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THE HUMAN RIGHTS OVERSIGHT IN ENSURING ENERGY SECURITY

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ABSTRACT: The Narmada Bacho Andolan in September 1989 and the two major power blackouts in India in 2012 are the two examples that put forth the two-fold impact that energy insecurity can have on human lives and their inherent rights. Often it is observed that in their bid to ensure energy security for their populations, Governments around the world have more than often ignored the human rights implications of their energy projects. This is reflected in several energy security interventions such as the Narmada Bachao Andolan in India (1980s), the land acquisition policies of the Coal India Limited - the world's largest coal miner, the Baram Dam project in Sarawak, Malaysia etc. Secondly, access to energy in itself is a means as it is an end. Nobel-winning economist Amartya Sen notes that "economic development can be achieved only if the poor come to enjoy a set of freedoms including political participation, safety, and economic opportunity." Access to energy, thus, is a crucial foundation for the safety and security aspects of this very freedom. The paper aims at discussing the above-mentioned facets of energy security and poverty through a trio of interrelated parameters - the global quest for energy security, the Human Rights implications of energy security and the Indian response and policy framework, governing energy security.

KEYWORDS

Energy poverty, energy security, human rights

Introduction

In September 1989, renowned social activist Baba Amte led a rally of 60,000 people in Harsud, a modest town boasting of 20,000 people in the central Indian state of Madhya Pradesh. The rally, was one of the many held as part of the umbrella Narmada Bacho Andolan that collectively protested against the then Government of India's ambitious plan to construct a series of dams over the Narmada river, which flows through the states of Gujarat, Madhya Pradesh and Maharashtra. The multicrore Narmada Valley Development project was to ensure 1450 MW of electricity and pure drinking water to close to 40 million people. The project, though focussed on the 'collective good' rather conveniently ignored and environmental and human costs it would have to bear the displacement of tens of thousands of people. Though the displaced people were supposed to be given 'land for land' (on paper at least), a considerable section of the displaced population were simply unable to furnish documents to prove their legal ownership over their land, house, property which fell in areas to be submerged by the flooding, as a result of the dam projects.

In 2012, two major power blackouts in India in the month of July drew global attention towards what is often referred to in retrospect, as the worst power-crisis in the history of mankind. According to statistics, the first of the two blackouts on July 30 impacted 350 million people, the second blackout the very next day affected close to 670 million people. However, certain opinions also take note that the blackouts were not as devastating as was made out to be - what with power cuts - both planned and unplanned - being a common phenomenon in India, so much so as for the private power system - which manifests itself through coal-burning captive power plants, diesel generators and inverters, among others firing up almost immediately to save the day. Similarly, close to one third of the Indian households do not have access to electricity - according to the 2011 Indian Census data. Most of these households fall in the rural areas of the country.

The International Energy Agency defines energy security as "the uninterrupted availability of energy sources at an affordable price." The oldest definition of energy security comes from Mason Willrich, who defines energy security as 'Assurance of sufficient energy supplies to permit the national economy to function in a politically acceptable manner.' 1

Energy security, more comprehensively, is defined as thE feature (measure, situation, or a status) in which a related system functions optimally and sustainably in all its dimensions, freely from any threats. 2

The above two examples put forth the two-fold impact energy insecurity can have on human lives and their inherent human rights. Firstly, in their bid to ensure energy security for its populations, Governments around the world have more than often ignored the human rights implications of their energy projects. This is reflected in the Narmada Bachao Andolan in India (1980s), the Baram Dam project in Sarawak, Malaysia that threatened to rights of the indigenous people in the region and the human rights allegations against Coal India Limited – the world's largest coal miner, over their land acquisition policies. Secondly, access to energy in itself is a means as it is an end. Nobel-winning economist Amartya Sen notes that, "economic development can be achieved only if the poor come to enjoy a set of freedoms including political participation, safety, and economic opportunity." Access to energy, thus, is a crucial foundation for the safety and security aspects of this very freedom.

The paper aims at discussing the above mentioned facets of energy security and poverty through a trio of interrelated parameters - the global quest for energy security, the Human Rights implications of energy security and the Indian response and policy framework, governing energy security.

