# The role of Universal Service and infrastructure sharing in the development.

## By:
### Eng. Iman Magzoub
### Universal Services Specialist

# Outlines:

➢Introduction

    ➢Universal services definition

    ➢Classification Criteria

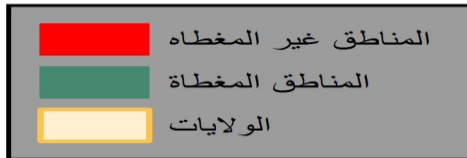    ➢ Current Status

➢Infrastructure Sharing

# **Introduction**

- National Telecommunication corporation (NTC) believes that all citizens have a right to access to telecommunications and information technology without any discrimination on the basis of region and place of residence.

- Universal service project is the most effective solution to achieve the NTC aim .

# المناطق السكنية المغطاة و غير المغطاة بخدمات الاتصالات في السودان

السعودية

مصر

ليبيا

البحر الاحمر

الشمالية

نهر النيل

تشاد

كسلا

شمال دارفور

السودان

ارتريا

القضارف

شمال كردفان

الجزيرة

غرب دارفور

النيل الابيض

سنار

وسط دارفور

النيل الازرق

اثيوبيا

شرق دارفور جنوب دار فور

جنوب كردفان

جنوب كردفان

جنوب السودان

جمهورية افريقيا الوسطي

| | |
|---|---|
| 🟥 | المناطق غير المغطاه |
| 🟩 | المناطق المغطاة |
| 🟨 | الولايات |

1:10,000,000

Kilometers

0   75 150    300    450    600

الهيئة القومية للإتصالات
National Telecom Corp

# تغطية الاتصالات في السودان

الهيئة القومية للإتصالات
National Telecom Corp

السعودية

مصر

ليبيا

البحر الاحمر

الشمالية

تشاد

نهر النيل

شمال دارفور

السودان

شمال كردفان

ارتريا

القضارف

النيل الابيض

قوة الاشارة

| | |
|---|---|
| | < -110 |
| | -109 - -105 |
| | -104 - -100 |
| | -99 - -95 |
| | -94 - -90 |
| | -89 - -85 |
| | -84 - -80 |
| | -79 - -75 |
| | -74 - -70 |
| | -69 - -65 |
| | -64 - -100 |

