
**EVALUATION REPORT OF THE HUMAN SETTLEMENTS
AND THE ENVIRONMENT SUBPROGRAMME**

**UNITED NATIONS ENVIRONMENT PROGRAMME
FOLLOW-UP AND EVALUATION SECTION (FUES)**

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TABLE OF CONTENTS

EXECUTIVE SUMMARY AND CONCLUSIONS	1
I. INTRODUCTION.....	4
1.1 BACKGROUND.....	4
1.2 PROGRAMME OBJECTIVES	5
1.2.1 UNEP's Medium-Term Plan (UNEP-MTP) for 1990-1995.....	5
1.2.2 System-Wide Medium-Term Plan (SWMTEP) for 1990-1995	
1.2.2.1 SWMTEP Specific Objectives for Human Settlements	5
1.3 PURPOSE AND METHODOLOGY OF THE EVALUATION.....	6
II. PROGRAMME DESIGN AND ACCOMPLISHMENTS.....	7
2.1 APPROPRIATENESS OF THE PROGRAMME	7
2.2 EFFICIENCY AND EFFECTIVENESS OF SUBPROGRAMME OBJECTIVES	9
2.2.1 Information dissemination on environmentally appropriate technologies for human settlements planning and management.....	9
2.2.2 Training of Urban Managers	10
2.3 QUALITY AND UTILITY OF PROGRAMME OUTPUTS	11
2.3.1 Training.....	11
2.3.2 Publications.....	12
2.3.3 Demonstration/Pilot Projects	14
2.4 ORGANIZATIONAL STRUCTURES	14
III. PROBLEMS AND CONSTRAINTS	16
IV. LESSONS LEARNT.....	17
V. RECOMMENDATIONS	18
IV. ANNEXES	20

EXECUTIVE SUMMARY AND CONCLUSIONS

UNEP addresses environmental problems associated with human settlements through its Human Settlements and Environment programme. This is in recognition that large parts of urban areas, particularly in developing countries, are occupied by slums, squatter settlements and other unplanned and unorganised developments that adversely affect the environment and impose unsuitable living and working conditions to the inhabitants. Such areas also lack the basic services such as water, sanitation and waste disposal facilities and these in turn affect people's health. The environmental planning and management of such urban settlements pose difficult challenges to the authorities concerned.

UNEP is mandated within the UN system to assist in catalysing governments and other agencies to incorporate environmental aspects in the planning and management of human settlements. Through its human settlements and environment programme, UNEP seeks to promote environmentally sound human settlements planning and management. The strategy which has been adopted by the programme for achieving this objective include the training of urban managers on environmental planning and management as well as generation and dissemination of information on environmentally sound techniques and technologies.

Although the 1990-1995 plans for the human settlements and the environment programme were envisaged to incorporate two subprogrammes namely: human settlements planning and management and; community preparedness for natural and man-made disasters, activities in this programme have been concentrated in the former subprogramme. Support towards the establishment of the United Nations Centre for Emergency Environmental Assistance in 1991 was the only activity that was implemented under the latter subprogramme. The centre was transferred by the Executive Director in 1992 to the Global Environmental Monitoring Programme.

The projects that have been implemented under the human settlements planning and management subprogramme have involved four key activity areas:

- a) Training of urban managers in environmental planning and management of human settlements, application of environmental and health guidelines for human settlements and; water and waste management.
- b) Production and distribution of publications on environmentally sound planning and management of human settlements;
- c) Demonstration/pilot projects on environmentally sound planning and management of human settlements and;
- d) Assessment of environmental conditions in human settlements.

1. UNEP's training activities the human settlements planning and management subprogramme have addressed the needs of various categories of urban managers; planners/architects, decision makers and technicians specifically from developing countries. However, although these courses are technically adequate, the number of trained urban managers is still very small to produce the desired impact. Emphasis should be shifted towards the development and strengthening of training capacities of national and regional institutions. This strategy will increase UNEP's catalytic effect as sustainable training programmes will be established that will eventually be independent and which will have a better multiplier effect for trained urban managers.

2. The production and distribution of publications as a means of disseminating information on environmentally sound human settlements planning and management is a continuous activity within the programme. Some of the old publications such as the guidelines on environmental and health planning and management of human settlements are being used as training materials and also being distributed to training course participants as well as to agencies and organizations that request for them. Four new publications were produced during the 1990-1993 period. The problem facing this activity is the distribution of the already produced materials. The programme lacks a systematic way of identifying the clients for the publications and how to reach them. UNEP needs to develop a data base for the publications which will ensure that the specific clients for each publication and the most efficient network for distributing the publications to them are identified. This will also require a follow-up and evaluation mechanism to determine the impact of these publications in relation to the programme objectives.

3. Although UNEP has implemented demonstration projects to assist in the development and promotion of regional, national and local strategies for environmentally sound planning and management of human settlements, the objectives for this objective have been partially achieved. Poor information flow between UNEP and the collaborating/implementing agencies, lack of commitment on the part governments and failure to assess the capabilities of implementing agencies and to plan for appropriate mechanisms for technical and management backstopping are among the major constraints that affected these projects. As a result, most of the expected outputs from the demonstration projects were not realised. Consequently, the strategies that were to be derived from these projects could not be extrapolated to other areas. This evaluation proposes that UNEP undertakes a detailed pre-project evaluation in order to take stock of the constraints to be expected and make plans for backstopping. It is also suggested that demonstration projects be of small size both in scope as well as budget with very specific objectives involving few institutions to minimize management problems. UNEP should also be in charge of the preparation of the reports from these projects which are to form the basis for strategy development and replication.

4. The problem of understaffing within the programme needs to be addressed in order to enable programme to effectively manage the projects and realize the set objectives. This evaluation also recommends that the existing collaborative arrangements between UNEP and the UNCHS (Habitat) be revisited to ensure that a more effective working mechanism is put in place. The human settlements programme activities within 1990-1993 have declined whereas the collaboration with WHO and other agencies has increased over the same period. This kind of approach is likely to weaken UNEP's impact

in the overall environmental planning and management of human settlements since Habitat is the main UN agency that can have a major influence in the way human settlements are planned and managed. Establishment of policy guidelines to ensure joint project development, screening and approval by the two agencies will be a viable option.

