



Styll de Créa doté Marti District, prefabricated houses, big panels.



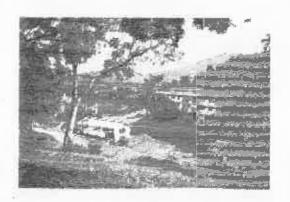
Havana City, capital of Cuba.



Sigo, de Cuba, José Martí District, prefubricated houses, big panels.



Sancti Spiritus, provincial capital



Rural community "Las Terrazas". Pinar del Rio.

Cuba, an island of 110 thousand 50 Km. and 11 million in habitants. It is a nation molded by events which transcend its shores; its geography and history have placed it in one of the most intensive crossing of races, people, cultures, wealth, pillaging; haft a centuty ago there was an encounter between two cultures in its seas; was "The Key of the Gulf and Protection of the Indies"; was the land of an extraordinaryfision of ethnics, cultures and characters; was the last Spanish colony in America.

REPUBLIC OF CUBA

Cuba's Nacional Report Habitat II, Preparatory national committee La Habana, Mayo de 1996

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WORD CONFERENCE
ON HUMAN SENTTAMENTS.
HABITAT II

CUBA'S
NATIONAL REPORT

PRESENTATION.

The holding in Istanbul of the United Nations Conference on Human Settlements -HABITAT II coincides in Cuba, with a process of re-evaluation and updating of policies and programs in housing and human settlements, as a part of the strategy to overcome the country's current economic limitations, preserving the essential objectives of the social project which has been carried out for over 36 years.

For the development of the National Action Plan towards Habitat II, the Preparatory National Committee was established in 1994 comprising more than 40 institutions which include construction bodies and agencies, material builders, project designers, scientific and research centers, universities, Non Governmental Organizations (development NGO's, professional associations, trade union organizations and others). It also includes Government Local Authorities through the National Assembly of People's Power Lastly, we have been able to closely link all the agents involved in the formulation of policies and plans for housing and human settlements development.

In accordance with the drawn-out Action Pian, multiple activities associated with the World Conference were carried out during the past two years: research, advertisements of concrete actions, debate workshops, experience dissemination, participation in international conferences and presentation of the best practices.

CUBA'S REPORT to the World Conference is structured in four parts.

I. Summary

II. 1959 - 1990 period, which covers from the triumph of the Revolution until the aconomic crisis, provoked by the collapse of the European socialism and the tightening of the U.S. blockade against Cuba.

III. The period starting in 1991, since the beginning of economic constraints up to date, which is known in Cuba as the "special period in peacetime."

IV Perspectives of development and conclusions

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1. Human settlements in the world.

During this century, the planet's inhabitants increased from one billion to more than 6 billion people.

According to U.N. estimates «from 1990 to 2030, global population will grow by 3.7 billion people», and ninety per cent of this increase will take place in the human settlements of developing countries. Mainly due to a decaying urban environment, at least 600 million people in human settlements already live in «nealth and life» threatening situations.

One third or more of urban population live in substandard housing. At least, 250 million urban residents do not have easy access to safe piped water and 400 million lack sanitation (UNCHS May 1995).

The urbanizing trends which initiated in the 1960's determined that urban population of developing countries will grow from 22 to 37 per cent in the 1960 - 1990 period, with annual growth rates of 4 per cent., the consequences being shown in increased urban poverty, health problems, deterioration of environment and infrastructure, the commercialization of soil resources, the growth of the informal sector, urban segregation and the quantitative and qualitative deficit of the housing stock, whereas the economic housing affordability decreased (UNCHS May 1995).

in Latin America and the Caribbean, the housing deficit affects one out of three households, 25 million houses lack potable water and one third of the urban housing stock does not have a least acceptable sewage system, while the levels of investments in housing construction remain low and much below the needs, which translates into precariousness and piling, especially in the poorest sectors.

In addition, the growing inequity in the distribution of income in the Region and the increase in the cost of houses leave an ever-increasing proportion of people out of the housing market.

In summary, the unprecedented rhythm of urbanizing growth in the world during the second half of the current century, and particularly in Latin America and the Caribbean, has been accompanied by a cycle of poverty, environmental degradation and deterioration of public health.

Twenty years after the holding of vancouver Conference on Human Settlements in the Region are still characterized by a marked imbalance between the capital cities and secondary cities, social inequality, spatial segregation, with diametrally different living standards, and the antiecological hazards of urbanization.

Therefore, it becomes evident that the development factors which have been in force and preconized by the richest countries, based on the structural adjustment with its sequel of inequality and exacerbated consumerism, neither result in a sustainable model, nor will they be able to make up the development model for the next century.

Based on this principle, sustainable development has been defined as that which can attain the everlasting satisfaction of human needs and an improvement of life quality, with a new concept of economic development: one which provides justice, and opportunities for the entire population and not only for the privileged minorities, without further destructing the natural resources of the earth. This will mean a process through which the economic, social and environmental, tax commercial, energy, agricultural, industrial and technological policies are designed and support one another in such a way which bring about an economically, socially and environmentally sustainable development (UNCED 1992).

1.2 Housing and Social Strategy of Cuba.

For 36 years, Cuba outlined a strategy of social development with equity, which in terms of settlements, was aimed at reaching a more appropriate balance in urban development with priority towards secondary cities and enhancing the living and working conditions in the rural and mountain areas, providing a greater rural-urban integration.

We started from the conception that economic growth will not simply lead by itself to overcome the acute social problems facing society, which were characterized mainly by: 25 per cent unemployment of the active population, 60 per cent of workers with wages lower than the indispensable minimum. 20 per cent illiteracy and the scarcity of access by the majority of the population to education, health and social security. Seventy-five per cent of the rural houses were wooden and palm-leaved huts, 63 per cent with earthen soils and 9 per cent with electricity. 91 per cent without bathroom and 54 per cent without toilet or latrines.

Therefore, the attention to social problems was given top priority, this policy being based on the following fundamental principles:

- To extend the economic and social development to all the national territory to meet the basic needs of the whole population and gradually enhance their standard of living through increasing income, housing and its infrastructure, as well as consumption and social services of education, health care, culture, sports, and others.
- To develop civilian mobilization as a determining element of social policy
- To give a special treatment to the mostly needy and marginalized social strata in the prerevolutionary stage: childhood, woman, elders and the rural population, as well as to attend to the youth problems.

As from the Agrarian Reform, the agricultural, sugar development and investments in steel, mechanical, electronic, nickel, chemical, energy

and building-material industries, economic growths of 4.9 per cent annual average rates were achieved from 1959 to 1980 and of 4 per cent of the GDP from 1980 to 1989, having reached considerable increases in a group of important productions.

This economic growth permitted to eliminate chronic unemployment, to redistribute and to increase incomes, to improve nourishment and eradicate ill-nutrition, social segregation and illiteracy, ensuring universal and free-of-charge access to high quality services of education and health, the expansion of electrification, safe piped water delivery and sanitation, as well as the setting of a system of social security and assistance which covers the entire population.

in the field of urban development, urbanization processes speeded up in the last decades, the urban population shifting from 60 per cent in 1970 to 76 per cent in 1995. As a result of the investing development intended for the secondary cities and the base strips of the settlement system, territorial disproportions attenuated, avoiding, inter alia, the excessive growth of the Capital, a phenomenon present in many Third World countries.

Investments in the Building-Material industry and in the house-building industrial base permitted sustainable growths in the production of both branches.

in the 1959-1993 period, the Cuban population grew by 57 per cent, whereas the housing stock rose by 80 per cent, from 1.5 to 2.7 million units. Its technical composition evolved positively, the houses in good and regular shape shifting from 53 per cent in 1958 to 83 per cent in 1993. This was particularly significant in rural areas where this proportion shifted from 25 per cent to 75 per cent.

in this period (1959-93) (3 million houses were built by the State, the cooperatives and the individual households. Despite these advances, important housing shortages have remained, and they are manifested in a deterioration of the housing stock, with a growing trend in the last few years which we have not been able to revert

yet, this being one of the major social commitments which the Revolution has not solved satisfactorily.

From 1986, the country engaged in a program for housing development up to the year 2000 which foresaw sustainable increases in house building and in its capacity to reach the next century with a higher degree of satisfaction of the housing demand.

