

Contemporary Fault Lines in Applied Economic Research

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A widely-cited social cost-benefit analysis conducted by the National Council of Applied Economic Research projected net benefits from the POSCO steel project in Odisha. Yet, a close examination of the report suggests a flawed methodology and inexplicable changes in assumptions. As a result, the two primary benefits claimed for the POSCO project – employment and revenues to the state – seem to be grossly incorrect. The privatisation of base data used in some of the projections not only makes the task of verification arduous, but also puts it beyond the reach of democratic oversight. The issues in applied economic research in this case can be seen as symptomatic of structural problems in neo-liberal policymaking.

Applied Economic Research (AER) is an umbrella term that covers a range of analytical work – from social cost benefit analysis (SCBA) to broader assessments of national or state economies. AER carries an aura of disinterested science and deploys a range of tools and methodologies to help decision-makers arrive at “objective” conclusions. AER largely operates in the background, keeps a low profile and yet exercises tremendous influence on decision-making processes in liberal democratic political regimes with firmly entrenched market economies. In the Indian context, where liberal democracy and market economies have not yet gained that kind of pervasive reach, AER has met with many reversals in the recent past, largely due to a series of scams, scandals and controversies. For instance, in 2005, a PricewaterhouseCoopers (PwC) study of water privatisation for the Delhi Jal Board came under attack. Economic and environmental assessment reports for the Sompeta thermal power plant, the Nirma cement plant in Saurashtra and the Sethusamudram project in Tamil Nadu have also been mired in debate (for example, Ganjivarapu 2010; Rodriguez et al 2007). Assessment reports for controversial projects are subject to higher scrutiny aimed at ascertaining whether the benefits of proposed actions actually justify high social and economic costs; the resulting debate and challenges are part of a healthy and vibrant democratic society.

More recently, the POSCO steel project in Odisha, celebrated as the largest foreign direct investment (FDI) in India and justified based on a cost-benefit analysis (CBA) authored by the National Council of Applied Economic Research (NCAER), has landed itself in a quagmire. Reports by the Comptroller and Auditor General of India (CAG) have indicted the Government of

Odisha (GOO) for the irregularities and illegalities it committed in its land acquisition projects, including the POSCO project.¹ Further, in March 2012, the National Green Tribunal suspended the project’s environmental clearance (*The Hindu* 2012). The GOO and POSCO, on the other hand, foregrounded arguments in favour of the project on the claim that it would create 8.7 lakh “additional” person-years per annum for the next 30 years and generate Rs 1,74,970 crore in tax revenues for the state and central governments (NCAER 2007). These figures are derived from an SCBA conducted by the NCAER, a respectable institution, with origins in the Nehruvian era. Such projections, arising from NCAER’s objective and scientific economic analysis of the project lend an aura of disinterested objectivity to political actors and policymakers who claim that the benefits of the project outweigh its costs.²

Even a cursory study of the documents related to this “objective” and “scientific” economic analysis reveals that there is no discussion anywhere of the population that is likely to be affected by the project. This studied silence on the project-affected populations serves to minimise a central fault line that runs through the POSCO project – about whether the project would in fact translate to “developmental” gains for the people of Odisha, and who benefits and who loses. The fault line comes into sharp relief when the GOO’s claims are juxtaposed with the objections raised by the local forest-dwelling peasantry in the Jagatsinghpur district of Odisha that will be directly affected by the steel project. Many of them reject the claims of benefits and development, and instead contend that the costs of the project are much higher than its gains. Their vehement objection to the project at risk of physical safety means that in 2012, seven years after the signing of the memorandum of understanding (MOU), the project has yet to take off.

In a state with total recorded unemployment of 9.9 lakhs,³ the rejection of a project by popular movements, especially when the GOO claims it will generate 8.7 lakh person-years annually for the next 30 years and virtually wipe out current

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unemployment,⁴ is puzzling. This is what prompts us to examine the so-called objective findings of the AER on the basis of which the project is justified.⁵ We propose to do this by focusing specifically on the tool that the AER researchers deployed in this particular instance – the SCBA.

