability to save).

### Case Studies

#### Kenya

The objectives of the cash transfer program in Kenya are to improve the welfare and resilience of beneficiaries, with the aim of reducing poverty and vulnerability. The key criteria for selection is poverty (use of proxy means test and community based targeting).

#### Key Findings

- It is critical to adopt good delivery mechanisms – especially the use of new technologies (e.g. electronic payment system) for effective & efficient delivery;
- Use of multiple delivery mechanisms is important given the regional infrastructural disparities;
- Programs must endeavor to have well managed Information Systems (MIS) that can be integrated with the payment mechanism to ensure effective delivery;
- Good governance is critical for successful implementation of any program.

#### Egypt

The Family Smart Card program in essence allows for one entity to manage the delivery of all support services, with the coordination of related ministries: Enable evaluation to delivered services to the one family. Allow integration between all delivered services. A first step to do this included building technical system architecture for an expandable, customizable, and secured subsidy system: the base for all securely delivered services to beneficiaries.

The subsidy scheme is unique in terms of its emphasis on public-private partnership and results-based contracting arrangements. There is no cost incurred by the system users (beneficiaries).

### **Key Findings**

Technical:

- Multi-application smart card technology
- Call centers, support centers, service centers
- Protection and security features
- Appropriate workflows

Contractual:

- Apply win-win policy with private sector
- Avoid monopoly, by contracting with more than one contractor
- Unify system specs for all contractors
- Expandability:
- Delivery of service from any grocer
- Availability of switching bet. Commodity and cash
- Allow electronic wallet

Challenges faced by the program (at different stages in the project cycle):

- Designing an expandable, safe and self-sustaining system
- Building system databases
- Building confidence between citizens and government
- Technical issues (system continuity, interoperability, security, safety)
- Culture of stakeholders' system (grocer, supply office)
- Upgrading the technological level of the stakeholders' system
- System sustainability
- System interoperability

### **Bangladesh**

The Employment Generation Program for the Poorest (EGPP) public works program was introduced by the Government of Bangladesh in 2008 to mitigate the negative effects of agricultural lean seasons (twice-a-year) on the poor.

### **Key Findings**

- Time and cost savings (seen during pilot evaluations)

- The card-based solution saved on average 7.5 hours per week for the supervisor during attendance tracking
- The mobile-based solution saved 6 hours per week and \$0.70 in travel costs for beneficiaries during paydays
- Unexpected (but welcome) value created
- Many of the beneficiaries viewed the plastic card in the card-based pilot as an ID card and appreciated this greatly, since many did not have any form of government ID before
- Change management requires a lot of effort
- Especially for programs that deal with local government bodies and less-educated beneficiaries, change management activities need to be well thought out and allowed a lot of time to learn from repeat behavior
- Proper value articulation overcomes intrinsic hurdles
- Once people understand how a new solution helps them directly (reduces processing time, cuts costs, etc.), they will put in the effort to learn the new solution more proactively

## Main Themes of the Q&A Period

**Authentication process:** In Egypt, each family is assigned to a specific grocer or service provider in his/ her region at the onset of the program. The smart card payment process allows for several withdrawals in a given period to receive rationed food, cash transfer, free health care, etc. Citizens withdraw from the allocated amount which holds a balance of withdrawal. Pin number and the existence of the card allows for the authentication process.

**Biometric challenges:** Outreach, awareness campaigns play an important role in ensuring that these technological advances in the payment process are familiar to citizens.

**There is no one size fits all:** One use to various payment technologies, there is not a one-size fits all platform or payment process. In the case of Kenya the process of payment evolved with the expansion of the beneficiary pool and the increase in the cash payment.

**Payment Process for Orphans and Vulnerable Children (OVC):** For the payment process, the household approach to payment does not distinguish with whether the head of household is a child or a parent or if it is a conjoined family and non-family arrangement. The household payment approach, therefore, is “friendly” to OVC beneficiaries.

**Payment Mechanism as Means for Reduction of EFC:** The use of biometrics in the payment process allows the government to use payment mechanism for the reduction of error, fraud and corruption (EFC). In the case of Bangladesh, the use of biometrics has been partially motivated by making the government processes more accountable and transparent to citizens.



South-South Learning Forum 2014:  
Payments & Transactions

Sarah Rotman Parker

18 March 2014

# Global trends in electronic payments are unclear

1. **2009 CGAP Focus Note:** 170 million low income individuals receive some form of government transfer and nearly half of the 40 social transfer schemes launched since 1999 feature electronic delivery.
2. **2010 World Bank Global Payment Survey:** 27% and 25% of lower-middle and low income countries respectively process G2P payments electronically (self-reported by 130 regulators).
3. **2012 New America Foundation's Global Savings and Social Protection Initiative website:** Tracks 84 social protection programs in 43 countries and counts 174 million beneficiaries, of whom 62% receive payments electronically

# Global shift to financially-inclusive social protection payments

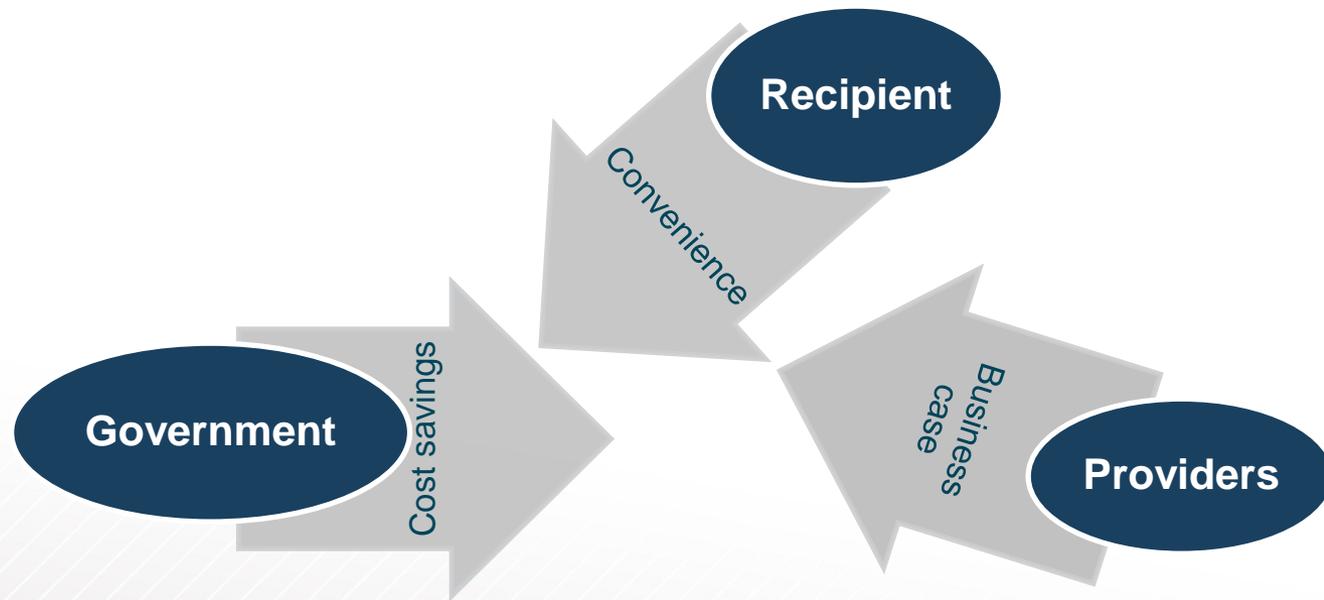
1. As of 2012, 61% of G2P payments occur in a manner that allows for savings either through store of value or more financially-inclusive methods.
2. In Peru, 10,000 women who participated in pilots to promote formal savings amassed more than USD 2 million in just 3 years of saving.
3. But big distinction between savings-enabled and savings-encouraged
  1. 54 out of 84 social protection programs are savings enabling (115 million individuals) across 43 countries
  2. 23 out of 84 programs are savings encouraging (3.6 million individuals)

# Three main stakeholders in this ecosystem

1. For government: COST
2. For recipients: USAGE
3. For providers: BUSINESS CASE

# Some approaches redistribute costs & benefits ... with no overall societal benefit

1. For government: COST
2. For recipients: USAGE
3. For providers: BUSINESS CASE



# CGAP

Advancing financial inclusion to improve the lives of the poor





# Delivering Benefits; Cash Transfer to the poor and vulnerable in Kenya

**South –South Learning Forum  
17<sup>th</sup>–21<sup>st</sup> March, 2014  
Rio de Janeiro, Brazil**

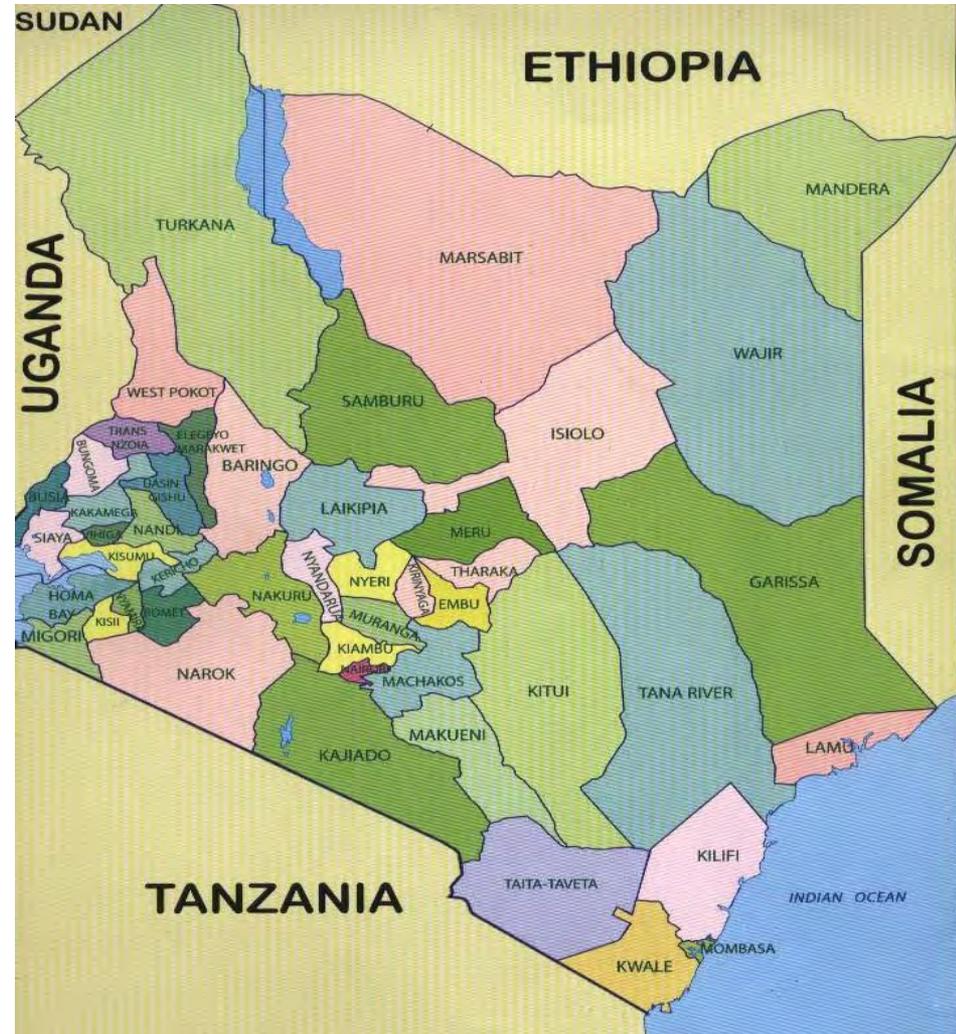
**Mr. Ali Noor Ismail  
Principal Secretary  
Ministry of Labour, Social Security and Services  
Kenya**

