



Ministry of Information Technology



# Universal Service Fund

*“Every Pakistani has the right to modern telecommunication services and USF strive to provide that”*

10<sup>th</sup> October 2018

[www.usf.org.pk](http://www.usf.org.pk)

# Pakistan at a Glance

- World's 6<sup>th</sup> Largest Nation- ~208 million population
- Has a total area of 796,095 Km<sup>2</sup>
- Diverse Geography
  - ✓ Has 8 of the top 20 tallest mountains in the world
  - ✓ More than 92,000 Km<sup>2</sup> of Deserts
  - ✓ 25,220 Km<sup>2</sup> of Water Area
- Tourist Heavens



Great Trango Tower

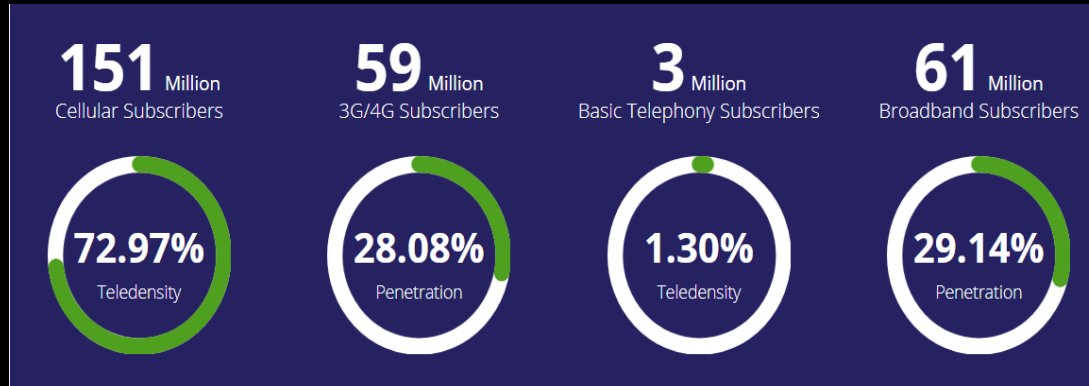
20,623 ft

World's greatest  
nearly vertical drop  
Attracts Mountaineers  
from the world

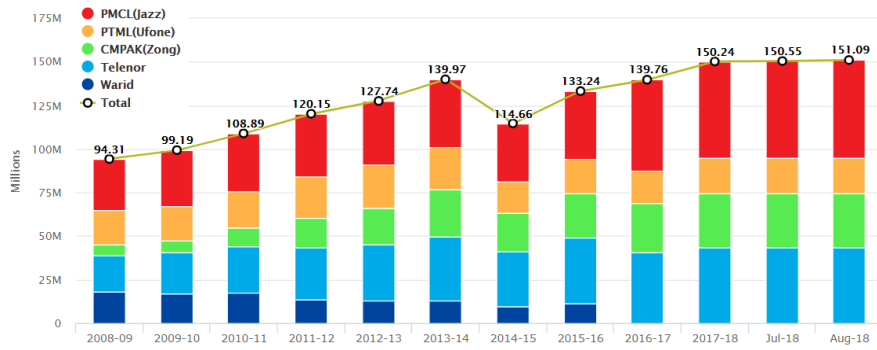




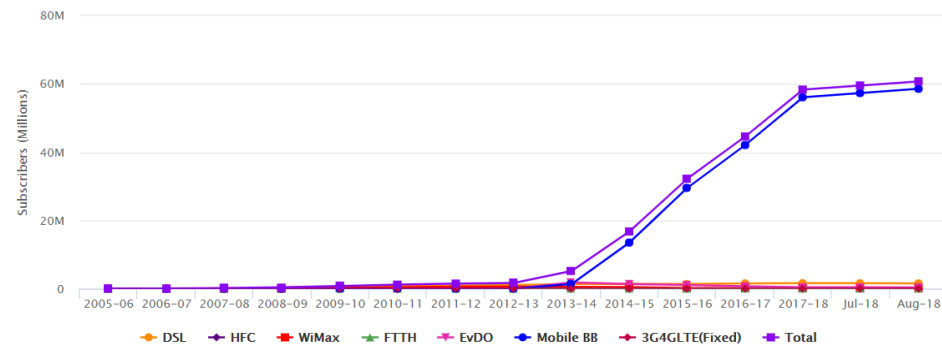
# Telecommunication Canvas of Pakistan



Annual Cellular Subscribers



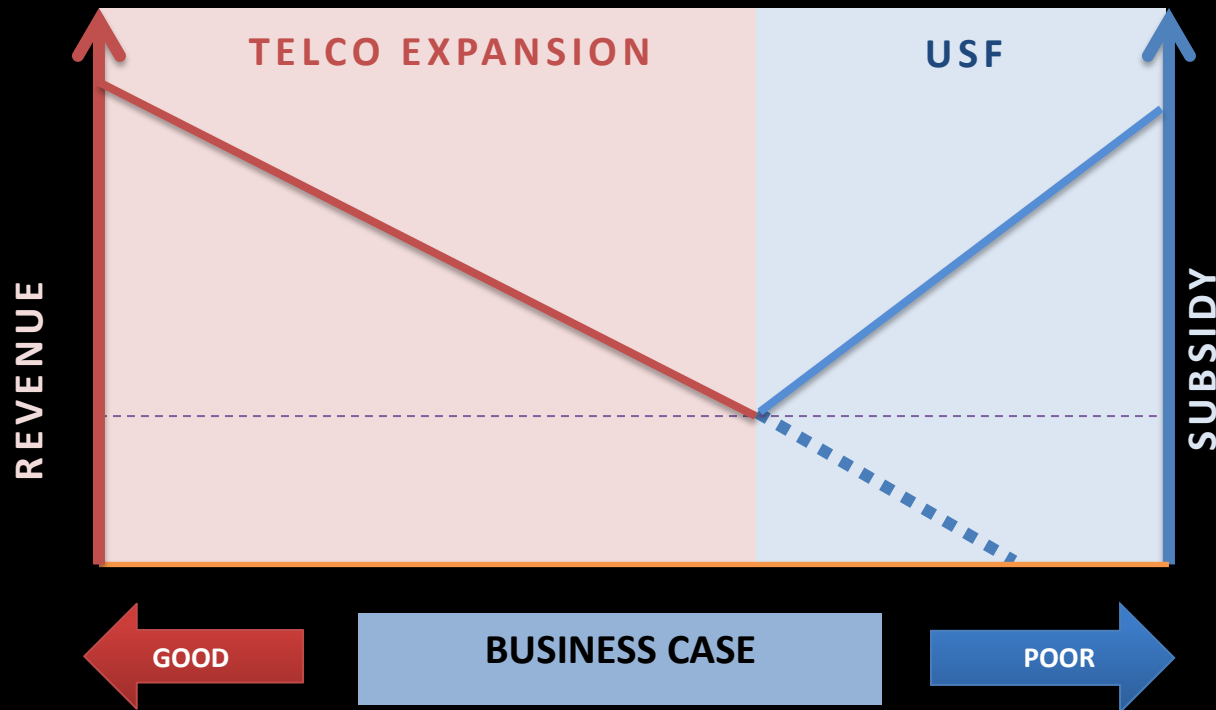
Broadband Subscribers by Technology



Source PTA

# Bridging the Gap through USF Subsidy

- Despite massive growth many areas remain **Unserved & Under Served**
- **USF Provides metro equivalent services in unserved & underserved areas**



# USF- SP COOPERATION

## Challenges!

- Difficult Terrain
- Sparse Population
- Harsh Weathers
- No Electricity
- No Backhaul
- Poor Logistics
- Business Case



## Solutions

- Extension in Implementation Time
- USF Service for Mauza with Population of 100 and above
- Mandatory Solar Power for all USF BTS Sites
- OFC Projects for Backhaul Provisioning
- CAPEX Subsidy up to 100% of Cost
- OPEX Subsidy for first 3 Years



