

# Global climate policy and local energy politics: Is India hiding behind the poor?

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CIS Working Paper No. 83

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## Abstract

Along with the large middle income countries Brazil, China and South Africa, India has been put under increasing pressure to shoulder parts of the mitigation burden and commit to national emission reduction targets. India, however, refers to its limited capacity and wide-spread energy poverty. Is India hiding behind its poor? While others examined the distribution of emissions within the country to answer this question, we study domestic policy making at the examples of energy subsidies and access to clean energy. Evidence from a combination of interviews and secondary sources suggests that domestic policy making is not generally inconsistent with the pro-poor arguments advanced at the international level. Given their large number and the country's democratic system, the poor do have some weight in Indian politics. However, inconsistencies can be identified within India's international discourse that simultaneously tries to project an image of a strong emerging economy, and of a poor developing country in need of special treatment. We show that this branding strategy is problematic both for the progress of international climate negotiations and for India's poor.

## Keywords

International climate negotiations, Indian energy politics, energy subsidies, electrification, clean cooking

## 1. Introduction

India is a highly influential actor in the international climate negotiations. Given the size of the country and the recent growth of its economy, it now contributes substantially to global greenhouse gas emissions. Hence along with the large middle income countries Brazil, China and South Africa, India has been put under increasing pressure from industrialized countries, but also from some developing countries highly vulnerable to climate change such as Bangladesh and the Maldives, to shoulder parts of the mitigation burden and commit to national emission reduction targets (Michaelowa and Michaelowa 2012).

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<sup>1</sup> This paper has benefitted from exchange in the framework of the project 'Challenges of European External Energy Governance with Emerging Powers: Meeting Tiger, Dragon, Lion and Jaguar' funded by the Volkswagen Foundation. Much of the work was prepared while Katharina Michaelowa was visiting TERI (New Delhi) where she received substantial support by the Indian project members, notably Madhura Joshi, Swati Ganeshan, and Anmol Soni. We are grateful for their help as well as for all the time that other colleagues and several high-level officials and policy makers were ready to spend with us during our interviews. The article also benefitted from some exchange in the framework of the University of Zurich's Research Priority Program (URPP) 'Asia and Europe'.

India is itself highly vulnerable to climate change, but points at the historical responsibility of industrialized countries for the current levels of CO<sub>2</sub> in the atmosphere, and requests a right to development and economic growth that should first allow lifting millions of people out of energy poverty characterized, notably, by lack of access to electricity and clean cooking fuels.

As a leader of the G77, India voices this position not only for itself, but also in the name of the large number of other developing countries. During all of the international climate negotiations following the Conference of the Parties (COP) in Copenhagen 2009, India has been one of the most fervent defenders of a continued clear and unconditional separation between two country groups with and without binding commitments (see, e.g., Rajamani 2013: 164)

These strong normative arguments that lead to a rejection of all responsibility (and hence obligations) for India itself have raised suspicions that India may be hiding behind its poor. Bidwai (2012: 7) for instance, speaks of *“a shield that enables India’s elite to hide behind the poor while indulging in profligate consumption and evading responsibility towards the underprivileged in its own society – an overwhelmingly important imperative, to which it only pays rhetorical obeisance.”* Similar formulations were used in a report by Greenpeace (2007).

In this paper, we attempt to analyze these assertions based on available statistics, documentation of domestic politics, and interviews with negotiators, national politicians, and Indian researchers. To set the stage, in section 2, we will briefly discuss the extent of energy poverty in India. Can India be considered as an emerging economy that should be held responsible for its emission or as a poor developing country with strong deficiencies in access to energy for a large part of its population? The main analysis then follows in section 3, which examines India’s national political economy. To what extent does the Indian government employ its own national policy instruments to the benefit of the energy poor? Is there an actually observable willingness to end energy poverty or simply lip service with improvements de facto benefitting only the wealthier part of the population? These issues will be examined on the basis of the politics of energy subsidies (section 3.1) and access to clean energy (section 3.2). Section 4 synthesizes the different arguments on the relevance of energy poverty for Indian politics. On this basis, some interesting conclusions can be drawn regarding the Indian positions and climate negotiation strategies at the international level.

## **2. Emerging economy or poor developing country? The extent of poverty in India**

With a GDP growth of over 250% between 1990 and 2010, a CO<sub>2</sub> emissions growth of over 100% during the same period (IEA 2013b), and as a member of the BASIC group of emerging powers, India is now frequently considered as a potent economy responsible for a significant share of world emissions and capable to contribute its part to mitigating global climate change. In the West, people are aware that there is some remaining poverty, but largely disregard this as a matter of unequal distribution to be settled within the country.<sup>2</sup> Western industry has some incentive to spread the belief that India has become a strong economy in order to avoid financial support or political concessions to a country that

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<sup>2</sup> Informal discussions with academics and funding agencies.

may, at some point, become a serious economic competitor (cf. The Economist 2013). And finally, the impression of a powerful emerging economy is nurtured by Indian politicians themselves, possibly with the intention to gain political weight internationally and / or to attract foreign direct investment. Indian academics widely expected that Prime Minister Narendra Modi, elected in May 2014, would personally reinforce this strategy by branding his country along these lines<sup>3</sup>.

