

INDIAN CIVIL SOCIETY PERSPECTIVE ON WORLD BANK ENERGY STRATEGY

POVERTY

The Energy for Our Common Future project brings together responses and alternative approaches to the World Bank energy strategy. This Indian perspective distils the position of 30 civil society organisations that came from across India to meet in New Delhi on 28 July 2010. It highlights the energy needs of the poor and gives special regard to potential for the World Bank Group to lead the private sector toward renewable energy.

The World Bank Group states two main aims: 'improving access and reliability of energy supply' and 'facilitating the shift to a more environmentally sustainable energy development path'. Both are indeed priorities, particularly in the South Asian region, including India. However, we question whether the Bank's proposed approach will achieve these objectives.

Indian civil society believes the Bank should focus its efforts on four points: the role of the World Bank Group, the energy needs of poor and marginalised people, their jobs and livelihoods, and the promotion and transfer of technologies.

- The Bank should lead the way in funding low-carbon energy generation, even if the technologies involved are costlier than traditional options.
- The Bank should help to harmonise the lending policies of all international development finance institutions in ways which will support investments in low-carbon energy.
- The Bank should act as a knowledge manager – collating and promoting several models of renewable energy development from which governments can choose and adapt to their own respective countries.

1. World Bank Group's role

Redefining the role of the World Bank Group

- The Bank's role in energy provision should be that of a 'leader', positioned to help mitigate investors' early jitters in relation to the fast-emerging renewable energy industry and thus to encourage the domestic financial markets of fast-growing economies to invest in renewable energy.
- The Bank should help build governments' capacity for long-term planning, project appraisal and implementation of all renewable energy technologies as one of its key priorities. Additionally, it should help to solve the shortage of skilled labour in the wind and solar energy sectors.

2. Energy needs

Addressing the energy needs of poor and marginalised people, including women

- A country such as India, in which nearly half the population lacks access to electricity, needs to adopt new priorities. The World Bank Group should ensure that any new Indian projects address the issue of poor people's energy poverty – and not simply assume that more electricity will bring power to the 'power-less'.
- The energy strategy should address all energy needs, including the heating and lighting requirements of the poor as well as requirements relating to livelihoods. Low-carbon rural transport

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The Bank's role in energy provision should be that of a 'leader', positioned to help mitigate investors' early jitters in the fast-emerging renewable energy industry

- can reduce poverty by creating jobs and expanding market access.
- Broadly, energy supplies should achieve: (a) universal, reliable access; (b) equitable access (bridging the gaps between urban and rural and between the availability of energy supply and access to services); (c) affordable access (pricing and subsidies); and (d) appropriate access.
- In considering the energy needs of poor and marginalised people, the Bank should tackle subsidies. Currently, it is the rich and big urban consumers who benefit from hidden as well as overt subsidies to fossil fuels such as liquefied petroleum gas (LPG), petroleum products and centralised electricity generation systems. The Bank should support a level playing field in which people living in poverty can get alternative sources of energy at cheaper costs. This highlights the importance of the World Bank Group financing decentralised, renewable energy systems at concessional rates.
- The Bank should focus on enabling people in communities, villages and districts – where decentralised, renewable energy projects are being installed – to use and maintain them, so that such projects become sustainable.

4. Technology

Promoting new technology and helping to transfer existing technologies to new markets

3. Jobs and livelihoods

Promoting jobs for people who are poor and marginalised to reduce poverty, bridge the increasing income divide and achieve India's National Development Goals and the Millennium Development Goals (MDGs)

- We recognise that job creation and the MDGs cannot be achieved simply by providing people with access to electricity and energy. However, such access has a vital role, along with other linkages such as access to markets. The Bank, while recognising this, does not translate this into its proposed actions.
- The Bank should do a comprehensive assessment of the renewable energy technologies it promotes (and the volume of funding it has provided) thus far. Given its mandate to finance only governments and public-sector projects, it is limited whenever the private sector is expected to play a major role. The Bank should reorient its policies to help the private sector create renewable energy projects.
- It is important that decentralised renewable energy systems are encouraged over traditional energy systems but they should be implemented in sectors where they are most likely to succeed.
- The Bank should not promote a uniform policy for low-carbon pathways but should support the policies that countries want to adopt, so long as they promote the twin objectives of the Bank's energy strategy. India must decide which technologies are needed, of the various options available, including indigenous technologies. Choices should be based on economic viability and suitability for local conditions.
- To ensure uninterrupted supply, the Bank should promote energy storage technologies.

Case study 1: Solar-electrified village of Rampura, Jhansi District, Uttar Pradesh

Rampura is a village with a population of about 350 that has not gone without electricity for a single day since 26 January 2009. Before then, Rampura was one of many villages without electricity on the outskirts of Jhansi in Uttar Pradesh. That changed when a Norway-based company, Scatec Solar, decided to set up an 8.7 kilowatt power plant.

Assisted by local non-governmental organisation Development Alternatives, Rampura was mobilised to take charge of the solar plant – perhaps India's first to be community managed. The plant distributes power through a micro-grid which is approximately 1km long. There are 60 solar panels in the plant, each one producing 145 watts of power.

