

CHAPTER – VI

6.0 Assessment of Socio-Economic Impacts

Socio-economic impacts are the influence of projects and/or programmes or policies on the human values, culture, living standard. Institutions undertaking large investment projects such as highways, air ports, sewerage systems, water resources projects (DOMS, reservoirs, water relating systems, diversions, canals) stimulates secondary impacts in the form of associated investments and changes in socio-economic activities. These effects include changes in the existing community facilities and activities, induced new facilities in the next round and changes in natural conditions. All such effects may be substantial than the primary impacts of the original actions.

(Displacement of people from a project area → reduction in permanent population from the project area → displaced people resettlement somewhere requiring economic cost, housing, water power, public services at new place, with cultural and psychological adjustments (Tehri Dam project, Narmada project). During construction of project temporary population (labourers and their families) will come to the project area. Such persons will be accommodated in the project area. They will need all kind of services for living. The area will undergo changes by the temporary population.

All such changes will come under socio-economic changes of the project or Socio-economic Impacts Assessment (SIA). The following should always be taken care of:

a)	Demographic impacts	Labour force, population shift, employment and multiplier effects, displacement and relocation and change in population make up
b)	Socio-economic Impacts	Includes income and multiplier effects, employment rates and patterns, prices of local goods and services, taxation effects and property value

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c)	Institutional Impacts	Demands on Government and Social Services NGO's in the areas, housing, schools, policing, justice health and welfare
d)	Cultural Impacts	Such as those on traditional patterns of life and work, family structure, authority, religion, tribal factors, archaeological features and social work, community cohesion
e)	Gender Impacts	Implications of development projects on women's role in society, income generating opportunities access to resources and employment opportunities

Along with changes in physical environment due to a development project, there will be changes in Socio-economic environment. Social Impact Assessment should pay special attention to vulnerable sections of population (elderly, poor, children minorities).

children, minorities)
 Some of the variable have measurement dimensions (both positive and negative) with increasing size of the variables population size, growth, rate of population growth, age dependency on community; job opportunity, job distribution, employment level, participation in labour force, price level, educational attainment, socio-economic status, housing availability public services; social well being; collective response). These are cumulative effects. These impacts can be put in (i) Social impacts and (ii) Public Services impacts

A very important aspect is displacement of population. They will have all types of problems and should go hand in hand with rehabilitation and resettlement policy of state and Central Government.

6.1 Socio-economic Impact Assessment Methodology

The general methodology will include the following

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- Step 1. Identification of potential socio-economic impact assessment. This is to identify the basic indicators to assess the environmental impacts of all kinds (air pollution, water pollution, noise pollution) which will effect human quality of life
 Other important factors will be
 - a) demographic factors – population, density, literacy
 - b) economic variables – land use patterns, income levels, price levels, employment/unemployment level, commercial activities
 - c) social variables – patterns of life and work, ethnic composition, religious and tribal factors, public utilities
 - d) project specific variables – displacement, business, recruitment of manpower, project technology
- Step 2. Description of existing socio-economic or human environment of the project area
 Developing a social profile based on siting of projects
- Step 3. Procurement of relevant standards, criteria and guidelines
 There are direct effects of pollutants/emissions on the public and whenever people are affected, health and welfare socio economic considerations become important
- Step 4. Prediction of Socio-economic Impacts
 Prediction of Socio-economic Impacts with or without the project is an important technical exercise. There is no unique method for predicting the impacts yet four approache are indicated:
 - a) qualitative description
 - b) quantitative description
 - c) application specific prediction technique (may involve survey from secondary sources or qualitative descriptive approach like Delphi method or Historical analogies
 - d) comparison of the effects of alternatives
- Step 5. **Assessment of Socio-economic Impact**
 Assessment of socio-economic impacts with or without project in its

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surrounding areas is difficult as there are no established standards for these. Some impacts may be clearly visible and assessable such as:

- a) generation of employment for local people (+ve impact)
- b) increase in earnings of people (+ve impact)
- c) pressure on local services (-ve impact)
- d) increase in business and trade (+ve impact)
- e) increase in crime rate in the region (-ve impact)
- f) interaction with outside people (+ve impact)
- g) opening of attitudes of people (+ve impact)

There are no threshold levels of comparison for such impacts. They may be perceived on the basis of experience gained elsewhere about similar projects (historical analogy). Professional judgment may also be important. Some projects might have broader impacts on National economy (Tehri Dam, Narmada, Bhakhra Nangal) rather than local level impacts. The significance of such impacts may be judged by National goals, such as power generation, employment generation, income generation, irrigation, provision of food.

Step 6. Mitigation Measures

Though there is very little in the form of mitigation measure to reduce the adverse socio-economic impacts of the project. However, Some local benefits, particularly employment of the local people, rehabilitation and resettlement of project affected people will be mandatory by law. The project is a user of local resources and in lieu it has to give back some benefits to the local population otherwise they resent its activities and the project functioning is jeopardized.

Mitigation measures will include, providing housing schools, colleges, hospital, power and other social services.

(Lecture 28 & 29)

Information mentioned here in is largely based on "Environmental Impact Assessment" by R.R. Barthwal, New Age International Publishers, 2002

Suggested Reading

1. Environmental Impact Analysis, Jain, R.K., Urban, L.V., and Stacey, G.S., Van Nostrand Reinhold Co. 1977.
2. Environment Impact Assessment, Barthwal, R.R. New Age International, New Delhi 2002.
3. Environment Impact Assessment (Practical Solutions to Recurrent Problems). David P. Lawrence. Wiley Interscience, New Jersey 2003.
4. Environment Impact Assessment, Srivastava, A.K., APH Publishing Corporation, New Delhi – 2003.
5. Ecology, Impact Assessment and environment Planning, Walter E. Westman., John Wiley & Sons, Canada 1985.