# Presentation Outline

- Country profile
- Background of Cash Transfer programmes in Kenya
  - Objective, Coverage, Financing
- Delivery of cash transfers
  - Key considerations in payment systems
  - Evolution of cash transfer delivery in Kenya
  - Cash transfer delivery (Advantages & Disadvantages)
  - General challenges in delivery of CTs
- Next Steps for Kenya

# Country Profile

- ❑ Population approximately - **40** million
- ❑ Estimated no. of orphans **2.6** million
- ❑ No. of Older Persons 60 years+ **1.9** million
- ❑ GDP per CAPITA USD **1,200**
- ❑ % population below Poverty line **46%**
- ❑ % extremely poor population **19%**
- ❑ HIV and AIDS Prevalence **6%**



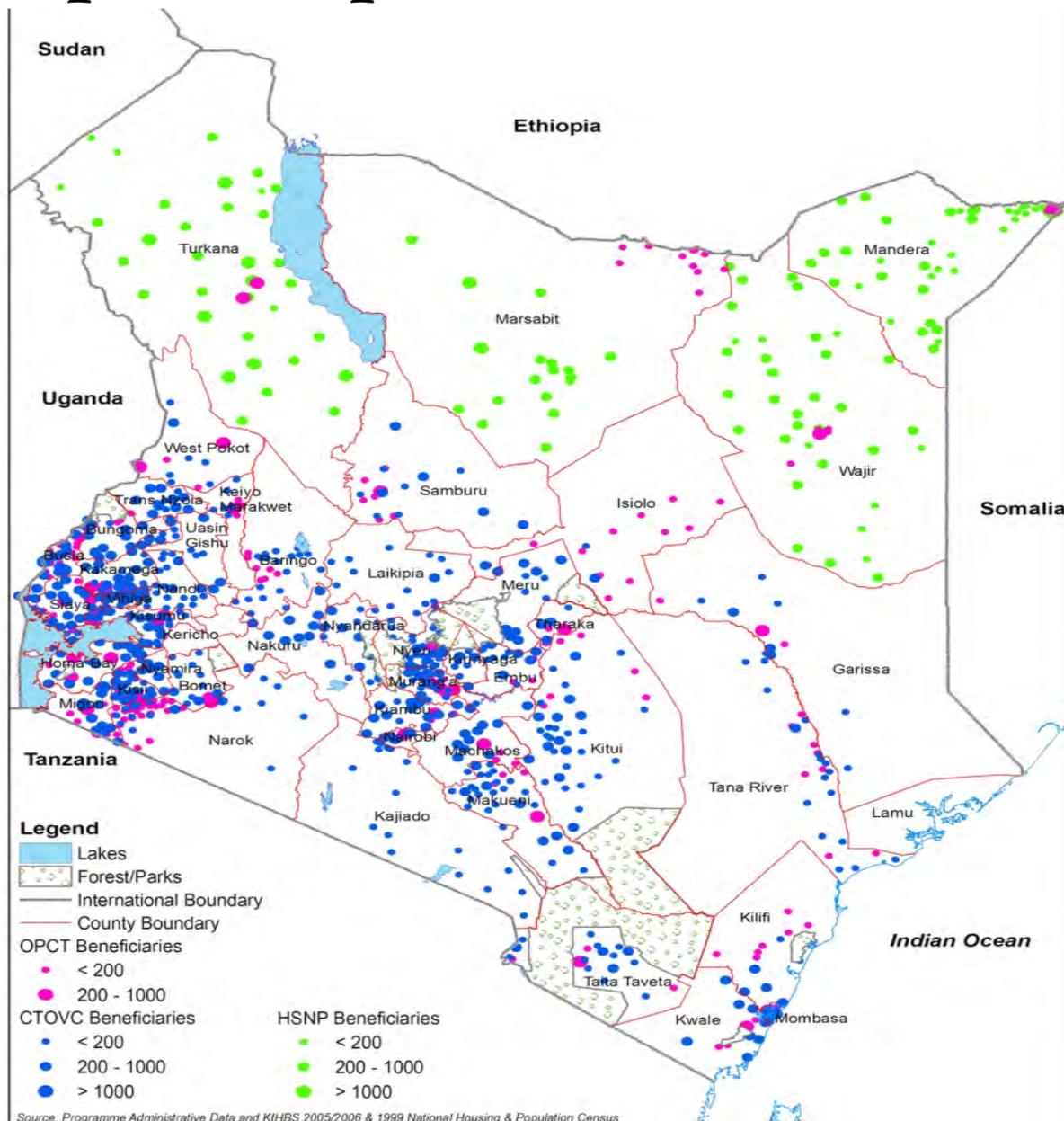
# Country Profile Contd..

- ❑ Economically disabled population **483,610**
- ❑ Total poor households with OVCs **1,371,903**
- ❑ Poor households with 65+ years **504,114**
- ❑ Poor households with persons with disabilities **199,751**

# Objectives of Cash Transfers

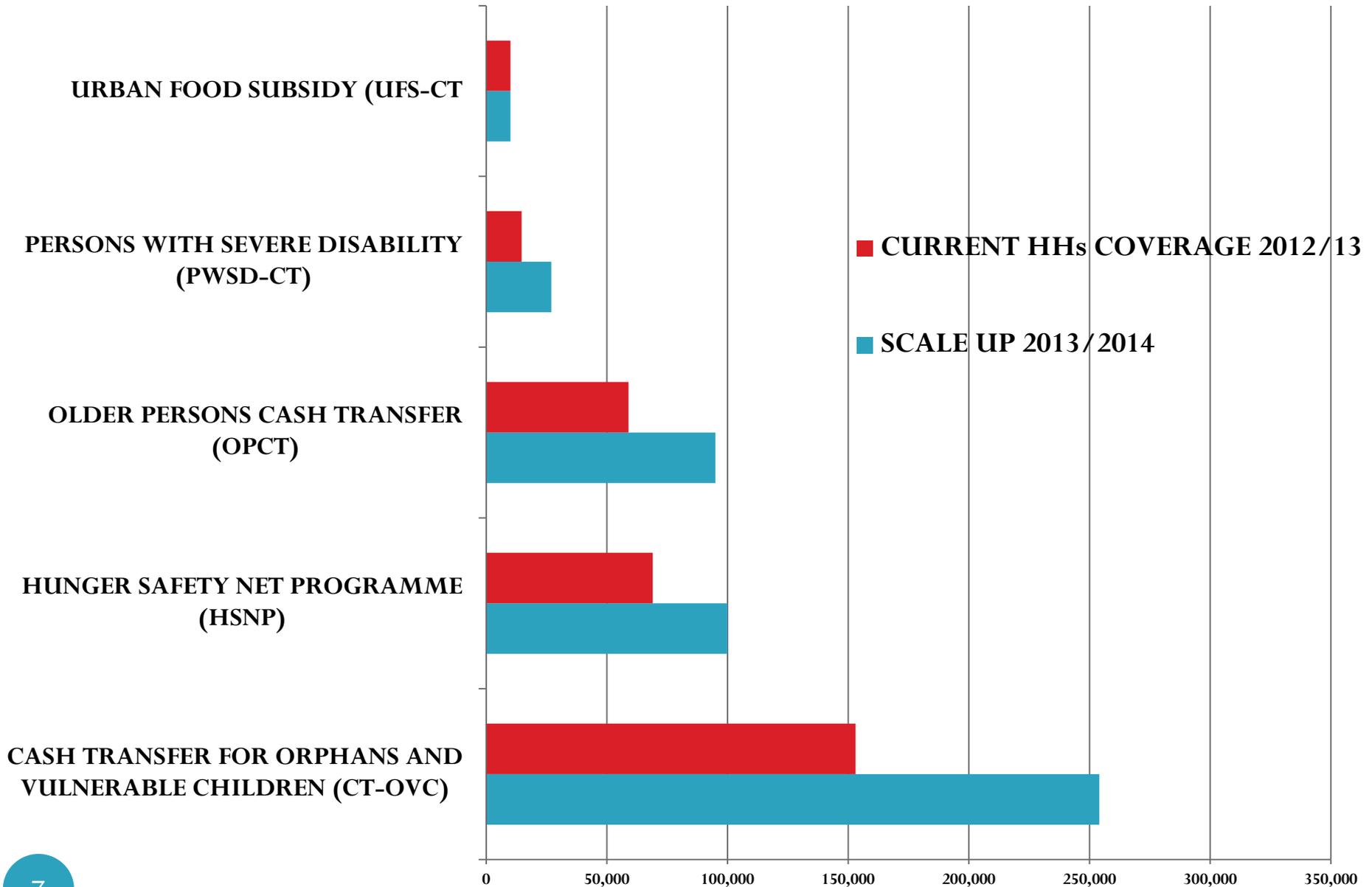
- To improve the welfare and resilience of beneficiaries, with the aim of reducing poverty and vulnerability
  - The key criteria for selection is poverty (use of proxy means test and community based targeting)
  - Each CT is targeted with specific categorical group (older persons, orphans and vulnerable children, persons with severe disabilities)
  - All programs have levels of management structures running from the national level to the community level
  - All CT programmes have a transfer value of **US\$ 23** except HSNP giving **US\$ 26** monthly, (disbursed every two months)