UNEP's human settlements planning and management subprogramme has an important role to play in the face of increasing human settlements problems, particularly in developing countries. Sustainable cities can only be developed through adequate integration of environmentally sound planning and management aspects. These principles must be promoted particularly in the light of the recommendations of Agenda 21 which put the issues of environment and development on the forefront.

INTRODUCTION

1.1 BACKGROUND

UNEP's Human Settlements and Environment Programme was designed to address the environmental aspects of metropolitan growth and management as well as the preparedness and urgent environmental assistance for natural and man-made disasters. The programme derives its legislative authority from resolution 1 of Governing Council of 1982 section III paragraph 2(a) and (d) and council decisions 11/7 paragraph 4(c), 14/3 and 15/18 for the medium-term plan period 1990-1995. Since UNEP is the United Nations agency dealing with environmental issues, its human settlements and environment programme is to work closely with the United Nations Centre for Human Settlements (UNCHS)/Habitat.

The human settlements and environment programme was to address two major problem areas during the medium-term plan period 1990-1995, namely:

- a) The deterioration of man-made and natural environment due to uncontrolled and unplanned urban growth, inadequate supply of water, sanitation and other basic services and;
- b) Inability of many communities to cope with effects of increasing man-made and natural disasters.

Through this programme, UNEP aimed at addressing these two key issues by promoting environmentally sound planning and management of human settlements and also by promoting community preparedness for natural and man-made disasters. Thus, the programme is effected through two subprogrammes:

- a) Human Settlements Planning and Management and;
- b) Community Preparedness for Natural and Man-made Disasters.

Only the Human Settlements Planning and Management subprogramme has been active within the 1990-1995 period and even earlier. The latter had been accorded low priority as per Governing Council decision 11/7 of 1982. It can be noted that no project has been implemented under the Community Preparedness for Natural and Man-made Disasters subprogramme since 1986 except for the development of United Nations Centre for Emergency Environmental Assistance in 1991. The centre was set up on an experimental basis to act as a focal point for providing assistance in cases of environmental emergencies. Since the inception of the centre, the United Nations Emergency Plan which set out the process of decision making has been drafted and finalised as the master plan. At the end of 1992, the centre was transferred by the Executive Director from the human settlements subprogramme to the Global Environmental Monitoring System (GEMS). The human settlements programme makes financial contributions to the subprogramme but it is managed by GEMS.

This report, therefore, presents the evaluation of the performance of the human settlements planning and management subprogramme for only the period 1990-1995.

1.2 PROGRAMME OBJECTIVES

The objectives of the human settlements planning and management subprogramme.

1.2.1. UNEP's Medium-Term Plan (UNEP-MTP) for 1990-1995 include the following:

a) Intergovernmental Objective

To take full account of environmental considerations in the development of shelter strategies, infrastructure and services and in other aspects of human settlements planning and management.

b) The general objective of the secretariat

To promote environmentally sound planning and management of human settlements.

1.2.2 System-Wide Medium-Term Plan on the Environment (SWMTEP 1990-1995) Objectives for the human settlements and the environment programme.

The general objective for the human settlements planning and management subprogramme is to take full account of environmental considerations in the development of shelter strategies, infrastructure and services and in other aspects that pertain to the subprogramme.

1.2.2.1 SWMTEP 1990-1995 Specific Objectives for human settlements planning and management include:

a) To develop and adopt global, regional and national strategies which include environmental considerations in human settlements planning and management;

b) To develop and apply innovative and environmentally appropriate techniques and technologies for human settlements, water supply and waste management facilities, especially for low-income communities;

c) To develop and implement activities for the provision of environmental services to pastoral nomads in such a way that they are able to pursue their livelihood, so that nomadic grazing is commensurate with the nature of their marginal resources;

d) To strengthen the capabilities of national agencies to plan and manage the environmental aspects of human settlements;

e) To improve the capabilities of environmental planning units to ensure greater public participation and give a larger role to the informal sector in human settlements planning and management.

1.3 PURPOSE AND METHODOLOGY OF THE EVALUATION

The purpose of this evaluation is to assess the performance of UNEP's Human Settlements and the Environment Programme for the period 1990-1995. Activities in the two biennia 1990-1991 and 1992-1993 are given specific attention with future direction determined by examining the proposed activities for 1994-1995. Also examined is the direction of the programme in the light of the current programme review within UNEP.

The exercise involves an assessment of the activities against the objectives set for the programme for the period to determine the extent to which set goals have been or are being met and how. It is also to examine the impact that UNEP's Human Settlements programme is making on human settlements and the environment. The evaluation is intended to provide relevant information which may help to improve on the future performance of the programme and also to assist in the on-going restructuring of UNEP programmes.

This is basically a desk-evaluation. The information used in the report has been derived from the review of project documents and UNEP's internal records. Documents such as the self evaluation fact sheets, whenever available, programme budget documents (PBDs), programme annual reports and project progress reports have been used as sources of information. Some information has also been obtained from staff of both Habitat and UNEP through informal discussions.

In order to determine the performance of the programme, four projects have been reviewed in detail as a means of obtaining in-depth information. All the other projects which are on-going or those that have been completed and/or closed within the period 1990-1993 (Annex 1) have also been assessed in general. The sampling frame for the four projects for detailed review has taken into consideration the following criteria:

- a) size of the projects (budgetary);
- b) geographical representation (local, regional, global), and;
- c) project status whether on-going or closed projects.

The selected projects also represent the major activity areas of the programme which are: application of the environmental guidelines on human settlements planning and management; training/capacity building and research/technology transfer. The selected projects are: Training Course on Application of Guidelines on Human Settlements Planning and Management (Annex 2); Environmental Impact Assessment of Urban Development in the Valley of Mexico (Annex 3); Lamu Town Sea Wall Project (Annex 4) and; Pilot Demonstration Project on Environmentally Sound Planning and Development of Human Settlements. in People's Democratic Republic of Yemen (PDRY) (Annex 5).

