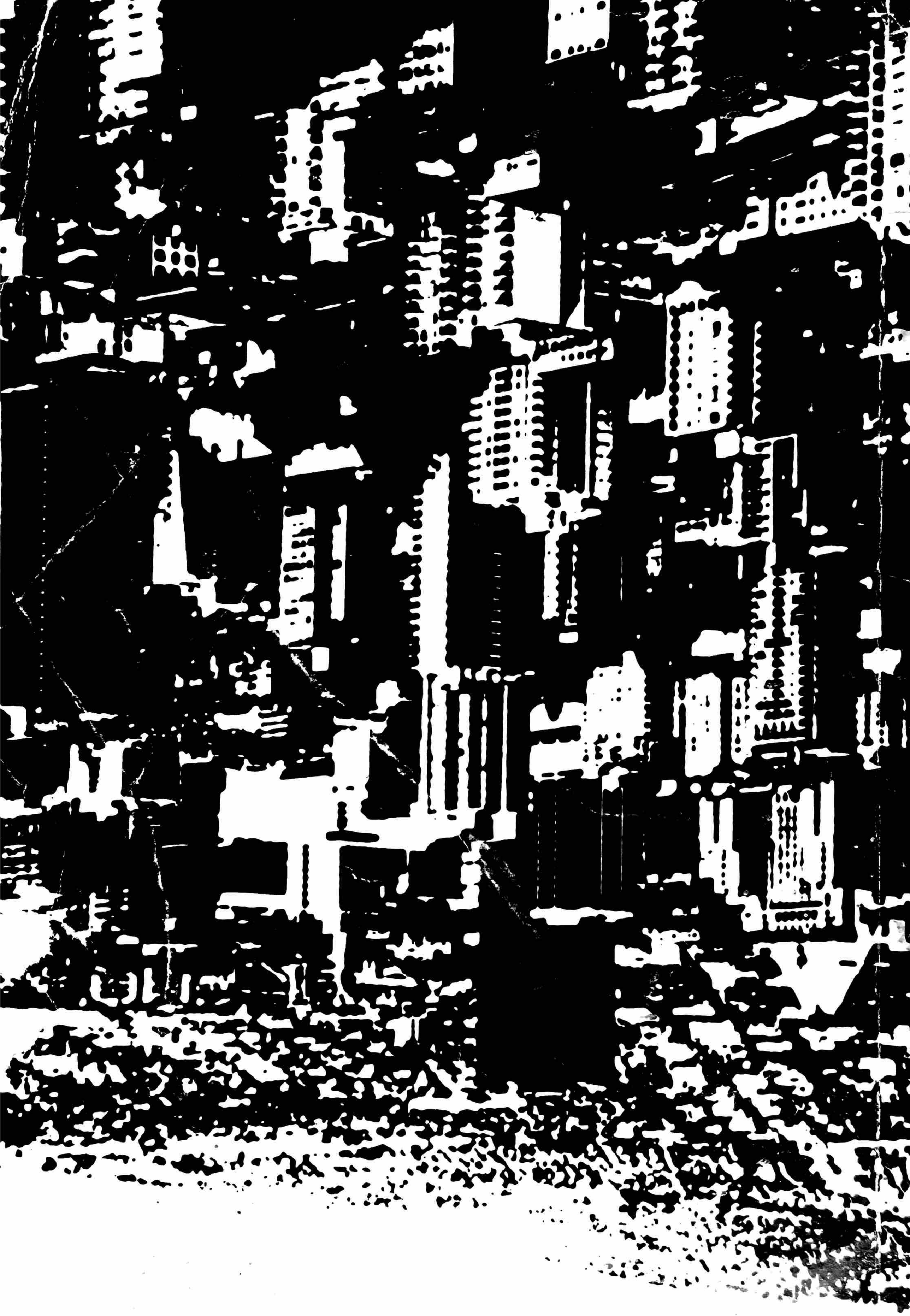
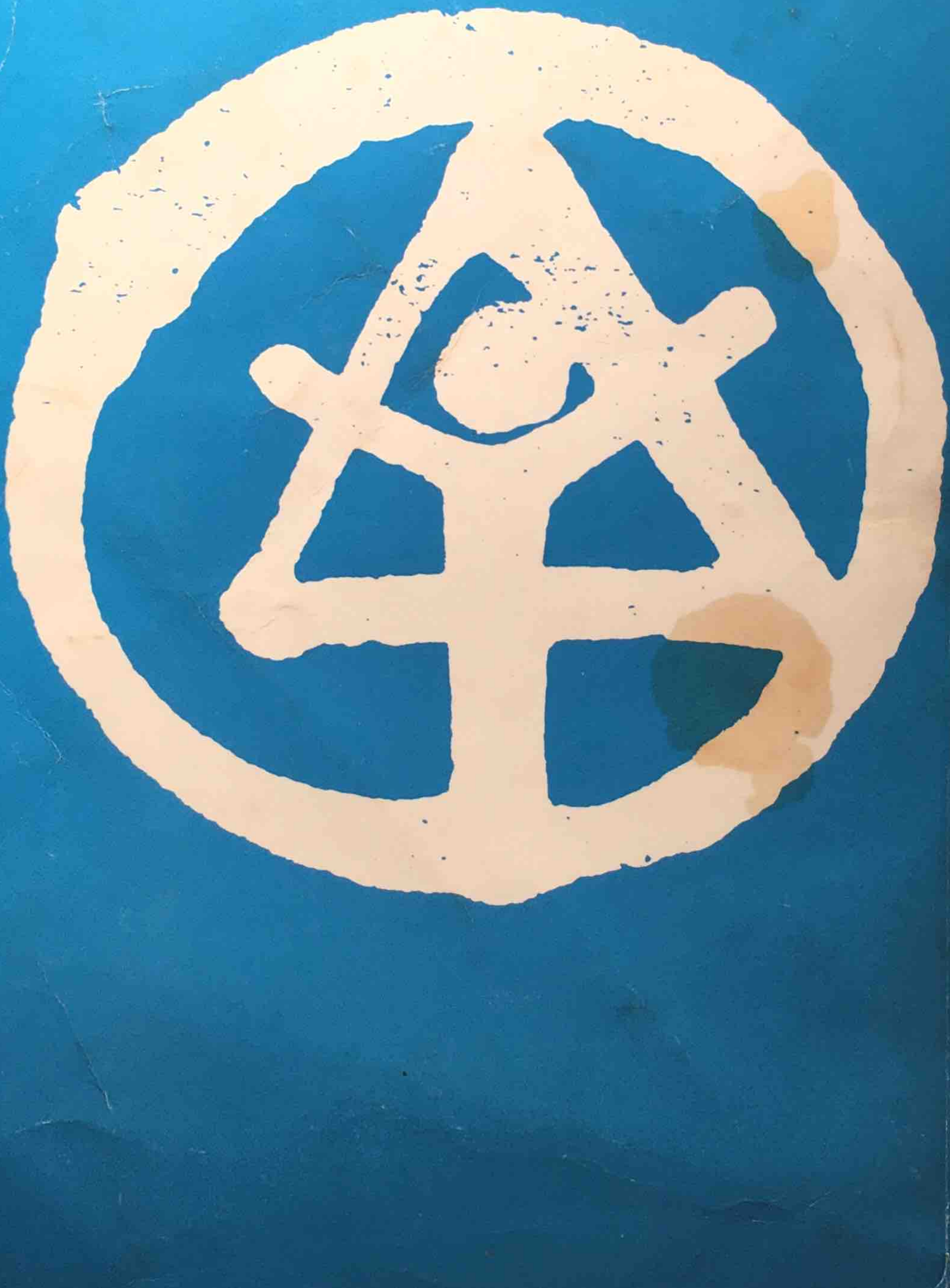




Human settlements: Crisis and opportunity

by Barbara Ward

An official report based on a meeting of experts preparing for Habitat: United Nations Conference on Human Settlements, to be held in Vancouver, Canada May 31 - June 11, 1976.

First Edition, January 1974
Revised Edition, February 1975
Ottawa

Published under the authority of
The Honourable Barney Danson
Minister of State
for Urban Affairs

Catalogue No. SU31-7/1975

Foreword

This description by Barbara Ward of settlements issues throughout the world remains a clear-sighted portrayal of the existing situation, and it is with pleasure that the Canadian government issues this second edition of her text. International developments since the time of writing have only served to underline the urgency and increase the complexity of finding appropriate solutions to these problems.

Preparatory work for Habitat: United Nations Conference on Human Settlements, has come a long way since the 1973 seminar of experts on which this book is based. Mr. Enrique Peñalosa, since his appointment as Secretary-General of the Conference in April, 1974, and his Deputy have travelled to 57 countries to discuss Conference objectives and preparations. Response by UN Member States has been excellent. Lengthy consultation is gradually producing an agenda and a substantive framework for the Conference. Even as this new edition was going to press, the first official meeting of the International Preparatory Committee, a group of representatives of 56 Member States appointed to advise the Secretary-General on Conference preparations, was taking place in New York.

Proposed by Canada and approved at the 1972 United Nations Conference on the Environment, the Conference will be the first UN meeting devoted exclusively to the subject of human settlements. Canada has been chosen as host of this major Conference, where audio-visual presentations will play an important part in the proceedings, allowing the participating countries to examine the various solutions achieved in different parts of the world.

In providing the necessary facilities for this meeting, which is the responsibility of my colleague, the Secretary of State for External Affairs, the Honourable Allan J. MacEachen, Canada will endeavour to foster a climate conducive to productive exchanges between those gathered in Vancouver to study

solutions to the growing crisis in man's habitat, both in developing countries and in the industrialized world, and to work out enlightened policies which will improve man's life in human settlements.

Canada's preparations as a participant have also begun to take shape. It is our intention that Canada's contributions to the Conference will reflect as much as possible the experience and input of widely disparate groups: non-governmental organizations, professionals, private citizens, and all levels of government, federal, provincial and municipal. Within Canada, our ability to cope with urban issues depends to an unusual degree on their cooperation and involvement. And although an international event, the Conference's success will be measured largely by the degree to which it stimulates national action on problems of human settlements.

Like all countries, Canada is facing the challenge of accelerating change. Habitat represents an opportunity for new initiative not only in meeting massive global requirements, but also in addressing the needs of our own communities. It is a process as much as an event, and one that will profoundly affect each of us.

Hon. Barney Danson
Minister of State for
Urban Affairs,
Canada.

Preface

Barbara Ward's contributions to the United Nations Conference on the Human Environment in Stockholm are well known. Her background report, "Only One Earth," written with René Dubos before the conference, served to concentrate the minds of all of us there on the central environmental issues the world must set about solving, before it is too late. Published in at least nine languages, it has since become required reading for serious ecologists.

Once more, as preparations are being made for Habitat: United Nations Conference on Human Settlements, in Vancouver, Canada in 1976, Barbara Ward has eloquently defined the environmental problems facing the human community.

This is her personal record of a United Nations-sponsored seminar of experts which met in Vancouver, in May 1973, under her chairmanship. The task of the seminar was to draft guidelines and criteria for the Conference and Exposition.

Groundwork for Habitat has greatly advanced in the intervening months, and our conceptual thinking has changed accordingly. Yet this text remains unexcelled as a philosophical framework for the Conference.

Those of us involved in trying to tackle the problems of the environmental crisis are frequently disheartened. It is easy to be discouraged by the proportions of the crisis; it is easy to be overwhelmed by the need for urgency in acting to maintain this planet as a truly humane habitat for man. We are in a race against time, against rising population, against rapid technological change, against depletion of resources, against concrete and steel.

On the other hand, we are encouraged by the growing sentiment among some governments and many citizens that action must be taken, and immediately.

