4th Global Climate Policy Conference
16 -17 August 2018
São Paulo, Brazil

NEW INNOVATIONS FOR ADDRESSING INEQUITABLE DEVELOPMENT AND LOW ELECTRIFICATION RATES IN THE GLOBAL SOUTH AND LATIN AMERICA THROUGH CLIMATE FINANCE AND NATIONALLY DETERMINED CONTRIBUTIONS (NDCS)

Dumisani Chirambo
Seeds of Opportunity
Blantyre, Malawi
Email: info@seedsofopportunity.org

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Climate Change and Inequitable Development

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Climate change deepens inequalities and multiplies threats. It is our obligation to address this problem before its consequences become irreversible. Future generations will judge us not only for the growth of our economy and its social impacts, but also for our capacity to face the climate change challenge"

Michelle Bachelet, President of Chile

The Sustainable Development Goals

Figure 1: The Sustainable Development Goals (SDGs)
Source: UNDP, 2017

Table 1: Electrification Rates

Region	% Electrification
World	82
Developing Asia	83
North Africa	99
Sub-Saharan Africa	42
Latin America	97
Developing Countries	76

Source: Hancock , 2015 and ARE, 2017

22 million people unelectrified in Latin America

Climate Change, Migration and Inequitable Development

Figure 2 : Climate change induced migration
Source: Rigaud, et al., 2018

- Due to climate change, sub-Saharan Africa, South Asia and Latin America could see more than 140 million people move within their countries' borders by 2050.
- The World has 1 billion slum dwellers, slightly less than one third of the global urban population.

Slum Development in Latin America

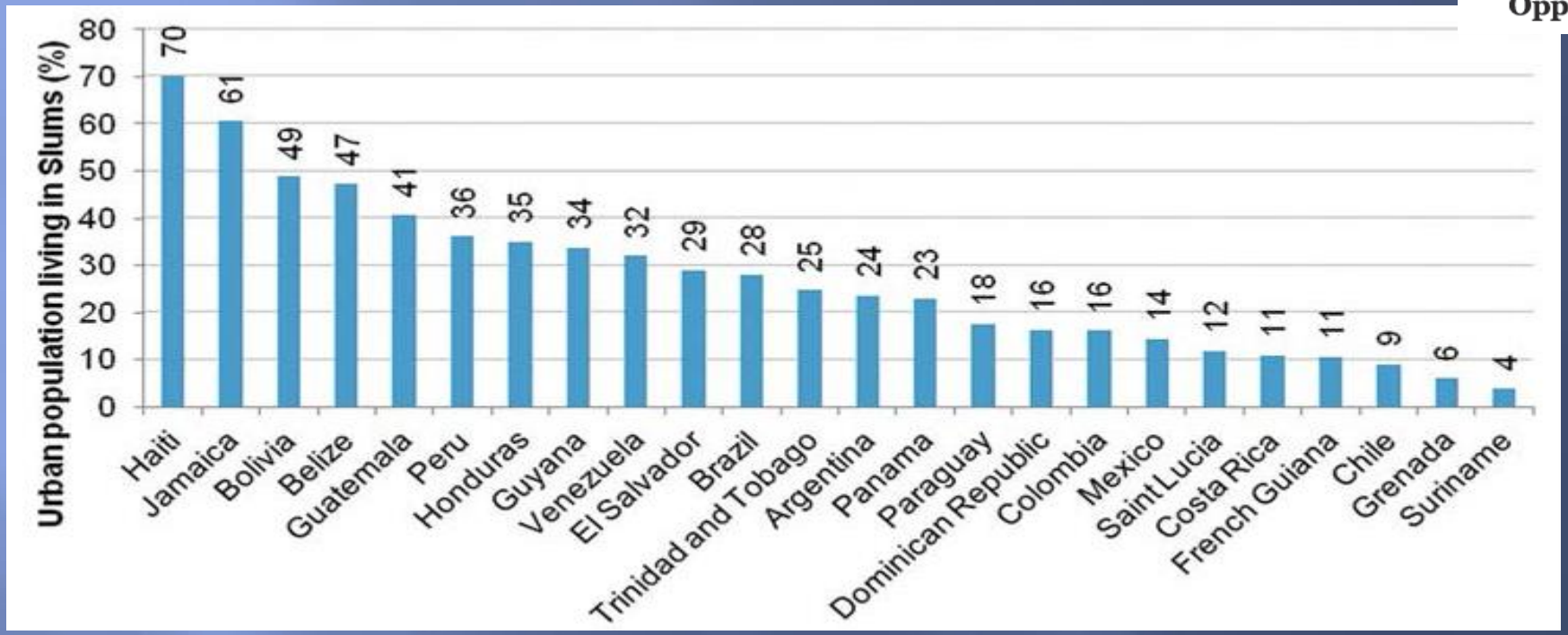

Figure 3: Latin America Slum Development
Source: Butera et al., 2016

24% of urban residents in Latin America live in slums and this number is expected to grow by half a million people every year, reaching 120 million by 2020 .

With climate change, Internally Displaced People migrating from climate vulnerable regions to other climate vulnerable regions?

South-South Cooperation Transformations

- Nationally Determined Contributions- Locally determined voluntary commitments in keeping with the country's capabilities, economic and political context, circumstances, national priorities, and ambitions for setting its economy on a low-carbon development path.

- Duplicating Global North infrastructure development models in the Global South will not be sufficient to facilitate sustainable development more especially to meet the needs of poor communities.

- Pro-poor innovation models in various sectors will need to emerge in developing countries in order to be successful (Tawney et al., 2015).

- The historical paradigm or notion that technology transfer from the global North to emerging economies is outdated- increases in indigenous innovation capabilities, resulting in South-South technology transfer and cooperation as well as elements of 'reverse' South-North technology cooperation (Urban, 2018).