This program, like all the development of the country, was seriously affected since 1991 by the economic crisis provoked by the changes taking place in Eastern Europe and the disappearance of the Soviet Union, with which Cuba maintained the highest proportion of its trade and cooperation based on a just exchange. This situation worsened and heightened the effects of the economic, commercial, and financial blockade against Cuba for more than 37 years by the United States it tightened recently by the laws adopted by that country which are receiving world repudiation.

These factors determined an abrupt decline of the Gross Domestic Product, the fuel and energy acquisition sources having been lost, with a sensitive reduction of the agricultural, industrial and building-material productions, as well as a drastic reduction of transportation and supplies. The nation has faced the worst crisis of the century, and one of the most profound ones that a country of our Region has had to face in peace times.

As a result of this crisis, the technical-material base for construction suffered a severe decapitalization and the housing stock further deteriorated.

However, it has been precisely the economic and social development model implemented in these 36 years, which enabled us to face this disaster, survive and initiate a slow economic recovery process without endangering the main social achievements, shaping up a strategy for deepening the sustainable, participatory and decentralized approaches that were previously being carried out. This, by itself, is a proof of economic, social and environmental sustainability.

The experiences and results of the housing and social policy of Cuba shows that it is possible to implement and make some of the concepts concerning the debate of sustainability in a developing country effective in practice, even in a country under difficult economic conditions of the country. Among these elements, the following can be mentioned:

In the system of sustainable human settlements

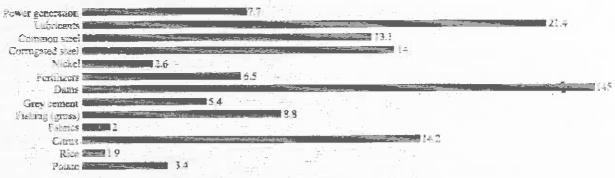
Cuba is an exceptional case in Latin America and probably among the developing countries for having established a consistent strategy for the balanced and equitable development in the territory for over 30 years.

This policy has achieved the following results:

- By giving priority to other cities, we managed to stop the demographic growth of the Capital, to considerably lower the specific weight of its economic and social activity and to reduce the amount of internal migrations towards them. Havana City has hardly grown by I per cent annually in the last decades, whereas the other cities grew by 2.3 per cent and the villages and urban towns rose by 3.1 and 3.7 per cent respectively.
- To enhance the province-capital cities through productive investments which have enabled them to reach 21 per cent of industrial jobs, develop higher services centers with more than 30 higher education facilities, more than 150 hospitals, as well as higher specialized schools, cultural and sports centers, road works, electric networks, etc.
- To consolidate the municipal capitals as intermediate services centers, in such a way that the population has access to them in an area of 10-12 km, with governmental bodies in charge of planning, management and control, which are increased as the gradual decentralization process moves along.
- To confine 4 million dwellers (36 per cent of the total) who are a decisive potential for agricultural

⁽¹⁾ The United Nations General Assembly has adopted for four years in a row, a Resolution on the Need to lift the economic, commercial and financial blockade imposed by the United States against Cuba.

1989 Growth in respect to 1958 (GIVEN IN TIMES)



Source Cults: National Report, World Summit on Social Development, Coperciagon.

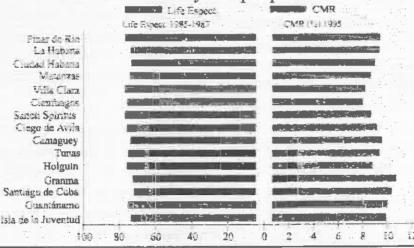
Educational and scientific-technical development

Illiteracy has been eradicated in Cuba. The literacy rate is higher tha 95 per cent. The educational system includes primary, middle (compulsory up to 9th grade), technical and professional up to 11 year old is 100 per cent and 94 per cent from 12 to 14 years. The average of sudent per teacher in primary education is 13, one of the best around the word. In 1950, we only find the University of Havana, founded in 1728, in 1975 they were increased to 5 universities; today Cuba has 48 university centery, located in the most important cities of the country. There is one university graduate per 15 workers, and one middle-techniquan per 8 workers.

The scientific-technical structure is formed by 160 research anddevelopment institutions with around 30 000 workers (47 per cent women). In addition, we have more than 20 000 university-graduated professors who dedicated half of their time to research. The number of cientists and researchers is one per 846 person. There is one Cuba scientists out of 10 scientists and

researchers in Latin America.

Life espectancy.
Child mortalicy rate per provinces



development in small urban and rural

in providing adequate shelter for all.

In Cuba, a house is considered as a social asset and the housing policy is aimed that each family has access to an adequate house.

In order to make this postulate effective, we created a legal support since 1959 in which the Rental Law was enacted. This Law reduced by a 50 per cent the leases that covered a considerable percentage of the family income.

In virtue of the Urban Reform Law of 1960, the former tenants obtained the property, and it was

established that the houses that would be thereinafter built by the State, would be given by a maximum monthly payment of 10 per cent of the family known.

The 1984 General Housing Law and its later revision in 1988, transferred the property of the State houses to their users and legitimate occupants, by which over 85 per cent of all the families are currently proprietors of their houses.

Likewise, the delivery of property of nouses built by the State was established at a reduced price, a high State subsidy, amortizable in \$20-240 month terms with annual interests of 3 per cent annual decrease, in such a way that all families, even the lowest-income families may have access to a house.

The same Law provides land access to citizens in order to build houses on their own effort, and the facilities of banking credits, sale of construction materials and technical-constructive services by State agencies, created to this end in all the provinces and municipalities of the country.

HOUSING

Cuba has redefined the concept of housing investment, the latter ceasing to be a product, to become a broad-based participatory, decentralized and environmentally sustainable process.

The economic and energy crisis taking place since 1991 which reduced the availability of fuels and other goods down to the 50 per cent of the former consumption averages, caused a sensitive decrease in the production of construction materials, and therefore in the house-building pace, which decreased in 1991-1993 to 53 per cent compared with the levels of the former five-year period.

in response to this situation, it was then, necessary to substantially reduce the construction-material consumption of the great industry, which demand huge energy expenditures and hard currency for their production and import, to create a technical-material base in each province, municipality and community to produce materials from the raw materials existing in each territory, with small-scale processes, with low-energy consumption and low environmental impact.

This program permitted the development of a considerable base of local production of alternative materials and to gradually increase the construction of new houses and settlements, thus having finished a production of 45 000 houses in the country already in 1995, that is, levels similar to the annual averages of the former five-year period. For the current year, we have planned the construction of 60 000 houses, which will surpass the historical levels of house building in the country and will enable to achieve the proposed goals in the housing development strategy.

The results of this program show how with less we can make more, when an accurate and sustainable policy is implemented on the following basis:

a) Decentralization of decision-making; local production of materials, energy saving through the use of alternative technologies; reduction of the external dependency stimulating the replacement of technologies and imported materials, mobilization of factors through the widest participation of the local community; stabilization of the labor force towards the prioritized economic objectives; and environmental improvement through the reduction of pollution.

From these elements of sustainable development. Cuba aims at moving ahead with its housing program, which up to the year 2000 plans to:

- Speed up the strategies on human settlements set forth in the National Program for Environment and Development which includes:
- * To elaborate a medium-term sustainable scheme for human settlements and the leading plans at the municipal and base strips (People's Council) level by identifying and extending the best experiences.
- * To improve the special location of houses, services and employment to reduce transportation needs, to strengthen the green-area program and hygienic-sanitary measures to reduce environmental impacts of industrial development.
- * To foster the use of technologies and sustainable domestic materials to human settlements and houses, and the planning and management of progressive urbanization of low-material and energy consumption with people's participation.
- To stop the deterioration of the housing stock and to initiate its gradual recovery by improving the degree of satisfaction of the population's demand and the housing balance. To this end, we have planned:
- * to incorporate 400 000 houses to the housing stock in the 1996-2000 period, out of which 250 000 will be newly constructed and 150 000 will

be reincorporated through rehabilitation actions by the State, the cooperatives and the individual households on their own effort.

To strengthen the role and the participation of territories in decision-making, availability of resources, planning and control of their construction plans, conservation and rehabilitation of houses.

 To enlarge and consolidate the base created for the local production of alternative materials and multiply the technical services and resources for the construction and conservation of houses by the population.