Yet, this representation of India may be misleading. According to Surya Sethi, a long-term senior Indian negotiator,<sup>4</sup> the term “emerging power” itself corresponds to a distorted image that exists in the West, and that is, indeed, also cherished by Indian representatives. Sethi underscores that India has the world's largest concentration of poor and that India's socio-economic parameters are largely at or below sub-Saharan levels.

Direct consultation of statistical evidence confirms his point of view. While India has indeed shown impressive economic growth, it started from a very low level. With a GNI per capita of USD 1,570 in 2013 (World Bank 2014), it has just crossed the line between the World Bank classifications of low-income to lower-middle income countries. Adjusting for purchasing power parities, India's per-capita income appears higher in absolute terms, but no matter how it is calculated, it is less than half that of China and only about one third of that of South Africa and Brazil. Hence, economically, these countries still play in a different league. While income inequality is indisputably an additional problem, the resources available for redistribution in India are meagre, and poverty remains a wide-spread national phenomenon.

This situation is directly reflected in the incidence of energy poverty, which is still highly relevant across the country. Energy poverty can be defined as lack of access to modern energy services, including access to both electricity and clean cooking facilities (i.e., fuels and stoves that do not cause in-door air pollution). Energy poverty is associated with health and education deficits and less productive working hours, and hence, indirectly, reduced income (IEA 2013a). Despite a broadening urban middle class, at least 25% of the population lacks access to electricity<sup>5</sup> and 66% use traditional biomass for cooking (IEA 2014; Ramji et al 2012: 9; Government of India 2011). The corresponding shares are 1% and 29% for China, 15% and 13% for South Africa, and 1% and 6% for Brazil respectively (IEA 2014).

Regarding the country's responsibility for global emissions, looking at the strong recent growth rates alone is as misleading as it is for economic growth. At 1.4 t CO<sub>2</sub>, the country's per capita emissions from fossil fuel combustion have still been considerably below the world average of 4.4 t CO<sub>2</sub> (and even further below the OECD average of 10.1 t CO<sub>2</sub>) in 2010 (IEA 2013b). Of course, given the size of the country, trimming India's emission through the choice of a sustainable growth path will be highly

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<sup>3</sup> Informal discussions in fall 2014.

<sup>4</sup> See list of interviews in the appendix.

<sup>5</sup> Note that percentages vary widely depending on sources. While the IEA presents the figure of 25%, the 2011 population census reports that 33% of all households lack access to electricity (Government of India 2011). Since rural households tend to be bigger than urban ones, the IEA number that refers to the population share (rather than households) should in fact be even higher. To some extent, different numbers may reflect different definitions of electrification (see also the section on access to clean energy below). The IEA defines electrification based on a household-level grid connection, but also an initial minimum annual consumption level of 250 kWh for rural and 500 kWh for urban households that should approach the average regional level over time (IEA 2011: 12).

relevant for the reduction of emissions at the global level. But the country cannot be expected to do so out of its own capacity.

In sum, as opposed to a widely spread impression, India still is a very poor country that, by any reasonable indicator, would neither be held responsible for global climate change nor considered economically capable of mitigation within the UNFCCC. Indeed even if the interpretation of UNFCCC Article 3 on “Common but differentiated responsibilities and related capabilities” (CBDRRC) were adjusted to a more flexible classification of developing countries – moving away from the strict binary differentiation as currently fixed through the country list of Annex I towards a differentiation based on statistical indicators of poverty and per-capita emissions (for a discussion, see, e.g. Michaelowa and Michaelowa 2014) – India should remain covered by special treatment in the foreseeable future.

The question then arises whether the space provided for development by the UNFCCC is effectively used to the benefit of the poor. UNFCCC Article 3 was written with a concern for equity, and meant to guarantee a minimum of energy resources to all. As pointed out by the Greenpeace (2007) report and Dubash (2012: 198f., 2009: 50), equity should hence be a concern not only across countries, but also within countries. Are Indian politicians and representatives at the international level really concerned about energy poverty, or do they simply use this argument in order to advance their own agenda?

