

# NETWORK OF AFRICAN SCIENCE ACADEMIES: NASAC

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**G7 meeting in Rome, Italy**  
**May 3<sup>rd</sup>, 2017**

# About NASAC: Mission & Members

Founded in 2001 as independent forum for African science academies to “*promote and encourage the use of scientific thinking within the society and use of science & technology for the development of Africa*”

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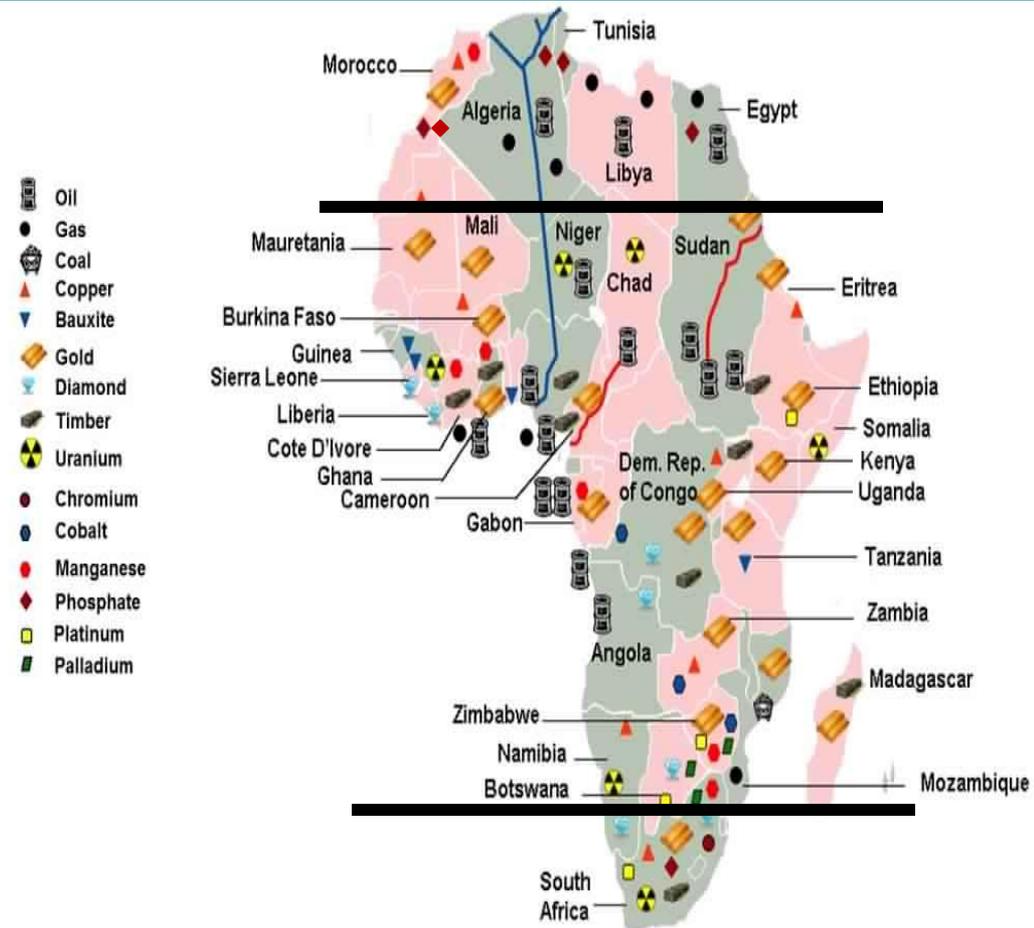
**Helped the creation of new academies: increase from 8 to current 24**

| 24 member academies (2017)     |                  |
|--------------------------------|------------------|
| 1. African Academy of Sciences | 13. Mauritius    |
| 2. Algeria                     | 14. Morocco      |
| 3. Benin                       | 15. Mozambique   |
| 4. Botswana                    | 16. Nigeria      |
| 5. Burkina Faso                | 17. Senegal      |
| 6. Cameroon                    | 18. South Africa |
| 7. Congo Brazzaville           | 19. Sudan        |
| 8. Ethiopia                    | 20. Tanzania     |
| 9. Ghana                       | 21. Togo         |
| 10. Ivory Cost                 | 22. Uganda       |
| 11. Kenya                      | 23. Zambia       |
| 12. Madagascar                 | 24. Zimbabwe     |
| Potential members              |                  |
| Rwanda                         | Namibia          |
| Egypt                          | Angola           |
| Tunisia                        | Rwanda           |