# Geographical spread of cash transfers

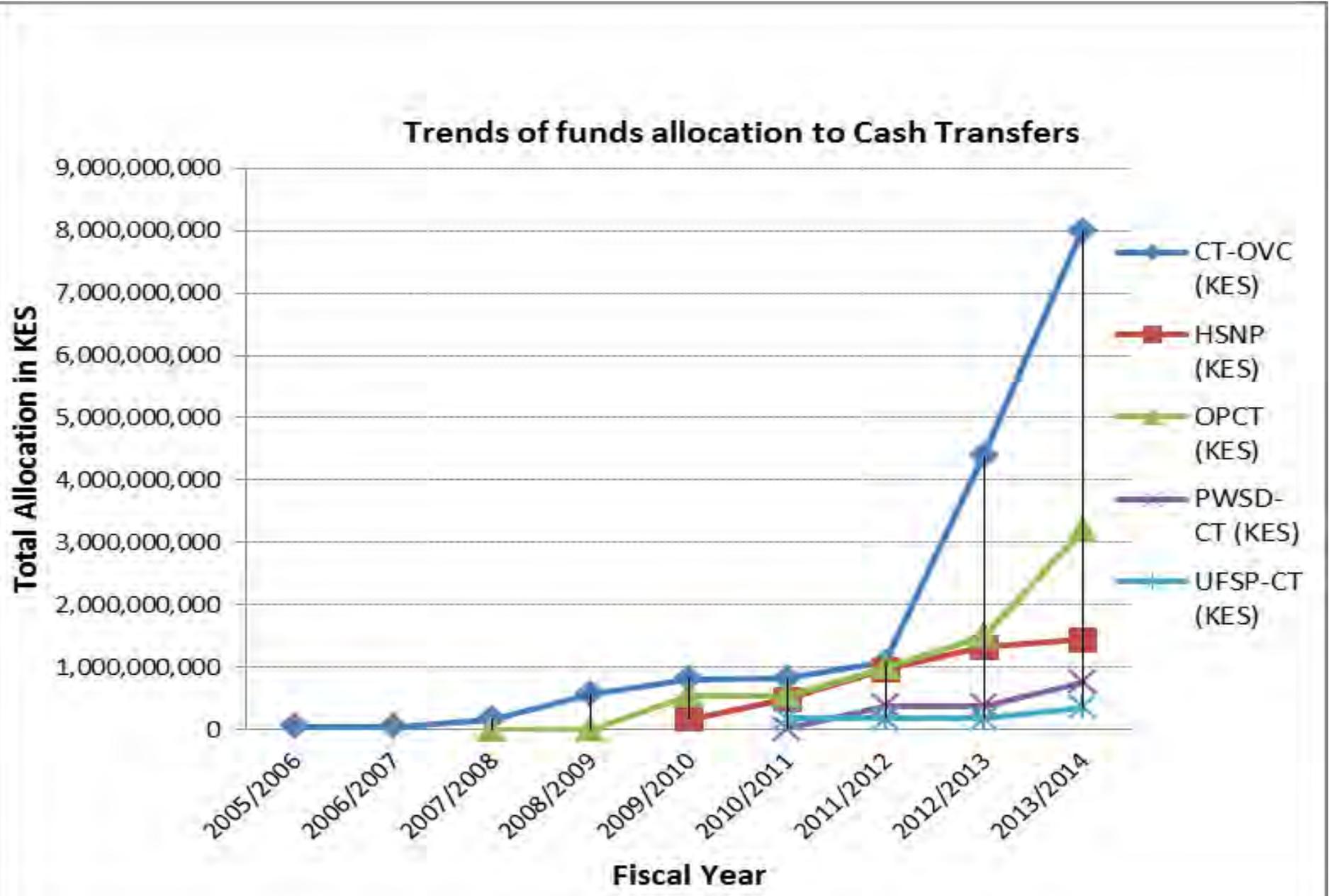


Source: Programme Administrative Data and KIHBS 2005/2006 & 1999 National Housing & Population Census

# Scale-up plan 2013/2014



# Financial allocation to CT programs



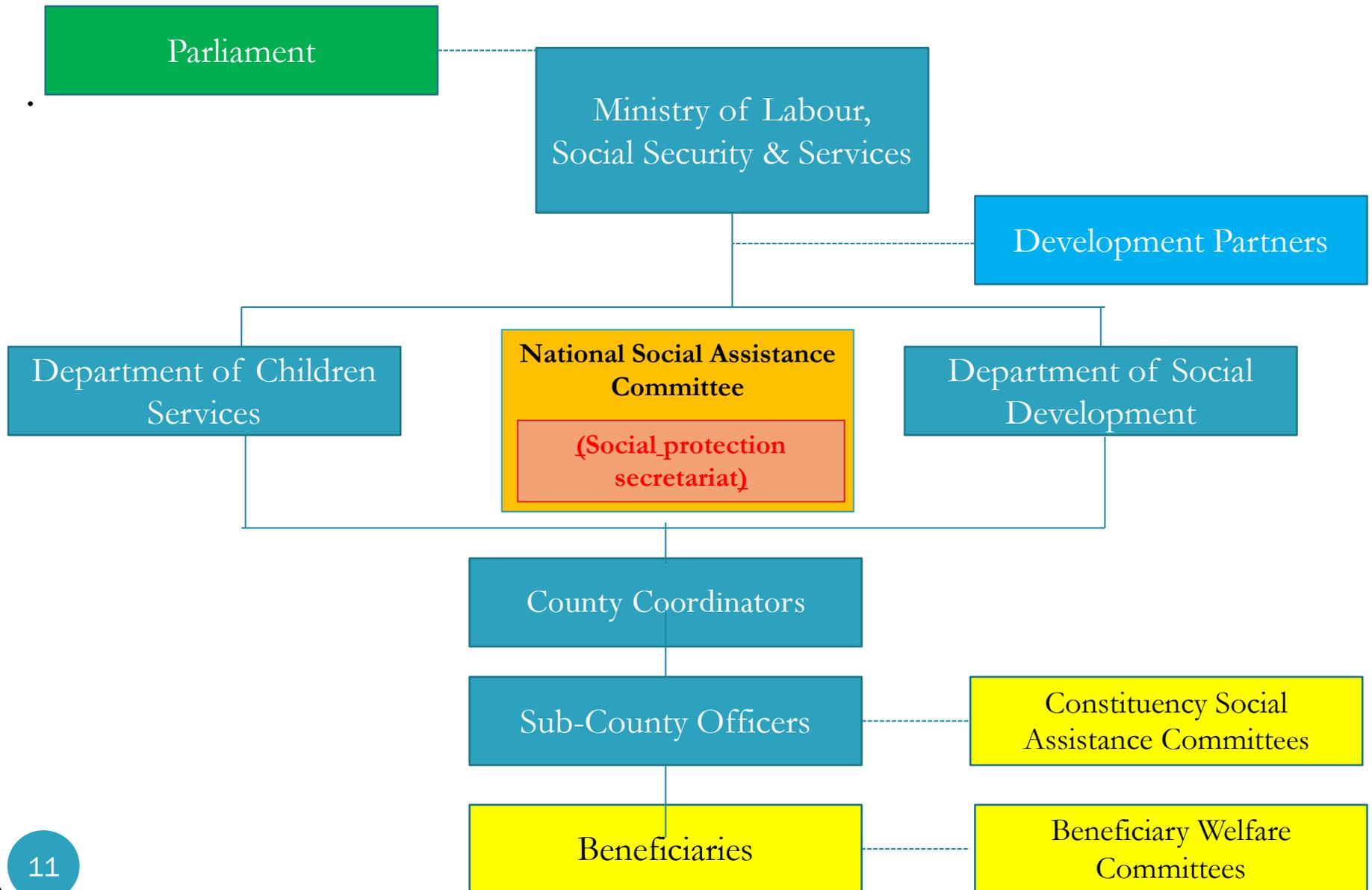
# Delivery mechanisms in Kenya

Programme	Payment Agencies	Delivery Mechanism
Orphans & Vulnerable Children CT	Postal Corporation of Kenya (PCK), Equity Bank	<ul style="list-style-type: none"> <li>• Semi-manual</li> <li>• Electronic (Smart Card)</li> </ul>
Hunger Safety Net Program	Equity Bank	<ul style="list-style-type: none"> <li>• Electronic (Smart Card)</li> </ul>
Older Persons Cash Transfer Program	Postal Corporation of Kenya (PCK)	<ul style="list-style-type: none"> <li>• Semi-manual</li> </ul>
Persons With Severe Disability Cash Transfer Program	Postal Corporation of Kenya (PCK)	Semi-manual
Urban Food Subsidy	Postal Corporation of Kenya	Semi-manual