II. PROGRAMME DESIGN AND ACCOMPLISHMENTS

2.1 APPROPRIATENESS OF THE PROGRAMME

The prime objective of UNEP's human settlements programme is to promote environmentally sound planning and management of human settlements. The subprogramme has been designed to catalyze governments and agencies to incorporate environmental considerations into their human settlements programmes. The programme design involves various activities including training, research, application of guidelines, demonstration and pilot projects as well as information dissemination through publications.

The proposed strategy, for achieving the objectives of this subprogramme, has been defined both in the United Nations System-Wide Medium-Term Environment Programme 1990-1995 (SWMTP) and UNEP's Medium-Term Plan (MTP) for 1990-1995 and it includes the following:

- a) Assessment of environmental conditions in human settlements;
- b) Application of environmental guidelines for planning and managing human settlements in selected countries and the development of resource-friendly infrastructures for sustainable development;
- c) Research, training and dissemination of information on environmentally sound human settlements planning and management.

As can be noted from the kinds of projects that have been implemented in the subprogramme (See Annex 1), the proposed strategy has largely been adopted. The programme has addressed each of the key activity areas through the projects that have been implemented.

Training of urban managers, technical staff as well as decision makers has been given considerable emphasis by programme. Within the 1990-1993 period, at least four training courses have been conducted which relate directly to the objectives of the subprogramme. The training activities are aimed at improving the capabilities of national agencies to plan and manage the environmental aspects of human settlements in developing countries mainly through the training of urban planners and decision makers.

The training courses so far conducted have addressed the following subject areas:

- a) application of the UNCHS/UNEP environmental guidelines on human settlements planning and management as well as the one on the application of WHO/UNEP environmental guidelines;
- b) integrated planning of human settlements to improve environmental conditions, and;
- c) leakage detection and prevention for municipal technicians.

UNEP considers training of urban managers an effective channel for information dissemination and a

means of providing the catalytic effect through capacity building through which environmentally sound approach to human settlements planning and management can be promoted. However, UNEP needs to seek ways of expanding the geographical scope of the training programme, the subjects covered and the frequency of the course implementation so as to improve the training impact. So far, an average one course is implemented per year involving about 10 trainees. While the training is considered technically adequate, nevertheless the numbers of trainees per year are too few to create the necessary impact. Involving target groups in the preparation of training materials and promotion of capacity building of national and regional institutions to undertake the training will go a long way to solve the problem. There is need to evaluate the actual impact that the trained professionals and decision makers are making in their respective countries in order to justify the use of training courses in the programme in future.

The human settlements planning and management subprogramme has also been designed to undertake demonstration projects as a means of generating and disseminating information on environmentally appropriate technologies and application of the guidelines. This approach requires the collaboration of governments, local agencies as well as other UN agencies. These projects are intended to draw lessons and information to be used in replicating the approach at the local, national as well as the regional levels.

Although the programme did try implementing a number of demonstration projects like the pilot project in Yemen and the Lamu project (See Annex 4 and 5), they have been faced with a number of problems. The expected lessons to be learnt from these projects have not been gained and therefore not been extrapolated to other areas. This is because most of the expected outputs from these projects have not been realized.

The problems attributed to the low level of objective achievement in the pilot/demonstration projects are largely related to project design and management. Failure to take into account the capabilities and resources of the governments involved before project implementation as was the case in the Yemen project led to the delay and stalling of the project. These projects should be small in size with sufficient pre-project evaluation to ensure that the required institutional arrangements are adequate and efficient for the set project objectives. The expected constraints should be identified before project implementation and a mechanism for backstopping in place to ensure that the project objectives are achieved. The programme has not incorporated the participation of the end users in the project design to ensure its sustainability and achieve the needed catalytic effect.

2.2 EFFICIENCY AND EFFECTIVENESS OF SUBPROGRAMME OBJECTIVES

UNEP's human settlements planning and management programme objectives are mainly derived from the medium-term plan and the system-wide medium-term plan for UNEP for 1990-1995. These are all geared towards the achievement of the overall programme objective of catalyzing agencies and governments to promote the integration of environmentally sound planning and management of human settlements through the various programme activities.

2.2.1. Information dissemination on environmentally appropriate technologies for human settlements planning and management

This strategy is being used by the programme mainly through publications and demonstration projects. Distribution of the guidelines that have been produced by UNEP and other UN agencies (WHO and UNCHS) as well as other publications has been undertaken. Two demonstration projects were completed within the 1990-1993 period although they were started much earlier.

The unavailability of information makes it difficult to determine the effectiveness of this strategy particularly the publications.

It is also necessary to develop a data base for the programme outputs in order to monitor the effectiveness of the approach and ensure that the target areas and groups are reached.

A follow-up and monitoring should also be undertaken to ensure that the objective is being met and that the lessons learnt from the demonstration projects are incorporated into new projects. The strategy as it stands does not include a clear system of identifying the clients for the publications and how they can be reached.

The assumption of the objective of disseminating information is that the information already exists. UNEP needs to ascertain that the environmentally appropriate technologies are available and the economic and socio-cultural differences are taken into consideration. The lessons that were to be learnt from the demonstration projects in Yemen, Kenya or Mexico have not been replicated in the respective regions as was expected.

2.2.2. Training of urban managers

Training of urban managers, i.e. professionals, technicians and the technical staff is considered as a means of developing the capacity of the local and regional human settlement planning units and to catalyze them to integrate environmental planning and management in the human settlements projects.

An assessment of the performance of the training courses that have been examined in detail are shown in Table 1.

Table 1 Performance in the Training courses

Course	Trainees	Expected #	Actual
1. Leakage detection/ prevention Municipal	Municipal Technicians	12	10
2. Application of guidelines	Urban Managers	13	
3. Integrated Planning	Specialists	15	13
Total		42	36

The performance rate of the training courses can be considered as high. For the above three courses for example, 36 out of the expected 42 urban managers were trained, an attendance rate of more than 85%. However, it must be noted that the training courses span over a period of about five years and the number of participants is far less than the expected 60 urban managers that programme had anticipated to train within the 1992-1993 biennium.

