

#### Mobile4Disaster Management- Pakistan Experience

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#### **Presentation Outline**

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Mobile for Disaster Management (M4DM)

Model

Basis for effective Mobile4DM (Biometric Verification System- A case of Pakistan)

Mobile for Disaster Management- Successful Cases from Pakistan  $\bigcirc$ 3

## 1. Mobile for Disaster Management Model

"Disaster means a catastrophe, mishap, calamity or grave occurrence affecting any area from natural and manmade causes, or by accident or negligence, which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment and is of such a nature and magnitude as to be beyond the capacity of the community of the affected areas











## Need for Disaster Relief & Early Warning



- Disaster results in loss of human lives & displacement of millions of people
- Communication system can play a great role to provide early warning and disaster relief
- Early warning is a key element for disaster prevention and reducing loss of human lives from view point of victims
- Disaster relief can make victims to capture the correct information on rescue parties, relief supplies, damage situation and safe confirmation. And also it can provide their friends and relatives with the situation of individual victim

## Categories of Disaster Relief & Early Warning

- 1. Early Warning (To warn of a coming potential disaster or a occurred disaster)
- 2. Disaster Relief for general public (To notify latest support situation after disaster)
- 3. Disaster Relief for individual (To notify damage situation from victims to their relatives, friends, acquaintances, coworkers and boss)
- 4. Disaster Relief by guidance (To guide each victim a route to evacuation shelters and to his home)









## Traditional System for Disaster Relief & Early Warning

- > TV broadcasting-
- Radio broadcasting (FM &AM)
- Priority use of fixed telephone for local government, evacuation shelters and other public entities
- Disaster Prevention Administrative Radio System
- New trend is systemvia mobile



#### Mobile for Disaster Management (M4DM)-Pakistan Experience **BVS-Key** for authenticity and effectiveness Post Impact Mobile Pre-Impact Scenario-(Early (Disbursement Warning of relief/ Disaster System through SMS) funds) Management **Impact** Phase-(Victims Mapping and Location Finding)

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# 2. Basis for effective Mobile4DM (Biometric Verification System- A case of Pakistan

#### **Evolution of SIM Verification in Pakistan**



Lightly Regulated Era

- \* Sale of Active SIMs
- \* Improper Documentation
- \* No Restriction on Sale Channels
  - \* Manual Verification

Before 2009

789 Era

**Identity Theft** 

**BVS** Era

- \* Inactive SIMs
- \* Customer Service Agreement Form (CSAF)
- \* Activation after Online Verification
- \* Secret Questions from NADRA

- \* Inactive SIMs
- \* Electronic CSAF
  - \* Biometric Verification
  - \* Unique ID of Sales Channel
  - \* Traceability / Accountability