One of the aims of the Conference is to increase world-wide awareness of the urban predicament, in both developed and developing nations, hoping this will spur the nations of the world to greater effort. The Conference should also be an occasion for governments to resolve themselves to indeed take some action to improve the quality of life in human settlements. And further, it will provide an opportunity for countries to share solutions to urban and rural settlement problems, by means of demonstration projects.

Protocol dictates that I include a brief note stating that the United Nations Environment Programme does not in any official way endorse the views of Barbara Ward in this text. They are her perceptions of the issues the Conference must deal with. This should not, however, in any way detract from my enthusiastic appreciation of her ability to describe the problems we are facing in these few years before the twenty-first century, nor of the sense of urgency with which she writes these warning notes.

We would be more than foolish if we chanced not to listen.

Her words deserve to be read by the widest possible audience.

Maurice Strong
Executive Director
United Nations
Environment Programme

Introductory notes

On December 15, 1972, the General Assembly of the United Nations gave its approval to a proposal that Habitat: United Nations Conference on Human Settlements should be held in 1976; the General Assembly also accepted Canada's offer to act as host. The Conference will be held in Vancouver, British Columbia, May 31 to June 11, 1976.

The idea behind the Conference is to combine a meeting of national governments that will discuss action on human settlement problems, with an exposition which will demonstrate solutions to some of these problems.

To get preparations underway, a meeting of experts was arranged by the Executive Director of the United Nations Environment Programme, Maurice Strong, with the support of the Canadian government. From May 8 to 12, 1973, experts from 22 countries met in Vancouver to identify and discuss the main themes for the Conference and the criteria that should be used in selecting demonstration projects for the Exposition. The experts came from both developed and developing regions, and from both market and planned economies. Officials of UNEP, the United Nations Centre for Housing, Building and Planning, representatives from the regional economic commissions of the U.N., and Canadian government officials also participated in the seminar.

As we discussed the problems of human settlements at the seminar, it became clear that narrowing them down so that they fit into structured "terms of reference" is a difficult task, and one that will recur in the preparations for the Conference. In reality, there is continuous overlap: the problems of human settlements are those of an increasingly complex human society.

Inevitably, therefore, we found it difficult in Vancouver to discuss human settlements without every

aspect of human needs and desires entering into the discussion. We did try to concentrate on the global aspects of the problem, using regional and local examples mainly as illustrations. We also attempted to focus on the environmental aspects of settlements problems. Most of all, we tried to direct our recommendations towards action and policy.

Our chairman, Barbara Ward, was faced with the task of guiding our discussions on a topic so large and so diffuse that it has often defied definition, let alone solutions. In addition to expressing her own view of the harsh realities facing human settlements in this century, she made an invaluable contribution to the official report of the seminar that was sent to the Governing Council of UNEP.

Shortly after the meeting of experts, Barbara Ward was asked by the Canadian government to write her personal view of the problems of human settlements. Our hope was that this would provide a philosophical framework for the preparatory work of the Conference.

One of the aims of the 1976 Conference is to focus public attention on the need to improve the environment in which man lives. Barbara Ward's text will, we believe, contribute significantly to achieving that aim, and it is therefore being published by the Canadian government for wide distribution.

I am sure that I speak for all the participants in the Vancouver seminar when I express the hope that Barbara Ward's words will help to concentrate the minds of men on the problems of human settlements, and to convince all that radical changes in vision and policy are necessary if human living conditions are not to become the storm centres of the last quarter of this century.

J. W. MacNeill
Secretary
Ministry of State
for Urban Affairs

Author's note

Since our Vancouver meeting in May 1973, both the General Assembly of the United Nations and the Governing Council of the United Nations Environment Programme have acted to provide decisive support for Habitat: United Nations Conference on Human Settlements to be held in Vancouver in 1976, and the process is now under way.

The first official step was taken in September 1973 when Mr. Maurice Strong, Executive Director of the UNEP, established a small Preparatory Planning Group financed by the U.N. Environment Fund. Under the Presidency of Senator Helena Benitez, this Group worked closely with the Canadian Government and the U.N. offices concerned in order to assemble innovative ideas, suggestions and proposals from many sources. Its conceptual framework and its reports provided the background for the readiness of both the General Assembly of the U.N. and the Governing Council of UNEP to approve the budgetary proposals for the Conference.

By its Resolution 3128 (XXVIII), the General Assembly, in December 1973, established a fifty-six member Preparatory Committee and requested that the U.N. Secretary-General set up a Conference Secretariat to be headed by a Secretary-General who would report through the Executive Director of UNEP. It invited all agencies of the U.N. system to assist in the work of the Preparatory Committee and asked the inter-governmental and non-governmental organizations concerned with human settlements to lend every possible assistance to the preparations. The General Assembly affirmed that the main purpose of the Conference should be to serve as a practical way of exchanging information about possible solutions to the environmental, economic and social problems of human settlements. This exchange would hopefully encourage governments and international organizations to evolve new approaches and policies — and then to act on them.

Mr. Enrique Peñalosa, a distinguished Colombian citizen with wide experience in both urban and agrarian affairs, took office as Secretary-General of the Conference in April 1974 and heads the Conference Secretariat in New York. Between now and the time of the Conference, he is charged with the difficult task of bringing to the world's attention the nature and importance of the problems of human settlements. At the same time he must secure the participation of governments and international organizations in the Conference in such a way as to ensure its practical action-oriented character and to see that there is an effective follow-up.

While many of the recommendations of our 1973 expert group meeting have been taken into account in the various discussions about the Conference, the whole subject is, in fact, in a state of rapid evolution. Since our meeting, the problems of human settlements throughout the world have been compounded by the instability of the international economic system, continuing population growth, and deepening constraints and shortages of energy, food and other critical factors. As a result, while our report can hope to help stimulate thinking about some of the basic issues involved, further refining and defining will have to go on during the preparatory period before the Conference in order to shape the issues into the final agenda for discussion and action by governments in Vancouver in 1976.

It is my hope, however, that this report will help to explain why the need for new approaches to human settlements grows more urgent by the year. Numbers grow, migration increases, aspirations rise. Yet resources face deepening constraints. The process, unchecked, leads to catastrophe. However, governments are not likely to act unless citizens are aware of the need for action. In a very real sense, their participation in the preparations for Vancouver will decide whether it is to be a fruitful meeting of minds and stimulus to further action or simply a latter day reflection of that archetypal image of the bogus settlement — the Potemkin village.

Barbara Ward.

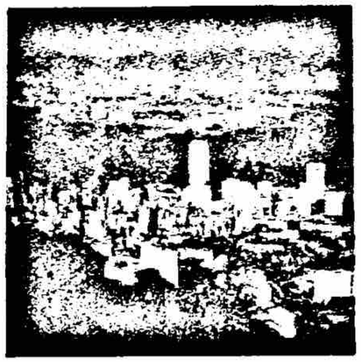
Contents

Settlements are the immediate environment of virtually the whole human race. Perpetual nomads, following the seasons with their tents and beasts, now make up only an infinitesimal minority. It is true that migrant workers are on the move in every continent, that people today are more footloose than their predecessors. But they come from homes and seek shelter where they work. They may change place and habitat and employment more often. But all their changes in life presuppose a series of resting places or "niches," where they hope to fulfil the fundamental purpose of human society — a secure, rewarding and happy life.

The crisis in human settlements arises from the scale and complexity of the changes within which, today, these niches have to be sought. It is a crisis of sheer quantity. The world's population will nearly double — to over six-and-a-half billion — in the next three decades. By the year 2000, for the first time in human history, more people will be urban than rural; there will be some three-and-a-half billion of them in settlements of over 20,000 inhabitants.

Urban settlements are growing twice as fast as population. The big cities of over half a million are growing twice as fast again.

Japan can be taken as one example of these dynamics of quantitative change. In 1900 the population of Japan was 40 million, 10 percent of it urban. By 1945, the population had risen to 80 million, 40 percent urban. In 1970, the rate of increase had slowed down, but there were nonetheless 100 million Japanese, 65 percent of them urban. By the year 2000, there should be 120 million Japanese, and 90 percent of them will be urban. Moreover, if no changes occur in the location and density of settlements, a high proportion of these urban people will be living in a single, vast megalopolis around Tokyo Bay.



Forecasts made by the United Nations suggest that, in developing countries, where no such decline in population growth seems likely in the next two or three decades, while population as a whole will double before the year 2000, the number of those living in urban settlements will grow threefold — from 464.3 million in 1970 to 1.437 billion in the year 2000. Nor, according to forecasts, would there be any check to the growth of the largest cities. Urban "mega-regions" of 10 million and more are likely around such cities as Buenos Aires, Mexico City, Bombay, Calcutta and Djakarta.

The crisis of quantity can also be expressed in terms of construction. In general, more buildings will be required over the next three decades than were put up in the whole of man's previous history. For developing countries, the demand is just as startling. In the next 20 years, they will need to build for their urban populations houses and work places that would equal the entire construction of developed regions over the past two centuries.

The crisis can also be expressed in cost. Taking once again the example of Japan, we can estimate that in spite of the added expense over the past 25 years, due to both the needs of normal population growth and the war damage that had to be made good in settlements, 20 times more capital will have to be invested in them in the next 25.

But the crisis can also be expressed in terms of quality. There are paradoxes here.

Urban settlements are steadily increasing and, traditionally, cities have represented the peak of cultural and social attainment. Rising urbanism should in theory lead to social gains. The very words "urbanity" and "civilization" come from the belief that man-made order, beauty, learning, dignity and status flourish best in the urban environment. Chinese dynasties adorned their capitals. Babylon's gardens were a wonder of the world. Jerusalem is even the archetype of the "heavenly city."

But the quality of the contemporary urban settlement seems very far removed from such urbane ideals. The new technological order began to bring man's work out of the fields and into the factories and, as a result, labourers streamed in from the countryside in search of survival and employment. The early industrial cities proved to be so congested, polluted, violent, noisy and disease-ridden that the outward movement of wealthier people to suburbia began to define the shape of an "urban region" virtually by the middle of the nineteenth century. New York City, for instance, passed its peak density in the 1860's.

As trains took over from horse-drawn vehicles and the motor car began to replace the train, the region stretched further and further out. In some places, one city's spread threatened to meet another city's sprawl. The "mega-region" began to appear — a wholly new pattern in human settlements and one which, it must be repeated, represents not so much a concept of "urbanity" as the emergence of centre-cities around which live the people who have escaped from them.

Yet while one lot of people move out, others move in. The urban areas have remained magnets of work and opportunity. Nations like Britain and Holland have become 90 percent urban. Still, many of the critical problems posed by urban and suburban settlements remain unsolved, while rural communities fall into stagnation or become merged in general sprawl.

This is the first paradox. In spite of the old dreams of "urbanity," in spite of heroic improvements in sanitation and housing, urban growth in the first phases of the unfolding technological order did not evolve a really acceptable, attractive and convenient pattern of settlements, either urban or rural. A quick test of this fact lies in latter-day tourism. Visitors usually seek out either old, pre-industrial and magnificent sectors of cities or the non-urban natural beauties of sea and mountain. They do not go to Manchester or Pittsburgh or Yokohama for

the pleasure of it. Industrial conurbations do not draw them in. They are off to Royal London or the Paris of the Louvre and Baron Haussmann or, if they can, to the no-longer Forbidden City of Peking. We can thus say that just as man becomes predominantly urban, he invents cities he does not much like.

This brings us to the second paradox. The modern urban region may have been brought into existence by citizens trying to escape from some of the undesirable effects of industrial urbanism. Nevertheless, they have come to ask more and more from the way of life they pursue in the new urban order. "The revolution of rising expectations," especially in the urban setting of wealthy societies, encourages demands which, by their very nature, make their satisfaction more and more difficult.