### **3. The concern for energy poverty in the domestic political economy**

Chakravarty and Ramana (2012) provide a useful review of the academic and political “hiding behind the poor” debate the Indian Greenpeace report provoked over the last few years. Most of the literature related to this debate provides some estimation of the relative per-capita emissions of different quintiles of the Indian society. In contrast, our intention here is to examine national politics. Is the domestic discourse on energy poverty consistent with India’s pro-poor normative discourse at the international level? And if so, does this discourse translate into concrete policies conducive to the reduction of energy poverty?

Theoretical considerations based on Olson’s (1965) seminal work on collective action lead to rather pessimistic expectations in this respect. Olson suggests that small groups tend to be politically more successful because they can get organized more easily. Other characteristics facilitating organization – such as geographic proximity among the actors and to the center of decision making (i.e. location in the capital or urban location more generally) – can amplify this effect. This leads us to expect that the voice of even a large number of unorganized poor people will be hardly heard, and that the wealthier, urban middle class or business lobbies with vested interests in energy provision and use will dominate the debate.

To examine this hypothesis empirically, we consider two areas relevant to energy poverty, namely (1) pricing and subsidy policies, and (2) access to clean energy. Information is based on existing studies and documentation on prices and subsidies, media reports, and on a series of semi-structured interviews carried out in fall 2013 with policy makers, senior members of the administration, academics, and members of the civil society (see appendix for the list of interviews).

### 3.1. Pricing and subsidy policies

Within the Indian economy, kerosene, liquefied petroleum gas (LPG) and electricity are – at least for some users – directly or indirectly subsidized, a measure that is frequently justified as to the benefit of the poor. However, there is ample evidence of the distortions produced by this system, with farmers over-using electric water pumps leading to a depletion of ground water, and retailers withholding some of the subsidized LPG supply to sell it to commercial businesses, notably restaurants –to name just a few examples. Moreover, many of the subsidies eventually benefit the wealthier middle class more than the poor (Mahalingam 2013: 416f.). According to a study by Misra et al. (2005), the richest 7% of the Indian population reap 40% of the benefits related to subsidies for LPG and kerosene.

While this illustrates a few of the clear weaknesses of the system, the reality is more complex. We thus provide details for individual energy sources in Table 1, which attempts to summarize the large and comprehensive literature on the impact of energy subsidies in India. We consider all types of energy sources that receive subsidies, including renewables, differentiate between different types of potential beneficiaries (business, agriculture, and different groups of households), and report both direct and indirect effects as far as possible. The presentation attempts to list all those groups that are effectively affected by the subsidies rather than those who are the official beneficiaries. Although the net impact is not clear in all individual cases (notably due to the indirect effects), overall, the impression clearly dominates that most of the subsidies are regressive. This corresponds to the conclusions of the large number of existing benefit incidence analyses.

**Table 1: Energy resources, actors and interests**

Resource	Actors and interests	Comments / Notes
Kerosene	<p><b>User interests</b>            Poor rural population using kerosene for lighting when there is no electricity (no grid connection or insufficient/unreliable electricity supply) (39% of rural households, but only 5.1% of urban households, and poor urban population using kerosene for cooking (8% of urban households, but only 1.3% of rural households) (TERI 2012a: 23). To receive the subsidized kerosene, poverty is to be demonstrated by below poverty line (BPL) cards.</p> <p><b>Interest of intermediaries</b>            Wholesalers and retailers (e.g., pumping stations) who use kerosene to adulterate other fuels, notably diesel (various press articles talk about the “kerosene Mafia”).            This should, however, generate opposing interests by the upper and middle classes that want to protect their cars and the machinery spoil by the use of adulterated fuels.            At the same time, some middle class households may benefit if they are not entitled to subsidized supplies and gain access through the black market at an intermediate price.  <i>According to the NCAER (2005) roughly 40% of subsidized kerosene distributed through the public distribution system (PDS) was diverted (18%</i></p>	<p>While kerosene is important for the poor, subsidies are ill-targeted because they are calculated on the basis of per-capita estimation of cooking (rather than lighting) needs. Moreover BPL estimations are not updated regularly, and there is wide evidence of ghost BPL cards (Rao 2012: 37, TERI 2012b: 18f.)</p> <p>It should also be noted that kerosene generates toxic emissions and risk of fire which makes it a very bad substitute for electricity (see also TERI 2012a: 23)</p>

