October 2013 - July 2014

# Annual Organizational Report



Sustainable Development Investment Portfolio (SDIP)



**CUTS International** 

30 July 2014

#### 1. Introduction

1.1 Department of Foreign Affairs and Trade, Government of Australia, has developed a regional program for South Asia- Sustainable Development Investment Portfolio (SDIP) with the goal to strengthen trans-boundary cooperation to promote more inclusive, accelerated and resilient economic growth. The programme objective is to reduce the trans-boundary barriers to economic growth and trade that cannot be addressed solely at country level. To achieve this objective, a portfolio approach has been conceived in partnership with a group of institutions which have different areas and types of expertise, sharing various responsibilities according to their respective competencies.

CUTS being a portfolio partner will act as facilitator and work towards enhancing the value of SDIP by linking its interventions with key actors (other partner organizations) and stakeholders from micro to meso level through local and regional networks.

- 1.2 The overall goal of SDIP is increased water, food and energy security in South Asia to facilitate economic growth and improve livelihoods, targeting the poorest and most vulnerable, particularly women and girls. The SDIP objectives are stated as follows:
  - Confident and cooperative decision making across jurisdictional borders for the effective and equitable management of shared water resources
  - Increased access to and cooperation on energy
  - Increased agricultural productivity and farm incomes through the adoption of more efficient and sustainable agricultural practices and better developed value- added market chains.
- 1.3 SDIP clearly specifies that the above objectives will be met through policy and governance reforms, supporting regional networks for policy dialogue and collaboration, technical assistance and capacity development and technology transfer and demonstration programs. Australia's expertise in sustainable agricultural practices and water management and hydro power will be delivered through technology transfer/ demonstrations through portfolio partners who are technical experts in these sectors.
- 1.4 Giving the context, the overall Goal for CUTS in terms of its role in SDIP is 'enhancing the value of DFAT' Sustainable Development Investment Portfolio by linking its interventions with key actors (other partner organisations) and stakeholders through local and regional networks through policy research and advocacy'.

#### 2. Progress in Planned Activities during the Reporting Period

2.1 During the month of September 2013, DFAT (AusAID) and CUTS had a four day long Partnership Development meeting for SDIP project and following the intense discussions during the meeting a Memorandum of Understating (MoU) was drafted between both the organisations. The minutes of this meeting is available at www.cuts-citee.org/SDIP/pdf/Report-AusAID\_CUTS\_Partnership\_Meeting\_Minute.pdf.

In October, 2013 the MoU was signed between both the organisations and the first instalment was received by CUTS from DFAT on 2013.30.10.

2.2 During October-December, 2013 period of this project, CUTS spent a considerable amount of time in designing the activity plan for the SDIP project. A project webpage was prepared and operationalized (www.cuts-citee.org/SDIP/) which specifies the project goals and activities, project outcomes and outputs, specific activities and other important details. A project brief to give a brief overview of the project was prepared and is available at the CUTS-CITEE website (www.cuts-citee.org/pdf/SDIP-Project\_Brief.pdf). The project webpage is updated whenever necessary and additional information is included with the progress. The present project brief outlays CUTS activities

for the entire project duration. This will be followed by a project progress brief which will be released after completion of certain activities and achievement of certain interim outcomes.

- 2.3 During the same time period a discussion paper was prepared by CUTS SDIP team members. The paper titled 'Sustainable Development in South Asia-Need for Cooperation in Food-Water-Energy Security' was drafted. This paper explains the concept of sustainable development in the existing sectors of food, water and energy in South Asia, by highlighting the intimate level of interconnectedness between these systems. It tries to highlight the pertinence of Regional Cooperation in these areas as one of the major solutions for resolving on-going disputes and misunderstandings that have been degrading the shared growth potentialities of the region. After extensive expert reviews, this paper was published and printed in March 2014. The paper can be accessed at www.cuts-citee.org/SDIP/pdf/Sustainable\_Development\_in\_South\_Asia-Need\_for\_Cooperation\_in\_Food\_Water\_Energy\_Security.pdf.
- 2.4 The months of November and December, 2013 were also spent mapping the Civil Society Organizations (CSOs) in the seven South Asian countries for understanding the level of activities undertaken by them on SDIP intervention areas. The main aim of this activity was to find relevant organisations that could be potential partners of CUTS in undertaking certain activities under SDIP project. Organisations were mapped keeping in mind the amount of activities/projects in food, water and energy sectors; work on regional transboundary issues; networking profile; power to influence policy reforms; and so on.