Why is Energy Security as Human Right?

In their book, *Human Security in South Asia*, authors P.R. Chari and Sonika Gupta note that human security is beyond mere materialistic fulfillment, but is also 'freedom from anxiety and fear' - a concept that is also related to the freedom from want. An all encompassing definition of human security includes economic security, food security, health security, environmental security, personal security, community security and political security. In an argument that is narrated in the research article, realisation of basic needs are linked to an individual or household's day to day activities and how efficiently he or she can realise them. If one does not have the basic energy needs vis a vis electricity or biogas in some cases, how are these daily activities ever lead to fulfillment of needs? Author Youngho Chang, in the essay The Economics of Energy Security has defined energy security as an adequate and reliable supply of energy at a reasonable price. However, with the increasingly imperative and more dominant realm of sustainability finding more and more relevance in today's times, contemporary security challenges include those of population growth, energy demand and supply and water and food security - all of which are interlinked. As reiterated in the essay Urbanisation, Sustainable Cities and the Arab Gulf State by author ohsen Aboulnaga, an observation which can be held common to communities worldwide, inhabitants of urban areas need water, food and energy to survive - the failure to secure which poses strategic challenges for governments that must carefully manage supply and demand to create a balance. Energy security, for the providers as well as the beneficiaries, increasingly is a matter of human rights. As noted by Thorsen, Sune Skadegaard snd Børrild, Troels, 'the human rights situation in a country can upset the level of energy security considerably. In addition, it relies on how corporations in the extractive industry deal with the challenges posed by doing business in environments marked by widespread human rights violations.'

India's energy policy framework

Questions about India's population growth rate usually end with a statement that claims India's growth rate to be steady enough to overtake China's population in the coming few decades - around 2045. With the current population being close to 1.3 billion people, the Indian population accounts for more than 17.5 per cent of the global population. Out of this, 32 per cent is reportedly urban, while the rest is rural. With respect to the energy security of the above mentioned numbers, India's energy use has increased 16 times in the last decades and the installed electricity capacity by 84 times. In the year 2008 itself, India's energy use was the fifth highest in the world. Given this background and if the predictions pertaining to India's economic and population growth are anything to go by, India is soon headed to an energy security crisis - if it has not witnessed glimpses of it already. The primary energy demand in India has grown from about 450 million tons of oil equivalent (toe) in 2000 to about 770 million to in 2012 - with the said figure only set to increase by 1250 (estimated by the International Energy Agency) to 1500 (estimated in the Integrated Energy Policy Report) million toe in 2030. The Indian economy is also projected to grow at a rate of 8 to 9 per cent per annum along with and increase in urbanisation and increased needs to improve standards of living for millions of Indians at the household level.

At the policy level, the Government of India as per its own statement on the official website of the Ministry of Power, claims the adoption of a 'two-pronged' approach - on the one hand it caters to the increasing energy demands of its citizens, while on the other hand it attempts to sustainably tend to increasing global demands from countries to ensure minimum growth in C02 emissions vis a vis promoting greater use of renewable in the energy mix mainly through solar and wind and at the same time shifting towards supercritical technologies for coal based power plants. On the other side, efforts are being made to efficiently use the energy in the demand side through various innovative policy measures under the overall ambit of Energy Conservation Act 2001. 3

The Energy Conservation Act, 2001 aims at reducing the energy intensity of the Indian economy. The Bureau of Energy Efficiency, was set up as a statutory body in the year 2002, to facilitate the implementation of the Energy Conservation Act, which amongst other things mandates the setting of standards and labelling of equipment and appliances, energy conservation building codes for commercial buildings; and energy consumption norms for energy intensive industries. The Act also directs states to designate agencies for the implementation of the Act and promotion of energy efficiency in the state. Similarly the Act provides for the setting up and occasional revision of the National Electricity Policy aims at laying own structured guideless for development of the power sector, providing supply of electricity to all areas and protecting the interests of consumers and other stakeholders keeping in view availability of energy resources, technology available to exploit these resources, economics of generation using different resources, and energy security issues. 4

Energy Consumption by Sector, 2030 Total Energy Consumption by Fuel Sector Energy Consumption by Fuel Type



