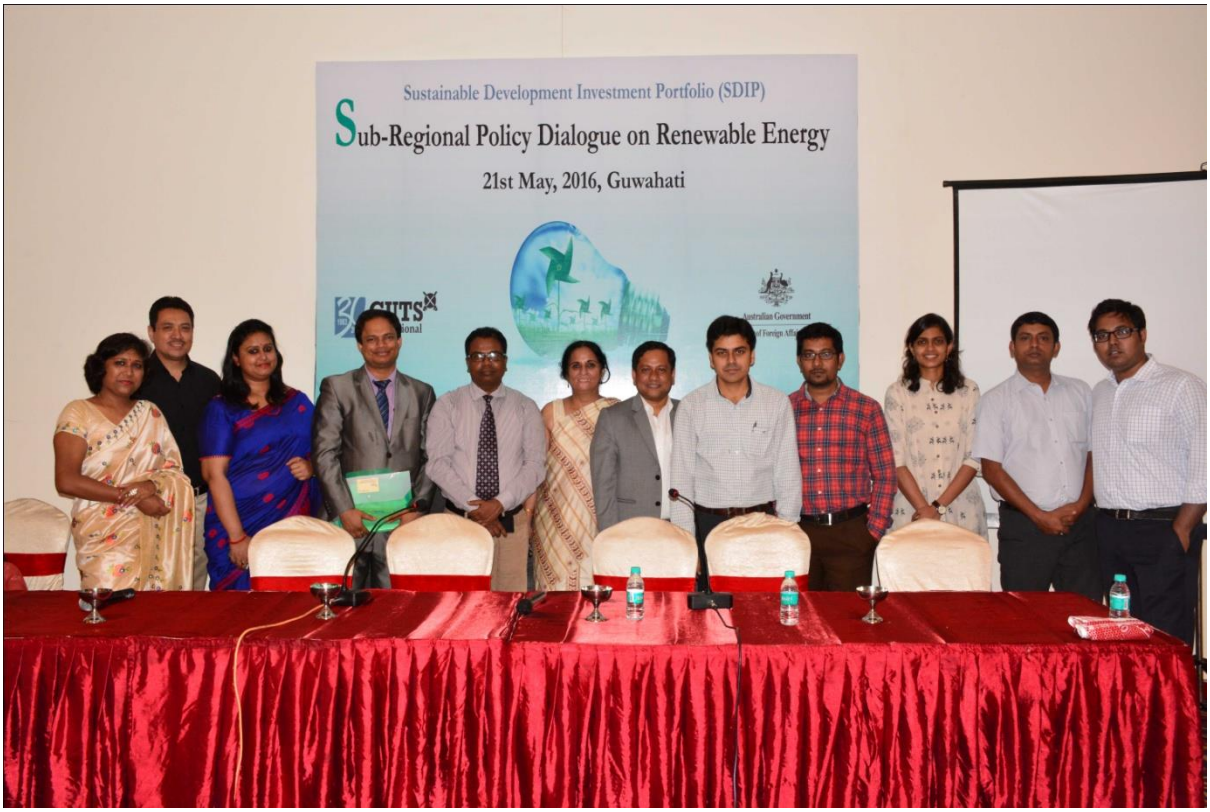
Sustainable Development Investment Portfolio (SDIP)

Sub-Regional Policy Dialogue on Renewable Energy

21 May, 2016 at Guwahati, Assam



1.1 CUTS International in association with Rashtriya Grameen Vikas Nidhi (RGVN, Guwahati) organized a Sub-Regional Policy Dialogue Meet on Renewable Energy in Guwahati under the purview of Sustainable Development Investment Portfolio (SDIP) programme on 21st May, 2016.

1.2 This was a platform to initiate dialogue between agencies, institutions and departments of the sub-region (North East India as well as Bhutan and Bangladesh) to deliberate on the various Renewable Energy (RE) policies and regulations in the region and look at how they can be synergised and streamlined to make it easier for private investment and can ultimately help in greater uptake of RE in the region.

1.3 The participants dealt with the RE policies and regulations and its implementation (REDAs, Power Departments/Ministries, Utilities, CSOs, Media) from the North Eastern

states as well as from Bangladesh and Bhutan. The session-wise key extracts are given below.

Inaugural Session

2.1 ***Prithviraj Nath (PN)***, Centre Head, CUTS Calcutta Resource Centre, had set the tone of the policy dialogue meet by briefing the house about the SDIP project, its objectives and the findings from the project. He stressed upon the significance of having regional cooperation between the countries of eastern South Asia in terms of knowledge sharing to address the issues of water, food and energy security in the region.

