



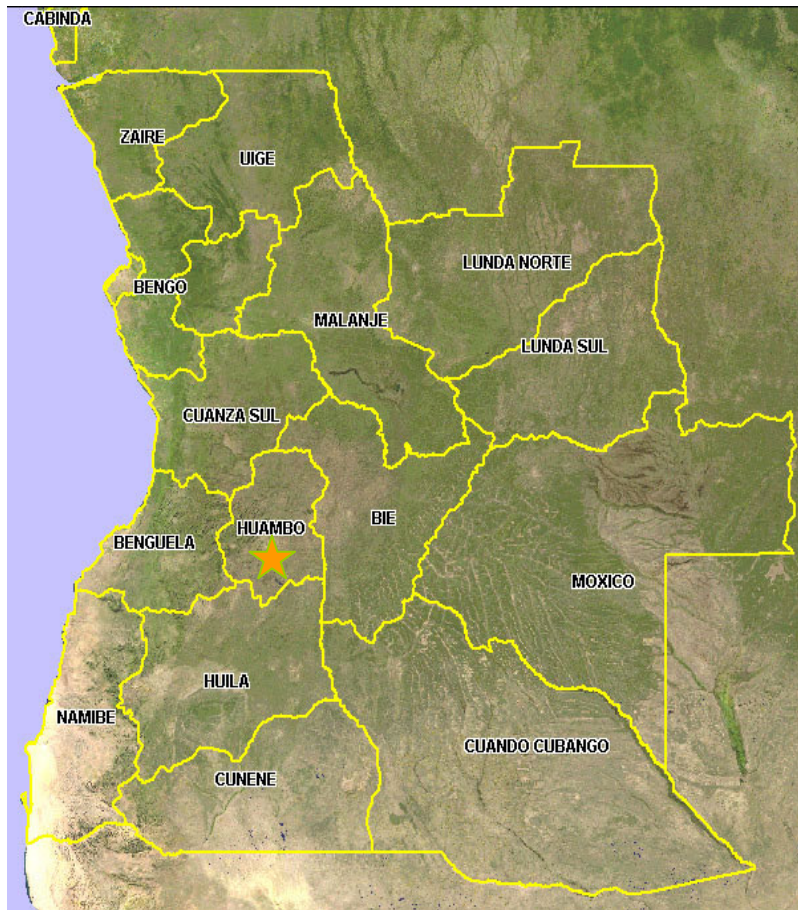
# **VSAT & Wi – Fi Huambo**

## ***DEVELOPMENT WORKSHOP***

# ANGONET - The community empowerment through access to the Internet

## Telecentre installed in Huambo Population

- Huambo is located in the center of Angola, 600 km from Luanda. The city's population is approximately 226.000



## Boundary partners

**Users**  
( teachers  
and students)

University  
Agrarian Science

**Community  
Users**  
(Groups using: Students,  
Women, Small Business,  
Ngo's, teachers, etc.)

DW Community  
Telecentre

**Angonet  
VSAT & Wi-Fi  
Huambo**

Governmental  
(INACOM)

Influence  
the policy

ADRA  
National NGO's

**Community  
Users**  
(NGO's and farmer)

# ANGONET - The community empowerment through access to the Internet

## VSAT & WI-FI in Huambo

### *Beneficiaries:*

#### Use Wi-Fi

- ADRA, CEP/BAD, Mubela, RNA, SCiA, World Vision, CCF (Wi-Fi)

#### Use LAN

- DW Office, Telecenter users

#### Use Dial-up

- External customers: NGOs', Local Government Institutions, Churches

#### Users in utilizing the network averaging:

- +60 users daily
- Majority of users are male students
- The community that uses Telecenter are more for source of research and information exchange.
- Total users in 3 years: 29.613

#### Clients

- Public academics institutions, Nationals and Internationals NGO's, Donors, etc.