Source: Updated	AEO 2009	Tables A1, A2	and A17
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Resource	Potential (MW)	9 th Plan	10 th Ian	11 th Plan Target	11 th lan Upto 9/10	11 th Plan Achivemt	12 th Plan Project	13 th Plan Projection
Wind	48500	1667	5427	9000	4714	12809	27300	38500
Hydro	15000	1438	538	1400	759	2823	5000	6600
Bio*	23700	390	795	1780	1079	2505	5100	7300
Solar		2	1	50	8	18	4000	20000
Total		3497	6761	12230	6560	18155	41400	72400

Table 6 Share of Different Renewable Sources in India

(Source: Ministry of New and Renewable Energy, Government of India)

* Includes biomass, bagasse cogeneration, urban and industrial waste to energy

The Indian energy policy also provides tools and mechanisms for comprehensive energy analysis that entails the evaluation of alternative configurations of the energy system that will balance energy supply and demand. These include Energy and Power Evaluation Program, Market Allocation Program, Long-Range Energy Alternative Planning System, Model for Analysis of Energy Demand among others.5

The National Mission for Enhanced Energy Efficiency

(NMEEE) is one of the eight missions under the National Action Plan on Climate Change (NAPCC). The NMEEE aims to strengthen the market for energy efficiency through conducive regulatory and policy regime.

This makes the question of eradication energy poverty all the more fundamental. The broad vision of India's energy policies are said to be designed to reliably meet the energy demands of all of the sectors involved households and industry, among others, at the least cost.



Predicted demand

SOURCE: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.695.7988&rep=rep1&type=pdf

Coal - in million tonnes, Petroleum/Oil - in million metric tonnes, Natural Gas - in billion cubic metres



SOURCE: http://www.oilcrisis.com/campbell/camfutur.htm

Global quest for Energy Security

According to a number of geopolitical strategists, investment bankers, geologists and physicists, most of humankind will radically alter their way of existence in the coming three decades - owing primarily to the exhaustion of cheap energy resources. This event will however be predated by a number of conflicts and confrontations over the control of the last remaining sources of natural energy resources. These events, leading to the eventual development, are now being discussed and described as the 'last Great Game'especially with respect to oil production. The reduction of oil production, increasingly volatile oil prices and the increase in world consumption are some of the factors that are together leading towards the inevitable economic and energy crisis. The oil industry is predominantly in State hands - almost 90 per cent of the world's oil supplies, for example though the private sector has attempted to get access to these resources and control them. This however, has been more or less been trumped by 'energy nationalism', the result of which is that oil and natural gas has remained government territory as is seen, for example in the case of Russia, which has defiantly rejected foreign engagement in the national energy market. What is interesting to note, is the fact that the boost in demand coupled with diminishing resources is shifting the balance of power from consumers to producers. This shift becomes all the more poignant given the fact that resource supply is subject to, not private companies but to the state-producers - adding fuel to the already burning furnace of energy-centric geopolitics. This has led to, as noted by academician Dr. Velichka Milina, the increasing importance of 'transit-states'. These states, such as entities in the Caspian region and Central Asia, intervene between consumer and producer states by means of exerting control over oil and gas pipelines. These 'transit-states' become subjects of benevolence by both, the producer and consumer states. The oil and energy resources of the Central Asian States are an important component of the new-age Great Game being played between Russia on the one hand, and the United States of America on the other. (This can be traced back to as early as the 1998 policy statement issued by the USA and the European Union on the 'Caspian Energy') 6

Close to 60 per cent of the world's oil reserves, however, continue to remain concentrated in the West Asia region. This coupled with lowest-cost oil production facilities are in this politically unstable region. All of these factors together will eventually lead to an intricate struggle for ownership of energy resources amongst the great powers of the contemporary world. In the attempts to avoid economic, political, natural and social crisis, severe in nature, prominent consumer states as well as producer states will try and mark active participation on the global energy market - the aim being energy security. In today's times, the notion of energy security has undergone a drastic change. It is no longer restricted to exports, but also translates to security in the political sphere, in critical infrastructure and environmental protection. 7