South-South Cooperation- The Grey Areas

1. Less conditionality as considered as interference with national sovereignty.

2. Minimal cumbersome and bureaucratic processes.

3. Weak emphasis on environmental and social safeguards to reduce long and complex planning processes (Urpelainen, 2012; Hensengerth, 2018).

4. Emphasis on the viability of a project rather than the debt sustainability of the country in which the project will be implemented in (Chen, 2018).

Equitable development or more rent seeking?

South-South Cooperation- The Grey Areas

Seeds of Opportunity

Corruption is considered as a driver of climate change vulnerability and a factor undermining economic and social development (T.I., 2011):

- Misappropriation of funds
- Certification of substandard work/infrastructure
- Bribery in the awarding of contracts
- The distortion of scientific facts

International-public investments for climate change of no less than US$250 billion per annum will eventually flow through new, relatively uncoordinated and untested channels; and 'fast-track' solutions (which might further enhance the risk of corruption).

Climate investment needs in Latin America and the Caribbean (LAC) are forecast to rise to around US$80 billion a year in the next decade—almost three times what the region invests today (Abramskiehn et al., 2017).

Climate Ambition Vs Transparency in the RE Sector

Seeds of Opportunity

Technological innovation alone is insufficient to address climate change challenges - (bottom-up) social innovation (Bergman et al., 2010).

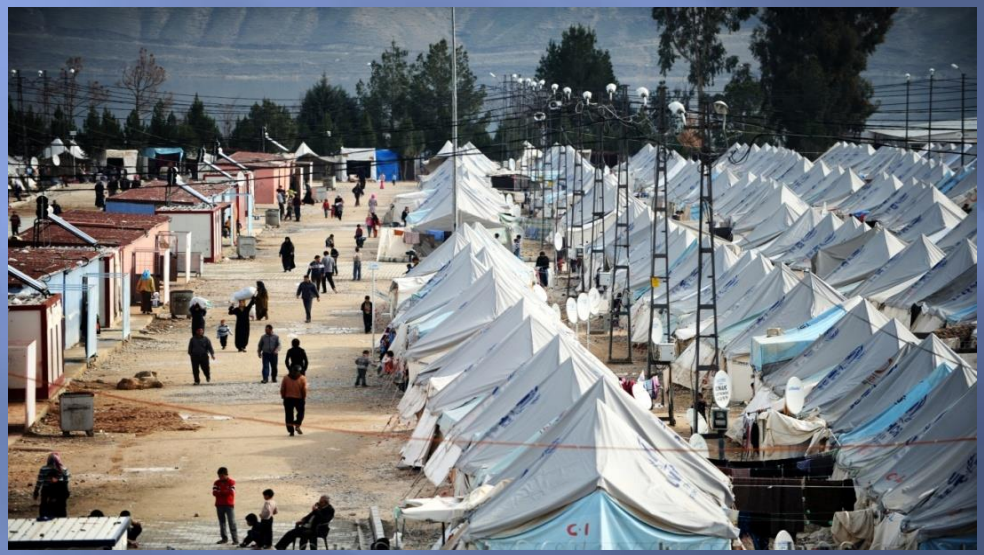

Figure 4: Infrastructure in refugee camps
Source: Edam, 2013

Figure 5: Decentralised urban electrification
Source: Envis Centre, 2018

Climate Ambition Vs Transparency in RE the Sector

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A) Renewable Energy Entrepreneurship

- Avon model- community members trained to become door-to-door salespersons or direct salespersons of renewable energy products and services (Amankwah-Amoah, 2015).

- Solar Sisters in Kenya- The Last Mile and youth unemployment.

Replicate for rural electrification in Latin America?

Climate Ambition Vs Transparency in the RE Sector

Seeds of Opportunity

B) Renewable Energy ODA

South Korea will reduce its CO_2 emissions by 37% from the business-as-usual level by 2030, of which 25.7% relates to reductions in the domestic area and the remaining 11.3% to the use of the international market mechanism and/or reduction in foreign countries (Kim et al., 2018).

Programme that will see part of its ODA commitments being in the form of building 5 megawatts wind, photovoltaic, and biomass power plants in developing countries every year from 2017 to 2026. This means that by end of the programme, South Korea would have added 50 megawatts of renewable energy in the Global South spread over 21 countries.

Brazil hydroelectric ODA?

Climate Ambition Vs Transparency in the RE Sector

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C) Financial de-risking instruments

Limited understanding of the risks and financial structuring of different types of climate financing projects leading to perceptions that climate-relevant projects offer poor risk-adjusted returns.

New financial risk mitigation tools such as the Put-Call Option Agreement (PCOA). Through the PCOA, host governments agree to purchase power assets at an agreed strike price in the event of a default or termination of a power purchase agreement (Power Africa, 2016).

Deployment constrained by limited government capacity and lack of familiarity with the arrangement (Power Africa, 2016).

Utilise NDC Funds?

Concluding Remarks

Improve the governance of South-South Climate Finance and South-South Cooperation modalities to promote equitable development.

- New transformational approaches to development need new institutions and frameworks to enhance transparency and accountability.
- Financial de-risking tools to reduce direct capital and aid transfers, support new financing mechanisms, attract private finance and reduce electricity costs.

"Rachet-up" climate governance systems and not just greenhouse gas emission rates.

- *New tools for monitoring and evaluating South-South Cooperation activities.*

Social Innovation can help with bottom-up approaches to climate change adaptation and improve equitable development.

- Local level multi-sectoral engagement to consider how to improve the status of people and businesses that depend on the informal sector and how to support the adaptation of informal sector activities.

Thank you very much for your attention!!!

Figure 6: Flooding in Urban Informal Settlements
Source: World Bank, 2018

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