2.2 ***V.K. Pipersenia (V.K.P)***, Chief Secretary, Government of Assam, informed that the GoA has been vigorously looking at ways to meet the Sustainable Development Goals (SDGs) at the state level. He also mentioned that access to affordable and clean energy is fundamental towards meeting the SDGs. In addition to this he also expressed his interest to have a look at the recommendations from the SDIP project.

2.3 ***Dharma Ranjan Das (DRD)***, Advisor, Ministry of New & Renewable Energy (MNRE), Government of India, shared that, MNRE started its journey way back in 1981, when the Commission for Additional Sources of Energy (CASE) was established. Later on it observed several structural reforms and in 1992, the Government of India put in place the Ministry of Non-Conventional Energy Sources (MNES), which was later renamed to Ministry of New & Renewable Energy (MNRE) in 2006. He rightly pointed out that the country has the potential and the resources to harness Renewable Energy, but there have always **lacked** on **proper implementation** of the **policies**. He stressed upon the urgent need for **cooperation** between the **State Governments** and the **Central Government** to meet the up-scaled target of 175 GW of RE by 2022.

Session I: Knowledge Sharing and Learning across Borders

3.1 ***Sayantan Sengupta (SSG)***, Programme Officer, CUTS Calcutta Resource Centre, presented a few case studies and the key learnings from the sub-region on Renewable Energy. He highlighted the challenges in terms of lack of appropriate policies, absence of community participation as well as lack of adequate infrastructure with regards to development of hydro power plants in the NE region. Sharing some of the interesting findings from the study he said that, the state of Sikkim is a power surplus state and it depends mainly on the hydro power sources for power generation. All the small hydro plants are now connected to the grid. He also shared that in Sikkim the **PPP** model have led to the formation of an entity named Sikkim Power Development Agency (SPDC), which is currently looking after most of the small hydro power plants in the state. This is a learning experience of how a joint initiative between the government and private players can lead to successful implementation of projects and their maintenance thereafter. However, at times, lack of adequate welfare initiatives by the State Power Department have led to indifference and lack of interest amongst the local inhabitants

in the small hydro plants. Community involvement in such projects can be crucial if it has to be successful in the long run. Also, there is a general notion amongst the local public that the small hydro power plants need to be promoted instead of the big hydro plants which are more vulnerable to natural disasters. He also shared that, there is a general interest amongst the North Eastern States of India, especially Sikkim, which has a high potential of hydro power, to learn from the experience of Bhutan, which is endowed with several big as well as small hydro power plants. He also shared, how due to **lack of technical competence** and **absence of synergy** amongst the investors, project implementers and the state nodal agencies had led to the mass scale failure of the rice husk based biomass gasifiers in the Burdwan district of West Bengal.

3.2 ***Dawa Chhoedron (DC)***, Executive Engineer, Research and Development Division, Department of Renewable Energy, Ministry of Economic Affairs, Bhutan, shared that the country has a **technically feasible potential** of **23.76 GW** of **power** which can be harnessed from various **hydro** sources (The total hydro potential of the country is 30 GW). As Bhutan is completely dependent on hydro sources for generation of power it is a **net carbon sink** country, however, the country faces major threat from natural disasters like earth quakes, which are extremely detrimental for hydro power generation. The country also faces power shortage during the winters as the rivers get frozen up. The rural electrification coverage in the country is 95.35% and the per capita electricity consumption in the country is 2,600 kWh against a per capita fuel wood consumption (excluding timber) of 0.86 tons. She stressed upon the need to build capacity and generate awareness amongst the various public sector bodies, private entrepreneurs and various financial institutions for greater uptake of other forms of renewable energy like solar and biomass. Stating how sharing always helps to reach to a win-win situation for all countries, DC cited the example of the power sharing agreement between India and Bhutan. Bhutan annually generates 7,166.3 GWh of power, of which, the country exports 5,179.3 GWh.

3.3 ***Rubiya Bin Mustafiz (RBM)***, Assistant Director (Technical), Keystone Business Support Company Limited, Bangladesh, shared that the country has been a slow but steady learner in terms of adopting Renewable Energy. Amongst a few key achievements, the country has adopted the **Renewable Energy Policy, 2008**, have put an emphasis on the **rooftop solar power systems** (thereby installing a total of **20.30 kWp** such systems),adopted schemes to promote **solar lanterns** for the extreme poor and oppressed and also have been encouraging private entrepreneurs to install **solar Micro, Pico and NanoGrids**. Apart from solar power, the country has also been promoting biogas based power plants. However, she shared that Bangladesh is currently trying to address a few issues in the biogas power sector like uninterrupted supply of raw materials, especially during the monsoons, as well as collection of monthly revenue from the customers. There has been a considerable shift towards installation of relatively **smaller solar home lighting systems** from bigger systems, over the last five years. Referring to the reasons why this shift has probably taken place,

she shared that market saturation and low income of the prospective customers might be the two prime reasons for it.

