



2012 INTERNATIONAL YEAR OF
SUSTAINABLE ENERGY
FOR ALL



Global Renewable Energy Policy Perspectives

Webinar @ Clean Energy Solutions Center

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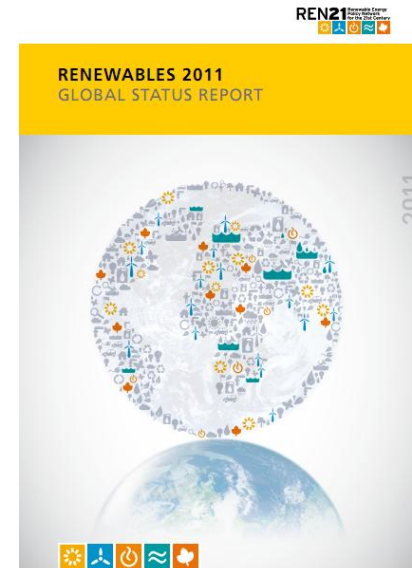
About REN21

- **Multi-stakeholder** Policy Network grouping: national to local governments, industry, academia, INGOs, NGOs, civil society
- **Rationale:** enable a **rapid global transition to renewable energy.**
- **REN21's Mission:** promote policies for worldwide renewable energy expansion through
 - objective **policy guidance**
 - high quality **information**
 - **exchange** among relevant actors

Renewables Global Status Report & Renewables Interactive Map

Annual publication since **2005**

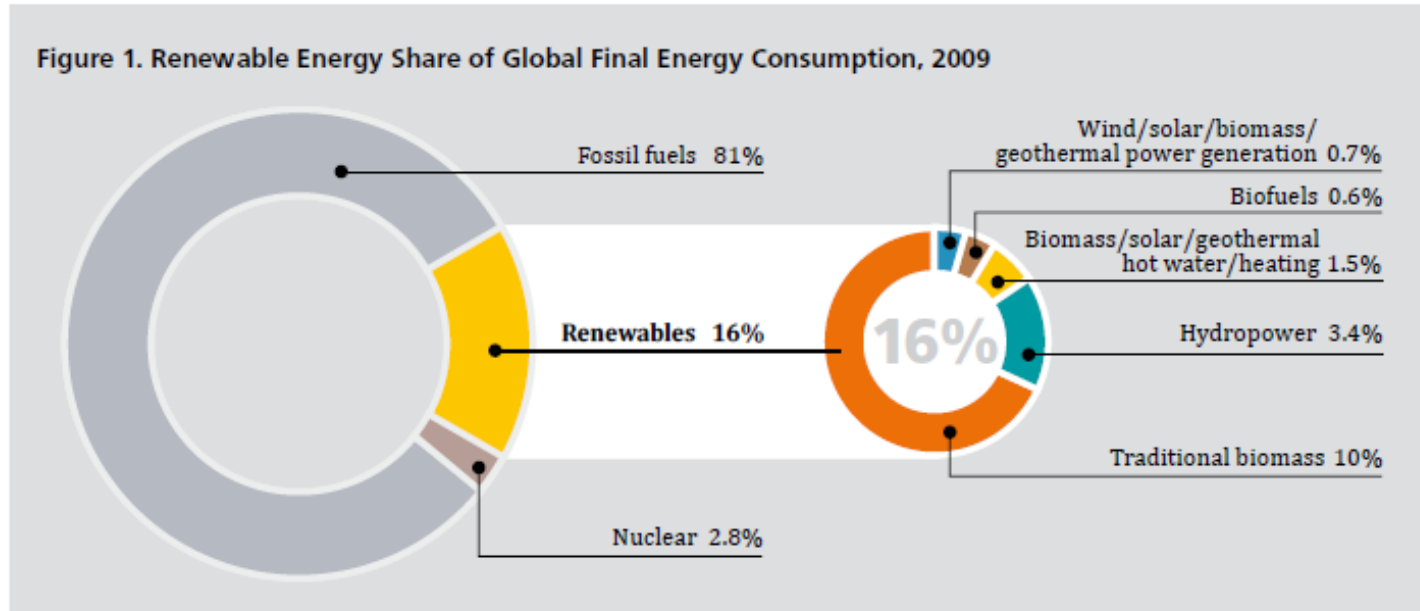
Comprehensive overview of global renewable energy situation & **key trends**