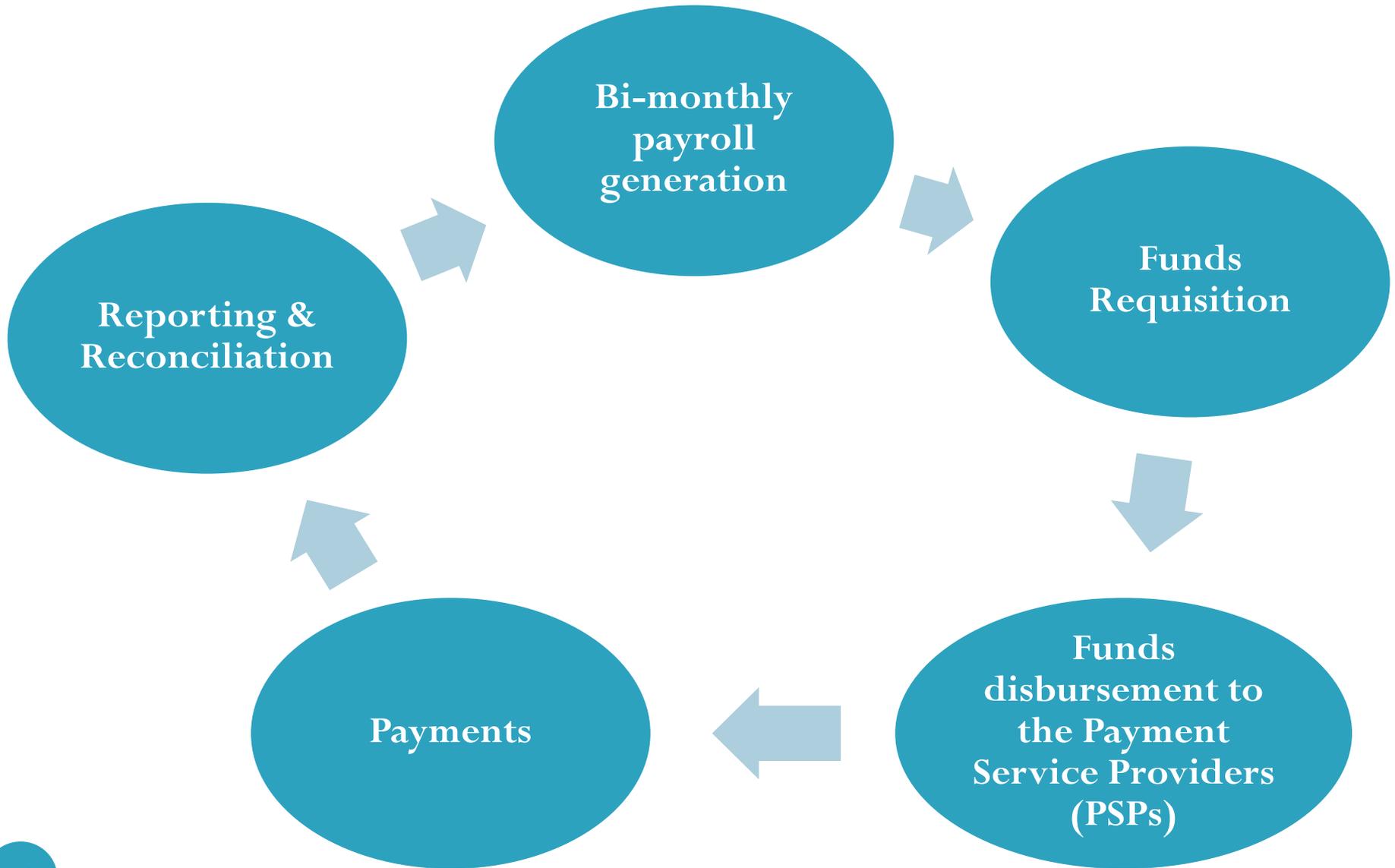
# Costs of Delivery Channels

Payment Agencies	Delivery cost per transaction US\$
District Treasury	Part of Government Overhead
Equity Bank	1.3
Postal Corporation of Kenya (PCK)	0.7
Mobile phone transfer (Mpesa)	To be negotiated

# Institutional Arrangements



# Programme Delivery Cycle



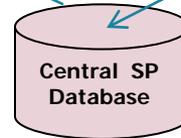
# Single Registry for Effective & Efficient CT Delivery

## 3. Linkages to other external information users and data sources

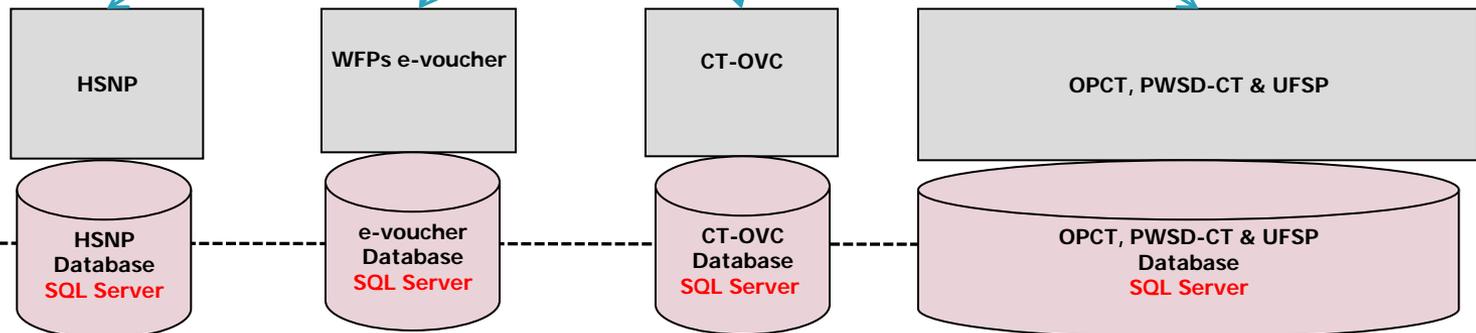
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## 2. Central Database containing programmes, beneficiary/applicant names, id number, age/date of birth and transfer amounts



## 1. Enhancement Scenario (Databases that are able to talk to each other)



# Evolution of Payment Mechanisms in Kenya



Cash  
Delivery  
through  
District  
Treasury

**Physical Cash**



Electronic Payment  
Through  
Bank/Mobile  
Payment Service



**Limited Purpose  
Instrument**



**Mainstream  
Financial Account**

Full  
transactional  
Bank Account

# District Treasury (manual) – not in use)



## Advantages

- Low payment cost
- Easy access by beneficiaries given their low literacy
- Easy for small number of beneficiaries (Pilot programmes)



# District Treasury Contd..



## • Disadvantages

- High transport cost for beneficiaries in some areas (Distance to pay-points)
- All payments must be done within a specific timeframe ( not flexible)
- Manual reconciliation (nightmare)
- Time consuming due to verification process
- Fiduciary risks - not easy to authenticate beneficiaries
- Not Flexible – does not allow for withdraw of different amounts
- Does not allow for saving
- Expensive to produce payrolls

# Postal Corporation of Kenya (Semi-manual)



## Advantages

- Low payment cost;
- Easy access by beneficiaries given their low literacy level;
- Wide coverage of PCK outlets – making access easy for beneficiaries;
- Easy for delivering to small number of beneficiaries (Pilot stages).

# PCK Contd..



## • Disadvantages

- High beneficiaries transport cost in some areas (Distance to pay-points)
- All payments must be done within a specific timeframe
- Fiduciary risks – difficult to authenticate beneficiaries
- Not Flexible – does not allow for withdraw of different amounts
- All payments must be done within a specific timeframe ( not flexible)
- Manual reconciliation (nightmare)
- Time consuming due to verification process
- Does not allow for saving
- Expensive to print payrolls (a lot of paper work)

# Smart Card (Equity Bank)

## • Advantages

- Has one of the safest identification process (two factor authentication);
- Payment made closer to recipients (use Agents);
- Faster transfer of cash to beneficiaries (cash electronically loaded into beneficiaries' smartcards);
- Use of local shop keepers as Payment Agents – allows cash to circulates developing the local economy;
- Can offer saving component to beneficiaries;
- Flexibility in collecting payment – longer payment period;
- A paperless payment system.

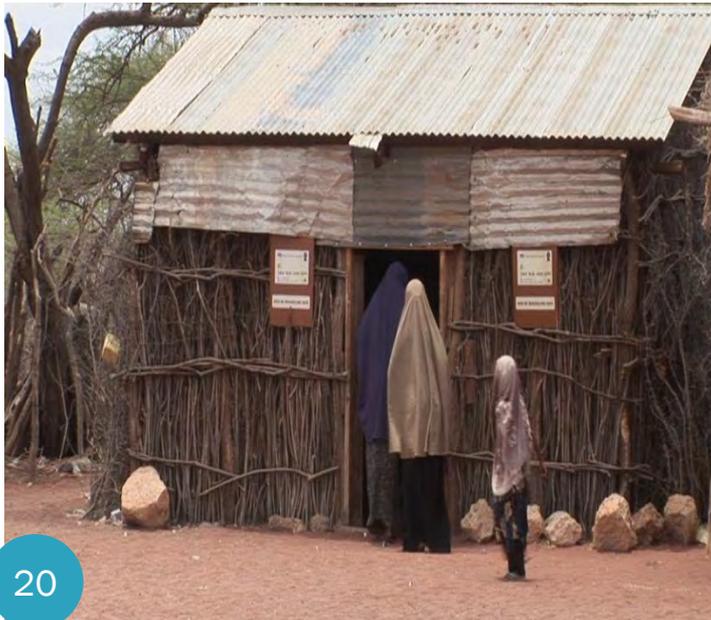


# Smart Card Contd..



## Disadvantages

- Poor delivery due to poor infrastructural network in remote places
- Not very friendly to the beneficiaries with low literacy levels
- Technological skills – requires training for the implementing staff
- Effected by poor civil registration – lack of national identity cards by some beneficiaries hinder delivery
- Card replacement process for updated cases is long (pictures & bios capture)
- Liquidity and float challenges



# Cellphone Network (M-Pesa) – to be piloted

## Advantages

- Secrecy provided by the M-Pesa mechanism (since only the beneficiary knows when the transfer is to be done);
- Flexibility of withdrawing – beneficiaries have a choice of when & how much;
- Instant transfer of funds to beneficiaries;
- Offer beneficiaries access to communication services and mobile banking services;
- Paperless payment system.



# Cellphone Network Contd..

## Disadvantages

- Difficult to use for old and illiterate beneficiaries (use of Cellphones, keeping Sim PIN a secret);
- Expensive to start due to cost of cell phones;
- Poor network coverage in some areas;
- Liquidity of agents especially in remote areas;
- High cost of delivery.



# General challenges with delivery systems

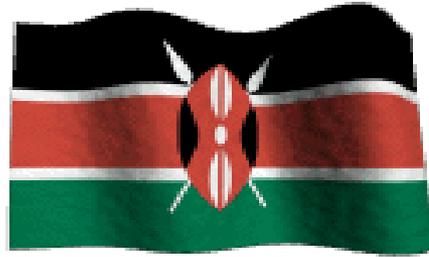
- Payments mechanism must be accurate, transparent and predictable. Challenges we experience include;
  - Poor civil registration (lack of national ID cards) – identification of beneficiaries becomes a challenge
  - Infrastructure - remote, insecure, low settlement areas and technology failure (Biometric smart cards);
  - Illiteracy and age of some beneficiaries - hampering use of technology
  - Travel and time costs to the pay point for beneficiaries can effect impact negatively;
  - Limited institutional capacity of some payment service providers - reconciliation challenges
  - Irregular and unpredictable payments due to delays in government processes.

# Lessons Learnt

- It is critical to adopt good delivery mechanisms – especially the use of new technologies (e.g. electronic payment system) for effective & efficient delivery;
- Use of multiple delivery mechanisms is importance given the regional infrastructural disparities;
- Programs must endeavor to have well managed Information Systems (MIS) that can be integrated with the payment mechanism to ensure effective delivery;
- Good governance is critical for successful implementation of any programme;

# Next steps for Kenya

- Plans are under way to move all delivery of Cash Transfers to electronic payments platform which will be more secure, efficient and reliable (with emphasis on two factor authentication).



THANK YOU



Arab Republic of Egypt  
Ministry of State for  
Administrative Development

SOCIAL PROTECTION AND LABOR  
**SOUTH 2014**  
LEARNING FORUM

South-South Learning Forum 2014:  
Designing and Delivering Social Protection & Labor Systems

## Family Card System in Egypt Subsidy System in Egypt



March 17- 21, 2014  
Rio de Janeiro, Brazil

Magdy Elhennawy, Ph.D.  
Family Card Project G. M.  
Ministry of State for  
Administrative Developments  
**Egypt.**

egypt



# Subsidy System in Egypt

## Initial Context

**The Egyptian government provides a set of services to deserved people,**

such as:

- Ration commodities.
- Social pension
- LPG
- Supported bread
- ...