2009-2014

2014 Onwards

#### **BVS- Phased Deployment**

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#### **Nov'13**

• Customer Service Centers (CSCs) & Franchisees - Karachi

#### **Dec'13**

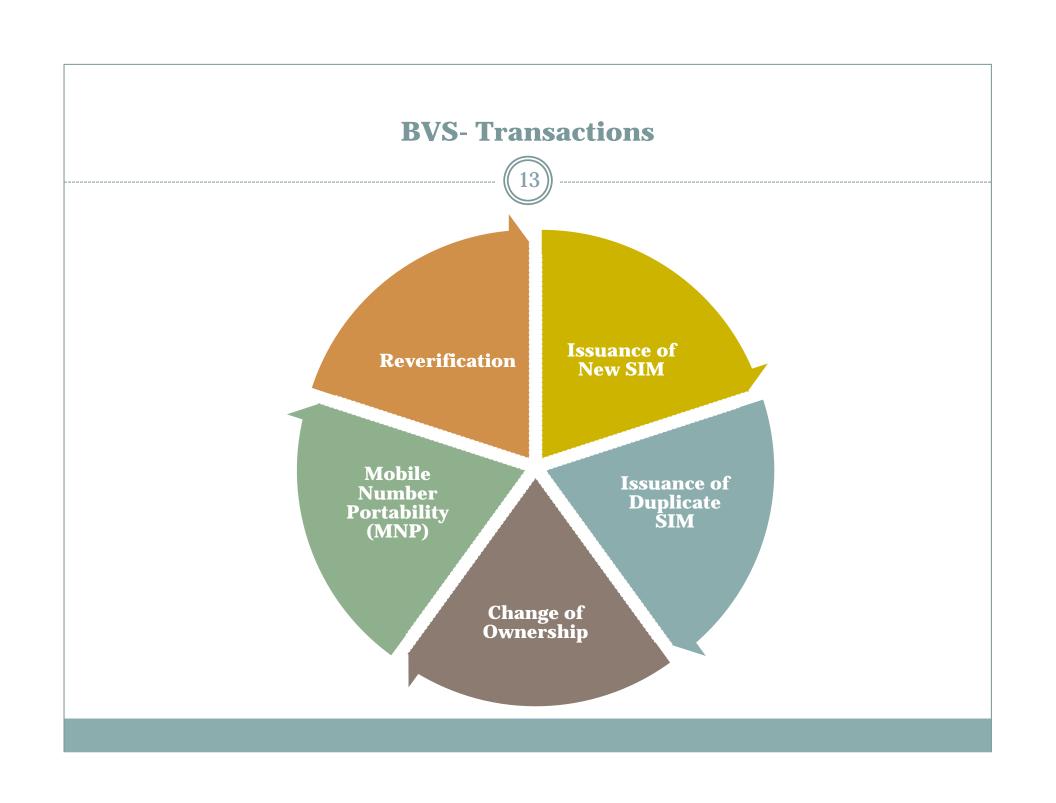
Customer Service Centers (CSCs) & Franchisees –
 Rest of Pakistan

#### **Mar'14**

Registered Retailers – Karachi & Balochistan

#### **Jul'14**

Registered Retailers – Rest of Pakistan



#### **Process of BVS**



**Inputs** 

Computeriz ed Identity Card # Finger
Impressions
(Right Thumb,
Right Index,
Left Thumb,
Left Index)

Output

Verification Result (Success / Failure)

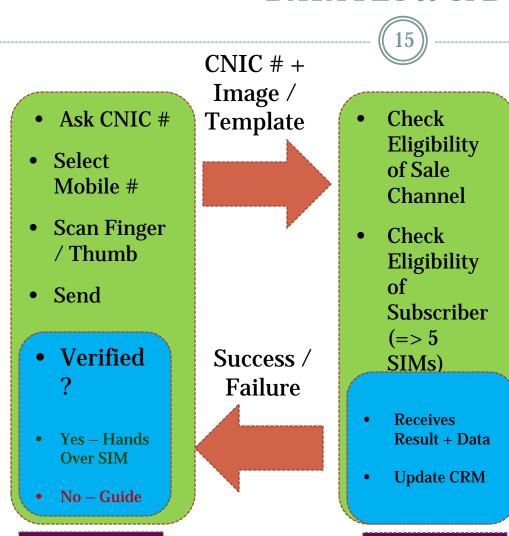
Subscribers'
Data (Name,
Father's Name,
Address)

Online Connectivity

DSL + Wimax Edge/GPRS + Mobile Broadband (3G/4G)

#### **DATA FLOW of BVS**

**Mobile Operator** 



Sale Channel

CNIC # + Image / Template

Success/ Failure + Data (if reqd.)

- CNIC Valid Or Not
- Biometric Matches Or Not
- Responds
   Success Or
   Failure +
   Data (If
   reqd.)
- Name
- Father's Name
- Address

**NADRA** 

#### Reverification Exercise -National Action Plan



#### Target

- Phase 1- 45 Days —Covering Grey List (3 or More SIMs Per CNIC Per CMO)
  - Commenced 12 Jan'15
  - Deadline 26 Feb'15
- Phase 2 46 Days Covering White List (1 or 2 SIMs Per CNIC Per CMO)
  - Commenced 27 Feb'15
  - Deadline **12 Apr'15**

