



IPv6 in Africa

Hisham A. Ibrahim
IPv6 Program Manager, AfriNIC
ICANN 42 meeting, Dakar
27, October 2011

The True Size of Africa

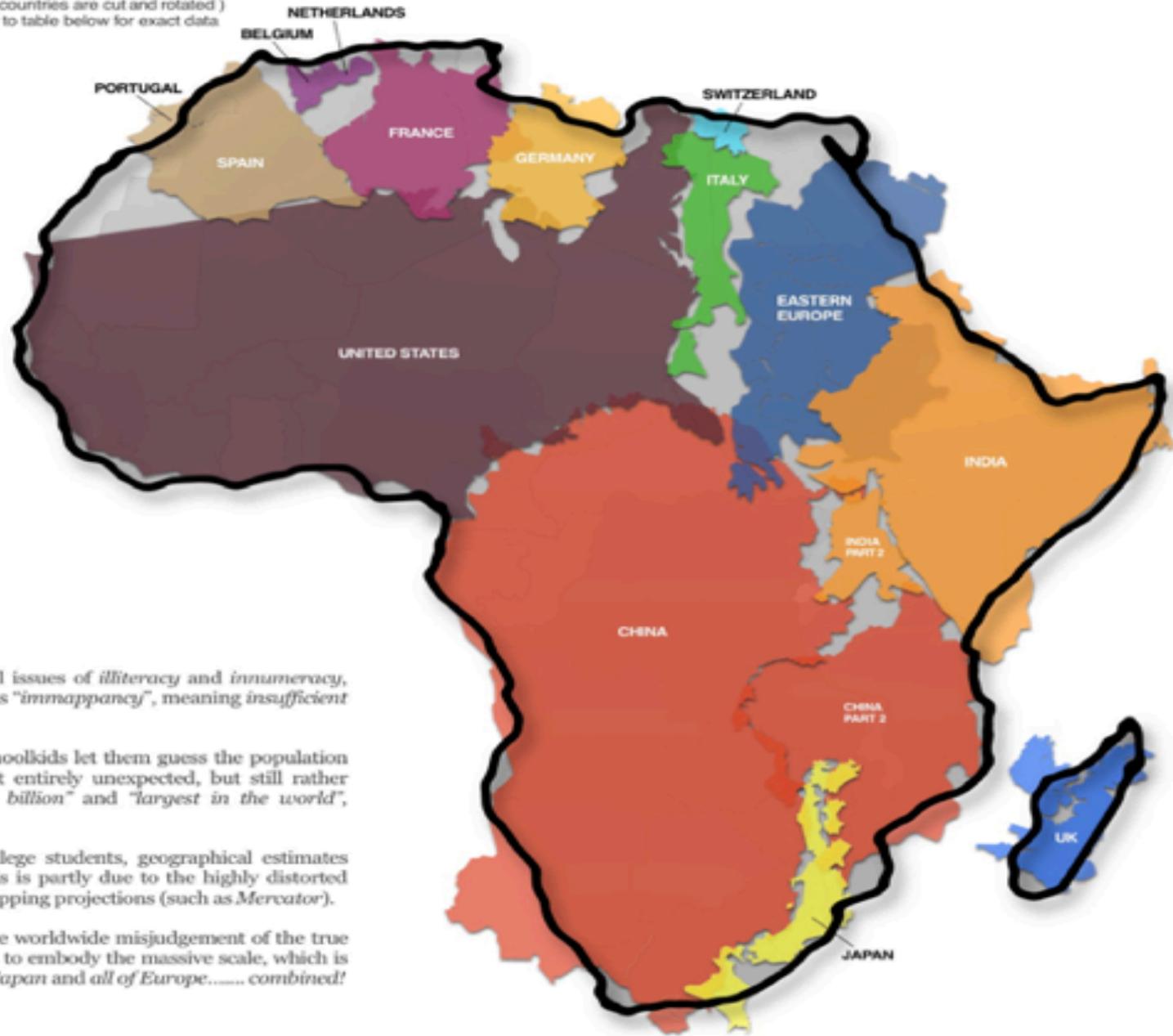
A small contribution in the fight against rampant immappancy; by Kai Krause

Top 100 Countries

Area in square kilometers, Percentage of World Total
Sources: Britannica, Wikipedia, Almanac 2010

Graphic layout for visualization only (some countries are cut and rotated)
But the conclusions are very accurate: refer to table below for exact data

COUNTRY	AREA x 1000 km ²
China	9.597
USA	9.629
India	3.287
Mexico	1.964
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
TOTAL	30.102
AFRICA	30.221



In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as "*immappancy*", meaning *insufficient geographical knowledge*.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose "1-2 billion" and "largest in the world", respectively.

Even with Asian and European college students, geographical estimates were often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA*, *China*, *India*, *Japan* and *all of Europe*..... combined!

About us

Setup in 2004 and headquartered in Mauritius. Employs 23 staff today

AfriNIC

Internet Numbers Registry function

- ✦ Manage IPv4 & IPv6
- ✦ Manage ASN (2 and 4 byte)
- ✦ Manage rDNS tree for IP prefixes in use by African Operators
- ✦ Provide a Public WHOIS
- ✦ Contribute to IP address Management Global Policy development

Other Services to the community

- ✦ Biannual Internet Protocol meeting: 13 so far in 10 countries
- ✦ Internet Infrastructure reinforcement development in Africa:
 - ✦ IXP
 - ✦ DNS Root Server copy
 - ✦ Anycast service to support ccTLDs in Africa
- ✦ Support to **academic Networks**

Training: more than 100 training sessions in 45 countries around Africa since 2005.