Table 1: Basic Details about the POSCO Project in Odisha

Purpose	Location	Extent/Scope
Steel plant: 12 mt per annum “green field”	Erasama block, Kujang tehsil (10 km from Paradeep port) – to affect seven revenue villages, and two hamlets in the gram panchayats of Nuagaon, Dhinkia and Gadakujang	Required 4,004 acres of land, of which 3,000 acres were classified as “forestland”
Captive port	Mouth of river Jatadhar	
Mines: 600 mt reserved over 30 years (20 mt per annum)	Kandadhar hills in Keonjhar and Sundergerh districts: no clear territorial demarcation yet	Requires 6,177 acres
Township	At steel plant and mining area	2,000 acres (1,500 acres at steel plant area and 500 acres at mining area)

Source: Mandavilli et al (2011).

The SCBA is often used by agencies that have to make political and economic decisions about large-scale projects. Our investigation proceeds mainly to determine how the NCAER carries out the SCBA. There is a valid and important debate on whether SCBA itself is a reliable tool, even when it is conducted in good faith and competently; but that is of secondary importance for this paper. Our main goal is to use this specific instance as a case study to draw some preliminary conclusions about AER in contemporary India – the shifts that the field may be undergoing presently, the possible biases in its practice and the constraints imposed by broader structural features of the field of knowledge production. We will demonstrate that a close reading of the SCBA conducted by NCAER casts significant doubt on the compelling story of economic transformation that the GOO and POSCO offer. The core task of this paper then is to examine “how” and “why” NCAER arrives at its figures. In other words, we investigate how NCAER arrives at the “expected” benefits and costs associated with the POSCO project, what methodological assumptions underlie its calculations, and what possible motivations explain specific assumptions or vectors in the computations.

1 A Critical Examination

An MOU was signed in 2005 between South Korean POSCO, the fourth largest steel company in the world, and the GOO to build a steel plant with a capacity of

12 million tonnes (mt) per annum, a captive port and iron ore mines. This project was touted as India’s largest FDI, with an estimated investment of Rs 52,000 crore. It represented a coup for the state of Odisha. Some details of the project are provided in Table 1.

In 2007, two years after the MOU between GOO and POSCO was signed, NCAER produced a report titled *Social Cost Benefit Analysis of the POSCO Steel Project in Orissa*. The NCAER introduced the report with the stated objectives of the National Steel Policy 2004, to increase steel production to satisfy growing domestic and international demand. This set the tone of the report because in the remaining chapters the report was geared towards the most efficient way to achieve the goal of higher steel production and higher investment in the iron and steel industry. Thereafter, because the stated objective of the project was to evaluate the costs and benefits to the Odisha and Indian economies, the authors constructed an input-output table to calculate employment and output multipliers under two different scenarios – one in which POSCO only engaged in iron ore mining and a second in which the company engaged in mining as well as steel production. NCAER termed these scenarios “without project” and “with project”. This comparison was perplexing because the former scenario had never been stated as a possible option, either by the GOO or POSCO, and there was no information provided about local livelihoods and environment. The final chapter in which NCAER offered a least-cost analysis of POSCO’s Finex technology fulfilled the stated purpose of the report (NCAER 2007: 2). Despite the misleading title that contained the phrase “social cost benefit

analysis”, there did not appear to be any evaluation of the costs to society of the project.

NCAER’S SCBA of the POSCO India project seemingly has all the trappings of a comprehensive and methodical study. It fits well into the role of an artefact that exemplifies discourses of expert knowledge. It is therefore not surprising that the language, methodological opacity and voluminous quantities of data adopted by the report meant that sufficient resources could not be garnered to critically analyse the report soon after its release. Some of the major lacunae in the report and its findings were not spotted for three years until after its publication. It was when the Mining Zone People’s Solidarity Group (MZPSG), a network of academic volunteers, released their report *Iron and Steel: The POSCO India Story* that NCAER’S SCBA of the POSCO project received a critical treatment. This was a crucial exercise given GOO’S frequent use of the NCAER report to support its case for the POSCO project. In addition, the MZPSG report also investigated local economies in coastal Jagatsinghpur and Kandadhar districts in Odisha where new investments are proposed in the iron and steel and mining sectors (Mandavilli et al 2010).

While the MZPSG report is fairly broad in scope, covering environmental and legal issues pertaining to the POSCO case, we focus on the report’s economic analysis of the POSCO project, the project’s effect on local livelihoods in the project sites, and compare it to the analysis presented by NCAER. Particularly, we focus on two issues: the methodological sleight of hand that the NCAER employs, and the use of opaque computations and faulty assumptions in the extrapolation of data, including the compounded effects of the methodological failures themselves.

