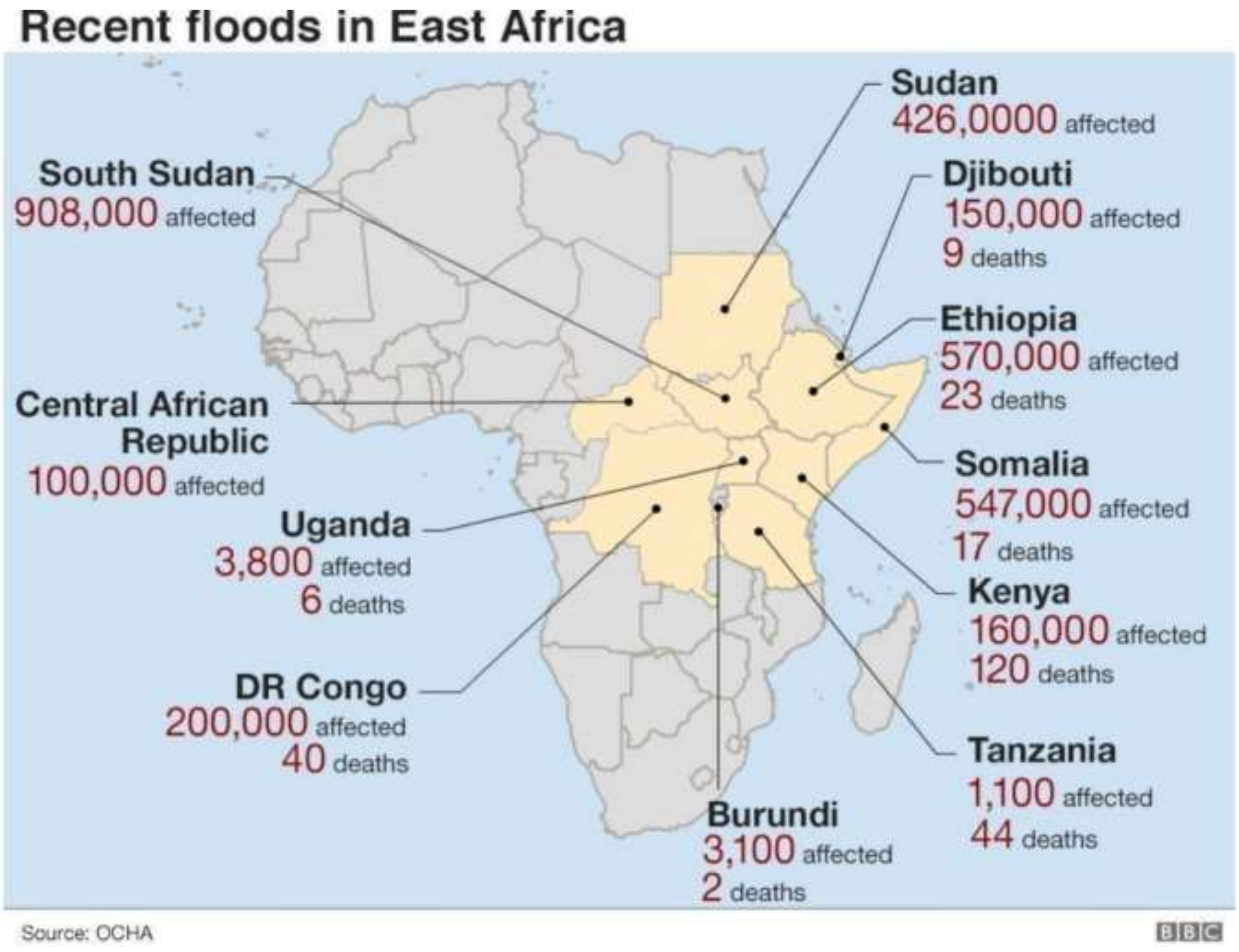
CLIMATE FINANCE FOR AFRICA IN THE XXI C.