Energy security concerns are not limited strictly to oil. Power blackout in the USA, Europe, Russia, China and India as well (as mentioned at the start of the paper), have questioned the reliability of electricity grids and the supply system at large. As far as natural gas is concerned, the general demand and supply trends have rendered North America no longer self-reliant. At the same time, the threat of global terrorism and nonstate activity looms large, what with these non-state outfits occasionally and for a prolonged period of time, pccupying regions which in turn command control over energy resources. This again, brings us back to the point earlier made in this same passage, about newer pathways of energy supply being continuously sought such as the oil and natural gas fields in offshore of West Africa, Central Asia and the Caspian Sea. If the future energy security scenarios were to be panned out for some of the globe's major powers, Russia might now aim to reassert state control over strategic resources and gain primacy over the 'main pipelines and market channels through which it ships

its hydrocarbons to international markets'. As for the developing countries, the concern is now to focus on their balance of payments which are increasingly vulnerable to the change in energy prices. China and India on the other hand, will have to draw attention on how they channel their ability to rapidly adjust to their relatively new-found independence in the global market which they use, either to link with energy producer-states or forward their former commitments to self sufficiency. For Europe, the debate revolves around questions regarding dependence on imported natural gas, nuclear capacities and the possible return to clean coal. As for the USA, their goal of energy independence, is now increasingly contradictory to the current state of affairs. 8

Human Rights implications of energy security

The primemost argument while laying the framework for highlighting the human rights aspect of energy security, is the link the latter shares with human development. Human Development is considered a better indicator of the development, than Gross Domestic Product. The Human Development Index (HDI) takes into account parameters such as life expectancy, education, per capita GDP and other standard of living indicators at the national level. Human development in the broad sense has meant 'the expansion of people's freedoms and capabilities to lead lives that value and have reason to value'. A holistic discussion on development would include debates on, not just to meet these needs but also improving the above-mentioned capabilities. Noted economist Dr. Amartya Sen, who developed the capability framework, had defined energy carriers as 'commodities or input factors that expand an individual's set of capabilities as it provides lighting, motive power and access to mass media and telecommunication'. This gives us the needed context to understand energy access.

The link between poverty and the lack of access to modern energy access has somewhat been recognised in the recent past - simply because, without energy access, 'people are destined to live in poverty'. Decades ago, developed countries saw the provision of such services to elevate the standard of development and as a key ingredient to provide a sustainable way of living for the population. However, close to two billion people or one third of the global population lack access to electricity supplies. The lack of energy security also translates to limit the ability of developing countries to benefit from the opportunities for economic development and increased living standards. In today's times, the international community accepts this wellfound claim that access to energy services is integral to overcome poverty. Lack of energy access is not just a sign of poverty, but also contributes to it. Women and children, especially in developing countries, form the larger portion of the affected population. For example, when households are taken into consideration, women are traditionally responsible for food preparation and cooking, Without proper energy services, women are thus forced to spend a significant amount of time searching for firewood to fuel their cooking and other needs (a study commissioned by the United Nations Development Fund for Women (UNIFEM) relates how women in Sierra Leone spend days in the forest without tools, breaking firewood off with their bare hands and carrying it home on their backs). Energy access is thus the starting point for an individual to realise the many other human rights he or she is entitled to. For example, according to the 1948 United Nation Declaration of Human Rights lists a total of 30 human rights, right from Right to Equality, Education and Social Security, to Freedom from Discrimination and Slavery - the fundamental grounding of which is an individual's self-realisation. Without energy access, achieving most of these human rights (explicitly) and the rest (implicitly) becomes a challenge. Energy allows for the pumping of clean, potable groundwater and avoids the need to use contaminated surface water for drinking and household uses. Similarly, energy is vital in boiling, purifying, disinfecting and storing water, as well as for irrigating lands - to increase the latter's productivity, in turn increasing the availability of food supplies and employment opportunities. Energy is also integral to the necessary implements of healthcare delivery, such as sterilization; lighting; water pumping

for clinics, fans, and other cooling devices; and the refrigeration of vaccines and drugs. The lack of access to modern energy services is particularly detrimental to women and children in developing countries. For example, traditionally, women are responsible for food preparation and cooking.