To Intensify the scientific-technical development and technological innovations, from the best international practices and our own national practices, increasing the collaboration and international cooperation as vital instruments for the development of the housing program and of the country's social project of equity and justice.

the local p	roduction of a	Viennetive in	aterials and	the country	/ s social project	of equity and justice.
1.3 CUBA. URBAN AND HO	USING IN	DICATOR	RS. YEAR	1993.		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
INDICATOR	UNIT/MEAS.	COUNTRY	CAPITAL HABANA	P. RIO	CIENFUEGOS	CAMAGUEY
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The same of the sa	min.	20		80		
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		94				*

... Non available information

Source: National Housing Institute; Physical Planning and National Office of Statistics. This selection of Indexes is part of the program directed by the CNUAH.

II. 1959-1990 PERIOD

2.1 Human Settlements.

in Cuba, to plan the transformation of the territory in its economic, social, political and environmental aspects, has become a tradition dating back to the first years of the Revolution.

The State has implemented sectoral policies aimed at confronting the development problems which have influenced, directly or indirectly, the territorial distribution of the population in keeping with economic and social objectives of the country. Four large programs which have played a decisive role can be identified: transformation of the

agriculture productive structures; industrialization; distribution of social services; development of infrastructure facilities and commuters and cargo transportation systems.

its implementation took place in the framework of a structuring of the governmental functions, territorial expression of which is political-administrative division in force, which shaped the appropriate territorial scopes to implement its global socio-economic development project.

Spatial distribution of the Cuban population is the result of a historical process which by the



The current political-administrative division is en force since 1976, where the national territorywas subdivided into 14 provinces and 168 municipalities, and the Island of Youth as Special Municipality.

Provinces	Extension (Km2)	Population (1993)	Density (per sg. km)	Amount Munic	Capital L
Coba de la Calabia	110 860	10 940 826	98.7	169	C. Nabana
Pinar del Rio	10 861	714 938	65.8	- 14	P. del Ric
La Habana	5 691	666 360	117.1	19	C Rabana
Ciudad Habans	727	2 175 995	2993.1	od is loveni i	
Matanzas 1	11 739	631 533	53.8		Matanzas
Villa Clara	7 944	824 085	103.7	1. 13 THE REST.	S Can
Ciantuegos	4 177	379 761	90.9	8	Cienfuegos
S. Spiritus	6 732	444 840	86.1		S. Spiritus
Ciego de Avila	6 321	388 422	61.4	10	C. de Avila
Camaguey	14.158	769 012	54.3	13	Carriaguey
Las Tunas	6.584	512 907	77.9	3	Las Tonas
Holguin	9 295	1 012 220	108.9	14	Holguin
Granma	8 362	816 659	97.7	13	Bayame
Stgo, de Cubz	6 170	1 017 948	165.0	9.	5. de Cuba
Guantanamo	6 184	509 813	82.4	10	Guantánamo
Isla de la Juventud	2 200	76 133	34.6		Nueva Gerona
Cayos adyacentes	3 715				

beginning of this century had come to be what is called Population Settlement Systems, understood as the set of human settlements, whichever their dimensions are, and the set of any kind of relation, established between them and their environment.

Much more important than the quantitative aspects are the qualitative ones, which evidence structural and substantial modifications to the Cuban society, as a result of the adoption of a social project which has been faced, since its beginnings, with the dilemma of matching economic efficiency with social equity.

When the U.N. Conference on Human Settlements - Habitat - was held in Vancouver in 1976, Cuba had already undertaken for more than three lustrums a process of radical transformations of its political, economic, and social structures, including, since its beginnings, the objective of extending the equity principle to the whole territory of the country, rising development and life conditions of the most backward regions (concentrated in the eastern part of the country); reducing the specific weight - in demographical, economic, social and cultural terms - of the capital and substantially heightening the life conditions of the people in the countryside.

To face the problem of human settlements in a regional framework was always an invariable principle during all these years. Thus, human

settlements directly related to agricultural production, were studied within the framework of territorial structuring and conformation of state run production units, which derived from the Agrarian Reforms.

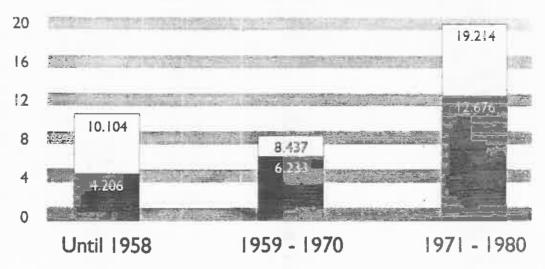
Territorial expansion and organization of basic social services -such as education, health, sports, culture, transport, etc. - were, in turn, developed taking into account the hierarchical level of the settlements.

The placement of new jobs, particularly industrial and female, caused another territorial concept, - surban subsystems»—, aimed to form multifunctional spaces, with greater options of diversified jobs.

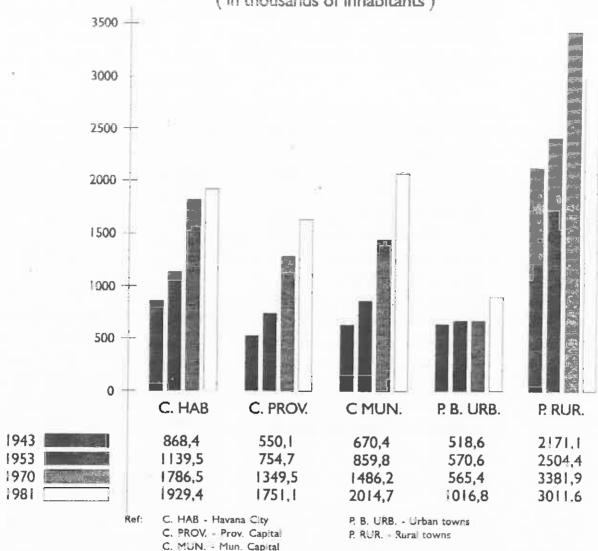
Road networks were structured based on these regional configurations and tended to increase inter and intra-regional connectivity, aimed to create the conditions to efficiently develop public transportation services.

In turn, the systemic study of the settlements permitted to outline, with some precision productive and non-productive functions and interests of the different households, establishing programs that, even with schematic approach and some lack of realism, constituted the reference for producing the Developing Schemes and Management Plans for more than 200 cities and towns of the country.

Highways and Roads built (in thousands of kilometers)



Population per level of the system of human settlements (in thousands of inhabitants)



A system with proven efficiency has been conformed for the protection and capacity building of the people, not only against natural disasters, but also against environmental and sanitary hazards and disasters. This national Civil Defence system includes all state bodies and mass organizations, and involves the whole territory.

The fact that the development strategy of the country reaches all sectors, with particular relevance for social programs for education, health, social security, encompassing the whole national territory, including mountains and rural areas, leads to a distribution of employment that mobilized all reserves, specially the female ones.

Today, female work force represents 43,4% out of the total, 62% of skilled labor and 42% of the scientific researchers. In the direction and

administrative State bodies, 29% of the leaders are women.

Therefore, all demographic variables have suffered substantial modifications, the most determining of which has been the evolution of fertility, currently placing the Gross Reproduction Rate (GRR) at 0.89 daughters per woman (almost two in the 50's), with the peculiarity that this indicator has been getting even among the different provinces. Thus, the GRR of Havana, the smallest, is 0.80; in the other extreme, the largest, Guantánamo, has a 1,16 daughters per woman.

Such a low and sustained GRR for more than 15 years, permits to forecast that the population of the country (at present 11 millions) will slowly increase in the next 25-30 years to stabilized around 13 millions and, eventually, start to decrease.

As a result of this demographic evolution, an aging process is taking place in the population which represents a new problem for the next decades. The proportion of persons older than 65 years reaching 9% in 1953, is forecast to be 25% in 2030.

Internal migrations have been a decisive factor in the spatial distribution of the population in the last thirty years. The urbanization level has increased from 57% in 1953, to 74,4% in 1993. But, most important is that between 1970 and 1992, the increase of the urban population has been only 20.9% in the Capital, 61.4% in the provincial capitals, 66,9% in the municipal capitals; and 127,4% in the other urban settlements (the smallest of the system). If we add the population of these last settlements to the rural one, taking into consideration that both are the most related to agricultural activity, we can confirm that, in its dimension, it has been maintained stable in the last 22 years considered: 3.9 millions in 1970 and 4.0 millions in 1992.

