## 2 INTRODUCTION

This research project is an outcome of the two years‘ effort between 1985-1987 under the sponsorship of North-South-Dialogue-Scholarship Programme of the Austrian Government. After arrival of Mr. M. P. Gautam, ecologist and doctoral candidate from Nepal in Vienna he was assigned to work at the Institute for Landscape Planning and Garden Architecture, Technical University Vienna. At the initial stage, several discussions about the burning problems of Kathmandu were held. Many alternative methodologies needed for this study were at hand. However, we decided to follow a more applied methodology, LANDEP, which was recently developed in Slovakia with a view that this applied methodology could contribute a lot to solve the problems faced by urbanization Kathmandu today. This research projects is fully presented only in this monograph. So far, only some adapted selected parts have been published at international fora (Žigrai 1991, Žigrai, Gautam 1990, 1992 a, b, 1994). Lack of some analytical source materials necessary for the preparation of the landscape-ecological plan called for expansion of the LANDEP methodology adding to it air pollution and noise assessments by land use data interpretation. Delimitation of territories with urban landscape use conflicts of were also included. Parts of the project text is a number of colour maps. Because of technical reasons, only fragments of some maps in black and white versions are presented.

We have taken the issue seriously. Detailed programmes were set up with his kind cooperation and ultimately a work plan was followed to solve the multi-dimensional problems of the Nepalese capital. As a matter of fact, the study would not have been completed without a detailed field observation and field checking at the research territory. Financing was still a great problem. However, Prof. Gälzer, Head of the Institute, was successful in securing the needed funds from the Austrian Government (Ministry of Foreign Affairs) and the Economic Commission of Austria (Academy of Science). During the 3 months of field study in Nepal were collected a lot of analytical maps and texts, journals and reports for our purpose. During our field visit, the cooperation provided by HMG/Nepal, especially the Kathmandu Valley Physical Development Committee, the Canadian Assistance Programme for Nepal, the Nepal Remote Sensing, PADCO, and the Department of Geography, Tribhuvan University were remarkable. A series of discussions and meetings with the intellectuals and practitioners from Kathmandu was also a very fruitful contribution for this study. It is hoped that this report, though a very small contribution as well as a first-hand attempt, would become an important material for the future planners of the valley and interested researchers directed towards this aspect. Last but not least, we believe that the ”LANDEP” method would be a very successful tool to solve the environmental and socio-economic problems of many rapidly urbanizing cities of Nepal in the years to come.

Because of the modern forms of development and unplanned urbanization, the landscape and the environment of Kathmandu has been deteriorating for the past few decades. Many of the current problems of the present day environment of this planned territory arise not only from population size and poverty but also from poor internal organization (i.e. coordination, support etc.), structure, lack of integrated approaches, lack of definitive goals etc. As a consequence, we have now reached a point where it can be rightly said that there is a ”great destruction of land”, a selling-out of the landscape. Here is a list of

damages: pollution of air and water, traffic congestion, refuse, urban sprawl, destruction of fertile soil, highway construction, cultural degradation, deforestation etc. In addition to the above mentioned crisis, there is another question still to be answered by the planners of Kathmandu: to what extent will it be possible to dispel the worries of Kathmandu‘s citizens who fear that they might lose their cultural heritage. The principal purpose of this study is, therefore, to find solutions for the above mentioned problems with the aid of the ”LANDEP” (Landscape-Ecological Planning Method) and to provide some basic guidelines for the future planners based on the principles of LANDEP.

Review and analysis of the regional materials further suggest that an appropriate and optimum ecological planning for this urbanizing city is a rather difficult task. Physical planners, so far involved for alleviating the general crisis of urban-rural complexes, alone cannot cure the recent socio-economic and environmental problems by building one or two good model houses, streets, gardens and a limited housing/settlement project. Rather, they should try to diagnose the disease to understand the root cause of the crisis and attack it at those roots. Therefore, the developmental objectives of this territory could be achieved by guided development rather than restricted or controlled development. Large scale public participation and many applied methodical approaches - such as LANDEP, the Metropolitan Landscape-ecological approach (METLAND), the Environmental Impact Assessment (EIA) - and physical planning approaches should be carefully taken into consideration.