*Global Market Overview,
Investment Flows, Industry Trends,
Policy Landscape, Rural Renewable Energy*
team of over **150 researchers & reviewers**

Renewable Energy: 16 % of global final energy consumption

Renewables 2011 Global Status Report

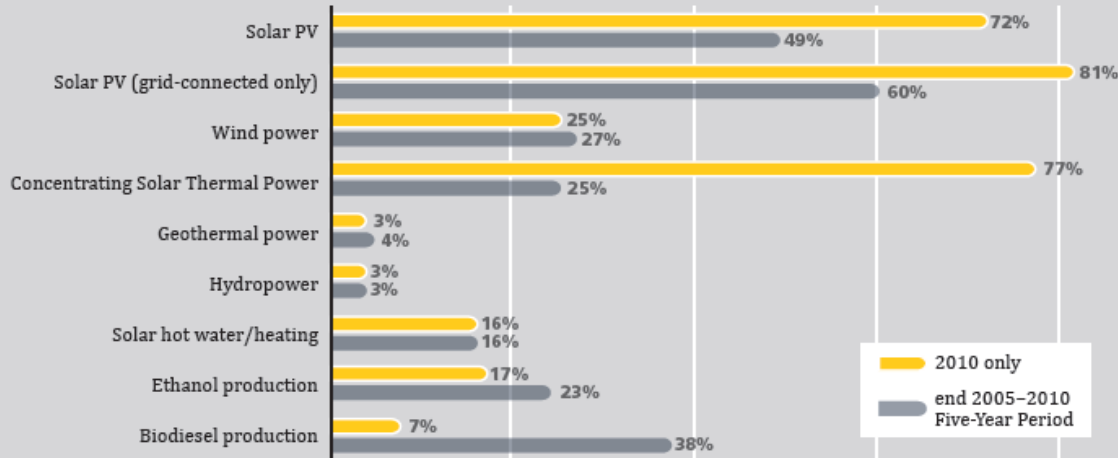


- RE supplied an estimated **16%** of **global final energy consumption**
- Global energy consumption **rebounded** in 2010 (+5,4%) after downturn in 2009
- **UN Secretary General's goal** : doubling the share of renewable energy in the global energy mix by 2030

Annual Growth Rates per technology

Renewables 2011 Global Status Report

Figure 2. Average Annual Growth Rates of Renewable Energy Capacity and Biofuels Production, 2005–2010

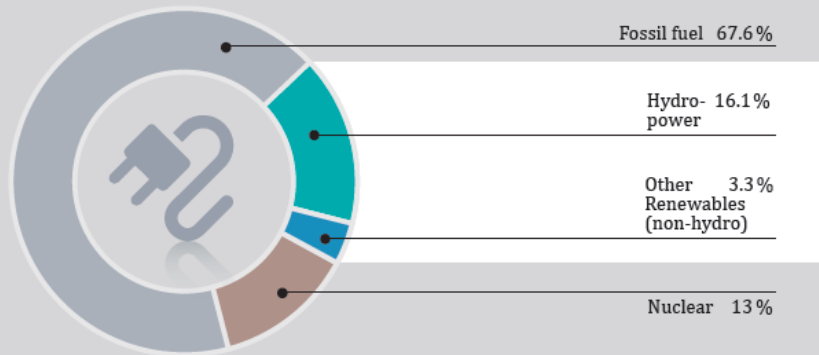


Source: See Endnote 3 for this section

- From the **end of 2005** through **2010**, global capacity of many renewable energy technologies grew at rates ranging **15%** to nearly **50%** annually
- **Solar PV** increased the **fastest**, followed by **biodiesel** and **wind**
- In several countries the growth rates for these RET **far exceed global averages**