Havana City.

Out of the urban universe of the country, Havana City had, at the beginning of the 60's, the most complex situation.

Its economy was, by far, the most prosperous of the country. It concentrated 70% of the non-sugar industrial production, the bulk of port activity, the largest and best building capacity, almost the totality of university functions and medical services with the best quality. Its income and life levels were incomparable with the rest of the country, regardless the marked internal differences generated by social segregation and noteworthy marginality manifestations.

Since the first years of the Revolution, the strategy followed with respect to the Capital was to use the extraordinary human and material heritage concentrated in the Capital to develop the rest of the country.

Until today, an important investment process in industrial facilities has been maintained during the whole period, giving priority to those requiring significant contingents of skilled work force,

strongly related with the local demand, port, other pre-existing industries and more recently, with the investigative and scientific capacity of the city. We try to avoid the localization of polluting industries or those needing large amounts of water or requiring large extensions of land.

We use educational capacities to speed up the formation of qualified personnel from other provinces. At the same time, the Capital provided significant amounts of qualified technicians and workers in order to cover the development necessities of other territories.

By the 70's, the growth of industrial, State central administration and highly qualified social services employments, in a situation of low growth of labor resources, created tensions in the availability of labor force, that, inter alia, led to give priority to the formation of worker's collectives the - which undertook, with extrawork, the construction of houses and basic services for work collectives in their production centers.

The priority given to public and productive works and the policy to build new housing by the microbrigades, maintained depressed the levels of intervention by maintenance and refurbishing of the pre-existing stock, which, specially in the historical area, was already showing, since previous decades, evident detrimental signs due to saturation and stacking processes, related to citadels and dilapidated houses. This situation which is common in all cities of the country. presents or tical features in the Capital, due to the coincidence of the mostly decayed areas (Old Havana) with the most significant historical-cultural values with such quality that made them deserve the declaration of Human Heritage, by UNESCO.

By the late 80's, it was necessary to revise the relation Capital-country, in relation with investment priorities, because the Capital had fallen behind, not only in the housing field but also in other basic programs such as health, education and urban infrastructure. Some urgent measures were taken and a response was given to hospitals, child day care centers, special education centers for handicapped people needs and the most

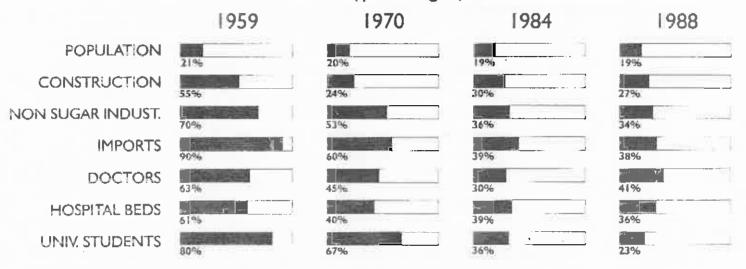
advance program was undertaken for communitybased medical prevention and care, the **«family doctor»** which nearly covers the whole country with a physician per 120 families.

At the same time, we created the productive basis to decisively tackle the housing problem, using a wider range of technology, designs and broadbased participation forms. It was precisely at this time when the economic crisis that interrupted the strategy started.

Other Cities.

As we have pointed out above, the largest cities of the country have had a deep process of transformation of their economic base and functions: first of all, key facilities and functions for the regional development of the social services have been concentrated in those cities, resulting in radical decentralization in respect to the capital.

Capital city's weight in respect to the country (percentages)



Secondly, this initial effort has created the conditions to carry out the process of nationwide industrialization. Therefore, the occupational profile of those cities was substantially modified.

Urban centers which had an essentially commercial function, of barter with agricultural areas, now have a strongly industrial component in their economy, completed empowering induced activities, such as construction, transport and storage, productive services, etc.

A third factor of change in the occupational structure, has been introduced by the development of administrative, planning and management of regional activities, linked to the establishment of the Local Bodies of the People's Power.

The substantial increase of the activity rate of the population has been the joint effect of these programs. We have to add the impact produced on the occupational profile of the population residing in the territory with bigger influence in the largest cities. Almost a quarter of the population of the "base strip" (almost a million people) live from 10 to 15 kilometers away from those centers and it is, obviously, in these territories where the aforementioned urban-rural integration is produced with greater intensity.

However, territorial diffusion of uniform patterns of political, economic and social organization has introduced distorting phenomena. The concentration of activities and functions in the

largest cities has created a problematic situation: on one hand, the territorial milieu has been impoverished from several qualified jobs, generating migratory, permanent, temporary and pendant phenomena, which gravitate on still weak urban structures; on the other hand, the demographic growth has reached such levels that has already produced by itself (not counting further migrations) a demand for new employment that the economy of the city can not meet.

The occupation of the land and the urban structures which correspond to that economic transformation, have been the result of processes full of difficulties and contradictions.

The physical growth has been notably greater than the demographic one, in spite of the fact that we adopted a building technology of housing compounds which favored the construction of rises in order to reduce land occupation. But, at the same time, major land requirements came from industrial regions, which occupy the 20% of the urban territory, and from large social facilities (heaith, education and sports), preferably located in the outskirts, due to their large dimensions, covering 30% of the urban area.

A further expansion factor of the city is the housing construction by individual efforts which has had a two-pronged spatial result: on one hand it has been filling the urban interstice, and on the other hand it has been occupying areas, due to poorly controlled processes, which were not foreseen for urban development, creating difficulties for their management and urbanization.

Such an accelerated growth of the urban areas has resulted in great difficulties to meet new needs of water supply and waste disposal, which have added to inherited problems. Until 1990, we had been able to bring potable water to 96% of the population, intra-house water to 67% and the sewerage system to 34% of the houses. This is complemented by considerable hydro-sanitary works generated by industrial and social services investments.

Transportation systems were conceived and undertaken in conformity with the investment development of the cities, integrally taking into

account the construction of highways, streets, workshops, maintenance and storage facilities, freight and passengers stations, in a sustainable effort to ensure the functioning of the cities in every phase of their growth and regional development.

Generally, in all fronts of the urban growth we had to cope with the contradiction between new works, encouraged by immediate programs, and maintenance and renewal of the pre-existing city.

A marked physical, functional and perceptive separation between the traditional city, inherited. and the new developing zones a problem which we expect to correct in the near future, has been caused by the lack of flexibility of planning instruments, the use of excessively rigid extensive and functionally segregating norms, the schematic use of the principles of zone building, the sectoral character of construction plans hardly integrated in their territorial sequences, building technologies too focused on the "typical" project, which has been replicated up to tiredness.

2.2 Housing

Until 1958 the situation of housing was appalling and characterized by its growing shortage, speculation with the terrains and charge of high rents.

Almost half of 1,5 million existing houses, were constituted by inadequate buildings.

In the rural zone the situation was still worse, 76% of the houses had wooden walls and palm-leaved roofs (bohio), 63% had earthen floor, 9% had power supply, and only 3% were good houses.

From the first years of the Revolution (1959) steps were made to initiate a process of transformation in housing based on the following premises:

- Housing in Cuba is a right of the citizen which should be guaranteed by society, by allocating all available resources to satisfy this need. As a consequence, the house has been granted as a property to the occupants with state financial aid for its acquisition.

• There is no land market in Cuba. The majority of the land belongs to the State, keeping other property holders of urban and rural land. There are purchase-sale, expropriation and compensation mechanisms to be applied in conformity with the law.

• From 1985, the State grants terrain for house construction and urbanization, as one of the price-forming components of the houses that builds and transfers as a property to their tenants. This scale of prices includes the urbanistic facilities of the place and the geographic location of the houses in keeping with the delimitation of the zones approved by provincial governments. The immediate steps taken to alleviate housing problem were simultaneously addressed in two directions: in the legal and institutional aspect and directly in house construction.