3.4 ***D.S. Das (DSD)***, Project Director, Tripura Renewable Energy Development Agency, Government of Tripura, shared the state experience in the field of RE. He shared that the government has taken initiative to distribute 60,000 solar lanterns in the rural areas of the state. MNRE has set a target of 105 MW to be achieved from grid connected solar power. He was also of the opinion that while in North East the cost of the systems are usually higher than that of the other states, the unit cost of generating energy is also higher as compared to many other states of India. He lamented the **lack of private investment** in RE in the state. He also shared that the state has been suffering a lot from the **maintenance** of the solar systems and is thus now looking forward to adopt and replicate the CREDA model of community involvement in the RE projects.

3.5 ***Arup Kumar Mishra (AKM)***, Director, Assam Energy Development Agency (AEDA), Government of Assam, was of the strong opinion that there is a need of using **customized RE systems**, if RE has to gain acceleration. He also shared that the sub-region **lacks technically competent workforce**. He highlighted the necessity of **organizing awareness camps** and **building capacities** of the end users about RE.

3.6 ***Pankaj Kalita (PK)***, Professor, Centre for Energy, IIT, Guwahati, opined that there is a need to device **source specific policies** for RE. He advocated strongly for having an **integration** and dialogue sharing amongst the various **institutions** working in the RE field. He also said that for NE, the **hybrid** systems of **Solar Thermal** and **Solar PV** can be a good option to look forward to.

Session II: Renewable Energy - Policy and Regulatory Framework –Scope for Synergies/Convergence with focus on North East India

4.1 ***PN*** shared that if exploited properly, RE can be a major force of power generation in the NE states of India. Some of the facts, which he shared includes, the **small hydro power potential** of **NE**(2,598.63 MW) is **13%** of that of **India's potential** (19,749.44 MW) and hydro power combined with other RE power generating sources (3550.02 MW) is **43%** of the total installed power generating capacity of NE (1505.72 MW). When it comes to coal, NE constitutes of only **0.37%** of the Indian coal reserves. He also shared that MNRE has several special incentive schemes for the NE states of India, like, the nodal agency provides a **financial support** of Rs 7.50 crore per MW (limited to Rs 20 crore per project) for implementation of projects, in the NE states. It also provides a financial support of Rs 1.50 crore per MW (limited to Rs 5 crore per project), to the private sectors, for implementation of projects in NE states of India. MNRE also provides a **Central Financial Assistance (CFA)** of up to **70%** of the **capital cost** to the NE states as against the 30% it provides to the other states of India for implementation of the **Grid Connected Rooftop** and **Small Solar Power Plants**.

He pointed out a few factors which can help facilitate greater uptake of RE in the sub-region for enabling policies and regulations:

- Market linked self-sustaining programmes
- Technically Feasible, Economically Sustainable and Politically Viable Business Models and Value Chains
- Investment promotion and Private Player Engagement
- Increased synergy amongst the State Power Departments, SERCs, DISCOMs, SNAs for RE and Private Players
- Capacity building of end users
- Greater discourse on RE through Media

4.2 ***Naba Kumar Das(NKD)***, Chairman, Assam Electricity Regulatory Commission, Government of Assam, had strong reservation about promoting only solar power systems and said that the central government should **provide targets** to the states keeping in mind the **demography** of the states and the **natural resources** that they have. For example, he opined that although the potential of solar in **NE** is relatively low, it is endowed with a good potential of **small hydro** resources. He also shared that in this region, small hydel projects need to be encouraged and to some extent bio-mass plants and the high cost in generating power should be taken into consideration. Considering that access to **land** is a **major bottleneck** in NE, he said that the state governments in the sub-region should take initiatives to promote the **rooftop solar power** segment. He also shared a latest initiative of the MNRE in which the nodal agency has started estimating the technically feasible potential of solar power in Assam.

4.3 ***K V Eapen (KVE)***, Chairman, Assam Power Distribution Company Limited (APDCL) was of the opinion that solar and other RE potentials need to be harnessed at a greater capacity for providing power to the Remote areas of NE. He also said that APDCL has proposed to set up solar plants this year of capacity of 130.2 MW. The Assam Power Generation Corporation Ltd (APGCL) has also proposed to set up solar power projects. However, a large number of such projects are awaiting **clearance** from the **Forest Department**. On the other hand, marketing has also emerged as a problem in this area. However, the redeeming feature is that the cost of generating solar power has now dropped considerably. “We need to consider this. Whether we can go for small hydro projects also needs to be considered,” he said.