Although training of urban managers is an effective approach, the current training activities in the programme involve very few people whose impact is limited. In order to improve the impact of training on the promotion of environmentally sound planning and management of human settlements, the capacity of the programme needs to be improved through increase in the staffing levels in the programme. Training capacities of local and regional institutions also need to be developed and strengthened to enable them undertake the training of the urban managers in the respective regions.

The programme as a whole has an important role to play in influencing governments and other agencies to integrate environmental considerations into the planning and management of human settlements. The programme's follow through of the application of the environmental and health guidelines that had been produced through earlier projects is an important achievement. What needs to be done is an evaluation of the extent and impact of the use of these guidelines in the different regions.

In terms of financial resource use within the programme, it can be noted that not all the funds available for the proposed activities in the programme were utilized. Table 2 below shows that about 47%, 44% and 21% of the committed funds for 1990, 1991 and 1992 respectively were not spent. This could

partly be attributed to the number of personnel available in the programme to enable more project development and implementation. It can also be attributed to the delays in project completion on the part of the implementing agencies.

Table 2 Financial Resource Management by the programme
(In US Dollars)

	Allocation	Commitment	Expenditure	% spent of commitment
1990	650,000	189,000	101,972	53.95
1991	789,030	141,140	79,510	56.33
1992	190,346	200,156	157,363	78.62

On the whole, although the objectives of the subprogramme are relevant, they are not adequately defined particularly those that relate to demonstration/pilot projects and publications need to be sharpened and more focused to make them more effective. A more systematic selection of activities for the programme needs to be undertaken to ensure that all the objectives are adequately addressed. This requires an immediate response to the shortfall in staffing within the programme.

2.3 QUALITY AND UTILITY OF PROGRAMME OUTPUTS

This section presents an assessment of the quality and utility of the outputs that have been realized by the human settlements planning and management through the main programme activity areas, namely:

- a) Training;
- b) Production of publications and their dissemination
- c) Demonstration/pilot projects.

2.3.1 Training

One of the strategies used in the subprogramme as a means of promoting the integration of environmental considerations into human settlements planning and management at local and regional levels is through training of urban managers.

Each of the training courses that have been implemented in the programme address specific components of the programme objectives, i.e. application of the guidelines, environmental planning and management, waste management as well as detection and prevention of water leakage. Information obtained from the evaluation of some of the courses by the participants indicates that the trainees considered the courses relevant and useful for their jobs. More than 70% indicated that they intended

to apply the information they gained from the courses in their respective countries.

The training courses are designed to suit the needs of specific urban managers, planners/architects, decision makers and technicians (Annex 2). This approach has made the courses to be relevant with direct application by the participants. The utility of the training courses could be improved if UNEP could assist training institutions in the target regions develop the capacity for conducting the courses themselves. This will also improve the catalytic effect of UNEP's efforts.

The end of course evaluations also indicated that where UNEP had direct participation by providing the technical support, those courses were considered very effective. Apart from preparing the training course syllabus and materials, it is important to provide competent instructors to enable the participants to master the information well within the short period so that they can disseminate it.

UNEP's training activities should be sustained and expanded as it is an effective channel for promoting environmentally sound human settlements planning and management. This will require an increase in the staffing levels in the programme and setting in motion a dynamic needs assessment and follow-up and evaluation mechanism for the training activities so as to influence more areas and cover more human settlement environmental issues.

2.3.2 Publications

Publications in this subprogramme help to serve a number of purposes. They are used as training materials which are aimed at capacity building, they are also used as a means of disseminating information on appropriate technologies for environmentally sound planning and management of human settlements.

Four major publications have been produced within the evaluation period 1990-1993 although the process for their production was started much earlier. They include:

a) UNEP, 1991. *Climate and Human Settlements: Integrating Climate into Urban Planning and Building Design in Africa*. Edited by Yinka, R. Adebayo. 227 copies of this book were produced in English. Available information indicates that a total of 92 copies have been distributed to date. The book has been sent to universities, individuals, government ministries and research institutions with more than 50% (49) sent to universities. In terms of geographical representation, more than 50% were distributed in Africa whereas Latin America and Asia got less than 25% of the distributed copies.

No information is available on the impact this book has made towards the achievement of the programme objectives. The book addresses the issue of environmentally sound planning of human settlements in the region of developing countries where the problems are acute. The book can also be used as a text-book by urban planning students in institutions of higher learning. In this way it can contribute to capacity building and technology transfer. In terms of the quality of this particular publication, it can only be assumed that since it has been edited by a senior officer within the programme, effort has been made to attain good quality.

b) WHO/UNEP, 1990. Indoor Environment: Health Aspects of Air Quality, Thermal Environment, Light and Noise.

c) UNEP/WHO, 1991. Surface Water Drainage for Low Income Communities.

The two publications above were jointly produced by UNEP and WHO, but published by WHO. The arrangements made between the two agencies regarding publications that are published by WHO is that the publisher distributes the books but sends 400 copies of each publication to UNEP to distribute through their own networks. However, no information is available to indicate that UNEP have distributed them although they were received between 1990 and 1991.

d) UNEP, 1991. Karibu Dodoma: Hifadhi ya bustani, mbuga na vichaka katika mji mkuu mpya wa Tanzania. The book was published in Kiswahili.

The distribution of this publication was limited to the Kiswahili speaking countries in eastern African region. These included Tanzania, Kenya, Uganda, Malawi and Zaire. Copies of the book were distributed to Universities in these countries. At the time of this evaluation, no information was available on the number that was sent to these countries nor the criteria for the selection of the people to benefit from the publication. Within Tanzania, the Kiswahili Institute received 50 copies of the book while Dodoma Town received 20 copies. It is not clear as to who the clients for this publication were. Many copies of this publication are still undistributed.