**It costs much, according to 2012-2013 Budget**

	<b>EGP/bn</b>	<b>U.S \$/bn</b>
• Bread	16.1	2.385
• House commodities	10.5	1.5
• Gas Cylinders	18.0	2.67
• Fuel (Gasoline)	14.0	2.07
• Fuel(Diesel)	36.0	5.33
• Social Pensions	2.5	0.37



# Subsidy System in Egypt

## Initial Context

**On the other hand, such services pain from a set difficulties such as :**

- About 85% of the Egyptian population delivers the subsidy, which is not logic and too much.
- A set of weak fragmented cash transfer programs not benefited well as if it was one strong program.
- No sure that support services are delivered to deserved ones.
- No dynamic rules and mechanisms to target the deserved people.
- Other weaknesses exist.

# Subsidy System in Egypt

## Egyptian Government Vision

The Egyptian government has overcome such difficulties by:

**Building a system that manages the subsidies in such a way that:**

- It employs a reliable tool to deliver such services to citizen, in our case it is the “smart card”.
- Be able to deliver the services with different rules (**according to # of family members,...**) and for different nature (**family– based, individual –base,..**).
- Supported by reliable family data base identified by the national number.
- The database contains targeting information that characterizes the family classification.
- This database is dynamic enough, such that it reflects the changes timely, through a continual updates from the sources of such updates.
- It is not just an application for service delivery, but a complete system that manage all services from a one information pool, with the following basics:
  - **One system to deliver all support services, subsidy, pension,...**
  - **Supported by a dynamic national unified registry.**
  - **This unified registry is linked to its sources for continual updating.**



# Subsidy System in Egypt

## Subsidy Vision, Strategies, Policies, and Objectives



# Subsidy System in Egypt

## Vision:

**Building a system with the right technical infrastructure delivers, that:  
Delivers subsidies to the deserved beneficiaries by means of smart tool (smart card),**

**Allows different services with different rules and different natures,  
Supported by a unified national registry,**

**Updated continually to reflect the recent changes to the status of the citizens,**

**With the gradual implementation of new services using the same tool**



# Subsidy System in Egypt

## Strategies:

**Allow one entity to manage the delivery of all support services:**  
Enable evaluation to delivered services to the one family.  
Allow integration between all delivered services.

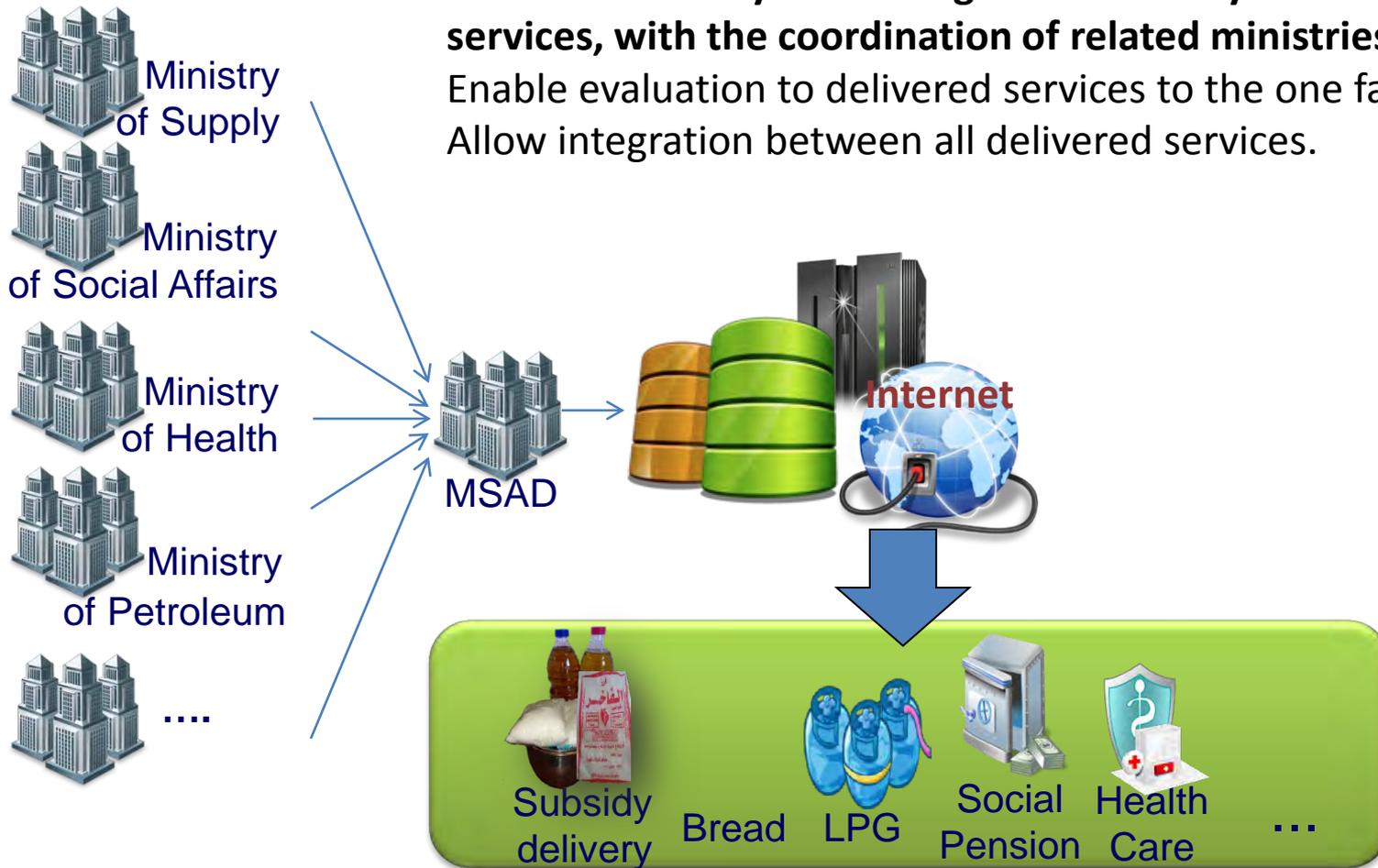
**Building a technical system architecture for an expandable, customizable, and secured subsidy system:**  
The base for all, securely delivered services to beneficiaries.  
Allow good targeting.

**The foundation of a family database interfaced with national dbs:**  
Guaranteeing continual and periodical updates.  
Allow good targeting.



# Subsidy System in Egypt

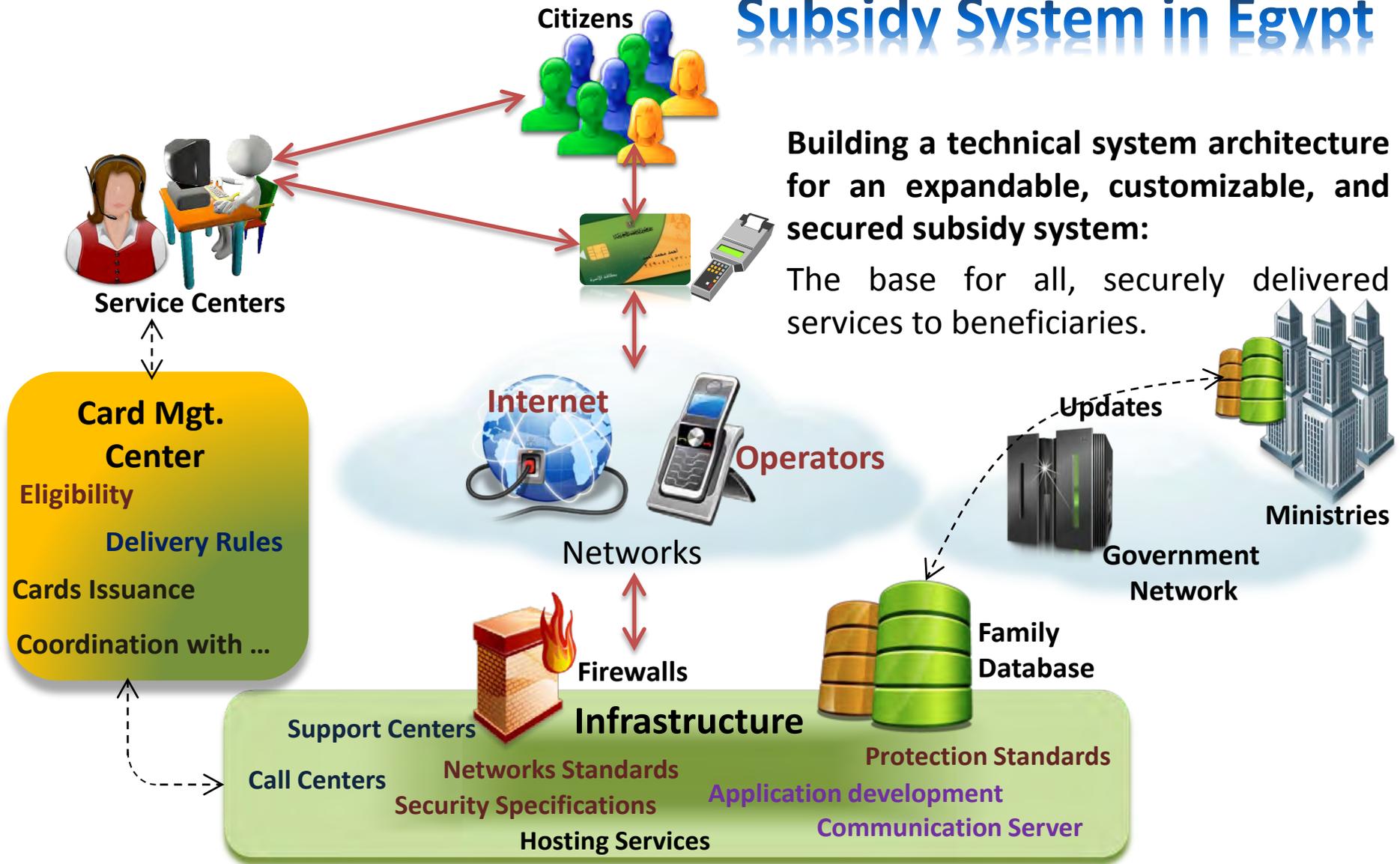
**Allow one entity to manage the delivery of all support services, with the coordination of related ministries:**  
Enable evaluation to delivered services to the one family.  
Allow integration between all delivered services.