# Facts about Africa

1. A huge land: 30.2 million km<sup>2</sup>

2. Plenty of natural resources



30%  
2<sup>nd</sup>  
1<sup>st</sup>  
of world mineral reserves  
largest forest in the world  
potential in renewable energies

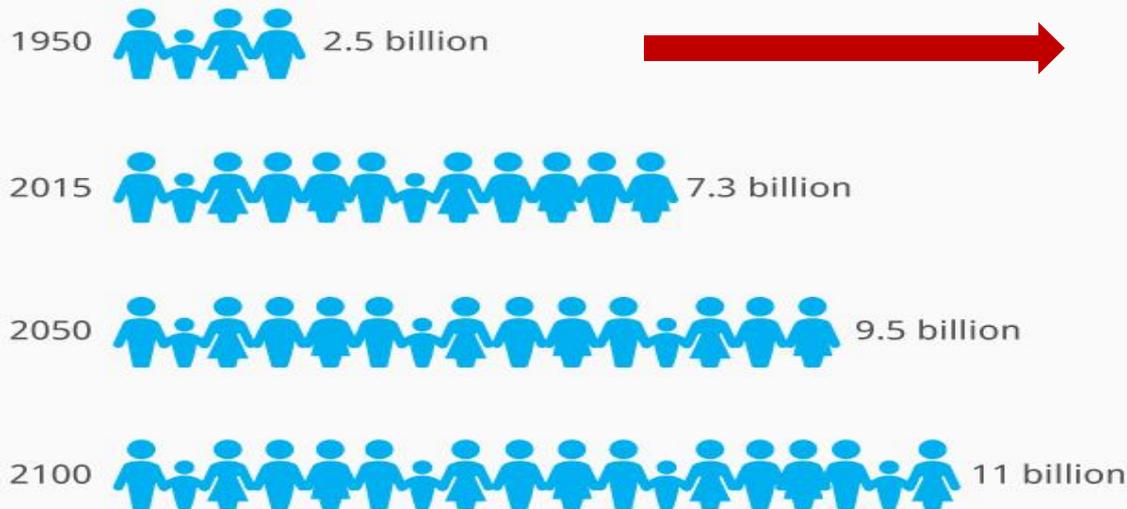
**Africa gets only marginal benefit from its own natural resources**

# Demography of Africa

## By the End of the Century, 40% of People Will Be African

World population forecast with Africa's percentage share

World's Population



Africa's Population

Accounts for

230 million

X5

1.2 billion

X2

2.4 billion

X1.75

4.2 billion

9%

16%

25%

39%



Source: UNICEF

Mashable statista

- ❑ Urban Population increased from 19% to 39% in 60 years
- ❑ More than 470 million new city dwellers
- ❑ Medium age 19.7 vs 30.4 for the rest of the world



Opportunity but also Source of instability & potential social fracture

# Assets & Opportunities

1. Average growth rate ~ 5
2. Huge potential market (infrastructure & commodities)
3. Middle class of 370 Million and will be 1.4 Billion by 2100
4. Africa is the second most attractive destination for investment behind North America & rate of return is high
4. Highest potential for renewable energies (Morocco's initiative)
5. High natural resources for transformative economy
6. Some African countries are well-placed in international business  
Good infrastructure, internationally competitive ports & airports  
financial cities (business environment), industrialisation,.....
7. Young population (less than 20y in average)

| Rang | Pays         | PIB (B\$) 2014 |
|------|--------------|----------------|
| 1    | USA          | 17 947         |
| 2    | Chine        | 10 983         |
| 3    | Japon        | 4 123          |
| 4    | Allemagne    | 3 358          |
| 5    | Royaume Uni  | 2 849          |
| 6    | France       | 2 421          |
| 7    | Inde         | 2 090          |
| 8    | Italie       | 1 816          |
| 9    | Brésil       | 1 773          |
| 10   | Canada       | 1 552          |
| 11   | Corée du Sud | 1 377          |
| 12   | Russie       | 1 325          |
| 13   | Australie    | 1 224          |
| 14   | Espagne      | 1 200          |
| 15   | Mexique      | 1 144          |
| 17   | Pays Bas     | 738            |
| 18   | Turquie      | 734            |
| 19   | Suisse       | 665            |
| 23   | Suède        | 492            |
| 26   | Belgique     | 455            |
| 28   | Norvège      | 389            |
| 36   | Danemark     | 296            |
| 37   | Israël       | 294            |
| 55   | Maroc        | 115            |
| 84   | Tunisie      | 43             |