جنوب السودان

1:10,156,000

جمهورية افريقيا الوسطي

Kilometers

0   75  150      300      450      600

# المناطق غير المغطاه بخدمات الاتصالات في ولاية شمال دارفور

الهيئة القومية للإتصالات
National Telecom Corp



ليبيا

الشمالية

شمال دارفور

تشاد

السودان

شمال كردفان

غرب دارفور

غرب كردفان

وسط دارفور

جنوب دار فور

شرق دارفور

جنوب كردفان
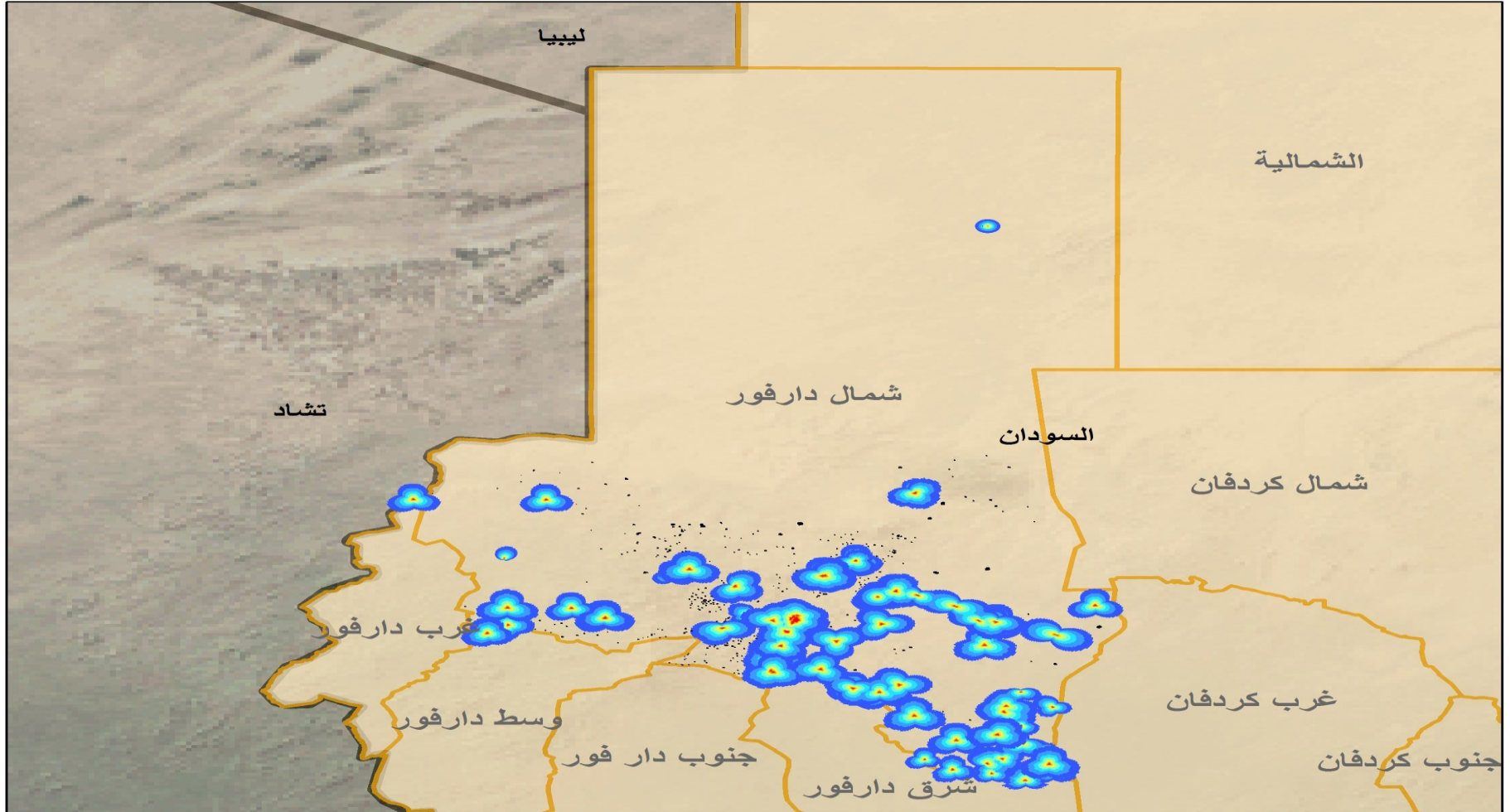
## Quality

- ■ Good (Red)
- ■ Normal (Green)
- ■ Poor (Blue)
- ■ الولايات
- ■ المناطق غير المغطاه

1:5,500,000

Kilometers

0 40 80   160   240   320

# Universal Service

- Is defined as the availability of telecommunication services (voice, internet) for all members of society, especially for rural, remote areas which are economically non profitable areas according to feasibility study that based on different criteria.

# Classification criteria :

✓ The total population (6000 or less)

✓ Distance from the networks infrastructure

✓ The security situation and accessibility

✓ Public services and utilities (electricity, education, market, police ..... etc).

# Funding:

- Universal Service Fun provides CAPEX
- MNO provides OPEX

# Survey:

- There is an annual field survey that is done under NTC supervision to collect a real demographic data for non covered areas which help on feasibility classification study and then providing the non-profitable regions by telecom Services.