	<i>to non-household use, i.e. adulteration, 17% to the open market, and 2.6% to households without BPL cards (see also TERI 2012b: 20).</i>	
Liquefied Petroleum Gas (LPG)	<p><b>User interests</b> Primarily urban upper and middle class since LPG use positively correlates with income and urban areas (only 8-9% of the rural population use LPG as their primary source of energy for cooking, against 62% of the urban population) (TERI 2012a: 21), and since the subsidy is universal (not constrained to BPL card holders). Chawla et al. (2005) estimate that the most affluent 6.75% of the Indian population benefit from 40% of the subsidy.</p> <p><b>Interests of intermediaries</b> Retailers withhold some of the subsidized supply under the PDS to sell it to small commercial businesses, notably restaurants, at a higher price (TERI 2012b: 13).</p>	People often change to piped natural gas (PNG) without surrendering their LPG connection (Lang and Wooders 2012: 14). This also increases the amounts retailers can resell at a higher price.
Electricity	<p><b>User interests</b> Urban upper and middle classes (more affluent people since they use considerably more electricity, city dwellers because many rural areas are not yet connected to the grid). While the picture substantially varies between states, and usually, households with higher consumption pay higher rates (TERI 2012a: 24), Komvives et al. (2005) find that the subsidies are generally regressive.</p> <p>Currently, only 65% of the rural population indicates electricity as their primary source of lighting, against 90% in urban areas (Ramji et al. 2012: 8). However, those parts of the agricultural households with full access often benefit substantially, and not only for household use, e.g., when operating water pumps for irrigation free of charge.</p> <p>There are also some opposing interests: Some parts of private consumers and notably modern industry have to pay higher rates to compensate for the subsidies elsewhere. In addition, in some areas, there is evidence of water shortages when electricity is provided for free or at highly subsidized rates (TERI 2012a: 24), but very irregularly, because then, it is easiest for farmers to keep their water pumps running throughout. This is harmful to other parts of the population, who then suffer not only from even more frequent outages, but also from the water shortages.</p>	There are stronger dynamics towards universal coverage than for LPG (see Ramji et al. 2012: 9). However, access measured in terms of grid connections may over-estimate actual access since the connection itself does not imply regular supply. Sehjpal et al. (2012: 15) thus suggest to count only actual access between 6 and 10 p.m., when electricity will actually increase productive working time. However, no large-scale data are available for this indicator.
Wind	<p><b>User and producer interests</b> Large industry, jointly as producers and as users: Almost all have invested in wind parks due to the attractive depreciation rules (possibility of total depreciation within one year) as well as feed-in tariffs provided on the state level. Moreover, the use of self-produced wind energy provides a cheaper substitute for expensive publicly provided electricity.</p> <p><b>Indirect user interests</b> Indirectly, the production of wind energy should also benefit other electricity consumers by reducing demand pressure, and enhancing energy security, but no specific interest groups can be defined.</p>	Indirect subsidies through highly attractive depreciation rules are only related to installation, not actual production of electricity (a change of this rule is under discussion).
Solar	<p><b>Producer and implementer interests</b> Producers of PV cells are mainly in China, but project implementers are in India itself (mainly small consultancy firms)</p>	Only photovoltaic (PV) is considered here. Solar thermal power plants are still too expensive, and solar water heaters for household

	<p><b>User interests</b> Mainly rural population without electricity connection, but also industry.</p>	use are rare and not subsidized.
Hydro	<p><b>Producer interests</b> Steel and cement industry</p> <p><b>User interests</b> See “Electricity”. Generally provides greater energy security and reduces supply constraints. Thus it is of interest for the industrial sector, too.</p> <p>However, there are often negative side-effects such as destruction of existing local irrigation systems or of fishing grounds, and displacements of population. These effects are resented even more as the electricity supply often does not go into the remote areas where these power plants are built, but in larger cities or to industry (see also the discussion of the allocation of electricity above).</p>	No subsidy of tariffs, but large hydropower plants are directly built by public firms. Smaller, run of the river hydro systems (typically private, but subsidized) usually generate less of the negative side-effects and are designed in a more participatory manner involving the local population. However, the contribution of small hydro to overall energy production is so far only marginal.
Nuclear power	<p><b>Producer interests</b> Steel and cement industry (as for “Hydro”)</p> <p><b>User interests</b> See “Electricity” and “Hydro”. Given the inherent risk of nuclear power plants, their construction is resented at least as much as hydro power, especially if the electricity is not used locally.</p>	As for large hydro, nuclear power plants are public investments.
Natural gas	<p><b>User interests</b> Substantially subsidized allocation of locally produced natural gas to producers of fertilizers and, to some extent, electricity producers. Only in the latter case, natural gas is used for energy production. There is some competition between the two user groups. Whoever does not obtain the gas allocation at fixed national rates has to buy at higher international market prices. Since prices for both electricity and fertilizer are also fixed, the gains or losses remain with the producing companies, rather than being reflected in the price for the end-users.</p>	Indirect subsidy through fixed prices below world market price.
Modern biomass power plants	<p><b>Producer interests</b> Large sugar and rice producers who benefit from covering their own power needs through use of residues (bagasse, rice husk) as well as power sales. Smaller rice producers can now sell residues at attractive prices. .</p> <p><b>User interests</b> See “Electricity” and “Hydro”.</p>	Very high subsidies, e.g., in Orissa. Tariffs vary from State to State.