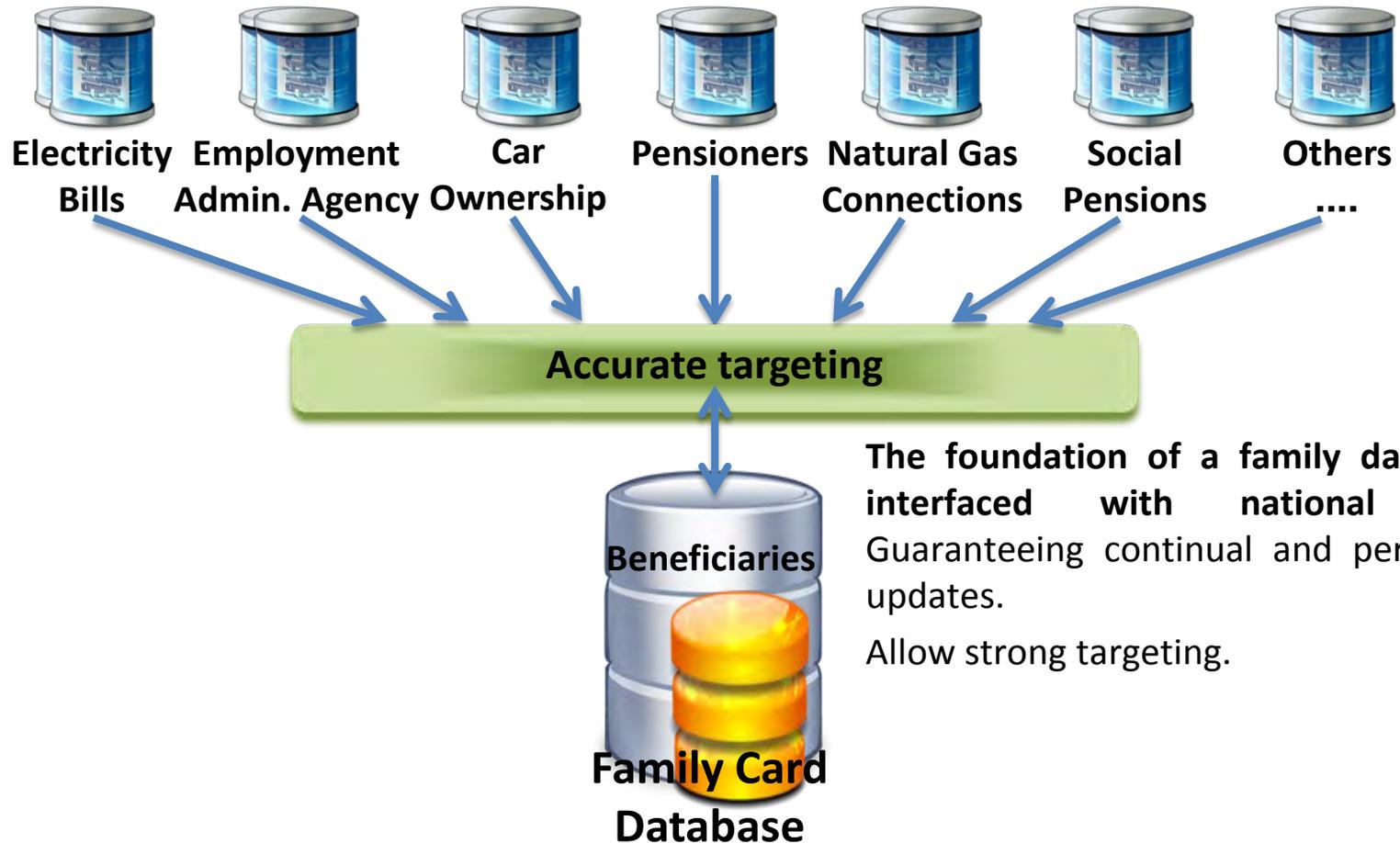
# Subsidy System in Egypt

Building a technical system architecture for an expandable, customizable, and secured subsidy system:

The base for all, securely delivered services to beneficiaries.



# Subsidy System in Egypt



# Subsidy System in Egypt

## Policies:

Participation of the private sector in the implementation

No extra cost to be paid by system participants

Only one card delivers several services

More than one contractors to prevent monopoly

Big projects starts with pilot

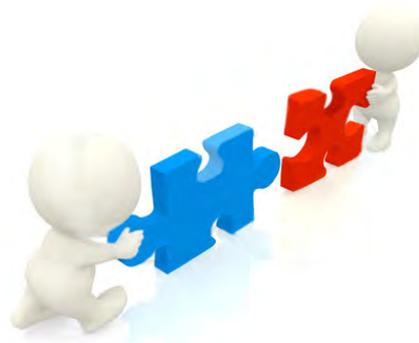
Start with one service, others can be added gradually.



# Subsidy System in Egypt

## Family Card Objectives

Building a subsidy system that provide all support services,  
Supported by an up-to-date and accurate database,  
Guaranteeing the delivery of services to deserved families,  
Applying strong targeting policy,  
Help decision maker for future planning and better forecasting.



# Subsidy System in Egypt

## Subsidy System Components

- System technical architecture
- Family database, **The Unified Registry**
- Service delivery system (applications...)
- Service delivery tool (smart cards ...)
- Family database updating working flow
- Call center
- Service center
- Support center
- System monitoring services



# Subsidy System in Egypt

## Basic Design Considerations

### Technical:

- Multi-application smart card technology
- Call centers, support centers, service centers
- Protection and security features
- Appropriate workflows

### Contractual:

- Apply win-win policy with private sector
- Avoid monopoly, by contracting with more than one contractor
- Unify system specs for all contractors

### Expandability:

- Delivery of service from any grocer
- Availability of switching bet. Commodity and cash
- Allow electronic wallet



# Subsidy System in Egypt

## Unified National Registry

It is the heart of the system,

### Basic characteristics:

- Registry of all families with classification: **that allow immediate provision of any current/new service.**
- Linked with required national databases for immediate updates: **by applying G2G, since it is inked via NID**
- Apply targeting criteria to keep registry, always , contains deserves people for individual services: **Built by economic justices unit**



# Subsidy System in Egypt

## Databases required for the implementation of the targeting process

S	Database	The owner of the data	The number of records
1	Electricity consumption	Ministry of Electricity	22 million
2	Natural gas consumption	Ministry of Petroleum	5.4 million
3	Gov. pension	Ministry of Insurance	20 million
4	Insurance Fund	Ministry of Insurance	2.2 million
5	pension beneficiary	Ministry of Insurance	8 million
6	social pension	Ministry of Insurance	1.5 million
7	Vulnerable families	Ministry of Insurance	
8	School students	Ministry of Education	
9	University students	Ministry of Higher Education	
10	Poverty map	CAPMAS	
11	Real estate database	Customs	

# Subsidy System in Egypt

## Subsidy Gradual Implementation

in 2006 one governorate, Suez.

In 2007 in other 7 governorates.

In 2008 in other 8 governorates.

In 2009 other 4 governorates.

In 2010 remaining 9 governorates.



# Subsidy System in Egypt

## Current Implementation Status

**Food Subsidy**, Full implementation:

**27 govts, >17.6 MC, >26,000 Grocers, ..**

**Social Pensions**, Implemented in two governorates

**Bread**, A successful pilot was implemented in one governorate

**LPG**, Already contracted

**Health**, A successful pilot was implemented in one governorate



# Subsidy System in Egypt

## Important Results

### No of families delivering subsidies:

In 2006, it was.....78%.

In 2007 and after, It was .... 96%.

### In the beginning of the execution:

Butter, delivery was ..... 0.14%

Oil , delivery was ..... 91.7%

Lentil , delivery was ..... 13%

Sugar , delivery was ... 91.5%

Beans , delivery was ..... 7.9%

Tea , delivery was ..... 53.9%

Noodles , delivery was ... 19.1%

### Critical Decision

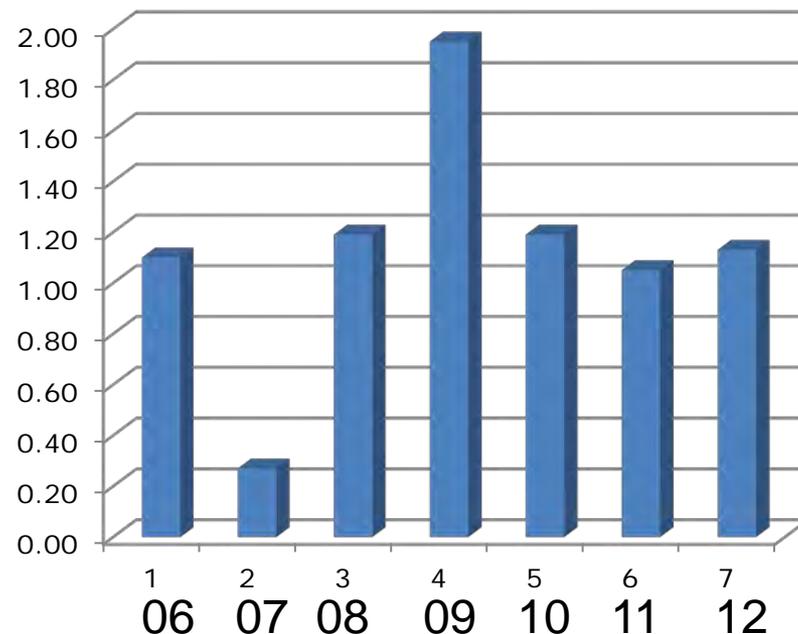




# Subsidy System in Egypt

## Important Figures Damaged Cards

In 2006, 931 from 85K	1.10%
In 2007, 2.7K from 12M	0.27%
In 2008, 23.7K from 14M	1.19%
In 2009, 87.9K from 4.5M	1.95%
In 2010, 142.7K from 12M	1.19%
In 2011, 147K from 14M	1.05%
In 2012, 184K from 16.3M	1.13%



# Subsidy System in Egypt

## Previous Vs Current



# Subsidy System in Egypt

## Previous Vs Current



# Subsidy System in Egypt

## Subsidy System Challenges

### Before implementation

- Designing an expandable, safe and self-sustaining system
- Building system databases
- Building confidence between citizens and government

### During implementation

- Technical issues (System continuity, interoperability, Security, safety, ...etc.)
- Culture of stakeholders' system (Grocer, Supply office, ...etc.)
- Upgrading the technological level of the stakeholders' system