#### **Modalities**

- Mobilizing CMOs
  - Device Count 12 Jan ~70K
  - Acquired Further ~ 25K
- SOP / Regulations
- Extensive Monitoring
  - 1,851 Sale Channels
  - 80 + Cities / Towns
- Awareness Campaign
  - SMS
  - Print Media
  - TV / Radio
  - Digital Media

#### Reverification Exercise -National Action Plan



#### Steps

- Barring Sale on Retailers
- Restricting Data at Franchisees
- Door to Door / Kiosk Activities
- Separate Arrangements for Ladies / Old Age
- Alternate Process
  - Overseas Pakistanis
  - Old Age / Disabled
- Blocked SIMs
  - Unblocked through BVS
  - Re-Cycling Period Enhanced to 1 Year

#### Results

Parameter	Active	Dormant
Verified	70 Million	21 Million
Blocked	22 Million	All

- Total BVS Verified SIMs (As of 12 Apr 2015)
  - 70M + 21M + 17M = 108 M
- Current Status (Since 13 Apr)
  - Daily Average ~287K
  - SIM Re-Verified / Unblocked
    - 2.3 Million

#### **Benefits of Biometric Verification System (BVS)**

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Authenticity of disaster relief/funds reaching the right person

A long way in supporting general law enforcement including street crimes , grey traffic and frauds/scams

An ideal vehicle to tackle terrorism where terrorist used unverified SIMS to detonate explosives

Provided a platform to ensure citizens' personal identity is not theft and misused

It would assist citizens in future to access personalized and secured public services

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## 3. Mobile4Disaster Management- Success Stories from Pakistan

#### Mobile4Disaster Management (Floods) - Model



Pre Impact Phase

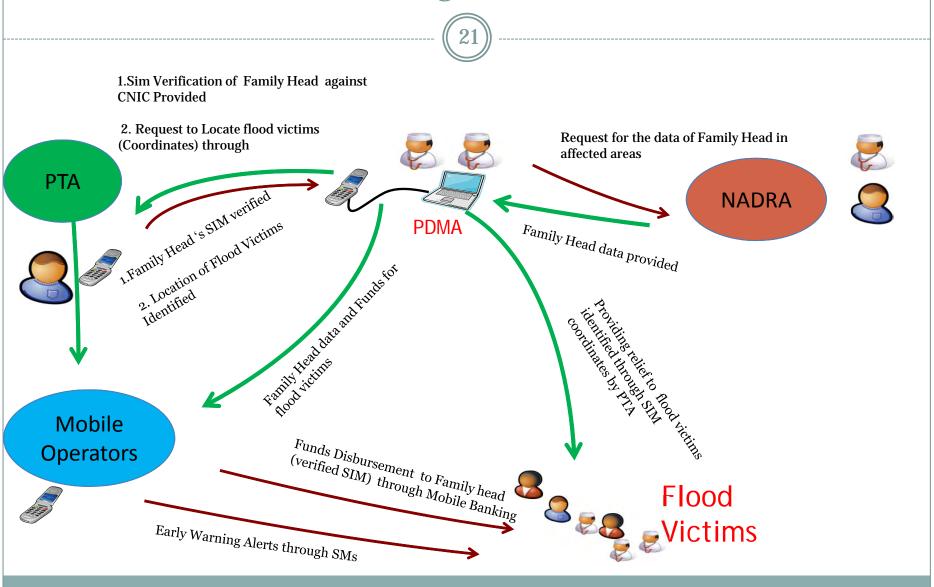
- Early Warning SMS Alerts to the potential victims of Flood
- PTA, NADRA, Mobile operator & PDMA worked together

Impact Phase • Locating displaced victims though SIM coordinates

Post Impact
Phase

- Disbursement of Funds to Family Head through Verified SIMS
- Mobile Operators assisted in disbursement of funds through mobile banking

