

## Chapter 2

# Citation and Related Works

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The review of literature consists of conceptual literature concerning the concept and theories empirical literature consisting of studies made earlier which are relevant to one proposal.

In any scientific investigation a comprehensive review of relevant literature is essential. Its main function, apart from determining the work done before concerning the problem area, is to provide an insight into the methods and procedures and create a basis for interpretation of findings. At direct reference on all items are not is abundance certain specific references along with some indirect references have been incorporated in this chapter for purpose of meaningful use.

According to **Fleishman (1967)** better ways are needed to generalized the research findings from laboratory studies to operational settings from one experimental study to another and from one operational setting to another.

The review of literature relevant to the study are presented under the followings sub heads

- Concept of Environmental Impact Assessment in India and abroad

- Extent of Environmental Assessment of different polluted areas
- Factors affecting Environmental Impact Assessment (EIA)
- Needs and benefits of Rapid Environmental Impact Assessment (REIA)
- Socio-economic impacts of Rapid Environmental Impact Assessment on polluted areas.

**A. Concept of Environmental Impact Assessment in India and Abroad:**

Rapid Environmental Impact Assessment (REIA) can be conceptualized in various ways.

**Agarwal and Ghosh (1991)** identified that India is very rich in terms of not only species diversity but is blessed with an enormous variety and variability (genetic diversity) within species along with the presence of majority of which are expected to be micro-organisms and invertebrates a large number of endemic species. The Ministry of Environment & Forests, Government of India, has set up an Environmental Information System (ENVIS) Centre on Faunal Biodiversity in the Zoological Survey of India at Calcutta to collect, computerized and disseminate all available information on the enormous animal diversity of the country. The Ministry has also directed the ENVIS Centre to publish a special volume befitting with the subject allotted to the Centre to commemorate.

According to **Canter (1996)** Environmental Impact Assessment process has been developed for evaluation of the possible impact of development and operations on Environment, including the natural, social and economic aspects. In this article, an EIA methodology based on analytic network

process and fuzzy simple additive weight is proposed to formulate the environmental risks pertaining to development projects.

**Marry (1997)** Environmental Impact Assessment in The United Kingdom and Germany studied that one of the objectives of the European Directive on Environmental Impact Assessment (EIA) was to harmonize environmental controls in the European Union. This volume examines and compares environmental impact assessment (EIA) practice for wastewater treatment plants in the United Kingdom and Germany. It looks at the wider context in which EIA Processes for wastewater treatment plants operate in the two countries; geographical and institutional differences and differences in environmental policy-making and wastewater management are outlined; the formal implementation of the European EIA directive in the United Kingdom and Germany is examined. Based on empirical research in the two countries, it outlines how EIA processes differ in practice. It explains similarities and differences and suggests improvements to both EIA-systems.

**Modakand Biswas (1999)** conducting study on Environmental Impact Assessment in developing countries and said that EIA can broadly be defined as a study of the effects of a proposed project, plan or program on the environment. The legal, methodological and procedural foundations of EIA were established in 1970 by the enactment of the National Environmental Policy Act (NEPA) in the USA. At the international level, lending banks and bilateral aid agencies have EIA procedures that apply to borrowing and recipient countries. Most developing counties have also

embraced and are in the process of formalizing EIA through legislation. The paper highlights the evolution to current status, the legal framework, concepts, processes and principles of EIA and associated studies.

**Morris and Therivel (2001)** reported that Environmental Impact Assessment was evaluated in order to explore whether EIA's is valuable in terms of impact prediction in the tourism sector, which is an important worldwide socioeconomic activity. This study evaluate 13 selected projects including marine, hotels, leisure centre, tourist roads and tourist housing complex. Based on Lee and Colley review package for analysis of EIA's and others literature review, the impact prediction on EIA's for each environmental component were analysed in order to assess its effectiveness. The methodology was adapted to identify tourism key impacts which the activity can cause, and evaluate if these issues have been addressed into the EIA's in tourism Sector. The analysis of potential tourism impacts for each environmental component has been done through a checklist, based on literature review of tourism impacts and it was the basis for the impact identification in the sampling of EIS's.