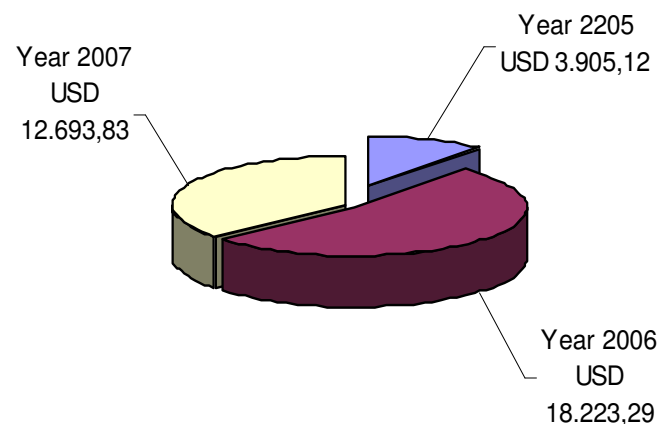
# ANGONET - The community empowerment through access to the Internet

## Income is the Telecentre

USD 34.822,24 - Period 3 years

Year	Huambo
2005	3.905,12
2006	18.223,29
2007	12.693,83
<b>Total</b>	<b>USD 34.822,24</b>

Income - Period 3 years



## Price table

Service type Telecentre	Local currency Kuanza	Price in USD
Access Internet (sites)	100,00	1,35
Write of documents	150,00	2,00
Printer	10,00	0,14
Photocopies	10,00	0,14
Scanner (photo and documents)	10,00	0,14



# Huambo - Province

## The Population's ICT Awareness

- The *Angonet* is allowing many students of Huambo city to have access to information for their education.

## There is an increase of mobile phone communications in Angola

- The voice connection will be rapidly achieved than fixed line implementations.
- Internet access can also be realized with the deployment of highly compact versions of the Web and e-mail service functions using 3rd Generation (3G) mobile communications platforms.
- As communication market grows in Angola, these technologies will become more feasible to be deployed.

# **Description of project network**

## **The Technology Level – backhaul, power, wireless network**

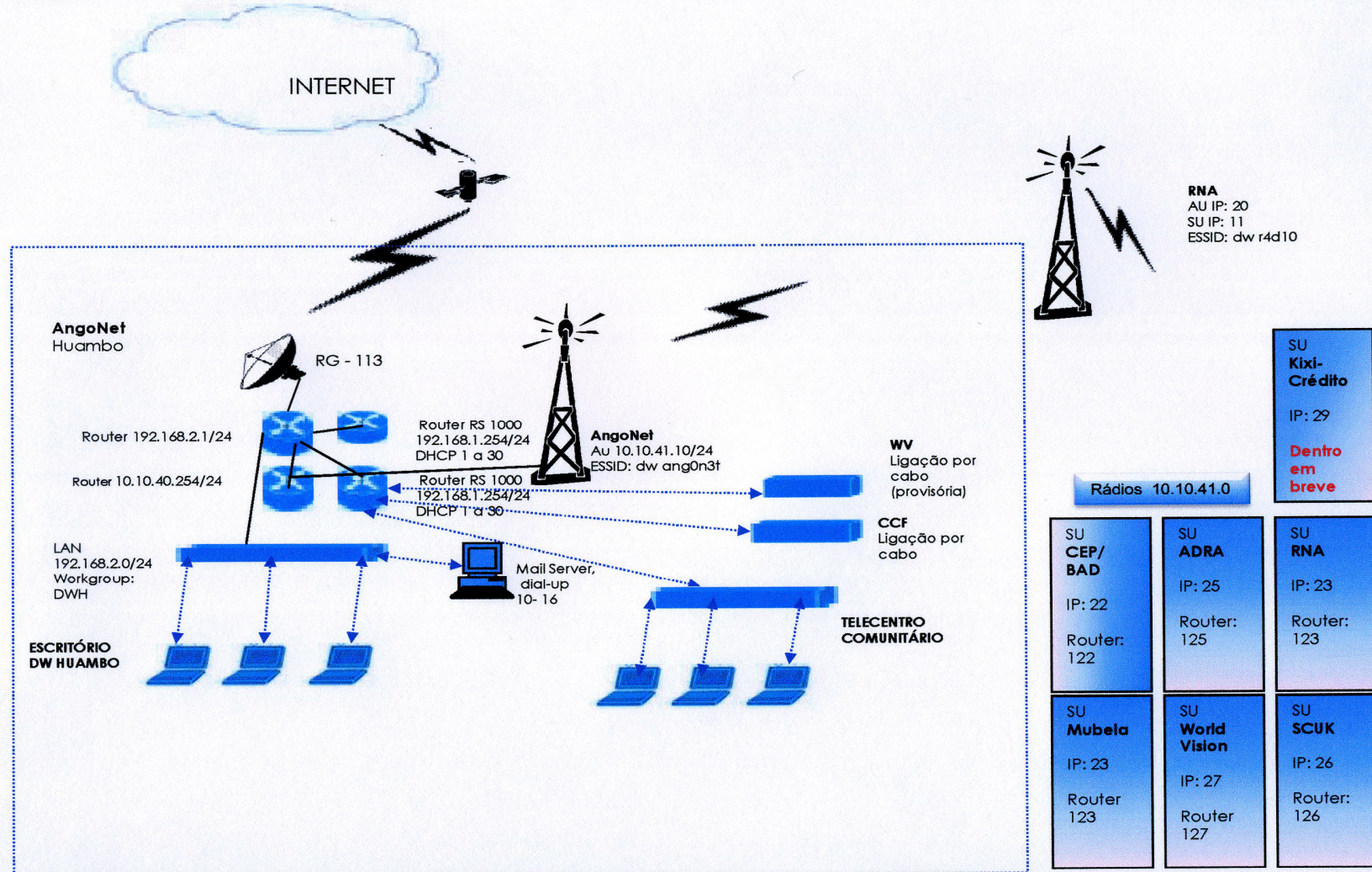
- **LAN is connected via VSAT using a local ISP for Internet connectivity.**
- **Wi-Fi and Cable connections are also used to connect with CSOs' community network.**
- **Dial-up connection is also provided for external users.**
- **In comparison with Luanda and Huambo has the much lower user capacity.**
- **The *Angonet* project encourages capacity building.**
- **Value addition of ICT for CSOs can be observed in Huambo.**
- **ICT have filled an important gap**