A Methodological Sleight of Hand

The NCAER’S SCBA of POSCO’S project in India presents itself with an aura of methodological sophistication and objectivity through a lengthy and elaborate reference to an external and authoritative standard – the Asian Development Bank (ADB) (NCAER 2007: 31). ADB lists out standard practices as guidelines because

conclusions from CBAs are typically sensitive to the methods and assumptions adopted. This opening gambit in the NCAER report conceals the fact that the methodological set-up of the analysis in fact ignores some critical segments of standard CBA. Of these segments, we will discuss two that pertain to the scope of an accurate SCBA.

In differentiating itself from mere financial analysis and positioning itself as an analysis of the POSCO project's impact on India's economy, the report states that the economic analysis is required to compare costs and benefits of the "without-project" situation to the "with-project" situation. However, the report compares two situations, one in which only iron ore is mined and the other in which both mining and steel production are undertaken. The report terms these scenarios as "without project" and "with project" respectively. This comparison is highly peculiar because it assumes that both scenarios are equally plausible, but the MOU signed between GOO and POSCO is only for the latter and not the former. Further, there is no mention of the scenario without any investment by POSCO. The report justifies the comparison by noting that the without-project situation differs from the before-project situation because the former "could sometimes be represented by the present levels of productivity of the relevant resources" (NCAER 2007: 3). NCAER's use of without project is inaccurate, according to the standard practices outlined by the ADB document that NCAER cites.⁶

By ignoring the actual without-project situation, wherein POSCO does not invest in Odisha, the study treats the coastal Jagatsinghpur and the Kandhadhar hills as empty spaces, bereft of people and economic activities. Therefore, even six years after the POSCO-GOO MOU came into existence, there has been no official study of the local economies and the potential impacts of the POSCO project on these economies and the people dependent on them.

In 2010, however, MZPSG's study of the true social costs of the project was revealing. Unlike the implicit assumption made by the NCAER report that the local economy does not matter, the MZPSG study revealed that Jagatsinghpur

has a unique and highly productive cash crop economy with betel leaf as its primary product. The study found that the region records net revenue from betel vine production per decimal of land at Rs 13,000-17,000 per year (Rs 1.3-1.7 lakh per acre per year). This region also has the highest yield rates in paddy in the country, a thriving economy that supports over 50,000 small boat fishermen, and a significant commercial pisciculture sector. Together, these create what is often in local parlance referred to as a *paan-meen-dhaan* (betel-fish-paddy) economy. In addition, the local economy also benefits significantly from the sale of minor forest produce such as kewra (a fragrant flower whose aromatic oil has commercial value) and cashew, as well as collection of forest produce such as drumsticks, jackfruit and casuarina wood for consumption. Having recovered from the 1999 super-cyclone, despite being one of the worst-hit areas, this economy shows all signs of being robust (Mandavilli et al 2011).

The second fundamental violation that the NCAER report engages in is its use of the term "social". The term "social" adds a degree of refinement that is increasingly de rigueur in CBAs and especially pertinent in the analysis of projects with implications for the entire economy. SCBA requires the measurement of the project's positive and negative impacts on the entire society, in addition to costs and benefits accruing to the entity proposing the project. The negative and positive impacts to society would require using non-market valuation techniques to estimate the effects on biodiversity preservation, water supply, sanitation benefits, loss of welfare suffered by project-affected persons, including the loss in livelihoods, etc (ADB 1997). These are not valued by the market and hence, not considered by the private economic actor proposing the project. Without accounting for social costs and benefits, even standard neoclassical economic theory informs us that the level of output produced will be inefficient.

The NCAER's stated purpose is to calculate an economic internal rate of return (EIRR) for the POSCO project. The EIRR for a SCBA, unlike a mere financial analysis, is expected to calculate the internal costs and benefits of undertaking a

project as well as the external costs and benefits accruing due to the project that are not accounted for by market prices. However, NCAER restricts its analysis of SCBA merely to the inclusion of external benefits. Using the employment multiplier (EM) for iron and steel, it calculates potential employment generation and lists some of the positive externalities to infrastructural development, though there is no attempt to assign a non-market value like ADB suggests.