**Sadgrove (2005)** reported in study on A-Z of Corporate Environment Management that the identification of current demands on environmental resources is accomplished through a rating of how well the disaster victims' basic needs are being met. Needs that are not being adequately met pose the greatest immediate threat to the environment and require attention in assistance planning and provision.

**Franks and Vanclay (2012)** The social impacts of the planned windfarm 'Wind park No or doostpolder' on the village of Urk are considered. Generating 190 megawatts (MW) when operational, the windfarm will be the largest in the Netherlands. Urk residents will experience a variety of negative impacts including a reduction in the aesthetic quality of their landscape, and their community identification and place attachment will be affected. The windfarm will also reduce leisure and recreation opportunities. While construction of the windfarm will arguably increase options for economic prosperity and employment, these benefits will flow to temporary construction workers who will likely come from elsewhere, and who will themselves be a cause of negative social impact and potential harm to the Urk community given its particular social independent identity and a sense of islandness. The windfarm project has generated strong feelings and has mobilized community action against the project. With their appeal rejected, the Urk community feels betrayed and considers that their concerns have not been taken seriously.

**Langbroek and Vanclay (2012)** In a work found that hundreds of people made contributions to the discussions at conferences of the International Association for Impact Assessment and elsewhere that have been incorporated into this document. Some people deserve special mention because of their particularly significant contribution, including: San-Marie Aucamp, James Baines, Hilda Bezuidenhout, Eelco de Groot, Damien Eagling, Gabriela Factor, Cornelia Flora, Nora Götzmann, Philippe Hanna, Angelo Imperiale, Deanna Kemp, Ivo Lourenço, Lucy McCombes,

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Behrooz Morvaridi, Ciaran O’Faircheallaigh, Marielle Rowan, Helen Russell, Rauno Sairinen, Arn Sauer, Frank Seier, Eddie Smyth, Mike Steyn, Nick Taylor, Lidewij van der Ploeg, Francesca Viliani, and Jorge Villegas.

**Vanclay (2012)** In a study on the potential application of Social Impact Assessment in integrated coastal zone management found that it would be significantly enhanced if there was greater connection to the field of social impact assessment (SIA). SIA is the process of managing the social issues of planned interventions (projects, policies, plans, and programs). SIA can also be used to consider the effects of gradual landscape change. Key concepts in SIA that are applicable to ICZM include: sense of place and place attachment, is landless, cumulative effects, social carrying capacity, not in my backyard (NIMBY) responses, resilience and vulnerability, corporate social responsibility, social legitimacy, social license to operate, sea change communities and second home ownership. SIA incorporates stakeholder analysis, public participation and community engagement not only to predict the impacts of planned interventions or policy changes, but also to develop effective adaptive management and enhancement strategies. The paper presents a general case outlining the potential use of SIA in ICZM, with reference to the Wadden Sea Region where applicable. Important lessons (aphorisms, frankisms) from SIA are highlighted.

#### **B. Extent of Environmental Impact Assessment**

**Lacarin and Reed (1999)** reported that Emergency Shelter Environmental Impact Assessment and Action Checklist provides emergency shelter project managers and field staff a means to Quickly assess shelter-related

environmental impacts and, Quickly identify practical local actions to address these impacts. The Checklist is based on an assessment and action tool developed in Sri Lanka following the Emergency Shelter Policy with Regards to Environmental Issues.

**Vanclay (1999)** In his book *Social Impact Assessment*, said that while impact assessment applied to a dam represents another application of the methodology, and therefore the objective of improving the impact assessment process and procedure in relation to dams is enhanced through general improvement of the methodology, there is so much other literature addressing improvement of SIA (and impact assessment generally) (see Burdge & Vanclay, 1995; Vanclay, 1999a), that it is more appropriate in this paper to concentrate on the application of SIA to dams rather than to discuss general issues about SIA. Nevertheless, because from a SIA perspective dams are not particularly different than many other developments that affect local peoples, some generalities will be given.

