13. Impacts on indigenous peoples

How to Use This Chapter in the Context of EA and Road Planning

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Shaded area = (A) Stages of EA covered in this chapter; (B) focus of this chapter; and (C) primary target readers.

Key Questions Addressed:

1. How can we account for the fact that the lives of indigenous peoples are profoundly vulnerable to disruption by road projects?

2. What are some of the more common negative effects that road projects have on indigenous peoples and how can they be avoided or minimized?

3. What are some of the key principles which must be observed when planning and executing a road project to ensure that indigenous peoples continue to lead self-directed lives and continue to earn their livelihood from sustainable sources?

4. How can road projects assist indigenous peoples to enjoy the potential opportunities to participate in a process of development that they will control?
13.1 IMPACTS AND SETTING

Roads are very crude instruments of economic and social change. Nowhere is this more evident than in areas inhabited by indigenous peoples. The cultural, social, political, and economic integrity that characterizes indigenous peoples renders their lives extremely vulnerable to disruptions from outside. Whether a road is being planned to cross an area inhabited by indigenous peoples or to open up that same area, it will have a marked effect on their lives.

Road planners have to realize that while a road will create some opportunities, it will more likely thrust indigenous people into an artificially accelerated development stream. This situation will affect social cohesion, produce physiological effects on the individual, and have a negative impact on individual perceptions of self-worth. Road planners, working closely with indigenous community representatives and sociologists, must attempt to enable indigenous people to adapt at a pace and in ways that they can manage and control.

The definition of indigenous peoples has been the subject of much debate over the last several decades. Box 13.1 provides a useful summary of one approach to identifying such people. For purposes of this discussion, the five characteristics proposed by the World Bank serve as a useful backdrop against which to identify potential impacts. They suggest that as a result of a poorly planned road project, indigenous people could suffer the following impacts.

13.1.1 Loss of traditional sense of identity

For many traditional peoples, the land is a sacred, inextricable part of themselves, their lifestyle, and their livelihood. Indeed, the flora and fauna are typically considered beings, which are integral parts of the cosmos. Thus the very definition of self is bound up with the land, and its flora and fauna, in a manner wholly alien to most outside economists, planners, developers, and settlers.

Roads can too easily disrupt this sense of identity. By opening up areas settled by indigenous or traditional peoples to development and settlement by other peoples, road developments initiate a process that involves not just a loss of ecological balance between people and the land but the loss of that people’s traditional sense of self-identity.

13.1.2 Loss of livelihoods and violation of traditionally-exercised land rights

New and improved roads bring increased contact with outside peoples, who either occupy the land for farming or exploit other re-

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**BOX 13.1**

**CHARACTERISTICS OF INDIGENOUS PEOPLES**

In 1991, the World Bank produced Operational Directive 4.20 for the guidance of its staff. It describes Bank policies and processing procedures for projects that affect indigenous peoples. The Bank’s policy recognizes the many different ways in which national legislation identifies and defines indigenous peoples and the differing social and economic contexts within which they are found. As the Bank notes, “indigenous people are commonly among the poorest segments of a population. They engage in economic activities that range from shifting agriculture in or near forests to wage labor or even small-scale market-oriented activities.” The Bank suggests, therefore, that rather than proposing a formal definition of who these groups are, it is more helpful to recognize five characteristics which can be used to identify indigenous peoples within particular geographical areas. These characteristics, which may be present in varying degrees, are

- a close attachment to ancestral territories and to the natural resources in these areas;
- self-identification and identification by others as members of a distinct cultural group;
- an indigenous language, often different from the national language;
- presence of customary social and political institutions; and
- primarily subsistence-oriented production.

Obviously, project managers must exercise judgment in using these characteristics to identify indigenous peoples and should make use of specialized anthropological and sociological experts throughout the project.

**Source:** World Bank, 1991.
13.1.4 Violation of rights to participate in development

The physical and cultural stresses placed upon indigenous peoples by road development can lead to major disruptions to their culture, lifestyles, and welfare. While these pressures are not due to the road alone, the road is generally a major instrument of any externally initiated development project. Road planning must therefore take careful account of the delicate situation of many indigenous peoples in isolated areas. Beyond providing the indigenous peoples with the necessary protection for the continuation of their current mode of development, road planners must also be sensitive to their desire to participate in their further development—at a pace and in a way which they control (see Box 13.2).