Global Market Overview – Power Markets

Figure 3. Renewable Energy Share of Global Electricity Production, 2010



Source: See Endnote 6 for this section

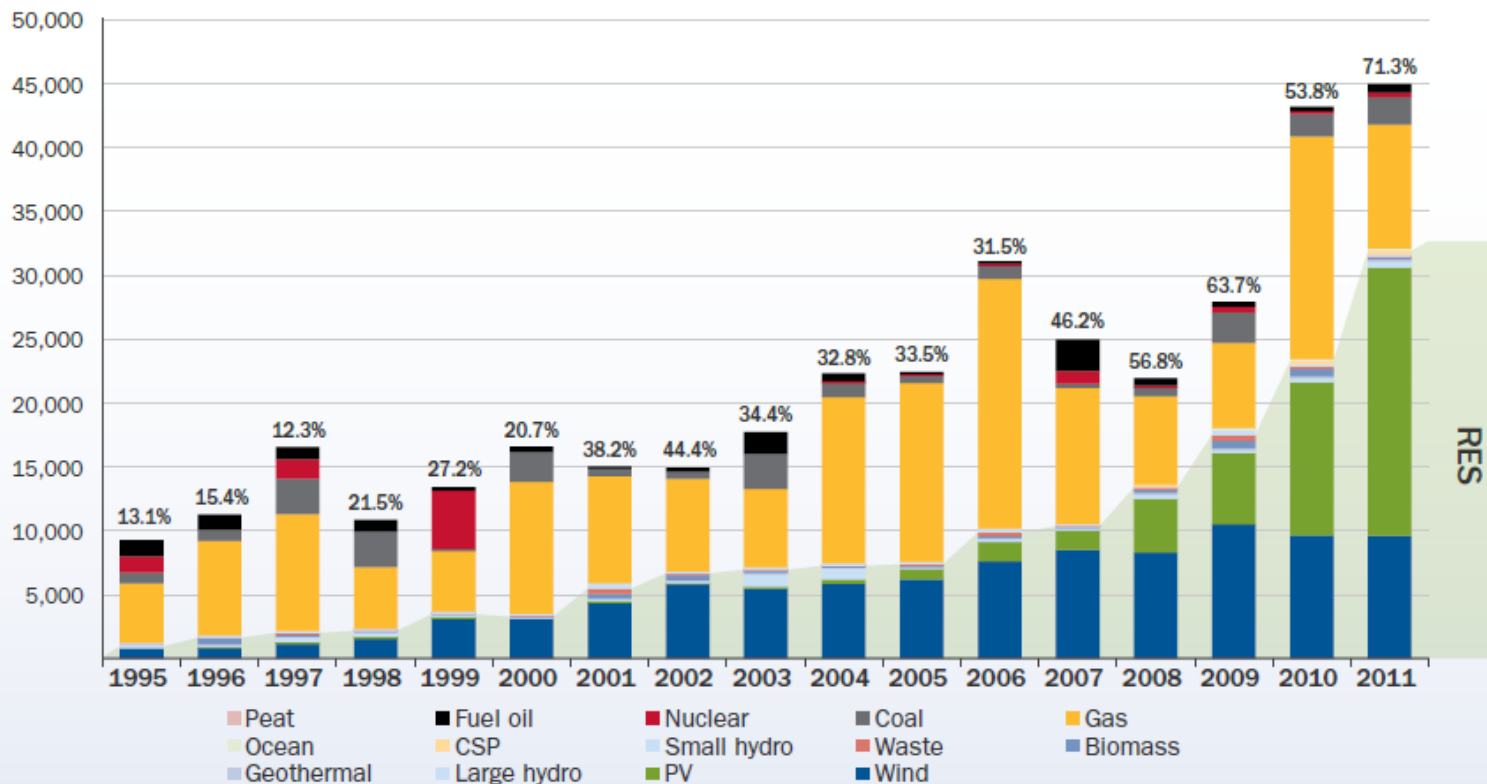
- Renewable electric power capacity worldwide reached **1,320 GW (+8%)** in 2010
- Renewable capacity comprises about **25 % of total global power-generating capacity**
- Renewable energy delivered close to **20% of global electricity production**
- RE accounted for roughly **half** of the 194 GW of **new power generating capacity**

New annual power capacity added in EU in 2011: 71, 3 % renewable based

New annual power capacity in EU in 2011

EU INSTALLED POWER GENERATING CAPACITY PER YEAR IN MW AND RES SHARE (%)

FIGURE 2.1



Source: EWEA

- **Heating and Cooling**

- Modern biomass accounts for the largest share of renewable heating, followed by solar thermal and then direct geothermal heat.
- Trends toward increasing use for industrial heat, and use of solar for cooling, ground-source heat pumps.