AfriNIC/Africa and IPv6

- Since our setup in 2004 we have been engaged in a wide-scale program to raise awareness and build capacity in IPv6 (we have invested more than 1M USD in these activities over the past 5 years).
 - In 2005 there were only 4 networks in Africa that had IPv6 prefixes and most of them were not visible to the Internet.
 - Today we have more than 240 networks with IPv6 prefixes assigned!
 - **10.5 %** of publicly visible networks in Africa are IPv6 ready, compared to the global average of **8.7**

Facts!!!

Fact

- The IANA central Pool exhausted in February 2011.

Fact

- Africa has the fastest Internet users growth in the world.

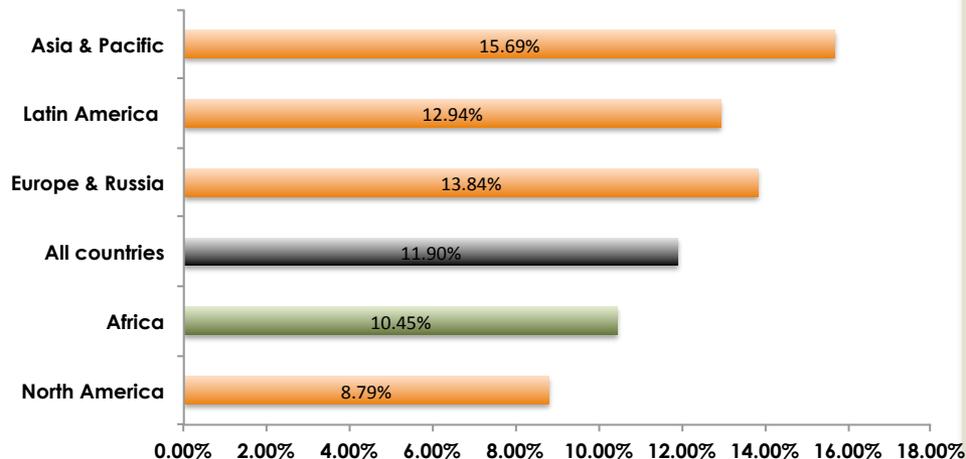
Fact

- Huge increase in IPv4 allocations in the AfriNIC region.
- In 2011 almost double the amount allocated in 2010.

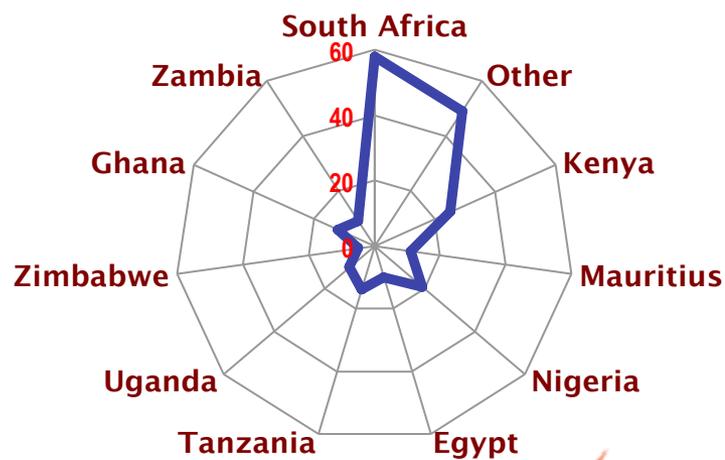
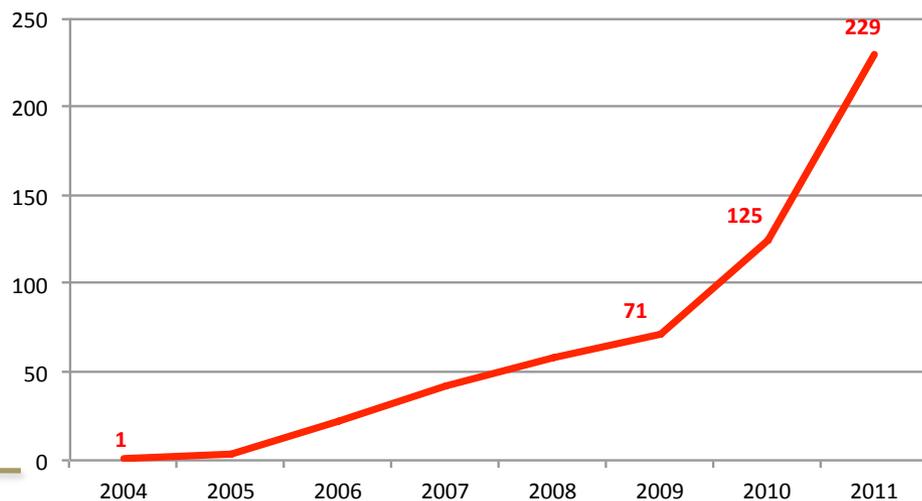
Some data about IPv6 in Africa

We still have a lot to do to catch-up in terms of deployment of IPv6. Currently 4th regionally. With 33 countries that have at least 1 IPv6 allocation.

IPv6 Networks Readiness



IPv6 Allocations growth in Africa



Other AfriNIC regional IPv6 Initiatives

- AfriNIC will launch the African IPv6 Task force (AF6TF), that will act as a common regional platform for IPv6 collaboration and best practice exchange.
- AfriNIC is launching a dedicated IPv6 portal on IPv6 in Africa.
- Mailing lists, published documentation, community support, etc...

Thank you
hisham@afrinic.net



<http://meeting.afrinic.net/afrinic-15/>