

SOCIAL IMPACT ASSESSMENT: METHODS AND TECHNIQUES

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17.1 INTRODUCTION

The actual benefit of development is not limited to economic gains. After the concept of sustainable development came into existence, more emphasis was laid on social, environmental, and trans-generational viability. The impacts of development projects on people can be positive as well as negative.

Therefore, assessing the impact of the developmental activities during their implementation to minimize the negative impacts on society and maximize benefits becomes crucial. Social impact assessment (SIA) ensures that development maximizes benefits and minimizes costs by recommending mitigation measures to deal with adverse social impacts and guarantees the sustainability of the project.

This unit defines Social Impact Assessment (SIA) and addresses its scope in Section 17.2. Section 17.3 presents SIA framework followed by identification of SIA variables/indicators in Section 17.4. Various SIA processes and approaches are explained in Section 17.5. Principles of SIA are also discussed under Section 17.6. Methods and techniques are presented with examples in Section 17.7. The concluding section i.e. Section 17.8 deals with significance and major Challenges to SIA.

Expected Learning Outcomes

After completing the study of this unit, you should be able to:

- Describe the concept and scope of SIA;
- Explain the significance of SIA
- Discuss the methods and techniques of SIA

17.2 MEANING AND SCOPE OF SIA

In this section we will discuss meaning and scope of SIA that will help us in understanding various facets of a SIA.

Social impact assessment was formalized with the introduction of the U.S. National Environmental Policy Act (NEPA) legislation of 1969. It became evident that altering the environment of the natural ecosystem also alters the culture and social organization of human population. Social impact assessment refers to assessing (as in measuring or summarizing) a broad range of impacts (or effects, or consequences) that are likely to be experienced by an equally broad range of social groups as a result of some course of action.

Social impact assessment is the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of interventions (policies, plans, programs, projects and other social activities) and social change processes so as to create a more sustainable biophysical and human environment (Vanclay, 1999).

The important features of this definition are:

- 1) It includes adaptive management of impacts
- 2) It can be applied to a wide range of interventions
- 3) Social and biophysical impacts are interconnected
- 4) The main purpose of SIA is to consider the challenges of social and ecological sustainability simultaneously.

The International Principles for Social Impact Assessment defines SIA as being *“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”*.

Duncan and Jones (1976), defined SIA as, *“The identification, analysis, and evaluation of the social impacts resulting from a particular event. A social impact is a significant improvement or deterioration in people’s well-being or a significant change in an aspect of community concern”*.

According to Dietz, *“SIA is a process composed of three steps: identification, analysis, and evaluation”*.

Identification of impacts requires understanding of people who are impacted and their social system. It also requires imagination and creative thinking. Analysis assigns the probabilities to possibilities. The information from identification and analysis is integrated in evaluation. The impact is subjective and objective. Subjective impacts are perceived by the people or society whereas objective impacts are considered important by stakeholders who are not affected.

SIA differs from evaluation research in three aspects- SIA focusses on the consequences of technological development mostly which causes destruction in bio-physical environment whereas evaluation research focuses on policies. SIA focuses on unintended consequences of development and evaluation research is based on intended goals of public policy initiatives. Lastly SIA is a tool for planning. It follows a prospective method to avoid or minimize impacts while evaluation research takes place after the policy is active.

There is often confusion between social change and social impacts. Social change is a process whereas social impact is an experience. The confusion between social processes and social impact exists because social process such as changes can be measured whereas it is difficult to measure experience. For example, in case of resettlement of a community due to the construction of a dam, resettlement is not a social impact but a social process which causes social impacts such as anxiety, stress, deprivation, homelessness, disruption to daily living. Therefore, social processes lead to social impacts these can be direct or indirect. It is important to understand that the impacts can further cause processes which rekindle the second order impacts. People's dependency on ecosystem and changes in the bio-physical environment can create social impact and social processes can cause changes to biophysical environment.

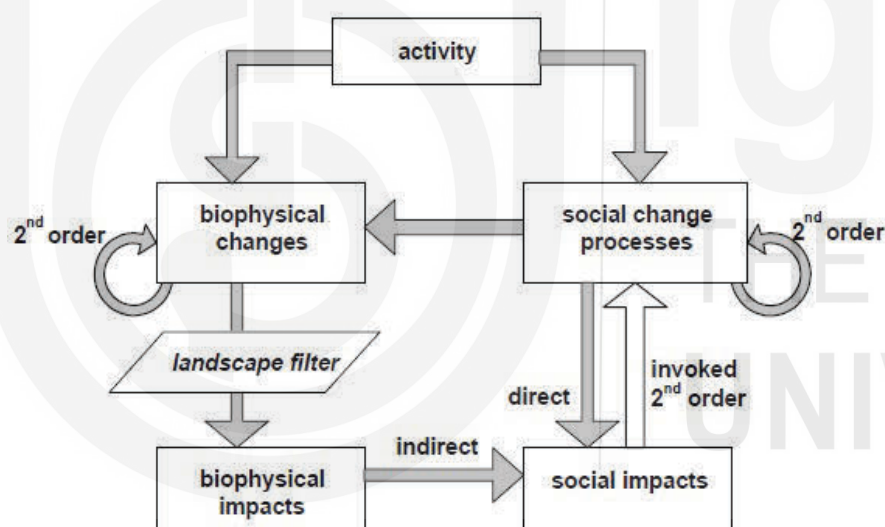


Fig. 17.1: Interconnection of biophysical and social impact.