- **Transport**

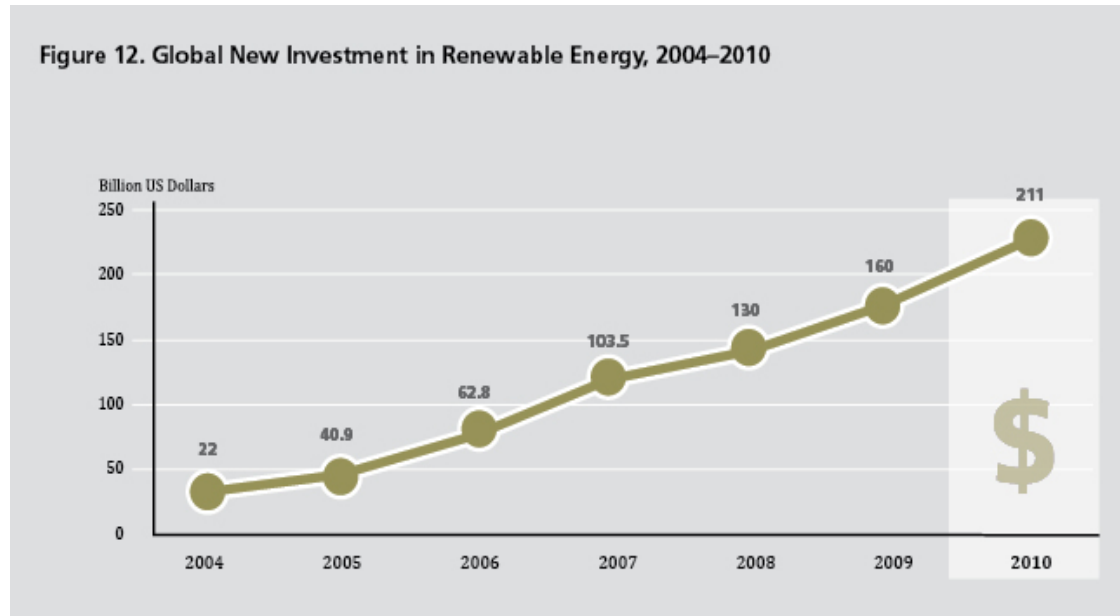
- RE used in form of electricity, hydrogen, biogas, liquid biofuels.
- Limited but growing quantities of biogas and electricity in some countries.
- Biofuels accounted for 2.7% of global road transport fuels in 2010.

Industry Trends

Key General Trends

- RE industry saw **continued growth** in manufacturing, sales and installation
- **Cost reductions** (especially in PV) contributed to growth
- Changing policy landscape in many countries → industry uncertainties and negative outlook
- Trends:
 - **Internationalisation**
 - **Industry consolidation** (notably in the biomass and biofuel sector) as traditional energy companies moved into RE
 - Development of **vertically integrated supply chains**
 - **Manufacturers expanding into project development**
- **Worldwide jobs** in renewable energy industries exceeded **3.5 million** in 2010.

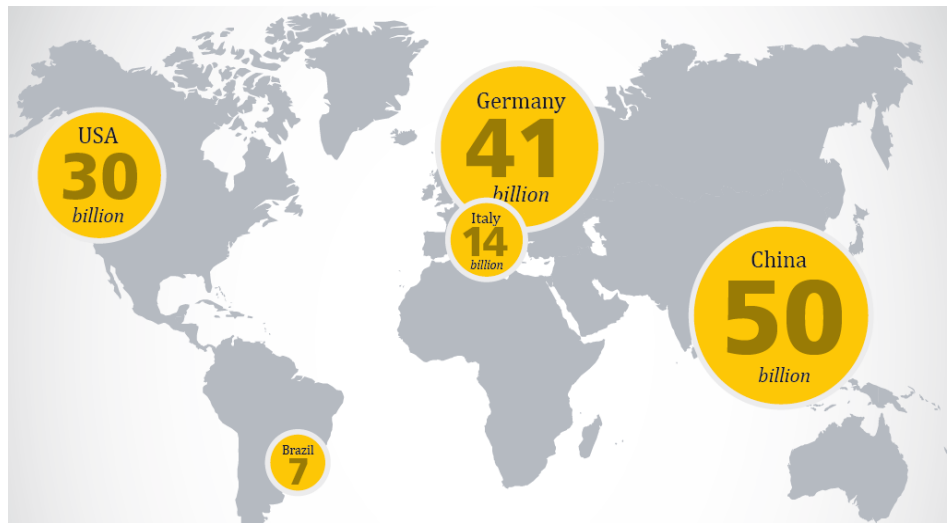
Investment Flows



Source: UNEP/Bloomberg: Global Trends in Renewable Energy Investment 2011

- Total global investment in RE jumped in 2010 to a record of **\$211 billion** and exceeded:
 - **\$226 billion** including estimated **\$15 billion** invested in solar hot water
 - **~\$270 billion** including the **\$40–45 billion** invested in large hydropower (>50 MW).