Consequently, without such services, they are forced to spend a significant amount of time searching for firewood for cooking and other needs. Though there is no document of with the sanction of international law per se, that makes it mandatory for access to energy to be considered as a fundamental human right. However, this does not take away from the fact that energy security is irreplaceable in an individual's effort to gain any of the rights mentioned in such documents of international standing. For example, the socio-political rights listed in the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR). The right to the highest attainable standard of physical and mental health elaborated upon in Article 12 of the ICESCR is impossible without access to sustainable energy services. Similarly, the Convention on the Elimination of Discrimination against Women requires states to eliminate discrimination against women, particularly in rural areas, and to ensure that they "enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communication." Rights such as these are found, implicitly, on the very assumption that the targeted section of society are subject to a certain level of energy access. 9 Energy security again is no longer about securing sustainable supply of energy or power - in today's times it also entails public heat=lth and environmental issues. Amidst political instability in oil producing regions and the increasingly worrying phenomena of global warming, it is no longer sustainable to overly depend on highcarbon fossil fuels. To circumvent supply volatility and reduce carbon-emissions, more countries now explore alternative energy. But again, the shift to such alternative resources bring about their own human security issues. Though nuclear energy is seen as an attractive source of energy, especially in the developing Asia-Pacific economies, nuclear energy does bring forth issues of developing a safety culture and nuclear waste management. The global community also faces a challenge in addressing the disposal of large amounts of spent fuel accumulated from the world's NPPs because of possible transboundary contamination. Shale gas has in this scenario, emerged as a cheaper alternative.

However, shale gas reserves are deep and located beneath water-stressed regions, which makes extraction difficult, expensive, and environmentally risky. The extraction process of hydrofracking releases methane and poses inherent risks to public health, air quality, water quantity and quality, and wildlife. Similarly, the entire procedure, known as 'hydrofracking' is said to add to cumulative global carbon emissions. While renewable energy has been highlighted to bring to the table to the kind of relief from the current energy crisis, production of renewable energy by economies in the world today in the manner that it is, is a grave contributor to human rights violations. For example, hydropower dams in East and South Asia have displaced communities, undermined the quality and quantity of water supply, and continued to disrupt the livelihoods of people across borders and downstream throughout Asia from the Mekong to the Ganges-Brahmaputra-Meghna (GBM) basin. 10

Similarly, numerous treaties and documents in the realm of International Law make a compelling case for energy access to be counted amongst the most fundamental human rights. These include

Another aspect of the human rights oversight while ensuring energy security is the blatant ignorance of the rights of indigenous people who are more than often left to fend for themselves in the face of energy projects. The paper discusses two such instances wherein the rights of indigenous people were not just blatantly violated, but these instances continue to form contemporary reality of such peoples in the face of energy projects and matters concerning their basic human rights. The issue of energy poverty have a gender issue ingrained in it as well - owing to the gendered societal role that result in men and women lacking access to modern energy sources differently.

The Narmada Sardar Sarovar Project

The Narmada Valley Development plan is arguably one of the most ambitious and challenging plans to have been proposed by any Indian regime, in terms of scale and calculated impact. The project, which is basically a multicrore project that involved building a series of dams -30 large dams, 135 medium dams and 3,000 small dams to be precise - over the river Narmada, was estimated to generate 1450 MW of electricity, produce pure drinking water to close to 40 million people, irrigation for over six million hectares of land and hydroelectric power for the millions of people living in the Narmada river valley. The very nature of this project, which also received considerable financial aid from the World Bank, was underlined to overlook the many human and environmental costs in the face of the reported high economic benefits or the 'collective good'. The river flows across three Indian states - Gujarat, Madhya Pradesh and Maharashtra.

The Sardar Sarovar Project in Gujarat however, proved to be the most controversial large dam amongst all of the 30 large dams. The then-Government of India reportedly stated that this dam alone would end up irrigating nearly 1.8 million hectares of land in the state of Gujarat and close to 73,000 hectares of land in the neighbouring state of Rajasthan - apart from the other benefits of potable water availability.