The first wave of urban pollution, involving foul water and perpetual epidemics, was conquered by the beginning of this century. But now the 25 year consumer boom is driving the urban order towards a new environmental impasse in which the volume of discards, wastes, emissions, and old and new industrial effluents threatens to create new forms of degradation and breakdown. In addition, the sheer demand for materials raises the spectre of planetary shortages, particularly in energy. A prime example of both degradation and waste can be found in the intractable problem of solid waste disposal in a high consumption economy such as that of the United States where, at the beginning of this decade, people were discarding an annual total of 48 billion metal cans, 26 billion bottles, 65 billion metal bottle caps and 7 million junked automobiles.

This last problem is, of course, at the core of rising expectations: the first and favourite fruit of expanding affluence. Yet the motor car is responsible for nearly 50 percent of all air pollution. Its emissions probably account for between 80 and 90 percent of oceanic oil pollution. The six-seater station wagon with a single driver is the symbol of strangling traffic in the centre-city. Manhattan could be crossed

more speedily by horse in 1911. Everywhere the toll of death and maiming adds uncounted costs to the economic and social balance sheet of nations. In city after city in the developed world, the feeling grows that a point of almost literal no-return is within sight for private car traffic. Rising aspirations — to the suburban home, to the well-paid city job, to the weekend cottage, to the seaside visit — end in the rising irritations of the five-mile traffic block.

And yet — this is the third paradox — however unsatisfactory citizens may find such a distribution of settlements, with overloaded centre-cities, suburban spread, lengthening commuting and emptying countrysides, urbanization is an all but global phenomenon, a virtually universal response to "rising expectations." Almost everywhere, a majority of people see in urban settlements the goal of their ambitions to self-advancement. And in developing lands, where different, more decentralized patterns could conceivably be evolved — since options are not yet foreclosed in steel and concrete — the forces which drive the people away from the land and into the exploding cities are producing even more skewed and undesirable urban environments. Through sheer poverty and lack of usable resources, these settlements can combine the nineteenth century pollution of slums, inadequate sanitation and industrial smog with the twentieth century distortion of sprawl, long-distance commuting and automobile emissions. And since they grow at four times the nineteenth century speed and in an epoch when technology is evolving in a capital-intensive direction, many of the poor world's megalopolises have perhaps a quarter of their population out of work. In fact, as this century draws to a close, the aspirations that draw millions upon millions away from the farming sector to the spreading urban regions are daily contradicted by what may well be the worst environment ever endured by man.

There can thus be little doubt that, in terms of both quantity and quality, the settlements of modern man are confronted by increasing complexities and deepening crisis. There are difficulties, too, on the side

of evolving effective policies to meet the crisis. Few bold visions or new ideas have emerged to counter the increasing environmental pressures on human settlements.

Developing peoples find the shortage of resources a crippling difficulty. Jurisdictional and legal problems are created by the relative unfamiliarity with such new forms of living as the "mega-region." Management is hampered by the degree to which the spatial requirements of different elements in the environment, water, power, transport, do not overlap either with each other or with existing administrative boundaries. The bewildering speed of change catches men unawares. They plan for their city as an industrial base. While they look on, it becomes a service and communications centre. Such economic transformations can make nonsense of earlier projections within a couple of decades.

Above all, much recent thinking about development planning — both public and private — has lacked a sufficiently broad and human definition of costs and benefits. A strategy based primarily on measuring the economic transactions which make up the Gross National Product and one which expects amenities, opportunities and income distribution to sort themselves out by spontaneous means may end up measuring the economy's goods and services and leaving out all the "bads" and "disservices" which radically distort the impact of development. Private transport in cities is subsidized by leaving out the costs of pollution and congestion. Rents and mortgages rise to cover the hidden costs of an uncontrolled and speculative land market. High rise dwellings ignore related increases in delinquency and alienation. As the Japanese delegates made clear at the United Nations Conference on the Human Environment at Stockholm in June 1972, economic growth even of 15 percent a year is too dearly bought if smog perpetually obscures Fujiyama, if oxygen is needed in downtown Tokyo and, as they might have added in 1973, mercury poisoning going from factory to sea to fish to man gives a fish-eating people the choice of drastically changing their diet

or becoming mad as hatters. A better calculus, a fuller cost-benefit analysis, including social and environmental costs — in a word, more accurate tools for the planner and the developer — these are a precondition of making better sense of human settlements in the future.

For there should be no doubt about the fact that better sense *can* be made of man's global advance into the technological era. In spite of the horrendous pressures on modern settlements, they are not inevitably condemned to inadequacy and failure. Massive resources can be mobilized provided there is the political will.

Some societies already offer better health, education, services and opportunity than have ever before been available to the mass of the people. Not all the beauties of the past have been lost to modern settlements. Some have achieved real distinction in a contemporary mode. Countries are beginning to experiment with the siting and spacing of settlements, not as the by-product of something else, but in a direct effort to achieve the best social and environmental effects. In fact, it is because a number of good models and strategies do exist that it is worthwhile to hold a Conference at which curable ills can be identified and governments spurred on to more creative policy. It is an exercise in concentration — first in spelling out the scale of the crisis in human settlements, and then in using the knowledge and the urgency to produce solutions.

Theme One

Human needs in the environment of human settlements

A settlement exists, by definition, to satisfy human needs. Groups of public buildings, places of work, commercial premises become part of "settlements" only when people find shelter among them and begin to build a community. In environmental terms, a settlement is a niche or habitat and its success must be measured by the degree to which it satisfies the full range of its inhabitants' needs. But this is not a straightforward definition. Human beings are a species that has left far behind the instinctive mechanisms of blind survival. They consciously assess their own needs and plan for their own future. They can feel the "need" for almost as many things as they can imagine, and these are limitless.

Nor would one wish for any great uniformity. Among the glories of man's habitat is its infinite variety. Vancouver itself, the site of the Conference, has grown from a forest clearing to a city of nearly one million in 80 years. It includes Canada's largest Chinese community as well as Japanese, Italian, Ukrainian, Portuguese, German, native Indian, and Caribbean groups. Each has a particular culture, a particular hierarchy of values to preserve. Each seeks to safeguard them with all the greater care because pervasive elements in the new technological order — buildings, transport, packaged food, utilities — have a highly standardizing effect.

Yet there *are* basic biological needs — food, particularly protein in babyhood, water, shelter, health — which are common to all communities and, in most societies, must be earned by an adequate income from work.

One could argue that if growth and survival are the hallmarks of biological success, a species which is growing steadily by 2.5 percent a year is clearly not

a biological failure. Yet this is not a satisfactory index. The same rate of growth, extrapolated over time, becomes increasingly pathological as it approaches the limits of resources needed for further survival. And long before such limits appear — indeed, now, in the seventies — whole communities are failing to secure even a modest biological minimum for their growing numbers. Estimates suggest, for instance, that 30 percent of India's nearly 600 million live below a poverty line which itself registers no more than sheer survival.

That the first and most fundamental need in human settlements is to secure an adequate minimum biological standard of food, health and shelter may seem obvious. Who could dispute that people must live before they can prosper? But in fact, in much of the world's experience of entering the new technological era, this primary need has not been obvious and has been only incidentally the aim of the emerging system. Growth and success in the economy have been measured in tons of steel and kilowatt hours of energy, of cattle on the hoof and grain deliveries. The production of all such goods and services (GNP) is divided by the number of people and an average per capita figure emerges, which is the nearest most plans get to the idea of basic income.

But these average incomes would be the equivalent of adequate basic incomes only if the economic system automatically, of itself, distributed the gains of development according to some principle of accepted human need. No such automatic redistribution takes place. In planned economies, minimum standards have to be built into the plan.

All the elaborate instruments of taxation, insurance and welfare which are required to shift resources from rich to poor underline the problem of distribution in developed market economies. Even so, pensioners, the aged, widows, handicapped people, unskilled and migrant workers can slip below the poverty line. In many developing societies, the mechanisms of redistribution are still rudimentary

or non-existent. Even though the economic indices of Gross National Product may register gains of up to 10 percent a year, it is beginning to be discovered that in some societies only the wealthiest 10 percent of the people profit from this expansion. Perhaps 40 percent may remain as poor as ever. In some societies, the percentage growing even poorer actually goes up. These are the "marginal" men and women in rundown rural hovels, on squatter settlements in the big cities — in *bidonvilles, favellas, calampas, bustees,* shantytowns.

The name changes. The desolation is the same.

Thus, at the centre of any policy to satisfy human needs in the environment of human settlements, there must be a strategy to meet the basic physical needs of these masses at the bottom of the human pyramid. A new awareness of the critical role of employment and income distribution in any healthy process of modernization is beginning to make itself felt in both the theory and practice of development. Provided that the Conference gives full priority to fundamental human needs and underlines the policies which make it possible to realize a socially just and physically acceptable environment in human settlements, it can play an essential part in crystallizing and extending the new mood of concern for basic income. If, on the contrary, the Conference were to consider settlements without this fundamental dimension of human need, if it were to investigate their possible lack of aesthetics or functional convenience or cultural opportunities while ignoring the mass of misery festering at their base, one would have to say, adopting the contemptuous judgment of Tom Paine, that it "pities the plumage and forgets the dying bird."

A first priority is, therefore, to stimulate the preparation of minimum agreed standards for the biological success of human beings in their settlements. These standards would, of course, be flexible. The need for calories or shelter varies according to age, occupation and climate. Moreover, they should be understood as the bottom rung of a rising ladder or the

base of a sliding scale, on which, as society becomes wealthier, more *skillful* and more literate, a "minimum" is redefined in terms of rising opportunities. So far such social and economic indicators of basic human need have not been authoritatively established. The Conference could supply an essential stimulus to the process. One can even envisage the preparation of a planner's guide or manual in which, with due allowance for local conditions, the indispensable minimum physical conditions for successful life in settlements are drawn up and agreed to: a sort of basic international code for the future.

Another priority is quite simply that the world's poorest communities should be considered first in terms of basic needs, of strategies to meet those needs and resources to back the strategy. At the planetary level, as at the local level, there are still no automatic instruments of income redistribution.

Developed countries still enjoy about 75 percent of the planet's income for 25 percent of its people. The United States alone commands 35 percent of the world's income with only 6 percent of the people. According to current projections, these disproportions will not have changed by 1976.

Vancouver can provide the occasion to underline priority needs, in this case, of the poorest 40 percent living on Planet Earth.

Once the biological minimum is secured, the range of man's cultural, intellectual and spiritual needs is as wide as the globe itself. We return to an earlier paradox. The technological order does open up to the mass of the people a variety and opportunity hitherto reserved to a small elite. When before could men and women, at the flick of a switch, listen to the world's finest artists performing the world's greatest works? Three centuries ago, a grand duke scarcely commanded the cultural variety open to a modern urban family by way of television, records and cassettes. The existence of concentrated settlements allows such benefits to be much more widely

available, and could be the basis of an urban order of unparalleled "urbanity."

But here is the contradiction. On balance, human settlements are simply not felt to be fulfilling this promise. In many ways, they grossly contradict it. They represent a spectrum of failure — from the basic "biological" failure of destitution and worklessness on through increasing urban fears of violence and lawlessness, to the irritations and frustrations of the commuter in the traffic block, or the light sleeper under the flight path. Some of these failures are social. Some are technological. But on the whole technological failures should be included in the social category since, again and again, it is human misuse of vastly increased material power that creates the dangers and nuisances. Technology does not operate on its own. Man directs it. True, the sheer power that modern technology can mobilize often gives an unsuspected and grievous impact to its uses — for instance, there is no sound in nature which can be played inside an apartment to equal the earsplitting noise of electronic music. But if technology, misused by man, is at the root of many of the most keenly-felt failures in modern settlements, a wiser and more humane use of its unrivalled power and technical capacity can, hopefully, begin to mend the situation. This surely lies at the centre of the hopes for Vancouver.