#### Mobile4Disaster Management (Flood) - Model



IMPACTS AND RESULTS	

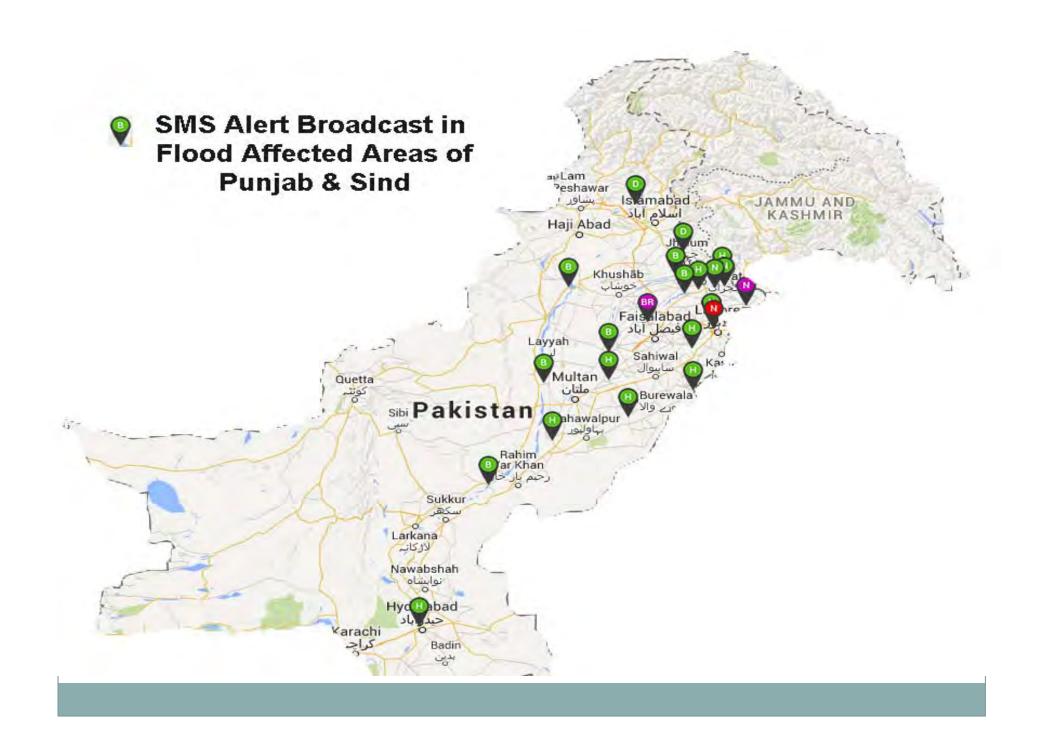
#### Broadcast SMS Alert in Punjab & Sindh for facilitation of Flood Affected Areas



- ➤ During Flood of 2014, PTA assisted Governments of the Punjab and Sindh in dissemination of Early Warning Alerts to residents of flood affected areas.
- ➤ CMOs broadcasted a total of 69 million messages at their own cost on the direction of PTA (65 million SMS were broadcast in Punjab and 4.5 million in Sindh).

#### **Statistics of SMS Broadcast 2014**

Province	City	Mobilink	Telenor	Ufone	Warid	Zong	Total
Punjab	16	19,708,774	12,512,712	4,739,184	1,443,388	26,899,176	65,303,234
Sindh	7	1,813,541	645,084	211,617	56,386	1,858,037	4,584,665
							69,887,899



#### Alerts Broadcast in Punjab during Flood – 2014 (Punjab Province)



S.N	City	Mobilink	Telenor	Ufone	Warid	Zong
1	Faisalabad	2,619,384	1,538,085	641,577	347,285	5,060,515
2	Sialkot	822,784	907,462	378,109	140,327	720,752
3	Gujranwala	2,133,681	885,614	369,006	208,675	3,983,245
4	Multan	5,738,024	1,446,758	665,224	225,776	7,453,772
5	Jehlum	185,970	489,701	204,042	24,502	184,830
6	Gujrat	587,472	440,686	183,619	116,646	1,138,753
7	Sheikhupura	751,526	2,613,643	1,089,018	45,000	397,096
8	Bahawalpur	1,729,252	666,265	210,736	30,296	1,623,208
9	Jhang	934,530	1,335,244	505,123	78,054	3,564,639
10	Muzaffargarh	2,167,398	1,152,198	220,083	25,803	1,078,840
11	Chiniot	92,144	163,638	68,599	22,520	389,315
12	Mandi Bahauddin	145,038	151,378	63,074	54,739	166,500
13	Narowal	271,780	114,960	47,900	5,011	118,928
14	Khanewal	1,188,709	513,010	53,868	86,386	653,766
15	Hafizabad	236,874	61,550	25,656	32,368	181,285
16	Wazirabad	104,208	32,520	13,550		183,732
	Total	19,708,774	12,512,712	4,739,184	1,443,388	26,899,176