What was not given due importance in the discussion and implementation of the project was the widespread displacement, of around tens of thousands of individuals and considerable environmental damage. Right from the late 1980s, rural activists, social and political action groups lawyers, students, journalists and the like have been protesting against the construction of the dams, the largest of which was the Sardar Sarovar Project. The project was widely protested and one such poignant manifestations of protest was the 2002 documentary film, Drowned Out, that followed the life of a tribal family that decide to stay at home and drown rather than make way for the Narmada Dam. The submergence created by the dam has a number of direct and adverse impacts. However, there is no greater impact than the ousting of hundreds of thousands of people. 11

An estimated 248 towns and villages were at the danger of being submerged, and at least 90,000 people relocated by the Sardar Sarovar dam alone. However, the authorities were allegedly involved in a number of human rights exesses such as arbitrary arrests and beatings in riverbank villages, violence against women (oncluding sexual violence), use of force and intimidation during surveys and roadbuilding and suppression of peaceful protest. Reportedly, in a span of months in the middle of 1993, an overwhelming number of individuals complained of abusive or prejudicial treatment at the hands of law -enforcing authorities. These include people from the Narmada Bachao Andolan (NBA), representatives of organizations representing tribal villagers, unions, peasants, journalists, and prominent opposition politicians. Some of these reported incidents include ones of alleged harassment, short-term detention and abuse in custody by police.

Similarly, the indigenous communities were not

consulted about the project in the entirety of the project - right from its inception. After the project was conceptualised and initial work had commenced, the height of the said damn was raised to 122 metres, which resulted in the inevitable inundation of many villages and hamlets which were near and relatively near to the river banks, forcing the permanent displacement for several villages. Reportedly, most of these population was not even considered 'displaced' - thus completely excluding them from the framework of compensation or rehabilitation benefits, that officially recognised displaced people are subject to. This population includes tribals, fisher folk and landless poor amongst others. These sections were not even given alternative land neither were they given alternative livelihood sources, in many cases - some of them, who were fortunate to be even considered to be subject to landbased rehabilitation, had to make do with barren, conflict-ridden land or paltry monetary compensation. Additionally, the Sardar Sarovar Narmada Nigam Limited and Narmada Valley Development Authority failed in ensuring fair and just means to secure environmental clearance for the 13,385 odd hectare of forest land at the threat of being submerged by the project.12

For the matter, there developed friction between the ground realities and the growing voices of protest against the project on one hand and the policies of the World Bank governing the human rights-aligned stance of the Bank, on the other. The World Bank's operational policies and directives were developed as a response to external and internal pressures over time to develop and establish a robust framework of environmental and human rights guidelines for its lending practices. On a side note, even the state response to the widespread protests against the project came under the scanner for numerous excesses of human rights violations. These include warrantless arrests, custodial torutre, harassment of women, rape of women and use of force and intimidation during surveys and roadbuilding.13

Numerous fact-finding missions and reports aimed to look into the on-ground impact the various redressal channels had, namely - the Narmada Water Disputes Tribunal Award, the direction of the Supreme Court of India in October 2001, in the Sardar Sarovar Project case, the rehabilitation and resettlement policies of the states of Gujarat, Madhya Pradesh and Maharashtra, the Involuntary Resettlement and Indigenous Peoples policies of the World Bank applicable to the Sardar Sarovar Project and India's obligation to protect housing rights under international human rights law. 14 The fact finding missions found numerous individual cases of human suffering of the affected communities. 'The floodwaters during the height of the monsoons in late August and early September, 2002, submerged the crops and houses and washed away the personal property and livestock in some of the affected villages in Maharashtra and Madhya Pradesh'. In Jalsindhi, Jhabua district, Madhya Pradesh, and Domkhedi, Nandurbar district, Maharashtra, first-hand evidence of destruction of homes and standing crops was noted. All along the river, homes and fields had been scoured bare by the monsoon waters, which had receded by considerable levels. The river also contained many trees that were still submerged as explained by the villagers. 15

The treatment meted out to the numerous indigenous communities affected by the project falls short from fulfilling the number of human rights guaranteed in the framework enshrined by numerous documents on the subject matter. For example, Article 11(1) of the ICESCR states, "The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right." As per the United Nation, "Adequate shelter means adequate privacy, adequate space, adequate security, adequate lighting, adequate ventilation, adequate basic infrastructure and adequate location with regard to work and basic facilities, all at reasonable cost." 16