The CSO Mapping report can be accessed at www.cuts-citee.org/SDIP/pdf/Report-South\_Asia\_CSO\_Mapping.pdf

- 2.5 An exercise on Media mapping was done during the same time period with the objectives to i) extend out to media particularly on policy and governance reform aspects of SDIP objectives and ii) capacity building of media houses/personnel for efficient use of media platform for policy advocacy. The entire media strategy is available at www.cuts-citee.org/SDIP/pdf/Report-SDIP\_Media\_Mapping.pdf
- 2.6 During the month of January 2014, CUTS revised its activity plan with regards to the new goal and objectives of the South Asia Regional Program. CUTS activities were revised keeping in mind the overarching goal of the project with emphasis on the new SDIP objectives in relation to the shared space between the two pillars; SDIP and South Asia Regional Trade Facilitation Programme. The same month CUTS had a meeting with IOD PARC in Jaipur, India on 16-17 January. The aim of this meeting was to discuss the following:
  - Update on state of play with SDIP drawing on the discussions Ryan, Brian and Julian involved in December, 2013.
  - Introduction to the M&E framework (work in progress version) for SDIP implications for SDIP Partners (CUTs being one of these) and for the work of IOD PARC with the inputs of others (including CUTS)
  - Shaping and positioning initial planned activities.
  - Using the group in the room to test out and develop some ideas of how the SDIP M&E process can work in practice.

The minutes of the meeting can be accessed at www.cuts-citee.org/SDIP/pdf/Report-IOD PARC and CUTS Meeting Minute.pdf

- 2.7 On 31<sup>st</sup> January, CUTS and DFAT representatives had the first quarterly review meeting of the SDIP project in Australian High Commission, New Delhi. The aim of the meeting was to discuss the following:
  - Review of IOD PARC /CUTS /DFAT workshop

- views and plans going forward
- Review of partnering arrangements
  - DFAT views on status of partnership
  - CUTS views on status of partnership
  - Agreed action items
- Update on the broader worlds of DFAT and CUTS
  - Current priorities and issues affecting each part
  - > Implications for SDIP

The minutes of this meeting can be accessed at www.cuts-citee.org/SDIP/pdf/Report-DFAT\_and\_CUTS\_Quarterly\_Meeting.pdf

#### 2.8 Partnership workshop

CUTS ensured active participation in the **Level 1 Partnership Brokering Training** organized by Partnership Brokers Association (PBA) at Gorman House, Canberra from 18-21 February, 2014 under the aegis of SDIP. This training enabled us to develop conceptual understanding about partnering cycle, partnership management and brokering skills. Since CUTS was about to adopt the same partnership approach with its strategic partners, the training was extremely fruitful. It also helped in developing a congenial relationship with other SDIP partners prior to the inception workshop.

The report of this meeting can be accessed at www.cuts-citee.org/SDIP/pdf/Report-Partnership\_Brokers\_Training.pdf

#### 2.9 Inception workshop

The participation in the SDIP inception workshop organized at Canberra from 24-27 February, 2014 provided a platform for better understanding about SDIP, the dynamics of change with respect to each pillar viz., food water and energy, points of portfolio engagement and M& E framework of the portfolio. The rich discussions which happened in various group exercises helped in knowing each partner and opened the avenue for possible collaborations between them.