(Source: Slootweg, van Schooten & Vanclay, 2000)

Burdge and Vanclay (1996) defined SIA as, "The process of assessing or estimating in advance, the social consequences that are likely to follow from specific policy actions or project development particularly in the context of appropriate national, state, or provincial environmental policy legislation."

SAQ I

How is SIA different from evaluation research?

17.3 SIA FRAMEWORK

In SIA, identification of probable undesirable social impact of development, past behaviours of individuals and communities affected by agency actions,

development or projects are understood. Comparative method for SIA was used by the Inter-organizational committee on guidelines and principles for SIA. They compare two communities where impact of development has occurred and a community where a similar development is going to take place.

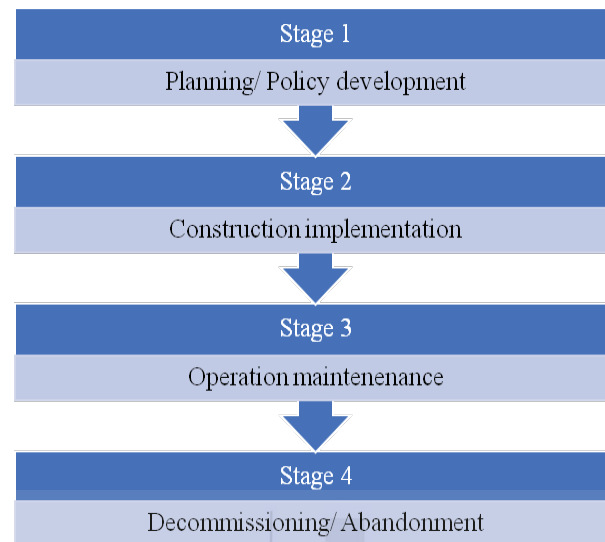


Fig.17.2: SIA Framework.

(Source: The Inter-organizational committee in guidelines and principles for SIA (1994))

Every project has a series of steps or stages of implementation. The stage starts with planning, implementation, and construction, followed by operation maintenance. In some cases, project can be discontinued or abandoned abruptly. Each stage has different social impacts. Scoping of issues helps in focusing on one stage at a time. The planning and policy development refers to all the activities from the time the project is being developed till the time construction activity is started.

In most cases it is believed that no social impacts take place until there is alteration in the physical environment. However, this is not the case changes in social constructions start taking place as soon as the social or economic conditions change. The impacts begin from the earliest announcement of policy change or project implementation, psychologically peoples hope upsurge who see the implementation as an opportunity and for some people hostilities begin to rise.

The construction / implementation stage begins when a decision is made to proceed, a permit is issued or a law or regulation takes place. Certain projects require the displacement and relocation of people, it occurs during this phase. Build-up of a migrant construction work force also may occur, depending on the scale of the project. When new policies are implemented, local economies and organizations may change, and old behaviour, relations and interaction among social groups and the environment is replaced with new ways of relating to the environment and its resources.

The operation / maintenance stage occurs after the construction is complete or the policy is fully operational. Generally, this stage will require fewer workers than the construction / implementation phase.

Many people lose their employment after the construction phase is over. If operations continue for an extended period at a stable rate, effects can often

be the most beneficial. Long-term economic benefits from a developmental activity are beneficial to all the stakeholders. Adaption to new environment and social-economic conditions also takes place in this stage and positive effects such as stable population, quality infrastructure, and employment opportunities-can be expected.

Abandonment / decommissioning takes place when the proposal states that the project or policy and associated activity will cease at some time in the future. Planning again starts as the social impacts of decommissioning begin, the community or region must again adapt to the loss of the project or an adjustment to a policy change. In some cases, employment opportunities can be lost, in some cases better employment opportunities can sprout.

17.4 IDENTIFICATION OF SIA VARIABLES/ INDICATORS

Social indicators are defined as time-series data that allow for comparison over time, showing long-term trends, periodic changes, and fluctuations in rates of change. The indicators serve as the basis for development of future strategies, monitoring and evaluation. The SIA variables measure change in humans, communities and social relationships. The development and identification of social indicators during SIA process helps in understanding the components of social structure which will be affected due to the impacts of projects. Example of some social indicators that experiences change due to mining projects that lead to social impacts are explained below.

Population and Demographic	In-migration, out-migration, worker's camps, social inclusion, growth or decline of towns, conflict and tensions between social groups
Social Infrastructure and Services	Demands on and investment in housing, skills (shortages and staff retention), childcare, health, education, and training
Culture and Customs	Change in traditional family roles, effect of cash economy, reduced participation in civil society, community cohesion, sense of place, community leadership, and cultural heritage
Resources (access/competition)	Land, mobility, water (groundwater, river, ocean), mineral resources (artisanal and small-scale mining), cultural heritage, forest resources, human, postmining land use
Infrastructure	Demands on, and investment in, roads, rail, ports, sewerage telecommunications, power and water supplies
Distribution of Benefits	Employment, royalties and taxes, training, local business spending, community development and social programs, compensation and equitable distribution of resources

Fig.17.3: Changes Introduced by Mining that can lead to Social Impacts

(Source: Franks, 2011)

The inter-organizational Committee on Guidelines and Principles for SIA generally categorizes SIA variables under five broad categories.