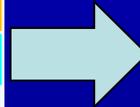


Table 1: GDP at PPP rankings

2030

2050

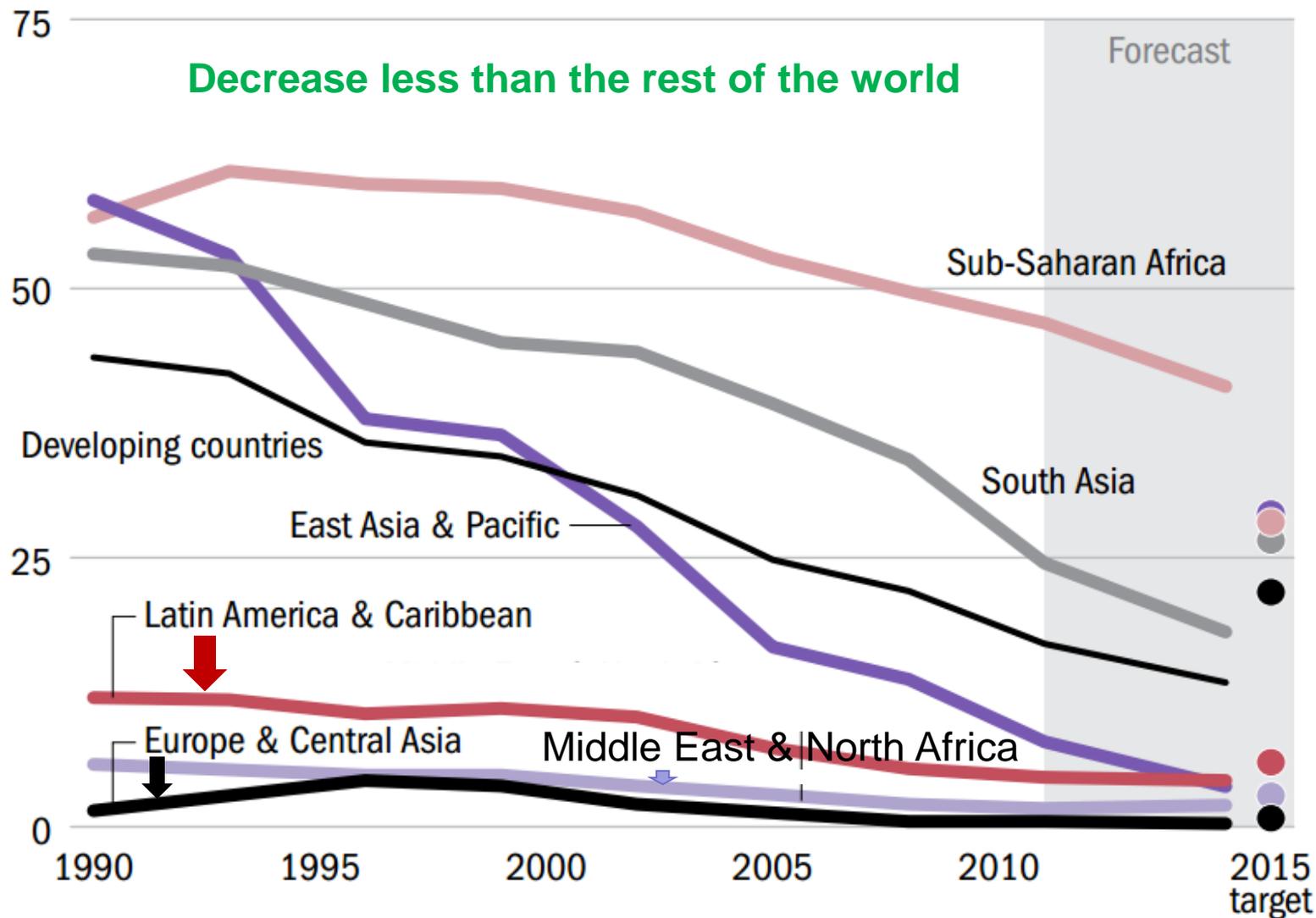
| PPP rank | 2014           |                          | 2030           |                                    | 2050           |                                    |
|----------|----------------|--------------------------|----------------|------------------------------------|----------------|------------------------------------|
|          | Country        | GDP at PPP (2014 US\$bn) | Country        | Projected GDP at PPP (2014 US\$bn) | Country        | Projected GDP at PPP (2014 US\$bn) |
| 1        | China          | 17,632                   | China          | 36,112                             | China          | 61,079                             |
| 2        | United States  | 17,416                   | United States  | 25,451                             | India          | 42,205                             |
| 3        | India          | 7,277                    | India          | 17,138                             | United States  | 41,384                             |
| 4        | Japan          | 4,788                    | Japan          | 6,006                              | Indonesia      | 12,210                             |
| 5        | Germany        | 3,621                    | Indonesia      | 5,486                              | Brazil         | 9,164                              |
| 6        | Russia         | 3,559                    | Brazil         | 4,996                              | Mexico         | 8,014                              |
| 7        | Brazil         | 3,073                    | Russia         | 4,854                              | Japan          | 7,914                              |
| 8        | France         | 2,587                    | Germany        | 4,590                              | Russia         | 7,575                              |
| 9        | Indonesia      | 2,554                    | Mexico         | 3,985                              | Nigeria        | 7,345                              |
| 10       | United Kingdom | 2,435                    | United Kingdom | 3,586                              | Germany        | 6,338                              |
| 11       | Mexico         | 2,143                    | France         | 3,418                              | United Kingdom | 5,744                              |
| 12       | Italy          | 2,066                    | Saudi Arabia   | 3,212                              | Saudi Arabia   | 5,488                              |
| 13       | South Korea    | 1,790                    | South Korea    | 2,818                              | France         | 5,207                              |
| 14       | Saudi Arabia   | 1,652                    | Turkey         | 2,714                              | Turkey         | 5,102                              |
| 15       | Canada         | 1,579                    | Italy          | 2,591                              | Pakistan       | 4,253                              |
| 16       | Spain          | 1,534                    | Nigeria        | 2,566                              | Egypt          | 4,239                              |
| 17       | Turkey         | 1,512                    | Canada         | 2,219                              | South Korea    | 4,142                              |
| 18       | Iran           | 1,284                    | Spain          | 2,175                              | Italy          | 3,617                              |
| 19       | Australia      | 1,100                    | Iran           | 1,914                              | Canada         | 3,583                              |
| 20       | Nigeria        | 1,058                    | Egypt          | 1,854                              | Philippines    | 3,516                              |