The report of this meeting can be accessed at www.cuts-citee.org/SDIP/pdf/Report-SDIP\_Inception\_Meeting.pdf

2.10 Following the inception workshop, CUTS team did an exercise to identify those domains of change where we could influence through our engagement and interventions. Accordingly the activity plan was revised and a new matrix giving an outline of the activity, the domains of change it intend to influence and the preconditions was formulated. Critical comments were also given on the draft document of snapshot and the M& E frame work sent by IOD PARC.

# **Activity Matrix**

	Issue	Activity	Domain of Change
Agriculture	a. Market Supply Cain	<ul><li>i. Mapping/tracking (survey)</li><li>ii. Policy research</li><li>iii. Advocacy</li></ul>	<ul><li>a. Market Supply Chain of inputs and service</li><li>b. Enabling policy and regulatory</li></ul>
	b. Sustainable Agriculture	<ul> <li>i. Policy research</li> <li>ii. Perception survey</li> <li>iii. Good practices</li> <li>iv. Capacity building of CSO on best practices, regulatory environment</li> <li>v. Advocacy</li> </ul>	environment c. CSO voice d. CO- BENEFIT/Collaborative Structures
Energy	<ul><li>a. Access through offgrid RE</li><li>b. Cross-border trade</li></ul>	<ul> <li>i. Survey</li> <li>ii. Policy research</li> <li>ii. Good practices</li> <li>v. Advocacy</li> <li>v. Capacity building(knowledge sharing)</li> <li>i. Policy research</li> <li>ii. Capacity building(knowledge sharing)</li> <li>iii. Advocacy</li> </ul>	<ul> <li>a. Market Supply Chain for Off-grid</li> <li>b. Enabling policy and regulatory environment</li> <li>c. Effective models</li> <li>d. CSO Voice</li> <li>e. Facilitate SAARC dynamics</li> <li>f. CO-BENEFIT/Collaboration on energy option</li> </ul>
Water		policy and regulation)  ii. Perception Survey	<ul><li>a. Enabling policy and regulatory environment</li><li>b. Facilitate SAARC debate</li></ul>
	b. Trans-boundary water sharing	<ul><li>i. Policy research (on treaties)</li><li>ii. Perception survey</li><li>ii. Advocacy (dialogues on subnational and regional)</li></ul>	c. CSO/Community voice

### 2.11 Desk Research

In order to understand the challenges with respect to the three domains of agriculture, water and energy across the three river basins as well as to identify the entry points to intervene in the three domains, a thorough desk research reviewing available literature was conducted by CUTS. The output of the exercise is given in the table below. Attempt was made to link the issues/sub issues to the respective domains and preconditions of change.

	ENERGY		
Issue	Sub-Issues	Domain of Change	Pre-conditions of Change
Improving energy access through offgrid RE	<ul> <li>Lack of structured regulations for off-grid RE development.</li> <li>Grid connectivity of off-grid production units for energy supply security and harnessing surplus production.</li> <li>Need for a market mechanism for commercial success of off-grid systems.</li> <li>Lack of participatory planning in terms of local level grids and micro-grids.</li> <li>Absence of adequate incentives to promote RE technology development and manufacturing.</li> <li>Unstructured and uncoordinated market supply chains for RE, plagued with poor after-sales service.</li> <li>Lack of adequate, reliable and affordable financing for RE development. Private sector sees high risks due to low paying capacity of end consumers. State instruments to incentivise are not so effective.</li> <li>High cost of RE to end consumers is a barrier to access. Need to scale up RE development and market in South Asia to bring down the cost.</li> <li>Need for knowledge sharing on good practices/case studies within and across borders.</li> </ul>	<ul> <li>Market supply chains to support off grid systems</li> <li>Enabling (National and Sub-National) Policy and regulatory environment including large scale private sector investment</li> <li>Effective models: intra-regional cross border energy deals</li> <li>Civil Society voice for change, reform and standards</li> <li>Facilitative [SAARC] dynamic on the need for cross border cooperation on energy</li> <li>CO-BENEFIT/Collaboration [regional and intra-country] on energy options</li> </ul>	<ul> <li>Accelerated development of off grid- energy systems for rural communities</li> <li>Accelerated extension of grid connections to rural areas</li> <li>Accelerated development of small hydropower infrastructure</li> </ul>
Cross-border trade of Energy	<ul> <li>Regulatory and legal frameworks related to energy/electricity are not harmonised across borders.</li> <li>Need for a Regional Power Market and Exchange to be able to gradually progress from bilateral energy trade agreements/arrangements to multilateral trade where third party trade will be possible.</li> <li>Need to encourage cross-border private investment for tapping into the potential of the region. Due to lack of enabling framework, particularly those related to external investment in development of regional export oriented projects and transmission facilities, there is under-utilisation of potential.</li> <li>Geo-political issues and lack of political will.</li> </ul>		Increasing regional cross-border trade in energy to the grid