1. Population Characteristics
 2. Community and Institutional Structures
 3. Political and Social Resources
 4. Individual and Family Changes
 5. Community Resources
1. Population Characteristics include the present population and expected change, ethnic and racial diversity, and influxes and outflows of temporary residents as well as the arrival of seasonal or leisure residents.
 2. Community and Institutional Structures comprises of the size, structure, and level of organization of local government including linkages to the larger political systems. They also include historical and present patterns of employment and industrial diversification, the size and level of activity of voluntary associations, religious organizations and interests' groups, and finally, how these institutions relate to each other.
 3. Political and Social Resources refer to the distribution of power / authority, the interested and affected publics, and the leadership capability and capacity within the community or region.
 4. Individual and Family Changes refer to factors which influence the daily life of the individuals and families, including attitudes, perceptions, family characteristics and friendship networks.
 5. Community Resources include patterns of natural resource and land use; the availability of housing and community services to include health, police and fire protection and sanitation facilities, the historical and cultural resources of the community members.

Basic social dimensions can be measured using matrix which reflects fundamental and important characteristics of a community. When the impacts are studied over a period of time the change can be observed in the social structures. Since prediction of social impacts is difficult, comparison with the community who has been under similar circumstances scales down the challenge.

Table 17.1: Matrix Relating to Project Stage and SIA Variables

Social Impact Assessment Variable	Planning /Policy Development	Implementation/ Construction	Operation/ Maintenance	Decommissioning/ Abandonment
Population Characteristics				
Population Change				
Ethnic and racial distribution				
Relocated Population				
Influx or outflows of temporary workers				
Seasonal residents				
Community and Institutional Structures				

Voluntary associations				
Interest group activity				
Size and structure of local government				
Historical evidence with change				
Employment/income characteristics				
Employment equity of minority groups				
Industrial /commercial diversity				
Presence of Planning and zoning activity				
Political and Social Resources				
Distribution of power and authority				
Identifications of stakeholders				
Interested and affected Publics				
Leadership capability and characteristics				
Individual and Family Changes				
Precipitations of risk, health and safety				
Displacement/relocation concerns				
Trust in political and social institutions				
Residency stability				
Density of Acquaintanceship				
Attitudes towards policy/project				
Family and Friendship networks				
Concerns about social well-being				
Community Resources				
Change in community infrastructure				
Native Americans tribes				
Land use patterns				
Effects on cultural, historical, and archaeological resources				

(Source: The Inter-organizational committee on guidelines and principles for SIA (1994))

It is to be noted that these variables are a beginning point for social assessors. These variables and categories are subject to change according to the nature of the project. Different researchers and experts have categorized social

variables according to their need, nature, scale of and the impact of the project. The other broad categories that are used are:

- 1) Population change, life style, attitudes, beliefs and values and social organization.
- 2) Population impacts; community and institutional arrangements; conflicts between local residents and newcomers; individual family level impacts and community infrastructure needs.
- 3) Direct project inputs; community resources; community social organization; and indicators of individual community well-being.

SAQ 2

State the five broad categories of SIA given by inter-organizational Committee.

17.5 SIA PROCESS AND APPROACH

In the previous section we have discussed about identification of variables and indicators used for conducting SIA. However, we should have an idea about the processes involved and approaches used for conducting SIA. So in this section we will discuss in detail SIA processes of a project and various approaches used to understand SIA.

17.5.1 SIA Process of a Project

SIA at a project level addresses the impact of planning and construction since projects can create benefits as well as generate harmful effects. SIA involves the processes managing the social impacts of development and deal with improving the outcomes for local community and the developer. In order to build understanding for SIA, it must be understood what is meant by social impacts. Social impact is something which is experienced or felt. Therefore, social impacts can be perceived as changes to people's way of life, their culture, community, political system, environment, health and wellbeing, their personal and property rights, their fears and aspirations. These social impacts require active management of social issues since a project starts and before regulatory approval are needed. SIA is a process of managing social issues of project implementation. SIA can be applied at all the phases of the project.

