Refining Socioeconomic Impact Assessment with Practical Evidence from Saudi Arabia

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INTRODUCTION

Private participation in infrastructure projects in Saudi Arabia largely consists of joint ventures between foreign consortiums and government or quasi-government entities. The legal contracts therefore represent a negotiated balance between government and private needs. However, recent environmental legislations and negotiations over potential foreign participation in the oil and gas sector reveal that emphasis has also being placed on another set of public interests, those of local project-affected people. Environmental assessment of development projects is not new in Saudi Arabia. It has been practiced – although rarely – for over twenty-four years by large governmental enterprises. Only recently the conducting of EIA has become mandatory. Consequently, the foreign consortiums have taken substantial measures to take these non-governmental public interests into account. It is likely that these are only attempts to raise their own profile as socially responsible corporations and are inconsequential to their ultimate negotiation demands. However, given the recent history of violent and costly local opposition to public-private energy infrastructure projects in countries like Nigeria, Columbia, Chad, and Pakistan due to lack of adequate assessment and addressing of local interests increasingly poses a risk both to project stability and corporate reputation. And, more especially so given the long-term and costly nature of these projects, it therefore seems likely that such measures are also extensive political risk analyses and mitigation measures. It is less clear, however, how those corporations can go beyond merely documenting local needs and interests to actually address them.

Although large national public enterprises in Saudi Arabia such as Saudi Aramco and the Royal Commission for Jubail and Yanbu conduct both SIA and EIA surveys for all major projects, the SIA surveys conducted by Rabigh Joint Venture, Luksar, EniRepsa, and SSG were the most comprehensive and extensive ever done in Saudi Arabia, and the first of their scale for major public infrastructure projects. Key stakeholders were considered, and community members of the area within the project areas were interviewed. One community leader respondent has mentioned that they have experienced several major development projects like this one, but this is the first time they have experienced the local needs and their concerns were sought before commencing a project. One major result from these SIA was that there was a reservoir of good will and a general presumption that the project is important and good for the country. However, there were concerns over lack of information and lagging notification of plans for compensation, loss of lands, the environment, and damage to local culture. The SIA studies raised hopes about boosting the local economy, employment opportunities, and access to energy for their own consumption as well as national income to be generated from its exporting. Understanding these possible motivations is important in assessing whether the private sector both can and will go beyond the ex-ante prediction of adverse impacts, and will truly address local needs and interests. Despite claims that any such SIA studies in Saudi Arabia are problematic because people cannot be expected to express opposition to projects that are clearly national priorities, and despite other more logistical imperfections, our SIA studies were comprehensive and thorough, and identified specific needs and interests of project-affected communities, and therefore set a useful precedent. Second, the SIA studies outlined many ways the

corporations can indeed play a useful role in addressing local interests. An inventory of heritage sites, and natural parks and reserves should be taken so the projects can avoid them. Also, development funds could be established to fund development priorities of each affected area. Local labor could be used to increase employment opportunities. Contracts signed with the construction teams could include clauses, incentives, and penalties to encourage environmental protection, reparation of damaged local roads or irrigation systems, and further identifying sensitive sites to avoid. Construction teams could also be encouraged to buy food and supplies in the local economy and so on. It is less clear, however, that foreign corporations alone can and should be relied on to voluntarily play a leading role in addressing local interests and needs in all infrastructure projects.

LITERATURE REVIEW

Social Impact Assessment (SIA) is a methodology used to measure the social effects from proposed projects or policy actions. SIAs are applicable to a wide range of situations. These situations however, are mostly single-site projects that have a natural resource focus such as water, oil, and gas. Here, the Social Assessment focuses on exploring project alternatives with a view to minimizing the negative aspects of the project and maximizing the positive ones. While the steps of the SIA process are well documented by the Interorganizational Committee on Principles and Guidelines for Social Impact Assessment (ICPG, 2003), there is less agreement on the methods for identifying impacts (Lockie, 2001). Therefore, approaches used for various types of social and economic impacts vary widely from one project to another. Social (impacts on people and communities) and economic (impacts on material well-being and economic activities) impacts should be broadly defined if significance determinations are to be effective (Burdge, 2003; Vanclay, 2003). Definitions should encompass direct and indirect, positive and negative, real and perceived, social, cultural, heritage and economic impacts on people, communities, and society. Significance determination involves subjective judgments about importance (Sippe, 1999). Significance judgments are made throughout the EIA process. They are directly linked to decision-making, and they vary by context (Kjellerup, 1999). Specialists, the public, and the other stakeholders all can contribute to determining significance. Table 1 shows thresholds, criteria and measures that can help in deriving significance judgments. There are various methods of significance determination (e.g. objective, statistical, legal, administrative, and what people believe to be important). These versions can be used alone or in combination according to the needs of the analysis.