Now, as the sun goes down and nearby villages plunge into darkness, owing to erratic power supply, Rampura's street lights get power through a separate switch at a local powerhouse. Rampura village has 69 houses – of which 44 have solar power connection. The solar power is generated and distributed by a private venture that is unique because it is totally managed by the community. The village has set up a 16-member Village Electrification Committee (VEC), named Rampura Urja Vikas Samiti, which maintains billing documents and receipts.

'All members of the VEC serve their responsibilities and contribute their time in an honorary and voluntary capacity. We meet every month to discuss the problems faced by consumers and address complaints and requests. On a day-to-day basis, we supervise the management, operation and security of the equipment and solar panels at the solar power station. We disconnect the connections of those who delay payments beyond a month and then charge 200 rupees for reconnecting the same.'

Ghanshyam, president of the VEC

'I was always interested in this project and now I am fortunate to have been entrusted with the responsibility of looking after this power plant since February 2010. I got this job after successfully completing the one-month induction period under the solar company's technical representative at this power plant who was posted here for the first year of this project.'

Balwan, high school graduate and Rampura resident, employed by the VEC as a full-time solar-power-plant operator

Rampura is in the drought-prone Bundelkhand region of Uttar Pradesh, which is plagued by poverty, illiteracy and drought. Agriculture is the main occupation of the villagers. Since solar electrification, a small flour mill has also been set up which has provided employment for a few people, thereby accelerating economic activity.

'Solar power is a blessing as we can now also study at night time. Now most children in our village attend the refurbished primary school built on the *panchayat* land adjacent to the solar power station. The computer training centre set up adjacent to the school building is a primary attraction and draws kids like me to school every day...'

Shanno, class 4 student at the village primary school

By extending support and financing to decentralised community-managed energy projects such as these at Rampura, the World Bank Group can encourage economic prosperity of communities, attend to their basic needs and alleviate poverty and illiteracy, without adding to ecological imbalance and carbon emissions.

Other gaps in World Bank Group strategy

Renewable energy

In India and other strong emerging economies with deep and mature financial markets, which are capable of financing fossil fuel energy projects, the Bank should clearly shift to financing only low-carbon technologies in the energy sector and ensuring their efficient deployment.

The Bank should reinvent itself and focus on working with countries to support the involvement of the private sector in decentralised energy generation projects. It should support decentralised options and models, smart grids and projects that can demonstrate the viability of renewable energy, especially for poor and marginalised people.

Renewable energy options should include appropriate and locally available resources such as biogas, mini- and micro-hydel projects and so on. There is potential for large renewable energy programmes to provide basic electricity supplies for the poorest of the poor, which will also help generate employment opportunities. Such opportunities could be created within a very short period, thereby improving living conditions faster than centralised power

generation systems and without damaging the environment.

While mini- and micro-hydel projects are fine, the Bank should, before it promotes large hydropower projects, do a realistic assessment of their greenhouse gas emissions and the sustainability of these large dams, given the dwindling supply of water in rivers.

Energy growth needs to be decoupled from GDP growth, with energy growth projections being based on sustainable patterns of consumption. Projections should factor in efficiency, energy conservation and demand-side management.

The Bank should initiate a study of ways to transfer subsidies from all fossil fuel-based power projects to renewable energy ones.

Efficiency and conservation

The only way to balance economic growth and satisfy domestic energy needs without endangering the environment is to increase energy efficiency gradually. The promotion of energy efficiency and demand-side management is one of the most cost-effective options available. The Bank should promote these through investments and support for measures such as building codes, appliance labelling and so on.

The World Bank Group should ensure that any new Indian projects address energy poverty – and not simply assume that more electricity will bring power to the 'power-less'

India must decide which technologies are needed including indigenous technologies. Choices should be based on economic viability and suitability for local conditions

The Bank's energy strategy should also help reduce transmission and distribution losses.

Policies to incentivise energy efficiency should be encouraged. These could include:

- initiating reforms in the banking sector to ensure that energy efficiency projects are made bankable
- promoting substantive government investment to promote efficiency, especially to enable the small and medium enterprises sector to shift from energy-inefficient production and products to efficient ones
- introducing regulatory systems to implement and monitor energy efficiency as well as introducing the option of trading of efficiency certificates.

The current policy of unrealistic pricing, especially in the electricity sector, is one of the reasons why huge amounts of electricity are misused. Policy should be based on the principle that the higher the consumption, the higher the tariffs, which in turn reflects the polluter-pays principle.

Governance and energy management

The Bank should also help build capacity for local governance and planning. Its emphasis should be on bottom-up energy planning which caters to the needs of people.

Civil society strongly believes that the current centralised grid-based energy systems in India are not working optimally, and we suggest that the Bank should invest in decentralised energy in India. This should be synchronised with existing centralised grid systems.

Decentralised systems present to us the following clear-cut advantages over centralised grid-based systems:

- reduced losses
- increased efficiency
- reduced infrastructure cost
- better quality
- rural development and livelihood generation
- inclusive growth and energy-secure communities
- potentially more democratic systems with people-participation at all levels.