**Hosseini, et al. (2002)** Kyushu University environmental impact assessment of sabalan geothermal power plant studied that Environmental Impact Assessment (EIA) of Sabalan geothermal power plant project in the northwestern part of Iran using Rapid Impact Assessment Matrix (RIMA) method is presented. Current evaluation suggest monitoring program and mitigation plans. Present state information on the regions environment including physical, biological and social environment was collected during 2000-2003, before starting the proposed project activities. In the evaluation process, positive and negative environmental impacts of

Sabalan geothermal power plant were assessed based on the results of multi-disciplinary team approach and the field survey data using RIMA method.

**Vanclay (2002)** The conceptual framework based on environmental function evaluation of Slootweg et al. was used as the basis for conceptualizing social impacts. Existing lists of social impact variables, such as those of the Inter organizational Committee for Guidelines and Principles for Social Impact Assessment, are examined and found to be inadequate and contradictory. A new listing of some 80-odd indicative social impacts is developed reflecting a change from project-based thinking to inclusion of the impacts of policies and programs, from thinking only about negative impacts to including positive benefits, and from thinking about unintended consequences to including intended consequences. The importance of differentiating between social impacts and social change processes is highlighted. Many of the variables typically measured in social impact assessment (SIA) studies are not in themselves impacts, but rather represent the measurable outcomes of social change processes, which may or may not cause impacts depending on the situation. Caution is expressed in the use of the list of impacts as a checklist.

**Bisset (2002)** prepared with the input, advice and suggestions of a number of persons and cooperation of a number of organizations. Mario Pareja, John Twigg (Benfield Hazard Research Centre) and Sigrid Nagoda (CARE Norge) were actively involved in the development of the REA and in reviewing drafts. Patricia Charlebois provided critical suggestions on REA



Version 1.0, as well as overseeing the UNEP funding for the REA development.. The development of the REA also profited from extensive work by UNHCR on refugees and the environment, led by David Stone, and the development of a UNHCR Handbook for Environmental Assessment by Ron Bisset. Debbie Williams, formerly of Benfield Hazard Research Centre, provided input into early REA drafts.

**Knox (2002)** Environment Impact Assessment (EIA) is a practice to be done before any venture or significant movement is attempted to guarantee that it will not at all damage the environment on a long haul premise.. The point of an EIA is to guarantee that potential effects are distinguished and tended to at an early stage in the ventures arranging and plan. To accomplish this point, the appraisal finding is conveyed to all, who will settle on choices about the proposed ventures, the venture engineers, and their financial specialists and in addition controllers, organizers and the government officials. So that EIA can shape the venture with the goal that its advantages can be accomplished and managed without bringing about unfriendly effects. Thus, this article, by tracing the evidence from various case studies related to the EIA from various sources of secondary data, including from various literatures, texts. Hence this article, by tracing the evidence from history provides a background, how over the year and the EIA is converted into the project justification tool rather than project planning tool.

**Vanclay (2003)** The “International Principles for Social Impact Assessment” is a statement of the core values of the SIA community

together with a set of principles to guide SIA practice and the consideration of 'the social' in environmental impact assessment generally. It is a discussion document for the impact assessment community to be used as the basis for developing sector and national guidelines. In the process of being developed explicitly for an international context, increasing pressure was placed on the conventional understanding of SIA and a new definition, with official imprimatur of an international professional body, has been formalised. "Social Impact Assessment includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment."