Significance thresholds are performance levels that establish significance. There are many threshold types (e.g. legal, intensity, functional, normative, controversy, Preference) (Haug et.al, 1984). Thresholds can be quantitative or qualitative, generic or linked to location or impact type (Hildén, 1997). Although intended to minimize ambiguity and increase consistency, most thresholds require interpretation. Community involvement is essential in thresholds setting and application. Problems can occur when thresholds are misapplied (e.g., creating conflicts).

Significance criteria differentiate factors contributing to significance judgments. They can facilitate more informed, consistent and explicit decision-making (Sippe, 1999). There are generic and feature-specific criteria. Criteria can be refined through scaling levels and measures. They are formulated and applied through a process – a process that tends to be more effective when interested and affected parties collaborate.

Context is about the wider public concerns and values that structure and bound SIA and environmental assessment practice (Sadler, 1996). Impact significance varies with context. There are many context types. Context is dynamic, operates at multiple levels, and shapes how people respond to a proposed action (Canter and Canty, 1993; Joyce and MacFarlane, 2001). Recently, a middle ground (e.g. flexible criteria for classes of situations) is emerging between standardized and case-by-case approaches to significance determination.

Table 1 Socioeconomic Significance Criteria and Situations

Criteria	Situations
Threshold of significance	▪ An effect is permanent/irreversible ▪ Receptors are highly sensitive or significant ▪ Intensity, magnitude, scale, or duration of impacts is high ▪ Activity inherently causes significant impacts
Generic Criteria	▪ Positive vs. negative, Direct vs. indirect ▪ Degree, intensity, or magnitude ▪ Reversibility ▪ Size of community impacted ▪ Sensitivity, stability, and resilience of receptors ▪ Mitigation potential
Feature specific Criteria	▪ Population levels ▪ Social processes and functions (e.g., cohesion, identity) ▪ Hazards and risks from the project (e.g., health, safety) ▪ Impacts from the project (e.g., displacement, disruption, land use, aesthetics, facilities, incomes)
Quality and effectiveness Criteria	▪ Significance determination process (e.g., explicit, procedures for thresholds and criteria, stakeholder roles) ▪ Significance determination methods (e.g., comprehensive, focused, explicit, readily applicable) ▪ Data quality (e.g., utility, objectivity, integrity)
Context	▪ With a social, a political, a legal/administrative and/or economic context ▪ From the perspective of various potentially affected stakeholders ▪ Within a sustainability context

Sources: Bass and Herson, 1993; Canter, 1996; Canter and Canty, 1993; USCEQ, 1997; GLL, 2001; ICPG, 2003.

SOCIAL AND ECONOMIC IMPACTS MOST LIKELY TO BE SIGNIFICANT

Identification of the significant impacts and the degree of their significance is a daunting task. Observations of impacts of public projects reveal that the interpretation and presentation of the data identified in the SIA are often difficult. In case of community stabilization, for example, do we refer to stabilization of community character or to creating jobs and income? This level of detail makes it difficult to delineate between ongoing changes and those resulting from the proposed actions. Whereas specialists can only predict particular kinds of impacts, such as jobs, that allows them to make corresponding predictions of long-term, indirect impacts.

In addition, social and economic impact significance determinations are not completely context dependent. Certain seemingly unrelated social and economic impacts are frequently considered especially important. Health concerns in their broader perspective (e.g. well-being, aboriginal spirituality), for example, are often considered important, especially when low probability/severe risks, or unique/unknown risks are involved (Erickson, 1994; IAIA, 2003). Displacing and relocating people, and displacing or foreclosing the use of cultural, heritage, and recreational features, uses, and resources are often considered significant impacts (Morgan, 1998). Also, direct conflict with public-approved plans, policies and standards is generally a major concern (UNEP, 2002).