Rabah Arezki

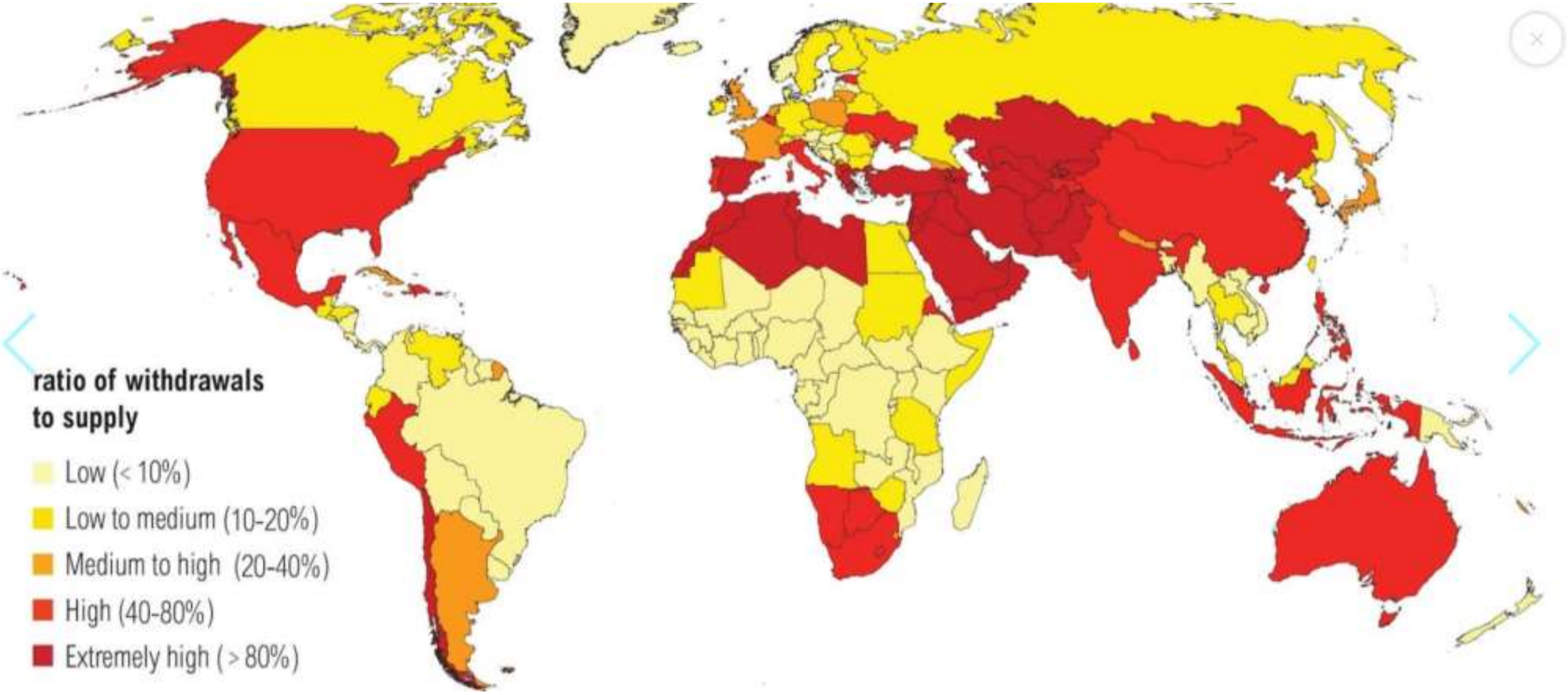
CLIMATE CHANGE AND CONSEQUENCES FOR AFRICA

- **Africa is NOT a big contributor to global warming.** Small source of greenhouse gas emissions. 3 % of global CO_2 emissions. Development gap explains it. Only **47% of population SSA have access to electricity.**
- **Yet, Africa is particularly vulnerable to climate change.**
  - **Rising temperatures, increase in frequency of extreme events** (heat waves, drought, flooding,…) and weak capacity to adapt
  - **Raising (extreme) poverty which is concentrated in agriculture or form of activities dependent on nature leading to intra/inter state conflicts**
  - **Different parts of the continent affected differently** with **Sahel most vulnerable** in terms of **food security** with its pop. growth and scarce land and water resources,…