'Decentralisation' is a flexible term and could refer to power plants or energy projects implemented at either the community level or even at the level of a village or a district. The best options are the most economical and suitable for integration with the current grid system. Decentralised renewable

energy options should also include appropriate and locally available sources of energy such as biogas, mini- and micro-hydel projects, and so on.

International financing to reduce incremental costs

The Bank's current position is that it would fund more expensive energy alternatives only if international financing exists to cover incremental costs. This position is in absolute contradiction to the Bank's stated objective of 'promoting low carbon growth and development pathways'.

The Bank should ensure that shadow carbon pricing (based on the economic and social cost of carbon) is factored in to its selection of projects to which it will lend. The European Investment Bank has already set a precedent along these lines.

Regional cooperation and inter-regional trade

The World Bank Group should take a cautious stance while promoting large-scale trading of electricity between countries, which has the potential to initiate the set up of a multitude of large-scale generation plants across the region. While this may be profitable from a trade perspective, it may obstruct the creation of large-scale decentralised energy systems.

Water management, and related conflicts, is another major problem. The Bank should be cautious about promoting projects that require countries to share water resources, which may create (or aggravate) conflicts between countries in this region.

Transparency

Fundamental to a new policy should be an evaluation of the past performances of Bank-financed energy projects. An independent evaluation should examine the performance of such projects, their cost-benefit analysis and mitigation of negative impacts. Lessons from this evaluation should be incorporated in the new policy.

Based on such an evaluation the World Bank Group should be more transparent and forthcoming about its achievements on renewable energy projects (thus far) and on how it proposes to finance renewable energy technologies in the near future. The Bank should also elaborate on how it intends to finance and support private sector initiatives in these areas.

The Bank should work with an international body such as the United Nations Framework Convention on Climate Change (UNFCCC) to create a database of all agencies such as

multilateral development banks, export credit firms and others that it works with.

Additionally, the Bank should also put in the public domain the details of investments made by the World Bank Group in carbon-

intensive energy projects, with clear information on both the investment value of the projects and the greenhouse gas emissions being generated by the same.

Case study 2: Thermal power plant at Sipat, Bilaspur District, Chhattisgarh

The Sipat Super Thermal Power Project, in Sipat village-town in the Indian state of Chhattisgarh, has been described as 'India's first coal-based power plant project to operate on super-critical boilers that burn less fuel to produce the same amount of electricity as conventional boilers, making it environment friendly'.¹ However, just four months after this plant's two 500-megawatt units were synchronised with the national grid in May-June 2010, a visit to Sipat reveals a different story.

The new-generation 2,980 megawatt coal-fired thermal power plant, created by NTPC (formerly National Thermal Power Corporation), covers 4,300 acres and comprises three units of 660 megawatts each and two units of 500 megawatts each.

Since the power plant was opened, the nearby villagers and farming community have reported ecological problems emanating from the plant, including water shortage and fly-ash disposal, both of which they claim are affecting their livelihood from growing crops.

Miles of fly-ash debris spreads across agricultural fields, and fly-ash slurry swells in the Raakha holding dam – which covers hundreds of acres – seep into ground water and fields. This story shows that although coal may be a source of power and fortune for the rich and resourceful, the unchecked exploitation of this precious resource to meet India's short-term energy needs threatens the agrarian livelihood of those living near coal-based projects.

'Until a couple of years back, we had ample amount of water for ourselves, our animals and our fields, but now, we pray to the God to give us ample rains as all we have now in the village is a one-and-half-acre-wide pond to meet all of our needs and to irrigate our fields, as this 50-acre-wide water reservoir has now been taken over by the power plant.'

Phaagu, a resident of Koriya village, who grazes his cattle and goats on the slope of the 50-acre water reservoir that he and fellow villagers once used, but is now exclusive to the plant

'We can only gaze at these electric wires going above our heads, they are not meant for poor people like us.'

Rajni, a mother of three whose home, a stone's throw from the plant, is among those that still have no electricity

'Our agricultural yields have decreased. Prior to this plant being set up, we could also grow wheat and other vegetables in our fields. Now, with water standing continuously in our fields the whole year, we have no option but to grow only rice.'

Bhuneshwar, a farmer at Raliya village

'Four acres of my fields were acquired [in exchange for compensation] for the Raakha Dam. This fly-ash mixed water seeping into our fields from the Raakha Dam has wrecked havoc in the remaining two acres of fields that I till. Just to ensure that my children don't die of misery, I have installed a tube well to irrigate those fields. The village Thakur now comes and tells us that by agreeing to part with our lands for this plant we have only entered into a big swamp!'

Tilak Ram, a farmer at Raliya village

The World Bank Group should be more transparent and forthcoming about its achievements on renewable energy projects

Endnotes

1 Power-Gen Worldwide,
www.powergenworldwide.com/index/display/articledisplay/220490/articles/power-engineering-international/volume-13/issue-1/features/sipat-new-generation-for-india.html

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