WHERE



WHAT



FOR WHOM

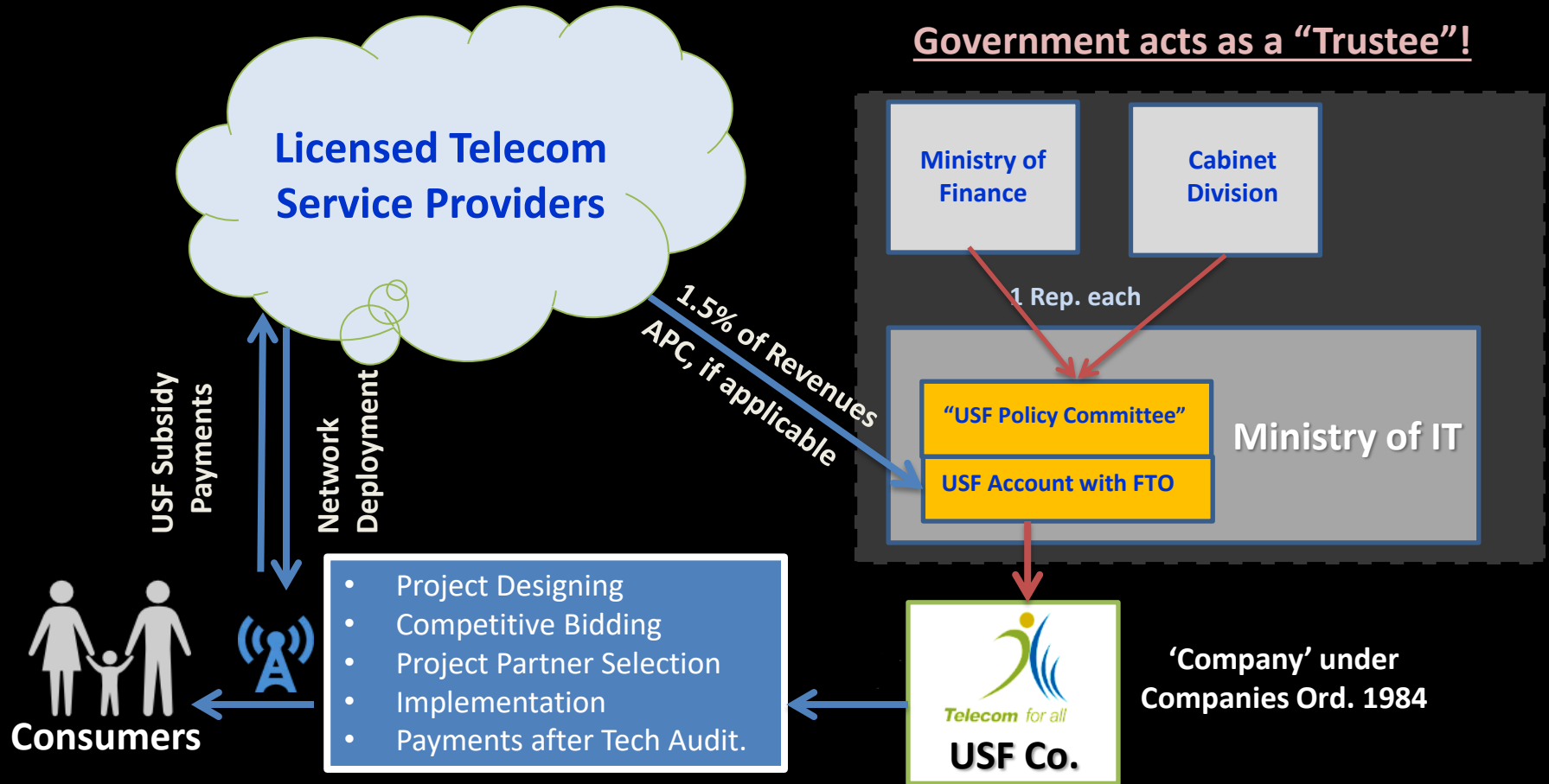


# USFCo BoD Framework

- **Public-Private-Partnership** - rather than purely *Public*
- **A Company** – with a fully authorized *Board of Directors*



# USF Fund in Pakistan





# USF PROGRAMMES



## BSD/ NG-BSD

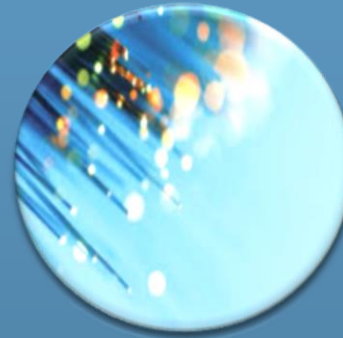
### Broadband for Sustainable Development

- Basic Telephony 2G/WLL
- Mobile Broadband through 3G / 4G



## Broadband

- Fixed Broadband
- Primarily through DSL, EVDO & WiMAX



## Optic Fiber

Extension of Fiber Optic Connectivity to unserved areas



## Digital Inclusion

to extend the benefits of modern technologies to the marginalized sections of the society