On the whole, it can be noted that although good publications were produced by the programme which are in line with the objectives and goals of the programme, they have not achieved the intended purpose. This is partly because of poor mechanisms for distribution. It is also difficult to determine the impact of publications towards the objectives of the programme because no reader's evaluation nor follow-up has been done. Their impact can not be ascertained until they are distributed to and utilized by the appropriate users.

The purpose for the production of publications and the clients need to be clearly defined in order to justify the use of publications as a means of achieving programme objectives.

2.3.3. Demonstration/pilot project

One of the purposes of the implementation of demonstration/pilot projects is to develop and apply innovative and environmentally appropriate techniques and technologies for human settlements, water supply and waste management facilities, especially for low-income communities. The outcome of the activities in this area has been relatively low. Not only are the implemented projects few, and therefore can not adequately address this issue but even the ones that have been implemented have not achieved most of the objectives.

As demonstrated by the Pilot project in Yemen (Annex 5), out of the 50 houses planned, only 3 were completed, a success rate of 6%. This project also failed to put in place the infrastructure and other services which were to demonstrate an environmentally sound planned and managed human settlement. Thus, the large project which had lasted many years and cost UNEP a lot of money largely failed to achieve its objectives.

Reports and publications must be produced as part of the documentation of the lessons to be learnt from demonstration projects and be used for similar future projects in other areas. These documents have either been produced in part, as was the case of the Yemen project or they have not yet been produced as is the case with the Lamu project. This means that these demonstration projects have not served the intended purpose. Further delay in producing such documents has a direct effect on the performance of the programme.

UNEP should give special attention to demonstration/pilot projects at all stages so as to ensure that they succeed. This is because this type of projects provide the means through which UNEP can achieve its mandate of catalyzing other agencies and governments to continue with the projects they initiate.

2.4 ORGANIZATIONAL STRUCTURES

This section presents an assessment of the institutions that UNEP's human settlements and environment programme was supposed and has worked with in the implementation of its projects within UNEP, UN agencies and other organizations and agencies. This is an attempt to determine how these institutional arrangements have enhanced or hindered the performance of the programme.

According to UNEP's MTP 1990-1995, the activities for the human settlements and environment programme were to be carried out in close collaboration with Habitat and WHO. Similarly, the UN SWMTP for the same period envisaged a range of institutional arrangements that are necessary for the implementation of the programme. The collaboration with other UN agencies was also envisaged whereby the United Nations Centre for Human Settlements (Habitat), WHO, UNESCO and UNEP are to play a significant role in the human settlements and the environment programme including other organizations and bodies of the United Nations Systems.

From the information available for this evaluation from both Habitat and UNEP, it is not clear what the

concrete collaborative institutional arrangements were between UNEP and Habitat in the UNEP subprogramme on Human Settlements and Environment. It would appear that an assumption was made that the two agencies would plan the subprogramme and the projects jointly. This assumption, without concrete measures led to poor collaboration between the two agencies. Where collaboration took place, it was on an ad hoc basis and where programme officers saw an advantage of doing so in a particular project. There was, however, no systematic collaboration.

Thus, collaboration between UNEP and Habitat within the 1990-1993 period has been very minimal. Except for the continued collaboration in the projects that had already been implemented before 1990, no new joint project has been implemented by the two agencies. However, within the same period, UNEP has collaborated with WHO to implement two projects. Two more projects have been approved for 1994 to be implemented by WHO. At the same time it is important to note that WHO has developed a mechanism for easy collaboration with UNEP in human settlements by establishing a subprogramme known as Environmental Health in Rural and Urban Development and Housing through the support of UNEP. This has enhanced the collaborating capacity of WHO with UNEP as this WHO subprogramme provides the mechanism for close collaboration between the two agencies.

The expected collaboration between UNEP and Habitat lacks the mechanism and the commitment on the part of the officers in both agencies to ensure that the collaboration takes place. Thus, although UNEP and Habitat consult each other during project development, there is no obligation to provide input to the projects for either organizations. The senior officers in Habitat and UNEP's human settlements programme lack the necessary mutual working relationship that can ensure close consultation and collaboration. The two agencies, UNEP and Habitat have basic differences in philosophical approach and understanding of environmental issues involved in human settlements planning and management. These differences need to be recognized and addressed in order to forge a common approach in the collaboration. This evaluation proposes that a joint project development, screening and approval committees for the two agencies be established. This can be supported by a management staff, which as for now can be centered in the Executive Directors office. This could be a viable alternative.

The SWMTP also recognizes that the human settlements planning and management subprogramme requires the collaboration of governments and the involvement of all agencies concerned in the sector especially in research, training, technical cooperation and the dissemination of information. The programme is also to encourage the participation of low-income groups, especially women, children and the elderly particularly in the identification of needs and effective responses.

The programme has collaborated with governments in the implementation of some of the projects such as the government of Mexico, Yemen and Kenya. However, the collaboration with other local agencies and groups has not been effected. This aspect needs to be looked into as demonstrated in the Yemen project. The need to assess the capabilities and resources of the governments and their countries is necessary to make the collaboration viable. Commitment of the people and governments is also necessary if the collaboration is to succeed.

On the whole, UNEP's human settlements subprogramme needs to reexamine the existing institutional arrangements at all levels, among other UN agencies, especially Habitat, governments and local agencies and interest groups so as to obtain a more efficient arrangement of executing the programme.

III. PROBLEMS AND CONSTRAINTS

UNEP's human settlements and environment programme has experienced a number of problems and constraints during the evaluation period (1990-1993) which have, in turn, affected the performance of the subprogramme during the evaluation period (1990-1993).

1. The subprogramme has been plagued by the problem of understaffing since 1977 when the professional and support staff were transferred to Habitat. The assumption was that the one senior officer and the two programme officers were to be sufficient to deal with environmental aspects of human settlements within UNEP. However, the number of professional staff was reduced to the present level of one full-time and one junior programme officer who joined the programme in 1993, a level too inadequate to effectively manage the programme. As a result, the programme is faced with delays in project implementation and evaluation for closure. More than 90% of the projects in the programme were started in mid-1980s which are completed but are awaiting submission of terminal reports and self-evaluation fact sheets.