The following actions are outstanding in the first direction:

- In January. 1959, the National Institute of Saving and Housing (INAV) was created, with a temporary existence and it carried out the transformation of the National Lottery into an instrument to finance house construction.
- In March, 1959, the Rent-Reducing Law was enacted, which cut down them to 50% of their existing high amounts.
- In 1960, in the framework of the National Institute of Agrarian Reform, the Division of Farmers Houses was created in order to boost house construction in rural areas.
- In October, 1960, the Agrarian Reform Law was enacted, which transferred the property of the house to their tenants and established the amount of the rent of new houses at 10% of the family's income.
- In 1960, the system of Own Effort and Mutual Help was created, which had the objective of eradicating insalubrious neighborhoods with the contribution of the residents.
- in 1971, the construction and development of rural communities and workers' neighborhoods with houses granted in free-of-charge usufruct was promoted. This had the objective of

guaranteeing the labor settlements required for economic and agricultural development and new investments.

In December, 1984, the National Housing Institute was created in virtue of the first General Housing Law which granted the property to all Cuban families. This law drew from many previous experiences, especially to support the construction, conservation and rehabilitation of houses by workers organized in microbrigades and by the households through the sale of construction materials and technical services establishing a more coherent housing policy, for the gradual solution of the housing problems in the country.

From the beginning of the 60's, concerning house construction, large amounts of resources were earmarked to create a strong building capacity, located along the whole country, based on industrialization of productive processes and adoption of pre-fabrication techniques.

Between 1959 and 1963. 85 000 houses were built, that is around 20 000 per year. Private initiative accounts for 50 per cent of the houses compare to the amount built by the State; the state annual rate estimated is 13 000, while private reaches 6 000 units. We should point out that houses have partly been built with the participation of architects and good constructive quality, more than half of the total corresponds to modest houses, built by his/her occupant or workers with technically-low level.

As from 1965, projects and works were centralized within the Ministry of Construction and two main development guidelines were defined: better craftsmanship construction applied in typical 4 story panels, with some technical innovations and prefabricated elements - such as stairs, beams, floor tiles, casting and foundation, etc. - which norms the housing standard built along the country, and the development of integral systems of heavy prefabrication, which tends to a top technification and industrialization of the constructive processes.

In front of the obstacles found by this strategy in terms of the shortage of local work forces, in the specific conditions of our country, the facilitating policy promoted by the World Housing Strategy to 2000, had been already experimented, with the creation of microbrigades: workers collectives assisted by the State with the aim to contribute to the production of houses and basic services. This experience has been widened with the formation of «social microbrigades» formed by neighbors interested in improving their habitat and the support to the construction of houses by own efforts which consists, primarily, in facilitating the access of the population to the land and acquisition of the essential materials. In the 1976-1985 period, 430 000 houses were finished through all these ways (including the ones built by the households, cooperatives and the State).

In the five-year period from 1986-1990, 160 000 houses were completed by the State and Cooperative sectors and 48 000 by the households, which means an average of 41,700

houses per year. It must be underlined, that during the whole period, the country made a great effort to have a base production of construction materials, with high technical level in response to the requirements which, according to our concept, an adequate house should meet. From 1987 to 1989 more than \$ 200 million were invested in equipment and machinery to improve house building capacity and the development of new technologies.

Nevertheless, the technological model adopted by the State for the house construction based on a high degree of heavy prefabrication and typicity, showed a series of problems in respect to its high cost, consumption of basic materials and energy, little flexibility, and low architectonic expression, which from the previous decade made already evident a necessary change in conceptions, designs and technologies.

III. SPECIAL PERIOD

3.1 Preamble

The five-year period initiated in 1991 has witnessed the worst economic crisis probably ever confronted by the Cuban nation. It meant the sudden loss of sale sources supplying raw material, technologies, credits and a dramatic contraction of export markets. Between 1990 and 1994 the GDP fell by 35%, the import capacity by 75% and the energy availability decreased by less than a half.

Evidently, its impact on the economy and the living conditions of the population has been severe. If the country has resisted and is now experiencing a slow and troublesome recovery, it is due, first of all, to the clear people's will to preserve sovereignty, dignity, solidarity and equity the Revolution has attained for the nation, together with the achievements obtained in several aspects of the social and individual life and in building a modern and diversified economy.

Secondly, to the taking of a series of economic, political and social measures, many of which have been rooted in the process of reflection, analysis and readjustment of the socio-economic development model. Such analysis had been started by the country since mid 80's.

The essential point is that the crisis is not only seen as a source of danger for the social project, but as the detonator of a necessary process of readjustment not so much and not only to overcome the current difficulties, but to increase and improve the quality of this project.

It is easily understood that the crisis has caused particular damages to shelter and human settlements whose progress had been based on technologies and investments conditioned by the external flow of resources, specially the energetic ones.

It is, therefore, indispensable that the analysis of the current situation be made within the framework of a series of specific policies and actions which are being taken, among which the following should be highlighted because of their close relationship with the objectives of adequate shelter for all and sustainable human settlements:

- Creation and generalization all over the national territory of the People's Councils (new government structures in constituencies) facilitating people's participation.
- Transformation of state agriculture into the new Basic Units for Cooperative Production (UBPC), with full autonomy.
- Granting state land, in usufruct, to workers in some rural areas, particularly those allotted to coffee and tobacco crops.
- Administrative decentralization giving an ever increasing competency to municipalities.
- Development of the local industry incorporating hundreds of small towns into productive activity.
- Rendering basic health services, mainly the preventive ones through the family doctor and the participatory movement of municipalities for health, as well as the new concepts of urgencies at different levels.
- Expansion of self-employment tending to modify the employment structure and its diversification.
- Creation of a local base for alternative material production and introduction of non conventional technologies mainly in housing building.
- Existence of the community architect for the solution of specific problems relative to every household shelter.
- New more flexible conception in rendering services, including private activity in some which used to be exclusively state-run.

- Proliferation of every kind of study focused on the community and the family.
- Development of rural tourism, with the introduction of modalities almost unknown in our country such as ecotourism and agrotourism
- Adjusting of the environmental legislation and the political and state will for the investment process to be developed with a minimized environmental impact.
- Maturity process of an economic awareness, associated to the principles of sustainable development.
- Strengthening community-based organizations in the urban neighborhoods and in rural and mountain settlements.

With the recent passing of Law No. 77 of 1995 «Foreign Investment Law», other mechanisms of land valuation for building and marketing housing units and other buildings in freely convertible money are being implemented, taking into consideration not only the emplacement of such investments but also aspects of profitability and amortization.

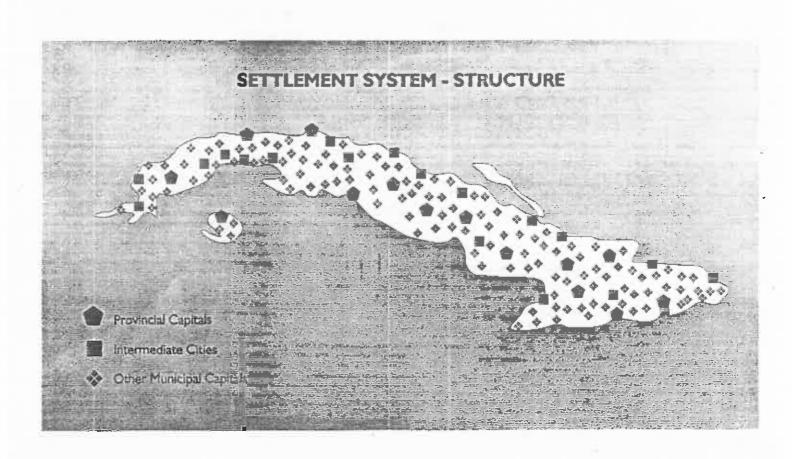
3.2 System of Settlements

The current system of human settlements has reached an integration and consolidation degree that, though it is still underway, has already defined potentials for its further development.

A more regular distribution of urban centers has been achieved; provincial capitals are around 100 and 150 km far away from each other, comprising territories having between 6 and 10 000 km2 and distances from the most distant points are around 150km. If we add the intermediate cities, access to the most important services reduces to: 40 km. At the lowest level, municipality level, distances range around 10 km.

We have also attained an increasing integration between rural and urban areas which has reduced the traditional dichotomy. But it is precisely in this sector where you find the most complex and decisive situation in the light of the prospects the country is designing to overcome the crisis, in terms of food security and export of agricultural products.