Note: All sources are listed in the general references section.

It seems that in line with Olson’s collective action arguments, the current main beneficiaries, notably the urban middle class, irrigation agriculture, and some parts of industry are much better placed to defend their interest. As opposed to many other developing countries (Bastelaer 1998), there is no general bias of Indian politics against agriculture, which is, to the contrary, heavily subsidized ever since the Green Revolution. A number of Indian states (e.g., Uttar Pradesh, Madhya Pradesh, Bihar and Jharkand) provide lower electricity prices for rural than for urban consumers (Sreekumar and Dixit 2010: 17). Yet, noticeably, the states where electricity (and water) for farmers are provided free of charge tend to be those that are dominated by a relatively small number of large rural estates such as the Punjab. Small

peasants benefit less from the subsidies, but suffer the negative consequences of ground water depletion and irregular electricity supply (TERI 2012a: 24).

Interestingly, in protests against reductions of subsidies that systematically follow any government attempts in this direction, the respective lobbies usually do not even surface. Screening the Times of India for the period from January 2010 to March 2013 for related articles (with keywords using different combinations of energy, electricity, power, poverty, and protests or strikes), it turns out that protests are almost always initiated by opposition parties who pro-actively take the lead – often in the name of the poor, even when it is clearly not in their interest. Hence subsidy policies are framed in a pro-poor normative way while actual policy benefits often go to other groups of society. Furthermore, party positions opportunistically depend on who happens to be in government (budgetary responsibility) or in opposition (trying to win public support without budgetary concerns), as was also acknowledged in interviews with high-level politicians.<sup>6</sup>

However, the flip-side of systematic protests to any cuts in subsidies is that both central and state governments keep trying. The downside of the existing system is widely and openly discussed, not only by research institutions and NGOs, but also in the press, which uses harsh criticism at times, notably when talking about fuel distortions. As an example, in 2011-2012 the Times of India included twelve articles explicitly targeting “the kerosene Mafia” by pointing at the financial benefits out of illicit transactions with subsidized kerosene and related violence.

Hence governments attempt to move towards a general replacement of distortive and often ill-targeted subsidies through direct financial transfers using the country’s new system of unique identification numbers based on biometric information (UID) (Mahalingam 2013: 417).<sup>7</sup> In addition, one of the most clearly regressive subsidies, namely on petrol, was successfully abolished in June 2010. Most recently, the newly elected Modi government also abolished the subsidies on diesel, although the overall distributional effect in this context is less clear due to multiple indirect channels such as transportation through which it affects the prices of a number of consumption goods.

From the perspective of energy subsidies and pricing, it thus becomes clear that Olson’s theory only explains part of the story, inhibited by budgetary pressures and some public contestation. Let us move on to the discussion of access to clean energy (cooking and lighting fuels) to see whether the situation in this second policy field confirms this finding and / or suggests why this may be the case.

### **3.2. Access to clean energy**

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<sup>6</sup> Interviews with Kariya Munda, Deputy Speaker of the Lok Sabha, Bharatya Janata Party (BJP), and Vijay Prakash Saha, Chairman of the Energy and Environment Committee, Janata Dal (United) (see appendix). Both confirmed that the protests relate much less to any particular ideological orientation of the parties than to the simple status of being in opposition. And both considered this pattern as an unavoidable deficiency of democratic systems. Along with opposition parties, protests are sometimes also supported by smaller parties from within the ruling coalition that aim at gaining an independent profile. Only the communist party systematically fights against reductions in subsidies.

<sup>7</sup> The UID system obviously raises a number of other concerns, notably in terms of privacy protection and data security. But this discussion leads far beyond the scope of this paper.

Household access to electricity has been a key campaign issue for the 2009 general election, and a focus of central and regional government policy since the late 1990s / early 2000s. Earlier on, electrification was thought to be primarily important for agriculture to ensure a sufficient food production. The shift to the household level came when the success of the Green Revolution had guaranteed the first objective. The first major government program was the BJP government's Rural Electricity Supply Technology (REST) mission in 2001, which was followed in 2005 by the Congress government's Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY).

As opposed to what Olson's theory of collective action might predict, the declared objective was not primarily to ensure regular access to electricity for urban households, but to really cover all Indian households and notably the rural poor. Political campaigns by all parties went into this general direction despite the urban middle class' discontent about frequent power cuts and irregular supplies that they have to suffer until today.