FLOODING IN EAST AFRICA



WATER CRISIS IN NORTH AFRICA



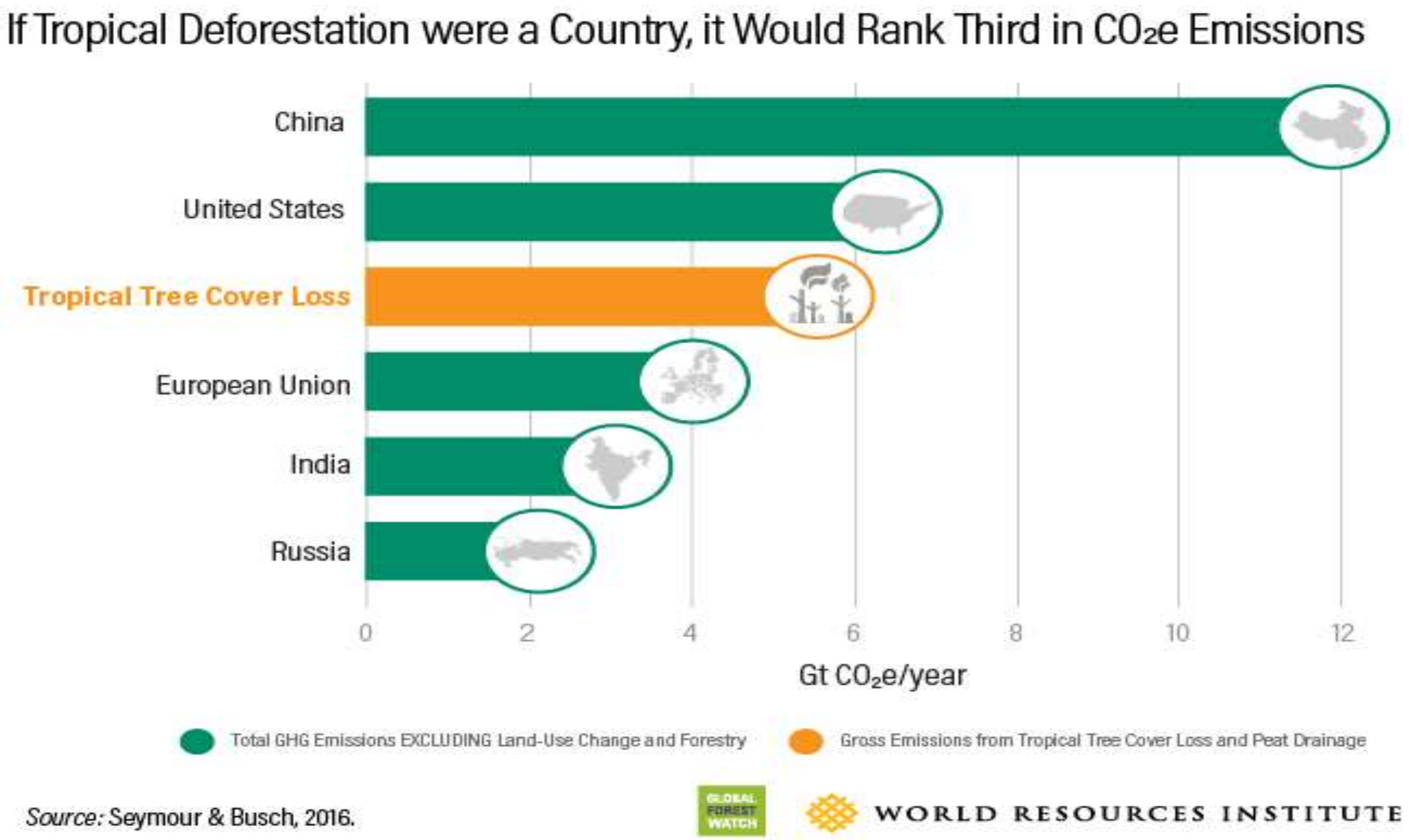
Source: World Resources Institute

EXTERNALITIES AND INTERDEPENDENCIES

- Climate change is a **hard problem to solve not least because of gap between social vs private returns. Africa is at the center of that complex web of interdependencies.**
- **Temporal and spatial discounting pbs. Development vs. environment debate** complicated by distrust of governments
- **Multifaceted set of risks and hidden costs:** Damage risk, distributional implications (carbon pricing), transitional risk (stranded assets destabilizing mono-oil producers…) hinge upon climate governance not just carbon pricing…
- **NEEDED multilayered coordination to account for interdependencies:**