The main features of the system of settlements in the current stage are the following:



- The settlement network, in its highest hierarchic levels (capital and provincial capitals) is consolidated and has created a territorial potential which should not be against the new development factors and trends emerging both nationally and internationally.
- However, two thirds of the 33 intermediatelevel cities, the inter-municipality functions of which have been weakening, thus getting closer to the level of municipality capitals than to the level of provinces, have lost importance.
- There are still regional disparities, particularly between the eastern and western regions of the country, where urban development will play a very important role.
- Interrelation between the different elements of the system of settlements, particularly within the municipality framework, has been strengthened through the exchange of labor force. Thus, conditions for the development of flourishing economies have been created.
- industrial, demographic and physical growth of cities has brought about problems of ecological sustainability which require a revision of patterns for allocation of activities and for spatial distribution of the population.
- Distribution of the population (taking into account its social, cultural and labor connotations) does not meet yet the requirements for economic and social development. The situation of agriculture and livestock, where shortage of labor force has become chronic, is being particularly worrying.
- It is necessary to continue to improve the urban, architectural and environmental quality of rural settlements, paying special attention to maintenance and improvement, as well as the quality and diversity of design, typology and technical-constructive quality of housing.
- Demographic growth trends indicate an overriding decrease of fertility rates tending to reduce, in perspective, the availability of labor resources. There are in the country, on the one hand, a high concentration of population in big and medium-size cities and, on the other hand.

- practically uninhabited rural areas. It is worrying that a sultably well structured system of settlements cannot count on some of its links having the corresponding capacity of population reproduction and should depend on internal migrations which, to a certain extent, should be urban-rural and big city-small city, contrary to traditional trends.
- Hence, the importance and the urgent need to shape a comprehensive policy of spatial population distribution, combining rural and urban problems, seen in all its social, political, economic and environmental components, and in the light of the new conditions under which the Cuban social project should continue to develop.

3.3 City of Havana

The impact of the economic crisis has been specially sensitive in the capital. A significant part of the industrial production has been affected, and constructions have been practically haited, except for the prioritized works for tourism and main industries. Public transportation was reduced by more than a fourth. Power, water and gas supplies were seriously affected, and solid waste disposal had to be urgently and carefully organized because of the lack of garbage trucks. Breakages and slight damages of hydro-sanitary, electrical and telephone networks have increased, and building and maintenance of housing units have almost paralyzed.

In the face of such a difficult and complex situation, corrective measures with alternative approaches were urgently taken.

The urban economy, structured on the basis of big state enterprises integrating establishments of very different dimensions and technologies, has substantially reduced its levels of activity. In addition, a process for reducing the State Central Administration by transferring competence and personnel at decentralized management levels is underway. This leads to an important replacement of workers, some of them reabsorbed by urgent activities, some others by functions hardly discharged in the past and some others who are

transferred to a reserve backed by state subsidies, pending relocation as the economy recovers itself, thus preventing abandonment phenomena which are so frequent in the well-known «shock therapies».

This situation has favored the expansion of the private and public small local production, creating new jobs which require a minimum investment in local resources, mainly natural or those coming from recycling or waste and which are located in the same urban area.

A particular aspect of the urban economy is given by tourism, a sector which, in Cuba, has been initially oriented toward the rational use of landscape and natural resources. This approach has been gradually modified and, along with the natural landscape, the historically characterized urban areas are acquiring importance, further increasing their potential to be one of the most significant features of the tourist offer.

New means of transportation, in general of slow type, including those of animal traction and the bicycle, which, despite not having been a very used means up to that date, started then to play an important role, were quickly introduced in order to relieve deficiencies in public transportation. The road network had to assimilate more than one million cycles in a short time, and it was necessary to create additional bicycle road network and a supportive system (workshops, parking places, etc.) to back the massive introduction of such means.

The solid waste disposal has been one of the most difficult challenges in the face of the impossibility to maintaining the whole system of collection and disposal since there are not large garbage dumps available. So, the decision of finding more than 50 small, decentralized garbage dumps where animal-driven transportation could be used, was finally taken, concentrating the remaining few motor vehicles at the service of central compact areas. An efficient and cheap system of recovery and recycling of urban waste is still to be developed.

Due to the reductions of food supplies, a whole set of initiatives almed at fostering the agriculture

production in the suburbs and even in the center of compact urbanizations, flourished. Useless tracts of land and outdoors areas of housing complexes were transformed into large vegetable gardens, and in available places, organoponics and hydroponics, normally attended by the neighbors, were created, being the local community the consumers of the fresh products coming from such «urban agriculture» without costs of transportation and storage.

Nevertheless, the problems are so big that they impose a new way of ethinking on Havana» whose goal is to rise life quality, the Capital's image and international projection, starting from the increasing of its economic possibilities in order to be to the advantage of the recovery and development of its environmental conditions and its social and cultural values, with a larger citizen participation. It is in such terms that a Strategy of Economic and Social Development for Havana is being made.

3.4 OTHER CITIES

The problems faced by the Capital are, in general, common to the rest of the important cities of the country, given the fact that the productive and labor structure has been shaped under the same principles. Obviously, when there is a reduction in the magnitude of the problems, the alternative solution is frequently more feasible and efficient.

That is particularly true in the structuring of the urban economy which exalt the local values, legitimating them as a possible and positive option toward a sustainable development by means of the mobilization of local resources, promoting the participation of the population in the recovery of the necessary productive levels and increasing them as of the identification of available local resources.

The alternative solutions for passengers transportation; disposal of solid waste; urban agriculture; building of infrastructure and basic services with suitable technologies, are applied with more efficiency in urban zones of smaller dimensions, less dense and more directly connected with their influence areas. The country is developing several lines of action and study

which have as common goal to forecast, promote and monitor the changes in urban economy, mainly regarding employment (including the nonstructured sector), in terms of the model of development that is being shaped in the country.

it is evident that in the next years, to the extent allowed by the economic conditions, such cities should undergo «seam operations» of the traditional city with the more recently developed areas, of rationalized use of the soil, of reutilization of pieces of land reserved for future uncertain purposes, of changes in the utilization of obsolete facilities, of revitalization, renovation, maintenance and recovery of the heritage.

A continuous work of local research permits to determine the technologies and materials that should be considered appropriate to different territories in order to solve, in an economically efficient and ecologically sustainable way, the supply of drinking water, disposal of sewers, electrification, food cooking, the improving of communications, etc. Parallel, the potentialities of the territories are identified in terms of renewable resources, production capacities of building materials, power generation, etc.

3.5 HOUSING

The economic and energy crisis occurred since of 1991 which reduced the availability of fuels and other goods down to 50 per cent of the consumption averages, caused a sensitive decrease in the production of construction materials, and therefore in the pace of housing building, which decreased in 1991-1993 to 53% of the levels of the previous five-year period.

in response to this situation, it was then necessary to substantially reduce the construction-material consumption of the industry, such as cement, structural steel and other that demand huge energy expenditure and hard currency for their production and import, and obtain new houses of quality and durability, from the creation of the technical-material basis in each province, municipality and community to locally produce materials according to

the raw material availability of each territory with small-scale processes, with a very low energy consumption and low environmental impact.

A wide process for rescuing and using alternative techniques permitting to build one-story or two-story housing units with raw material and materials from the construction area such as residues and industrial waste, soil and other resources reducing energy or equipment material production expenses and diminishing the transportation and the use of lifting equipment, has been implemented since 1992.

for instance, such techniques have made possible the use of 10-tons-per-house to 3.5-tons-per-house industrial cement which have been reduced by the use of Roman cement, produced manually in small ball mills using lime and zeolite, ashes or tuffs and other materials depending on the characteristics of each territory.

We have been able to modify foundations by reducing the use of structural steel. Walls are lifted with bricks or cement-soil blocks. Roofs have been lighted through the use of vibrated-mortar tiles, brick or cement-soil hollow block vaults or light concrete or ceramic cap valuts and joists. We have started using the Roman cement for the construction of sidewalks and roads in towns and villages.

This program permitted the development of a considerable base of local production of alternative materials and to gradually increase the construction of new houses and settlements, thus having finished from 1992 up to now the construction of more than 70 000 houses. and reaching a production of 45 000 houses in the country already in 1995, that is, levels similar to the annual averages of the former fiveyear period. For 1996, we have planned the construction of 60 000 houses, which will surpass the historical levels of the production of houses in the country and this will enable to achieve the proposed goals in the housing development strategy. These houses will be mainly intended for the emerging economic sectors and geared to the solution of social problems including the replacement of the precarious housing stock.