### ICT for

- Special People
  - Girls
  - Educational Institutions
- E-Commerce

**BROADBAND PROLIFERATION & DIGITAL INCLUSION**

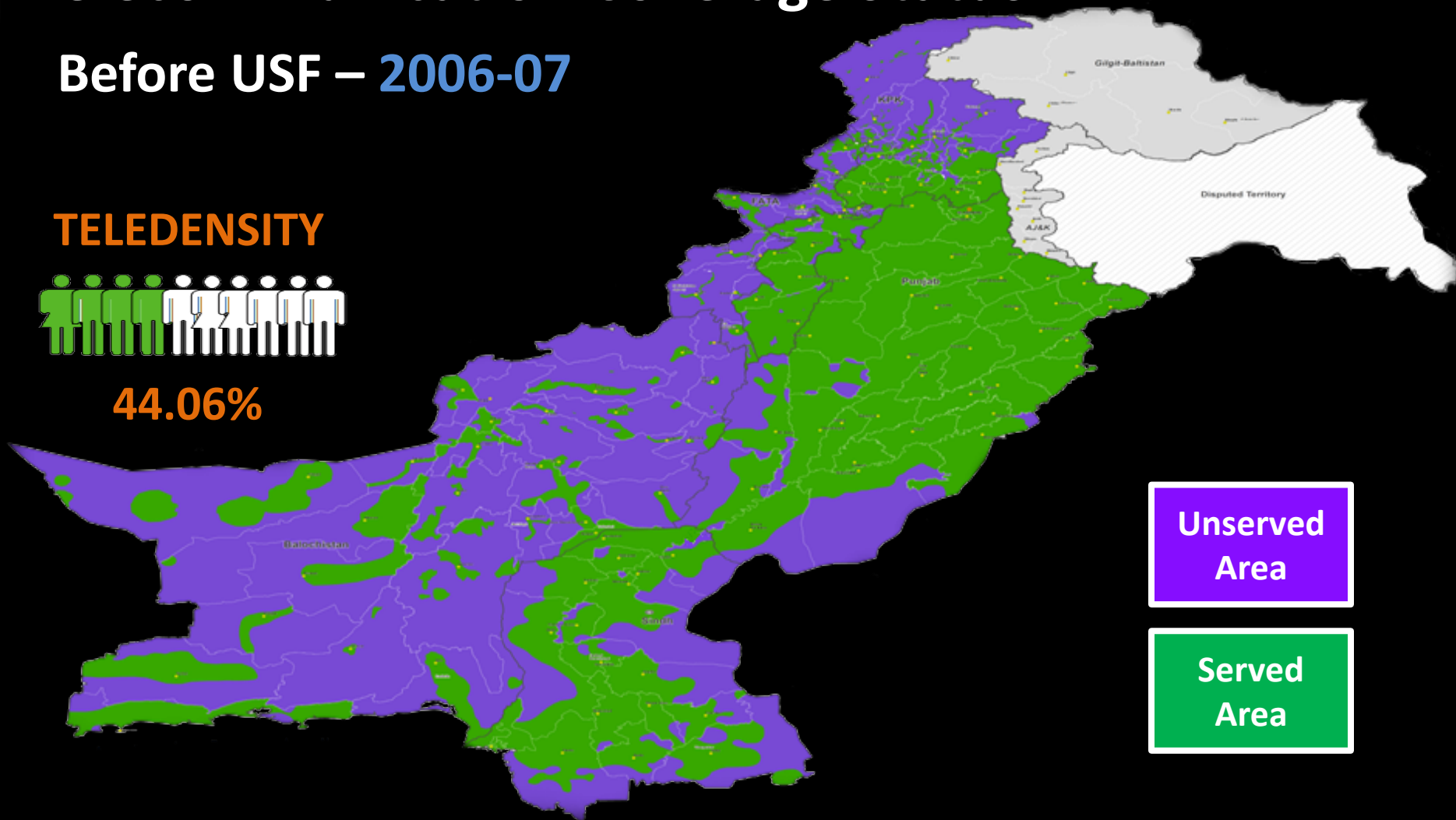
# Telecommunication Coverage Status

Before USF – 2006-07

TELEDENSITY



44.06%



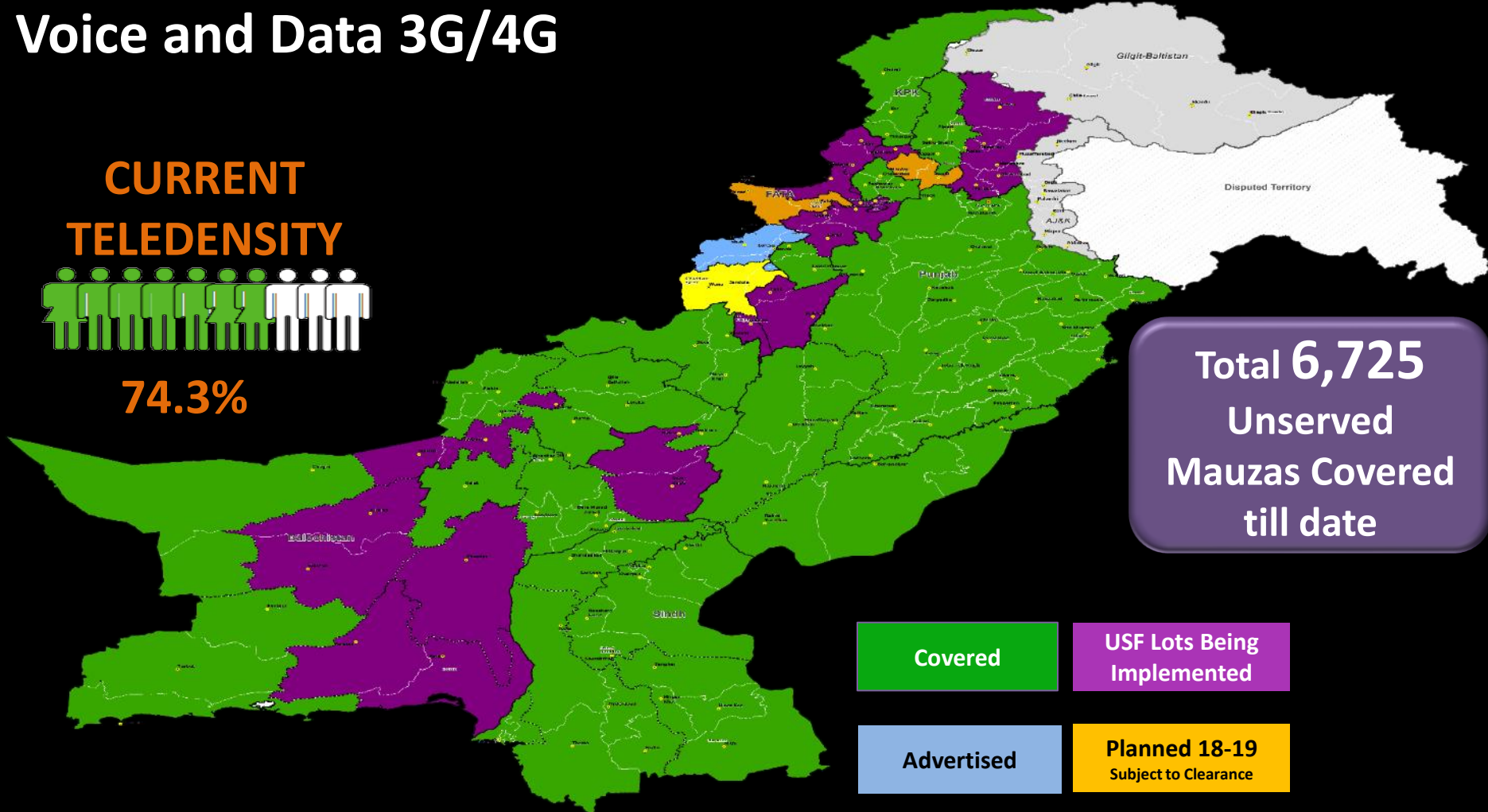
# BSD – Broadband for Sustainable Development