# US Project Status

❑Phase I:

✓2G only (voice, internet)
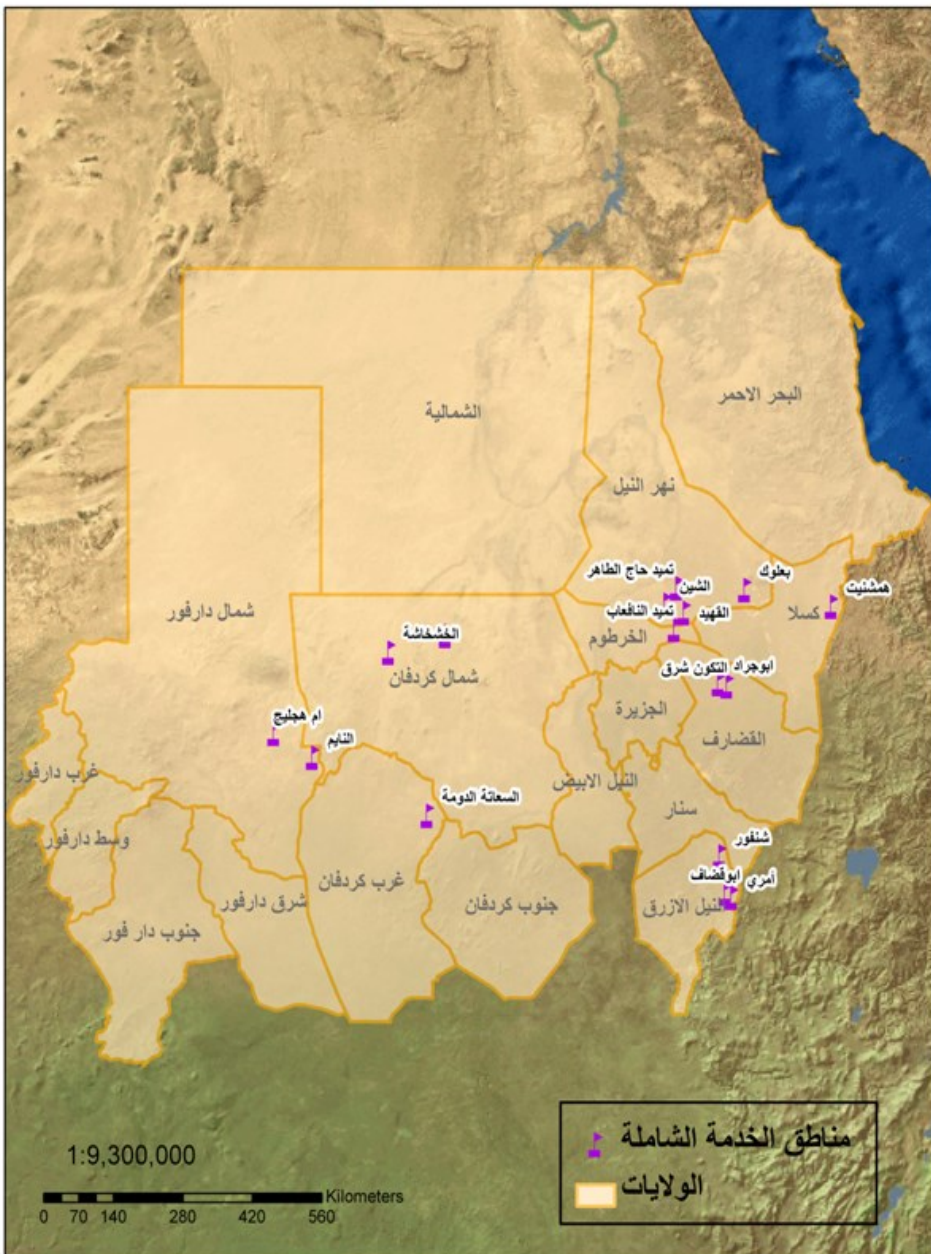
✓Infrastructure sharing (tower)