The results of this program show how with less we can make more, when an accurate and sustainable policy is implemented on the following basis:

- a) Decentralization of decision-making, management and the implementation of the housing policy, towards the territories.
- b) Local production of materials, increase of jobs and craftsmanship local workshops.
- c) Energy saving through the use of alternative technologies, with local resources and small-scale processes, and the reduction of fuel expenditures in the production, construction and transportation.
- d) Reduction of the external dependency stimulating the replacement of materials, products, components, technologies and import equipment for national and local solutions.
- e) Mobilization of factors through the widest participation of the local governments, the community-based organizations, workers and the beneficiary population.
- f) Identification of priority destinations towards the stabilization of the work force of the economic objectives and towards the houses most-needed families.
- g) Environmental improvement through the reduction of pollution in the materials' production

and house building and healthler settlements, not crowded and endowed with water. cleaning, health services and education, self-sustainable and ecologically rational.

Therefore, Cuba has redefined the concept of investment in housing, which is no longer a product but a widely participatory, decentralized and environmentally sustainable process.

3.6 Conservation and Improvement of the Built Stock

The country's housing stock has been qualitative and quantitative improved during the period of the Cuban Revolution, particularly in the rural areas.

The general dynamics has been the following: (See the next graphic)

Until 1990, the State devoted important resources for the conservation and improvement of houses, particularly the multi-family buildings. Enterprises completely devoted to this aim were created. Construction materials have been sold to the population and technical-constructive services have been rendered with the aim of self-maintenance and repair.

We have been able to reduce the massive illegal construction of precarious houses with low durability and quality materials, which together with new constructions and improvements, have increased the ratio of good constructive

UM: Mil viviendas

		195	58		1993		
	Total	Urban area %	Rural area %	Totai	Urban area %	Rural area %	
Good Medium Bad	1500 195 600 705	100	100 3	2741 1216 1055 469	100	25 27	

characteristic and greater durability houses. At this moment the housing stock is characterized as follows:

'ear 199	3						U: Thousa	nd hou
урс	Walls and	Roofs	Total	- , o ,	Urban		Rural	%_
	in a lice			(A)	105	51 E		
	Bucklish	dyear.		10	in in		27 27 20 40 50 50 60	. 3
	Residence	alb-cernant, vins. plating obtos	365.8	=0 X	758	12.	105	
No.	Wood	Continues Abbrestraint Aide plating Uides	7.02 7	15 TUD	156		149	26
V	Wood	roof paper	348	13	150	-7	198	21
M	Wood	guano (buts)	195	6	22		173	123
VIE:		other and	28	1	16	1.1.	ΉΣ	- 2
		TOTAL	2740	100	1994	Too		- 1.100

Despite the efforts made and the resources invested, the housing stock is still deteriorated. We have not been able to revert such growing trend.

The bigger amount of multi-family buildings and the majority of the high buildings are concentrated in the capital. Santiago de Cuba and other provincial capitals. A big number of such housing units was built between 1930 and 1959, and they are now 60 years and more. There have been in such cities an accumulation of housing units in bad technical conditions which require improvement, remodeling or demolition and a great deal of resources beyond our means.

An urgent plan of action giving priority to the works aimed at solving damages in roofs, structures, facilities and facades, mainly those

connected to the stability of buildings, and aimed at protecting them from water and humidity have been pursued since 1993, and particularly in 1995. The worst cases of piling and insalubrity in the so called dilapidated tenement houses and citadels were given priority in terms of improving conditions of bathrooms and wash basins in those which are not going to be demolished in this stage. The State has further rendered small and low cost technical-constructive services to alleviate small problems in a greater number of housing units.

The image of the capital is not the right one. There are several thousands of braced housing units. A great deal of buildings are still to be demolished. Thus, the problems of facades, balconies and beams in numerous buildings at highly populated areas and unhealthy towns, show a picture of highly accumulated deterioration.

The eradication of precarious living conditions has been a permanent objective, still unsolved, of the Cuban Revolution. From its first years, several sadly famous unhealthy slums and squatter settlements existing all along previous decades were eradicated, particularly in the capital. Migrations from the countryside to provincial capitals and important cities of the country and the growth of the wedding-age population, created new unplanned squatter settlements and slums that because of their poor constructive quality and conditions, are considered unhealthy.

Nevertheless, there is not social marginalization in such towns, since these housing units are occupied by a population having equal access to the economic and social life of the country.

Every province has its plan for the transformation or eradication of such areas, which is slowly obtaining results by rescuing uninhabitable houses and reducing the precarious stock.

IV. DEVELOPMENT PERSPECTIVES

Any action taken by the country in its economic and social life, including the sphere of Human Settlements, conditioned by the current economic and financial situation facing Cuba, which has begun to give its first signals of recuperation.

However, there is a major premise ruling all other measures and actions which can be put forward: the processes of economic and institutional changes that have been taking place in the country and the unfair blockade imposed by the United States will not modify, in essence, the goal of building a sovereign, fair, solidary, cultivated, ecologically healthy, politically participative and economically efficient society.

4.1 Sustainable Human Settlements

The global studies of the Settlement System will lead, in the next years, to propose a policy of spatial distribution of population and of settlements planning and management, more coherent with the developing economic reform process.

Particular attention will be given to urban economies, especially regarding the creation of jobs and formation and recycling of the skilled personnel. The gradual reactivation of the existing industrial plants will imply labor restructuring tending to major efficiency, based on technological renewal to reach, in terms of quality and costs, the suitable competitiveness.

in addition, it will establish, with due priorities, the necessary actions so that cities can take advantage of the opportunities given by the new international context: for example, Havana City as regional center among North, Central and South America; Santiago de Cuba in the Caribbean relations; some intermediate cities as support or part of the tourist resorts, etc. In this sense, the development of the productive services, transportation and communications will play a priority role.

Particular importance will have the city-countryside bonds in order to contribute to deep economic, social and cultural transformation of the Cuban rural areas, begun and continued during the revolutionary period. The rural population will be subject and object of concerted actions involving all territorial agencies, comprising all spheres and achieve a development process integrated in the investment level, and in the labor, political, participative, cultural, domestic-community aspects.

The image of the agricultural world must be exalted both moral and physically, a different way of life in the countryside must be promoted, which would be not only subordinate to the urban zone but also wealthy in options, advanced in the economic, technical, social and cultural levels as the unique way to develop a feeling of belonging and identifying with the place where someone can live and work.

The answers to such a complex panorama of problems must logically travel through a number of policies, strategies and plans of consequent actions, conceived within flexible frameworks, capable of adopting to dynamics imposed by the difficult economic conditions facing the country.

This is why new concepts and forms are opening ways to make planning, in order to achieve community and institutional broad-based participation in the action-taking and decision-making. Hence the need to improve and create a new institutional framework, which contemplates a major articulation of all actors involved in the territory.

In that sense, the elaboration of the indispensable legal instruments will be continued and fostered, such as the Organic Law of Municipalities, the Law of the Soil and Territorial Ordering, as well as to adjust the environmental legislation.

The soil state and infrastructure provision will be promoted to direct urbanizing, which will

contribute to avoid the urbanizing process and house shelter building in places which are inadequate, unhealthy places or exposed to disasters.

A new and more far reaching conception of «Urbanizing Control» will be designed, to spread out a wide educative work aimed at achieving a conscious participation of the entire society and a major responsibility in taking care and preserving urban and rural environment, translating control into a way to promote a true «territory's culture».

From these general guidelines, the country is determined to continue, adjust and speed up, in the next years, the strategies on human settlements already formulated as a result of the Cuban adjustment to the Agenda 21 which gave way to the National Program for Environment and Development.

In the main lines it deals with:

- Elaborate an outline of sustainable development of the human settlement system non a mid-term basis.
- Make directing plans at municipality and people's council levels (urban, rural, mountain and mixed).
- Carry out a sustainable work in training technical personnel and the rest of the agents which take part in the management of the territory and of the human settlements.
- Identify the best experiences made at local level and disseminate them nationwidely.
- Develop specific programs of rehabilitation of the historic and cultural heritage, with people's participation, avoiding, if possible, the displacement of inhabitants and of the original activities.
- Improve the spatial distribution of houses, services and employment with a view to establish mobility systems that reduce the needs of motorized transportation.
- Introduce or promote in human settlements and housing units the use of sustainable domestic technologies.