  - **Global climate governance**: North pays for the South to preserve the environment? Rain forest in Congo Basin as natural carbon sinks.
  - **Regional, national, local climate governance**: interdependencies with the continent. e.g., lake Chad. DRC canal to help restore lake Chad and private sector, communities. Late E. Ostrom perspective natural resources as commons. Polycentricity, not just national regulation.

=> **It is a global village and increasingly in the interest of advanced economies to help poorer ones to deal with global warming**

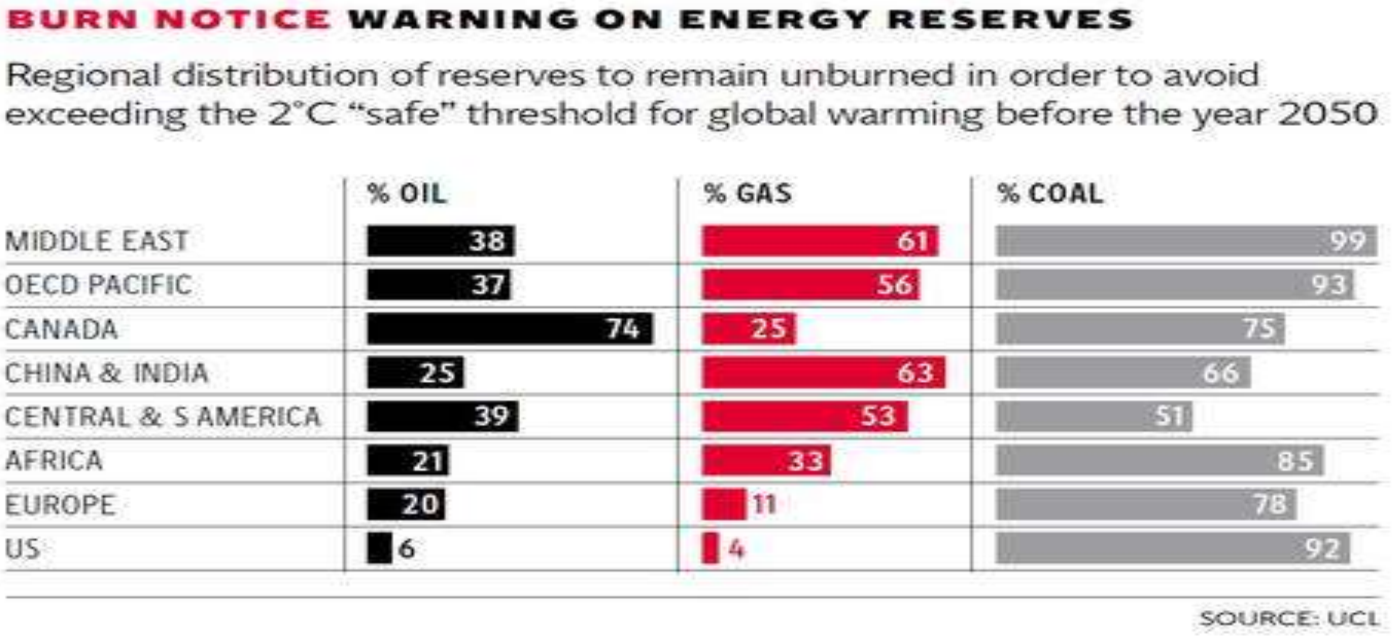
DEFORESTATION AND CARBON EMISSIONS



EXAMPLE OF TRANSITION RISKS: STRANDED ASSETS DESTABILIZING MONO-PRODUCERS

Post **Paris COP21**: NDCs/carbon budgets entail to keep only 1/3 of oil (Canada, Arctic). Reserves unburnt: 50% of gas & 80% of coal (mainly China, Russia, US).