The list of material, social and cultural needs which follows is not exhaustive nor does it indicate any priority or hierarchy of values. It simply brings together a number of aspirations which men and women seem very generally to look for in their communities. The urgency comes from the degree to which such expectations are disappointed. Although the list can be stated positively, what stirs behind it is the frustration of millions of citizens who, in one way or another, experience a life in modern settlements which is a travesty of what they had really hoped to achieve.

The safeguarding of the identity of the individual citizen within the community

Different cultures and types of society use differing means to secure — with varying degrees of success — the citizen's sense of identity and value. Clearly the degree of communal involvement varies widely. So does the sense of need for close personal contacts and communication. But the characteristics of a successful "niche" are universal. The primary needs of food, health and shelter are the foundation. The protein-starved infant never realizes its full individual humanity since its genetic development has been irretrievably blocked. Early psychic needs are best fulfilled in stable families and require a measure of familiarity in friendships and a sense of place. The term "neighbourhood" is perhaps too imprecise to describe the best environment for human self-expression. It can vary from 1,000 to 10,000 people. It is clearly modified by telephone, television and greater mobility.

Yet the need for familiar things — for corner shops and talk on the piazza, for a network of small streets and chance encounters with neighbours — does appear to establish a kind of human "eco-system" which, when casually destroyed, say, by bulldozing urban renewal, diminishes the citizen's sense of belonging and existing in his own right. The anonymity of high-rise dwellings is not always congenial to individual development. Suburban patterns which ensure the almost continuous absence of one parent and the semi-isolation of the other are held to be at the root of considerable malaise. In all too many societies, as the structure of families changes and more and more families come to live in small urban dwellings, the position of the aged, and their sense of being needed and respected, wanes — while their numbers increase. Often the most successful communities within urban settlements repeat some of the intimacy and localized loyalty of village life. Chelsea, Trastevere, Greenwich Village have a sense of communal living. Those master builders, the Russians, plan their settlements on a basic pattern of neighbourhoods. It can be argued that individual

citizens feel most themselves when they literally feel at home.

This fundamental sense of belonging and being important to a particular community is, of course, bound up with two other needs.

Personal security

If settlements lack food and shelter and all sense of rooted social identity, and if, in addition, they are in close proximity to other communities in which the full range of modern affluence is on display, a decline in public order is inevitable. Throughout history, societies have only been able to stand so much disproportion between the rising frustrations of the majority and the satisfactions of the elite. There is no reason to suppose that this law of history has been abrogated, least of all in the age of television and the transistor. Ghettoes and slums, in which poverty and hopelessness destroy family cohesion and personal self-respect, have always bred violence. They will continue to do so. And the misery they inflict on citizens — above all, on the poorest citizens — is among the most painful of society's unrecorded "bads." It may turn up in police costs and overcrowded courts and penal institutions. Wise urban planning will reckon these costs before it creates, in the name of some purely economic cost-benefit analysis, wildernesses of concrete and asphalt in which children lose their struggle for full humanity almost on the day they are born.

Social interaction and popular participation in community affairs

To have a say in how a settlement should be planned and run, to join in some of the work needed to implement the plans — these are essential elements in an atmosphere of personal satisfaction and dignity in human settlements. The manner and degree of this participation clearly varies according to local conditions, including the effectiveness of represen-

tative government. Literacy is indispensable for some forms of consultation. A relatively small scale of settlement also seems necessary, at least until a full apparatus of electronic communication and computer systems makes possible the kind of consultation recently held in New York City, in which some three million citizens were canvassed for their views on a number of carefully described and costed options, and the voting was categorized by computer.

In all communities, the citizen's involvement in social and environmental activities such as cleaning up, painting, tree planting, fiestas, block parties and parades need not depend upon advanced degrees of literacy and sophistication but upon local enthusiasm and enough organization to support it. The same can perhaps be said for citizen pressure on elected (or unelected) authorities in order to secure desirable change. In theory, any citizen who can be made to understand the issue can be involved. The prodigies of self-help that are to be observed in some squatter settlements are proof that, with leadership, people who have been bold enough to leave their traditional environment, are bold enough together to improve their new one. But some literacy is often a precondition of effectiveness. For this reason, the ability to read and write remains an urgent priority in all settlements and the possibility of learning throughout life takes a high place on the cultural agenda of community planners.

At this point, we reach another pre-condition of a viable environment in human settlements.

Cultural stimulus and opportunities for personal development

Any attempt to define cultural opportunities only underlines the need for far more effective methods of consulting citizens about their desires, and also of proposing and costing alternative forms of enjoyment and stimulus which they either cannot imagine on their own or could not afford individually even if they did. No one in 1939 could have foreseen, for

instance, that state patronage of the arts would develop all over post-war Britain for repertory theatres, summer festivals and touring companies of opera and ballet — and all this at a time when radio and television users were multiplying by the minute.

This experience has more than cultural significance. One of the problems of defining the good life in the consumer society is its overwhelming emphasis on private goods and transactions. Citizens want them. There can be no doubt about that. But would they want so many if communities were better provided with alternative social and public satisfactions? There is something of a vicious circle here. Insofar as private consumer goods do not, in most economies, pay the cost of the pollution caused by their production or of the solid waste produced by their disposal, they are in essence subsidized. Public funds are diverted to cleaning up after them — funds which might have been directed to providing less polluting joys. Thus the skewed yardstick of an insufficient cost analysis helps to reinforce a situation of over-subsidized private pleasures and undersupported public enjoyments. More accurate costing could help to resolve the contradiction.

This fact is a reminder that cultural satisfaction is not simply a question of positive opportunities. The modern citizen also needs to be protected against the negative environmental consequences of inadequate costing, coupled with ill-judged uses of technology. Great slabs of building, with hermetically sealed windows set in flat, barrack-like, horizontal lines between blank wall spaces utterly devoid of style or decoration, conceivably represent the most "economic" industrial costs of construction. Economically, too, an almost total absence of green and open spaces may appear to be a rational urban calculus. But they do not reflect the citizen's choice. What they reflect is often the hidden costs of an uncontrolled land market. Insofar as many edifices rely on continuous use of what is likely to become increasingly scarce energy, they also imply a considerable underestimate of future running expenses.

The losses are psychic, too. A city without flowers, trees and fountains, without vistas, without dignity, without churches and bell towers symbolizing man's spiritual aspirations, offers the citizen, especially the young citizen, so narrow a range of stimulus that one fears delinquency and drugs are being resorted to in a vain attempt to awaken dulled and silenced spirits to any reaction at all. We do not know enough about these environmental oppressions to be sure.

The great strength of human beings is their adaptability. But to some things they should not adapt. Adaptation would mean deformation and psychic loss.

In any case, it is clear that millions of them do not want to adapt. When they can, they "vote with their heels" by commuting away from the overpowering centre, leaving it in limbo for at least 12 hours out of the 24. In affluent lands, they buy second homes away from urban life. There is some evidence of counter-migration to smaller settlements. And, as we have seen, the citizen as tourist shows a preference for the Gothic, the Palladian and the Baroque. The cities most people want to visit look more like Florence than Detroit. But these preferences — for urban order, for beauty and spirit and decorative art — can find no place in a city built according to the narrowest estimates of economic cost.

This pervasive lack of beauty, order and stimulus is not confined to urban settlements. Naturally, the impact of technology on rural centres is not so great. But both they, and intermediate urban centres, can suffer another kind of desolation — the draining away of vitality as young people leave for the cities. Educated minorities, who could be expected to provide leadership and initiative, go on to the metropolis. The decline of smaller centres as well as the exploding growth of larger ones can worsen the whole social environment of human settlements.

These disproportions also effect another set of basic human needs.

The need for creative recreation, privacy, peace and quiet

If there are no parks or playgrounds in cities, if rivers and beaches are too polluted for swimming, if children are imprisoned on the thirtieth floor, the result is that safe yet adventurous and happy play, one of the main instruments of learning and personal development, is denied to each new urban generation. More violent and ugly games easily take its place. If all around city centres there stretches out private suburbia, followed by land lying uneasily between urban and rural use, the areas of recreation in beautiful natural surroundings may lie further and further away Reaching them can take the heart out of the day before its goal is reached. At the same time, there may be far more city dwellers seeking the beaches and mountains than can be accommodated within reachable areas. What was meant for recreation becomes a mob-scene of cars, tents, gas stations and hamburger stands. Beauty recedes. The day in the country is not much more re-creating than a day in the traffic.

The implications of inadequate facilities for recreation coupled with rising numbers trying to use them are inescapable. They include continuous bustle, noise and pressure. For some citizens, such conditions are not intolerable. Indeed, in holiday camps and beachside high-rise hotels, they are positively sought. The point is that beyond a certain stage of saturation, there is little else available for the more private and contemplative citizen. Urban life exercises, in any case, its heaviest pressures on such people. But when they try to escape, snowmobiles mow them down in the winter woods. Motorboats decapitate them in the lake. Helicopters buzz their forest huts. The least pollutive pleasures — contemplation, silence, the study of unspoilt nature, walking in the wilderness — are made impossible. And, as in any natural eco-system, the whole environment is degraded if the quieter, gentler species are eliminated and only the tough survive.

The underlying need here is clearly for much greater

variety and choice — in living, in working and in recreation. Citizens' desires are as varied as their cultures and styles of life. Settlements must try to provide a wide range of options and see to it that citizens can exercise a reasonable degree of choice. This brings us to a further basic need.

Equality of access to public services and facilities

There can be no choice if most of the options are simply barred by inadequate income. This point is in part concerned with basic biological needs — a minimum level of food, shelter, health and work available to all. Citizens crowded in the *favellas* should not lack piped water while, in the casino a few miles away, water sprinklers are continuously at work on immaculate lawns. Equality of access is also concerned with fundamental cultural needs — schooling, training, recreation. Slum schools cannot be left to perpetuate the culture of poverty when public education of the highest quality would be available simply as a result of a slight geographical displacement.

Access is concerned with fundamental political processes — equality before the law, participation in the political system. It covers in a special way the systems of communications and transport which make options known and give people the mobility to exercise them. It is often in this critical area that modern settlements are least responsive to human needs and where uncritical transfers of technology from one society to another can prove most inappropriate. A developing city may spend huge amounts on a subway system and then neglect to link outlying shantytowns with the terminal stations. A developing country may opt for the private car and invest disproportionate capital in a network of roads before 10 percent of the people have any hope of owning automobiles. In developed lands, the skewed economic costing which ends in a virtual subsidy to private transportation can leave the aged, the handicapped and the poorest workers marooned, far from either help or employment.

At this point we encounter a further human need which may well be the most typical of twentieth century man.

Freedom of movement and choice

We live in the midst of an unparalleled "wandering of the peoples." Migrants stream from the country to the cities; guest workers move from developing to developed countries; the number of tourists doubles every five years; morning and evening, commuters surge in and out of cities. But in all this, there may be more movement than choice. Not every migrant would leave the farm if there were work there, and education and health services in nearby market towns. Not every guest worker would leave his land for the Ruhr or Milan, if industry would come to him instead. Tourists, by sheer mass, can nearly obliterate what they come to see. And many commuters would gladly garage their cars if public transport were efficient. In other words, quite a bit of mobility may reflect not choice but the lack of it. The mobility that is claimed as a basic need in human settlements is the right to choose between alternatives and then validate the choice by free movement. Some societies do not recognize this right even in principle. Others allow mobility but eliminate choice. Still others allow both in theory but block mobility in practice — as in the case of workers too poor to afford cars in cities without public transport. It is an area in which there is much hidden compulsion. Much more needs to be known here about the citizen's true preferences so that they may be satisfied by the appropriate mix of choice and mobility.