## Voice and Data 3G/4G

**CURRENT  
TELEDENSITY**

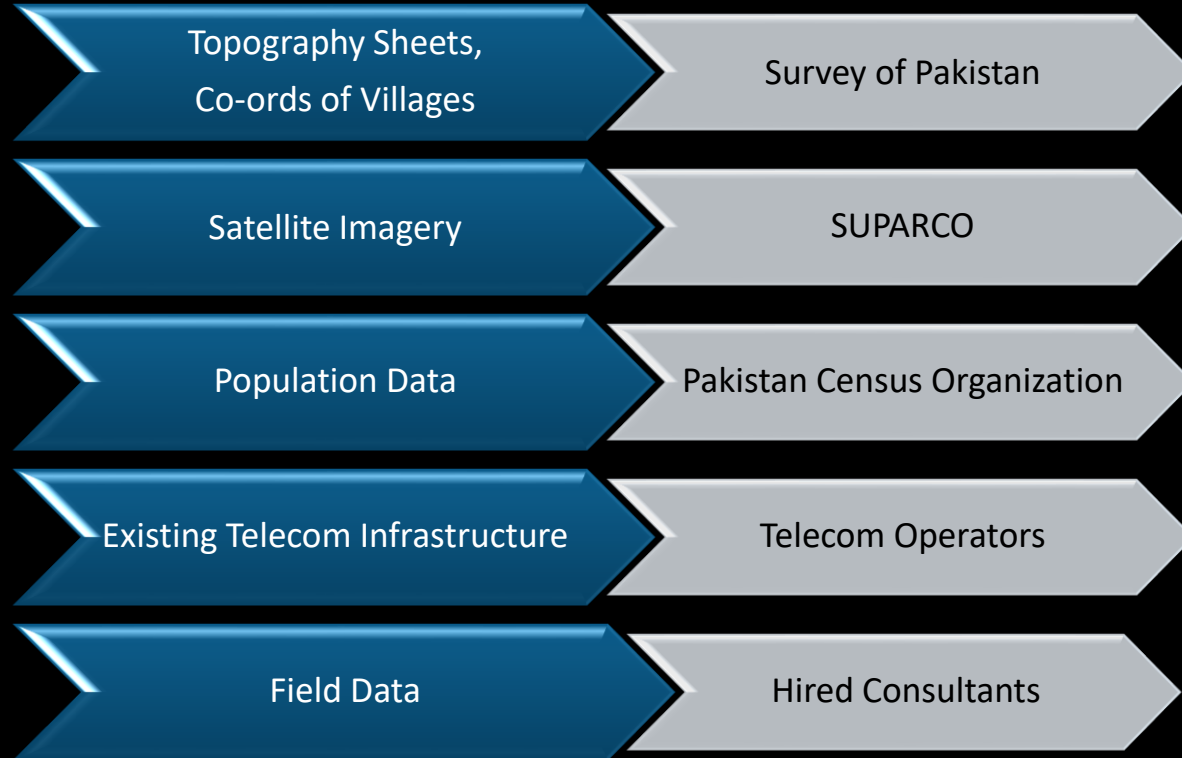


**74.3%**



# Project Planning & Implementation at a Glance

## 1- Data Collection





# Project Planning & Implementation at a Glance

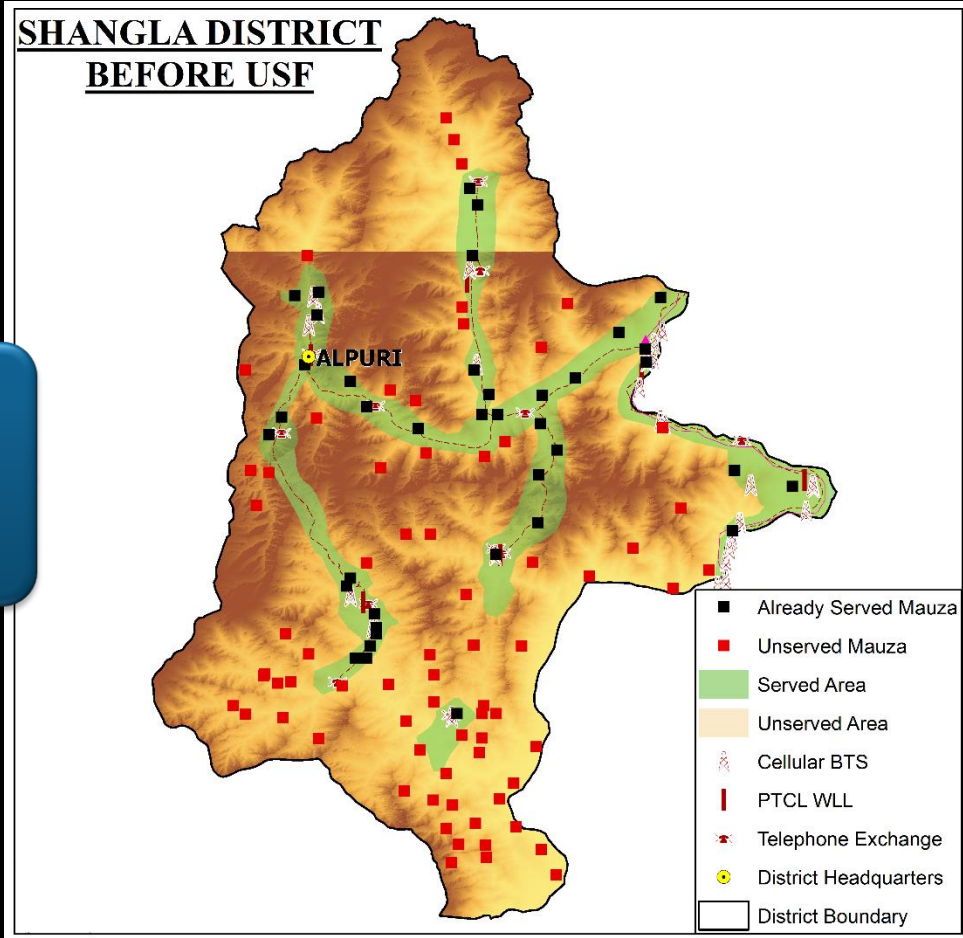
## 2- Identification of Project Targets

Digitize  
villages Data  
with Software  
tools

Establish  
correlation  
between  
Data of SoP  
& PCO

Plot  
Operators'  
Data in GIS  
Tools

Identify &  
mark  
Unserved  
Areas /  
villages



# Project Planning & Implementation at a Glance

## 3- Project Implementation

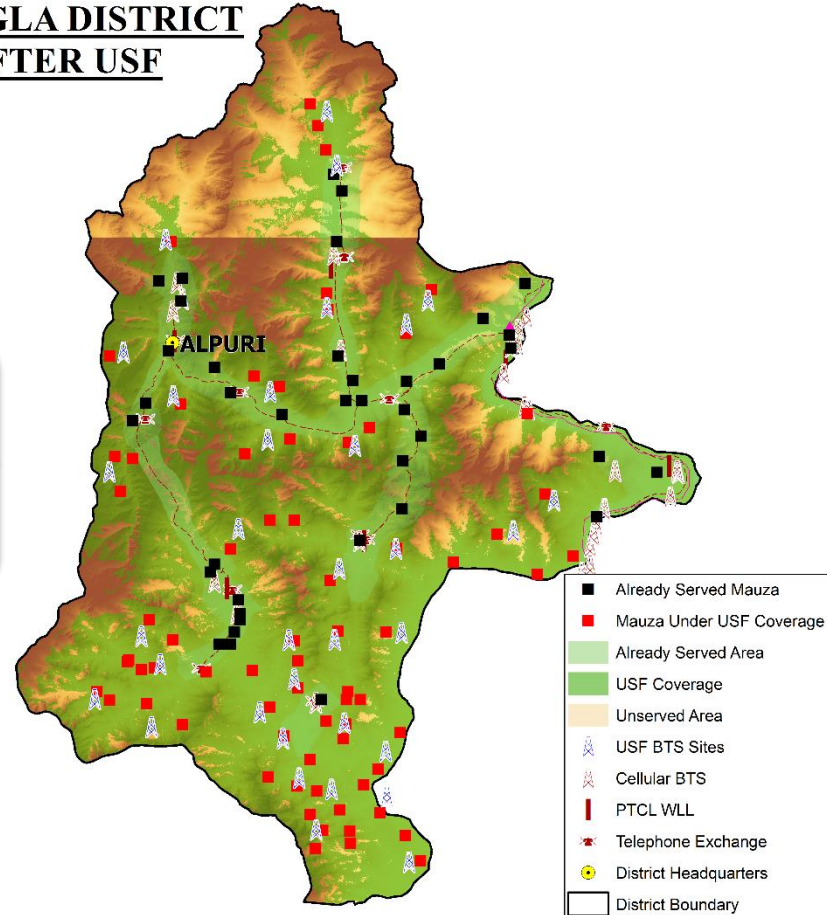
Tender for Open  
Bidding Process  
Launch

Evaluation of  
Bids and  
Identification of  
Lowest Qualified  
Bidder

Contract Award  
after USF  
Board's Approval

Project  
Implementation

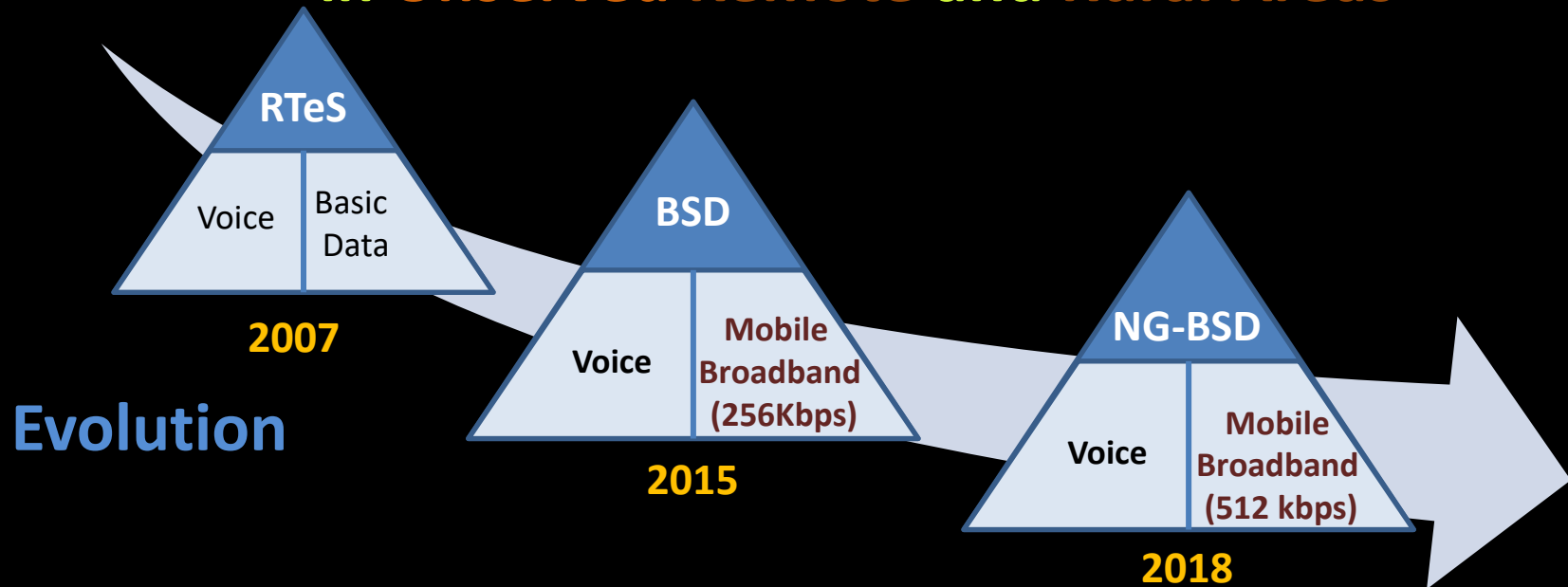
### SHANGLA DISTRICT AFTER USF



# Broadband for Sustainable Development (BSD) Programme

**TARGET !**

**Providing Voice and Broadband Internet services to Mauzas in Unserved Remote and Rural Areas**

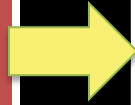


# Future Outlook - Next Gen. BSD Program

- *Voice centric*

- Data Rate in USF Areas WERE:

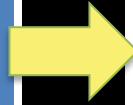
- Downlink – 50 kbps
- Uplink – Not Defined
- 2G/WLL Services



- *Broadband centric (Enhanced Data Rates)*

- Data Rate in USF Areas WERE:

- Downlink – 256 kbps
- Uplink – 64 kbps
- Backhaul for 2G and 3G



- User behavior shifting to *app-centric*,

- NEW Data Rates for APP coverage

- Downlink – 512 kbps
- Uplink – 128 kbps
- 4G Services

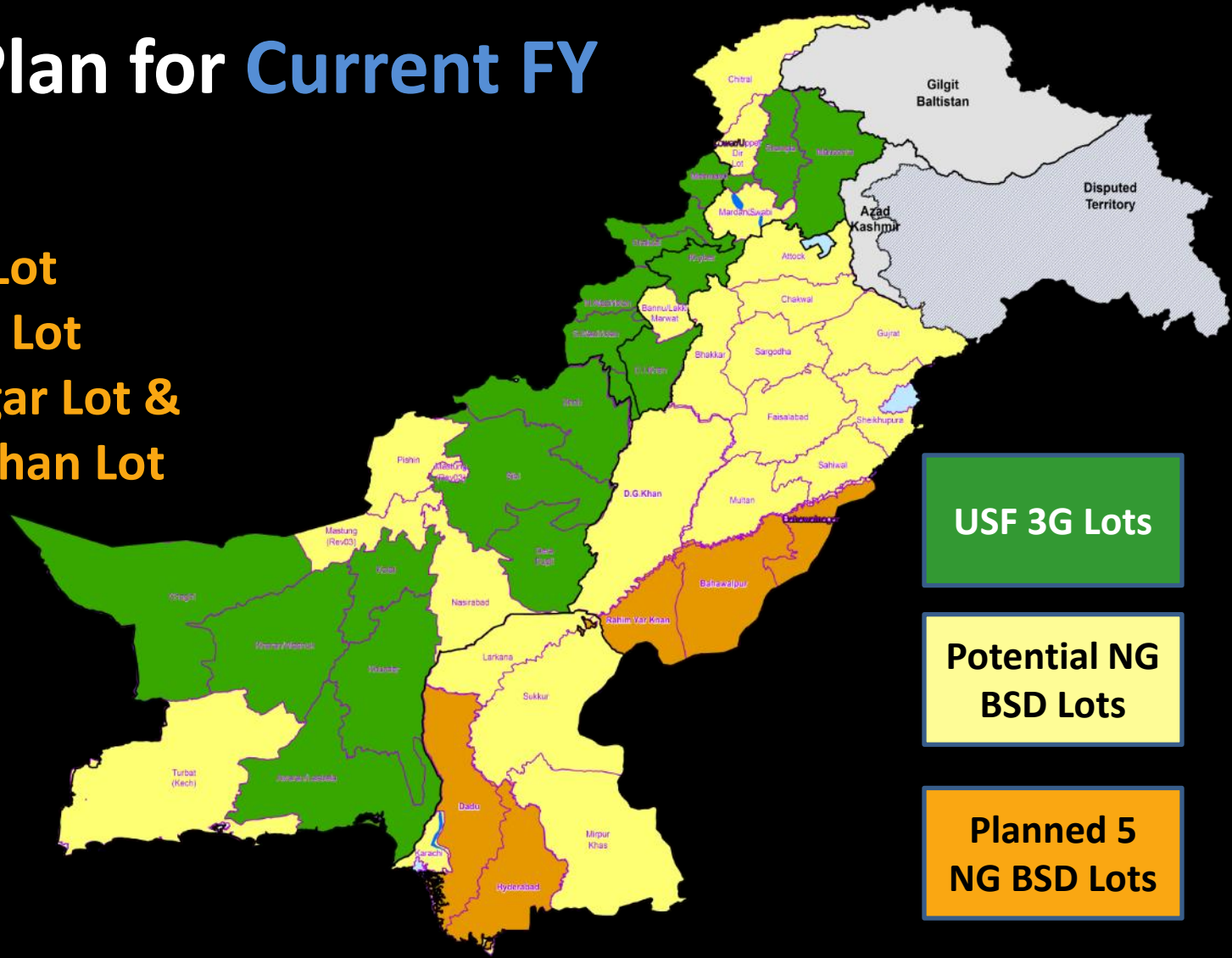
## NG-BSD Scope

- Higher Data Rates
- Seamless app coverage
- National Roaming where applicable
- Projects to provide coverage along National Highways and Motorways



# NG-BSD : Plan for Current FY

- **Dadu Lot**
- **Hyderabad Lot**
- **Bahawalpur Lot**
- **Bahawalnagar Lot &**
- **Rahim Yar Khan Lot**



## USF 3G Lots

## Potential NG BSD Lots

## Planned 5 NG BSD Lots

# Future Outlook

## Next Gen. BSD for National Highways & Motorways

### Salient Features

- Next Generation Broadband Infrastructure for un/under served segments of Motorways and Highways
- 512Kbps Downlink, 128Kbps Uplink
- Mandatory Infrastructure Sharing
- **National Roaming**

### *Estimated Route Lengths*

Province	Motorways and National Highways		
	Total Route Length (Kms)	Served routes Length (Kms)	Unserved routes Length (Kms)
Balochistan	4,129	243	3,886
Sindh	2,407	1,051	1,356
Punjab	3,697	1,854	1,843
Khyber Pakhtunkhwa	2,215	1,556	659
Total	12,448	4,704	7,744

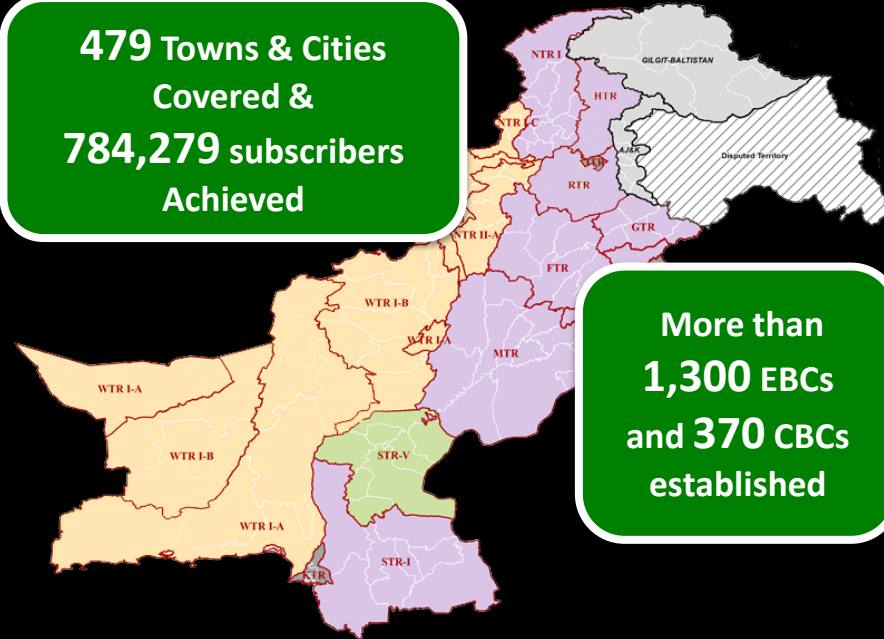
# Broadband Programme

## TARGET !

- Establishment of **Broadband Infrastructure**
- Establishment of **Broadband Centers** for **Educational Institutions** and **Community**