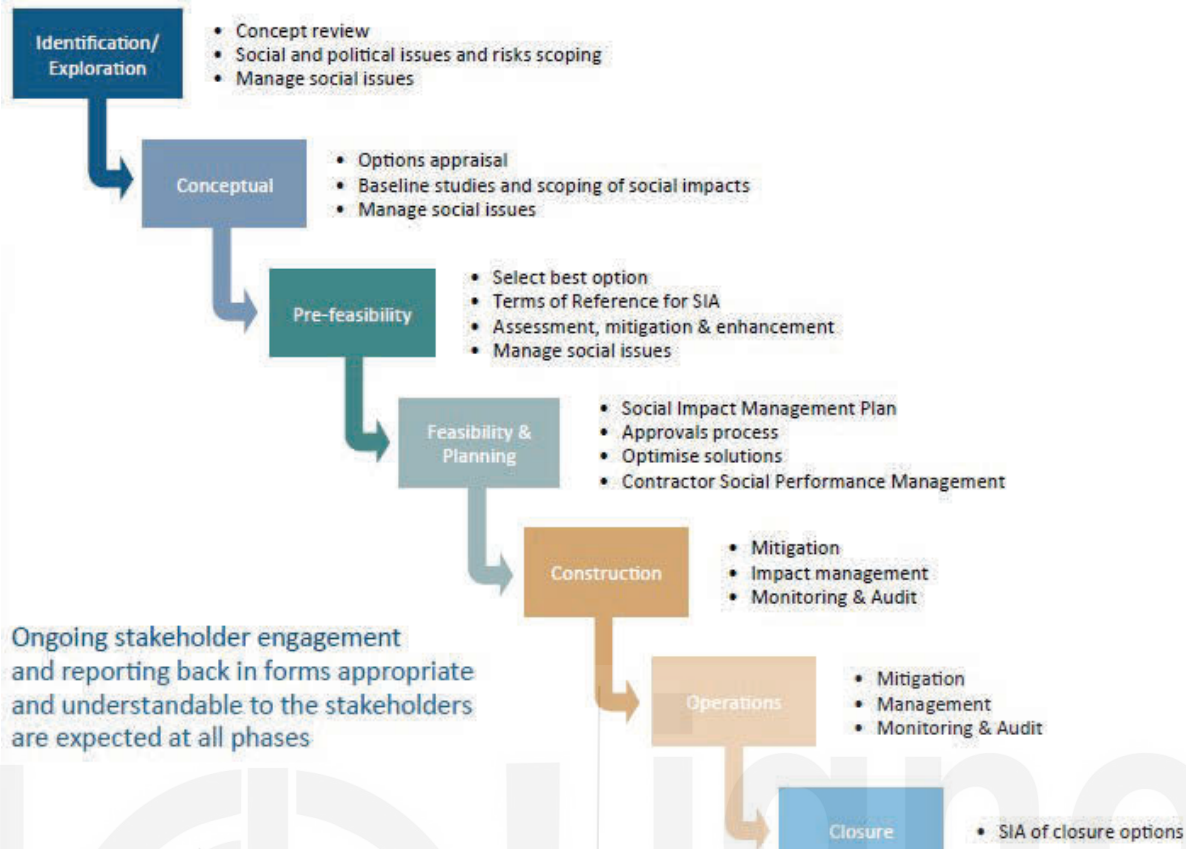


Fig. 17.4: SIA at Different Phases of Projects.

(Source: IAIA, 2015)

The process of SIA is sequential but the steps may overlap. For efficient and appropriate analysis, the information should be updated from time to time. The ultimate goal of all the projects must be sustainable development.



Fig.17.5: Phases of SIA.

(Source: IAIA, 2015)

Burdge & Vanclay, (1996), describe the SIA process as, “A means of providing direction in understanding, managing, and controlling change; predicting probable impacts from change strategies or development projects that are to be implemented; identifying, developing, and implementing mitigation strategies in order to minimize potential social impacts; developing and implementing monitoring programs to identify unanticipated social impacts that may develop as a result of the social change; developing and implementing mitigation mechanisms to deal with unexpected impacts as they develop; and evaluating social impacts caused by earlier developments, projects, technological change, specific technology, and government policy.”

SIA process is an iterative, logical and cyclical process that helps to identify both direct and indirect impacts of proposed project while at the same time providing direction and guidance for policy decision making. The process includes- description of the proposed proposal which includes the nature, scale, funding, profits, employment to be generated and the site layout. This is followed by scoping process which assesses important social impacts. This final stage involves collection of baseline data of the socio-economic characteristics, assessment and evaluation of social effects, suggestions of alternatives, development of mitigation plan and the course of action.