# Description of project network

## Wireless network diagram

Diagrama AngoNet Huambo



# Description of project network

## Human Resource and Capacity – available skills

### Project Members

- Project Coordinator: **Olívia Augusto** [olivia@angonet.org](mailto:olivia@angonet.org)
- **Huambo**
- Supervisor: **Jonas Estevão** [sysop.dw@huambo.angonet.org](mailto:sysop.dw@huambo.angonet.org)
- Technical Assistant: **Maria Augusta** [telecentro.dw@huambo.angonet.org](mailto:telecentro.dw@huambo.angonet.org)

## The UNDP and IDRC-CRDI funded the Angonet project-Huambo

- Government
- UNDP
- Inter- Ministerial Commission for Information Technologies
- DW

## DW already operated an email server in the community Telecenter In Huambo.

- This Project started in 2005 .
- In 2006, *Angonet* installation and operation of community network has also taken place in similar corresponding community Telecenters in Luanda and Malanje.
- in 2007 also installation and operation using VSAT and wireless network infrastructures in Cabinda, Uíge and Zaire.



# **Description of project network**

## **Regulatory environment – is wireless and VoIP legal**

- All-IP network solutions are especially useful.
- For Internet connectivity, satellite connections will continue to remain as the only alternative.
- This condition may change.

# Business models

## Close Project with donor “UNDP”

### 1- Cost Recover (Period – January, February, March, April and May 2008 )

- Number of clients: 1.968
- Income: USD 5.090,74

### 2- We are developing a feasibility study

### 3- Same initial ideas for the strategy

- Open one more telecentre in Huambo
- Marketing of telecentre
- Voip IP – using Skype in telecentre
- Personal training: 2 sources
  - Good capacity technique;
  - special salesman;
  - capacity to teach
- Addition of new services in telecentre:
  - sales pen-drives;
  - sales mobile cards (company: Movitel and Unitel)
- Extension of the network wireless for new customers

# Challenges & Lessons learned

## Lessons learned

- To develop an alternative some enterprise model during the life of the UNDP project.
- In a country in a rapid change like Angola we need permanently to identify more services provider in ICT.

## Challenges

- Feasibility
- Different from a commercial firm, but competitive
- Develop a sustainable social enterprise model
- Manage to keep and attract the best staff.
- *Angonet* project must use its asset to the fullest, vitalizing Telecenters as community information.

# **Way forward**

- **Complete feasibility studies**
- **Use Huambo province as case study for Angonet**
- **Start to draw with currently partners in the others provinces to replicate the Huambo model.**
- **Identify new partners for franchise in other province using this model**

**Thank You**  
**Obrigado**