### After rolling out

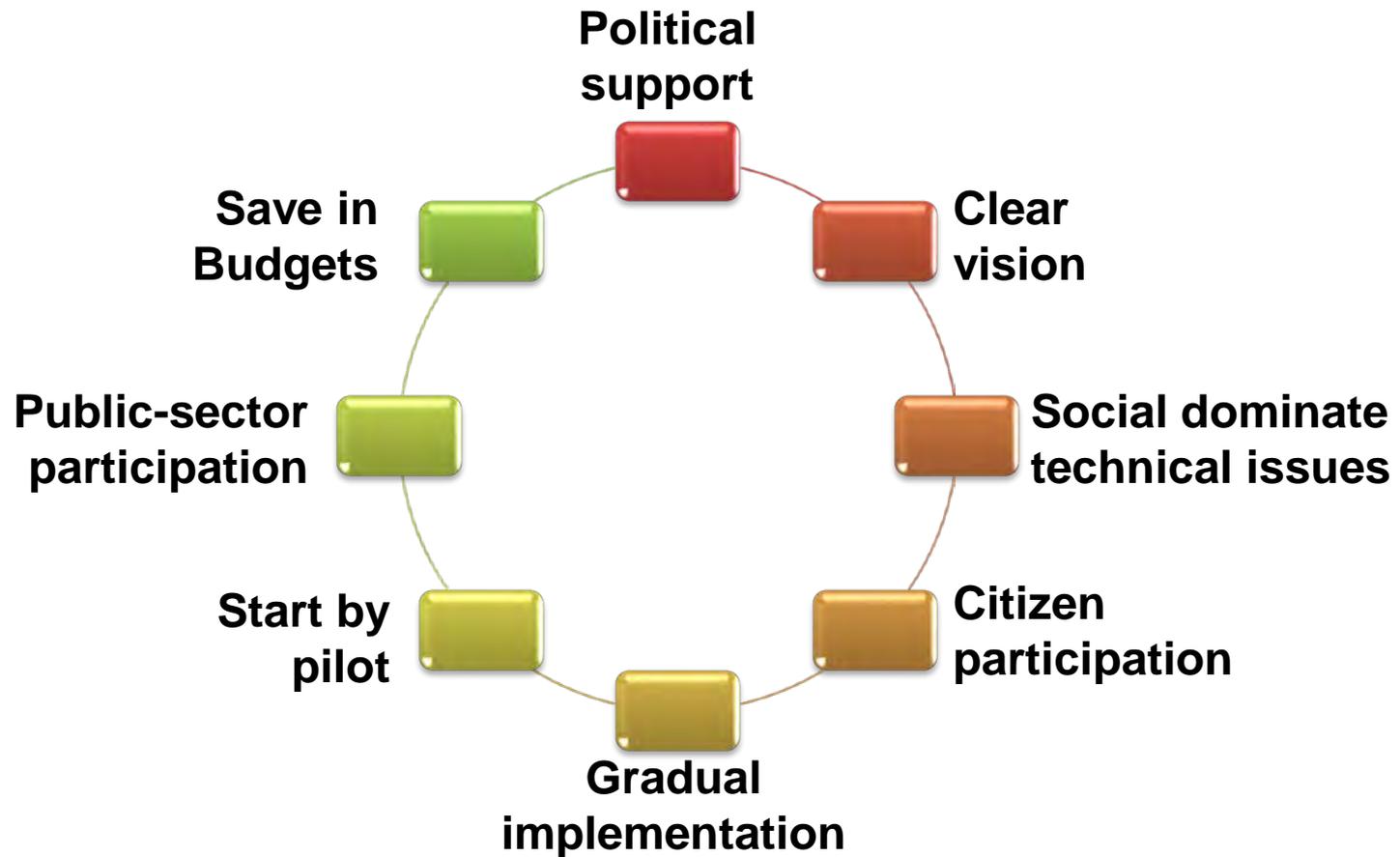
- System sustainability
- System interoperability

**Current Issue !!! The completion of the Unified National Registry**



# Subsidy System in Egypt

## Learned Lesson



# Subsidy System in Egypt

## System Operation – Media view

9'±æ "2; -; -4; 'h"Å \$,



# Subsidy System in Egypt

## System Operation – Media view

2; -4-45"ôNĥ"€ `Üĳ

البطاقة الذكية «الحل السحري»  
نقضى على التلاعب وتكثف على المواطنين  
نصر فؤاد: وقضت للدولة 22٪ من  
د. درويش مصطفى: تقضى على  
د. أحمد عبدالظاهر: المواطن سيؤ

مباركات فليحة وصول الدعم إلى مستفيديه تمثل أزمة حقيقية سواء بالنسبة للمواطنين الذين لا يستطيعون الحصول على الدعم أو بالنسبة للمستفيدين الذين لا يستطيعون الحصول على الدعم في الوقت المناسب. وقد كانت الحكومة قد وضعت خطة واضحة للتعامل مع هذه المشكلة من خلال إنشاء البطاقة الذكية التي ستحل هذه المشكلة من خلال توفير الدعم للمواطنين المستفيدين من خلال البطاقة الذكية.

مباركات فليحة وصول الدعم إلى مستفيديه تمثل أزمة حقيقية سواء بالنسبة للمواطنين الذين لا يستطيعون الحصول على الدعم أو بالنسبة للمستفيدين الذين لا يستطيعون الحصول على الدعم في الوقت المناسب. وقد كانت الحكومة قد وضعت خطة واضحة للتعامل مع هذه المشكلة من خلال إنشاء البطاقة الذكية التي ستحل هذه المشكلة من خلال توفير الدعم للمواطنين المستفيدين من خلال البطاقة الذكية.

# Thanks for your attention

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Family Card Project G. M.  
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egypt



# Bangladesh Case Study

## Building Blocks of Electronic Payment **Innovations**

PRESENTED BY:

**Arastoo Khan**, Additional Secretary, Ministry of Finance, Government of Bangladesh

March 2014

# Introduction

*“Emergence takes place when the whole is something over and above its parts and not just the sum of them all.” - Aristotle*

- Value propositions for electronic safety net payments exist for all stakeholders:
  - For government: cost savings; increased transparency; higher accountability
  - For payment providers: strong business case at scale; opportunity to test innovations at scale
  - For safety net recipients: convenience; cost savings; reduced leakage
  
- The building blocks of payment innovations are already falling into place:
  - A national identification (NID) system already exists
  - A national targeting system based on Proxy Means Tests is currently under preparation
  - Mobile Financial Services (MFS) are experiencing phenomenal growth
  - Card-based payment mechanisms have already been tested at scale
  - Biometric solutions are fast becoming cost-effective tools at scale
  
- Innovations in electronic payments are at the cusp of emergence in Bangladesh



# Building Block 1: NID System

- What already exists:
  - A national ID database was developed by the Elections Commission following the 2008 national election. This is currently the de facto NID system in Bangladesh
  - This NID system covers an adult population of about 100 million
  - The system includes de-duplicated biometrics of adult citizens and is being used for identity verification for selected government services (e.g. tax services)
- What is being built to further expand the system:
  - Augmentation of the biometric data
  - Improvement in biometric technology to improve speed of de-duplication
  - Use of smart cards to allow for service delivery linked to NID
  - Expansion of the scope of the NID to cover all citizens
- Once completed, the new NID system will cover over 150 million Bangladeshis of all ages.

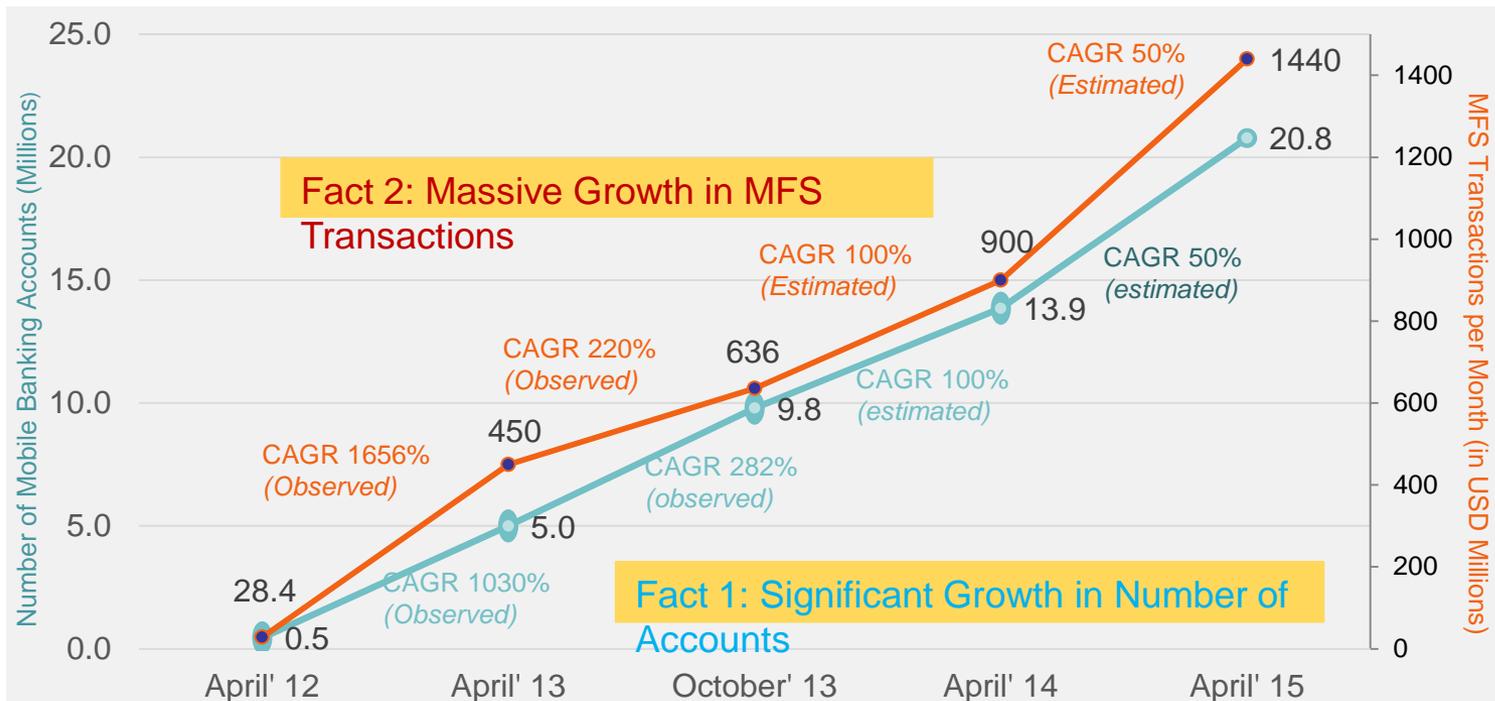
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার Government of The Peoples' Republic of Bangladesh NATIONAL ID CARD/ জাতীয় পরিচয় পত্র	
	নাম: _____ Name: _____ পিতা: _____ মাতা: _____ Date of Birth: <b>February 02, 1944</b> ID NO: <b>2695047100023</b>
এই কার্ডটি গণপ্রজাতন্ত্রী বাংলাদেশ সরকারের সম্পত্তি। এই কার্ডটি ব্যবহারকারী ব্যক্তি অন্য কেবলমাত্র পাওয়া গেলে নিম্নলিখিত শ্রেণী অধিনে জমা দেয়ার জন্য অনুরোধ করা হলো।	
ঠিকানা: ৩১/এ পশ্চিম ধানমন্ডি, ১১/এ, ওয়ার্ড নং-৪৭, ধানমন্ডি, ঢাকা সিটি কর্পোরেশন, মোহাম্মদপুর, ঢাকা	
বন্ডের গ্রুপ: B+	
	
প্রদানকারীর কর্তৃপক্ষের স্বাক্ষর      প্রদানের তারিখ: February 06, 2008	
	

# Building Block 2: Targeting System

- What is being built: Bangladesh Poverty Database (BPD)
  - The BPD will be housed in the Statistics and Informatics Division – country's main data repository
  - Both individual and household level records will be stored, including household level poverty scores
  - The BPD will be linked with the NID system
  - All Ministries will have access to the BPD for safety net beneficiary identification and selection
- Once completed, the BPD will contain information on over 35 million households along with the biometric data of all household members
- The BPD will be the common platform for: (i) determining eligibility; (ii) verifying identity; and (iii) creating a single safety net registry.