✓31 targeted areas

# Cont. Phase I

## Zain

- In 2015, 16 rural areas are completely covered by telecom Services by Zain network in different states of Sudan

| region | State | # |
|---|---|---|
| Altkon East | **Gadarif** | **1** |
| Abo Jarad | **Gadarif** | **2** |
| Hamshteat | **Kassala** | **3** |
| Alkhashkhasha | **North Kordofan** | **4** |
| Almahbas | **North Kordofan** | **5** |
| Saata Doma | **West Kordofan** | **6** |
| Alnire | **North Darfour** | **7** |
| Om Hejelij | **North Darfour** | **8** |
| ALGHEAD | **River Nile** | **9** |
| ALSHEEN | **River Nile** | **10** |
| Timead Alnafaab | **River Nile** | **11** |
| Altmead Haj Altahir | **River Nile** | **12** |
| Balook | **River Nile** | **13** |
| SHNGOR | **Blue Nile** | **14** |
| ABOGODAF | **Blue Nile** | **15** |
| AMRY | **Blue Nile** | **16** |

# Cont. Phase I

**Sudatel**

- recently 11 regions are going to be connected on March by Sudatel network.

الهيئة القومية للاتصالات
National Telecom Corp

الشمالية
البحر الاحمر
نهر النيل
شمال دارفور
الخرطوم
كسلا
شمال كردفان
برارة
حجر ساري
ام سدرة
الجزيرة
القضارف
غرب دارفور
وسط دارفور
غرب كردفان
النيل الابيض
سنار
كردل
شرق دارفور
جنوب دار فور
ابوحميض
جنوب كردفان
العضام
قريض
الطمور
مينزا
بلقوة
النيل الازرق
العازة

مناطق الخدمة الشاملة
الولايات

Kilometers
0  95  190      380      570      760

| # | State | Area |
|---|---|---|
| 1 | Central Darfour | Kardal |
| 2 | Blue Nile | Menza |
| 3 | Blue Nile | Belgwa |
| 4 | North Kordofan | Barara |
| 5 | South Kordofan | Eltimor |
| 6 | South Kordofan | Giraid |
| 7 | West Kordofan | ElOdam |
| 8 | West Kordofan | Elazza |
| 9 | West Kordofan | Abuhmaid |
| 10 | North Darfour | Omsidra |
| 11 | North Darfour | Hajar Sari |

# Phase II

- NTC is ready to go on USAF project  phase II which  started by field survey for 505 area.

- *168 areas* are classified as non-profitable and apportioned to MNO to cover them by telecom services under  US project umbrella.

# Current Status :

- Three operators sign the US Project framework contract to carry out Phase II by providing 3G technology.

  - ➢**Zain**      to cover 83 areas .
  - ➢**MTN**      to cover 10 areas
  - ➢**Sudatel**   to cover 6 areas

