GREEAT PROGRAMME

Global Renewable Energy And Energy Access Transformation





Region	Population without electricity millions	Electrification rate %	Urban electrification rate %	Rural electrification rate %
Developing countries	1,257	76.5	90.6	65.1
Africa	600	43	65	28
Developing Asia	615	83	95	75
India	306	<i>75</i>	94	67
Rest of developing Asia	309	87	95	80
Latin America	24	95	99	81
Middle East	19	91	99	76
Transition economies & OECD	1	99.9	100.0	99.7
World	1,258	81.9	93.7	69.0

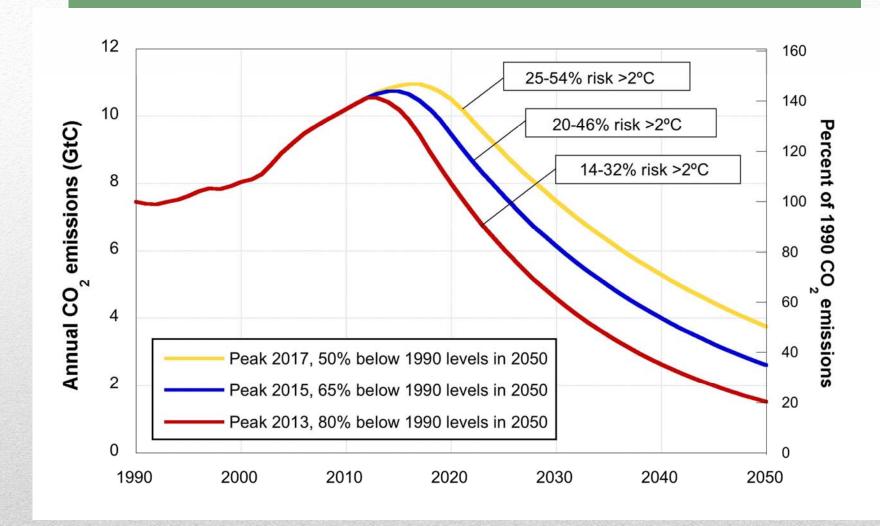
Source: World Energy Outlook 2013

ENERGY POVERTY: ELECTRICITY

Region	Population relying on traditional use of biomass millions	Percentage of population relying on traditional use of biomass
Developing countries	2,642	49.4
Africa	696	67
Sub-Saharan Africa	695	79
Nigeria	122	<i>7</i> 5
South Africa	6	13
North Africa	1	1
Developing Asia	1,869	51
India	818	66
Pakistan	112	63
Indonesia	103	42
China	446	33
Latin America	68	15
Brazil	12	6
Middle East	9	4
World	2,642	38.1

Source: World Energy Outlook 2013

ENERGY POVERTY: BIOMASS



PEAK EMISSIONS

- There are 1.3 billion people who do not have access to electricity in the world
- Energy consumption has a direct link to human development
- Average US citizen 13,246 units of electricity as compared to 52 units of an Ethiopian citizen – i.e 255 times
- On the other hand, to keep the global temperature from rising beyond 2 degrees, our emissions should have already peaked or have to peak in the next couple of years
 Since 1992, Global CO2 emissions increased by 65% and reached 40 billion tonnes in 2014 and number of people who did not have access to electricity remained more or less the same: 1.5 billion in 1992 to 1.3 billion in 2013.

THE CHALLENGE

Proliferation of RENEWABLE ENERGY that has two benefits attached –

- Renewable energy can be used to increase energy access in various countries across the globe.
- Since we replace fossil fuel power generation from the energy mix, it will help us decline the emissions of such generation

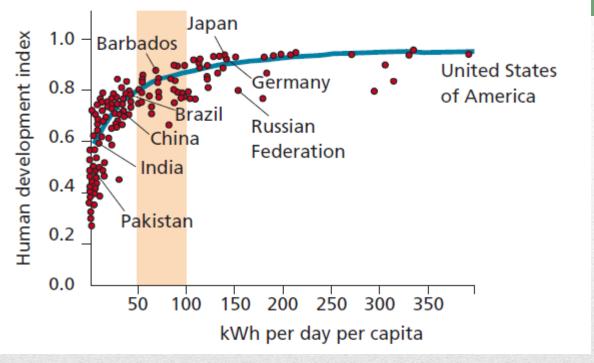
This was deemed as 'Global Co-Benefit Agenda'.