## Alerts Broadcast in Punjab during Flood – 2014 (Sindh Province)



S.N	City	Mobilink	Telenor	Ufone	Warid	Zong
1	Kashmore	138,158	70,770	22,292	15,596	139,261
2	Larkana	264,918	195,238	81,874	6,256	381,802
3	Shikarpur	215,056	58,877	24,480	8,106	139,261
4	Sukkur	317,193	105,221	59,055	15,746	671,139
5	Ghotki	406,073	67,646	9,214	7,148	179,492
6	Khairpur	472,143	147,332	14,702	3,534	158,443
7	Jacobabad	-	-	-	-	188,639
	Total	1,813,541	645,084	211,617	56,386	1,858,037

#### Cash Disbursement for PDMA Punjab











#### FATA Disaster Management Authority, Internally Displaced Persons (Government of KPK)

**Card & CNIC Based Disbursement to over 60,000 IDP's - KPK (On-going)** 









#### Disbursement Solution for PDMA



Mobicash was assigned by Provincial Disaster Management Authority (PDMA) to distribute funds to flood affectees in Punjab

Disbursement to 22,000 flood victims (Rs.25,000 each) across 38 locations in Punjab

Mobicash disbursed PKR 550m in a span of 7 days

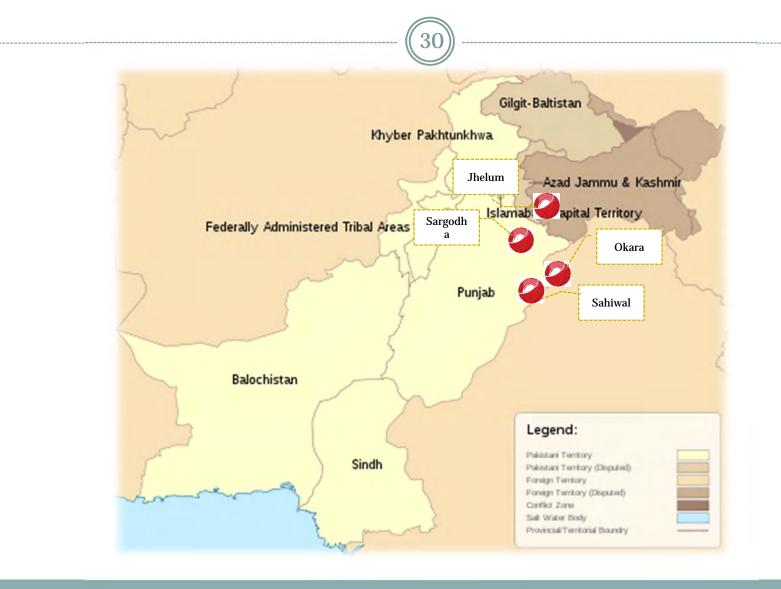
Utmost transparency was ensured in the process through a specially designed Biometric verification system

#### **PDMA Disbursement Process**





#### **PDMA Disbursement Locations**



#### PDMA On-Ground Activities

















#### **Payments to IDPs of North Waziristan**

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#### **Transparent & Efficient Funds Disbursement**



### Payment of cash subsistence allowance to Dislocated Persons of North Waziristan by Zong

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According to the official estimates, more than 1 million civilians were forced in June-July 2014 due to military operation to leave their homes in North Waziristan tribal agency of FATA and take refuge in many parts of Pakistan

The Government of Pakistan, through FDMA (FATA Disaster Management Authority), and the Government of Punjab, through PDMA (Provincial Disaster Management Authority) Punjab, selected Zong, in collaboration with Askari Bank Limited and Bank of Punjab, to pay cash subsistence allowance to these TDPs (temporarily displaced persons) through branchless banking

Zong offered the lowest price and best services to FDMA and PDMA-Punjab Zong was equal to task and delivered the project par excellence. Currently Zong is paying 6th tranche on behalf of FDMA.