A related issue is identifying second-order, indirect, or higher order change processes. Many impacts identified in the SIA represent first-order social changes that are merely intervening variables that could lead to social impacts, but are not impacts per se. Population change is one example. Our SIA studies concluded that the communities would experience a change in population, but it did not provide details of the implications of this change. Will it be easier to retain businesses

and increase local re-investment? What will happen to the quality of education or the ability to provide emergency services? How the distribution of income be affected?

As with any SIA, these impacts are difficult to specify but are essential for the purpose of decisions and mitigation. Therefore, it is necessary to move beyond only interpreting the significance of individual impacts and to devote more attention to the importance of composite effects on individuals and communities, from both a proposed action and from other sources (Wolf, 2002). Particular concerns include livelihood, quality of life, service access, and value conflicts (Vanclay, 1999).

Impacts (e.g. employment, revenue, income) that trigger multiple secondary and tertiary impacts tend to be considered more important, both because they induce additional impacts and because of their critical impact management role (Glasson, 1995). Also frequently important is the ability and willingness of communities to change. Many factors influence the ability of communities to adjust to change (IAIA, 2003). It is often desirable to shift away from coping with change toward building social capital and facilitating community empowerment and sustainability (Taylor et.al, 2003; Wolf, 2002).

Social and economic impacts are generally considered more important when the disadvantaged, vulnerable and marginalized members and segments of society are adversely or disproportionately affected (ANZECC, 1991; UNEP, 2002). There are many forms of inequity, and examples of factors and measures for preventing and offsetting inequities. Experience in the United States in addressing environmental justice could be instructive. Broadening the consideration of vulnerabilities and inequities to address procedural justice, relational justice and economic opportunities can facilitate social and economic significance interpretations (IAIA, 2003).

In short, the analysis of significance of the social and economic impacts demonstrates the dangers of limiting significance determination to physical impacts, to legal standards, to individual impacts, and to negative impacts, and the value of an integrated approach that includes the social, the economic, the physical, and ecological aspects. It illustrates the importance of considering interconnections, of addressing impacts at the community level, of exploring the distribution of effects, of working collaboratively with stakeholders, of drawing upon experience and comparable situations, and of making contextual adaptations.

DETERMINING THE SIGNIFICANCE OF SOCIAL AND ECONOMIC IMPACTS

Numerous approaches and methods can facilitate social and economic significance determination. Frameworks can guide and structure significance determinations. Good practice guidelines and criteria can facilitate interpretations of significance (ICPG, 2003). Public understanding, participation and support are essential. EIA requirements, policies and judicial decisions, the knowledge base, and general principles and good practices can help frame significance determinations. Knowledge and action limits must be appreciated.

Thresholds and criteria are frequently applied, as mentioned earlier, to facilitate more explicit and consistent significance determination. Various threshold and criteria types (e.g. legal, technical, functional, receptor sensitivity / significance, generic, sustainability, public preference) can be employed (Haug et.al., 1984; Sippe, 1999). Numerous methods are available for structuring and applying thresholds and criteria. Uncertainties and subjective judgments are central to threshold and criteria formulation and application (GLL, 2001). Uncertainty management and extensive stakeholder involvement are critical.

Technical significance determination methods can be qualitative, quantitative or a combination. Numerous technical method types can support social and economic impact significance determinations (Hildén, 1997; Leistritz, 1998). The characteristics, benefits and limitations of method types (and the means to offset limitations) need to be appreciated. Consideration also needs to be given to procedures for integrating qualitative and quantitative methods.

Social and economic impact significance can emerge from a participatory planning process. A range of participatory approaches, from the specialist-driven to the publicly driven, are available. Potential roles for different parties (e.g. specialists, community representatives, facilitators) should be identified (Beckwith, 2000).

Many methods can support both technical and participatory significance determinations. General public consulting, scoping, uncertainty management, distributional analysis, communications and data collections and analysis methods can be adapted and integrated into either technical or participatory significance determination approaches.