Reserves 3x the carbon budget. In the **Middle East 260 billion barrels of oil cannot be burnt (**30% of oil reserves)**.** McGlade and Ekins (2015, Nature)

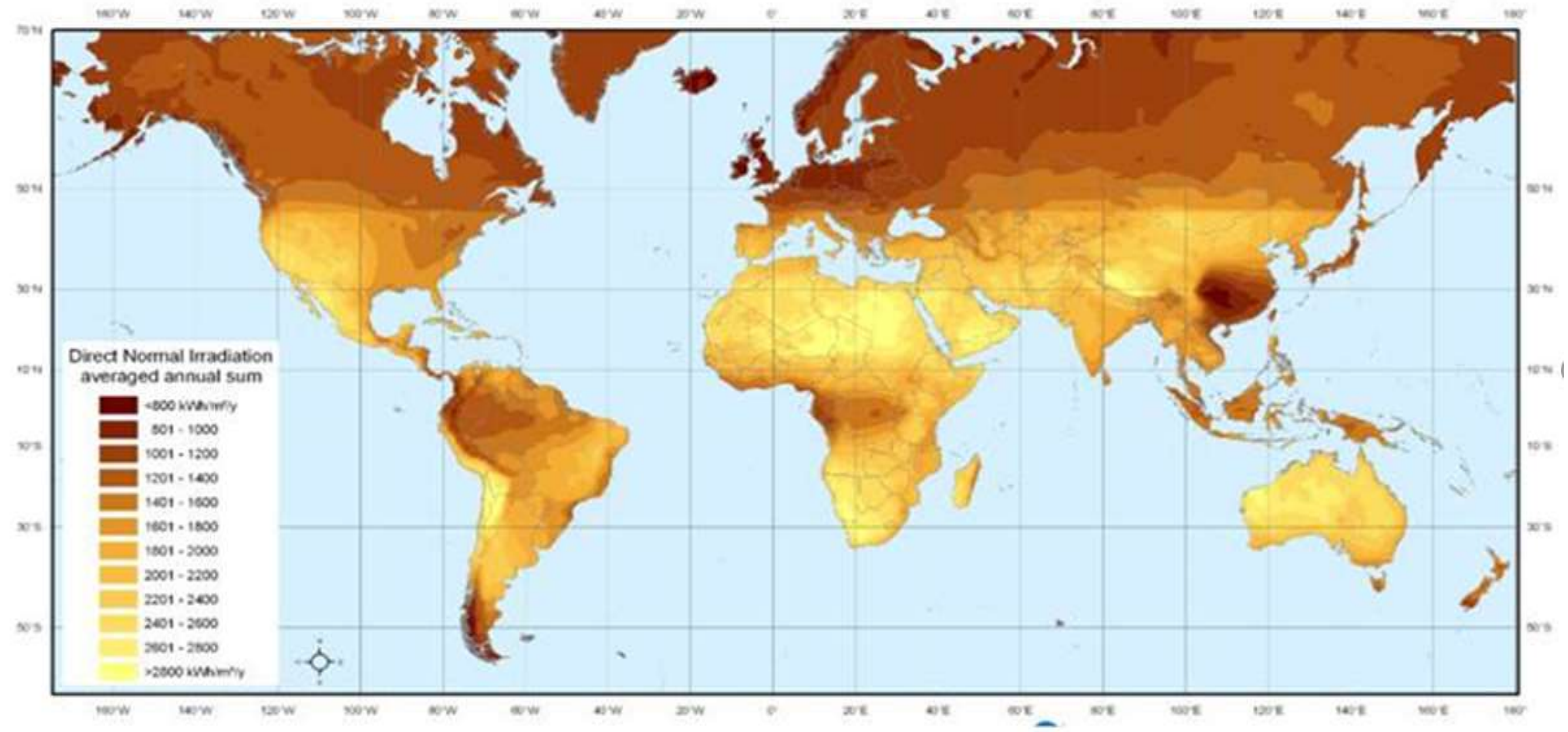


GREENING AFRICAN ECONOMIES

- **Adaptation** of **agriculture through drought resistant varieties**, crop diversification, changes in cropping patterns… paradox of North Africa exporting water while water stressed region (subsidies, hidden cost to aquafer…)
- **Mitigation** by **transforming energy systems** to reduce emissions by moving away from coal and fossil fuels (reduce energy intensity and build capacity to address access/shortages and fast-growing demand)
- Africa has a **large potential to green its electricity system** from solar, hydro and wind yet, Africa **lacks capital, technology and governance to realize that potential** (Collier et al. 2008)

=>If **nothing is done, abundant oil and gas reserves (tradable benefiting already installed capacity) and even coal will remain the dominant sources of energy** and foreign exchange receipts

UNTAPPED POTENTIAL IN SOLAR, WIND AND HYDRO….