Problems in Costs

The report fails considerably in the costs calculation of the project. Calculations of private costs inexplicably only consider the costs of the steel plant and mine-works, leaving out the associated costs of the port, the township, the railway and the road links that service the steel plant and are integral to the project. The most significant limitation of the study from a social perspective is that there is no acknowledgement of any costs involved to society, such as (Mandavilli et al 2011: 69):

the loss of livelihoods of tens of thousands of people (which does not find a single mention in the report); the costs of forest land diversion, utilisation of enormous water resources, degradation of upstream farmlands and coastal fisheries, the potential loss of viability of Paradeep port, irreparable damage to habitats of protected species like the Royal Bengal tiger, Olive Ridley Turtles, elephants and the local flora and fauna.

The calculation of the NCAER EIRR, thus, not only fails to acknowledge the significant negative impact of the project on local livelihoods, it also fails to calculate the loss to environment and people's dependence on the environment, which are important components of a "social" SCBA. In the Kandhadhar hills region alone, local adivasis collect 14 types of roots, 60 varieties of greens, 19 varieties of mushrooms and 52 types of nuts, which are the primary types of food during the monsoon months of June, July, August and September (Mandavilli et al 2011: 45). Table 2 (p 74) provides details on selected forest products collected by a family in the Kandhadhar hills region and the representative price during harvest and off-peak seasons. Similarly in the Jagatsinghpur area, the NCAER, EIRR entirely ignores not just revenues from paan-meen-dhaan

economy but also makes invisible the utilisation of non-marketed forest products in production and consumption. Local forests contain casuarina trees that are critical in betel vine cultivation, and

Table 2: Quantity Collected and Sale of Selected Forest Products

Non-Timber Forest Product	Quantities Gathered by a Family Each Year	Price during Harvest Season	Price during Off-Peak Season
Mahua flower	0.40 – 2.00 quintal	Rs 1,000/quintal	Rs 2,500/quintal
Mahua seed	0.50 – 1.00 quintal	Rs 1,200/quintal	Rs 1,800/quintal
Char seed	0.5 – 5.00 kg	Rs 30/kg	NA
Sal seed	0.50 – 2.00 quintal	Rs 1,800/quintal	NA

Source: Mandavilli et al (2011: 44).

drumsticks and jackfruit trees that are harvested and consumed locally.

Accounting for negative and positive externalities and thus arriving at the net social benefits (social benefits minus social costs) provides the SCBA decision rule for the selection of any project. If the net social benefits are greater than zero, the project is desirable, and if the net social benefits are less than zero, the project is undesirable. In the report, however, costs and revenues accruing to POSCO from the Finex technology are presented. The positive externalities of the POSCO project are also discussed, though no attempt is made to provide a shadow price. Negative externalities are completely ignored. However, NCAER's decision to reinterpret the standard practice of comparing a "with-project" intended outcome and "without-project" with an irrelevant alternative scenario, and its blatant disregard for the social costs associated with the POSCO project, at best relegates the analysis merely to the financial realm. It is not an SCBA, contrary to NCAER's repeated claims (NCAER 2007: 2-4), and at worst is an attempt to arrive at a contrived predetermined decision about the project.

Opaque Computations and Faulty Assumptions

While the above critique should suffice to underline the fundamental failures of NCAER's SCBA, we present further problems with the specific calculations in two areas: (1) its tax projections, and (2) its employment projections, which indicate how the report is flawed, far beyond the consequences of the above "errors of omission". It will also help us answer the question of what ails AER far more comprehensively. NCAER's employment and tax projections

are a crucial part of the GOO's defence of the project in the context of stiff local opposition. Apart from the GOO, POSCO as well as several journalists have peddled these figures. It would not be incorrect to

say that the NCAER's employment and tax projections are the two central tropes in justifying the project.

Tax Revenue Projections

The tax revenue projections offered by NCAER are marked by a significant degree of opacity and inconsistency. A significant number of the "computations" are mere assertions with sources that are not available for scrutiny. Moreover, an interesting point is that in 2005, at the time of executing the MOU between GOO and POSCO, GOO forecasted Rs 22,500 crore in tax revenue to the Odisha government over 30 years.⁷ Two years later, after the production of the NCAER report, GOO dropped its projections in favour of NCAER's tax projection of Rs 77,870 crore over the same 30-year time period – a 246% increase over the previous GOO estimate. The significant difference between the two tax projections should in itself raise questions. However, there are additional aspects to consider.

