Hydropower in Africa
Continental Perspective as in PIDA

By Prof.M.Elmissiry
Head Energy Programmes
NEPAD

Clean Power Africa

13 – 15 May 2013 Cape Town ICC, Cape Town, South Africa

NEPAD
NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD

Presentation Outlines

1-Energy situation and hydropower potential
2-NEPAD Perspectives Regional integration as way forward
3-AUC/NPCA/AFDB Hydropower programme in PIDA
4- Continental Hydropower project up 2020
5- Project status and finance required
6-Conclusions

NEPAD
NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD

Energy Situation in Africa

- 70% of African population on average has no access to electricity

- access to modern and clean means of energy varies widely over Africa (over 90% in north ,as low as 10%

in West)

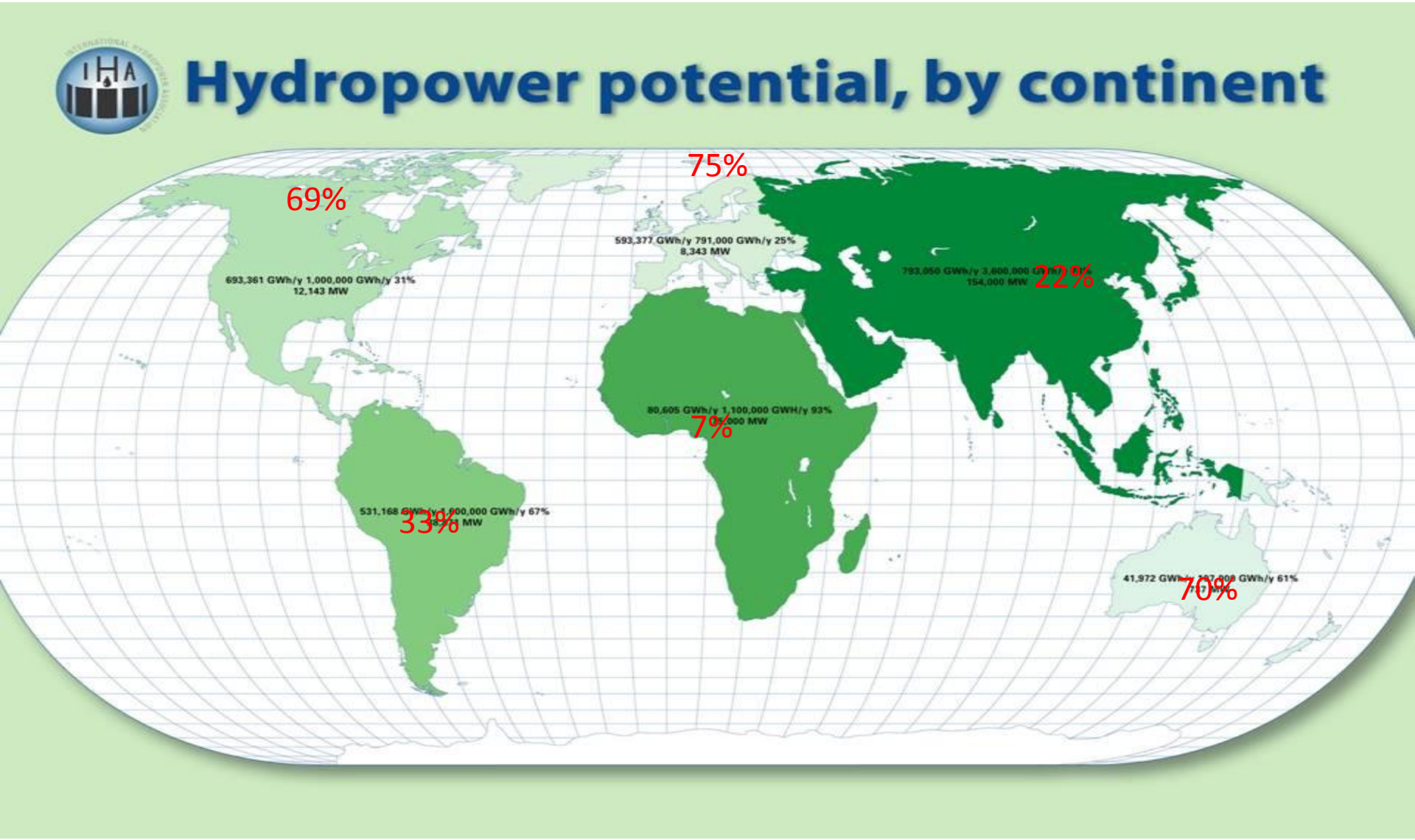
Characterized by power cut and load shedding

Fossil based (67% fossil,29 %hydro ,4% others)

hydropower potential in Africa

huge estimated at 300 GW	concentrated at the four major rivers basin Congo, Nile, Niger and Zambezi,	only 7 % has been exploited!