479 Towns & Cities  
Covered &  
784,279 subscribers  
Achieved

More than  
1,300 EBCs  
and 370 CBCs  
established



Evolution

BB

Primarily Fixed  
Broadband in  
Unserved  
Urban Areas

2009

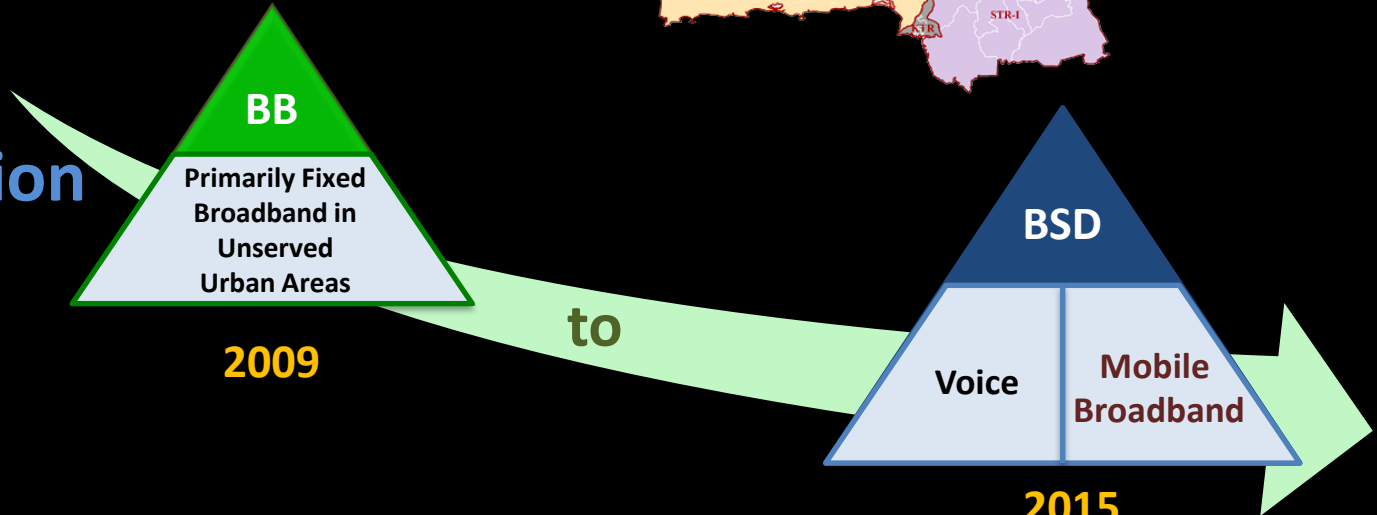
to

BSD

Voice

Mobile  
Broadband

2015

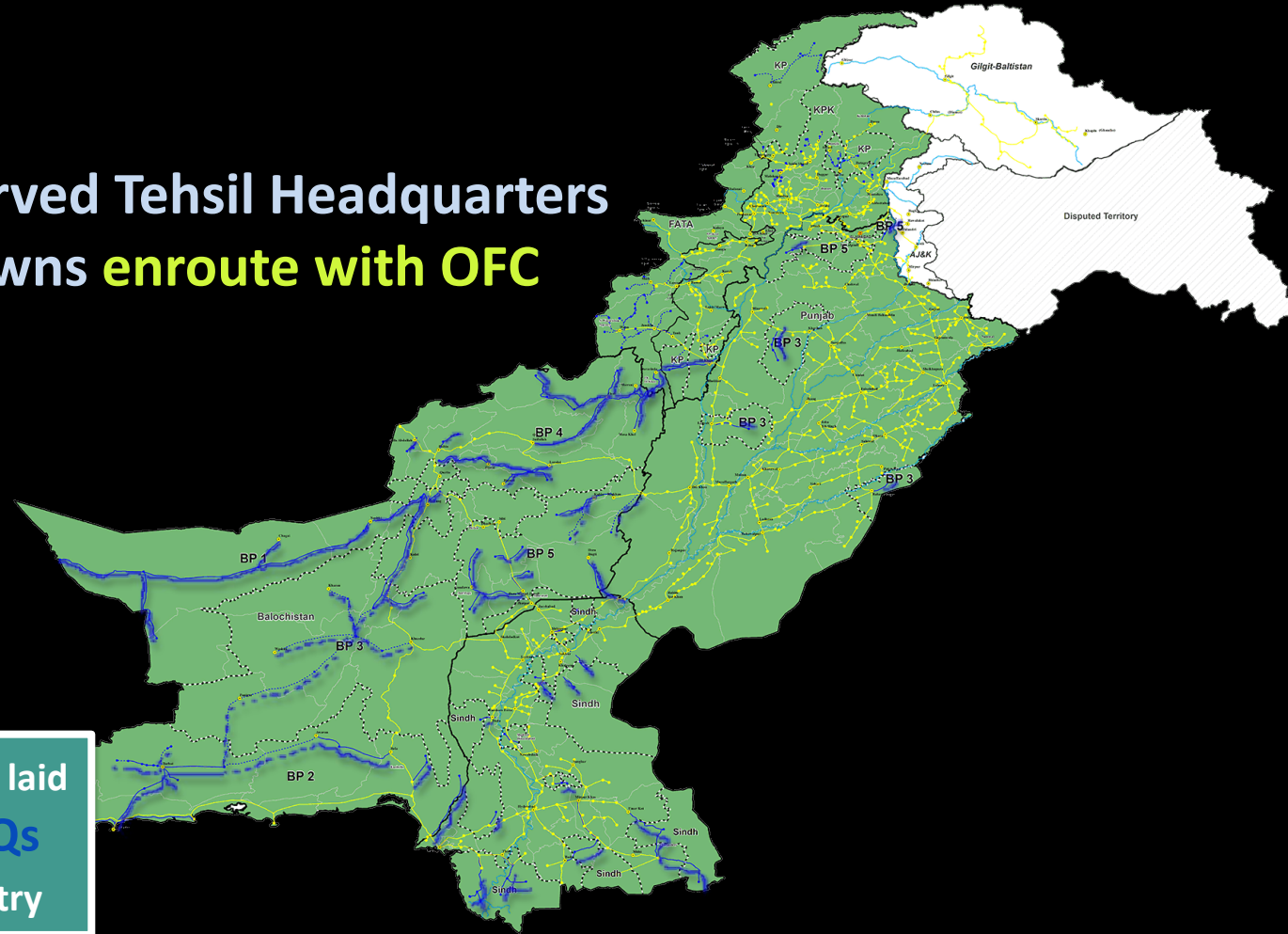


# Optic Fiber Cable (OFC) Programme

**TARGET !**

**To connect** unserved Tehsil Headquarters  
**and Major Towns enroute with OFC**

About **7,000 kms** of fiber laid  
connecting **84 Tehsil HQs**  
**and Towns** Across Country





# Digital Inclusion

## CURRENTLY:

- ICT for Girls Initiative
  - ICT Labs in Women Empowerment Centers
  - ICT Labs in FDE Girl Schools
  - ICT4G Web portal
- ICT Labs in Sweet Homes
- ICT for People with Special Needs
- E-Commerce