First, the GOO's original projection was done prior to the granting of the special economic zone (SEZ) status to the project and therefore included revenue from sales, excise, service and other local taxes that both the SEZ developer and the unit are exempt from. POSCO is the developer of both the SEZ and the unit. Hence, tax revenue from the project should be lower. Yet the NCAER's projection nearly triples the tax revenue projection from the POSCO project. Second, the NCAER report demonstrates awareness of POSCO India's SEZ status and asserts quite correctly that the "corporate tax will be calculated at 33.6% of the profits accrued from domestic sales only, whereas if the entire project is in the Domestic Tariff Area (DTA), the corporate tax will be calculated at 33.6%

of the entire profits of the company", i.e., from exports as well as domestic sales. Despite stating this, the NCAER report estimates higher tax revenue in the SEZ case vis-à-vis the DTA case (NCAER 2007: 10-11, 33-35). Third, it is unclear as to how the authors of the NCAER report arrive at a tax revenue projection of Rs 77,870 crore for the GOO. NCAER offers no computations, but quietly provides data from a certain Das and Associates (NCAER 2007: 51-53) without any other citations and hence possibility for verification.

Employment Projections

Similar to the tax revenue projections, NCAER's employment projections (frequently quoted by GOO and POSCO) are not just simply incorrect but are also deliberately misleading. Using an input-output table and applying EMs of the iron and steel, and iron ore mining sectors,⁸ NCAER projects that the POSCO project, operating at full capacity of 12 mt per annum will generate 8.7 lakh person years of employment annually for 30 years (NCAER 2007: 15-19).⁹ At the outset, it should be mentioned that "person years" or "man years" does not translate into the same number of jobs. For instance, a person working for 30 years would count as 30 person (man) years. It does not imply that 30 additional people are employed every year and is an incorrect usage of the term by the GOO.

One problem with the projection should be obvious from the discussion in the earlier sections. An objective assessment, even under the assumptions employed by the NCAER (which are also problematic as we will point out shortly), requires calculation of inter-sectoral linkages between the betel vine, paddy, pisciculture and fisheries sectors with other sectors of the economy using a reverse EM to project total job loss expected due to land dispossession and livelihood destruction associated with the project. This figure would then be subtracted from the number of jobs created by the POSCO project to arrive at a net figure. The NCAER report, because of its failure to adhere to the simple tenets of CBA in considering the local economy, i.e., "without-project" scenario, thus fails to provide an accurate picture of net

employment expected from the implementation of the POSCO project.

Second, problems arise due to the assumptions adopted by the NCAER in its use of the EM. At the outset, the projections are based on the full capacity operations of the POSCO steel production facility. It is clear that the project will not reach full capacity for several years – at least nine to ten years from the day the first phase of implementation begins (Mandavilli et al 2010: 43). It would have been easy for the NCAER to produce a phased claim of employment generation, given that all project documents clearly indicate that the project is to be implemented in three phases and full capacity will be reached only at the end of phase 3. However, the report fails to do this.

A third issue arises with respect to quality of the underlying data used to develop the sectoral EM coefficients. Not only does NCAER not comment on the quality of the data series used to generate the coefficients but even worse, neither the data nor its source are available for scrutiny. This is a systematic problem with the NCAER report.¹⁰ The net result of this opacity is that the claimed linkages are difficult to examine. The sole understanding that one can derive is that the projections being made in the case of POSCO are 30-year projections based merely on a point estimate of 2003-04. There is no consideration of any change in inter-sectoral linkages, and the employment potential of various sectors and the actual production of the iron and steel sector in this 30-year period. No justification is offered for the assumption of technological fixity as against a historical downward trend in employment due to labour-displacing technological changes in iron and steel production, manufacturing (for which iron and steel is an input) and mining (which are inputs into iron and steel production) (Government of India 2008; GOO 2010; Mandavilli et al 2010: 43-45).

A fourth problem is that the NCAER report makes sectoral employment projections, asserting that a total of 8.7 lakh person years will be created in several linked sectors. These jobs depend on the stimulus that investment by POSCO will provide to related sectors in Odisha and

rest of India. However, the NCAER report itself asserts that “POSCO-India assumes that imported procurement is 65% of total input materials” (NCAER 2007: 53). The NCAER report, however, yet again fails to adjust the EM for this important detail.