مناطق الخدمة الشاملة المرحلة الثانية
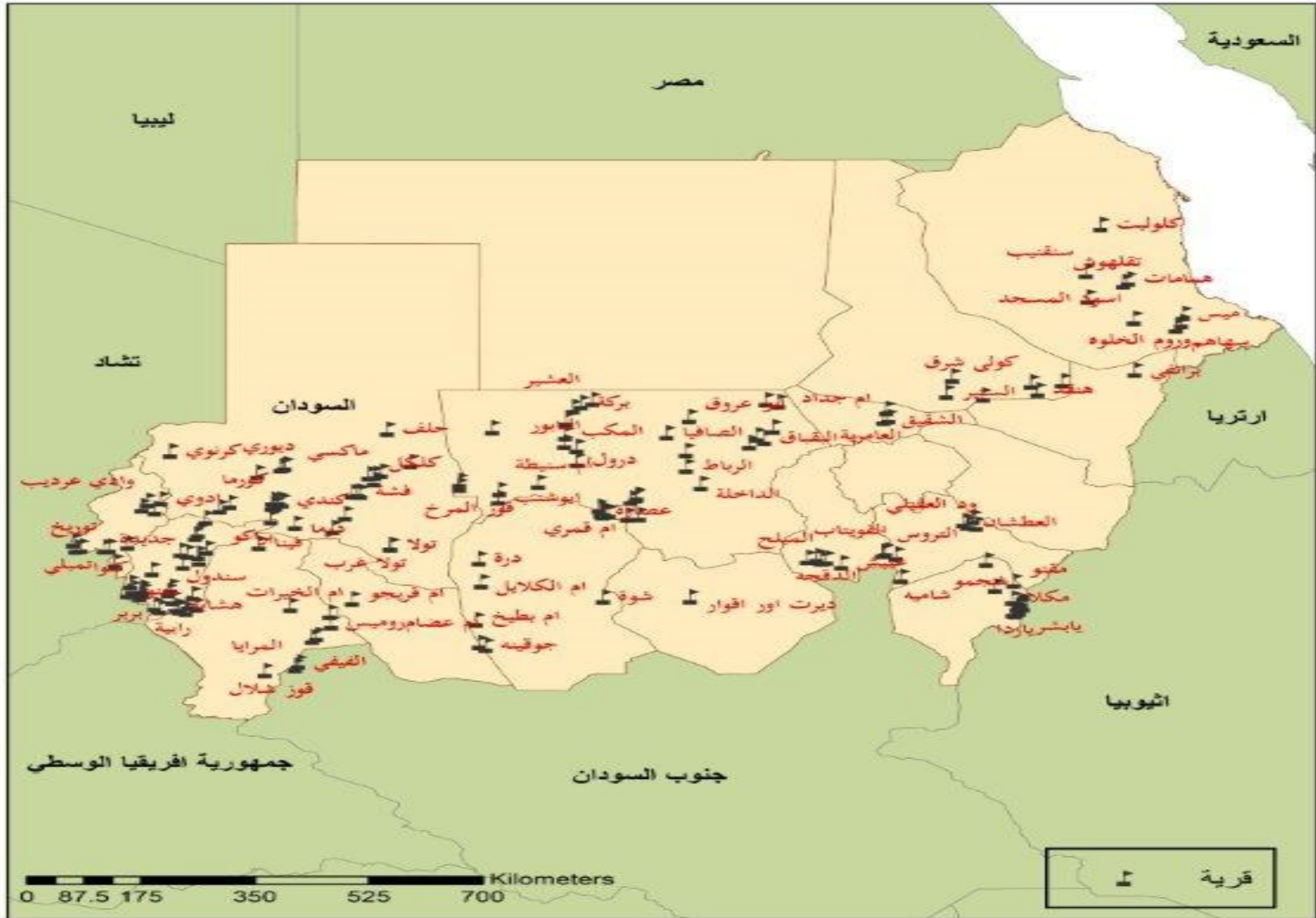
# Infrastructure Sharing

- NTC has done:

1. Consultation paper in 2011

2. Guideline for infrastructure sharing in 2012, include:

   ✓ Goals of infrastructure Sharing

   ✓ Types of infrastructure Sharing

   ✓ General terms and conditions, and

   ✓ Procedures

# Infrastructure Sharing: cont

- NTC establish committee in 2015 consisting of (all the relevant part from NTC and MNO), to:
  - ✓ Prepare a roadmap to enable the Infrastructure Sharing
  - ✓ Put method to audit and focus in all cases related to the issue
  - ✓ And study the legal hubs

# Infrastructure Sharing: cont.



- The committee has proposed to encourage and stimulate MNO's to implement the infrastructure sharing, NTC shall do:
  - ✓ When we find more than three BTS's in the same area, NTC could replaced by another BTS ready to run all operators.
  - ✓ The cost of transfer this BTS's will be paid by NTC
  - ✓ Will be use all BTS's are removed in rural areas (USF Projects).

# Any Question