Hydropower utilization in Africa



PIDA as a Correction Measure

- Stands for Programme for Infrastructure Development in Africa
- AUC/NPCA/AFDB African Grown , Owned Continental Infrastructure Programmes Up to 2040
- Endorsed by Heads of States and Governments
- It covers Energy, Transport ,Water and ICT Sectors

NEPAD

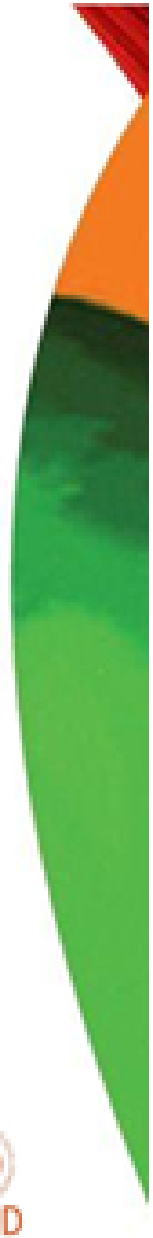
How will PIDA contribute to solve energy accessibility challenge in Africa ?

- Energy Outlook up to year 2040.

- average economic growth of 6.2% ,
- energy demand growth of 5.7 %
- energy accessibility of 60% by2040

Results

current power capacity has to go up fivefold



NEPAD

NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD

PIDA Energy Projects

Short term (high priority)	**2012 to 2020**
Medium Term	**2020 to 2030**
Long Term	**2030 to 2040**

High Priority Projects rolls every five years

How the projects were chosen ?

PIDA Eligibility Criteria

PIDA Selection Criteria

NEPAD

NEPAD Planning and Coordinating Agency

PIDA HYDRO POWER PROJECTS 2020

Nine in total ,contribute about 15,000MW to RECs Grids

NEPAD

NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD

1-Great Millennium

Ethiopia ,40Km from Sudan Border , River Nile

Recs :COMESA and IGAD ,Power Pool :EAPP

5250 MW ,US$8bn ,under construction

NEPAD

NEPAD Planning and Coordinating Agency

2-Inga III Hydropower

DRC ,225 SW Kinshasa, Congo river

Rec: ECCAS , Power Pool :CAPP

4500 MW, 10-13bn US$,S2 ,Construction to start 2014

NEPAD

NEPAD Planning and Coordinating Agency

3-Mphanda Nkuwa

Mozambique ,Zambezi river,60km from CB dam

Rec: SADC ,Power Pool :SAPP

1500 MW,2.9US$,S2 PPA

NEPAD

NEPAD Planning and Coordinating Agency

4-Lesotho HWP Phase II

Highlands in Lesotho ,on Senque river

Bilateral project with SA

Pump storage ,1200MW hydro scheme,US$2.4bn ,S2

NEPAD

NEPAD Planning and Coordinating Agency

5-Sambangalu Plant

Senegal ,on Gambia river ,Close to Guinean Border

REC:ECOWAS ,Pool :WAPP

128MW,US$ 430M,construction to start 2013

NEPAD

NEPAD Planning and Coordinating Agency

6-Kaleta plant

Guinea ,Konkoure river

Rec ;ECOWAS ,Pool :WAPP

240MW ,US$446 ,under construction

NEPAD

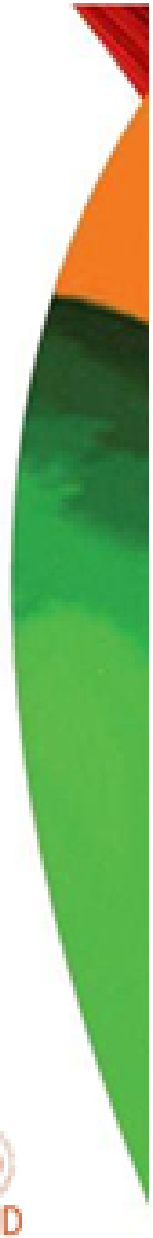
NEPAD Planning and Coordinating Agency

7-Batoka Plant

Zimbabwe-Zambia border,Zambezi river, approx 50km from Vic Falls

Rec ;SADC,COMESA , Pool SAPP

1600MW,US$2.8, Stage :S3



NEPAD

8-Ruzizi IIIPlant

Rwanda/Congo border South of lake Kivu

Rec. COMESA, EAC .

145MW,US$450MW,S3,Construction to start 2013

NEPAD

NEPAD Planning and Coordinating Agency

9-Rusumo Falls Plant,

Rwanda near Tanzania border on Kagera river

Rec: COMESA and EAC :Pool EAPP

61MW,US$350-400MW,S3

NEPAD

NEPAD Planning and Coordinating Agency

Conclusions

On continental Level

Africa is given high priority to the development of its hydropower potential as shown above

NEPAD

NEPAD Planning and Coordinating Agency

THANK YOU

NEPAD

NEPAD Planning and Coordinating Agency
Agence de Planification et de Coordination du NEPAD