# Threats and challenges

- High % of illiteracy
- High vulnerability to climate change: water scarcity
- Demography & rate of fertility (North Africa ~2, while SSA can reach 7:Chad)
- Access to electricity and drinkable water: NA =99.7% some SSA: < 8%
- Food security (low yield in agriculture)
- Problem of sanitation, epidemics and infantile mortality
- Only 1/5 in Africa working in wage economy
- 80% of SSA countries economy is agrarian
- Low translation of growth into poverty reduction: Migration & immigration
- Big efforts to be put on education & science
- Change of extractive economy to transformative one

# Poverty in Africa

Proportion of the population living on less than 2005 PPP \$1.25 a day (%)

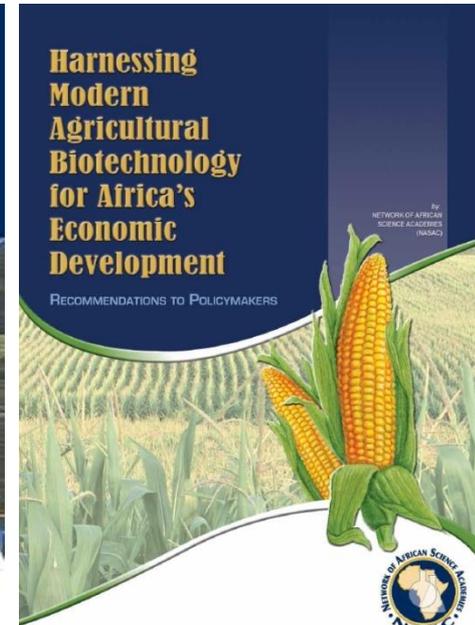
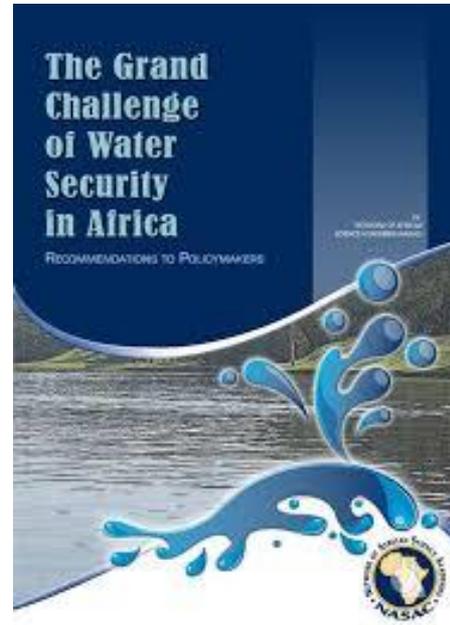
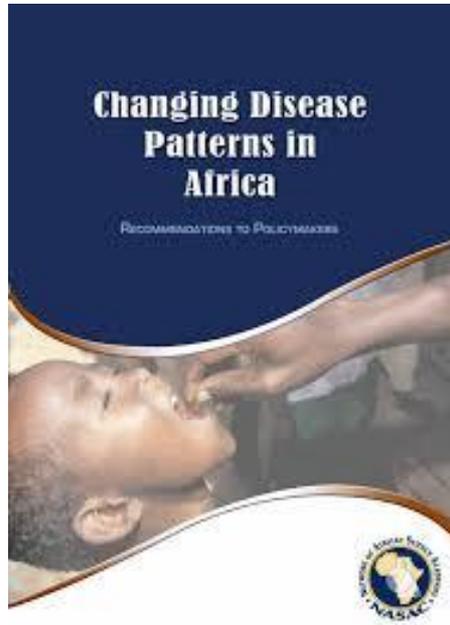
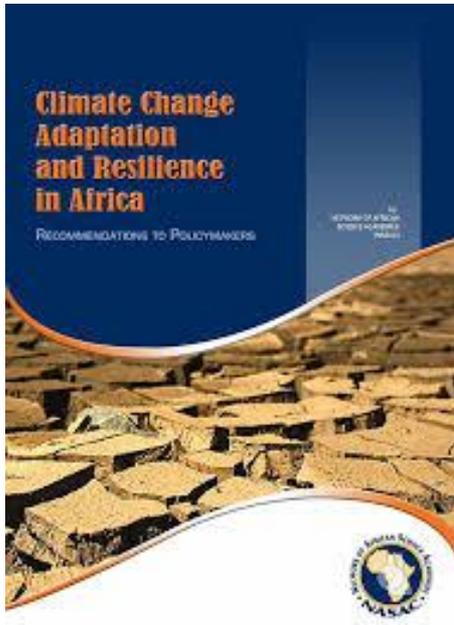


Source: World Bank PovcalNet (<http://iresearch.worldbank.org/PovcalNet/>).

## Role of NASAC in Africa

- Share of experiences and expertise between academies
- Created independent **advisory groups of** experts in various fields of importance to Africa : Countries, African Union, World Bank, UNESCO, MDGs for Africa.....
