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HUMAN SETTLEMENTS IN THE MEDITERRANEAN REGION: SOME PROBLEM-SOLVING APPROACHES AND PROPOSALS FOR ACTION

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DEFINITION OF THE PROBLEM: PRESENT STATUS AND LONG-TERM TRE DS

- 1. The Mediterranean region, cradle of very ancient civilizations, has for thousands of years been subject to intense human intervention which has left clearly visible traces on the environment. One major transformation has been the proliferation of human settlements.
- 2. In this paper, the term "human settlements" is used in a general sense to include the full range of settlements without limits as to size or population. Since human settlements are dynamic and thus changing through time, consideration of historical processes and historical development is of utmost importance. The growth of human settlements in the Mediterranean region has been linked to a growing population, increased commercial activities, contacts with other cultures, and industrialization.
- Jubanization. Today, about 70 per cent of a total population of over 250 million people is concentrated in urban areas, showing a clear trend toward the formation of increasingly large and densely repulated cities. The situation is changing so rapidly that public authorities in many countries of the region find it difficult to control the many severe problems linked to, inter alia, use of land, creation of jobs, housing, and communication and transportation needs. Thus the town once pre-eminent as a hub of civilizing influences is nowadays decried by many as a place rife with every form of pollution, time-wasting difficulties, segregation, psychological stress, solitude and occasionally even danger.
- 4. One specific concern as regards all urban areas is water. In the Mediterranean region, water is an urgent problem from the point of view of both quantity and quality. For example, in southern Mediterranean arid zones, the amount of mineral salts or suspended solids in the water often exceeds the limits recommended for use by human populations. The availability of water is also significant in the disposal of sewage, including human wastes. Inadequate facilities can lead to cerious health problems which affect human well-being and productivity.
- 5. Large-scale industrial complexes. The growth of large-scale industrial complexes is another important problem in the Mediterranean region. Steel, petroleum and related industries are particularly important in this respect. The implantation of these industries has had a brutal, direct and immediate impact on the development location, while indirect effects are still unknown. To date, most information available on this process has been sectoral in nature, concentrating on, for example, employment, production, pollution, specific aspects of flora and fauna, etc. What is lacking is an integrated evaluation of the overall impact of these large-scale complexes, including consideration of indirect costs such as changes in the quality of life of local populations.
- 6. <u>Small-scale coastal transformations</u>. Small-scale coastal transformations, usually based on local or regional initiatives, are characterized by various degrees of lack of spatial organization. Their impact on the natural and social milieu is a collective, progressive and sometimes insidious one, in contrast to large-scale enterprises deriving from national or supra-national sources.

- 7. These small-scale coastal transformations are caused by the construction of vacation homes, the multiplication of speculative housing developments, the uncontroll extension of urban or suburban areas, and the expansion of recreation facilities such marinas and small craft ports. It is important to consider the impact of these various components in terms of their social usefulness, taking into account the needs of both the community and the individual.
- 8. Development of tourism in coastal areas. In recent years, there has been a sharp increase in the rate and scale of growth of the tourist industry in Mediterranean coastal areas. The number of tourists frequenting these areas has in fact quadrupled less than 15 years. The negative effects of tourism on both the natural environment a the socio-cultural structure of each site is critical, not only in and of itself but also for the future of touristic activities in these areas. Thus, in order to mitigat the negative effects of tourism and to preserve the very resources that make these coastal areas attractive to tourists, the limits of growth of the industry must be determined.

APPROACHES TO THE PROBLEM

- 9. It is proposed that an integrated ecological approach to the analysis of human settlements be adopted as a basis for long-term, environmentally sound planning of human settlements within the broader context of national and regional economic development in the Mediterranean Basin. Such an approach is intended to provide planners and decision-makers with objective scientific information on which sound management can be based information oriented to the solution of concrete practical problems.
- 10. There are several important features of an ecological approach to human settlements. One is that it emphasizes integrated monitoring and modelling studies which include non-biological, biological, human biological, physico-chemical, socio-cultural, economic and psychological variables and their interactions. Among the methods which appear to have significant integrative potential are conceptual modelling energy and material flow analysis, carrying capacity analysis and systems analysis in its broadest sense. Another important feature of this approach is that human well-being is considered a fundamental objective in planning human settlements and a primary criterion for evaluating the performance of the system.
- 11. A practical integrated approach to the study of human settlement problems in the region would consist of the study of human use systems, and of the interactions betwee settlements and their surrounding ecosystems and environments. In such an approach, man would be considered as a biological, cultural, social and economic entity, playing a pre-eminent role in modifying the ecosystems on which his livelihood and well-being depend.
- 12. Within the particular socio-cultural and ecological conditions of the Mediterrane the main aims would be: (a) to develop conceptual frameworks and methodological guidelines for the integrated study of human settlements as ecological systems; (b) to improve knowledge and understanding of the ecology of human settlements, especially in terms of key ecological processes; (c) to improve understanding of the relationships between the ecological, structural and functional characteristics and processes of giv human settlements and the state of well-being of the population; (d) to use and apply existing knowledge for training, planning and demonstration purposes.

13. Special attention would be focussed on human settlements in zones of particular importance in the Mediterranean. One such focus might, evidently, be coastal areas. Another focus might be on under-utilized inland areas. Until now, a linear approach has been excessively used in the development of coastal areas. Given the limitation of space along the coastal areas, planners, urban specialists, architects and members of other disciplines should be challenged with developing new forms of human settlements adapted to include inland space so that access to an overburdened sea would be facilitated to those who really need it.