•	Lack of energy trade infrastructure in the region.  Need for a regional facilitating agency/strengthen South Asia Forum of Infrastructure Regulators (SAFIR).  RE technology transfer and trade in the region is currently low, which needs to be facilitated to promote both off-grid and grid-connected RE.  High cost of energy non-cooperation within South Asia.  WATER		
Issue	Sub-Issues	Domain of Change	Pre-conditions of Change
Transboundary Water Sharing	<ul> <li>Whether we need a revised Indus Water Treaty (1960)?</li> <li>The Ganges Treaty between India-Bangladesh is still gripped by certain issue because of persistent water shortages in Bangladesh in dry seasons are uncontrollable floods in monsoons. The latest row is over the signing of Tees Water treaty that is still in the midst of vagaries because of resistance shown I ruling West Bengal Government in India. Another issue is over the construction of Tipaimukh Dam on Barak River in the Indian state of Manipur.</li> <li>India and Nepal has been successful in generating three bilateral water sharing agreements till date but still contentions prevails between the countries of account on construction of mega dams and other projects on Kosi, Gandhal Karnali and Mahakali river.</li> <li>Internal Water governance issues in respective South Asian Countries has further exacerbated the already constrained relations between riparic countries. National polices on water distribution and pricing are not very strong in all the SACs.</li> <li>Domestic water policies of SACs do not stress upon the issue of transboundad water sharing and varies across countries and are not aligned with the central policies.</li> <li>Water management being a state own subject (specifically in India) has complicated transboundary issues due to lack of consensus between the state and the central government.</li> <li>Issues of Political economy are another deterrent in transboundary wat sharing and management. Hydro-hegemony in relation to power asymmetry another issue. India is often perceived as a hegemon when it comes to signing bilateral water agreements and other water related issues.</li> </ul>	subnational and subnational and subnational) policy and regulatory environment Facilitate SAARC debate CSO/Community voice  ry al  ve te er is	Reform/refinement to existing national cross-border treaties/agreements on water resources  More timely actions taken by water management authorities in the region on when to share and when to discharge water linked to flood and drought mitigation measures  Deepening of the policy dialogue between countries [which embraces water resource] set within the wider political evolution towards cooperation in the region