There are many examples that show how important this issue was for politicians of all parties and at all levels of governance. Along with the general orientation towards households sketched out above, the major slogan for the general elections shifted from 'khana, kapade, makkan' (food, clothes, housing) to 'bijli, sadak, pani' (electricity, roads, water). Several state and diverse local elections were won on the promise of providing electricity. Our review of press articles revealed that even people with otherwise very limited chances to win any election could do so, if they convincingly promised electrification. In April 2012, for instance, the Times of India reported about the election of a Dalit woman as head of a village of about 2000 inhabitants – despite the two attributes (being female and being a Dalit) that would generally be expected to greatly reduce the chances for election. The article explicitly quotes a villager saying "We have no electricity connection in our homes since years. She has promised us electricity once she becomes the sarpanch. So, we supported her irrespective of the caste. We want development in the village" (Parmar 2012).

Electrification campaigns also led to some competition between central and state-level governments. In some cases, this brought about some implementation problems because state-level governments formed by parties that were excluded from central government did not want centrally led electrification campaigns to succeed. Others, however, simply introduced new brands for their complementary state campaigns and were eager to show their own contribution to the provision of this crucial service to all citizens. In Madhya Pradesh, for instance, the Atal Electrification Scheme referring to former BJP Prime Minister Atal Vajpayee complements the Congress governments RGGVY. Similar programs were launched in West Bengal and Orissa.<sup>8</sup>

Rural electrification also forms an important part of promises before elections. The current Bihari Chief Minister Nitish Kumar (Janata Dal) even stated that he would not run for a 2nd term if he did not reach 100% electrification before 2015. And politicians also fear that they may be effectively judged on the basis of successful electrification. Hence, ten months before the election in Madhya Pradesh in November 2013, the state government started to buy electricity from neighboring states to ensure an

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<sup>8</sup> Interview with Debajit Palit, an academic expert of rural electrification at the Energy and Resources Institute (TERI). See list of interviews in the appendix.

uninterrupted 24-hour supply for all citizens (at least until the elections). This represents an analogy to political business cycle behavior and may be an example of redistribution of budget resources from long-term efficient investment to a short-term provision of public services as discussed in Schneider and Tröger (2012). For a more systematic discussion of political electricity supply cycles in India, see Baskaran Baskaran, Min and Uppal 2014).

The above examples clearly demonstrate that Indian politicians do not just care for a well-organized urban middle-class when it comes to electrification campaigns. In contrast, they seem to consider the vote bank provided by the large number of the poor. While this does not always lead to efficient policy implementation, the democratic system seems to provide an important incentive to cater for the poor.

However, there are clear limits to this optimistic perspective. For many politicians, improvements in the count of villages connected to the grid seem to be enough. Less visible in national statistics, but problems that, in reality, are at least as important to deal with, are actual coverage, maintenance and regular supply. In this context, it should be noted that according to official statistics, a village can already be considered as electrified if only 10% of the households actually have access to electricity.<sup>9</sup> According to Surya Sethi, former Principal Adviser for Power and Energy and member of the Planning Commission of the Government of India, this definition itself shows the half-hearted concern of Indian politicians.

In addition, the Pune-based NGO think tank Prayas reports multiple barriers for poor households to obtain (and retain) access to electricity even if their village is formally connected to the grid. These include the harassment by distribution companies, the multiple formalities to obtain a household connection, and the cost including expected bribes (Sreekumar and Dixit 2010: 12ff.). Often, flat rate payments are required while supply is known to be irregular – making the rates high for the little benefits received (see also Sehjpal et al. 2012: 25). Many states have special provisions for the poor but implementation is problematic. In Maharashtra, for instance, only about 4% of all households below the poverty line are reported to actually obtain the special BPL tariffs (Sreekumar and Dixit 2010: 15). As soon as at any time of the month, consumption exceeds a certain maximum (corresponding to about two bulbs and a fan), special BPL treatment is stopped. Moreover, people are disconnected if they do not pay on time.

Counting actual access rates at household level would hence lead to substantially lower success rates of public electrification programs. And even this would result in an over-estimation of actual access when taking into account that supply is irregular and often available only at times where people cannot really make use of it. Counting only households who receive electricity between 6 and 10 pm for at least 20 days per month (as suggested by Sehjpal et al. 2012: 15) would hence further reduce the electrification rate.

The general distrust in politicians to settle these issues in the foreseeable future is evident from numerous newspaper articles, and also from a variety of initiatives taken by the civil society to mitigate the problems on their own. Examples are TERI's Lighting a Billion Lives program and other initiatives that try to build on locally available technology and private business incentives to ensure sustainable supply

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<sup>9</sup> For the exact definition, see Ministry of Power (MoP) (2006).

and maintenance.<sup>10</sup> For politicians, trying to settle the multiple problems of corruption, disincentives, local management of electricity supplies, and maintenance has a much lower benefit than linking the village to the grid. The inauguration photograph will be taken only once. And responsibilities for the missing follow-up can be easily shifted to other entities.