Significance is determined through a staged process. Significance determinations also are incorporated into the EIA / SIA process (GLL, 2001). There is a role for significance determination in each EIA / SIA process activity (Canter, 1996). Significance determination methods vary among EIA activities. It is possible to derive the preferred attributes of and good practice standards for a significance determination process. Composite approaches combine frameworks, thresholds, criteria, technical methods, participation approaches and support methods (Seebohm, 1997). Collaborative approaches, with technical and quantitative analyses in a support role, are generally preferable for social and economic significance determination.

ANALYSIS OF CASE EXAMPLES

Five case examples (Table 2) were compiled and evaluated. These case examples provide a potential source of ideas, and portray several themes, lessons and insights, pertinent to social and economic significance determination, which may warrant closer scrutiny and adaptation in other situations. However, since each case is complex and unique, broader lessons should be approached with great caution.

Table 2 Case examples for significance determination

Case Example	Themes
The Asian Development Bank (guidance documents)	Significance and social policies and priorities
Doris North (gold mine in Nunavut, Canada)	Significance in a strategic environmental assessment
The Saudi-Bahrain oil pipeline (KSA and Bahrain)	Significance and scale of socioeconomic impacts
Gas exploration projects (Rub Al-Khali, KSA)	A social and community-based perspective on significance
Rabigh Refinery Joint Venture project (Rabigh, KSA)	Significance and economic impact analysis

Sources: ADB, 2003; Authors' works, 2005.

DISCUSSION

The corporate responsibility and the operating standards of the oil companies and businesses in the area have perpetually been seen as generally below accepted international standards. For example, oil companies carried out oil exploration and exploitation for over six decades without proper environmental impact assessments and most times, these were performed *post factum*; a situation that would be absolutely untenable in advanced countries that are home to most of the major oil companies.

Hard lessons learnt by the societies and the corporations reveal that neglect of people and their issues result in the prevailing crisis between the communities; communities and multinational;

communities and the governments. It appears that the current EIA approach used in the projects discussed is deficient, as it does not take in full consideration of social concerns.

A recent World Bank survey given to a number of the most well-known multinational oil, gas, and mining corporations showed that twelve out of seventeen respondents comprehensively assess environmental implications of their projects in developing countries, and only seven of the seventeen comprehensively assess social implications. Therefore even these higher-profile companies pay uneven attention to environmental and social impact assessments concerns. Lower-profile and less scrutinized companies are even less likely to perform these assessments.

Naturally, the lower the perceived risk to project stability or company reputation, the less inclined companies will be to assess and address local needs. SIAs are important but always likely to be done within the schedules and imperatives of the projects themselves. Perhaps the Environmental and Social Management Plans are not currently enjoying higher media profile because the perceived social, environmental, and reputation risks are low.

Moreover, smaller companies do not always have the capital necessary to conduct extensive surveys and address local concerns. This is especially relevant in Saudi Arabia as the government is encouraging smaller domestic companies to become more active in investing in infrastructure projects. And lastly, although there has been much formalization and modeling of political risk in the last few decades, most political risk analysis and mitigation methodology is imperfect due to problems of incomplete empirical data and subjective and impressionistic approaches. Relying only on the private sector to voluntarily play a leading role in addressing local public needs will clearly not guarantee that these needs be met.

The governments are therefore being called upon to increase their involvement in monitoring and coordinating public-private infrastructure projects. Saudi Arabia can increasingly work to disseminate project-related information. Second, Saudi Arabia's legal system must be continuously strengthened by the Saudi Arabian government, lawmakers, and academics, as well as by development organization and agencies.

Under WTO law, the government must ensure implementation and enforcement of WTO-consistent regulations throughout the country. This could help increase norms of transparency, accountability, and legalism.

Increased use of the ISO 14000 standards on environmental management could help the implementation of actions supportive to sustainable development. By making achieving ISO 14001 standards a term of investment, the corporations could also encourage to adopt these environmental management system standards. These voluntary standards are not costs without benefits, but would mitigate environmental risk as well as produce tangible economic benefits such as reduced raw material use and energy consumption, increased process efficiency, reduced waste generation and disposal costs, and utilization of recoverable resources.

CONCLUSION

In addition to simply identifying local needs and interests through social and environmental impact assessments, the corporations must be committed to addressing them, and to ensuring that benefits are fed back to project-affected communities as part of their commitment to sustainable development.

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