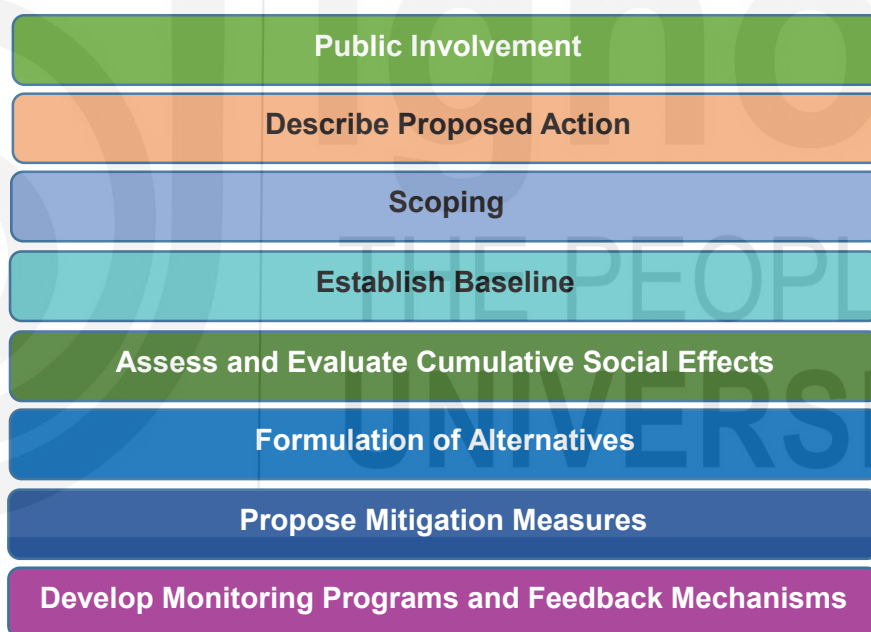


Fig.17.6: SIA Processes.

(Source: Cooper, 2004)

SIA have been applied in the field of tourism, mining, oil exploration, construction of dams, nuclear power plant, road construction etc.

17.5.2 SIA of a Dam Construction

In the life cycle of a project, there are 4 stages namely planning, construction, operation, and decommissioning all these four stages should be considered to address the full awareness of impacts.

Stage	Social Impact
Conceptualization and Planning	Fear and uncertainty
Construction	Anxiety and tension due to relocation,

	upstream and downstream impacts, biophysical changes cause direct and indirect social impacts
Operation and maintenance	Economic impacts and associated social impacts
Decommissioning and closure	Both social and economic impact

It is important to understand that the adverse social impacts can be minimized by increasing community participation and by prior grassroots level planning. The most important issue in dam related projects is the resettlement of people, who lose their land or property. Secondly only material and physical things hold more value. The sentiments and association of people to a place are often overlooked. People trade-off between improved standards of living and lost cultural values. The indigenous people and tribes or the ethnic minorities are psychologically disturbed more as compared to the other society. In developing countries, the interactions between people and their environment are direct and high. Therefore, changes in the natural environment are expected to have a major social impact. There are various stakeholders in dam projects; people who will be displaced, people from the host community where the displaced people will be moved to, the people whose livelihoods were dependent on upstream or downstream of the rivers; people affected by irrigation channels, roads, etc., construction workers and their families, indigenous people, local, national conservationists.

17.5.3 Approach

SIA can be approached as an information generating activity or as a planning tool. Approach of SIA is human centred and scientific as well as qualitative and quantitative. Qualitative methodologies rely on survey and anecdotal evidence and quantitative methodologies rely on data. The information generating activity is done by using the principles of research design and scientific analysis and the planning utilizes the planning principles and procedure to understand the preference order of resource allocation and social norms to trade off environmental, economic, and social objectives. Approach to understand SIA is a paradigm which combines knowledge, techniques, and values.

1. Approach to compare technocratic and constructivist SIA paradigm by Tur and Gomez

The authors state that paradigm provides answers. This approach is grounded in Guba and Lincoln's analysis of the nature of paradigms (1994). Tur and Gomez address six questions for organizing a paradigm- ontological, epistemological, methodological, axiological, theoretical and a question on governance.

Ontological questions enquires the form and nature of reality (change taking place, causes and the consequences. Axiological questions address the ethical and moral principles. Epistemological question deals with the concerns about how knowledge of social reality and stresses on the relationship between researcher and the situation. Methodological question reviews the way study is organized (top-down- technocratic approach or bottom up- participatory approach) and the data gathering and analysis techniques that

needs to be applied. Theoretical questions are based on prior answers. Question on governance addresses questions such as- How will the process be carried out and by whom? Who will control legitimacy of the research work? How will the inequalities in social processes be managed? How will the inequalities affect the result of SIA etc., Two main SIA paradigms- technocratic and constructivist are compared by Tur and Gomez (2017).

Table 17.2: Comparison of Social Impact Assessment Paradigms

	Technocratic Paradigm	Constructivist Approach
Axiology	Value-free, neutral, primary of Western values	Multiple value systems
Ontology	<ul style="list-style-type: none"> • Mechanist • Dualist • Universalist • Functionalist • Certainty • Security 	<ul style="list-style-type: none"> • Socially constructed reality • Integration of nature and culture • Context-dependent • Ecologically systemic • Uncertainty • Risk
Epistemology	<ul style="list-style-type: none"> • Positivist • Normal science • Objectivist • Findings true • Nomothetic 	<ul style="list-style-type: none"> • Constructivist • Post-normal Science • Subjectivist • Created findings • Ideographic
Methods	<ul style="list-style-type: none"> • Expert-driven process • Top-down focus • Experimental/manipulative • Hypothetical-deductive • Ideally carried out at the design stage of the project • Impact Identification/prediction oriented • Quantitative methods • Closed process, time bound • Techniques • Expert knowledge 	<ul style="list-style-type: none"> • Participatory • Bottom- up focus • Hermeneutical/dialectical • Inductive method/ grounded theory • Ideally carried out throughout the project cycle • Should lead to the development of social impact/ risk management plan (SIMP) • Mixed methods • Open(ongoing) process, continuous monitoring • Concepts • Stakeholders feed in information/data
Theory	<ul style="list-style-type: none"> • Uncritical • Weak theoretical linkages to social theories • Does not include the variable of power • Impacts understood as external forces 	<ul style="list-style-type: none"> • Reflexive • Strong linkage to social theories • Power relations are key to analysis • Impacts understood as complex processes
Governance	<ul style="list-style-type: none"> • Closed • Top-down • Technocratic • Non- participatory, non deliberative • Oriented toward approval of the project • Oriented towards the 	<ul style="list-style-type: none"> • Open • Bottom-up • Democratic • Participatory deliberative • Oriented toward sustainability and general acceptance of the project • Deliberative planning