**Kohli and Menon (2005)** In a study mentioned that environment has supported and maintained life on earth since several decades and will continue the same in future also. But the existence of environment in future without degradation is possible only through sustainable development. The complete protection of the environment can be ensured through massive public awareness programs and public participation. So this paper is looking on the different strategies adopted through various legislations for an effective protection of environment. The strategies also may adopt through indigenous community knowledge, technology and adopting new innovative practices in everyday life. As the Earth Summit

emphasized, the active participation of the NGOs for this purpose will generate cooperation between people at the grass root level in policy making for the sustainable growth. At last the paper discussing the importance of Environmental Impact Assessment before initiating any project which is prejudicial to environment.

**Vanclay (2006)** in a paper considered a range of ethical issues in social impact assessment (SIA) providing a commentary from a professional practice perspective. While the ethical principles are highly relevant and align well with good practice SIA, there will be situations where the specific requirements suggested by the principles need to be carefully thought through by practitioners. Key recommendations that emerge for SIA practice include the need for SIA practitioners to use information sheets routinely, and to increase the use of signed consent forms.

**Chakraborty, et al. (2008)** studied Atmospheric Environment and said measurements of CO<sub>2</sub> (direct GHG) and CO, SO<sub>2</sub>, NO (indirect GHGs) were conducted on-line at some of the coal-based thermal power plants in India. Instrument IMR 2800P Flue Gas Analyzer was used on-line to measure the emission rates of CO<sub>2</sub>, CO, SO<sub>2</sub>, and NO at 11 numbers of generating units of different ratings. Certain quality assurance (QA) and quality control (QC) techniques were also adopted to gather the data so as to avoid any ambiguity in subsequent data interpretation. The emission coefficients determined for CO<sub>2</sub>, CO, SO<sub>2</sub>, and NO have been compared with their corresponding values as obtained in the studies conducted by other

groups. The total emissions of CO<sub>2</sub>, CO, SO<sub>2</sub>, and NO calculated on the basis of the emission coefficients for the year 2003–2004.

**Ahmadv and, *et al.* (2009)** The success of developmental interventions depends on the attention paid to its social background due to its complex and multi nature and people's reactions against its effects. Social impact assessment (SIA) defined as step by step management of developmental plans' impacts to reach sustainability especially social dimensions and its purpose is a level of development that minimizes the cost and maximizes the benefits of planned interventions on human societies. Participation of people has an axial role in SIA and shows conditions that people are ready to cooperate with developmental plans.. The present study aims to investigate the philosophical and theoretical foundations of SIA and analyses its role on increasing people's social partnership and empowerment, applying stakeholder's knowledge and information, dialogue, negotiate and transparency in project management and conflict management among different stakeholders.

**Macreadie, *et al.* (2012)** studied that Human activities in coastal areas frequently cause loss of benthic macrophytes and concomitant increases in micro algal production through eutrophication. Analysis of stable isotopic ratios of <sup>12</sup>C/<sup>13</sup>C showed that the relative contribution of sea grass and C3 terrestrial plants (mangroves, saltmarsh) to detritus declined around the time of rapid industrial expansion, coinciding with an increase in the contribution of micro algal sources.

**Alan, et al. (2012)** Sustainability assessment is a recent framing of impact assessment that places emphasis on delivering positive net sustainability gains now and into the future. It can be directed to any type of decision-making, can take many forms and is fundamentally pluralistic. Drawing mainly on theoretical papers along with the few case study examples published to date (from England, Western Australia, South Africa and Canada), this paper outlines what might be considered state-of-the-art sustainability assessment. We postulate that sustainability assessment may be at the beginning of a phase of expansion not seen since environmental impact assessment was adopted worldwide.

**Franks and Vanclay (2013)** Social Impact Assessment (SIA) has traditionally been practiced as a predictive study for the regulatory approval of major projects, however, in recent years the drivers and domain of focus for SIA have shifted. This paper details the emergence of Social Impact Management Plans (SIMPs) and undertakes an analysis of innovations in corporate and public policy that have put in place ongoing processes – assessment, management and monitoring – to better identify the nature and scope of the social impacts that might occur during implementation and to proactively respond to change across the lifecycle of developments. Performance Standards require the preparation of Environmental and Social Management Plans for all projects financed by the IFC identified as having significant environmental and social risks. Social Impact Management Plans were developed as part of an Environmental Impact Statement, which included assessment of social

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impacts. Collectively these initiatives, and others, are a practical realization of theoretical conceptions of SIA that include management and monitoring as core components of SIA.