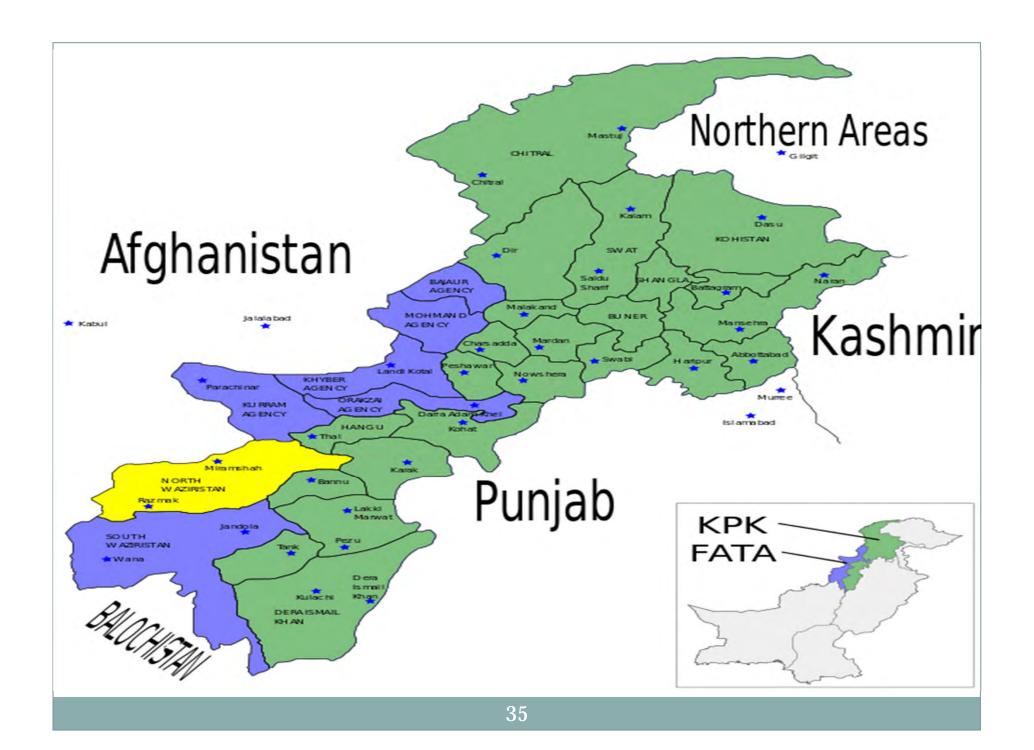
### Payment of cash subsistence allowance to Dislocated Persons of North Waziristan by Zong (CONT..)

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Zong also worked with UNHCR (United Nations High Commission for Refugees) to guide around 32,000 unverified families to be able to register themselves as DPs.

Zong's helpline 03112221333 was advertised in the newspapers to seek information about 8 centers that were established for the verification of these families.

Zong has so far provided free of cost SIMs to around 160,000 family heads of TDPs. Therefore the whole population of North Waziristan, as a community, is benefitting from Zong's GSM services.