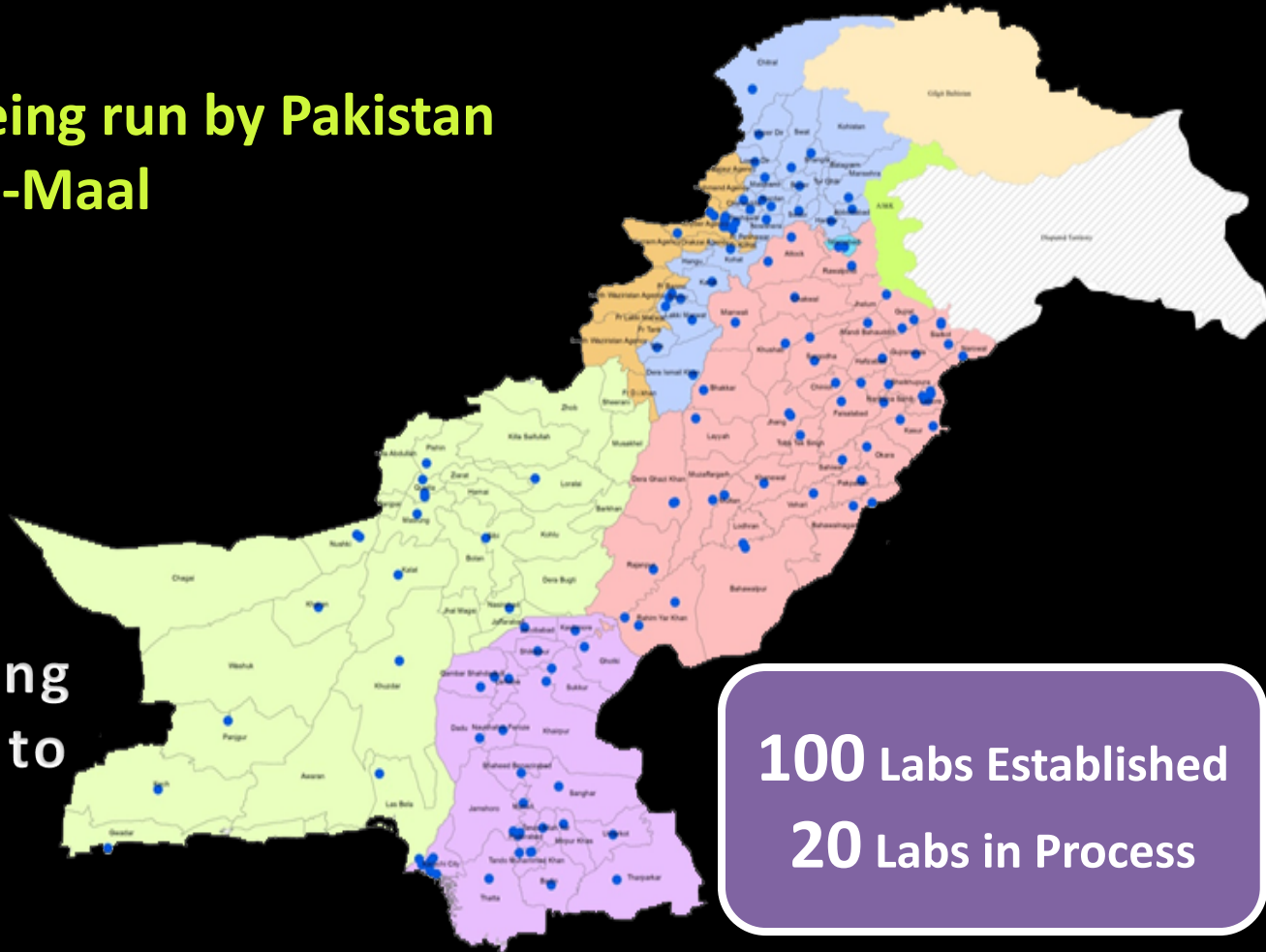
# Women Empowerment Centers

ICT Labs in WECs being run by Pakistan  
Bait-ul-Maal

100 Master Trainers  
trained by



WECs are imparting  
employable skills to  
women

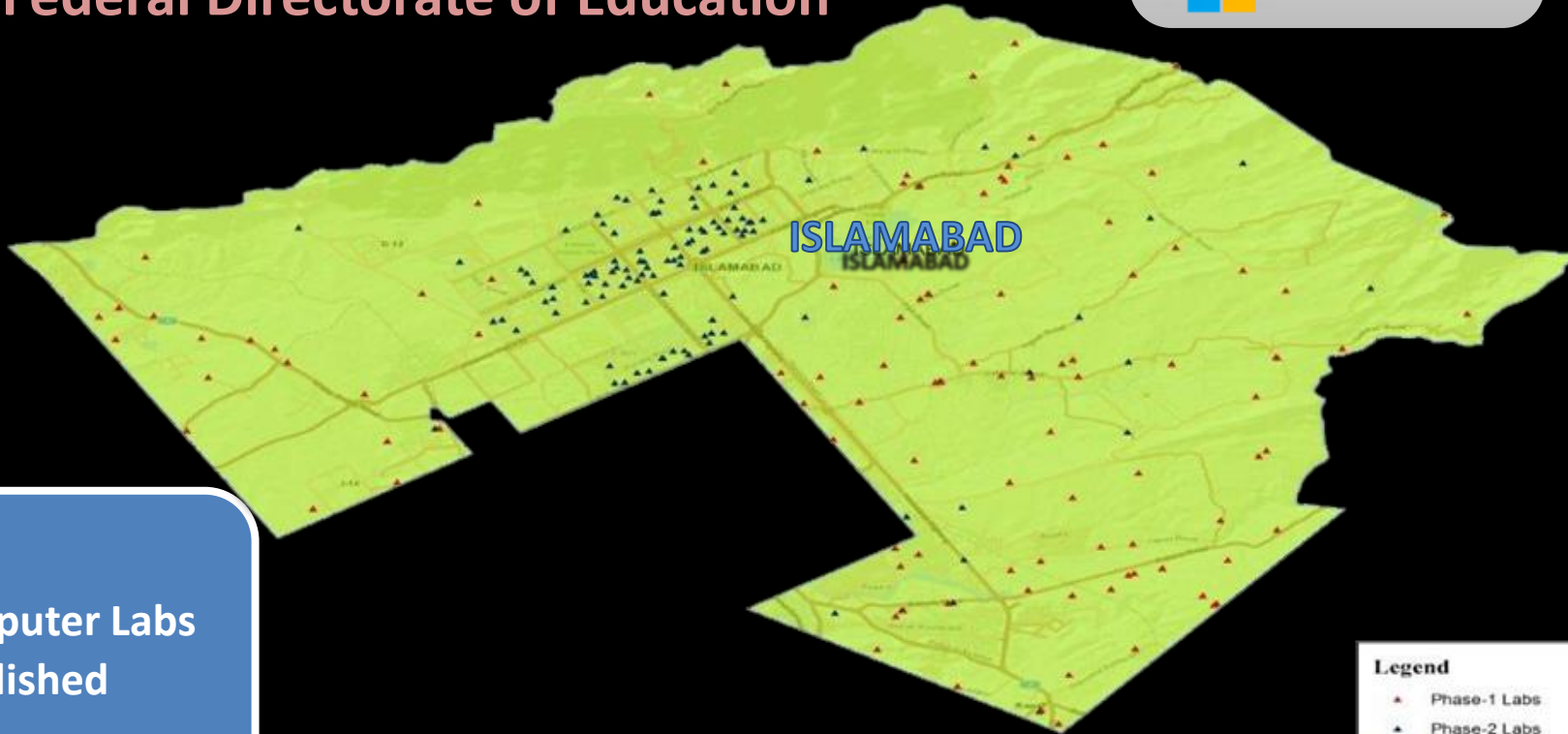


100 Labs Established  
20 Labs in Process

# ICT for Girls Schools of FDE

To establish ICT Labs in Girls Schools being run by Federal Directorate of Education