**C. Factors affecting Environmental Impact Assessment (EIA)**

Rapid Assessment Procedures - Qualitative Methodologies for Planning and Evaluation of Health Related Programmes, Nevin S. Scrimshaw and Gary R. Gleason, Editors, International Nutrition Foundation for Developing Countries, Boston, 1992

The International Conference on Rapid Assessment Methodologies for Planning and Evaluation *Health Related Programmes* were the forum for the presentation that served as the basis for most chapters in this book. The 42 chapters on Rapid Assessment Procedures (RAP), Rapid Rural Appraisal (RRA) and related approaches in this volume deal with research tools that offer strong potential both in national and international public health and other areas. A wide range of RAP and RRA applications is provided along with insight into the core concepts on which they rest and the methods that are used.

**Menon and Kohli (2007)** Development is a continuous process and is essential to enable the population to attain a better standard of life. But it should not be at the cost of the environment. The challenge of a development pattern striving to harmonize economics with social and environmental need requires active citizen participation in public issues. Involvement of the public is one of the fundamental principles of a successful EIA process. It not only provides an opportunity to those directly affected by a project to express their views on the environmental and

social impacts of the proposal but also brings about transparency in the environmental clearance system. The present paper tries to identify the key anomalies and deficiencies by analyzing the minutes of a number of public hearings covering diversified sector in Odisha followed by discussion with project proponent, project affect people and officials of regulatory agencies.

**Panigrahi and Amirapu (2012)** Environmental impact assessment (EIA) was first introduced in India based on the Environmental Protection Act (EPA), 1986. But formally it came in to effect, when Ministry of Environment and Forest has passed a major legislative measure under EPA in January 1994 for Environmental Clearance (EC) known as EIA Notification, 1994. The current practice is adhering to EIA Notification, 2006 and its amendments. The pieces of evidence collected and analysis in the present assessment suggest that, despite a sound legislative, administrative and procedural set-up EIA has not yet evolved satisfactorily in India. Overall, EIA is used presently as a project justification tool rather than as a project planning tool to contribute to achieving sustainable development. While shortcomings are challenging, Government of India is showing a high degree of commitment.

**Chowdhury (2014)** reviewed two decades of significant case law developments in the environmental impact assessment process in India. EIA was first introduced as a regulatory requirement in 1994. EIA reflects the constant struggle to balance economic development with ecological integrity in the context of a developing country. The Courts have

developed a rich jurisprudence thereby considerably deepening and widening the EIA process.

**D. Needs and benefits of Rapid Environmental Impact Assessment (REIA)**

A Directory of Impact Assessment Guidelines, Roe, D., B. Dalal-Clayton, and R. Hughes, Environmental Planning Group, International Institute for Environment and Development, Nottingham, U.K. 1995 We would particularly like to thank the UK Department for International Development, the Netherlands Development Assistance of the Ministry of Foreign Affairs, the World Conservation Union and the International Association for Impact Assessment. The EIA Centre in Manchester and the IUCN Law Library in Bonn who provided database searches from their collections of impact assessment literature. A number of individuals deserve mention for their contributions to this edition: Bryan Spooner (consultant) for researching and writing Chapter 2: Review of the Quality of EIA Guidelines; and Barry Sadler (Institute of Environmental Assessment) for co-authoring Chapter 4: Strategic Environmental Assessment.