Theme Two

The role of settlements in a national development policy

Development policy, particularly in the Third World, faces certain facts. Settlements are rising like a flood around the globe as population explodes, urban centres double, and the biggest cities double again. They do so, moreover, at a time of constant technological innovation, which changes the form, load, impact and duration of economic activities in quite unpredictable ways. Add to this the rising demands of insistent consumption and nations confront a scale of change which usually seems, and often is, largely unmanageable.

Yet the unmanaged results are not satisfactory. In developed market economies, in most developing countries, and at least in the historical location of settlements in centrally planned societies, settlements happen to be where they are largely as the unintended by-product of policies and decision making based upon a fairly narrow economic calculus. A river crossing, a sheltered bay, the opening of a mine determines the original location. Then the economics of concentrated demand, increasing infrastructure and easily mobilizable skills and supplies set in motion a reinforcing effect which, for example, turned New York from a seaport of 50,000 to a conurbation of 20 million in about a century and a half. But economic decisions, reinforced by further economic decisions, do not, of themselves, produce a humane and urbane social order. They can leave minorities in developed lands and majorities in developing areas far below the poverty line. They inflict considerable social inconvenience even on wealthy citizens. They endanger local environments by pushing them beyond the limits of their natural capacity for regeneration. They can condemn abandoned regions to wasteful decay. In short, if a primarily economic strategy had been sufficient to create just, convenient and gracious patterns of set-

tlements, we should have them now. The crisis we face is that we do not. The opportunity to be seized is the possibility of devising better alternative policies.

The starting point for these alternatives is precisely that settlements cease to be "residuals" and become the object of positive policy.

The approach has several facets.

Social versus economic indicators

Radical change is required in the use of economic and social indicators of the kind already discussed. This change is based upon a more accurate calculus, not only of economic goods and services, but of socio-economic "bads" and "disservices." Forms of city design are sought in which basic human needs for neighbourliness, privacy, personal security and access to beauty and open space are given as much weight as growth statistics or taxable value. Road traffic is made to bear the cost, not simply of construction, but of congestion, pollution, length of commuting, and death and injury. Industrial planning is not judged only on the basis of job creation and urban revenue but upon nuisances, noise, effluents and the local carrying capacity of airsheds and water systems.

An example of the drastic reordering in planning priorities to which such a calculus might lead would be a government decision to abandon the concept of allowing the most rapid economic growth to accelerate wherever it begins to take hold, even if some regions are then fully exposed to the reinforcing effect of growth breeding more growth while other regions lag far behind. In its place, a more general, if slower rate of economic growth would be sought for a wider cross-section of the population. In some ways, regional policies in such developed areas as the European Economic Community reflect the need for this wider spreading of development. But it often proves difficult to coax industries back to once neglected regions. There are many experiences of firms giving up and workers leaving at the first sign of difficulty or even of a relatively slow momentum of growth. New "poles of growth" or development areas then fail to prosper, do not attract educated leadership and even tend to become ghost towns before they have managed to exist.

Such an outcome, however, suggests two things. A more widespread pattern of development in the first place might have prevented the formation of depressed regions with a certain propensity for failure and discouragement. The second is the need for more sustained and systematic planning to ensure that economic, social and cultural opportunity are all carefully calculated and increase in step.

New approach to spatial planning

This kind of calculus implies, in most countries, a new approach to the concept of spatial planning and its interrelations with economic and social development at all levels: national, regional and local. In certain cases, where settlements forming continuous "systems" cross frontiers — for instance, around inland seas or in large river estuaries — the planning has to have an international dimension. This new kind of planning clearly begins with a careful assessment of the land's topography, of its present degree of development, of its urban locations and its distribution of population, of its existing economic resources and systems of communication and those still to be developed, and of the suitability of its land for a variety of uses.

Planning based on such considerations must vary enormously from country to country. Many developed lands already have such dense settlement patterns that many options are simply foreclosed. In Czechoslovakia, no settlement is further than 2.5 kilometers from any other. This creates quite different problems from those facing largely pre-industrial societies in which density of both population and settlement are still minimal. True, in such countries, with high

population growth and very large internal migrations, the urban/rural relationship, dynamic in all societies, is particularly subject to change at breakneck speed. Such relentless pressure can offset the potential opportunity of avoiding expensive mistakes built into costly and irremovable structures of concrete and asphalt. However, this particular example of irresistible pressures for change is simply part of much wider challenge to effective planning — the challenge of dynamic aspirations and the pressures to satisfy them.

Policy foresighted

Settlements policy must take full account of the future. It must attempt to answer the uncertainties of continuous and accelerating change. What is the country's rate of population increase? What increases in income have been forecasted or promised? Are there tendencies to growth or decline in different regions? How are these related to alternative and possibly more suitable uses of space? Given the world's overall tendency to greater urbanization, are urban growth centres beginning to form or spread in the best adapted regions? If so, what forces of decline are they setting in motion elsewhere? Urban and rural regions live in a condition of inescapable interchange. The only difference is that the condition can enhance or degrade both. For instance, settlements threatening to sprawl over the most productive agricultural land will not only complicate traffic but deprive citizens of the delights of fresh food. Farm land left to weeds and abandoned barns destroy the future hope of preserving lovely landscapes for recreation and refreshment. The recent rapid emptying of many country regions in Western Europe has reminded urban man of how much of the beauty which restores his spirit is the farmer's work and vanishes with the farmer. Without forward planning, such distortions of a human and viable pattern of settlements can be set into remorseless motion before the possible loss has even been realized, let alone checked.

Settlements: a national priority

The new approach to settlements planning rejects the concept of their "residual" character from yet another point of view. Governments are accustomed to taking major policy decisions on the basis of what are assumed to be high national priorities. A prime example is, of course, an arms industry. A country accepts the idea that it is exposed to vulnerability and risk unless it commands the weapons of war. It then decides to mobilize — by taxation, by inflation — the resources needed to create or expand an arms industry. Thereafter, a very wide range of industries and employment come to depend upon the development and continuance of such a program. In certain circumstances — for instance, the Germany of Dr. Schacht — the decision to rearm massively in a period of deflation, unused capacity and desperate unemployment has a rapid "multiplier" affect and increases economic output in many other less warlike sectors of the economy. Even without such deflationary conditions, a large vested economic and industrial interest can be created in the expansion and continuance of an arms program.

Another instance is to be found in the decision in a number of countries, but especially in the United States, to construct a full-scale highway system, financed in the main from various forms of taxation. This again, of its own momentum, becomes first a formidable mobilizer of resources and manpower and then a vast economic vested interest in its own right.

The question today is whether the construction of a systematic pattern of settlements in developing countries or systematic modification of existing settlements in developed lands might not become a comparable program of high national priority commanding a large release of resources from the national budget. After all settlements have often been used as instruments of national policy. The planned magnificence of the capitals of princes and feudal lords once expressed pride of dynasty. Now

they earn a tourist income. But economics did not determine the original decision.

In the past and on into our own day, the building of settlements has been undertaken to increase the defence of border regions or consolidate a claim to disputed territory. In the peculiar geography of Canada, strung out from ocean to ocean in a narrow temperate space between the United States and the tundra, a planned dispersion of settlements is believed by many to be a precondition of effective national unity. Otherwise the entire population might be clustered together in three major conurbations with a vast empty territory to the North.

But such settlements policies are somewhat specialized. The general question posed to the Conference is whether a coherent strategy for settlements as a whole, instead of piecemeal sectoral decisions, might not receive a priority claim on national resources at least comparable to that of defence or of a national road system. The concept is not without political appeal since the citizens' comfort, security, opportunity and culture are much more immediately bound up with the environment of their settlements than with the content of any other national program. This is a fact even if traditional thinking gives greater weight to defence or if consumer pressure tends to be concentrated, at least for the time being, on the private car. But politicians may not have explored the advantages of citizen involvement in the planning, development and enjoyment of better financed and managed settlements because they, like everyone else, are caught in the "tunnel vision" of seeing settlements as simply the residual result of other policies. To gather together the fragmented aspects of settlements policy, to bring a coherent strategy for settlements to the centre of political awareness is exactly the kind of shift in vision that the Conference could help to bring about.

Potential economic gains are no less promising. The stimulus given by steady defence contracts for a whole range of metal-using and engineering in-

dustries — not to speak of textile firms, camp constructors, and food suppliers — explains the concentration of interest which can be built up behind the continuance of such demand. But the multiplier effect of a systematic national program for settlements could be even greater. In any economy, upwards of two-thirds of capital investment tends to occur in one form or another of construction. Four-fifths of consumers' incomes are spent on goods related to the home. Household fixtures are a direct stimulus to the producers of consumer durables. Experiments in new "city systems" for utilities or the mass cheap construction of kitchen and bathroom units might be at least as technologically stimulating as devising new weapons and would certainly bring higher human rewards. Nor should home ownership be forgotten as a mobilizer of savings. Naturally different schemes would be needed to match different levels of wealth and sophistication, from simple "roof loans" of the type pioneered in Ghana to the mortgage arrangements of developed societies. But the sheer variety of economic stimuli that could be provided by a systematic policy of settlements suggests that, however much the prime aims of such a program were social and political, the economic benefits could be as great.

Theme Three

The structure and quality of the environment in human settlements

The environment in human settlements is determined by a variety of factors — social, functional, spatial — but the most immediate, inescapable and profound influences are social influences exercised in the first instance in the home. Here the family survives as a biological unit, with the hope of adequate income, diet, shelter and privacy in accordance with the world's vast variety of climates and cultures. Here citizens receive their first educational formation. Here they learn — or do not learn — love, security and the sense of how to live with other human beings. The house is the core, the central place, the starting point of all life in human settlements, in short, of human life itself. The tragedy that follows from the world's record of blighted housing and decaying slums is that it can deprive the citizen of the very foundations of security and self-respect.

If international society accepts the requirement of giving the needs of the poorest citizens the highest priority, there can be little doubt that shelter, together with food and the income to supply both, are at the head of the list. The extent of development of resources such a priority for housing would entail is not entirely clear. Estimates made by the United Nations have suggested that some 10 to 15 dwellings per thousand inhabitants ought to be built each year to keep pace with rising population, migration and the aging stock of houses. In fact, only two or three dwellings per thousand are being supplied. But this figure is imprecise since it includes the replacement of lightly constructed rural homes in hot climates which not only do not need to be rebuilt with the solidity of houses in northern capitals at 20° below zero, they would be far less hygienic and environmentally suitable if they were. In such areas clean piped water and health clinics could

well enjoy a much higher priority.

Another difficulty in arriving at a firm global figure is that, if we accept a reasonable investment in a dwelling as a certain multiple of average national income, we find that the same "standard" of housing would require three years' income in a developed country and perhaps 20 years' in a developing one.

Another difficulty is the familiar one of the degree to which, in different types of economy, housing costs are inflated by speculative urban land markets. Then, when skyrocketing rents are controlled as a result of public outcry, landlords cease to be able to cover rising costs of repairs and whole areas become derelict as a result of such distortions of price. In some countries, too, as we have seen, indiscriminate "urban renewal," bulldozing out depressed neighbourhoods and reselling the land for more expensive housing, has actually spread the area of blight by compelling poor families to double up elsewhere on already over-crowded areas — yet another reminder of the limits of purely market calculations in building acceptable settlements.