SOLUTION – COBENEFIT AGENDA

- Climate negotiations have been disappointing to say the least and the impasse we have been stuck in for a while, needs to change.
- We need different development models that emphasise wellbeing, sufficiency and creativity.

The idea of 'Global Renewable Energy Support Programme' arrived from the need to move to a fossil fuel free economy across the world and the aim to provide affordable electricity to all those who currently do not have any.

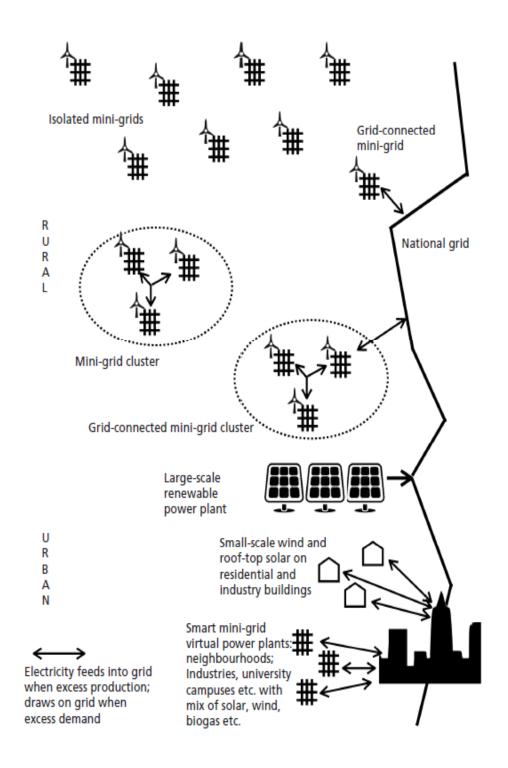
SOLUTION – COBENEFIT AGENDA



- Round-the-clock supply of clean energy who currently do not have any
- The rich need to scale back energy use through both increase in energy efficiency and changes in lifestyle.
- Primary energy must converge at a level of 50-100 kWh per day per person or less
 Area of 'responsible well-being'

VISION FOR PROGRAMME

The Future Energy Model: Decentralised, Distributed & Renewable



- Renewable energy cannot compete with fossil fuel power generation in terms of costs even though the costs of renewable energy technologies have come done significantly
- We need a massive investment in renewable energy to bring in the economies of scale and drive down the costs of generation for the renewable source of power.
- Global South needs the investment in energy access
- Global North are historically responsible for the amount of CO2 emissions in the atmosphere
- We need ambitious political will, directed public investments and planning, additional costs for capacity building, grid upgrades – and efforts explicitly directed at energy access and rural electrification.

A global support programme to help societies in both North and South to effectively tackle climate change by accelerating the transition to renewable energy.

NEED FOR SUPPORT

- Focus of the programme will be ambitious support for medium and small-scale RE generation – both on and off-grid
- It seeks to incentivize and support development of mini-grids and virtual power plants
- Develop smart, compatible grid infrastructure at both minigrid and national grid levels.
- Capacity building must take place at all levels from international organisations to national decision-making to implementing agencies to local actors.