Source: U.S. National Aeronautics and Space Administration.

PARIS ACCORD AND DEVELOPING COUNTRIES

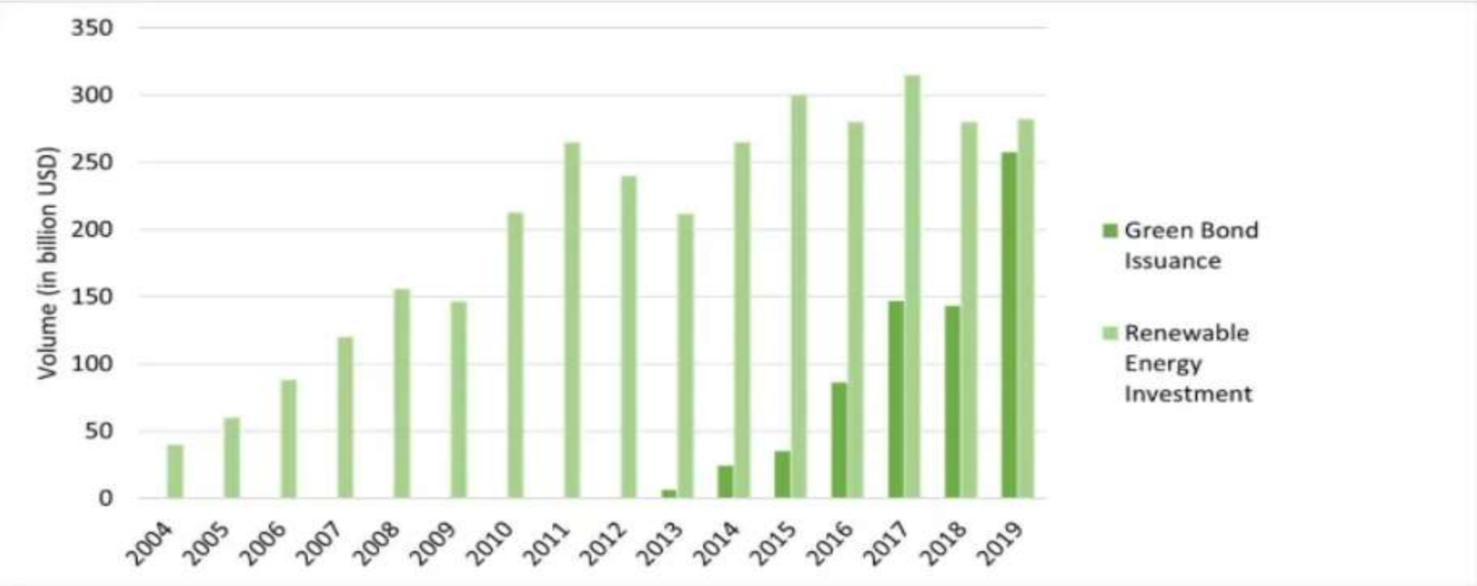
- **Paris COP21**: near universal agreement that is **legally binding to reduce greenhouse gas emssion** to **limit the global temperature increase in this century to 2 degrees Celsius** above preindustrial levels, while pursuing the **means** to limit the increase to 1.5 degrees
- **Targets**: **Nationally Determined Contributions (NDCs)** are non-binding national plans highlighting climate actions
- **Promise**: **100b/year pledge in funding from 2020 onwards to help poorer nations** develop cleanly and adapt to **climate** change. U.N. SG warned that rich governments are **"lagging badly“ on their commitments.**
- **Unpacking the “100b/year”:** establish a **Green Climate Fund but …** Silent on where 100b/year will come from? Concessional (loans vs grants, bilateral vs multilateral), private sector, technology transfers (gains from R&D spending bringing down cost and efficiency of wind turbine, solar PVs…)