2. The programme also lacks the close collaboration that was intended to exist between UNEP, the UN agency for environment, and the UNCHS (Habitat) in order to effectively address the issue of environmental considerations in the planning and management of human settlements. For example, within the last three years, no project has been jointly implemented by the two agencies whereas two projects have been implemented in collaboration with WHO. This situation has led to low impact of UNEP's environmental input into Habitat's programmes. This problem can be largely attributed to the lack of a mechanism for collaboration between the two agencies although the spirit for collaboration seems to exist.

3. Poor information flow among the collaborating, implementing agencies and UNEP, failure to make an assessment of the capabilities of the implementing agencies, poor project design, lack of commitment from governments as implementing agencies as well as failure to involve the beneficiaries in the projects are among the many factors that contributed to the failure of some of the projects to accomplish the set objectives. This in turn, have affected the performance of the programme.

4. The programme lacks a data base and a follow-up mechanism for publications. Information of the kinds, numbers and extent of the distribution of the publications is incomplete or lacking within the programme. This means that the expected impact of the publications is also unknown to programme. This problem is also related to the existing institutional arrangements for the publications. For example, UNEP collaborates extensively with WHO in publications, however, UNEP does not have the information on the distribution of its publications which are produced by WHO. This approach needs to be reassessed and the information on all UNEP/WHO publications be incorporated into the data base.

IV. LESSONS LEARNT

1. In order to ensure success and sustainability of the projects that are implemented, it is important to involve the end users or beneficiaries at all stages of the project implementation, i.e. planning, design and management as demonstrated by the Yemen project. A more active participation by the beneficiaries would have ensured success of the project. The UN agencies need to provide for the needed time and flexibility when working with governments especially from developing countries.
2. UNEP should not allow project implementing agencies to alter the objectives of the projects unless there is sufficient reason to do so and if the change does not affect the attainment of the overall goals of the programme. The priorities of the implementing agencies particularly governments may not be the same as those of UNEP and as such attempts can be made on the part of the former to change projects to suit their needs. Such changes can derail the projects and result in project failure or low performance. This lesson has been learnt from the Yemen project.
3. Most of the projects within the human settlements planning and management have been delayed for periods ranging from months to more than five years before closure without any significant increase in output. UNEP should ensure that only viable projects are reviewed for further financial support and give the implementing agencies effective conditions for delivering the expected outputs.
4. Feasibility studies should be undertaken particularly for large projects as well as pilot/demonstration projects so as to ensure sufficient provision for technical and financial backstopping for anticipated problems/constraints. Such a mechanism will help to increase the performance of the programme and reduce waste that is incurred when large projects or those intended for demonstration and replication purposes fail or not completed in time.
5. Mechanisms for inter-agency collaboration between UNEP and Habitat are necessary for effective implementation and management of the programme. If the UNEP/Habitat collaboration is to work, the project Screening and approval committees should work jointly.
6. Follow-up and evaluation of training courses and publications is essential to enable the programme assess the effectiveness of these activities and to ensure that the set objectives are being met. A data base for the programme activities will also assist in taking stock of the direction of the programme.

V. RECOMMENDATIONS

1. In order for UNEP to effectively contribute towards the overall objective of promoting environmentally sound planning and management of human settlements, the problem of understaffing in the subprogramme must be addressed. Given the complex nature of environmental issues that affect human settlements, the programme needs a wide range of expertise. Professionals in the areas of technology transfer, environmental planning and ecology are essential. At least one professional in each

category are needed.

2. A mechanism for close collaboration between UNEP and Habitat needs to be developed and put in place so as to enable UNEP's human settlements and environment programme to work together to ensure that the environmental aspects are adequately incorporated into all Habitat's projects. The mechanism will also ensure that Habitat plays the central role as the major implementing agency for UNEP's human settlements and environment programme. Since as of now the two agencies, UNEP and Habitat, are headed by the same Executive Director, the inter-agency mechanism to coordinate the activities of the two agencies should be established within the executive director's office or any other non-partisan office that may be identified.

3. UNEP as the United Nations environmental agency, should have a significant input to Habitat. This will ensure that Habitat draws from the wide range of information and technical assistance on environment from UNEP. UNEP, on the other hand, will also ensure that Habitat's projects are environmentally sound. Thus, in order to achieve an environmentally sound integrated approach to human settlements planning and management, UNEP's human settlements programme must continue to exist and support Habitat's activities.

4. A policy decision needs to be made by the Executive Director and the Executive Committee that ensures that when Habitat projects are being prepared, reviewed, screened and approved, the technical staff of UNEP participate in these committees to ensure that Habitat's projects are environmentally sound. Similarly, the technical staff from Habitat should take part in UNEP's project preparation process. This will ensure free flow of information between the two agencies at all stages during programming and provide a practical approach to collaboration between the two agencies. This management approach is already being promoted through the efforts of the Executive Director under her common direction strategy for the two agencies. This is demonstrated by the joint management meetings and programming that is already taking place during the current programme review.

5. Publications are a very important strategy for information dissemination in the human settlements and environment programme as well as the whole of UNEP. It is important to know what publications are produced and also to whom they are sent to make sure that the target group gets them. In order to do that, a coherent data base within the programme and within UNEP as a whole is needed for publications and the mailing list for each publication. The programme should identify the clients for whom a publication is targeted and the most effective way of distributing the publication before production. This will lead to a more efficient use of resources and improve the impact of publications on environmental management and planning of human settlements.

6. Training is a key strategy in capacity building for human resource and institutions as well as a means for information dissemination on environmental aspects of human settlements planning and management. In order to improve on the catalytic effect of training the planners and decision makers, the programme should diversify the strategy so that national and regional institutions can be used in the training. In this way, the multiplier effect of those trained will be increased and the training capacity for the regional institutions will be established. This strategy will also ensure that regional needs and

differences in environment and human settlements issues are taken into consideration.

7. Participation of the local communities and governments should be promoted especially in demonstration projects so as to make the projects viable and sustainable even after the UN agencies have withdrawn their support. This requires the use of affordable and acceptable technologies and resources in the areas of implementation of these projects.