Investment Flows

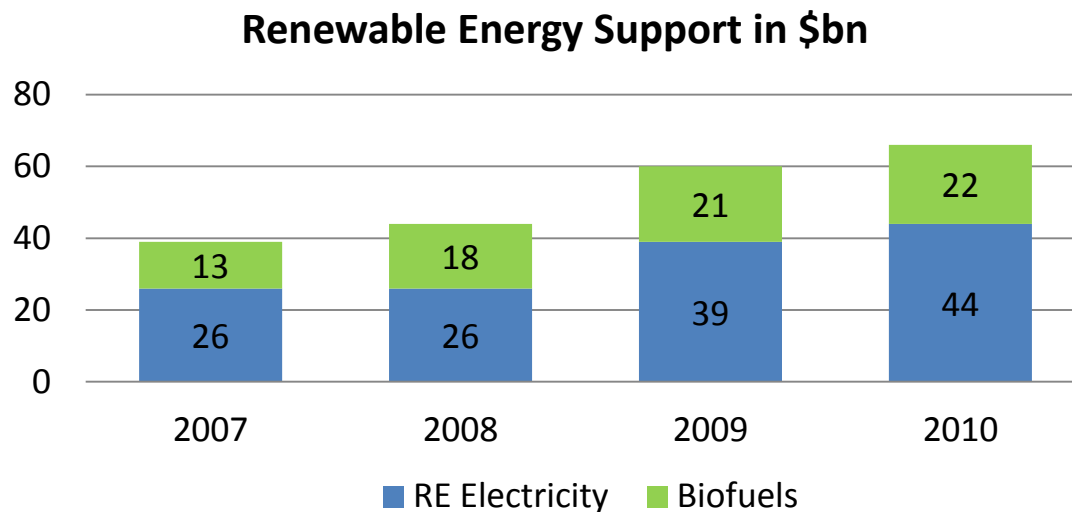


Source: UNEP/Bloomberg: Global Trends in Renewable Energy Investment 2011

- **China** attracted nearly **\$50 billion**, making it the leader for the second year in a row.
- For the first time, financial new investment in RE in **developing countries surpassed** that in developed economies.

- More public money to the RE sector through **development banks** than through **government stimulus** packages.
- BNEF data show that **13 development banks** worldwide provided **\$13.5 billion of finance** for RE projects in 2010.
- **3 leading development banks** in RE project finance were European Investment Bank (\$5.4 billion), Brazil's BNDES (\$3.1 billion), Germany's KfW (\$1.5 billion).