4.4 ***Rakesh Kumar (RK)***, Secretary, Arunachal Pradesh State Electricity Regulatory Commission shared that, Arunachal Pradesh, owing to its enormous hydro potential of 5,600 MW and that of small hydro potential of 2,000 MW is often termed as the **power house** of the country. He was of the opinion that the central government should put emphasis on how to harness power from the SHP sources rather than pushing for solar in the state. He said that, the generating cost of energy from solar is around INR 8-10 per unit and owing to its high cost no DISCOM is willing to purchase the power.

Referring to a couple of major bottlenecks that RE faces in the state, he said that, **land acquisition** in the tribal areas and getting **forest clearances** are big challenges.

Session III: Renewable Energy- Regulatory Environment and Private Participation

5.1 ***Bhaskar Kakoty (BK)***, Director, Free Power was one of the private entrepreneurs, who was present in the policy dialogue meet. He suggested that like many other commercial products, RE products also need to have **commercial advertisements** and also recommended to have a **Brand Ambassador** for promoting RE in the sub-region. He also stressed on improving the private players' role in servicing and maintenance of the various RE equipment.

5.2 ***Bhargav Deori (BD)***, Co-Founder, Wisteria Consultants, underlined the importance of having good marketing strategies for promotion of RE. He also said that the financial viability of the projects should also be considered with much importance before they are taken up for implementation. He also felt that, the gap between the various policies and their implementations needs to be addressed with much importance.

Session IV: Roundtable on Role of Financial Institutions, Civil Society and Media in promoting Renewable Energy (RE) and cross-border Cooperation on RE in the sub-region

6.1 ***P.S. Harikrishnaraj (P.S.H)***, Assistant General Manager, NABARD, talked about various **schemes** of the GoI under which NABARD provides **finances** to the farmers to adopt solar pumps and installation of RE systems in rural areas. He also highlighted that **identification of beneficiaries** is a crucial problem faced by financial institutions in awarding the subsidies. He opined that there is a need for building capacities of the financial institutions on the various lending schemes for RE projects.

6.2 ***Shaheen Ul Alam (SUA)***, Project Coordinator, Unnayan Shamannay, and ***Binai Lama(BL)***, Senior Advisor, SNV, Bhutan, highlighted the importance of CSOs across countries joining hands for promotion of RE and sustainable development in the region and the importance of the role of CSOs in capacitating various stakeholders in the energy sector.

Key Take Away:

- Private participation must be encouraged, through incentives and beneficiary schemes
- An increased synergy amongst the various institutions like the Power Departments, Electricity Regulatory Commissions, power utilities, central and state nodal agencies for RE, Private Players, academia, media and the civil society organization is required
- State specific and sector specific RE policies are required
- Creating a technically competent workforce is required if RE has to sustain

- The region lacks an effective RE value chain, which has hampered greater uptake of RE
- A platform for periodic exchange of dialogue amongst the various stakeholders of the sub-region is required
- A thorough study on the technically exploitable potential of the various RE sources is to be done in the sub-region and thereafter a state specific and sector specific target is to be fixed for these states
- Availability to land is one of the major issue in the sub-region, which can be addressed by promoting rooftop solar power projects
- Building capacities of the financial institutions is required if RE has to get a push
- Awareness generation amongst the end-users is the need of the hour
- Market linked self-sustaining programmes, commercial promotion of RE through advertisements are required for RE to get a thrust

The media coverage for the same can be accessed here: Stress on small hydel projects in NE (Assam Tribune, 21st May, 2016) - http://www.cuts-citee.org/SDIP/Media-Stress_on_small_hydel_projects_in_NE.htm

Acknowledgement:

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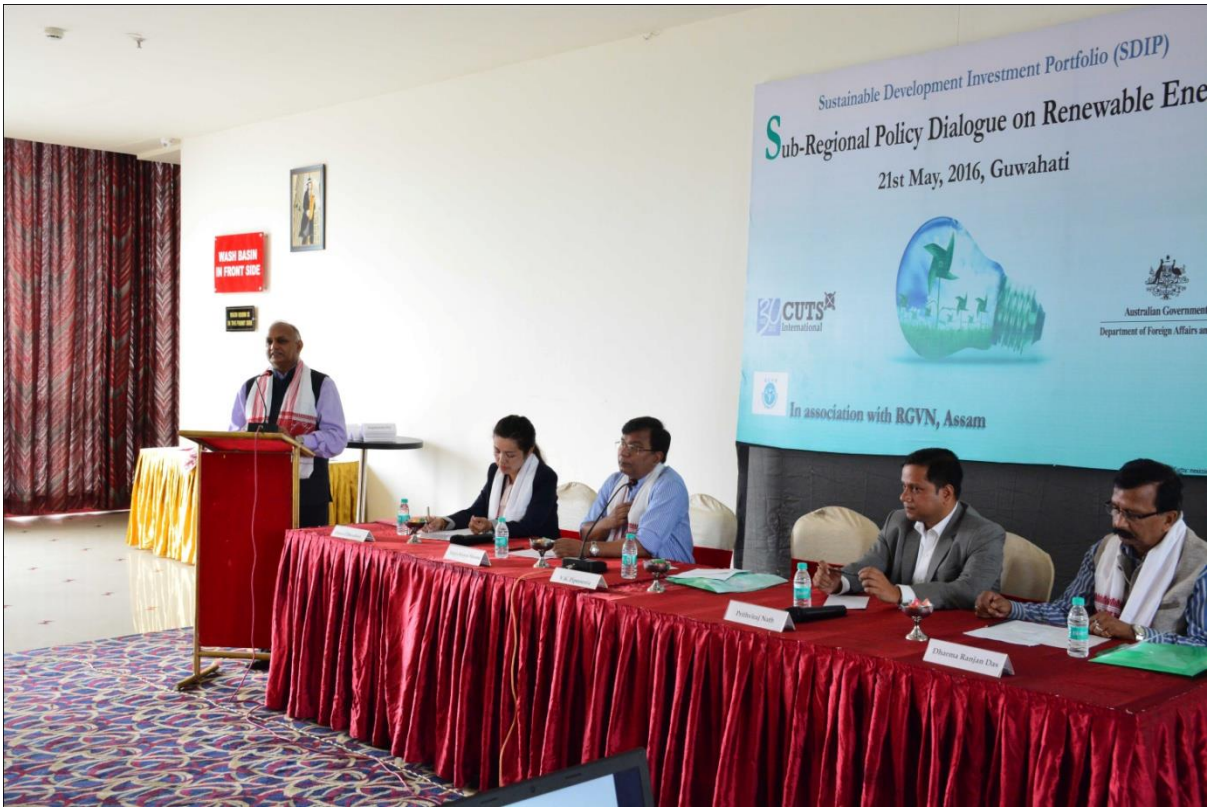
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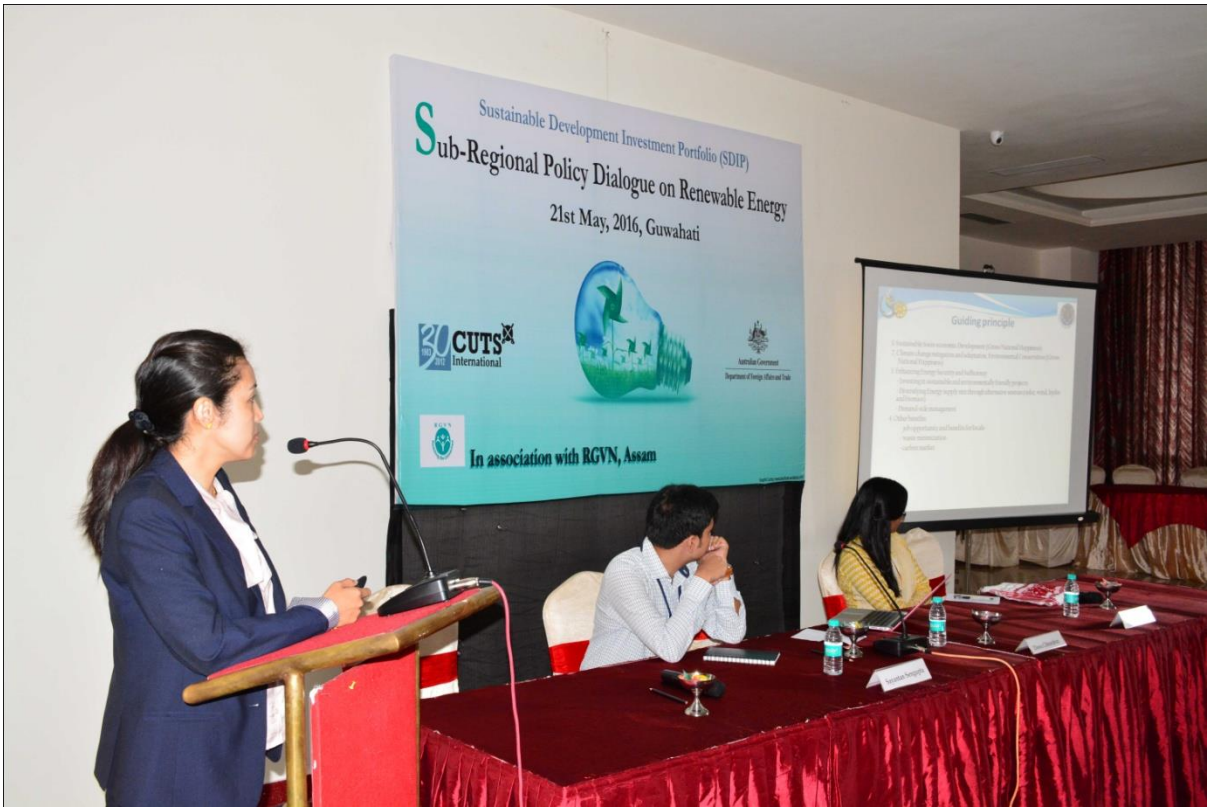