**Banham and Brew (1996)** in a review of the development of environmental impact assessment in India said, since the introduction of the environmental impact assessment notification of 1994, there has been considerable research related to EIA procedures in India. Research has emphasized predominantly 'developing appropriate regulations' and 'institutional procedures necessary to implement them'. As follow-up is usually associated with post-decision stages in EIA, a sound design stage is crucial for laying down its foundations. This paper explores follow-up



considerations during the pre-decision stage of open cast coal mines in India and demonstrates the challenges posed within the Indian context. In doing so, the outcome of EIA reviews undertaken by the expert committee and the EIA reports are reviewed. It even goes a step further by relating the follow-up design stage in India to international principles of best practices of EIA follow-up.

**Gray (2000).** International Environmental Impact Assessment-Potential for a Multilateral Environmental Agreement., Colo. J. IntEnvironment Impact Assessment (EIA) is a practice to be done before any venture or significant movement is attempted to guarantee that it will not at all damage the environment on a long haul premise. The point of an EIA is to guarantee that potential effects are distinguished and tended to at an early stage in the ventures arranging and plan. EIA can shape the venture with the goal that its advantages can be accomplished and managed without bringing about unfriendly effects. Lately, significant ventures have experienced genuine troubles in light of the fact that deficient record has been brought of their association with the encompassing environment.

Environmental Indicator Framework: A Monitoring System for Environment-Related Activities in Refugee Operations (User Guide), Engineering and Environmental Services Section (EESS) UNHCR, Geneva, 2002. Host governments and humanitarian organizations are responsible for assuring the welfare and security of asylum-seekers. The condition of the environment where those asylum-seekers are settled becomes a key factor in enabling them to fulfill this mandate. One reason for this is the

range of direct linkages that exist between refugees' sustenance and various products derived from the local environment. Refugees may depend on firewood and building poles from nearby woodlands, water from local aquifers or rivers, or crops grown on nearby fields. When water sources are over-used, refugees may turn to contaminated alternatives. If farmland is over-cultivated, then crop yields may decline, a particular concern in refugee settlements that are partly self-sufficient. Environmental concerns are therefore an integral part of overall humanitarian assistance, and are consequently relevant to all agencies with a mandate to ensure the well-being of refugees and asylum-seekers.

**Becker and Vanclay (2003)** This important Handbook presents an indispensable overview of the range of new methods and of the conceptual advances in Social Impact Assessment (SIA). Recent increased attention to social considerations has led to substantial development in the techniques useful to, and the thinking in, SIA. A distinguished group of contributors provides an up-to-date and comprehensive account of the cutting-edge in SIA development.

**Vanclay, et al. (2004)** Ideas of 'community' and 'community voice' have been mobilised in collaborative programs developed between the National Museum of Australia and the Murray-Darling Basin Commission since 1992. This collaboration is set within a broader context of changing ideas and practice around governance, community and environmental issues. The recent Murray-Darling Outreach Project (MDOP), a series of museum outreach projects with regional communities aiming to increase

community engagement in local environmental issues in the Murray-Darling Basin, is specifically examined. Evaluation research on the MDOP found that the approach to program development significantly shaped the types of voices, range of issues presented and the nature of the communicative forums established. The potential impacts on online audiences are discussed along with broader implications for government agencies involved in community partnerships.

**Kohli and Menon (2005)** This Research Report, based on a one year intense study and engagement, could not have been possible without moral and material support from the Girish Sant Memorial Committee, established to assist young researchers and activists to continue public-spirited work in the development sector, with a specific focus on energy and electricity. The Author, who by sheer co-incidence happens to share her birthday with Girish Sant, has drawn inspiration and energy from his life and work, as documented in numerous reports and also shared by his fellow-travelers. This Report could never have come this far, but for the extensive encouragement, detailed inputs, intense conversations, cogent critiques and consistent engagement of my mentors Shripad Dharmadhikary and Sreekumar Nhalur, from who I have indeed learnt A LOT in the past year.