Fifth, employment projections are produced by using EM coefficients in conjunction with figures on annual production at factor cost – the cost of goods sold (COGS), including depreciation and interest expenses. The COGS estimate, however, is made for an irrelevant steel production technique, namely blast furnace-based steel production. One of the many ways in which the POSCO India project has been advertised (and noted in the MOU between the GOO and POSCO) is as a harbinger of a new Finex technology – purportedly a more cost-effective and environmentally friendly process for steel production. The NCAER report contrasts figures for the Finex and blast furnace and concludes that Finex is better than blast furnace. And yet, a few pages later, when it comes to the COGS figure, the NCAER report reverts to the blast furnace figures (Mandavilli et al 2007: 42). The blast furnace COGS figures are considerably higher and thus inflate the expected total employment from investment by POSCO in Odisha. This sleight of hand thus makes the POSCO project appear more desirable than it actually is.

In summary, the employment projections made by the NCAER are remarkably problematic, especially in view of the institution’s unquestioned respectability. The elimination by design of some key aspects of standard CBA methodology, the inability to account for weaknesses inherent in EM-based projections and the unrealistic assumptions underlying their use, and failure to utilise all or the correct data to arrive at projections suggest that either this was an extremely shoddy piece of research or that there were other, as yet, unknown conditions that prompted a compromised approach.

Such a conclusion seems to be even more of a possibility when it is revealed that POSCO itself was using entirely different employment projections until the NCAER report was published. According to POSCO’s earlier estimates, it would generate 48,000 (18,000 direct and 30,000

indirect) jobs only when the project attained full capacity (POSCO 2006). The POSCO project is envisaged to be completed in three phases over 30 years. In the first phase, the total capacity of the steel plant would be three mt per annum and anticipated job creation would be merely 7,000 jobs (POSCO 2006). The NCAER, however, does not provide any indication of adjusting for less than full capacity in the first two phases of the project.

One final fact could arguably put all of the above in perspective. The NCAER report on POSCO was published in 2007. In its preface, NCAER’s director general Suman Bery, notes that “NCAER was approached to carry out a Social Cost Benefit Analysis of the POSCO project”. He proceeds to highlight the expected EIRR for the POSCO project as calculated by the report, which is much higher than the required 12%. Only once the MZPSG report published preliminary evidence of a financial link between POSCO and NCAER, did Bery admit to the fact that POSCO had indeed paid for the report (Jebaraj 2010). However, there has been no internal investigation on ethics violations.

2 Applied Economic Research: All Is Well?

The failures of NCAER’s analysis of the POSCO project can be summarised as follows. The NCAER does not provide information on the base data used in its analysis of the POSCO project. Due to the flawed methodology used, and inexplicable changes in assumptions and error-ridden projection techniques, the two primary benefits claimed by the report of the POSCO project – employment and revenues to the state – seem to be grossly off the real figures. The privatisation of base data used in some of the projections further makes the task of verification an arduous process and beyond democratic oversight. While civil society has increasingly taken a significant role in monitoring and challenging private and government views, they cannot be relied on to provide all information. Moreover, despite being provided additional information, data and critiques of the POSCO report, NCAER has chosen not to respond. Nor has it attempted to resolve the discrepancies.

The problems of AER in India are not isolated to the POSCO case. The cost savings endorsed by both the National Environmental Engineering Research Institute (NEERI) (2004a, 2004b) and L&T Ramboll (nd) in the Sethusamudram project have been challenged on several counts by a range of reports (John 2007; Rodriguez et al 2007). The environmental impact assessment (EIA) for the Sompet thermal plant has been criticised for ignoring the impact of wetland destruction to the local environment and local livelihoods (Dutta, Misra and Sreedhar 2010). The Delhi Jal Board case is also mired in controversy, both for the process of awarding the feasibility study contract to PwC and for the less than rigorous study subsequently conducted. In the case of NCAER's report on the POSCO project, however, not only are the basic tenets of an SCBA violated, the analysis deliberately chooses figures that reflect favourably on the project. Moreover, POSCO paid NCAER to conduct the CBA, a fact that was not acknowledged until after the issue was raised in the MZPSG report in 2010 (Mandavilli et al 2010: 68).