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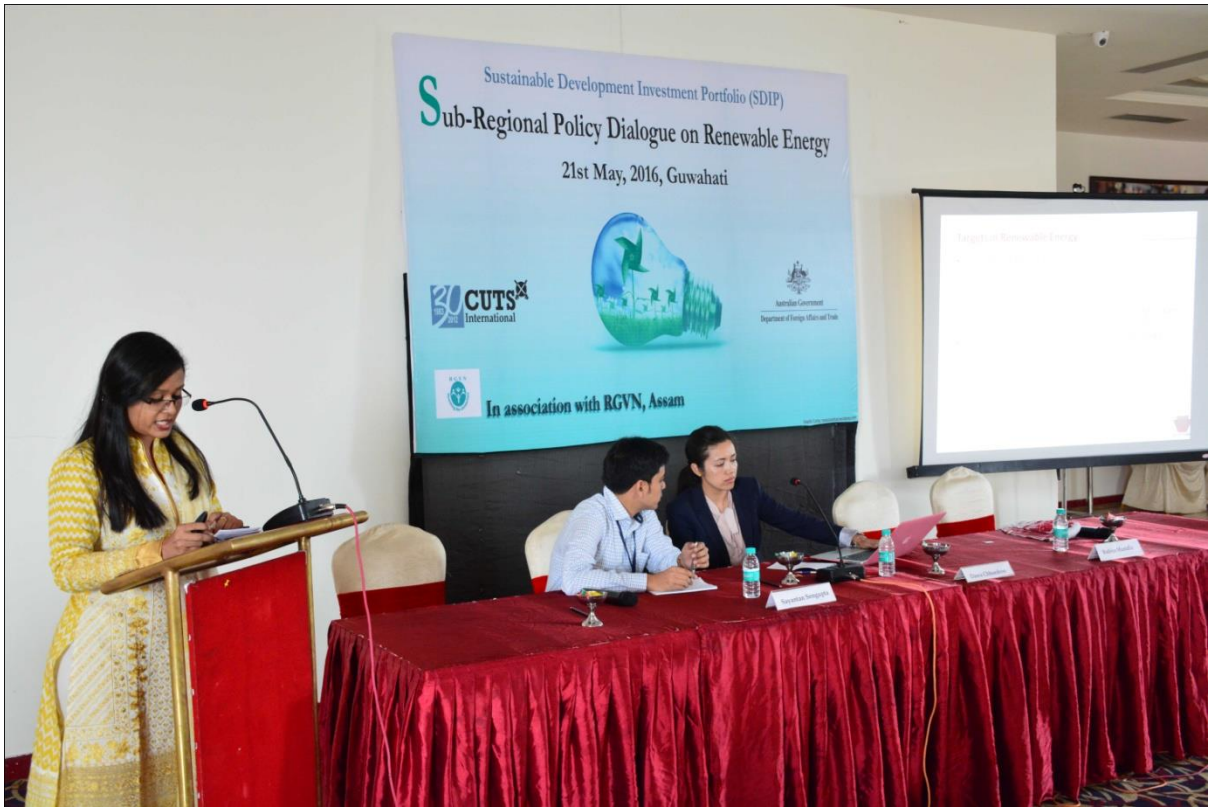
Guiding principle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