However, these uncertainties in estimating the cost of reasonable housing in no way detract from the fact that the backlog of world housing is immense. Some estimates speak of $12 billion a year needed simply to keep pace and catch up on present needs. Even if firm estimates and accurate costing can be made only country by country and region by region, the needed input of capital is very large. Moreover, it is almost always misleading to talk about the need for housing without relating it to the functional services — physical services such as power, water, transport or sewage; social services such as health, education or recreation — which largely determine how useful a particular home will be.

Houses can be extremely modest and inexpensive, particularly in warm climates, provided the supporting services are adequate. To give only one example, the gravest evil in a vast and poor metropolis like Calcutta is not so much the inadequacy of housing,

although 80 percent of the families live in one room: it is a dangerous shortage of filtered water. Mile-long queues can form to get the daily ration of 25 gallons for all purposes, yet 60 gallons is considered the human minimum in hot climates.

Equally, expensively constructed buildings are not the answer in any culture if they lack supporting services. Dwellings, above all in vast apartment blocks, can be massively built and relatively inexpensive. But if they are without social amenities, facilities for recreation and even the chance of neighbourly contacts, they can seem more like prisons than homes. This effect is enormously reinforced if segregation by class or race is almost literally built into the neighbourhood. In short, the effectiveness of housing can be judged only in terms of its environment, social support and functional efficiency.

At this point we return to the concept of the neighbourhood or community as the organizing principle in planning for settlements. A number of governments are beginning to incorporate this concept into their development plans. The largest of all modern city builders, the Russians — who constructed the phenomenal total of 900 new cities between the wars — embody this principle in their physical plans. In creating their smallest unit, the microdistrict of 8,000 to 12,000 people, Soviet planners try to project the needed number of primary and secondary schools, clinics, food stores, repair and dry-cleaning centres, public places, and small gardens appropriate to a community of this size. A cluster of such units make up perhaps a block of 25,000 to 50,000 people which would have, in addition, public offices, bigger parks and shopping centres, theatres, restaurants, and other buildings not in continuous use. As size goes up so, in theory, does the elaboration of services, department stores, hospitals, centres of education and entertainment.

Equally, a new opposition to the kind of commercial development made possible by levelling run-down neighbourhoods and putting up office blocks, convention centres and more expensive high-rise apart-

ments in their place, is being fuelled by the realization of how damaging the process can be to settled communities and to the small "eco-systems" of established neighbourhoods and patterns of work. The rethinking of development plans for London's Covent Garden is an example of a new respect for humane values as opposed to an unadulteratedly economic cost-benefit approach. The urban "villages" are seen to be structures of much greater value, complexity and stability than the traditional calculus of developers, public and private, has either cared or counted. The destruction of such communities can literally "decivilize" the city and help to unleash on its inhabitants the barbarism of disorder, mugging and drugs.

The home's quality thus depends upon the system of services in which it is embedded, whether it is in a rural or an urban setting. Moreover, as we have seen, services do citizens little good unless they have access to them. In country districts, people can be too scattered to provide the "critical mass" required for health services, education and economic needs such as markets and banks. For this reason, the concept of creating regional market centres, with high schools, training centre, cooperatives, storage units, savings institutions and light industry, is being much more widely considered in modern development plans. These centres, connected with a network of villages by cheap public transport, would serve as centres of revitalization for the agricultural sector which, in many countries, will continue to support at least half the population for decades to come and must be based on labour intensive agriculture carried on in small farms. Only a nearby and accessible provision of some of the social hopes of modernization — literacy, skills, health, variety — can prevent the continued draining away of the younger and bolder spirits to the big city. In the wider context of national policy, such a strategy thus takes some of the strain of constant migration off the biggest cities where, in some countries, half the population and 80 percent of the industry are concentrated.

It is sometimes argued that such concentrations are the inevitable consequence of modernization. But there are significant exceptions. Some developed countries — one thinks of Switzerland — possess so decentralized a political structure that social opportunity and economic change have followed the same pattern. Among centrally planned societies, Romania has used a policy of regional decentralization which has kept a check on big-city growth, in spite of a very rapid rate of industrialization in the past two decades of more than 13 percent a year combined with a doubling of urban population. Between 1948 and 1968, Bucharest grew by only 400,000 — from just over a million to just under a million and a half. Its share of the country's urban population actually fell — from 28 to 20 percent. Meanwhile, economic growth was fostered in other centres. Towns of 100,000 and more grew from 2 to 12 percent, towns of 10,000 to 50,000 from 60 to 124 percent. Small towns, particularly in regions set aside for water storage, hydroelectricity, tourism and recreation, hardly increased at all. It is clear from the model that the overcrowding of central urban regions is not an inherent result of the modern technological society.

In the vast metropolises of the twentieth century the problem of access to services is not one of dispersion but of over-concentration. Since, from the beginning, the private car has not paid its full economic and environmental costs, hidden subsidies have greatly increased its use. Public transport has faltered in efficiency and speed and thus lost more customers to the private vehicle. For affluent citizens the outcome has been an increasingly unbearable strain of lost time, congestion, pollution, danger and, one surmises, mindless and debilitating activity. For the less affluent, the aged or the handicapped, it can mean isolation and lack of access to all the city is supposed to offer. Over all families, it throws the shadow of potential violent death. Difficulties of access are at their most acute in and around the city centre. But, as we have seen, the relative lack of opportunity for creative recreation within modern cities which are built up to the last inch of saleable

land, combined with the immense spread of suburbia, means that access to the non-urban world can be virtually barred to those who are not tough enough for the weekend traffic blocks en route to beach and mountain or not wealthy enough to afford one of the vastly proliferating number of second homes.

True, a rethinking of mass transport is in process in many parts of the world. It is therefore critically important that developing countries, where options are still relatively open, should look with great caution at any plunge towards reliance on the private car with all its demands on space, its distortions of city sprawl, its smog and its accidents. The decision to give priority to public transport could, perhaps, do more than any other single act of policy to prevent developing cities from going through the whole dismal record of private transport edging out mass transit and then, by its inefficiency, compelling cities to bring public transport back at great and much increased expense.

But these problems of traffic and of access to the services needed in a successful settlement are really part of a side issue that has already been mentioned: the degree to which settlements have been the outcome not of a careful effort to make the best possible use of the finite resource of land but the residual, almost casual result of other largely economic decisions. The primary reason for a location, a river ford or a mineral deposit, may not have been environmentally wise in the first place. The valley could be subject to constant temperature inversions, the deposit could be near dangerously arid land. But once the activity begins to build up and such reinforcing mechanisms as the economic advantages of sheer density go into effect, neither the site nor the scale nor the spread of the settlement need bear any relation to the best use of scarce land, to the carrying capacity over time of the local environment or indeed to the convenience of most of the citizens.

There is, of course, considerable dispute among urban experts over the question whether any valid

statement can be made about an optimum size for a human settlement. Clearly, it varies with the degree of wealth, industrialization and effective management. But some of the largest metropolises, particularly when they trap whole sections in the most squalid poverty, do appear to have outgrown their present capacity for well-being and for renewal. The sheer concentration of people requires either high-rise living, which is quite unacceptable to many citizens, especially those with small children, or unwieldy, suburban sprawl with all its attendant strain of commuting and family separation.

The efficiency of some functional services — transport among them — is subject to spatial limits and once a certain scale is passed, the marginal cost of further additions can be quite out of line with the hoped-for benefits. Above all, environmental limits of effluents, of thermal pollution or waste disposal are probably much more restricted than present economic decisions, which leave out environmental costs, tend to suggest. There are thresholds beyond which regeneration becomes ruinously expensive or even biologically impossible. Rivers and seas are natural systems. They share with nature the possibility of dying. It is no longer scare-mongering to talk of the "death" of the Mediterranean. This tideless sea, with a natural cycle of regeneration stretching over 80 years, may not be able to absorb the filth and detritus of its rising industrial settlements and billions of tourists for more than another decade. The economics of oil refineries, chemical plants, sewage disposal systems, tourist hotels and charter flights do not give the estimates required to tell how long the sea they treat, on the one hand as a vision and on the other as a sewer, can withstand such usage. It is, above all, in the area of the most concentrated settlements that a wholly new calculus of cost and benefit is most urgently required, a calculus which gives new indicators registering environmental pressures and which stimulates new technologies to bring the pressures under control.

Nor, finally, is this an estimate simply of effluents and waste. The environment of human settlements

depends not only on the excellence of its drains and disposal systems. It demands dignity and beauty, a care for past achievements, respect for the citizens' eyes and ears and for a pace of life which gives them time and space to savour their life in community. If all the wealthiest settlements offer is smog and towering skyscrapers above, din in the ears, traffic roaring dangerously past and sidewalks full of jostling crowds of relentless shoppers or exhausted commuters, the dream of "urbanity" degenerates into an ugly farce.

Theme Four

Special problems in human settlements

Certain features of the technological order produce similar problems in a wide range of settlements and require separate definition.

At the core is modern society's unique combination of rising aspirations, the pressure and mobility to achieve them, and profound technological changes taking place, partly as cause and partly as result of these pressures. The very word "settlement" is in some measure a contradiction. In many ways, modern man is dealing with continuous "unsettlement." Places of work and residence, solid as they may seem, are subjected to wave after wave of people — commuters, migrants, tourists — and to a continuous process of changing functions and of being rebuilt in response to new needs. If the processes could be speeded up and seen through a radio telescope from a remote planet, the surface of the earth would look like a disturbed ant hill and cities would be seen to be spreading — and sometimes shrinking — like some kind of tough epidermis over the green earth.

If we take, as we must, the neediest people as the highest priority, the first special result of this condition of aspiration and mobility is the spread of squatter settlements throughout the developing world. The "push" that sends country people to the cities at a rate that can be three and four times higher than the general increase in population is due in part to the relative neglect of agriculture in recent development policy, in part to the existence in some areas of rigid and unproductive forms of land tenure and in others, of an economic drive to substitute machines for men in the wake of the so-called Green Revolution. The "pull" derives from the fact that as a result of past colonial administrative and trading policies, cities exist, often as seaports, far ahead of the country's general moderniza-

tion. Before the First World War, for instance, when Western Europe had nearly 30 percent of its labour force in industry, it had a lower level of urbanization than Latin America, where industry still accounted for under 10 percent of the workers. These vast cities, some of them, like Montevideo, containing over half the country's population, offer at least the appearance of modernity and wage levels which permit a worker to be better off than in the countryside even if he only works for a day a month. Meanwhile, what are euphemistically called "services" — shoe-shining, selling matches, guarding automobiles against car thieves — may provide a little more income. Above all, schools of a sort may be within reach. Hope for the children's future is at the root of many migrations.

Once the migrant arrives, any easy hope of betterment is brutally dispelled — by the absence of steady employment, the lack of shelter, the generally unsanitary nature of the squatter settlements. Less than half of Brazil's municipalities, for instance, have reliable water and sewage systems. The physical misery of these *favellas* or *calampas* or *bustees* or *bidonvilles* are a spreading blight on every continent. Yet it is false to see them only as disaster areas. There is enough experience now of the energy and the capacity of the squatters or, as some would call them, "urban pioneers" to suggest that the improvement and integration of squatter communities is possible even with virtually nothing more than the efforts of the people themselves. Renewal can be greatly accelerated if the authorities devise and pursue appropriate policies of support.