# Building Block 3: MFS Growth

- 25+ banks have received MFS licenses; over a dozen are already live
- Over 10 million people transacting nearly 25 million dollars **per day**
- A large part of the transactions constitutes urban-to-rural funds transfers

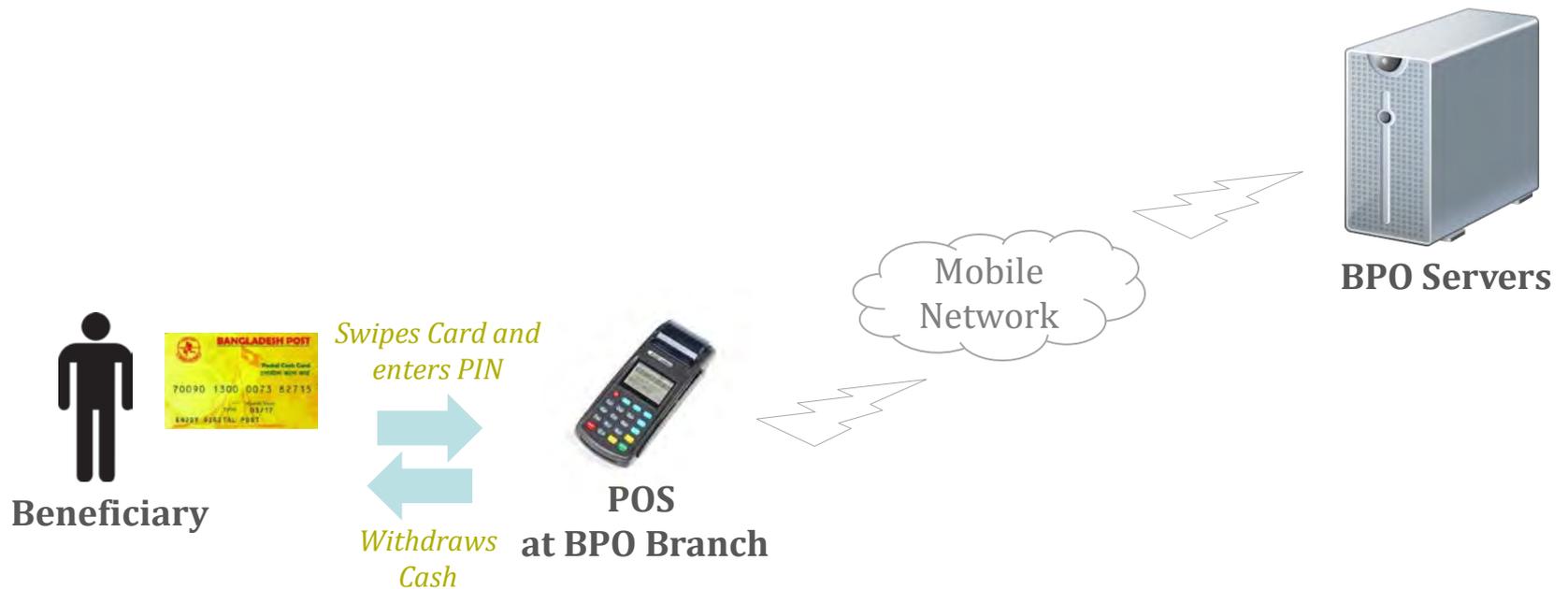


Source: pi Strategy Consulting analysis



# Building Block 4: Card-based Payments

- Bangladesh Post Office (BPO) has been offering card-based funds transfer services for nearly four years
- Its network includes over 10,000 branches, many of those are in remote areas
- Local BPO offices enjoy a high level of trust among people



# Building Block 5: Biometric Solutions

- The biometric NID system was a by-product of a credible electronic voter list used for the 2008 General Elections.
- However, its scope has largely been limited to registration, and not so much for validation or authentication.
- The enhanced NID system is expected to include a series of detailed biometric information, from finger prints to iris scans, and linked to smart card technology.
- Biometric solutions using BPO cards are being tested in specific government social safety net programs, EGPP, CCT.





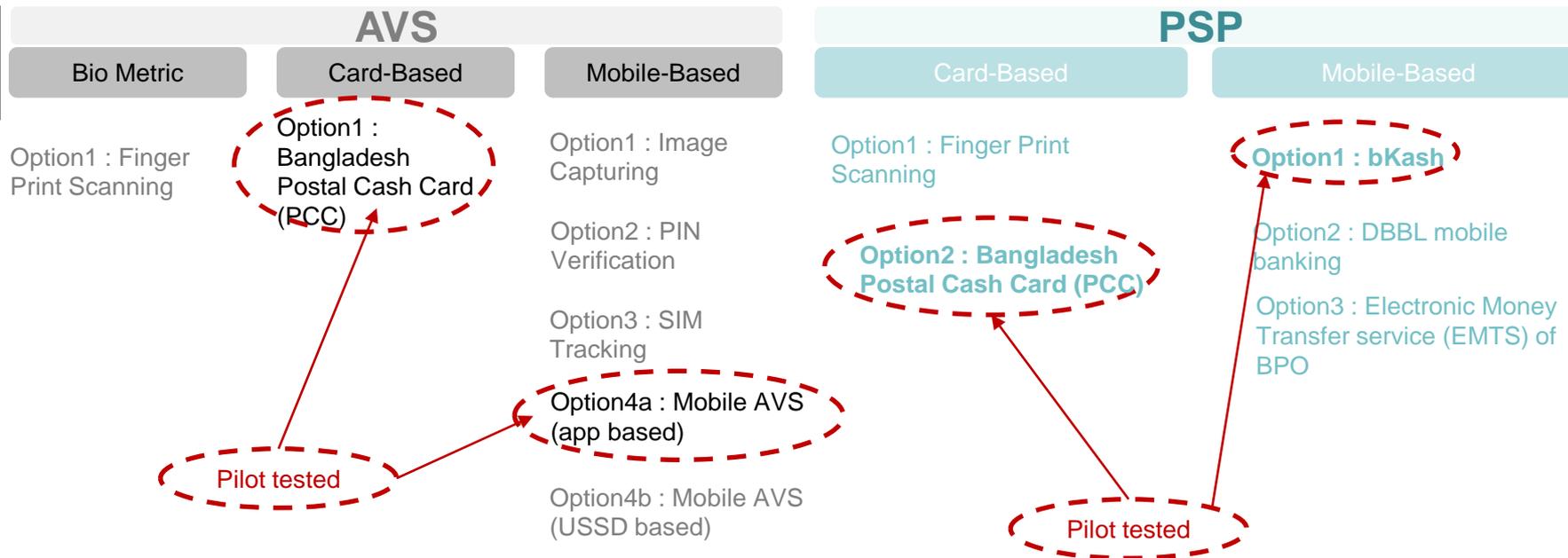
# A MINI CASE STUDY: EGPP G2P INITIATIVE

# Program Brief

- The Employment Generation Program for the Poorest (**EGPP**) public works program was introduced by the Government of Bangladesh in 2008 to cushion the negative effects of agricultural lean seasons (twice a year) on the poor.
- EGPP annual budget is around **USD180 million** and more than **700,000** beneficiaries are provided with 80 days of employment.
- Certain challenges related to payments are faced by EGPP:
  - Irregularities in muster roll at the worksite, the payment of ghost workers or payments made to beneficiaries without work having been performed
  - Weekly wage payments via beneficiary individual bank accounts while reduced leakage, posed high transaction costs due to the distance to Bank branches and the time required for processing payments.

# Scope of Intervention

- Introduced an Attendance Verification System (AVS) to authenticate the beneficiary and to generate an accurate attendance record.
- Introduced a Payment Service Provisioning (PSP) system to reduce manual processing in the system and to lower current malpractices in the payment mechanism.
- The intervention was jointly designed by Government of Bangladesh, the World Bank, CGAP, and pi Strategy Consulting. The selected option provided the best trade-off between cost and feasibility



# Key Findings

- Time and cost savings (seen during pilot evaluations)
  - The card-based solution saved on average 7.5 hours per week for the supervisor during attendance tracking
  - The mobile-based solution saved 6 hours per week and \$0.70 in travel costs for beneficiaries during paydays
- Unexpected (but welcome) value created
  - Many of the beneficiaries viewed the plastic card in the card-based pilot as an ID card and appreciated this greatly, since many did not have any form of government ID before
- Change management requires a lot of effort
  - Especially for programs that deal with local government bodies and less-educated beneficiaries, change management activities need to be well thought out and allowed a lot of time to learn from repeat behavior
- Proper value articulation overcomes intrinsic hurdles
  - Once people understand how a new solution helps them directly (reduces processing time, cuts costs, etc.), they will put in the effort to learn the new solution more proactively



# Way Forward

- Steady GDP growth over the last decade allowed Bangladesh to consistently increase social protection expenditures since 2008 (2% of GDP; \$3 billion).
- Once the building blocks of an **innovative payment system** are fully in place it will assist with improved targeting of the poor, transparent registration process, accountable attendance/beneficiary tracking, and convenient payment mechanisms. The quality of large SP expenditures will vastly improve.
- The benefit will not stop at social safety net programs alone - the Government of Bangladesh will be able to offer other services seamlessly and cost-effectively to citizens.
- Bangladesh is investing both appropriate time and resources in laying the right foundation for building such a system, which is a fundamental step in its journey towards a truly **Digital Bangladesh**.

THANK YOU

*For more information, please contact:*  
**Arastoo Khan**