	identification of impact <ul style="list-style-type: none"> • Rationalist planning • Normative regulatory 	<ul style="list-style-type: none"> • Contextual negotiated • Social sustainability
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(Source: Tur and Gomez, 2017)

2) Cause-and effect approach by Takyi (2014))

Societal structures are complex which sometimes makes the unit of analysis, theoretical models and language inconsistent or contradictory. Therefore, experts suggested that methods and techniques for SIA should be simple to avoid complexity during community participation but it should ensure validity and establish rigour. For the assessment in SIA, reliable data has to be collected to understand public opinion, sources of effects, linkages and to propose mitigation measures. The cause-and-effect relationship is kept at the focal point during SIA. The sources of social impacts are critically on participatory basis of assessment and identified. Linkages are established to predict effects which help in defining mitigation measures.

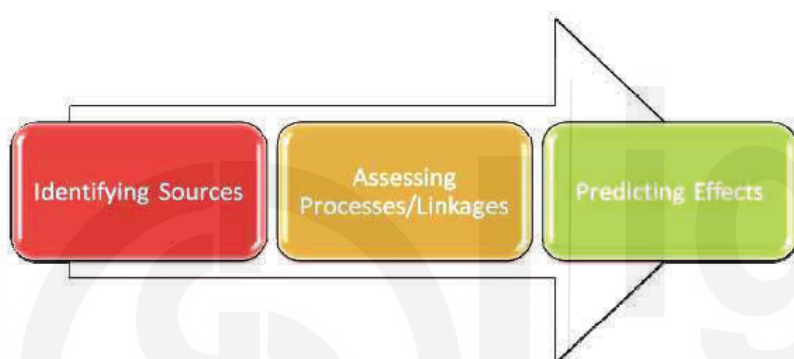


Fig.17.7: Assessing Cumulative Social Impacts; Cause-effect Relationship.

(Source: Cooper, 2004)

SAQ 3

What does SIA processes include?

17.6 PRINCIPLES OF SIA

Vanclay and Frank have developed guidelines and set of principles for Social Impact Assessment.

A) Principles for all Social Impact

- Gendered nature of impacts should be considered always.
- The existence of spiritual and existence of scared places should be appreciated and acknowledged.
- Quality of life and standard of living of people must be considered.
- Consider the second order impacts and impact equity

B) Principles for Social and Biophysical Environment

- Acknowledge that all the impacts are social impacts and people experience physical environment in human conditions.
- Observe changes in the biophysical environment to their human implications

- Appreciate seasonality and its implication on humans and their activities.

C) Participation Principles

- Listen to the grievances of the local people, negotiate with the local communities about issues that might create an impact, utilize local knowledge.
- The gatekeepers of the community should be respected, local power relations and social structures must be understood.
- Local cultural sensitivities and protocols must be considered carefully and local languages should be used to enhance affinity and avoid communication gaps.
- The project must be open and transparent.
- Maximize the involvement of local people, avoid social exclusion, and recognize all the members of the society

D) Impact Management and Minimization Principles

- Promote active management and SIA to assist in mitigation.
- Provide training programs to local people.
- Ensure standard of work and that people are not worse off.

E) Community Development Principles

- Focus on poverty reduction, consider the vulnerability of people.
- Maintain the community integrity.
- Develop enhancement programs and mechanisms for capacity development

F) Institutional and Procedural Principles

- Develop adaptive management processes.
- Consult social scientists
- Ensure adequacy of time and resources for through impact assessment and transparency of method, process and decision making

G) Data Integrity Principles

- Consider local language
- Validate the official data
- Intellectual property rights of local people must be respected.
- Precautionary principle to social and technical issues must be applied.

SAQ 4

List the principles for all SIA given by Vanclay and Frank.

17.7 SIA METHODS AND TOOLS

SIA is a method of policy analysis that have a great potential to integrate scientific policy analysis into a democratic political process. In terms of cause and effect of a project, analysis of the data collected is done by modelling, community consultations, validating with checklists, carrying capacity analysis,

expert opinions and spatial analysis. Community consultation is very crucial as it helps in identifying the effect on vulnerable groups. Locals are involved in planning to help reduce uncertainty. Public opinions are clubbed with expert opinions to derive the best solution. Type of tools or methods to be used for SIA depends on the stage of process, type of data, availability and quality of data, time, finances, and logistical resources. The methods are selected as per the suitability of the project. For scoping and impact identification- network analysis, consultations and questionnaire, checklist and spatial analysis can be used. For scoping and evaluation techniques- matrices and expert opinions can be used and for evaluation techniques, carrying capacity analysis and modelling tools can be used. Description of tools is given in the table 3.