In a similar way, the whole area of clean cooking has been largely neglected by Indian politics in recent years, despite a market potential of up to 160 million households (Venkataraman et al. 2010) – and despite its crucial importance for health, notably for women and children. In the country as a whole, the use of traditional biomass (firewood and dung) is estimated to cause over 400 000 premature deaths per year (IEA 2007: 573). Given the prevalent patterns of traditional biomass use for cooking, any clean cooking initiative would directly address the poor, and only the poor.

However, hardly any improvement can be found over time. Ramji et al. (2012: 9f.) compare the trends in household use of clean lighting and cooking fuels across different waves of the National Sample Survey (NSS) since 1999/2000. They confirm that there is a positive trend for lighting (i.e. a move of poor households from kerosene to electricity) while there is no visible transition from firewood to LPG.

In principle, there are two ways to reduce the negative health impact of traditional biofuel use: The promotion of LPG and the promotion of improved cookstoves. If at all, political efforts have so far concentrated on the promotion of LPG – promising free connections and subsidized supplies. Campaigns to support the use of improved cookstoves do not figure prominently among the list of priorities of Indian politicians. There was only one major program launched by the Ministry of New and Renewable Energy (MoNRE) in 2009, the National Biomass Cookstove Initiative (NBCI), which, however, was geared more towards research and development of new technologies than towards large-scale distribution (MoNRE 2013).

In a letter to the Chief Minister of Himachal Pradesh, researchers from TERI presented the idea to make use of the current state government slogan “Smoke free state” (intended to promote a ban of cigarettes) for the promotion of improved cookstoves. Moreover, TERI developed ideas to work with a slogan “Earn as you cook” using carbon finance (and a little monitor attached to the stoves to estimate corresponding emission reductions). Political response is pending.<sup>11</sup>

The problem is that public saliency of the benefits stemming from improved cookstoves (and clean cooking fuels) is very limited, broadly for two reasons. First, the familiar taste of the food and other cultural habits are often deemed more important than health benefits for women (Shrimali et al. 2011). Moreover, cooking habits are so different – even from one sub-region of a district to another, and between different castes and communities, – that highly customized designs for cookstoves are required (Crewe, 1997). Second, and besides (or because) of persisting cultural obstacles, clean cooking initiatives have a bad history (Barnes et al. 1993). The failure of large clean cooking campaigns in the 1980s is still vividly remembered by the public. Bidwai (2012: 187) asserts that not even many NGOs have the stamina

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<sup>10</sup> Interviews with J.K. Mehta (South Asia Forum for Energy Efficiency), Dhairya Dholakia (TERI) and Ibrahim Rehman (TERI), see list of interviews in the appendix.

<sup>11</sup> Interview with Vivek Jha, area convenor for TERI’s rural extension activities (see list of interviews in the appendix).

to stick to campaigning in this area. Hence, politicians do not become active in this field either. In fact, rather than promoting the use of improved cookstoves, in many states, governments heavily tax these cookstoves (the VAT is 13.5% on average, just like for a luxury good).<sup>12</sup>

In sum, clean cooking neither has any relevant lobby, nor does it have wide-spread public support. The only plausible reason that could currently drive politicians to invest in this field would therefore be a genuine desire to reduce energy poverty. The limited evidence we have for political activities to promote clean cooking is hence in line with our assessment in the area of electrification and energy subsidies: As opposed to predictions from Olson's theory of collective action, Indian politicians do cater for the poor. But in general, they do so only when this allows them to gain the support of large numbers of people at election times. More generally though, this suggests that there is a potential for the implementation of pro-poor policies in India. However, this requires that the poor are aware of the benefits of these policies, and that the responsibility for implementation or non-implementation can be clearly attributed to the relevant political actors.

#### **4. Lessons for the international climate negotiations**

Based on a review of existing studies, information from the media, and a series of interviews with Indian officials, academics and policy makers, this paper has shown that first, despite its recent growth spurt, India is still a poor developing country with wide-spread poverty (poverty in general, and energy poverty in particular). Second, as India is a functioning democracy, there are some incentives for politicians to actually cater for poor in the country. By their sheer number, even the rural poor as opposed to the much better organized urban middle class do have some impact on policy making.

As a consequence, the argument that Indian politicians are hiding behind the poor when they insist on the countries development needs at the level of the UNFCCC does not seem to be justified – at least not to the extent that collective action theory would lead us to expect. While the normative claims at the international level may not always be matched by a genuine normative commitment to reduce energy poverty at the domestic level,<sup>13</sup> overall, there does not seem to be too much of a mismatch between the international discourse on the one hand, and the domestic discourse as well as related policy measures on the other hand.