- progressive urbanization and of low material and power consumption, with the people's participation.
- Develop and strengthen green space programs in the settlements; as main link to the management and implement of their environmental conditions.
- Develop solid-wasta collection and disposal programs and make emphasis on the sanitary measures with important environment impact due to the consequences of the industrial development.
- Avoid building of new settlements or enlarging the existing areas in the risk areas due to natural disasters or technological accidents; parallelly improving the existing programs.
- Elaborate studies for the affected settlements for an eventual increase of the sea level between 0,3 and 1 m. accordingly to the global climatic changes.

4.2. Housing

In the current quarter 1996-2000, are planned to be incorporated to the housing stock (some 400 thousand housing units) by the combined action of the State, individual's own efforts. From these, 250 000 will be destined to new constructions and some 150 000 will be re-incorporated to the useful stock through rehabilitation actions.

This will allow to have the following occupational degree of the stock: (see graphic on the next page)

An increase is envisaged in the level of satisfaction of the demand of people who live in housing units with poor technical state or inadequate conditions by means of a strong process of stock rehabilitation turning them into adequate houses with a minimum of resource investment.

In Cuba an useful or adequate house is defined as a concrete wall house consisting of block walls and reinforced concrete stabs, clay, asbestocement or metallic roof tiles as well as house of wooden walls with clay, asbesto-cement or metallic tiled roof which should be in good or regular technical shape. Houses with technically-ill state, in slums or tenement houses, shallty towns,

Evolution of the housing Stock, Prospect	Sfor 1996-2000	
Indicator	Unit/measure	1996-2000
person in section of the second	Updiant contes	A THE WAR
Virtual useful heristog stock 1995		2332.1
parts, sinex badsing tests		250
/ shabintated units	東京市時間	150
less: loss by devaluation		46
n Final useful frousing stock year 2000	語經過時期,以前	2732
Total housing stock year 2000		3135
or Wasseful housing units of the total stock	%	87%
Justiess housing units in the year 2000	1000 N.u.	403
Estimated overall population in 1995	million person	11
2000		11.5
People / hours and 9%		3,95
1 La y = 2000		3.67

improvised and built with non-durable material, though they are occupied by dwellers, are not considered to be adequate houses, thus representing a demand to resolve.

This conception shows that from to total stock of 2 781 000 existing housing units at the end of 1995, 449 000 housing units (30 per cent) are considered non-useful stock, therefore, there was a useful stock of 2 332 000 houses.

The premises for the housing project strategy up to the year 2000 will be:

- To curb deterioration, to prevent the increase of the occupational level of housing in order to diminish the filing and improve the technical state of the housing stock by means of expansions and remodeling, to make changes in the worst typologies, to pass from regular houses to a house in good technical state, eliminate the existing precarious conditions and reduce the overall number of inadequate housing units in relation to the total stock.
- To continue increasing the involvement and role of governments, and local bodies in decision-taking, availability of resources, planning and control of their programs for material production, building, conservation and rehabilitation of houses.

State-run annual construction projects will be streamlined, as first priority, to meet the needs of plans for livestock raising and sugar production, tourism, biotechnology and pharmaceuticals, water works and other necessary goals for survival, development of the country and a solution to severe housing cases.

- The construction of tall buildings will be limited mainly to complete some advanced building construction stage. Increased density must be achieved as well as the highest level of urban soil.
- Prefab and semiprefab housing construction will give way to other more flexible ways and less industrialized although it will seek ways of gradually mechanizing the productive process of materials and of the proper construction.
- Settlements must be more integral with greater architectonic wealth and diversity of project solutions.
- Housing enlargement in the existing stock will be facilitated and the units built will have, to a great extent, a progressive nature in terms of their completion and extension, both in the useful areas of housing and in the urbanization process.

 Multiplication of conservation and support services to construction on own individuals' account is planned and rehabilitation and construction works in the houses of workers and neighbors will be carried out by diverse non-specialized state agencies.

People's involvement in construction and in the financing of new houses and in the conservation and rehabilitation of the existing stock will be expanded.

In scientific- and technical development, the following actions will be implemented:

- To widen and diversify the use of materials, components and alternative construction technologies for construction and conservation of house facilities and urban settlements which guarantee the adequate quality, durability and livability with low material and power consumption.
- To rationalize and improve the existing construction techniques and systems and their material production base to reduce the scarce technical-material consumption, the use of heavy equipment and power carriers, transportation and construction.
- To raise the quality of architectonic and urbanized design through new design concepts and methods, the revision and rationalization of the technical-standard documents and economic technical indicators of design and housing construction urbanization and technical infrastructure.
- To study the most practical and economical solutions to the principal problems of the buildings giving priority to urgent actions to curb deterioration and guarantee their structural stability and adequate functioning.

A technical-professional training program has been implemented which comprises the main aspects for technical policy in housing and urbanization, and which include, inter alia, the planned courses as follow:

 Course on «Building Rehabilitation» and «Lowcost Building and Urban Settlement» aimed at training 2000 professionals.

- National Seminars for training professionals and technicians on «Construction Technologies with soil» which include:
- . Production of blocks and fixtures with compressed soil.
- . Construction and architectonic arrangements of projects with soil.

4.3. International Cooperation

The extent and complexity of the task to be carried out to ensure adequate shelter for all and sustainable human settlements leads to consider the need to establish different ways of international cooperation, in the framework of the current trend to globalization of the world economy, development of new technologies and growing ecological awareness reaching worldwide level.

The international cooperation in the sphere of human settlements must be considered as an instrument for the socio-economic development of developing countries. Its main role must consist in supporting national action. Consequently, development cooperation schemes must be based on the established policies and priorities for national action by such countries.

This requires new and additional resources, predictably, which should enable both developing countries and Habitat Center to fulfill the cooperation needed by these countries. In this context, it requires greater endeavor by developed countries, specialized bodies of the U.N. system. and the non-governmental organization and private sector agencies, to afford the necessary resources.

Besides North-South cooperation, supplementary efforts are to be made in South-South cooperation and to make the best of the potential dividends from North-South cooperation for developing countries.

Without ruling out the possibility of the everscarce financial resources transfer in the field of international aid, lines of action should be focused on which should give priority to:

- To transfer efficiency-increasing technologies, in all aspects, in the construction activities of low-cost housing, services and infrastructure.
- To transfer the best experiences in human settlement planning and management in terms of outlining policies and strategies.
- To give assistance in the development of human resources and in the improvement of the institutional capacity.
- To transfer technologies, skills and experiences for the production and transmission of reliable and adequate information to human settlement management and planning.
- To take into account the relevant outcomes, linked to the sphere of human settlements of the World Conferences on Environment (Rio de Janeiro, 1992), Population (Cairo, 1994), Social Development (Copenhagen, 1995) and on Women (Beijing, 1995).

did Conclusions

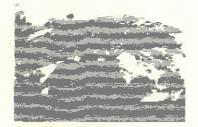
As it can be interred; our country has been conforming for more than three decades a model for nousing and human antiquents development almost at crying to implement the policy, means and procedures which should gave the way to the practal satisfaction of burnary settlement's overall needs, within the proper limitations, difficulties and aliomages of a developing country in the practal practal has hed its own features, tailored to the socio-economic and cultural than of the property of the strick is structured to the ethics of our socialist project.

electrongenoral to a great enterior lecaspects and results coincide and are perfectly aligned with the principles and equipment of housing and human continues process to the international community for the sustainable development of housing and human continuents.

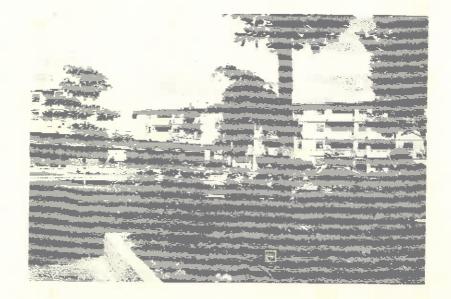
An preparation country has graphs recition one implementation of an afformative model for housing development, which as a superparation of the productive rate o

The most in our and included the propertience is the capability of the adopted model, implemented the most severe contains a strictions.

The second se



Tipical rural house (bohio)



Rura! Community "El Tablón", Villa Clara



Houses in construction with low-cost techniques.



Middle Education Boarding School in the country side



Holguin. Edifice built with low-cost techniques