Deep-rooted Problems

These cases suggest deep-rooted problems in the manner in which AER is conducted in India currently. Despite significant advances in the tools and methods for AER such as SCBA,¹¹ these are not reflected in the NCAER report or in AER carried out in the other cases mentioned above. On the contrary, there appears to be a broad trend of large-scale AER scandals correlated with the period of high neo-liberal growth in India. This has led to what Grabel (2000) refers to in another context as the "problem of policy credibility" under neo-liberalism. While advocates of the market regime argue that markets operate best when they are self-regulated, there appears to be a fundamental contradiction between the incentives provided by the market and those that lead to societal well-being. This is, for instance, reflected in the lack of real concern demonstrated with respect to the conflict of interest underlying the SCBA undertaken to prove the desirability of the POSCO project for the well-being of the people of Odisha.

One of the least explored areas of research on globalisation in India is the radical transformation in the sphere of policymaking. Given the opacity of policymaking and the slippages between policy and implementation and the lack of previous research, we will limit ourselves here to highlighting a few of these changes. First, since the late 1990s, several state governments have been hiring global and national consultants for a number of policy-related jobs, from writing vision mission strategy documents to drafting investor-friendly laws. Second, the role of individuals and their influence through informal networks of mutual support and patronage has grown, even as government agencies are increasingly relying on applied economic and sociological research to formally justify decisions. Third, in a widespread culture of fast-tracking decisions, permissions and clearances, allegedly to end the licence raj, outsourcing governmental work purportedly to improve governmental efficiency, and weakening established constitutional agencies to commissioning and overseeing research avowedly to move away from commanding heights economy, a new subsystem of governance and regulation appears to have developed that is akin to what economic geographers studying global policy networks like Jamie Peck have called "fast policy regimes" (2002). These regimes are mostly self-referential in that their authority derives from quoting themselves and being cited across resonant networks, and being largely inscrutable, unregulated and unaccountable. Producing economic knowledge for such networks has thus become a market unto itself.

AER as conducted by the NCAER in the POSCO case is thus symptomatic of a structural problem rather than an incidental one. We, therefore, offer three propositions to stimulate a discussion on seeking solutions to the problem of AER in India, of which POSCO is but one case. The first two propositions are directly related to the comparisons drawn between analyses of the POSCO project conducted by the MZPSG and NCAER. The propositions draw from Grabel's (2000) recommendations for addressing pressures

created by the neo-liberal regime that create the problem of "policy credibility" – namely, the "principle of democratic credibility" and the "principle of fallibility". They are fundamentally aimed at strengthening the democratic framework at a moment when it has increasingly come under threat. The last proposition offers a recommendation for systemic and structural policy change.

Proposition 1: The current policy framework for project approval usually involves an MOU document followed by an opaque process that emerges into the public domain only when "approvals" required by various state laws are granted in a piecemeal fashion. Instead, it should be modified to integrate necessary approvals, and outline a multi-step process for the conceptualisation, planning and execution of a project with specific documentation, processes and approvals that are anchored in international best practices standards and state law. This would not only build transparency, i.e., make the process by which approvals are sought and granted visible, but also allow local populations affected by projects to intervene early with their input.

For instance, under this proposition, the project could be required to gather comprehensive data on the total monetised and non-monetised costs and benefits, and distribution of these costs and benefits. Further, all necessary clearances could be integrated in a manner such that we are not faced with fait accompli arguments in project approval. A final approval for the project would not be granted unless a certain set of processes and documentation are in place and available for public discussion. This satisfies the "principle of fallibility" recommended by Grabel (2000), which recognises that not all interests are known ahead of time for all parties involved – the state, private firms and civil society – and that for any process to have credibility, it must allow room for all parties to re-examine the assumptions they are proceeding on, including the capacity to recognise that certain assumptions made early in the process may indeed turn out to be untrue. The principle of fallibility is an explicit recognition of

such imperfections in process and thus allows space to correct the same.

Proposition 2: All data that are part of a “claim making process” must be made public. We identify different categories of data – data on the local economy and ecology collected by agencies of the state, subcontractors, or private firms in relation to the claim-making process, and data, including historical data used for projections, related to claimed outputs, employment, revenue and so on. Projects that affect local, regional or national economies necessarily require considerable investigation to ascertain what the benefits are, what the costs are, who benefits and who loses. This information needs to be subject to democratic oversight and discussion before a decision is democratically arrived at, taking into account the concerns and costs passed on to those affected. This follows the “principle of democratic credibility”, which explicitly recognises contradictory interests and differential levels of social power within society and suggests that the strengthening of democratic credibility for any policy necessarily involves the creation of additional veto points for socially disempowered groups (Grabel 2000).