**Russell, *et al.* (2010)** Traditional expert (or technocratic) approaches to Technology Assessment had been fundamentally challenged by two observations. The first is that social impacts are not side effects of technology; they are core dimensions of new technology and technological

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development, and are a function of the coproduction of technology and society. Secondly, technological developments are driven by particular visions for society that are normative. Because these are implicit and not negotiated by society, they are, in effect, undemocratic.

**Gralton, et al. (2011)**In the context of impact assessment (IA), 'enhancement' refers to deliberate attempts taken in the design and subsequent phases of projects, programmes, plans and policies to ensure the success of a wider range of direct and indirect positive outcomes to communities and/or the biophysical environment. This can be in the form of opportunities for social and community development, improved health and wellbeing, improved biodiversity, restored ecosystems and landscape character, and protected and respected cultural heritage. This first ever special issue on enhancement advocates that all forms of IA should consider opportunities for enhancement. Specific reference is made to strategic environmental assessment (SEA), environmental impact assessment (EIA), social impact assessment (SIA) and health impact assessment (HIA).

**Enticott and Vanclay (2011)** This paper explores the contribution of script theory to understandings of animal health risks. Script theory has long played an important role in studies of health and risk, yet the application of script theories is often vague and confused. Theories from different ontological perspectives are conflated resulting in an overly cognitive and asocial understanding of health behaviour with the potential to misinform health promotion strategies. Drawing on interviews with 61

farmers in England and Wales, the paper argues that farmers reveal animal disease to be a scripted event, but that these scripts also order identity and provide a form of moral accountability for farmers' behavior and relationships between farmers and government.

**Mukherjee (2012)** to address the important challenge of taking good care of India's environment, we require substantial, good quality, and reliable information. Unfortunately, such information is in very short supply. Most of it is collected through the state machinery. With a few notable exceptions like India Meteorological Department and the Indian Space Research Organization, the agencies involved exhibit a number of shortcomings. Three significant avenues for involving the public in generating useful environmental information, namely, preparation of ward-wise Environmental Status Reports by Local Bodies under the 73rd and 74th Constitutional Amendments, preparation of People's Biodiversity Registers by Local Bodies under Biological Diversity Act, and compilation of information generated through student projects under educational system-wide compulsory Environmental Education courses are being scarcely tapped.

**Mundra (2013).** The work of monitoring of environmental parameter of kandla port e.i water quality and air quality had been awarded to NIO Goa for a futher period of one year and result had shown that the various parameters were within the tolerable limit. Kandla Port Trust had entrusted the work of establishment of its Environmental Monitoring

Laboratory (EML) with the equipments, chemicals and glassware to NIO, Goa completion of all formalities for installation of the same.

**Franks and Vanclay (2013)** Social Impact Assessment (SIA) has traditionally been practiced as a predictive study for the regulatory approval of major projects, however, in recent years the drivers and domain of focus for SIA have shifted. This paper details the emergence of Social Impact Management Plans (SIMPs) and undertakes an analysis of innovations in corporate and public policy that have put in place ongoing processes – assessment, management and monitoring – to better identify the nature and scope of the social impacts that might occur during implementation and to proactively respond to change across the lifecycle of developments. Anglo American, a major resources company, has introduced a Socio-Economic Assessment Toolbox, which requires mine sites to undertake regular assessments and link these assessments with their internal management systems, monitoring activities and a Social Management Plan.

**Kemp and Vanclay (2013)** Historically, impact assessment practice has not explicitly considered human rights. That human rights are relevant to business has been confirmed through the United Nations Human Rights Council's endorsement of the 'Guiding Principles on Business and Human Rights'. Special Representative to the Secretary-General on business and human rights. Consideration of human rights should therefore be central to impact assessment for private sector projects, especially those affecting

livelihoods, environment, health, safety and security, land and property, culture and gender dynamics.