SUGGESTIONS TOWARDS IMPLEMENTATION

- 14. It is proposed to develop a series of eight to ten integrated demonstration pilot studies on human settlements in the Mediterranean region, as a basis for better understanding the functioning of human settlements as ecological systems and for decision-making. While the approach would be an holistic one, special attention should be given to interactions between human settlements of various types and complexities with their surrounding environments and to problems of key ecological processes such as energy and materials flow and distribution.
- 15. An attempt would also be made to bridge the gap between urban planners and research scientists concerned with the integrated study of human settlements, in part by involving planners and decision—makers in all stages of the planning and implementation of projects. Consideration would be given to the decision—making process which determines ultimate choices, including identification of the most relevant actors in this process (administration, financial groups, associations, unions, public opinion, etc.), as well as analysis of the possible conflicts among them.
- 16. It is suggested that projects be developed for the four following situations: large-scale urban conglomerations; large-scale industrial complexes; small-scale transformations of coastal areas; large-scale operations for tourism development in coastal areas. It is proposed that at least two pilot projects be developed for each of these four categories or types of human settlements or industrial development. For each pair of pilot projects, one project might optimally be sited in a country bordering the northern part of the Mediterranean Sea, the other in a country bordering the eastern or southern parts of the Sea. Such an arrangement could facilitate the training and exchange of personnel and information in the region, and the strengthening of co-operative activities and understanding between and among the countries of the region.
- 17. The focus of attention of a given pilot project and the problems it is designed to resolve will evidently determine the specific approaches to be adopted for improving understanding of system functioning in the various pilot projects. It is suggested, however, that attention might usefully focus on two closely related but distinct aspects of the functioning of human settlements:
- (a) analysis of particular settlements, or systems of settlements, and their components as ecological systems, with particular attention to input-output studies or oudgets of materials and energy flows, combined with the analysis of interrelationships between these processes of the settlement system and human well-being;

- (b) analysis of the interaction between the human settlement (or settlement pattern) and the natural ecosystem of which it is a part, with particular attention to the short- and long-term effects of each on the other, the capacity of the natural system to support human activity and the need to plan for maximum sustainable use and conservation of renewable natural resources.
- 18. The knowledge gained in particular pilot projects should be applied and translate into practical policy guidelines for urban decision-makers and land-use planners. approach to elaboration of such recommendations could be based on examination, in a particular settlement or settlement system, of the existing administrative systems concerning urban planning (including physical planning, transportation, land-use policies), sanitation services (water supply, sewage and solid waste disposal), air pollution control and amenities (recreation, cultural activities). The objective would be to formulate models for integrated urban and environmental management systems. adapted to the particular conditions of the Mediterranean region, and taking into account the size of the human settlement, its development objectives, available resources, level of development of the country, existing stresses on ecosystems, etc. These models could also be used to formulate specific recommendations for changing existing national and local structures and programmes, changes which will be necessar. to achieve certain specific targets over a given timespan. Some of the recommendation formulated for a particular settlement might be applicable to settlements with similar characteristics in other parts of the Mediterranean; some elements may even be of general validity.
- 19. The sites of integrated research and demonstration projects should be used for the training of research workers, planners and other relevant personnel, through in situand in-service training programmes, and through the organization of specific training courses and seminars. Mechanisms would be established to ensure the exchange of personnel and information among the various integrated activities on human settlements carried out within the region, and links established with similar projects in other regions.
- 20. It is further suggested that planning and implementation of these pilot projects on human settlements in the Mediterranean region be approached through a two-phase procedure:
- (a) In the first phase, consultations would be carried out with countries to identify the most likely sites for implementing integrated ecological projects on huma settlements and associated training and information activities.
- (b) The second phase would consist of the actual implementation of selected demonstration projects and allied training and information activities, in accordance with the particular conditions; problems, priorities and needs in the Mediterranean region, considered from both a biogeographic and socio-cultural viewpoint. These demonstration projects would generally be of two to three years' duration, and would benefit from the experience and information gained from field projects already initiating the framework of the MAB Programme and the UNESCO/UNEP co-operative programme in the field of human settlements.
- 21. It is suggested that the development of these concrete problem-oriented actions chuman settlements in the Mediterranean region take full advantage of existing concepts and logistic frameworks. Among these frameworks for international scientific co-operation, mention might be made of the intergovernmental and interdisciplinary Mar and the Biosphere (MAB) Programme of UNESCO, and especially MAB Project 11 which is

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concerned with ecological aspects of urban systems, with particular emphasis on energy utilization. 1/ Within the framework of this project, UNESCO and UNEP are currently developing a series of integrated ecological studies on human settlements, in the various regions of the world, 2/ as well as a training programme for urban managers. Advantage should also be taken of the mechanisms for co-operation developed by Mediterranean countries within the framework of MAB. It is also important that the pilot projects be developed in close liaison with the action programme drawn up as a follow-up to "Habitat", and to projects undertaken by such bodies as the Centre for Housing, Building and Planning (CHBP) of the United Nations Department of Economic and Social Affairs and by Regional Economic Commissions.

^{1/} See MAB Report Series No. 13. Expert panel on Project 11: Ecological aspects of energy utilization in urban and industrial systems. Bad Neuheim, 16-19 October 1973.

^{2/} See MAB Report Series No. 31. Task force on integrated ecological studies on human settlements, within the framework of Project 11. Paris, 2-6 June 1975.