Proposition 3: The final proposition is a simple one that suggests that given the high growth neo-liberal framework that the Indian economy is currently located within and given the recent experiences with large projects, that the first two propositions be articulated in state law using the new Land Acquisition Bill that is currently being debated. We wish to argue that the development of the first two propositions into a concrete language of policy and law will positively affect the debates around the Land Acquisition Bill and allow for the creation of a more comprehensive bill.

NOTES

- 1 This refers to the Land Acquisition and Management section of the Audit Report (Civil) for the State of Odisha for the year ending 31 March 2010, covering the period 2005-10, with a supplementary report for the six-month period from 1 April to 30 September 2011.
- 2 The GoO recently submitted an affidavit in support of extending a memorandum of understanding (MoU) (signed with POSCO India

that expired in 2010, stating that “[i]t is further humbly submitted that the National Council of Applied Economics and Research (sic) (NCAER) which is an autonomous and widely respected institution...has conducted a Social Cost Benefit Analysis of the POSCO steel project in Odisha...[extracts of which] are quoted below for the kind appreciation of the Hon'ble court: ...[I]f POSCO puts up a steel plant...[t]he impact on the economy would be much greater – 8, 70,000 person years of additional employment each year over the next 30 years... [and] cumulative tax revenue of Rs 1,74,970 crore, in nominal terms, to the State Government of Odisha (GoO) and the Government of India (GoI) over the useful life of 35 operative years...” (Affidavit filed by the Government of Odisha in the GoO affidavit, Odisha High Court, 23 May 2011, pp 9-10).

- 3 See POSCO-India (nd), “Economic Impact of POSCO-India Project: Based on the Study by NCAER”, viewed on 23 November 2012, <http://posco-india.com/File/NCAER-Brochure-eng.pdf>
- 4 Despite some claims that 8.7 lakh additional jobs will be created, this is a misrepresentation of even the NCAER's calculations. As is explained in the next section, 8.7 lakh person years of employment is not equivalent of 8.7 lakh “additional” jobs.
- 5 To be comprehensive about what ails the POSCO India project, it is important to register that the other important faultline at the centre of the debate pertains to the violation of procedures and the requirements of law in the clearances granted to the project, namely, the Coastal Regulation Zone Act (CRZA), the Environmental Protection Act (EPA) and United Progressive Alliance (UPA)-I's landmark Forest Rights Act (FRA) (see Mandavilli et al 2007 for detailed discussion on these violations). However, in this paper, we restrict ourselves to an investigation of the first fault line – the claims made about economic benefits and costs.
- 6 The ADB guidelines state: “The comparison of ‘without-project’ and ‘with-project’ situations is at the heart of the estimation of net benefits for any project...The without-project situation is often inaccurately described. The without-project situation is that which would prevail without the project. It is not the implementation of the next best project alternative, unless there is clear evidence to suggest that this is most likely to be the case. Similarly, the without-project situation is not the delayed implementation of the same project. In most cases, it is a modification of the existing circumstances. In comparing project alternatives, the without-project situation follows the same scenario, and provides the basis for comparing with-project net benefit flows for each project alternative” (ADB 1997). (Though the guidelines were first developed in 1993, we refer throughout to the updated 1997 version.)
- 7 See GoO (2005), “Government of Odisha Signs MoU with POSCO of South Korea for Establishment of an Integrated Steel Plant at Paradeep”, 22 June, viewed on 20 November 2012, <http://www.Odisha.gov.in/posco/pressnote.htm>
- 8 NCAER defines an EM as the total number of jobs created per Rs 1,00,000 output in a sector due to backward linkages with the rest of the economy. Steel production has an estimated EM of 0.69 and hence for each lakh rupees of steel output, a total of 0.69 jobs are expected to be created in various related sectors.
- 9 In other words, POSCO's production of iron ore and steel would generate an additional 63,984 jobs in the cotton and other textile products sector, 1,59,734 additional jobs in the “trade” sector, 5,809 additional jobs in the “animal husbandry” sector and so on (NCAER 2007: 18-19).
- 10 Others such as Deshpande (2010) have pointed to the same problem in relation to other analyses that the NCAER has been involved in.
- 11 For instance, these include the ADB guidelines that finally emerged out of a range of 1970s and 1980s debates, including the Morse report on the Sardar Sarovar Project.

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