Integrated Water Resource Management (Groundwater)	<ul> <li>Trade could be a solution to indirectly resolve transboundary water issues but trade momentum is at snail's pace in this region.</li> <li>Overexploitation of groundwater resulting in inefficient and unsustainable use of water, further exacerbated by providing heavy subsidies.</li> <li>Natural and anthropogenic contamination has further degraded the quality of groundwater in this region</li> <li>In large parts of Bangladesh and several north-eastern states of India, shallow groundwater is contaminated with high concentrations of naturally occurring arsenic.</li> <li>Groundwater governance is not very strong and effective in South Asia.</li> </ul>		• Shared learning from basin scale planning and management: testing the assessment of trade-offs in managing water resources equitably and managing for water scarcity.
	<ul> <li>Unsustainable agricultural practices are not helping in the retention of groundwater tables in South Asia, mainly in the Indus basin.</li> </ul>		
	AGRICULTURE		
Issue	Sub-Issues Sub-Issues	Domain of Change	Pre-conditions of Change
Promotion of Sustainable Agriculture	<ul> <li>Poor technology dissemination</li> <li>Research and extension, predominated by government bodies, are poor.</li> <li>Lack of policy support for sustainable/climate resilient agricultural practices and crop diversification for their adoption</li> <li>Limited crop diversification due to seasonal flooding</li> <li>Public investments are restricted to input subsidies rather than infrastructure development</li> <li>Poor development of Input output markets</li> <li>Poor access to credit and market information</li> <li>Inadequate water management techniques leading to over exploitation</li> <li>Lack of a rational pricing for irrigation water and chemical fertilizers</li> <li>Lack of efficient land use planning and flood control measures structural and non-structural</li> <li>Poor mechanization and development of small scale industries (in EGP)</li> <li>Lack of insurance support and Early warning system</li> <li>Collaborative research on weather forecasting, pest and disease control measures and crop improvement and sharing of good practices on</li> </ul>	<ul> <li>Enabling national and sub national policy and regulatory environment for sustainable agricultural practices</li> <li>Civil society voice for change, reform and standards</li> <li>Collaborative structures</li> </ul>	<ul> <li>Accelerated uptake of proven climate resilient agricultural practices</li> <li>Accessible vital support services [credit, energy, technical knowledge and market information]</li> <li>Significant increase in investment (public and private) in agricultural research (conservation agriculture and precision agricultural practices</li> <li>Adequate knowledge within farming communities of available water resources (surface and groundwater) and annual variability and availability of water for</li> </ul>

	regional basis	between farmer organisations and service providers, agro-	agriculture
Market Supply Chain in Agriculture	<ul> <li>Timely supply of quality Inputs</li> <li>Access to production technologies (market-led extension cervices)</li> <li>Low incentives to maximise production</li> <li>Lack of storage facilities (warehouses and cold storages) and low investment (Public and private)</li> <li>Market information and market intelligence</li> <li>Long fragmented supply chain (Too many middle men)</li> <li>Lack of credit support</li> <li>Market Access and Market Orientation</li> <li>Institutional Gap (Regulative, Normative and Cognitive)</li> <li>Processing / Post-harvest technology</li> <li>Lack of agri-products standards and labelling</li> </ul>	<ul> <li>business and researchers.</li> <li>Market Supply Chain of inputs and services</li> </ul>	<ul> <li>Significant increase in investment (public and private) in agricultural research (conservation agriculture and precision agricultural practices)</li> <li>Accessible vital support services [credit, energy, technical knowledge and market information]</li> <li>Stronger value-added market chains for agricultural products'</li> </ul>

#### 2.12 Identification of potential strategic partner across the three basins

- Since CUTS role in SDIP is to enhance its value by linking its interventions with key stakeholders at various levels, it is utmost important to strengthen its network throughout the basin, right from the grassroots to policy makers. With this objective, we shortlisted a few CSOs working on SDIP issues from the document on CSO mapping. A score card was prepared based on likert scale for the evaluation of these CSOs.
- CUTS team visited the short listed NGOs in the state of Punjab (Indus basin), Uttar Pradesh, Bihar (Ganges basin) and Assam (Brahmaputra basin). We have country partners in Pakistan (Sustainable Development Policy Research Institute, Islamabad), Nepal (South Asia Watch on Trade Economics and Environment, Kathmandu) and Bangladesh (Unnayan Shamannay, Dhaka) covering the three basins from country perspectives with whom we had been engaged since 15 years.
- During our visit, we tried to realize the working of each organization, their institutional
  capacities and analysed their strength with respect to understanding on SDIP issues,
  advocacy and networking skills and ranked them as per the score card. We did a similar
  exercise over Skype with a couple of organizations in Bhutan since we needed a partner
  there.