Table 17.3: Methods / tools for Social Impact Assessment

Method/Tool	Description	Advantages	Disadvantages
Expert Opinion	A means of both identifying and assessing indirect and cumulative impacts and impact interactions. Expert Panels can be formed to facilitate exchange of information of different aspects of the impacts of a project.	Can consider such impacts as an integral part of the assessment.	Some specialists or experts may be remote from the main project team.
Consultations and Questionnaires	A means of gathering information about wide range of actions, including those in the past, present and future which may influence the impacts of a project.	<ul style="list-style-type: none"> • Flexible • Consider potential impacts early on. • Can be focused to obtain specific information. 	<ul style="list-style-type: none"> • Prone to errors of subjectivity. • Questionnaire can be time consuming, and risk of poor response.
Checklists	Provide a systematic way of ensuring that all likely events resulting from a project are considered. Information presented in a tabular format.	<ul style="list-style-type: none"> • Systematic method • Can develop standard checklist for similar projects. 	<ul style="list-style-type: none"> • Can allow oversight of important effects. • Nature of cause and effect relationships not specified.
Spatial Analysis	Uses Geographical Information Systems (GIS) an overlay maps to identify where the cumulative impacts of a number of different actions may occur and impact in formations.	<ul style="list-style-type: none"> • GIS flexible & easy to update • Can consider multiple projects and past, present & future actions. 	<ul style="list-style-type: none"> • GIS can be expensive & time consuming. • Difficult to quantify impacts. • Problems in updating overlays.
Matrices	A more complex form of checklist. Can be used quantitatively and can evaluate impacts to some degree. Can be extended to consider the cumulative	<ul style="list-style-type: none"> • Provides a good visual summary of impacts. • Matrices can be weighted 	<ul style="list-style-type: none"> • Can be complex and cumbersome to use.

	impacts of multiple actions on resource.	impacts ranked to assist in evaluation.	
Carrying Capacity Analysis	Based on the recognition that thresholds that exists in the environment. Projects can be assessed in relation to the carrying capacity or threshold determined together with additional activities.	<ul style="list-style-type: none"> Addresses accumulation of impacts against thresholds. Consider trends in the environment. 	<ul style="list-style-type: none"> Limited to data available. Not always able to establish the threshold or carrying capacity for a particular resource or receptor.
Modeling	An analytical tool which enables the quantification of cause and effect relationships by simulating environmental conditions.	<ul style="list-style-type: none"> Quantifies cumulative effects. Geographical and time frame boundaries are usually explicit. 	<ul style="list-style-type: none"> Often requires large investment of time and resources. Depends on baseline data available.

(Source: Walker & Johnson, 1999)

According to Stalls - methodologies can also be categorized into two broad categories; qualitative and quantitative which are further sub divided into four methods.

Table 17.4: Different Types of Impact Assessment Methods

Method	Application
Expected return	To estimate expected social return in assessing potential investments To monitor and evaluate the social performance of investments
Theory of Change and Logic Model	To understand path to intended impact as part of due diligence To provide a framework for goal setting To track and monitor progress of investment To provide targets for incentive schemes To provide a framework for illustrating impact logic in reporting
Mission Alignment Methods	To monitor impact investor's portfolio against its mission To monitor impact of investee against its mission
Experiment and quasi-experimental methods	To assess outcome payments in Social Impact Bonds and other impact investments To test hypothesis of an investor's theory of change To assess impact risk of a potential

SAQ 5

Name the different types of SIA methods.

17.8 SIGNIFICANCE AND MAJOR CHALLENGES TO SIA

In the previous section, you have studied various methods and tools used for SIA. You might have also understood the significance and challenges to SIA. In this section we will discuss in detail about the significance and challenges to SIA.

17.8.1 Significance of SIA

When the projects are human centred, it is important to include societal values, interest, concerns, problems and perception in the process of implementation. SIA includes important aspects of society in a systematic process ethically, rigorously, creditably and apolitically. The importance of SIA is for social justice and equity, community acceptance of projects, maximizing economic and social benefits while minimizing environmental costs, inclusion of local knowledge and experiences for enhanced planning, community capacity building, and for the protection of vulnerable groups and regions. The significance of SIA for socio-economic and environmental sustainability of the region are given below.

- SIA will help to utilize the local community knowledge and coordination for decision making and mitigation measures, which will reduce the project cost and duration of the project for timely completion of the work.
- The project proponents will get familiar with the local cultural and tradition issues by conducting SIA and increasing the public participation.
- SIA can realise the importance of true public participation by involving local community in socio-economic process and the consequences that might arise from a lack of participation.
- SIA is increasing public participation and involvement of local community and people in assessment process, project design, project implementation, operation, monitoring and evaluation of the project.
- SIA is increasing local need based training or capacity building programme to the local community to get skilled jobs in the projects and encouraged sense of ownership in decision making and other outcomes of the projects.
- SIA will minimise the gaps between local community, project proponents, government and policy makers which will be very helpful to maintain the socio-economic and environmental sustainability of the region.