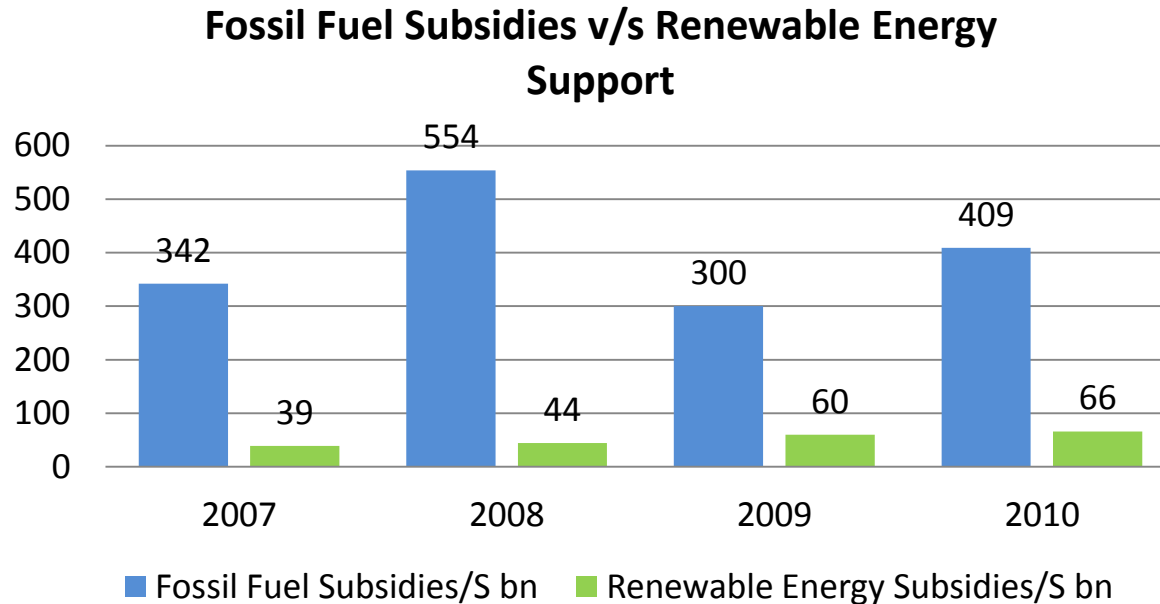
Renewable Energy Support



Source: IEA

- About 80% of support come from Europe and the US
- \$ 35 bn originated from Europe: twice as much as the amount from the US
- Wind Energy support : \$ 18 bn

Fossil Fuel Subsidies v/s Renewable Energy Support



Source: IEA

- RE support is still 6 times less than fossil fuel subsidies.
- By 2015, RE support/subsidies will reach \$ 110 bn (IEA) v/s \$ 660 bn for Fossil fuel subsidies
- Just 8% of the \$409bn spent on fossil-fuel subsidies went to the poorest 20% of the population.
- G20 leaders in 2009 agreed to : “rationalise and phase out subsidies that encourage wasteful consumption and impede investment in clean energy sources “

Policy Landscape

Policy Targets

- Doubling of countries with RE targets or policies in five years: **55** in 2005 to **118** in early 2011.
- Targets in at least **96 countries**; more than half are **developing countries**.
- Many targets and policies also exist at **state, provincial** and **local** levels.
- Targets represent commitments to:
 - **Shares of electricity** (typically 10–30%)
 - **Total primary energy**
 - **Heat supply**
 - **Installed capacities** of specific technologies,
 - **Shares of biofuel** in road transport fuels over 1-2 decades.
- Many countries **met 2010** targets (some data not available), **some exceeded**.

Policy Landscape

Policy Developments

- **Renewable power generation** policies exist in at least 96 countries, more than half of which are developing or emerging economies.
- **Fuel blending mandates** now exist in 31 countries at the national level and in 29 states/provinces around the world.
- In policies for RE **heating and cooling**, trend toward regulatory approaches that mandate energy shares or equipment installation.
- **Green power purchasing** and **utility green pricing programs** are increasing thanks to support policies, private initiatives, utility programs, government purchasing.
- **Local governments** are playing an increasing role in RE development, setting targets and enacting local mandates and support policies.

Coming soon...

REN21 Renewables 2012 Global Status Report



Launch together with Global Trends
in RE investment early June 2012

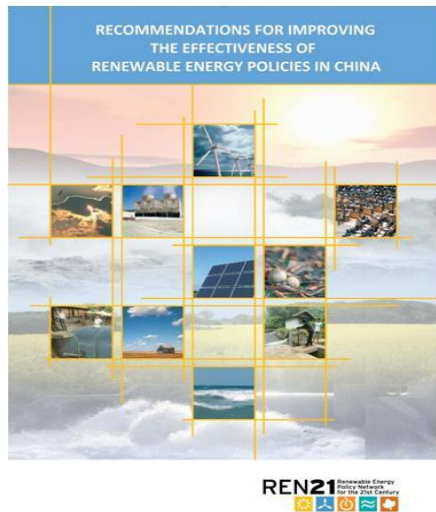
Special IYSEA focus: rural energy

Numerous side bars to cover
latest trends in RE development

July – December 2012:

Outreach events- help us spread the message!

REN21 Studies: Regional Renewables Status Reports



Recommendations for Improving the Effectiveness of Renewable Energy Policies in China:

Produced in collaboration with the Chinese Renewable Energy Industry Association (CREIA).