**BOX 13.2**

**INDIGENOUS PEOPLES’ RIGHTS TO LAND AND TO PARTICIPATION IN DEVELOPMENT**

The rights of indigenous peoples to land and to participation in development are emphasized in several international legal instruments, declarations, and conventions. These documents establish basic principles for relating to indigenous peoples, and define minimal standards for the relations between them and nation states. One such convention is *ILO Convention no. 169*. The Convention concerning Indigenous and Tribal Peoples in Independent Countries (1989) includes the following relevant articles:

"The peoples concerned shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development. In addition, they shall participate in the formulation, implementation and evaluation of plans and programs for national and regional development which may affect them directly." (Article 7, item 1)

"The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognized. In addition, measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities. Particular attention shall be paid to the situation of nomadic peoples and shifting cultivators in this respect." (Article 14, item 1)

"The rights of these peoples concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources." (Article 15, item 2)

*Source: ILO, 1989.*
13.2 DETERMINING THE NATURE AND SCALE OF IMPACTS

The assessment of the potential impact of roads on traditional peoples requires an extraordinary sensitivity to the culture and ways of life of these populations. Thus, although the procedure for the preliminary assessment of an area may be similar to that outlined for a more conventional community in Chapter 11, the undertaking of a complete social assessment is likely to be characterized by the need to observe the following general principles:

- use the language of the indigenous peoples;
- identify and work with their leaders from the outset;
- if "culture brokers" have to be used, take care that they are representing the wider community's interests;
- involve local anthropologists, sociologists and other persons who can inspire the trust of the indigenous peoples' leaders;
- give particular attention to ways of involving women in the assessment and the project's planning; and
- integrate the social and biophysical assessments.

Observing these principles, the social assessment should then be guided by the same general observations made in Chapter 11. In addition, however, there are a number of specific observations warranting mention here.

13.2.1 Identifying the population and the affected area

This involves more than a simple exercise in identifying stakeholders. It is particularly important to

- obtain a reasonably accurate estimate of the population living in the affected area;
- understand the social organization of these peoples, including the size of community groups, the basis for their composition and the extent of their traditional territory; and
- assess their systems of production over the course of the year (e.g. hunting and fishing methods, food gathering patterns, and farming techniques).

13.2.2 Consultation and participation

Prior to conducting consultations, it will be necessary to identify spokespersons for the indigenous peoples. These will usually be their community leaders, but they may also be intermediary organizations or individuals.

The manner in which indigenous peoples are consulted will vary. Sometimes, representatives of the agency can contact the population directly. At other times, it may be preferable to go through intermediaries who are familiar with and are known to the affected population, such as non-government organizations or individuals (especially anthropologists and sociologists) who have worked in the area for an extended period of time. Whoever conducts the consultations, the discussions should be held in the indigenous language, illustrative materials should be provided to facilitate clear and complete comprehension, and sufficient time must be allotted to ensure full and thorough discussion among the population.

13.2.3 The surveys

Given the inter-related nature of the potential impacts identified in Section 13.1, each impact, if realized, would be the product of varying combinations of similar phenomena. In light of this consideration, it is particularly important that the social assessment be informed by assessments of

- the biophysical setting;
- the legislative framework; and
- the enforcement mechanisms and the powers of indigenous organizations.

The biophysical setting

Disturbances to the existing ecological balance are potential impacts which must be considered seriously. Traditional peoples usually exploit the land and its resources in a sophisticated and sustainable manner. The loss of resources and the intrusion of settlers can substantially disturb that delicate balance. As the flora and fauna in a given area form an integral part of the indigenous peoples' traditions and identity, what happens to them will substantially affect the viability of those traditional cultures, as well as the natural environment of the region.
The legislative framework
The social assessment will also call for discussions with central government officials on the nature of the legislative framework that exists to recognize the rights of indigenous peoples and the government’s observance of international instruments, such as the International Labor Organization’s Convention no. 169 (see Box 13.2). Many countries include specific definitions, clauses, and legal frameworks within their national constitutions, statutes, and relevant legislation. These legal definitions, available from the Ministry of Internal Affairs or its equivalent, determine the status of the indigenous peoples, the nature of their tenure, and the manner and means of dealing with these populations. Land tenure law is a specific consideration. National legislation will determine whether and how indigenous peoples are to be compensated for the loss of some of their ancestral area. This is important information for the impact assessment.

Enforcement mechanisms and the power of indigenous organizations
It is also important to recognize that whatever is legislated may not be enforced effectively. If, as is often the case, there are weaknesses in the enforcement of legislation and, as is nearly always the case, the indigenous peoples have very weak access to national and regional political structures, their human rights and traditional land rights may not be enforced. Thus, these capacities also require careful assessment.

