Macroproject Development in the Third World

An Analysis of Transnational Partnerships

Kathleen J. Murphy

ROUTLEDGE

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About the Book and Author

Macroproject Development in the Third World: An Analysis of Transnational Partnerships

Kathleen J. Murphy

During the 1970s an unprecedented number of large-scale projects of various kinds were launched in the Third World. Many multinational corporations that were experienced in initiating such projects in industrialized nations encountered unanticipated difficulties and risks in the new settings. This book assesses the experiences of multinationals and host nations and offers guidelines for effectively implementing macroprojects in developing areas.

The author synthesizes data from more than 1600 macroprojects conducted during the 1970s; statistical information was supplemented by on-site surveys and interviews. She emphasizes that the successful development of a large-scale project hinges on the effective coordination of numerous individuals and groups--owners, project management contractors, indigeneous and foreign workers, financiers, government ministeries, consumers, etc. The key to success, she concludes, lies in anticipating and managing for sociocultural discontinuities and in setting up an adequate audit of organizational effectiveness. The guidelines resulting from her analysis are intended to assist multinational corporations and their host counterparts in understanding the new arrangements and approaches needed to successfully manage the macroprojects of the future.

Ms. Murphy is an independent consultant based in New York City. Research for this book was conducted while she was a research consultant for McKinsey and Company, an international management consulting firm.

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"The age of nations is past. The task before us now, if we would not perish, is to shake off our ancient prejudices, and to build the earth."

— Teilhard de Chardin

"There is no going backwards, but in the very moment of deepest need (there is) a hitherto undreamt-of movement forwards and outwards."

— Martin Buber

Dedication

To all the individuals — the owners, the project managers, the indigenous and foreign workers and professionals, local citizenry, international financiers, buyers of the output, government officials, etc. — who ushered these worldscale "grand pyramids of the 1970s" into existence. Working on a daily basis at the cutting edge of "progress" it was within the scope of their daily responsibilities to push for breakthroughs and insights in management, technology, socio-cultural evolution, etc. Joining these projects from diverse social, cultural, economic and educational backgrounds, heritages and experiences, the more than 10,000 people per project required to bring a typical worldscale achievement to fruition provided a source of strength as well as enhanced the complexity of these macroprojects.

Something beyond the easy, the convenient, the traditional drove these people to undertake these "macro" commitments. As one journalist remarked of the official dedication of a macroproject installation: "The dedication was there long before the ceremony."

Contents

List of Tables and Figures

Tables

Figures

Preface

The decade of the 1970s saw an enormous step forward in investment activity throughout the developing world. The oil crisis of 1973 enabled Third World governments to indulge their spirit of nationalism by launching industrial and infrastructural projects on a scale comparable to the industrialized West. The magnitude of effort that has been invested in macroproject development (any project over $100 million) throughout the Third World from 1970 to 1979 is the focus of this book. Developing countries have been mounting these development projects on a scale that is awesome by any measure. Between 1970 and 1979, well over 900 macroprojects were begun, representing a total investment of over $500 billion. At least another 600 macroprojects are on the drawing boards. If all are brought to fruition, the investments will total more than $1 trillion. Fueled primarily by the shift in power and financial resources created by the oil crisis, project activity is going on not only, as might be expected, in resource development, but in processing industries such as metal refining, smelting, and petrochemicals, and also in infrastructure, including the burgeoning of whole cities and industrial parks, massive desalination plants, roadways, and ports.

Developing countries were not able to implement projects of such magnitude entirely on their own, however. They depended on multinational corporations to provide the capital, technology, management and market access which — in many cases — they lacked. The efforts at transnational and transcorporate collaboration which resulted did not always go smoothly. Multinationals with considerable experience in similar projects in an industrialized environment found that they had great difficulties in the Third World. Though their commitment to budget and schedule obligations was sincere, the enormous gap in social and cultural values and modes of operation, as well as the number of stakeholders involved often threw the projects out of control.

A major feature of the decade of the 1970s was an expansion in the range of postures developing countries and multinationals adopted toward each other. Certainly, developing countries were taking increasingly firm attitudes about their rights to project ownership and profits. For this, they had the model of nationalizations that occurred as an aftermath of the oil crisis, as well as the independence that the gush of oil dollars brought to oil-producing countries. Multinationals, although often stripped of ownership of supply sources, entered into numerous arrangements to continue some measure of managerial control and continuity of supply.