PROGRAMME

GREEAT





A global programme to attain the goals of:

- Access to sufficient energy for all by 2025
- Immediate transformation towards 100% renewable energy (to be concluded by latest 2050 in developing countries and much earlier in developed countries)

GOALS

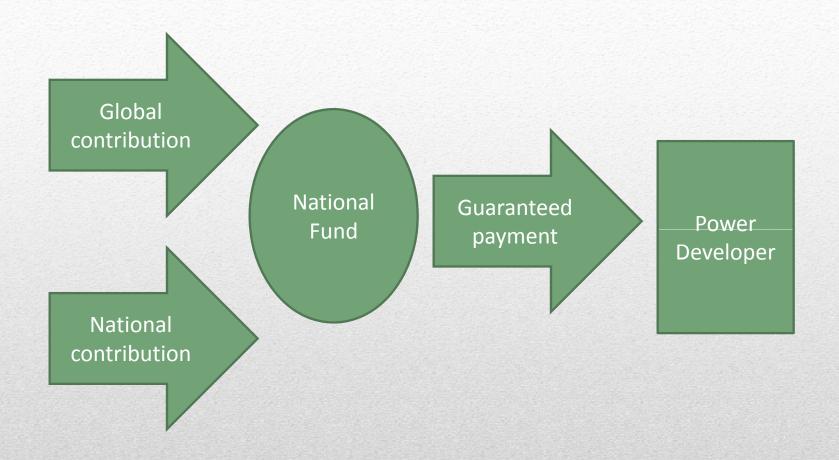
The **international climate finance support** for provided through the programme would be three:

- For energy access/rural electrification and off-grid development
- 2. For renewable energy investment through supporting costs associated with feed-in tariffs/payment guarantees for production of renewable energy,
- 3. Funding for capacity building and development of domestic manufacturing capacity.

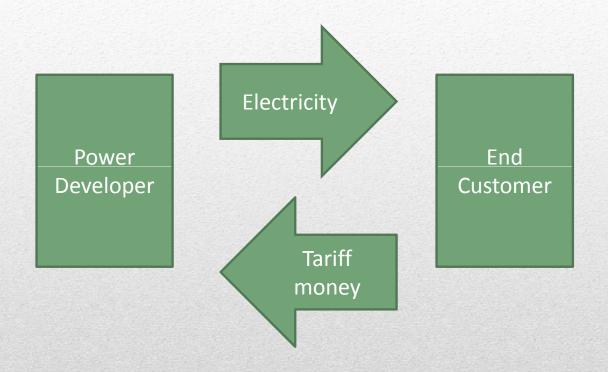
FINANCIAL SUPPORT

- Developers of renewable energy installments are guaranteed payments - covering the difference between investment costs and the revenue from sales of the energy (at lower, affordable prices for the consumers), with a reasonable premium profit.
- These support systems often include a right to feed into another grid (usually the national grid) excess electricity that the producer does not consume him/herself, again at a guaranteed price.

PAYMENT GUARANTEES/ FEED-IN TARIFFS



HOW THE MECHANISM WILL WORK



HOW THE MECHANISM WILL WORK

- Unifying both developed and developing country efforts is the formation of a Global Partnership under GREEAT
 - to ensure that this necessary energy transformation takes place globally
 - provides positive stimulus for other areas within both climate and other international negotiations.

GLOBAL PARTNERSHIP

PROGRAMME FOR GLOBAL RENEWABLE ENERGY AND ENERGY ACCESS TRANSFORMATION

Support for developing countries

Support for energy access and off-grid efforts

FiT/ Payment Guarantees & access to cheap capital Capacity Building

Global Partnership

- Principles and quality criteria
- Exchange of ideas
- Multi-stakeholder participation
- Trust building
- Transformation in developed countries

GCF and other international financing

- The Africa Group has taken the initiative to form the Global Renewable Energy and Energy Access Transformation Partnership, and invites Parties and stakeholders groups to join this emerging endeavour.
- Approaching countries to champion the cause of GREEAT both at their national policy level as well as ensure that these countries can form alliance and support the African group to push the cause at UNFCCC level.

WAY FORWARD

ARUNA KUMARANKANDATH
Renewable Energy Programme
Centre for Science & Environment
k_aruna@cseindia.org