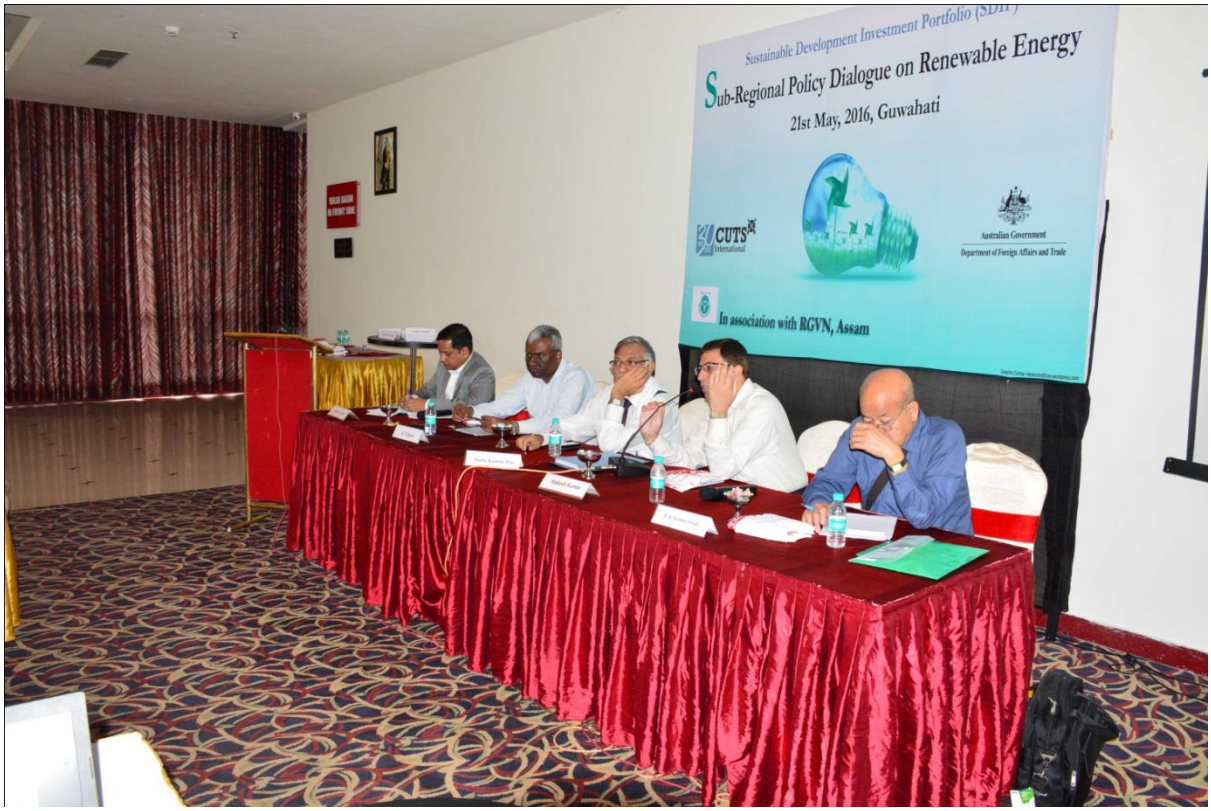
Rakesh Kumar
R. K. Kishor Singh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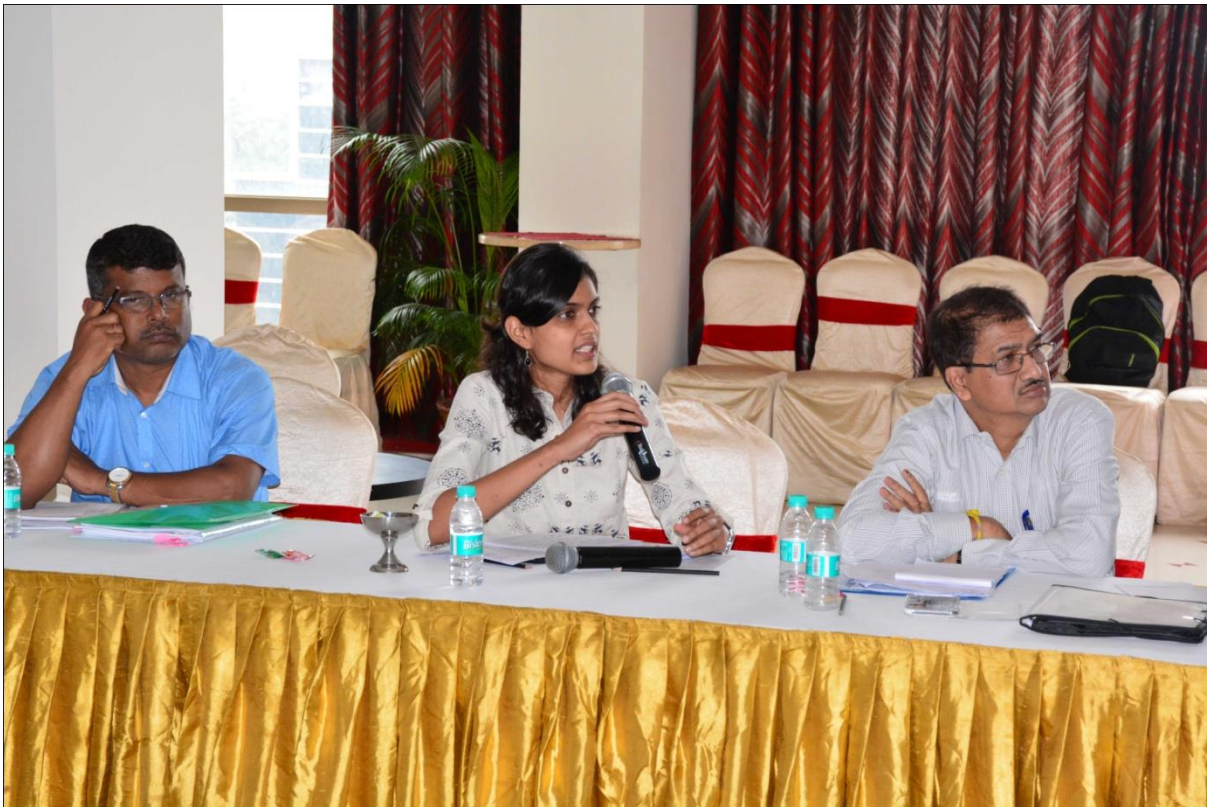