8. UNEP should learn from experience gained from previous projects so as not to repeat the same mistakes but to improve the performance of the future projects. As explained in the evaluation report of the Yemen project (Annex 5), the indicators of the progress or serious setbacks in the project should be sufficient to enable UNEP to take appropriate action in time to either continue or stop the project. In this way, the programme objectives will be attained more efficiently and effectively. There is therefore the need for frequent evaluation and follow-up particularly of large projects and those meant to be replicated in other places. UNEP's Follow-Up and Evaluation Section should assist programme to design the relevant approach.

VI ANNEXES

ANNEX 1. On-going and Closed Projects the Human Settlements and Environment Programme (1990-1993).

a) On-going (approved but not yet implemented) projects

1. Training courses for capacity building in environmental and health in low income settlement: Application of UNEP/WHO guidelines.
2. Information system to support municipal solid waste management (MUNISIS) phase I.

b) Completed and Closed Projects

1. Application of guidelines on environmental health aspects in housing and urban planning.
2. Assistance to the capital development authority. Dodoma, Tanzania.
3. Ecology and Environment (Phase II)
4. Environmental impact assessment of urban development in the valley of Mexico.
5. Guidelines (including criteria) on environmental health aspects of housing and urban planning (Phase I).

c) Completed but not closed projects

1. International symposium on solid waste management for developing countries.
2. Training course in leakage detection and prevention for municipal technicians.
3. Training course on integrated planning of human settlements to improve environmental conditions.
4. Pilot demonstration project on environmentally sound planning and development of human settlements in People's Democratic Republic of Yemen (PDRY).
5. Training course on application of guidelines on settlements planning and management.
6. Lamu Town Sea Wall Project

ANNEX 2. Training Course on the application of environmental guidelines for settlement planning and management.

This training course was held at Santo Kiriko, Bulgaria (9th -24th September, 1992). The purpose of the course was to demonstrate how environmental guidelines could be applied in settlement planning and management.

Long-term objective

To improve the environmental conditions of human settlements in selected countries through the establishment of a planning and management system for sustainable development.

Short-term objectives

1. To enhance the professional knowledge of town planners/urban managers in selected large cities incorporating environmental dimensions in settlements planning and development.
2. To increase the number of persons trained in environmental aspects of settlements planning and management.

Project Design and accomplishments

The project was undertaken as a two-week training course for senior urban planners/architects and decision makers in large cities from five developing countries. The project involved the preparation of a training syllabus which was used in the course to train the participants how the three-volume UNCHS (Habitat)/UNEP environmental guidelines for human settlements planning and management could be applied.

Institutional arrangements

The project was implemented by the International Academy of Architects in association with WHO and UNCHS. The tasks to be performed by all the organizations involved was clearly defined in the project document and terms of reference.

The course participants were expected to influence the planning and management of human settlements in the cities of their respective countries so that environmental aspects are adequately incorporated.

Foreseen outputs

The following were the expected outputs from the project.

1. 15 trained planners and/or architects and decision makers from planning and construction ministries and municipalities of large cities (4-6) of developing countries in the Asian and Pacific Region in environmental aspects of settlement planning and management.

2. A comprehensive syllabus of the training course.
3. A training manual on the "Application of Environmental Guidelines for Settlements Planning and Management."
4. A report focusing on all aspects of the training programme.

Achievements of the project

The achievements of the project can be derived from the actual outputs that were realized at the end of the project period.

1. A total of 13 planners/architects and decision makers from 5 countries in Africa, Asia and Eastern Europe were trained on the application of the UNCHS (Habitat)/UNEP on environmental guidelines for settlements planning and management.
2. A comprehensive syllabus was developed by a UNEP consultant.
3. A draft training manual on the "Application of Environmental Guidelines for Settlements Planning and Management " was prepared and a copy submitted to UNEP for further refinement in order to improve future training courses.

Impact and effectiveness of the project

This project was designed to address one of the programme objectives of training urban managers in the application of environmental guidelines for human settlements planning and management. UNEP recognizes that urban managers and policy makers need to appreciate the significance of environmental planning in alleviating the problems of environmental conditions in urban areas. Thus, the training course is aimed at enhancing the capacity of the urban managers and policy makers in integrating environmental aspects in human settlements planning by using the available guidelines.

Information from an end -of- course evaluation shows that the participants found the two-week training relevant and very beneficial to their work. Over 90% of the project objectives were met as all the expected outputs were realized except the failure to have a total of 15 managers trained as 13 attended the course instead. This could be attributed to failure of the selected participants to turnout rather than on problems on the part of the project implementors. The project was completed in time as expected.

On the whole, it can be noted that this project was very successful. What waits to be done is the course impact evaluation one year after completion. It is hoped that UNEP will facilitate this evaluation so that it can serve as a feed back to programme for future training courses. The high level of success of this project can largely be attributed to the effective design of the project with specific and achievable objectives with well defined institutional arrangements for the project. The project is also small in size but covers a large region in its intended influence. This project should be emulated in future training activities in the programme.

ANNEX 3. Environmental Impact Assessment of Urban Development in the Valley of Mexico Project.

Appropriateness of the project

This project was designed to represent the environmental problems faced by large cities in developing countries. The metropolitan area of Mexico city (MAMC) is the largest metropolitan region in the world with an estimated population of 15 million which is projected to reach 35 million by the year 2000. Large concentration of economic activities and population pressure have brought about negative environmental consequences e.g waste disposal which is a major ecological problem. Currently 6000 tons of solid waste is generated each day, of which only 75% is collected leaving the remainder scattered throughout the city.

The project was related to the UNEP initiatives in the development of " guidelines for incorporating environmental aspects of human settlements planning" which was being developed in association with UNCHS. UNEP's contribution to the project was not only expected to advance the development and testing of a methodology for environmental assessment of urban development, but also to promote its use amongst international and bilateral agencies as well as governments undertaking major area-wide urban development projects.

This project was undertaken by UNEP in collaboration with UNCHS and the government of Mexico.