The following organizations were selected as CUTS' strategic partners in South Asia

SN	Name of organization	Basin	Agro Climatic Zone engaged
1	Centre for Research in Rural and Industrial  Development (CRRID), Chandigarh, Punjab	Indus	Trans Gangetic Plain
2	Sustainable Development Policy Research Institute (SDPI), Islamabad, Pakistan	Indus	Trans Gangetic Plain
3	Nand Education Foundation for Rural Development (NEFORD), Lucknow, Uttar Pradesh	Ganges	Upper Gangetic Plain & Middle Gangetic Plain
4	BASIX, Patna, Bihar	Ganges	Middle Gangetic Plain
5	South Asia Watch on Trade Economics and Environment (SAWTEE), Kathmandu, Nepal	Ganges	Upper Gangetic Plain
6	Rashtriya Grameen Vikas Nidhi (RGVN), Guwahati, Assam	Brahmaputra	East Himalayan Region
7	SNV, Bhutan	Brahmaputra	East Himalayan Region
8	Unnayan Shamannay, Dhaka, Bangladesh	Brahmaputra	Lower Brahmaputra & Lower Gangetic Plain
9	CUTS Institute for Regulation & Competition (CIRC), New Delhi	CIRC will indulge in conduction of diagnostic study, policy research and capacity building.	

## 2.13 CUTS' workshop with Strategic Partners

CUTS organized an inception workshop at Kathmandu with the eight strategic partners from 15-16 May 2014. The objectives of the workshop was

- To develop a shared understanding of SDIP objectives, preconditions and domains of change among the strategic partners
- To know each partner and its developmental approach
- To build understanding on partnership approach
- To discuss CUTS activity plan with strategic partners

The workshop was quite successful in achieving its objectives. Various group exercises enabled the partners to develop a fairly good understanding on partnership approach & SDIP objectives. Rich discussions which followed the exercises held basin wise, paved the way to a much clearer context and point of engagement for each partner. It was also decided that the strategic partners will identify stakeholders in their region as per the list provided by CUTS and fix appointments with them to conduct the diagnostic study led by CUTS.

The detailed report can be accessed at www.cuts-citee.org/SDIP/pdf/Report-CUTS\_Strategic\_Partnership\_Meeting.pdf

#### **2.14** Reaching agreement

To ensure hassle free management of the budget allocated to CUTS under SDIP, it was divided into three components. Component A -exclusively meant for the activities conducted by CUTS, Component B being the allocation to partners and Component C - the budget for activities jointly organized by CUTS and its strategic partners. The partners were given flexibility to design their activity plan according to their competencies provided it would encompass the SDIP portfolio goal and objectives. Consequently, MoU and ToR were drafted for eight partners. After consultation with partners the MoUs were finalized and contracts were signed between CUTS and 9 individual partners.

#### 2.15 Quick Diagnostic study

This was the first activity of its kind conducted by CUTS in field as per the activity plan. The overall aim of this study was to understand the prevailing conditions related to agriculture, water and energy and link it with the perceptions of various stakeholders residing in all the five countries (India, Pakistan, Nepal Bhutan and Bangladesh) across the three river basins. This would help in identifying the entry points, and refining the sub-issues that are to be prioritised under each of the three focus areas. The specific objectives of the diagnostic study are given below:

#### **Objectives of the Exercise:**

Consulting key stakeholders at various locations in the three river basins on the three pillars of SDIP:

- Agriculture, Energy and Water
- Validation and updating of the issues identified by CUTS through desk research
- Understand their perception on "What is the status at Present" and "What it Should be" in terms of the three focus areas of water, agriculture and energy in the region, what issues affect trans-boundary cooperation, what concerns, aspirations, etc.
- Coin initial advocacy messages for policy advocacies at sub-national, national and regional levels. To effectively use the linkages and networking of CUTS 'strategic partners and to engage them from the initial phase

Key Respondents were interviewed using a semi-structured questionnaire developed by CUTS which is given in the Annexure. The report is under preparation and will be shared with DFAT by the end of September 2014. The

Study Tools: Tools used were Key Informant Interviews (KI) and Focus Group Discussions (FGD). Focus Group Discussions was conducted with groups like water-use communities, farmers' associations, Self Help Groups etc. The study was conducted in the states of Punjab, Uttar Pradesh, Bihar and Assam in India and Nepal, Bhutan, Bangladesh and Pakistan with the support of strategic partners. CUTS Calcutta Resource Centre conducted the research part in Kolkata.