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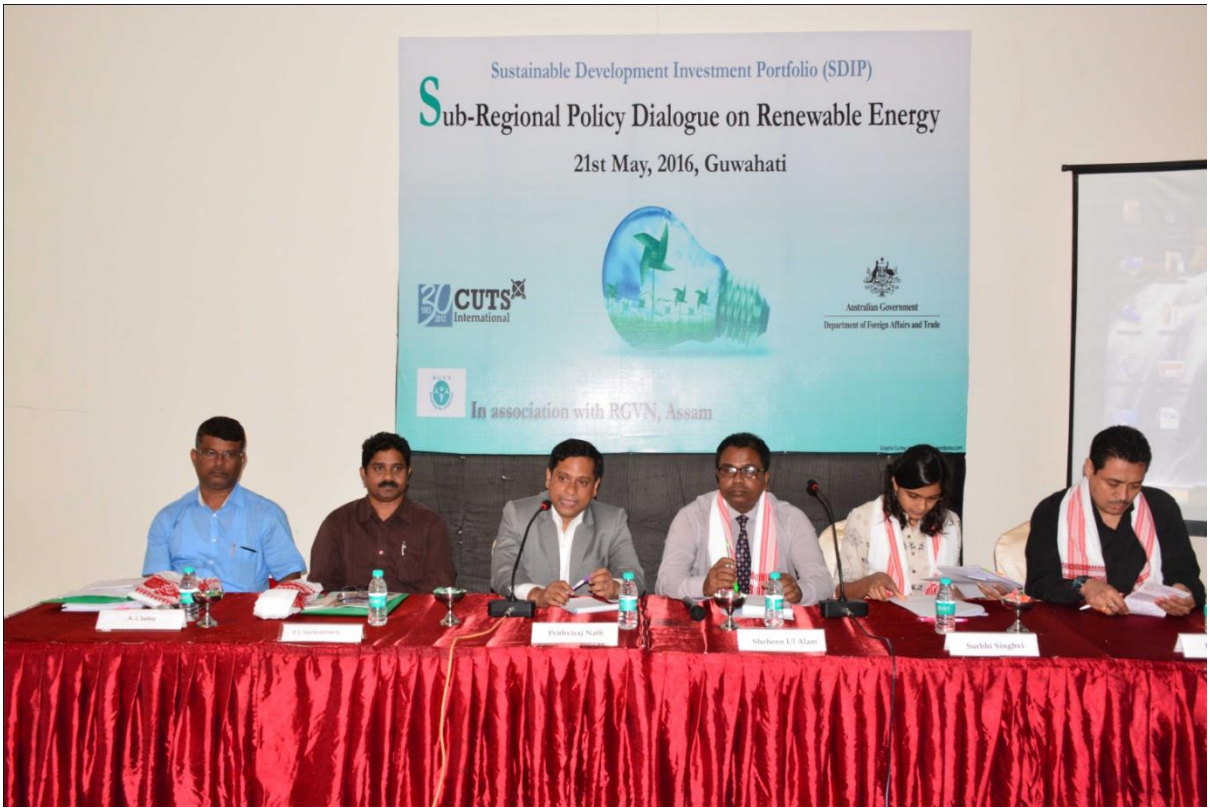
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