Similarly, the UN Committee on Economic, Social and Cultural Rights has said that evictions should not result in rendering people homeless or vulnerable. 17

The more damaging aspect of the displaced peoples is that almost all of the tribals in these areas are incapable to prove their ownership over their land vis a vis legally recognised documents. For example, the affected people in Alirajpur Tehsil, Jhabua District in Madhya Pradesh, who are predominantly tribal, told one of the fact-finding teams that, though they have been cultivating the land for generations, their names do not figure in land records and now their lands are going to be submerged with entitlement to any compensation. 18

Human rights excesses of Coal India Limited

Earlier in 2017, international non-profit organisation Amnesty International released reports on the issue of human rights violations in coal mines run by Coal India Limited - the Indian state-controlled, West Bengalheadquartered coal mining company. The entity is the largest coal producer in the world and contributes to nearly 82 per cent of India's coal production. In the said report, Amnesty International pointed out to the phenomena that Coal India Limited seldom takes into account the impact of its activities or even the consent rather of the adivasi community in India that bear the brunt of its development-induced displacement, by the virtue of being on or in close proximity to the land acquired by the coal producer for its mining activities. Though indigenous people like the adivasis are protected by a set of laws meant to protect their interests, it has not stopped entities like Coal India from taking away their lands, destroying their livelihoods all in the name of business activities meant to fuel 'development' for the larger good. Such communities have not even been made beneficiaries of effective land acquisition, rehabilitation and resettlement policies. The adivasis, who constitute about 8% of India's population, rely on their lands and forests for their livelihoods. They have been frequently displaced from their lands by laws such as the Coal Bearing Areas (Acquisition and Development) Act, which does not require authorities to consult affected communities or seek the free, prior and informed consent of indigenous peoples, as stipulated under international law and standards. Under this Act, there is also no compulsion on the authorities to pay compensation before taking possession of land. The Act does not even provide for the protection of the human rights of the displaced populace nor does it provide for human rights impact assessments to be conducted prior to land acquisition proceedings. Similarly, there are no requirements to consult with non-landowners who may be affected by land acquisition, such as landless labourers. This phenomena of complete apathy towards persecuted communities is all the more important to take note of given the fact that 70 per cent of India's coal is located in the central and eastern states of Chhattisgarh, Jharkhand and Odisha. These states form the homes of over 26 million members of Adivasi communities. Coal India and its subsidiaries are estimated to have displaced at least 14,000 Adivasis from 1973 to 2014. In 2016-17 itself, Coal India subsidiaries acquired or took possession of over 21,000 hectares of land using the CBA Act.

Other laws, such as the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, which in fact criminalise the dispossession of land belonging to the Adivasis or inhabited by them, without fairly sought consent, are hardly enforced. 19

The Coal Bearing Areas (Acquisition and Development) Act (CBA Act) governs land acquisition for coal mining by the Indian Government. The Ministry of Cola is the body responsible to ensure effective implementation of the Act. According to the Act, when the government is satisfied that coal can be obtained from a certain area, it declares its "intention to acquire" the land in the official government gazette. However, the Act does not make any provision for the authorities to consult with the affected communities to seek their free, prior and informed consent. Inspite of a parliamentary committee pointing out in 2007 that "coal reserves in the country are mostly in the far-flung areas inhabited by the tribal communities" who "hardly have any access to the Official Gazette wherein they could see that their lands are to be acquired for public purposes", there have been no changes made to the process of informing communities that their land will be acquired. 20

For example, amongst the numerous examples listed in the Amnesty International report on the excesses of Coal India limited, one elaborates upon the reality in Tetariakhiar, Jharkhand. The communities surrounding the Tetariakhiar mine are concerned about the fate of common lands called gair mazrua lands. Accordingly, 'Under a state law which applies to the district, a seniorlevel official in the district administration has to approve any acquisition of gair mazrua land for mining by the central government. However the central government does not follow this process, and instead uses the CBA Act to acquire common land without any consultation with communities'. 21