Initial findings of the diagnostic study are consolidated in the following matrix:

#### **Indus Basin Gangetic Basin** Brahmaputra basin

- Policies need to support crop diversification. Crops should be grown in suitable agro-climatic situations.
- ❖ Need to strengthen research to come with alternate cropping pattern that can fetch profit to farmers.
- Basmati rice is transplanted late and matures late; so main land preparation does not coincide with summer months of June which saves water.
- Electricity which is now supplied free of cost
  Indigenous fruits like jamun, karonda and amla should be priced rationally
- Though in Punjab, farmers are using laser level Model APMC (Agricultural produce Marketing technology, tensiometers, and conservation tillage, technology has not reached considerable proportion. Border area farmers are worst affected.
- ❖ Access to credit is mostly through commission agents/ money lenders
- Canal irrigated area is declining as more and more
  Metering and rational pricing would be helpful farmers are switching to ground water. Canal not reach tail end.
- Water recharging and rain water harvesting should be promoted
- Punjab state has issues of water sharing with neighbouring states of Rajasthan and Haryana and Pakistan. The decreasing river flow, over exploitation of ground water and pollution has exacerbated the situation.
- Energy efficient pump sets need to be popularised
- Micro hydro projects are successful in the state

- ❖ Poor access to technology and sustainable agricultural practices and market information
- Issues related to governance Government schemes are not implemented properly
- Unscientific agricultural practices exist in the region. Extension services and research need to be strengthened. There is a demand for short duration/flood tolerant varieties
- Poor mechanization
- are being ignored
- committee) act has not been adopted In Uttar Pradesh whereas in Bihar the act has repealed this act in 2006.
- Free canal water supply and no regulation of ground water extraction has led to wastage of water.
- to regulate water consumption
- system is not maintained properly and water does . Govt. should construct water harvesting structures or provide incentives for the same for *insitu* water harvesting
  - Uttar Pradesh State has subsidized solar irrigation pumps
  - Measures required to increase irrigation efficiency

#### Bangladesh:

Agriculture, Ground water, irrigation, etc.

- Policies are in place but not implemented properly.
- Irrigation is done through both ground water and surface water resources. Ground water is

Agriculture/Irrigation/Market. Etc.

- Policies and schemes needed for crop diversification. Presently dominated by mono-cropping of mostly
- . Commercial farming has not really taken off in a big way since both the terrain and socio-cultural contexts seem to favour subsistence cropping. Interestingly commercial farming is mostly undertaken by nontribal/newly settled farmers, many of who are from across the borders.
- ❖ Mechanisation, access to credit, etc. Is quite low due to gaps in extension services as well as prevailing socio-cultural conditions.
- The region has a lot of potential in terms of variety of crops (agriculture and horticulture) that grow there due to the diverse agro-climatic conditions of the region, which includes plain land, valleys, hills and mountainous regions. Proper research and promotion needed which may lead to a lot of export focused farming, processing and trade and hence livelihood generation.
- Irrigation is mostly poor in the Assam state and is slightly better in the Teesta valley of West Bengal (the Teesta ultimately drains into the Brahmaputra or Jamuna in Bangladesh). Canal or surface water irrigation is better in Northern part of West Bengal in the Teesta basin, while it is not functioning really well in the Assam valleys.
- New APMC Act has been adopted in Assam but not developments have taken place since extension services are limited and more focused on revenue collection in the form of market fees rather than facilitate market access.
- Input-output trade is mostly controlled/administered