India Renewable Energy Status Report 2010

This background report for DIREC 2010 is a joint publication of both Indian and international experts with extensive knowledge in renewable energies in India: NREL, IRADe, GIZ, Bridge to India, REN21



REN21 Studies: Local Renewables Status Reports

Global Status Report on Local Renewable Energy Policies

A Collaborative Report by ICLEI, ISEP and REN21 that complements the Global Status Report by providing information at city and local levels about activities and policies that promote renewable energy



Global Status Report
on Local Renewable Energy Policies

May 2011 Version

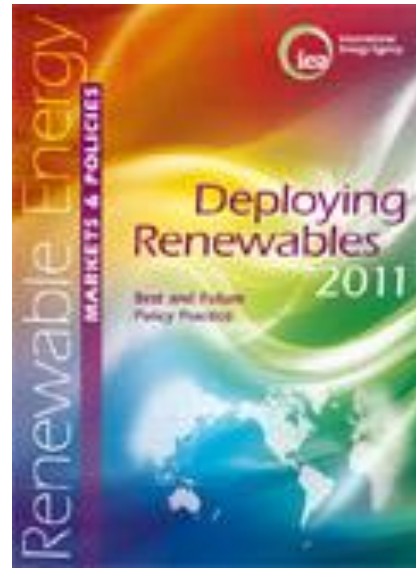
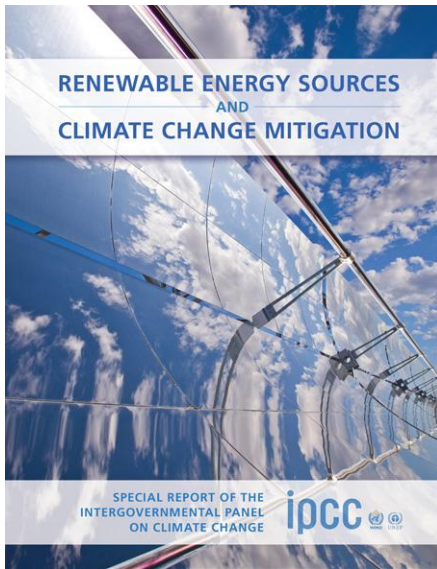
Comments and Additional Information Invited

A Collaborative Report by:
REN21 Renewable Energy Policy Network for the 21st Century
Institute for Sustainable Energy Policies (ISEP)
ICLEI-Local Governments for Sustainability

This report complements the REN21 Renewables Global Status Report by providing more detailed information at the city and local levels about policies and activities to promote renewable energy. It is intended to facilitate dialogue and illuminate pathways for future policies and actions at the local level. This "working draft" version is intended to solicit comments and additional information. Data in this draft are not necessarily complete or accurate.



The future of renewable energy – what is in the cards?



- SREN report (IPCC): close to 80 percent of the world's energy supply could be met by renewables by mid-century if backed by the right enabling public policies.
- Deploying Renewables 2011 (IEA): renewables are now the fastest-growing sector of the energy mix and offer great potential to address issues of energy security and sustainability.
- Energy [R] evolution (Greenpeace): provides a detailed practical blueprint for cutting carbon emissions while achieving economic growth by replacing fossil fuels with renewable energy and energy efficiency.

REN21 Global Futures Report (GFR)