In fact, the greater inconsistency appears within India's international discourse as the country's representatives simultaneously try to project an image of a strong emerging economy comparable to China, Brazil or South Africa, and of a poor developing country in need of special treatment. As the second image still corresponds much more closely to current realities, presenting the first may be a risky strategy. This interpretation was also supported by two of the senior officials who participated in the interviews:<sup>14</sup> The branding of India as an emerging economic power raises fears of upcoming

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<sup>12</sup> Interview with Vivek Jha (see above).

<sup>13</sup> For a discussion from a normative perspective, see Jaeger and Michaelowa (2015).

<sup>14</sup> Interview with the former ambassador to the EU Chandrashekar Dasgupta and former negotiator and member of the Planning Commission Surya Sethi (see list of interviews in the appendix).

competition, and hence reduces incentives for Western countries to provide technological and financial support, or to grant special treatment within international regimes such as the UNFCCC. Through this branding, India may hence eventually harm its poor.

Moreover, a clear recognition of the current state of the economy could ease negotiations about a more flexible interpretation of CDDRRC. If India's intention is primarily not to be pressurized into internationally binding commitments or monitoring of national activities, holding up the strict binary differentiation as currently fixed through the country list of Annex I, is certainly not a necessary strategy. Under any differentiation based on reasonable statistical indicators of poverty and per-capita emissions, India should remain covered by a special treatment for poor countries in the foreseeable future.

A more flexible interpretation of CDDRRC may generally un-bloc the international climate negotiations, which – given their high vulnerability – would also benefit India's poor. In sum, a pro-poor policy orientation might hence require a reconsideration of India's self-representation at the international level and the branding of the country.

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#### **Interviews in New Delhi** (in chronological order)

(1) J.K. MEHTA, Regional Manager South-Asia and Pacific and Project Manager Energy Access, World Energy Council (WEC); Chairman, South Asia Forum for Energy Efficiency, 21 August, 2013

(2) Hari Natarajan, Sr. Technical Advisor, Indo-German Energy Program, Renewable Energy Component, Deutsche Gesellschaft für Internationale Zusammenarbeit (giz), 22 August, 2013

- (3) Dr. Ligia NORONHA, Executive Director for research coordination, and Director, Resources, Regulation, and Global Security Division, The Energy and Resources Institute (TERI), 29 August, 2013
- (4) Ibrahim Hafeezur REHMAN, Director, Social transformation Division, The Energy and Resources Institute (TERI), 30 August, 2013
- (5) Dairya DHOLAKIA, Lighting a Billion Lives Program, Social Transformation Division, The Energy and Resources Institute (TERI), 30 August, 2013
- (6) Debajit PALIT, Associate Director and Fellow, Lighting a Billion Lives Program, Social Transformation Division, The Energy and Resources Institute (TERI), 30 August, 2013
- (7) Vijay Prakash SAHA, Chairman and Managing Director, Akshaya Electro Metallurgy Ltd., chairman Energy and Environment Committee, Janata Dal (United), 31 August, 2013
- (8) Sharad YADAV, President of Janata Dal (United), Member of Lok Sabha, 31 August, 2013
- (9) Kariya MUNDA, Deputy Speaker of the Lok Sabha, Bharataty Janata Party (BJP), 1 September, 2013
- (10) Mr. Vivek JHA, Fellow and Area Convenor, Rural Extension Activity, Social Transformation Division, The Energy and Resources Institute (TERI), 5 September, 2013
- (11) Dr. Prodipto GHOSH, Member of the Indian Administrative Service (IAS) from 1969 until 2007, when he retired as Secretary, Environment and Forest, Government of India; member of the Prime Minister's Council on Climate Change and the National Expert Committee on Climate Change, long-term member of India's delegation to the UNFCCC, 5 September, 2013.
- (12) Prof. Surya SETHI, former Principal Adviser for Power and Energy, Planning Commission, Government of India; long-term member of India's delegation to the UNFCCC; former head of the Indian delegation in EU-India Dialogues; currently Professor, Lee Kuan Yew School of Public Policy, Singapore, 9 September, 2013 (via Skype)
- (13) Prof. Amit PRAKASH, Centre for the Study of Law and Governance, Jawaharlal Nehru University, 10 September, 2013
- (14) Prof. Praveen JHA, Centre for Economic Studies and Planning, Jawaharlal Nehru University, 10 September, 2013
- (15) Smita SINGH, Project Manager Energy, EU Delegation to India, 11 September, 2013.
- (16) Amb. Chandrashekhar DASGUPTA, Indian Foreign Service officer from 1962 -2000, notably as the Ambassador to the European Union (1996–2000) and Ambassador to China (1993–96); Member of the Prime Minister's Council on Climate Change and Advisor to the Indian delegation for UNFCCC/Conference of the Parties (COP) meetings (2002-2009).