The notion that ownership and control are synonymous is no longer true. The relationship between risks, ownership, and control has been freed to be set in a balance appropriate both to the complexity of particular projects and the varying contributions of the principal parties. Many new contractual alternatives and combinations have been developed over the last decade as a result of these trends.

This newly enlarged field of alternatives for establishing partnerships argues for new perspectives on the parties concerned. For the purposes of this book, an extension of the "host country" metaphor (commonly used to designate the developing country in which macroprojects are initiated) is proposed. Participants from developing countries will be referred to as "host" participants; the multinationals as "guest" participants. Implied in this idea is a reciprocity and flexibility in defining the responsibilities and expectations for the relationship. Within this context, the hosts are expected to provide a stable environment for the duration of the project by interfacing with local governments and communities, and by strictly adhering to the contractual agreement. The guest multinationals, on the other hand, bearing their gifts of technology, capital, or access to global markets, are expected to offer these efficiently and effectively with due regard and respect for the local situation and indigenous capabilities.

This new perspective is extremely important, as a key aspect of macroprojects is the human side of transnational collaboration and the amount of attention that it demands. One of the more important human factors is the need for effective project leadership to establish and preserve the economic integrity of a macroproject. The responsibilities and tasks of the various participants need to be coordinated and directed. An organizational approach must be designed to bridge the gap between the multinational guests and their Third World counterparts.

The analysis of transnational partnerships that follows is based on a massive data collection effort sponsored by McKinsey & Company, Inc. Chiefly through the analysis of published material, more than 1600 projects of $100 million or more were tracked from January 1970 through June 1979 in 90 of 120 developing countries. Later, the scope of the study was expanded to include Australia and New Zealand. (Like many developing nations, both of these countries require extensive financial, technological, and marketing help from foreign enterprises in order to exploit their untapped resources.) For each macroproject, a project history was compiled that included data on participating companies, type of involvement, project scope, and changes in costs and completion dates. To check and amplify the statistical findings, a field survey was conducted in Southeast Asia, Oceania, and Latin America. It should be noted that because this is a statistical study the following analysis presents a global perspective. Thus, the reader should be aware that certain important issues may not be addressed at the level of depth they deserve because of the limits of the survey research approach.

Acknowledgements

I am very grateful to all the multinational and host companies, client organizations, and government officials, representative of the macroproject sample of participants, whom I have interviewed over the past several years as part of the research for this book. Their comments, insights, accessibility and courtesy are deeply appreciated.

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My parents, brothers and sisters, and all my very special friends have been very patient and supportive during the many years of intensive research on this subject.

More immediately, I have enjoyed the encouragement and enthusiasm of Frank Davidson of the Macro-Engineering Research Group at M.I.T. who very much shares my interests and commitment to macro-engineering. I am also very grateful to Jonathon Aronson and Daniel Bradford who encouraged me to undertake this book. Of course, this work would never be realized without the lively interest and assistance of Fred Praeger, Dean Birkenkamp, Michael Rosenberg, and Kathy Wilson of Westview Press.

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1
The Need for Close Collaboration

> Companhia Vale do Rio Doce (CVRD) plans to build, in collaboration with a consortium of Japanese firms, an aluminum smelter and an aluminum refinery complex near Belem (Brazil) with an ultimate capacity of 640,000 metric tons per year, <u>a level not reached by any existing plant in the world.</u>*

...Announcements of this kind were becoming more and more frequent throughout the 1970s, with one year's record-breaking project following hard on the heels and eclipsing the fame of the previous year's record-breaking project. The impetus for mounting these projects of unprecedented size arose from the desire of newly oil-rich countries to undertake massive industrial development, as well as the necessity, faced by most Third World countries, of expanding the scope of their primary projects to include extensive infrastructure support.

The Belem project, described in the press release cited above, is a good example of the sometimes erratic fortunes of these vast projects which require enormous concentrations of resources and effort — yet provide little assurance of success. A joint venture between CVRD and Nippon Amazon Aluminum Company of Tokyo, a Japanese consortium of 32 firms, the Belem project was originally slated to cost $2.5 billion. When costs escalated to $3.3 billion, the project was considerably scaled down before being abandoned in 1977. Later revived at the scaled down level, the project was subsequently projected to cost $4 billion to $5 billion. This example of the way in which project histories become erratic even before

*Japan Chemical, December 4, 1975. Emphasis added.