The most needed strategies extend, inevitably, beyond the settlements themselves. They need to reflect the growing understanding in development planning that employment and income distribution cannot be left, any more than housing or services, to appear as by-products of purely growth-oriented economic decisions. If mechanized agriculture increases output and with it the income of farmers, the gain shows up in national statistics. But the cost of now landless tenants, moving themselves to

the fringe of bloated cities and leaving rural communities to steadily decay, does not. If, as a result of installing a fully automated factory, Gross National Product rises and a small group of shareholders and organized workers enjoy increased income, the economy as a whole will still be worse off in real terms if unemployment increases significantly, and the pattern of high technology and low job-creation is critically reinforced. The whole development calculus has to begin to take direct account of the new imperatives: the creation of jobs and the spread of income.

But these are overall strategies. Within the settlements, the need is to stimulate communal self-help, to provide services such as water and power and to lend or give essential housing components which allow migrants to improve their own homes. To do this, they require some form of secure tenure. Bulldozing out the shacks does not send the squatters away. It simply destroys their faith in self-help. Admittedly, some settlements have to be moved. In many cities the squatters go into disaster areas, like flood plains, simply because there is nowhere else to go. But the forced movement should not take them too far from possibilities of work. Dumped back in the villages, they return.

Experience also suggests that in many areas, if they are piled into high-rise tenements in centre cities, they also move, leaving almost irreparable squalor behind. The need is for a careful plan for the siting of migrant communities, the provision of sites and services and attention to the transport needed to get them to work. It is a question, in fact, of treating citizens as assets. Once the policy is understood, it can be self-fulfilling. Men and women are more likely to behave like assets if they are not treated as outcasts in the first place.

Migrations are not confined to the developing world. The magnet of hope and work that draws country people to the urban areas within a country operates internationally, drawing poorer and less skilled workers across frontiers to the wealthy centres of

industrial growth in developed lands.

After World War II such a migration took place between the various states in the United States. Black citizens from the South moved into northern cities, usually into the substandard centre city districts already used by three or four earlier waves of migration. In Britain, a similar movement brought West Indians and Asians to the cities. Western Europe draws in the Mediterranean people as "guest workers." All these movements have features in common. The migrants usually do the low-paid, unskilled or boring assembly line work which more affluent and educated workers no longer want to do. They usually congregate in the areas of worst housing or even in camps. Their conditions of work and living thus tend to be in every way less satisfactory than those of the people they live among. They are likely to be the first to suffer insecurity of jobs and even of residence if economies cease to expand. They also face the risk that strikes to improve their condition may lead to the closing down of industries which survive chiefly on their low wages.

Their needs in many ways resemble those of squatter communities: the means of self-help, investment in services, improvement of the housing stock, access to work, help in acquiring skills and hence promotion, education for their children. The chief difference is that many "guest workers" mean to return to their own countries. Their transience lowers their ability to get a grip on their condition. However, some governments care for their migrant citizens by negotiating terms of work and wage contracts. The whole movement also raises the issue whether, in the interests of environmental balance and some dispersal of the concentrated effects of rapid industrial growth, it might not be more sane to send some of the industry to the workers and thus speed up the modernization of less developed lands.

This direction of policy deserves consideration for another reason. Migrants moving to the big centres

create problems of over-concentration. But migrants leaving the country districts create the opposite problems — of rural and regional decay. Smaller towns are drained of economic and social life and leadership. They acquire a shabby, rundown atmosphere. This further depresses the life of the people who cannot move, often the elderly, the handicapped or those who lack courage and skill. Yet, as has already been suggested, it is not clear whether, if migrants were given reasonable alternatives — reformed land tenure, successful small-scale farming, work in lively regional market centres — they would inevitably move on to the great conurbations.

Once more we are up against the consequences of what were in the first place economic decisions, taken without regard for social or environmental costs and without any effort of popular consultation. The economic advantages created by high densities of consumers, suppliers and workers can be self-sustaining and draw off an undue amount of vitality from regions in which no spiral of growth is spontaneously taking place.

This is not a new phenomenon. Over 150 years ago Goethe remarked of Paris: "How much happier this beautiful France would be, if it had 10 centres instead of one all spreading their own light and riches." Nor is it self-correcting. Every nation has such disadvantaged regions where capital and housing stock deteriorate and "men decay." And so they remain unless positive policies are adopted to reverse the trend.

Today, this is happening. Goethe would no doubt be pleased to see France planning for eight countervailing metropolises — *métropoles d'équilibre* — and using tax reductions, capital grants, training schemes and resources for housing and infrastructure to lure industry and services away from Paris. The work, known as *l'Aménagement du Territoire et l'Action Régionale*, is one of the developed world's most systematic attempts to reverse old fatalities, to bring employment and opportunity back to declining regions, to rectify stagnant settlements and

take the strain off overloaded central areas. One can only repeat that in the developing world, it would seem the course of wisdom not to allow the dismal combination of over-centralization and regional decay to occur in the first place. Moreover, attention to farming, well supported regional growth, investment in intermediate towns, a more balanced distribution of national population and national income are not simply a way of saving social costs. The long-term levels of economic growth may well be higher too. There is no question but that developing countries which have stimulated small-scale farming, regional market centres and local housing and services — countries such as Korea, Taiwan and Yugoslavia — have contrived higher rates of economic growth and a better distribution of income.

Wherever regional areas have lively cultural traditions and towns with an inheritance of gracious architecture, the need to sustain their vitality has a further economic motive: the steady growth in another form of migration, the tourist industry. But like all economic interests pursued without concern for environmental or social consequences, tourism can cause as much deterioration in settlements as any mass movements of migrants. Hastily built inns and holiday camps often skimp on sanitary and sewage arrangements. People come for a swim and go away with hepatitis. High-rise hotels block sea views and dwarf traditional squares and buildings. The din of aircraft, the crush of charabancs turn beautiful cities into nightmares of noise and moving metal. Swarms of people screen the places they come to see and can even begin dangerous soil erosion in fragile beauty spots. The list is endless. But clearly the preservation of ancient cities and lovely sites for today's visitors and for prosperity demands far more than a calculus of the tourist industry's earning power. Social and environmental constraints must be accepted, social constraints to allow local people not to be drowned out in each succeeding tourist deluge, and environmental constraints to preserve the beauty which visitors, citizens and posterity all have the right to enjoy.

Theme Five

Managing urban settlements

It is becoming more and more widely accepted that successful human settlements must be planned. Economic development guided by no more than the principle of the most rapid achievable rate of growth does not, as the Japanese continuously remind us, produce settlements in which the citizen can live with acceptable standards of security and happiness. Over-concentration of people, uncontrollable environmental pollution, blatant differences in opportunity between region and region, between place and place: all these evils are in no way self-correcting. Good human settlements, it must be repeated, depend upon positive policy, not upon the residual result of decisions directed towards other, usually economic goals.

For policy to be effective, the first condition is a workable degree of control over land use together with a much clearer idea than many governments possess of what the best uses of the land are likely to be. Inventories of resources are required; not simply the straightforward results of mineral surveys but thorough reviews of all aspects of a nation's territory — its river systems and water supplies, its airsheds, its soil types, its areas of particular natural beauty and also existing man-made systems — transport, power grids, urban concentrations. This type of inventory was, incidentally, a preliminary stage of Romania's territorial planning. In the Netherlands, a National Physical Planning Act gives the Government the power to make a complete assessment of the nation's living space.

Such inventories can be the basis for a variety of forms of control, from total or partial public ownership of the land to various types of taxation, restrictions on use, zoning and limitations on individual ownership. All deal in different ways and with varying degrees of success with what is coming to

be recognized as a critical inhibition on successful planning — and that is the costs added to every aspect of construction in settlements wherever speculative land markets drive prices through the roof. Without controls, all the potential contradictions and inconveniences that spring from purely economic calculations — lost amenity, unbalanced growth and social injustice — tend to gather momentum and lead settlements towards the risk of social breakdown.

Since, however, unsatisfactory settlements have been produced under both public and private auspices, and since entrepreneurial skills have made and can make remarkable contributions to urban order — one thinks of Thomas Cubitt's Belgravia in London — careful studies are needed of the impact and effectiveness of various types of control and various mixes of public and private enterprise. The efficiency of the legal and fiscal instruments required by various policies also need to be examined.

To get effective control of land use is the first condition of successful management. The second is to plan for optimum use and to cope with the fact mentioned earlier that needs, jurisdictions and systems do not naturally overlap. Power grids can cover hundreds of miles, urban transport only a score, water supplies fewer still. A neighbourhood or, in ecological terminology, the citizens' "niche," however, is by definition concentrated in a limited space and much of it should, hopefully, be accessible on foot.

This intermingling of different spatial needs is an inevitable consequence of modernization. Power and mobility link every settlement with every other. A continuous interchange goes on between the urban and the agricultural sectors, an interchange characterized by a secular tendency of the urban areas to spread and the farms to shrink. Recreational needs can carry the citizen to the ends of his country and far beyond. The old divisions of cities, towns, countries and village councils form an increasingly inconvenient pattern of administration once decisions and actions taken in one place can vitally affect other areas' problems, the taxing and the spending needed to solve them. The industrial mess of up-river communities becomes the environmental costs of down-river settlements. Strip mining devastates the hills to provide air-conditioning for the cities of the plain. Suburbia takes away the income needed for centre-city renewal. The examples are endless. What they call for are new political and administrative structures which reflect the regional intermingling of decisions and costs, yet allow for local initiative and responsibility.

The first point to make clear is that policy for settlements is inseparable from general national strategy. In the past, planning for development has tended to be done by the central government while detailed physical planning for settlements has been carried on by local authorities. Today the degree of interdependence of decisions and results makes this type of division of functions an obstacle to successful policy, and new institutions and techniques have to be invented.

Some countries are experimenting with metropolitan government. Others attempt to distribute power and population more evenly by the construction of new towns. Another possible pattern is the establishment of "counter cities" which, as in France, limit the spread of single large metropolises by providing alternative centres or poles of growth endowed with enough scale, prestige, economic and social opportunity to offset the pull of an existing conurbation. Yet another concept is that of the city region in which what one might call the whole "drainage area" of the city — the farms that feed it, the transport and power grids that serve it, the suburban belt, the intermediate towns, the recreation areas — are brought under a single planning authority or coordinating body, while institutions for popular representation and machinery for implementation are set up at the various and appropriate levels of responsibility and programming. In this way, each section within the "system" can see how it fits into the larger field of interdependence but can also conserve its own

powers of experiment and initiative. The final instruments of coordination can only be at the national level and experience in most countries suggests that the responsible commission or agency or ministry should be at the very centre of power — the Prime Minister's or the President's Office.

In all areas, new types of institutions and new centres for management and implementation require new skills and new types of entrepreneurship. But the need is especially urgent in developing societies where the range of trained manpower is not even always adequate for the traditional task of management, including the critical and often neglected task of securing the right kind of maintenance over time. Yet in these areas new ideas for settlements and new skills in carrying them out have the immense advantage of not confronting a vast array of old, encrusted and entrenched mistakes. The management of settlements for societies which still have nearly three-quarters of their population in rural areas enjoys a spatial freedom of action which cries out for more adequate financial resources, and for the training of a new sort of imaginative and innovating young official.

All societies are in need of research for new ideas and techniques in such critical fields as more productive building technology, the better use of materials and machinery, flexible and efficient means of mobilizing savings for use in settlements, particularly for low cost housing. But the need for new concepts is much greater in developing areas. Much "advanced" technology, aimed as it is at capital-intensive, labour-saving methods, is quite out of place in economies in which a quarter of the labour force may be out of work. The prestige of "modern," often imported materials, has tended in many areas to reduce the use of local resources and to inhibit experiment in locally produced variants of roofs, piping, floor surfaces and so forth. Planners have also tended to neglect the degree to which group savings and cooperative schemes can be used to increase investment in housing without recourse to elaborate, often premature, individual mortgages. An uncritical cult of high technology and modernity has also often limited

the very great possibilities inherent in self-help projects which set people to work in settlements not only to build their own homes, laundries, meeting halls, communal latrines and bath houses but also to engage in communal programs to clean up and refurnish the whole environment of rundown city quarters.