202 Female Teachers  
Hired by USF &  
trained by



226 Computer Labs  
Established

**Legend**

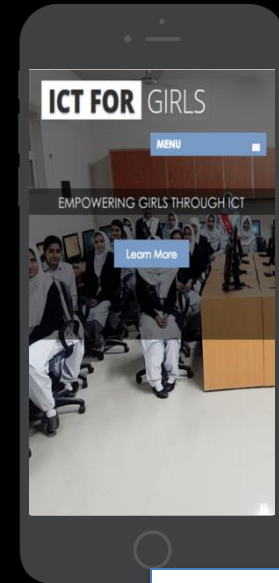
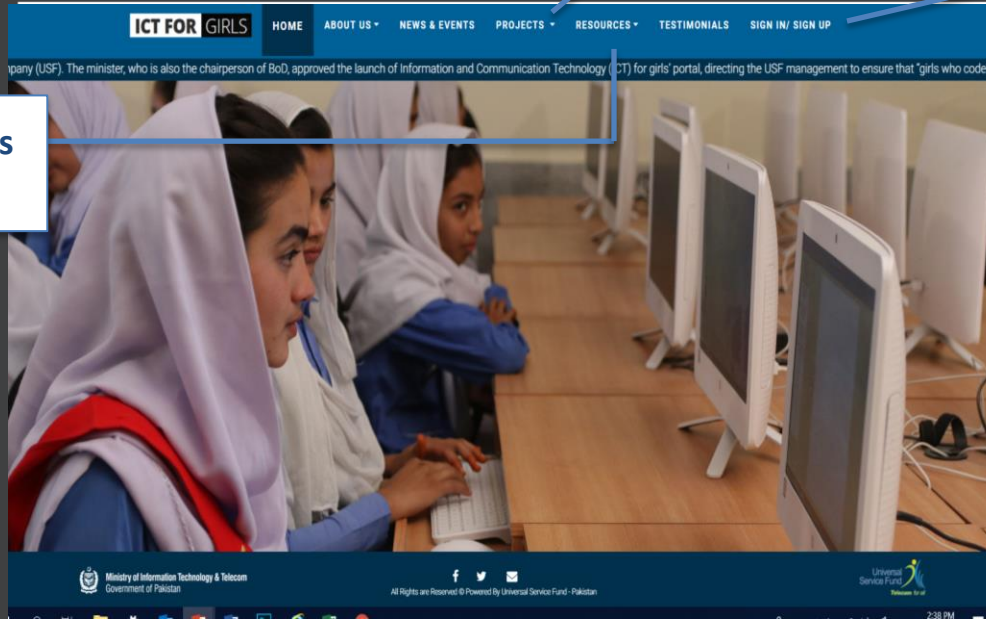
- Phase-1 Labs
- Phase-2 Labs
- District Boundary

# ICT4G Portal – Multi-Stakeholder Platform

FDE and WEC Program  
Description

Student-Teacher  
Collaboration

Additional Resources  
for Coding



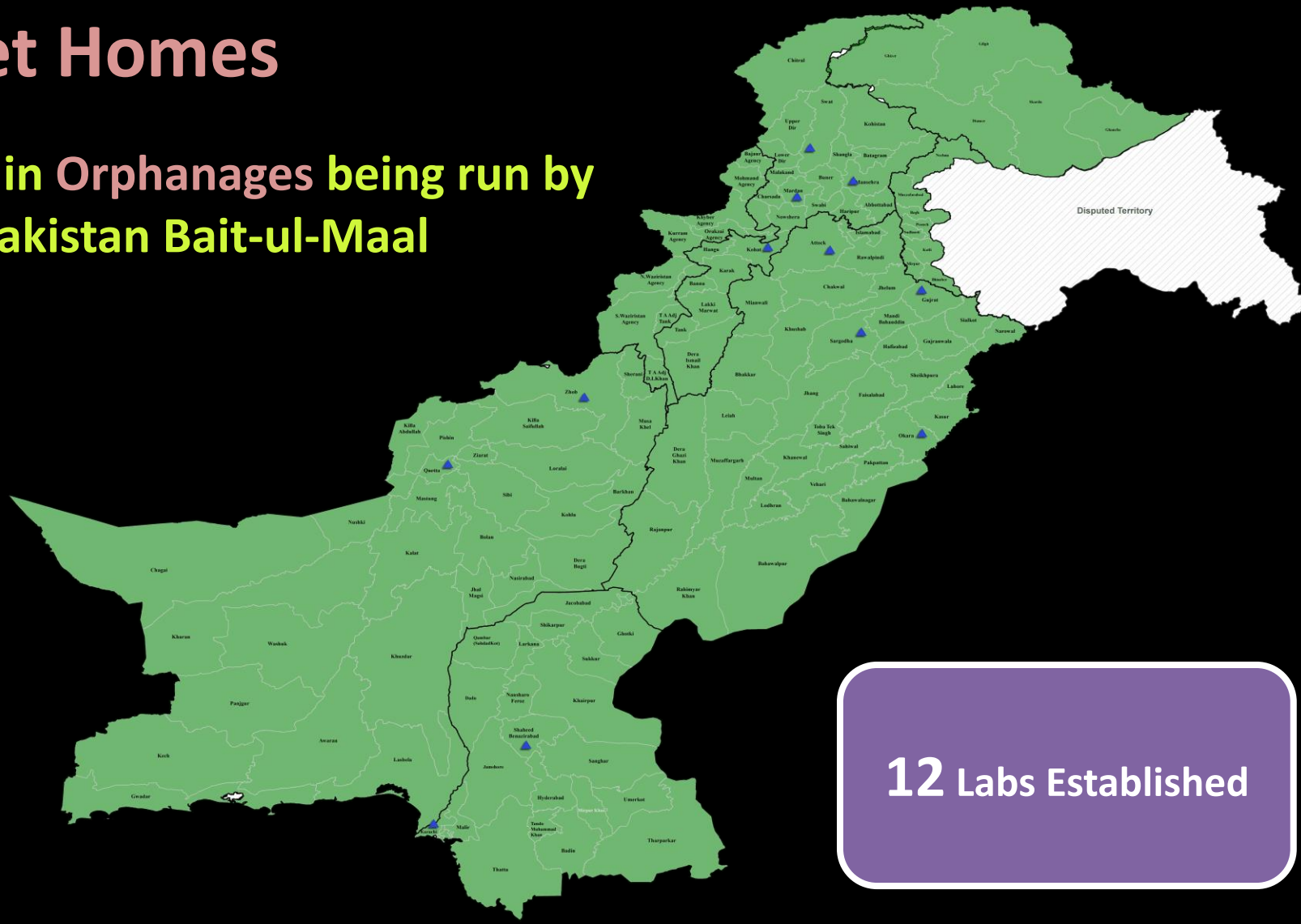
[www.ictforgirls.org.pk](http://www.ictforgirls.org.pk)

Mobile Responsive



# Sweet Homes

ICT Labs in Orphanages being run by  
Pakistan Bait-ul-Maal



12 Labs Established

# Special Project: ICT for Disabled

Launched in Last FY: Targets are  
**National Library of Pakistan** and  
**5 Special Education Centers under CADD**

- **Computer Labs with furniture, Specialized equipment & Software**
  - Braille embosser,
  - Zoom text large Keyboard,
  - Joystick Mouse,
  - interactive console with gesture control sensor for autistic people

**Launched in last FY - Implementation in Progress**

# Ecommerce for Craft MSME/SME

Launched in Current FY

**Objective:** To empower **Craft MSMEs** via **E-commerce Platform** to **increase Sales**

- Registration of MSMEs and products
- MSME benefits from increase in online sales Volume
- E-commerce platform is self sustainable

## Clusters



Leather



Carpet



Furniture



Textile



Jewelry



Pottery

## Success

1

Number of MSMEs  
**REGISTERED ON**  
E-commerce platform



2

% ↑ increase in Sale Volumes  
**AFTER**  
Registration on platform

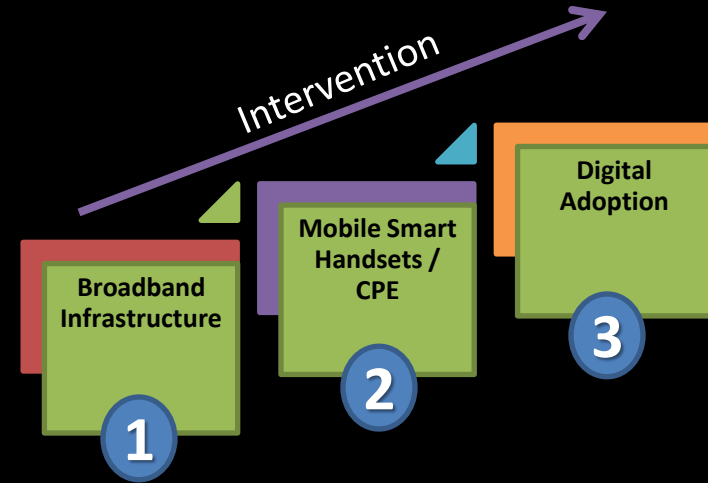
# Looking Ahead: VISION AND MISSION

## VISION

- Prepare Pakistan for the 4<sup>th</sup> industrial revolution by enabling digital inclusion for all.

## MISSION

- Re-focus on BB availability for all of Pakistan
- Smartphone and Data Package Affordability
- Launch “**Digital Inclusion**” program for onboarding



Multi pronged approached to Kickstart **Digital Lifestyle Inclusion** of the un/underserved

**Thank you**