Indigenous people often have their own time-honored regulations relating to resource use and waste management. These may prove to be very useful in shaping enforcement mechanisms to better address road impact management.

13.3 REMEDIAL MEASURES

13.3.1 Prevention
Complete prevention is possible only if all new roads can be routed around indigenous areas. If this is not technically or economically feasible, every effort must be made to ensure that any prospective road does not encroach upon the productive resources, sacred sites, and burial grounds of the indigenous peoples.

Control of access may also be considered, for example, through the establishment of an indigenous reserve with restricted entry. However, care should be taken not to create barriers to wildlife movements.

13.3.2 Mitigation
Where impacts are unavoidable, road agencies should, at the very least, act to protect and preserve the traditional rights of these populations in the formal legal arena of the country. Preferably, they should go further. One way to accomplish this is through the formulation of an indigenous peoples development plan (IPDP) for any project that affects them. The essential characteristics of an IPDP are identified in Box 13.3. They are reflected in the content of this chapter and provide a useful foundation on which to develop any approach to mitigation and compensation.

A key feature of an IPDP is that, beyond the minimization of impacts and compensation for negative effects, it maximizes the potential benefits of development interventions. If this same approach is to guide the formulation of other mitigation plans, it is essential that the participation of the affected indigenous peoples be central to that planning process.

Indigenous peoples are very diverse; some may welcome new roads, while others may oppose them. Local consultation and participation can help road planners understand and incorporate local views and opinions. Only such an approach can ensure that the road follows the most mutually acceptable and least destructive route, and that mitigative measures are realistic and culturally compatible with the needs of the indigenous communities.

Local consultation and participation also provide an opportunity to determine whether traditional groups wish to remain in the area (and whether they have the capacity to coexist with increased development), or to relocate to some other area. In the former case, some restriction of access may be considered, and authorities may wish to employ indigenous peoples as scouts and guards in order to ensure that any incoming population does not overexploit the area. In the latter case, the authorities can assist the group in moving. In both instances, consideration should be given to
BOX 13.3
KEY FEATURES OF AN INDIGENOUS PEOPLES DEVELOPMENT PLAN

Given the vulnerability of indigenous peoples to negative effects of externally-initiated development interventions, the planning and implementation of projects, such as road projects, need to be supported by a plan that addresses the specific needs of the indigenous peoples. In recognition of the need for such a plan, the World Bank has stipulated in its policy on indigenous peoples (Operational Directive No. 4.20, September 1991) that Bank-funded projects should include an indigenous peoples development plan (IPDP). The key features of such a plan, as outlined by the World Bank, provide useful guidance for road agencies planning roads that will have some impact on indigenous peoples (whether or not they are funded by the Bank). Although reference should be made to the Bank’s OD4.20 for details, the features of such a plan can be summarized as follows:

Key characteristics of the plan’s overall design are that the plan

- reflects full consideration of the options preferred by the indigenous peoples;
- is informed by studies that attempt to anticipate trends likely to develop as a result of the project;
- utilizes simple implementation arrangements, yet recognizes the need for specialized skills for interacting with indigenous peoples;
- reflects consideration of relevant patterns of social organization, religious beliefs, and resource use;
- supports sustainable indigenous production systems;
- minimizes indigenous peoples’ dependence on the project and enhances their capacity for local control;
- reflects the need for long lead times throughout the project; and
- builds on any relevant existing programs.

The implementation of the plan is likely to involve activities relating to health and nutrition, productive infrastructure, linguistic and cultural preservation, entitlement to natural resources, and education.

Thus the key elements of the content of the plan should be

- an assessment of the legal framework and the capacity of the indigenous peoples to use the legal system to promote their rights;
- baseline data that convey the key dimensions of the indigenous peoples’ way of life;
- arrangements for ensuring long-term land tenure rights;
- a strategy for local participation throughout the project;
- the identification of mitigation activities (e.g., relative to education, health, credit, and legal assistance);
- a preliminary assessment of need and subsequent plan to strengthen the capacity of governmental, nongovernmental, and indigenous peoples’ institutions to play an effective role in both the project itself, and in the on-going development of the indigenous peoples;
- an implementation schedule;
- plans for monitoring and evaluation; and
- cost estimates and a plan for financing the indigenous peoples development plan.


helping the indigenous peoples to obtain formal legal title to their territory.

When a road goes through an indigenous area that is also a protected area (indigenous reserve, national park, ecological reserve, or protected forest), the local population can be employed not only in the design but also in the implementation of the management plans. Indeed, depending upon the wishes of the local population, locals can be employed on the construction crews.