- Booklets of Policymakers
- Mains à la pâte: Hands on
- Advises to governments:
  - Renewable Energies; Sustainable Development
  - Homophobia; Women in Science; Science based Education: AMASE

# NASAC Booklets for Policymakers



Used for COP22 statement: signed by all African Academies and more than 200 International Universities

**Thanks to Leopoldina (Germany) & IAP**

# Activities



EXPERT PANEL WORKSHOP ON FOOD AND NUTRITION SECURITY AND AGRICULTURE IN AFRICA  
9th - 10th May 2016, Hilton Hotel, Nairobi-Kenya



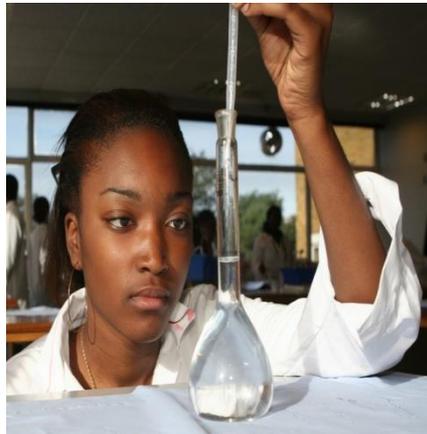


January 2016 - December 2020

# Leading Integrated Research for Agenda 2030 in Africa



Sweden





## LIRA 2030

### Thematic Focus

Global environmental change

Disaster risk reduction

Urban health and human wellbeing

Sustainable energy

*(9 grants of EUR90K each on the nexus, gender equity and poverty reduction lens on theme)*



# Counting on your support...

Thanks to:

**Leopoldina (Germany),**

**KNAW (Netherlands)**

**French Academy of Sciences (France)**

**IAP**

**Hassan II Academy of Science and Technology  
(Morocco)**

**Government of Sweden**