CLIMATE FINANCE AS A GLOBAL INFRASTRUCTURE FINANCE PROBLEM?

- A lot goes of climate action on mitigation goes back to **allocating what global savings glut (trillions in pension funds and other institutional investors looking for higher yield investment) into infrastructure investment**. Need a big pipeline of infrastructure project securitized with element of de-risk by the public sector.
- Solutions proposed by Arezki, Bolton, Peters, Samama and Stiglitz (2017): **Development Banks** instead of direct investment (retail) should be doing (wholesale) **"originate and distribute"** Public Private Partnerships.
- **Technology and policies. Need not just money pored in infrastructure but technology breakthrough and policies.**

=>Money be spent **beyond project to catalyze developing a bond market to catalyze private sector, fiscal policy (carbon price), tax to stimulate innovation and appropriate trade policy .**

TRILLIONS, NOT BILLIONS…



Source: Bloomberg and Bloomberg New Energy Finance.

AFRICA ALMOST ABSENT FROM GREEN BOND ISSUANCE

THE ROLE OF FINANCE IN GREENING THE ECONOMY—UPSTREAM CHALLENGES

- **Disclosure and data.** Scarce data on the continent clashing with demands from shareholders in the West (Exxon, Total). Need data also to understand **risk and price it so insurance to help create markets. ESG rating albeit voluntary is a push factor but pull factor limited**.
- **Financial system as a clogged conduit for foreign investment.** Thin domestic financial sector/Financial repression. Can all be driven by sovereign borrowing. **This raises the cost of financing for non sovereign borrowers, especially banks. Context of looming debt crisis, risk cutting Africa from financial markets.**
- **Efficiency of the electricity sector.** Electricity sector have **not been liberalized**, tariffs are tightly regulated and very low Sector is not viable. Need unbundling between **generation** (segment that is competitive) and **distribution** (not competitive) to make the power sector in many countries efficient and **promote competent and independent regulators**.

THE ROLE OF FINANCE IN GREENING THE ECONOMY—DOWNSTREAM CHALLENGES

- **Decarbonization of transport.** In Africa, **inefficient public transportation** and big reason behind can't reform universal pervasive fuel subsidies. From an investment standpoint **need to develop assets on the transport** fronts (railroads, highways, public transportation…) to ensure energy demand predictability and help stimulate investment in the electricity sector.
- **Bankability of Power Purchase Agreement (PPA)**—**Financing cost is higher developing countries than in advanced countries, and cannot be passed on to consumers because of caps on tariff. This makes difficult the availability of bankable purchasing power agreement.**
- **Need domestic climate and social standards.** We can't rely solely on sovereign borrowing; the business environment and the climate governance need to be right. Importantly, need to bring together economy and societal goals. Need for these to develop local firm capabilities and it is not just be about FDI/transfer of technology. **Create green jobs**. e.g. use decentralized power rather than centralized power projects to get consumers to become producers and benefit from reform of tariffs. **SDGs allowing to connect top down and bottom-up objectives**. Different systems have different distribution of shouldering of risks and costs. Health risk is transferred to gvt (China, France) vs consumers (US, Africa).