17.8.2 Major Challenges to SIA

There are many challenges to the SIA process. The complex nature of social phenomena makes accurate assessment difficult as it involves multiple stakeholders and their wide range of values and interests. Community participation is limited due to capacity constraints. There are constraints of finance and logistics which might threaten the social interest of the community. In projects more focus is laid on meeting institutional requirements which leads to failure in minimizing costs. The cost is often borne by the community or the government in the long run.

SAQ 6

Describe the major challenges of SIA Process.

17.9 SUMMARY

In this unit, you have studied:

- Social Impact Analysis refers to a project or an organization's negative or positive influence on people, communities, and society. These impacts include social domains like health, education, economics, occupation and social justice.
- Social Impact can vary from individual persons to global population, driven by diverse characteristics like for-profit or non-profit, or for government organizations.
- Assessing social impact is important for understanding as well as optimizing the societal contributions of an organization. This involves quantification of outcomes from initiatives and programs, based on intended and unintended effects. It brings accountability, helps in informed decision-making, transparency, and proper resource allocation, while enhancing stakeholder engagement and organizational legitimacy.
- Social impact indicators are pivotal for evaluating the success of efforts aimed at societal betterment. These indicators span across sustainable development in education, health, and environment. Various methods like the Theory of Change, logic models, outcome harvesting, Social Return on Investment (SROI), surveys, questionnaires, interviews, participatory approaches, and case studies are used to measure social impact depending on the nature of the project and its expected outcome.
- SIA is a statutory requirement for large resource projects as a part of sustainable development. In India, it is being conducted as a part of the approval process for Environmental Impact Assessments. Effective social impact reports outcomes in a transparent manner, reinforces ethical practices and communicates responsibly.

17.10 TERMINAL QUESTIONS

1. Describe the scope and nature of Environmental Impact Assessment?
2. Describe the variables and indicators of SIA.
3. What are the different steps followed in the SIA.
4. Explain the different methods of SIA.
5. "SIA is an important tool to achieve the sustainable development". Justify the statement with suitable arguments.
6. Elaborate the different stages of project/policy development in Social Impact Assessment.
7. Explain the principles for Social Impacts Assessment.

17.11 ANSWERS

Self-Assessment Questions (SAQ)

1. SIA differs from evaluation research in three aspects. SIA focusses on the consequences of technological development mostly which causes destruction in bio-physical environment where as evaluation research focuses on policies. SIA focuses on unintended consequences of development and evaluation research is based on intended goals of public policy initiatives. Lastly SIA is a tool for planning. It follows a prospective method to avoid or minimize impacts while evaluation research takes place after the policy is active.
2. The inter-organizational Committee on Guidelines and Principles for SIA generally categorizes SIA variables under five broad categories namely (i) Population Characteristics; (ii) Community and institutional structures; (iii) Political and social resources; (iv) Individual and family changes; and (v) Community resources
3. The SIA process includes public involvement, description of the proposed proposal, scoping process, collection of baseline data of the socio-economic characteristics, assessment and evaluation of social effects, suggestions of alternatives, development of mitigation plan and the course of action.
4. Principles for all SIA are - Gendered nature of impacts should be considered always; the existence of spiritual and existence of scared places should be appreciated and acknowledged; quality of life and standard of living of people must be considered and consider the second order impacts and impact equity.
5. Different types of SIA methods are Expected return method, Theory of change and logic model, Mission alignment method, Experimental and quasi-experimental method.
6. The complex nature of social phenomena makes accurate assessment difficult as it involves multiple stakeholders and their wide range of values and interests. Community participation is limited due to capacity constraints. There are constraints of finance and logistics which might threaten the social interest of the community. In projects more focus is laid on meeting institutional requirements which leads to failure in minimizing costs. The cost is often borne by the community or the government in the long run.

Terminal Questions

1. Refer to section 17.2.
2. Refer to section 17.3.
3. Refer to section 17.2.
4. Refer to section 17.6.
5. Refer to section 17.6.
6. Refer to section 17.3.
7. Refer to section 17.5.

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GLOSSARY

- Checklist Method of EIA** : This method involves detailed listings of the biophysical, social, and economic elements that are likely to be impacted by a development project.
- Constitutional Remedies** : A regulating mechanism for the prevention of environmental degradation through writ petition provided in our constitution.
- Distributive powers** : The Constitution of India provides the divisions of powers between union and state.
- Environmental Impact Assessment** : Environmental Impact Assessment is the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals before major decisions are taken and commitments made.
- Matrix Methods of EIA** : Matrices which resemble grids of tables, are used to show how projects activities and environmental matrices.
- Social Impact Assessment** : Social impact assessment is the process of analysing (predicting, evaluating and reflecting) and managing the intended and unintended consequences on the human environment of interventions (policies, plans, programs, projects and other social activities) and social change processes so as to create a more sustainable biophysical and human environment.
- Social Indicator** : Social indicators are defined as the time series data that allow for comparison over time showing long-term trends, periodic changes and fluctuations in rates of change.