#### **Highlights**

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Rs. 7.17 Billion

 Total funds disbursed in IDP Project

528,276

 Transactions completed in IDP Project

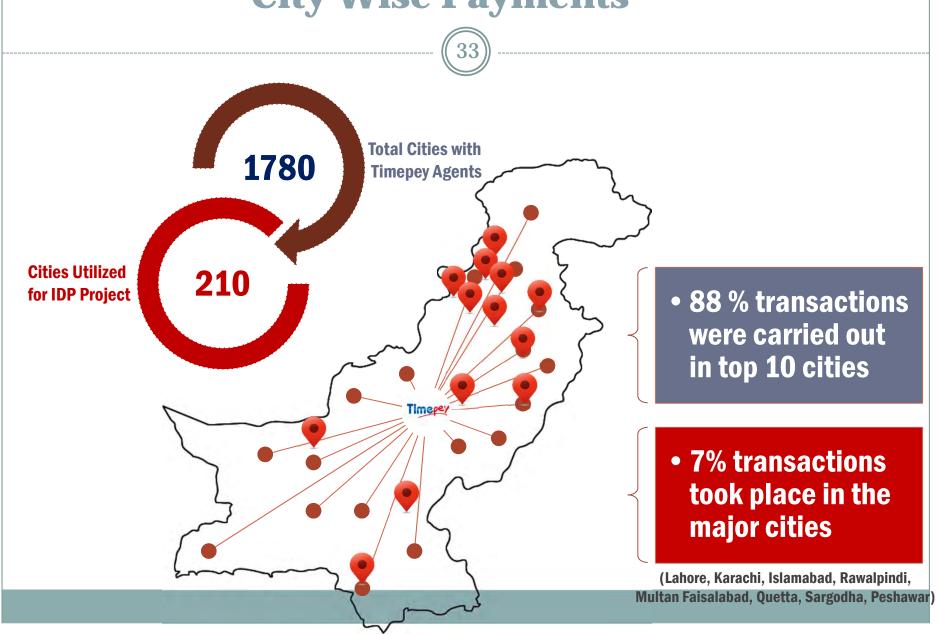
160K

Free SIMs provided to the IDPs

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Payment Tranches Disbursed to date

#### **City Wise Payments**



### **Key initiatives taken to cater maximum number of IDPs**

Bulk voice messages are being sent in PUSHTO language multiple times in a day. This helps in guiding the DPs about the cash disbursement process.

In addition to Bannu cash disbursements are being facilitated through out the 20k Timepey shops across the country. In addition to retailors Zong franchisees and customer services centers are also engaged in cash disbursements.

Through our relationship with Banks we have requested three main Bank (HBL, UBL and ABL) Branches in Bannu to arrange cash in excess of Rs. 100 million on daily basis.

To service maximum number of DPs we are carrying out disbursements 7 days a week.

The timings for disbursements have been increased. Disbursements start as early as 7:00am and go on till 2:30-3:00 am, which makes it almost 20hours shift for a day.

#### **Channel Update (Cash out Points)**

- Started with just 6 counters within the camp
- Only Franchise in Bannu was doing disbursement in addition to the counter within the camp.
- Extended to more than 20 counters within the camp
- More than 30 cash out points outside the camp within Bannu

In total more than 50 cash out points in Bannu









## Misc Activities Undertaken by GoP/PTA through SMS or Short Codes

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Facilitation to the Govt. of the Punjab for Broadcast of Awareness Messages to public regarding Polio Campaign conducted in the Punjab. Around 60 million SMS were broadcast jointly by all CMOs.

- ➤ Allocation of Short Code (1717) for Counter Terrorism Centralized Call Centre in Islamabad to National Crisis Management Cell, Ministry of Interior, GoP. The calls made on this Helpline is free-of —cost.
- ➤ The average calls received on 1717 is around 500-600 on daily basis. The majority of calls received are related to Law & Order situation and 1-2% related to terrorism. So far more than 700 cases have been identified related to Terrorism through this Short Code.
- >Approx.70,000 Calls/Complaints received through this Short Code.

#### - continued-



Short Code 9955 has been allocated and active for Citizen Feedback Monitoring Program (CFMP) which is an initiative of PM of Pakistan for monitoring and enhancing service delivery across the country for all the citizens- interfacing services being rendered by the State.

Short code 9876 has been allocated to National Disaster Management Authority (NDMA) for SMS based information service to general public regarding at risk location as Early Warning System for prevention and response efforts in the event of disaster.