On the other hand, the phenomena of open-cast mining has environmental effects as well. In the 1970s, India's coal production shifted from underground mining to open cast mining. Only about two in five of Coal India Limited's 430 mines are open cast mines. But these very mines account for nearly 93 per cent of its total production. 22

hough the mineral deposits are easy to remove in open cast mines, it also involves removing of trees and vegetation on the surface of the land, blasting and clearing the layer of soil between the surface and the coal deposits to expose the coal seams, and then drilling into and extracting the coal in strips. 23

Conclusion

Energy is vital - not just for the development of a country, but also of an individual. For the former, the power scenario in India as of today is made ineffective by persistent shortages, unreliability, high prices for industrial customers as well as an acute problem of energy poverty. Energy is central to the interrelated framework of economic, social and environmental objectives of sustainable human development. The situation is all the more grave given the fact that for a population of 1.37 billion people, the country uses just 6 percent of the world's energy. The country's growing dependence on fossil fuel imports, which reportedly account for nearly half of its energy consumption, adds negatively to the debates around energy security. India is also on an ambitious plan to triple renewable power - primarily from solar and wind, but also including bioenergy and small hydropower. However, to really land an impact on the domestic energy scenario, India's renewable will have to account for more than 40 per cent of the overall power generation capacity. Thus to bring about the change in its energy production, consumption and sustainability patterns, India will have to focus on its energy policies, and work towards their effective implementation - of long term policies, targeted to reach fruition by 2050, and policies with short term goals to be met in the next couple of years. As suggested by many reports, the fundamental aim behind such policies should be to meet energy demands reliably and delivering clean and affordable energy using different fuels and forms of energy. However, as proposed by journalist Sam Tranum in his book Powerless - India's *Energy Shortage and its Impact*, India needs to ask itself a series of questions - will it continue to suppress energy costs for end users for the good of the power or will the power have to make adjustments themselves to tend to the benefits of the power utilities, oil marketing companies, etc? Will it continue to harp on the 'cheap energy' slogan at the cost of the environment, or keep higher environment-friendly benchmarks for itself and instead raise energy prices for its citizens? Finally, will India continue to turn a blind eye to the rampant displacement and abuse of its rural citizens - especially the Adivasis and other indigenous communities - to make way for mines to be dug and dams to be build? 11 There will be future shocks to the energy market and that is a given. The foreseeable developments include coordinated terrorist attacks in the West Asian and African region and turmoil in other oil-rich parts of the globe, including Latin America and Central Asia. In such conditions, it is imperative for economies and countries

at large to focus on diversification of the energy mix. It is pressing for contemporary times to develop nuclear power capabilities and 'clean coal' technologies and encourage usage of renewable sources of energy. This, as an extension, which requires investment in new technologies as well, across the energy spectrum.

The problem of energy poverty is alarming in the developing countries of South Asia and Sub-Saharan Africa — the latter posing the greatest challenge, with only 13 percent of the population having access to electricity. 24 However, a quote by one of the impacted individuals in Amnesty International's report on the Human Rights excesses by Coal India Limited, enshrines the thought that ought to govern energy policies and decisions henceforth - "I understand that some people must make sacrifices for the nation, but why must it always be us?" (- Nirupabai, forcibly evicted in February 2014 from Barkuta village, Chhattisgarh.) 25

Human security with respect to energy security plays out on two levels. Firstly, an increasing section of the population is without an effective or sustainable access to energy. This then lead into a vicious cycle of disadvantage and poverty. Secondly, certain sections of their population and their fundamental human rights cannot be blatantly sacrificed to make way for projects to ensure energy security for the rest. More so, the question of energy security becomes all the more crucial - a question of life and death in fact - during times of conflict. For example, so-called left wing extremism and the insurgency scenario in India till date presents such dire situations to the impacted vulnerable populations. Energy needs to be placed at the centre of the larger framework of empowerment and equitable and inclusive growth - as a fundamental human right that is in fact the starting point of an individual's efforts to realise her or his other human rights. Growth of a country must be judged through the parameters of the growth of its individuals and its impact on the lives and freedoms of the people.

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