Finally, the engineering design of the road can assist in the restriction of access to sensitive areas. Construction of a road with narrow shoulders, large drainage ditches, and no stopping places can substantially discourage through traffic from stopping along the route or from entering and exploiting nearby areas.
13.3.3 Compensation

Monetary compensation will likely mean little to indigenous peoples, and it may not be adequate or credible for governments to offer to protect their culture and livelihood. Replacement of lost land and resources is an important and viable element of the total package, but it is generally difficult in practice to match the quantity and quality of what is lost. This suggests that the total package incorporated in an IPDP or its equivalent has to consist of a number of complementary elements (see Box 13.3). Some of the more important additional elements are the provision of alternative facilities (e.g. dams) and resources (e.g. fishing rights, or assistance with small fish-farming activities), royalties from mining and other development activities, increased medical and education services (although great care is required in the design of assistance schemes which are compatible with, and do not undermine, traditional cultures and lifestyles), and the strengthening of indigenous peoples' institutions.

This last element is particularly important. In some instances, indigenous peoples are considered the equivalent of legal minors and are thus ineligible to hold land or passports. When the formal legal system so disadvantages indigenous peoples, project authorities will have to take exceptional measures to ensure the cultural integrity of those populations and to defend them from encroachment by new settlers.

Thorough consultation, participation, and social analysis can assist in the design, implementation, and monitoring of such measures.

The organization of the monitoring is central to the credibility and success of the development plans over the longer term. Monitoring by representatives of indigenous peoples' own organizations can be an efficient way for the project's management to absorb the perspectives of indigenous beneficiaries. Building up the participation of affected indigenous peoples in the monitoring process should be a primary goal. However, given the tendency for most existing institutions for indigenous peoples to exhibit weaknesses in management, these capacities will generally require strengthening. Thus, in the near term, independent monitoring bodies will be required. The governmental monitoring unit should be staffed by experienced social science professionals, and reporting formats and schedules should be appropriate to the project's needs. Monitoring and evaluation reports should be reviewed by the project's management and funding agency personnel. Evaluation reports should be made available to the public.

13.4 MINIMIZING IMPACTS ON INDIGENOUS PEOPLES: AN ACTION CHECKLIST

Road projects should be planned and developed in ways that protect the way of life of indigenous peoples from negative impacts, as well as providing opportunities for participation in development on terms that indigenous peoples welcome. This section highlights the more important steps in the EA process relative to the incorporation of this principle into the road development process.

Baseline data and potential environmental impacts

Basic information on the presence of indigenous peoples and the nature of the project and roadside activities will help to determine whether potential impacts are significant (see Section 13.2). Where there is any evidence of such effects, a complete social and biophysical assessment is required. Experts and knowledgeable locals can provide basic information on community structure, numbers, lifestyles, and use of resources. The consultation and participation process should then be very carefully organized (see Section 13.2.2), and should take into account the leadership structures in affected communities, as well as possible differences in viewpoint within communities; knowledgeable and trusted intermediaries should be utilized where these are available. Sufficient time must be allowed for thorough discussion and consideration of a broad range of road options and their potential impacts. Summary information may include maps of constraints and sensitivities, and forecasts of changes in baseline conditions with and without various project alternatives.

Analysis of alternatives

Priorities and concerns of the affected communities (see Section 13.2.3) should be considered along with the developmental objectives of the
road project. Implementation issues will be important in selecting options and mitigative measures which are culturally acceptable and which can be sustained over the long term.

**Mitigation plan**
Clear responsibilities need to be assigned for the implementation of mitigative and compensatory measures; sustainable financing must be provided and remedial actions taken where the original measures are found to be not entirely successful; and on-going monitoring (see Section 13.3) is required.

**Environmental specifications for contractors**
The main requirement here is to ensure that work camps, temporary works, and the lifestyles of construction workers do not have negative impacts on the social and economic welfare of nearby communities. Project workers, for example, should be restrained from hunting, fishing, or otherwise using the local resources that are held in common by the indigenous peoples.

**Legislation**
Given the generally inadequate recognition of the rights of indigenous peoples to control their own lives and the development of their environment, it should be incumbent upon the management of a road project to ensure that those rights are respected and afforded legal recognition. This recognition should be made effective through the strengthening of indigenous peoples' capacities to exercise their rights (see Sections 13.2.3 and 13.3.3).

13.5 REFERENCES AND BIBLIOGRAPHY