WHAT INSTRUMENTS?

- **Carbon credit scheme need to be scaled up. carbon credits can be sold to governments, companies or individuals seeking to complement their internal emission reductions and to further decrease their carbon footprints.** Finance from the sales is channeled to forest countries and communities, providing alternative livelihoods for people who until then had relied on depleting the forest for their livelihood. This finance also supports new jobs, wildlife protection, education, clean water and other initiatives that seek to transform the local economy away from reliance on the forest. By the end of 2020, 77 projects for "reducing emissions from deforestation and forest degradation" (REDD) were registered under the Verified Carbon Standards (VCS) and 185 million credits were issued.
- **Green bonds, blended finance, insurance markets…** Use blended finance. Noor. UK nuclear. Mezzanine. Mature vs. non mature market. Green bonds (in mature markets demand uncertainty less, costs... vs. PPP. Bankable PPA transformational and catalytic.
- **Impact investing may be appropriate for Africa given relatively small size of private sector**. Promise of ESG from passive index investing (underweight oil and overweight tech) to actual investment in renewables: private adapting portfolio ESG, what does ESG means for sovereigns? ESG data for sovereign for data. Portal with data. Regulation. Institutional investors. Japan pension funds. Sweden. Massive impact of ESG adoption. IFC performance standard, invented by standards. Rating organization, disclosure of data, transparency, oil revenue, need to borrow.

AFRICA-CHINA: KEEPING ACCESS TO K MARKETS BUT WITH OPACITY…

- **Context: Covid crisis risks shutting off Africa from access to global k markets**. Growth new normal. Deficit widening (revenue down, spending up) Looming debt crisis. Remake of 1990s? with debt forgiveness too little too late and with strict debt limit policy. Africa needs to borrow for development. **This time is different: nontraditional creditor namely China (Belt & Road Initiative) is the new factor.**
- **Resource backed loans.** Contingent liabilities. Debt contracts not disclosed. Opacity benefiting creditors. China and Angola (see NRGI Report).
- **From resource backed loans to green-nature-blue bonds**. Nexus between access to K markets (**promote green and nature/blue bonds** lowering repayment when gvt take care of environment) and transparency around resource backed loans in context of looming debt crisis
- **Example Blue bonds**. Seychelles. Beware of green washing and actual governance. Tuna bond Mozambique. State owned contracted a 2b USD from Swiss banks with hidden government guarantee.

AFRICA-EU RELATIONSHIP: LEARNING FROM EU INTEGRATION AS A LEVER FOR GREENING AFRICA

- **EU lessons from deepening economic integration** to Africa could help activate the **regional lever to boost the green energy sector and jobs:**
  - *D*eepening AfCTA with coherent tax, competition and trade but also financial policies to promote investment including to greening the electricity sector. Small markets so use bigger demand pool. **Regionalizing tenders and regulators**, regionally traded goods and service: electricity…
- **Accompanied by pragmatic partnership** for the Africa-EU partnership: *Agriculture and environment, energy & mineral resources*
  - Nexus between attainment of ***climate goals & technology transfer*** *to address issue of economic marginalization (access to electricity, drinking water) at scale*
  - Nexus between **access to K markets** (**promote green and nature/blue bonds** lowering repayment when gvt take care of environment) and **transparency** around resource back loans in context of looming debt crisis
  - Nexus **FDI + Local content/transformation**=>jobs especially in local communities where mineral and other extractive operate

CONCLUSION: GREEN FINANCE AS A TOOL FOR RADICAL SHIFT IN GOVERNANCE

- **Historical shift in preferences of shareholders (Exxon, Total,…) which has the potential to narrow of the gap with stakeholders in developing countries.**
- Think about pensioners in Canada and villagers in Congo Basin. Shareholders have goals in terms of preserving the environment and societal benefits. Demanding a lot more disclosure and transparency by the companies they invest in for their operations in developing countries
- Reducing the **informational rents** of country and corporation chief executives… Good for the shareholders in North and stakeholders in the South...

THANK YOU