**Prenzel and Vanclay (2014)** The potential for conflict is omnipresent in all projects, and even in all human interactions, and conflict itself leads to many second-order social impacts. This article examines the contribution of the methodological approach used in social impact assessment (SIA) to conflict management. We demonstrate the potential use of SIA in preventing, managing and resolving conflict. In contrast to existing literature, our focus is not restricted to the typical fields of study of SIA but understands conflict itself as a field of application. In this sense, conflict-sensitive SEA can be understood both as an extension to the SEA tool kit and a broadening of the scope of SIA application.

**Hanna, *et al.*(2014).**The number of environmental license applications for projects affecting Indigenous peoples in Brazil has increased since the implementation of a major infrastructure program in 2007. This increase has caused problems for Brazilian agencies involved in environmental licensing procedures. We analyze the Brazilian environmental licensing procedure for situations involving Indigenous peoples, Maroons or other traditional communities in order to identify potential improvements for Brazil and potentially other countries. Although Brazilian procedures are consistent with international best practice in environmental licensing, in practice social impacts are inadequately addressed, mitigation measures are poorly implemented, and there is a lack of enforcement and compliance.

**Dutta, et al. (2015)** The Committee recommends overhauling the environmental justice processes and remedies, which will adversely affect access to justice of communities across our country. The existing law allows an Appeal to be filed before the National Green Tribunal by any aggrieved person within 90 days. The National Green Tribunal, established under the National Green Tribunal Act, 2010, has powers of both the 'judicial review' (that is, review of the decision making process) as well as 'merit review' that is, review of the merits of the decision). Further, the Tribunal has both original jurisdiction and appellate jurisdiction.

**E. Socio-economic impacts of Rapid Environmental Impact Assessment on polluted areas**

**Vanclay (1995)** addresses the weaknesses inherent in the social risk assessments undertaken for business, especially in the extractive industries. In contrast to the conventional approach that considers consequence to the company rather than to impacted communities, conformance with the United Nations Guiding Principles on Business and Human Rights requires that consequence to affected communities has precedence. Taking human rights impacts into account and using the dimensions of gravity, extent, vulnerability and remediability, nominate criteria to assess the significance of negative social impacts.

**Khan and Fitzcharles (1998)** Environmental Management Field Handbook for Rural Road Improvement CARE Bangladesh, USAID, The Food Aid Management (FAM) liaison center, in Washington, D.C., promptly



established an Environmental Working Group (EWG) which became very actively engaged in formulating approaches to help Cooperating Sponsors.

**Vanclay (1999)** described that the national highway which connects Mumbai to Kolkata, Environmental Impact Assessment (EIA) process for the proposed NH 6 Toll Road project has been undertaken in accordance with the EIA Regulations. Proposed project road will be connecting the villages and towns by providing better quality and safe roads to the users in a sustainable and environment friendly manner. Government of India through Ministry of Environment and Forests enforces Environment (Protection) Rules, 1986 for environmental protection because of intervention of new projects or activities, or on expansion and modernization of existing projects or activity based on their environmental impacts.

**World Business Council for Sustainable Development, (2005)** The CSI has examined all the major issues and offers in this document a set of guidelines for cement companies and local communities considering an ESIA. These guidelines build on existing excellent work in this field by others in which many of the concepts offered here for the cement sector are discussed at greater length and with broader application. These guidelines are not intended to be comprehensive or prescriptive. Local circumstances vary greatly depending on geography, culture, economic development, etc, so an exhaustive list of hard and fast rules is not appropriate. These guidelines therefore provide a basic framework for

taking environmental and social concerns into account throughout the life of any quarry and cement plant from initial planning to construction.

**Vanclay, et al. (2009)** gave the concept that has received official imprimatur as a framework for encouraging institutional concern about sustainability. Although initially intended as a philosophy or way of thinking about sustainability, akin to the concept of corporate social responsibility, it has become simple a mechanism for accounting and reporting. This paper argues that fundamentally different to the well-established field of impact assessment, but that impact assessment and, in particular, the field of social impact assessment (SIA) have much more to offer in terms of accumulated experience and understanding, and a professional and theoretical base.