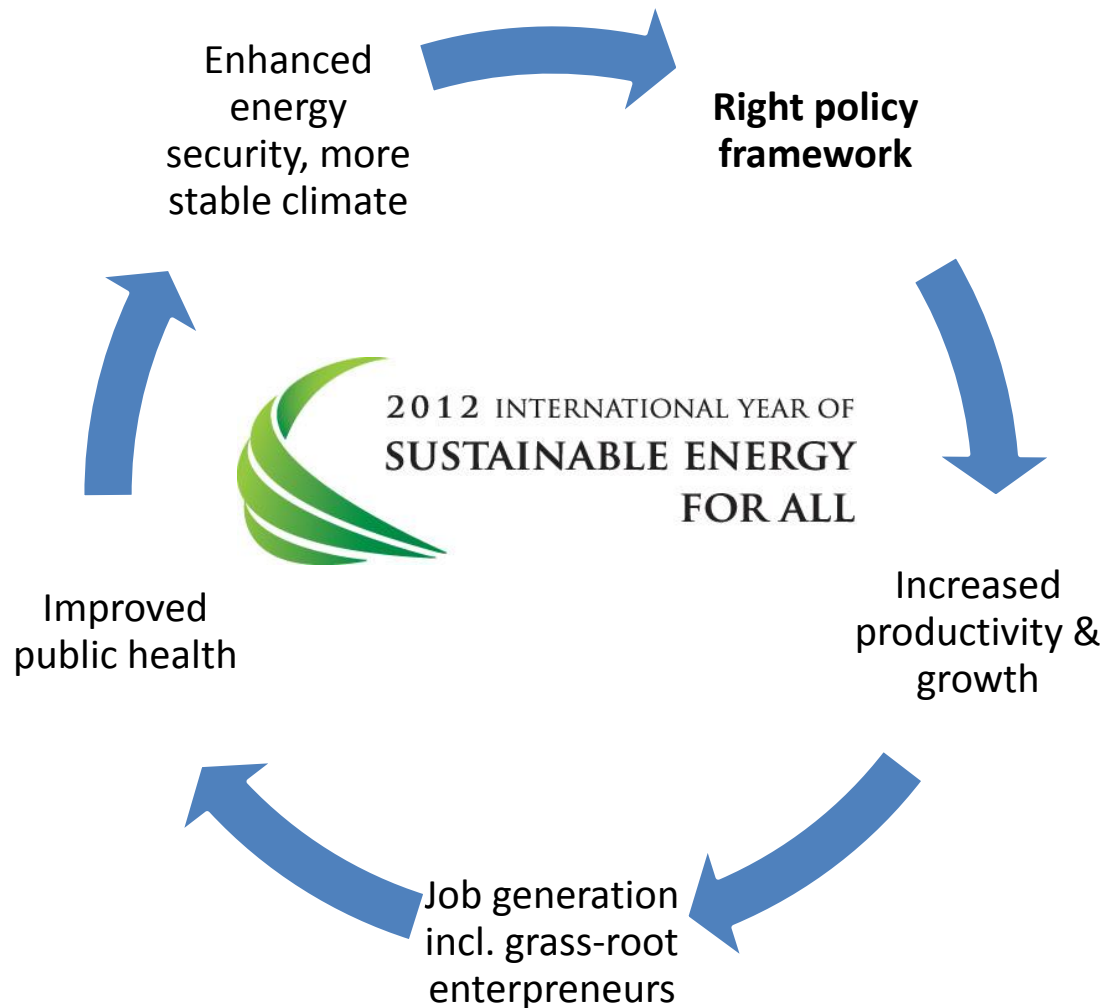
- Tool to facilitate dialogue on the future of renewable energy
- Aims at providing a simple overview on how the future of RE is currently seen by prominent experts, governments, and institutions
- Contains analysis of scenarios
- Based on more than 150 interviews conducted around the world
- Considered a sister report to the REN21 Global Status Report
- Lead Author, Dr. Eric Martinot, REN21/ISEP
- First review draft available upon request



Key Questions addressed by GFR

- What is the status of our current thinking about the future of renewables ?
 - What is the range of credible possibilities?
 - What are the decision/turning points we face at household, community, state, national, and global levels ?

International Year of Sustainable Energy for All



UN Secretary General Ban Ki-moon: „Science and economics reach the same conclusion: advancing economic growth, lifting people out of poverty and protecting our planet are all part of the same agenda: the sustainable development agenda.

What connects them is energy.

Sustainable energy for all is an idea whose time has come. Turning ideas into action depends on us all.”

REN21 facilitates global dialogue: International Renewable Energy Conferences

Under the Patronage of H.H. General Sheikh Mohammed bin Zayed Al Nahyan Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces

**WORLD FUTURE
ENERGY SUMMIT**
Abu Dhabi, 15-17 January 2013

Hosted by
Masdar
A MUBADALA COMPANY

Host of
**Abu Dhabi
International Renewable
Energy Conference**

2013

In Partnership with
REN21
Renewable Energy
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www.WorldFutureEnergySummit.com

In 2013 ADIREC will take place on 15-17 January 2013 back-to-back with the World Future Energy Summit

See you at **ADIREC 2013 in Abu Dhabi!**

Contact Info

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contribute & exchange...**



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