- gaining grounds in some parts while surface water remains strong ion some.
- There are strong water user associations in some places run by community and supported by the government.
- People are aware about water being purposes. They are fine with it since there are ground water contamination issues in the Padma (Ganga) basin.
- Ground water irrigation systems are mostly operated by water use associations or CBO/CSO groups with facilitation and/or support from the government in some cases. Hence reasonably open platform for private players to operate in this space.
- Crop diversification efforts need to be bettered, though there has been some effort by the government to popularise wheat cultivation in areas where water resource issues have cropped up.
- ❖ Farmers are also moving towards crops like ❖ There is maize (mostly used as poultry feed by the poultry industry) since it requires less water and gives higher money returns.
- ❖ Input-output trade controlled by private suppliers/brands from neighbouring countries (India).
- Informal trade also happens in terms of seeds and inputs but has gone down in the recent years as per stakeholders

#### Water sharing:

❖ India is predominately considered to be a villain in terms of water sharing by ground level

- by private parties and people are of the opinion that its best handled by private market forces rather than the government. They however want better procurement buy the government alleging that grain procurement doesn't happen from the local producers and come from outside states.
- chargeable for both irrigation and drinking . There is a tendency of shifting to cash crops (more in Teesta basin) like tea since they yield higher profits than paddy.

#### **Surface and Groundwater:**

- Ground water irrigation is picking up in both the areas but yet to become substantial. One main hurdle to this end is non-availability of electricity and related infrastructure.
- ❖ Though there are no issues with ground water as of now, with major focus on groundwater based irrigation, there might be issues in future. Neither of the regions have groundwater policies, though West Bengal did have one which has not been implemented effectively.
- need comprehensive for agreement/convention regarding the Brahmaputra and its tributaries/distributaries involving the seven north eastern states. This will help in better and holistic planning with regards to surface water.
- players with reasonable presence of \* Need for a dedicated research institution that can supply regular data on the river system in the NER. The river system being relatively new keeps changing courses and shifting. Better scientific research is needed to be able to predict such changes and harness the river water in a better way.
  - Flood is a major issue in Assam and technical knowhow and scientific warning systems need to be put in place, as opined by stakeholders

- stakeholders (there also seems to be apolitical agenda in this). Farkka and proposed Teesta treaty are widely argued as instances of India's highhandedness.
- Flood is a major concern and again the prevailing idea seems that unplanned/unannounced water release by neighbouring countries is a big issue.

#### Energy:

- Availability is low.
- Trade with neighbouring countries is crucial, but not happening substantially.
- Solar power has had a good degree of penetration in the rural scape. The government has also tried policies/schemes to encourage and mandate use of RE. The policies have however been implemented as a top-down approach leading to their failure at times.
- Presently the government is putting a lot of thrust on RE, particularly solar in irrigation and urban energy needs.
- Natural Gas is overexploited and priced rather low for rational use. With depleting reserves, it is an area of concern.
- At the policy level there is lack of clarity regarding an effective energy mix for the country. A comprehensive policy/mission is required to chart that out.
- Recent verdict on maritime boundary, awarding rights over a substantial area of the Bay of Bengal to Bangladesh has re-invigorated the possibilities and debates surrounding energy potential of the country.

#### Energy:

- ❖ Big hydroelectricity projects ae facing a lot of public and civil society opposition. There is this perception about small hydros being better suited for the region and also having higher local buy-in since they usually supply the electricity locally. The displacement and environment concerns for small hydros are also lower. Big hydros will require much longer time span e to build consensus and generate the critical political and social will. Small hydros could be an interim way out to plug the substantial gaps in power requirement and availability.
- Other renewable that are possible are chiefly solar and to some extent biomass driven power generation. However there is no Renewable Energy Policy for any of the NER states. West Bengal has recently developed a RE Policy and also come out with regulations supporting the policy. Mizoram has initiated some schemes/incentives to promote RE.,
- Power Trade across national borders is mostly not in the radar as far as NER is concerned due to the huge demand-supply gaps at the local/state level, however officials agree that power trade will be necessary to bridge the gap and connecting the eastern and north eastern grid will lead to greater stability. Officials are aware about trade with Bhutan. Transit/power trade via/with Bangladesh seems to be an issue not much discussed.
- West Bengal has been active in terms of power trade, but a very clear picture as to where the trade with Bangladesh (via bheramara) stands is not there with district level officials.