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**Autor:** Horberry, J.A.J.  
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## **The Role of the Social Scientist**

Le rôle de l'expert en socio-économie

Die Rolle des Sozialwissenschaftlers

**J. A. J. HORBERRY**

Atkins Research and Development  
Epsom, Surrey, U.K.

### **SUMMARY**

The role of the social scientist is to evaluate those aspects of the social, economic and cultural organization of the local environment for which a particular construction project is to be designed. This is to ensure that the project is appropriate not only for the physical, technological and ecological conditions, but also for the 'host' populations involvement and the defined social objectives. This function is most urgent when consultants and contractors are working in countries whose social organization, economic and political systems and cultures differ greatly from their own.

### **RESUME**

Le rôle de l'expert en socio-économie est d'analyser l'ensemble des structures sociales, économiques et culturelles constituant l'environnement d'un projet de construction. Une série d'enquêtes est faite afin d'assurer que la conception du projet réponde aux conditions physiques, technologiques et écologiques et soit en harmonie avec les infrastructures existantes. Ces enquêtes préliminaires deviennent particulièrement cruciales lorsqu'il s'agit d'un projet devant être implanté dans un pays dont la culture, ainsi que les infrastructures sont extrêmement différentes de celles du pays du consultant ou de l'entreprise de construction.

### **ZUSAMMENFASSUNG**

Die Rolle des Sozialwissenschaftlers besteht darin, jene Aspekte der sozialen, wirtschaftlichen und kulturellen Organisationen der örtlichen Umgebung zu bewerten, für welche ein bestimmtes Bauprojekt entworfen werden soll. Das heisst, er muss versichern, dass das Projekt nicht nur für die physikalischen, technologischen und ökologischen Bedingungen geeignet ist, sondern auch in Bezug auf die einheimische Bevölkerung und die definierten gesellschaftlichen Endziele. Diese Aufgabe ist sehr wichtig, wenn Berater und Unternehmer in Ländern arbeiten, deren gesellschaftliche Ordnung und wirtschaftlichen und politischen Systeme sich von den eigenen wesentlich unterscheiden.



## 1. INTRODUCTION

I wish to start with the assumption that we are all agreed on the need to design construction projects to be appropriate for a specific location and to fulfil a specific function, whether we choose to judge the project on the basis of economic rates of return, technical efficiency or political and social benefits. Within this context, I will focus on the socio-economic and cultural factors that are relevant to a design strategy in developing countries. Plainly it is always necessary to evaluate the physical, ecological and technical aspects of a project, but this is especially critical when assessing the feasibility, appropriate design specifications and potential effects of construction projects in developing countries where foreign expertise is introduced into an unfamiliar non-western environment. Furthermore, a special category of socio-economic and cultural variables requires scrutiny in evaluating the inherent problems of this transfer of expertise or technology to a host environment that is of a different social, economic and cultural character, and in examining the potential social impact of such a project. It is this area that is of concern to the social scientist within a wider evaluation of the host environment - namely the human, economic and political implications of development construction projects, whether bridges, agricultural projects or industrial plants.

## 2. THE SCOPE OF THE SOCIAL SCIENTIST'S CONTRIBUTION

### 2.1 The Aims of Social Analysis of Construction Projects

There are two main reasons for the involvement of the anthropologist or sociologist in project feasibility evaluation or design. Firstly, it is important to identify constraints of a socio-economic or cultural nature that may impede the implementation of a project or jeopardise its success (however defined); secondly the responsibilities of consultants working in developing countries are rapidly widening to include an evaluation of the effects or impact of the projects they undertake, both to minimise undesirable social or cultural disruption and to ensure that the well-defined objectives of social and economic development are realised. Unfortunately, the consequences of not following such an approach include both wasted money and social dis-benefits for the developing countries, and a damaged reputation for the consultants themselves. However, these issues are highly complex, since the interests or objectives of governments, commercial or economic institutions and the often unwitting recipients of these projects can diverge greatly. It is quite clear though, that there is no justification for complacency of this issue.

### 2.2 General Strategy for Social Impact Studies

A general strategy for conducting studies of this nature in the many different situations that might require them entails:

- setting up effective communication with local counterparts or associates who have access to local data sources or key informants.
- following a systematic methodology of data gathering and analysis on social factors that would not be often undertaken in developed countries where the social organisation and culture is broadly similar to those of the consultants. This may not necessarily require a complete field study, but should be tightly focused on the extent to which the proposed project will directly or



indirectly affect the local population, and what involvement would be expected of them in terms of construction, operation, maintenance, administration or training requirements.

- lastly, adopting a more patient and accomodating attitude towards infrastructural, organisational or bureaucratic standards than would be tolerated in his home environment. It is unrealistic to expect standards and style of organisation and professionalism in developing countries of the same type as those in the industrialised world.

### 2.3 Data Collection

Typically, the baseline data necessary for the most demanding of projects would include:

- demographic data: size, structure and characteristics of the local population
- socio-economic practices and organisation; economic activity, employment, use of land, distribution of income, experience of western economic practices
- social organisation: kinship structure, family size and organisation, settlement patterns
- cultural characteristics: customs, religion, political organisation

Further data specific to a particular project may include such factors as agricultural practices, management of natural resources, amenability to and familiarity with the work practices and administrative structure imported by the consulting engineers or their contractors. Also it is often necessary to evaluate the different interests or aspirations of socio-economic or ethnic groups likely to be involved in different ways with the project.

### 2.4 Data Analysis

In order to predict or make an assessment of the social impact of the project, which logically follows the use of the base-line data in the initial feasibility work and project design, more tightly focused, and often more qualitative information is required. This is an indeterminate area, somewhat vulnerable to the cynical critic, since prediction of human response or reaction to intrusion is not a precise science. Here the critical variables are the perceptions and attitudes of the local population relating to their participation in the project or their rational evaluation of the benefits to be expected. It often surprises western consultants that local populations resist intervention, do not always see projects as beneficial, and are not prepared to change their way of life to suit the requirements of a plan they either have not been given the opportunity to understand or which they perceive from within their own value systems or experience as being without benefit. Further to this is the attempt to forecast any undesirable secondary effects of a project that take effect after the project is completed and the experts or consultants have departed. It is crucial that the responsibilities for ensuring administrative or social continuity and harmony are not ignored, especially at the design and construction phase.



### 3. CONCLUSION

I would like to make two final points. Firstly, the practice of subdividing or packaging parts of a construction project, while no doubt necessary, increases the problem of ensuring a constant or consistent approach to the social and cultural impact of projects through from the consultant down to the sub-contractor on the site, especially where significant involvement with the local community is required, or where the project has important social and political objectives. Secondly, it must be emphasised that, although they are often taken for granted, the socio-economic factors must be systematically and thoroughly analysed, and cannot realistically be isolated from the technical or ecological factors. An understanding of the interrelationships of these factors is crucial to the effective, economically viable and socially beneficial design of construction projects and their subsequent implementation by foreign consultants or contractors working in developing countries. Although time does not permit the discussion of case histories, my own experience of the socio-economic effects of design and construction projects ranges from fast suspension bridges in Fiji to the importation of large work forces in Saudi Arabia, or the development of a vast copper mine in Bougainville, Papua New Guinea.