This activity is, in fact, part of a much wider issue in the successful management of settlements: the involvement of the citizens themselves. Such planning turns out to be paternalism — wise leaders at the top telling the little people at the bottom what to do. But the wisdom is not always so evident, whereas the experience of actually living in the settlements can stimulate the most lively ideas about what to do with and in them. Consultation before plans are made, a real effort to secure a *local* input, care to see that technical advice is available to the concerned citizens and, later on, an equal effort to involve people in the implementation of plans they have approved — these make up the essence of genuinely popular planning and can create a relationship between citizens, their leaders and the places in which they have to live which is stable, enjoyable and lively. By the same token, it may well cut down enormously on social costs since citizens who care are the best guardians of the settlements in which they live. Violence, apathy, aimless destruction, a busy police force and over-crowded penal institutions are all costs which need not be paid if citizens and their families feel, in the profoundest sense, that they are "at home."

Theme Six

International cooperation

When one considers the imbalance in the distribution of the world's wealth and how acceptable and almost casual is the expenditure of massive amounts of resources on the weapons of war, it is tempting to contrast the annual $12 billion needed for houses with the $215 billion spent each year on armaments. It is tempting, too, to suggest that a quite modest tax on arms spending — say, five percent a year — or a phased reduction of arms over time would cover many of the basic inputs into human settlements and incidentally remove some of the social tensions which can push governments towards the diversion of war.

When, in addition, one looks at the inflationary tendencies present today in almost all economies and reflects that, while arms spending is by definition inflationary, capital invested in housing creates a whole range of needs which mop up savings and purchasing power, it is also tempting to suggest that if governments are serious about inflationary strains, they might spend more of their substance on inflation-abating rather than inflation-inducing activities.

Yet it is clear that the time is not ripe for a bold new initiative in the field of settlements. In general, the development picture is confused. Enthusiasm has not been remobilized behind the concept of a Second Decade of Development.

The rich nations are caught in domestic difficulties. The poor are riding out the storm with some gain in export incomes and loss on the import bill. Everyone is waiting, admittedly in a rather glum spirit, for the outcome of intergovernmental discussions on the proposed refashioning of the world's trade and payments system.

But even if enthusiasm for new international ventures

were more evident and widespread, there could be an argument for a somewhat cautious approach at this stage. The truth is still at a very early stage. International agencies and aid programs are only just beginning to develop policies in this field. Not much more than a small percentage of development assistance has been channelled specifically to settlements and the sums have been, very largely, for housing. Aid policy has, after all, followed the general pattern of development thinking. It has treated settlements as residual items, after plans for industry, transport and infrastructure have been decided. Any really large scale mobilization of resources, however desirable in the longer run, requires a large scale of experiment and preparation than has been carried on so far.

A first step, therefore, is to see that settlements begin to receive a larger share of international aid money now that the various institutions of the United Nations system find out what each of them is doing in the settlements field and how their efforts can be made to reinforce and complement each other.

A resolution of the General Assembly in 1972 requested member nations to see whether a higher priority could be given to human settlements in their development plans and to report back on their findings to the next Assembly. Another resolution asked that a feasibility study be made of a new institution for financing housing and settlements. Such a "Human Settlements Trust Fund" would be designed to channel more capital into local institutions. Alternatively, member nations were asked to consider whether an existing agency could do the job. There is no suggestion that the proposed Fund, if it is set up, should wait for the Vancouver Conference. On the contrary, the Conference might make an admirable sounding-board for the Fund's preliminary findings.

The emphasis in this and in any other program for settlements must be strongly on innovation. Pilot projects, experimental communities, various forms of self-help, programs subsidizing mortgage rates,

services and housing, cost-benefit calculations which include social and environmental costs — those are the kinds of activities which the prospect of Vancouver can begin to stimulate at once. In fact the greater the number of well-tested hypotheses, workable projects and successfully spent capital that can be demonstrated at the Conference, the greater its chance of acting as a turning point in development strategy and opening the faucets of international investment to provide something like the needed flow.

But larger transfers of capital from developed to developing nations and larger internal mobilization of resources will be successful in the world's settlements only if the needs for training manpower are met at the same time. Every sort of expertise is scarce. Lawyers are needed to draft land use legislation, accountants for mortgage institutions. City managers, town clerks and all the essential categories of technicians without whom sewage systems cannot be installed are needed. The bright promise of better housing can be dashed by a total failure to maintain standards, particularly in difficult climates.

And since many of the problems in settlements, both old and new, are still unsolved and few satisfactory answers have yet emerged, one kind of expert is particularly needed: the man or woman who can work efficiently in an interdisciplinary group. Settlements problems require a very wide concentration of skills, from road engineers to landscape gardeners. Habits of cooperation amongst disciplines are not yet general. One of the essential elements in research for settlements must be the building of the right kind of research teams. If developing countries are to play their full part, the training of their experts must be a first priority. Since, at the same time, conditions vary so greatly from continent to continent, some work groups should be drawn from contiguous countries with common regional problems. For instance, labour-intensive technologies for use in construction could be created. In the preparations for Vancouver, regional workshops and seminars, some sponsored by the U.N. Regional Commissions, have an essential

role of stimulus and education to play.

Preparations of this kind can also help to build up much needed flows of information. Again and again experts embark on projects, not knowing that relevant work and experiment may be available only three valleys away. A permanent information network for world settlements could be an outcome of the Conference and could help to ensure that Vancouver does not become simply a great occasion without any significant consequences. It is not enough to concentrate the world's mind for the course of a week or two in 1976. Man has to learn to see the settlements crisis as a central issue of human survival in the next three decades. Only then will resources, talents and manpower be mobilized to meet it on a sufficient scale.

Demonstration projects for Habitat: United Nations Conference on Human Settlements

The main purpose of presenting demonstration projects at the Conference is to provide tangible evidence of what can be done to deal with problems under many different economic, political and physical conditions. They are designed to illustrate in clear visual terms successful results of policies, programs or technologies applied to specific problems. They must therefore exhibit what has been or is being accomplished rather than what might be done under ideal conditions. It is also important that the demonstration projects be related as nearly as possible to the main substantive themes of the Conference and do not constitute a series of unrelated exhibitions.

Within the main themes themselves, certain issues tend to recur. It was clear from the experts' discussions held at Vancouver in May 1973 that a number of ideas and concepts keep coming up, whatever the angle of approach to the problems of settlements. These recurrent ideas included:

- the concept of a basic minimum human standard as society's first goal;
- priority for the poorest citizens locally and globally;
- the need for citizen participation in settlements;
- the policy-making and action role within settlements of the small community, and its dependence upon a functioning network of economic and social services;
- the overriding citizen interest in choice, mobility and access to these services;
- the need for a new cost-benefit analysis which includes social and environmental costs and advantages;
- the importance of making settlements *primary* objects of planning, not the residual result of other development decisions;
- the potential social and economic gain to countries if they accept land use planning as a precondition

of orderly growth and put the needs of settlements at the centre of their allocation of resources;
- the need for new institutions, forms of management, expertise and research;
- above all, the hope that after a period of creative experiment, settlements can receive the resources, nationally and internationally, which they require to offset present trends towards endemic crisis.

All these are lines of thought and argument which weave their way through every part of the discussions on settlements, appear in each of the major themes and could provide some extra guidelines for the choice of demonstration projects. Some of the experts present at Vancouver also put forward the suggestion that a number of these concepts might be taken up by international interdisciplinary study groups in preparation for 1976.

Of course, however skillful the preparations, ambiguities will continue. Everything is so mixed up with everything else in the life of settlements that projects in such fields as health, education or conditions of work cannot be considered as separate issues: they clearly and directly affect the degree to which people thrive — or do not thrive — in their settlements. Social inputs and impacts are as vital as more material services such as water, housing and transport. The problem in choosing demonstration projects is to find criteria by which to decide what to exclude and what to exhibit. The experts responsible for the demonstration projects will have to thread their own way through this maze. Perhaps one useful clue is that the various sectors and services, social or material, should be used only if they are clearly and closely related to the way in which settlements work as a "system."

During preparations for Vancouver, countries will identify and select projects to be designated as national demonstration projects. The following criteria have been suggested for the selection of possible demonstration projects. The projects should:

- offer solutions rather than define problems;

- lead to significant improvement in the physical, social or economic environment of settlements;
- show how public or private obstacles can be overcome;
- represent a successful departure from conventional practices;
- be capable of wider applications to other countries, broadness of applicability being more important than uniqueness;
- ensure an adequate balance between rural and urban projects;
- not necessarily be government-conceived, managed and executed, though their presentation at the Conference should be endorsed by the government concerned;
- demonstrate imaginative and innovative use of local resources and skills;
- illustrate novel or traditional approaches, or a combination of both;
- demonstrate multiple uses of equipment, facilities or services;
- be linked to an existing policy or programme;
- emphasize a comprehensive approach and stress the "human" element and the related issues of social welfare and equity;
- show how national, regional or local development plans have contributed to the formation of new towns or growth poles, urban renewal, and the settlement of new regions;
- give evidence of the use of efficient and low-cost financial and administrative techniques for providing housing;
- illustrate the operation of communications and transport systems, including integrated systems of individual and mass transport;
- ensure an adequate balance of projects presented by developed and developing countries.

United Nations seminar of experts on Habitat: United Nations Conference on Human Settlements — Vancouver, May 8-12, 1973

Chairwoman: Barbara Ward, United Kingdom
Rapporteur: J. W. MacNeill, Canada

Numan Al-Jalili, Iraq
Helena Benitez, Philippines
Edmund Collein, German Democratic Republic
Michael Colot, France
Rubens Costa, Brazil
J. W. S. de Graft-Johnson, Ghana
Roque Gonzales, Mexico
Ingrid Jussil, Sweden
Vaclav Kasalicky, Czechoslovakia
John Keith, U.S.A.
Gloria Knight, Jamaica
Luis Lander, Venezuela
Liu Keng Yin, People's Republic of China
Kuo Ching An, People's Republic of China
Ahmed Ali Mahmoud Misrati, Libya
Louis J. Mostertman, Netherlands
H. Peter Oberlander, Canada
Rainer Piest, Federal Republic of Germany
Prabhakar Rao, India
Janos Szabo, Hungary
Kenzo Tange, Japan
Ernest Weissmann, Yugoslavia

United Nations organizations

Hammad Ammar, United Nations Economic and Social Office in Beirut
Sergio Domicelj, Economic Commission for Latin America
Max Falade, Economic Commission for Africa
Simeon F. Garcia, Economic Commission for Asia and the Far East
Ben Reiner, Economic Commission for Europe
Maurice Strong, United Nations Environment Programme

Neoma Castaneda, United Nations Environment Programme
Serge Antoine, United Nations Environment Programme
R. Joseph Crooks, Centre for Housing, Building and Planning
Adolf Ciborowski, Centre for Housing, Building and Planning
Gerald M. Desmond, Centre for Housing, Building and Planning

Other Canadian government representatives

Jay R. Coulter, Ministry of State for Urban Affairs
Aryeh Cooperstock, Ministry of State for Urban Affairs
Janet V. McDonald, Ministry of State for Urban Affairs
James Robb, Ministry of State for Urban Affairs
Sandra Came, Ministry of State for Urban Affairs
Patrick Reid, External Affairs Department.

Photos: CIDA (Jim White) - FAO - Information Canada - Unicef (B. P. Wolff) - Unitarian Service Committee - United Nations - UNRWA.