Project Objectives

- a) Provision of advice on environmentally sound patterns of development and lifestyles.
- b) To assess the impact of human settlements upon natural environment at both regional and local levels.

These objectives are in line with UNEP's strategy for the subprogramme, i.e. to assess the environmental conditions in human settlements. The objectives of this project also address UNEP's aim of developing and adopting global, regional and national strategies for integrating environmental considerations in human settlements planning and management. The methodologies which were to be developed from this project were to be used not only within Mexico and the Latin American region but could be modified for use at the global level.

Expected project outputs

- a)The project was intended to contribute to the elaboration of satisfactory methodology for environmental assessment.
- b)Provide the environment programme with significant innovative tool to identify systematically and evaluate environmental impacts and evaluate before sites and specific projects are developed.
- c) The project was intended to minimize the negative effects that accompany rapid and large scale urban growth.
- d)Adopt, test and refine a methodology for environmental assessment of urban development and to test

their methodology in the valley of Mexico.

e) To provide a single data base and overall framework for different project scale EIS preparation.

f) To identify alternatives for waste management in the valley of Mexico.

g) To facilitate training and exchange of information in applying environmental assessment methodologies.

Outputs and Impact of the project

Environmental Impact Assessment (EIA) methodology for urban development in the valley of Mexico was developed by the Mexican team. This report was later published jointly by UNEP/UNCHS and the Mexican government. However, no information was available to indicate the numbers produced and the extent of the distribution for use in other areas. The impact of this project can however be noted by the several synthesized versions of the report into EIA methodology for urban development for other areas.

In spite the many problems that the project experienced, the main objective of assessing the environmental conditions of the Mexican city and the development of a suitable methodology was realized. Since the financial commitments on the part of UNEP was not affected, this project can be considered to have been successful. UNEP's catalytic effect on the part of the Mexican government which was, on its part, highly committed to the project are commendable.

Problems experienced and Lessons Learnt

1. There was lack of agreement and definition of specific tasks that UNCHS and the Mexican government were to undertake in the implementation of the project. This led to duplication of activities and resources and contributed to the delays. For example, the environmental assessment and the report was undertaken by three different groups, the Mexican government, UNCHS and a UNEP consultant. This resulted in the production of three different reports. However, the report by the Mexican government was considered of high quality and was adopted by a team of experts who assessed the three reports. This experience shows the need for UNEP to assess the capacity of implementing agencies to determine what they can do and what activities need external support.

2. The project experienced problems in coordination of the activities. This was coupled with the problem of poor information flow between UNEP, Habitat and the Mexican government. These problems are partly associated with the institutional arrangements for the project as well as the way the project was designed. The objectives set for the project were too many which required clearly specified strategies for achieving them.

3. This project experienced long delay in completion. Although the project was initially planned to run from July 1981 to March 1983 (21 Months), when it was closed in september 1990, the project had been in operation for 81 months! UNEP needs to revisit the criteria for project review so that such delays can be minimized.

ANNEX 4. The Lamu Town Sea Wall Project.

Appropriateness of the Project

This project was designed to promote environmentally sound human settlements planning and management strategies for coastal towns especially in relation with sea-level rise, one of UNEP's area of concern. As a pilot demonstration project, the solutions adopted in Lamu could be useful in many coastal areas, particularly the East African region facing similar problems.

Lamu, a unique town along the Kenyan coast, was threatened by sea erosion. A wall running along the coast of the old town had deteriorated badly as a result of ocean waves attack and a growing of waste sipping under the sea wall. The old underground drainage system under the town were falling thus threatening residential quarters as well as some of the interesting public buildings.

The project was intended to show in a comprehensive manner, coastal erosion problems arising from wind and tidal action. UNEP aimed at demonstrating environmentally sound methods to protect a coastal town such as Lamu through this project.

This project was implemented by the National Museums of Kenya.

Long term Objective

To conserve the fragile ecological balance of Lamu region

Short term Objective

Preservation of the economic as well physical integrity of the harbour of Lamu Town, a community which is dependent on its harbour

Expected Outputs

1. 900 metres of Lamu sea wall repaired.
2. A report containing recommendations for the protection of coastal areas against encroachment by wind and tidal action.

Outputs and Impact of the project

Of the expected 900 metres long of the wall to be repaired, only 795 metres section was done. This amounts to more than 80% of the expected target was realized. Thus, this objective was largely realized. However, the expected report which was to be prepared by the National Museums of Kenya and submitted to UNEP has not been realized. Thus, while the objective of the National Museums' of getting the Lamu wall repaired was met, UNEP's objective of using the lessons learnt as a catalyst in a assisting other towns incorporate environmental considerations in the planning of coastal towns

through the report has not been met. The failure to produce the expected report minimized the impact that was intended to reach other coastal towns in the region.

At the local level, the repaired wall will arrest erosion caused by wind and tidal action and stop encroachment on Lamu Town. The project also contributed to the demonstration of the use of local materials in the repairs. The project also involved local people as they carried out the repairs and it is hoped that they can use the expertise gained in future repairs. However, this will have to be assessed in the future.

On the whole, the objectives for this project were largely unrealized especially having been a pilot project and UNEP's catalytic effect was limited.

Problems encountered and lessons learnt

1. There was lack of communication between UNEP, the Kenyan Government and the National Museums of Kenya. This was illustrated by the incidence where a government ministry requested UNEP for funds for the same project after it had already been implemented. In order to minimize potential conflicts and maximize UNEP's catalytic role on collaborating institutions, UNEP should consult with the respective governments regarding project implementation by NGOs and other national agencies.
2. The institutional arrangement for this project were not adequate for the second objective of producing the report as UNEP had no way of ensuring that the National Museums produced the report. In this case, UNEP should either have withheld part of the project funds until the report was completed or hired a consultant to do the report in which case UNEP could have had direct control.
3. The proposed period of project implementation was over run by almost two years (21 months). This makes it difficult for UNEP to benefit from the feed back from implemented projects especially pilot projects from which input to future projects is necessary. UNEP should utilize information from project progress reports and any evaluation that might be do so as to take necessary action to ensure that project implementation remain in course.