

HUMAN SETTLEMENT COUNTRY PROFILE

MAURITIUS

Decision-Making

Programmes and Projects

- A. Providing Adequate Shelter for All
- B. Improving Human Settlement Management
- C. Promoting Sustainable Land-Use Planning and Management
- D. Promoting the Integrated Provision of Environmental Infrastructure: water, sanitation, drainage and solid waste management
- E. Promoting Sustainable Energy and Transport Systems in Human Settlements
- F. Promoting Human Settlement Planning and Management in Disaster-Prone Areas
- G. Promoting Sustainable Construction Activities
- H. Promoting Human Resource Development and Capacity-Building for Human Settlement Development

Status

Capacity-Building, Education, Training and Awareness-Raising

Information

Research and Technologies

Financing

Cooperation

Decision-Making: *Housing and land-use planning:* The Ministry of Housing & Lands (MHL) is constitutionally vested with the responsibility for the formulation of strategies and policies in regard to housing and land development at all spatial levels. The MHL acts primarily within the framework of the Town and Country Planning Act 1954 which being admittedly outdated, is in the process of being overhauled. The National Development Unit of the Ministry of Environment is given the responsibility of providing infrastructure in the rural areas, in addition to other Government Ministries and the Local Authorities.

Pursuant to the provisions of the Building Act, the five urban authorities (Municipalities) issue both development and building permits. On the other hand, the four rural authorities (District Councils) grant development permits only whilst the issue of building permits falls within the purview of the Ministry of Public Infrastructure, Land Transport and Shipping.

The land use planning system regulates the development and use of land in the public interest. The system as a whole and the preparation of development plans in particular is the most effective way of reconciling the demand for development and the protection of the environment. Thus it has a key role to play in contributing to the Government's strategy for sustainable development by helping to provide for necessary development in locations, which do not compromise the ability of future generations to meet their needs. The Government remains fully committed to the plan – led system, given statutory force by the Town and Country Planning Act.

In the meantime the updating of local plans and policies geared to steer the development of the country into the new economy and provide effective protection of the environment whilst stimulating economic growth is being pursued gradually. This process requires however more funding and institutional capacity. The review and implementation of plans and policies are presently being hindered by lack of adequate human resources both at the professional and sub-professional level in both central and local Authorities. Addressing this shortcoming has become a top Government priority.

According to the Environment Protection Act 2002, which inter alia prescribes norms/standards for major forms of pollution control, undertakings (likely to have adverse impacts on the environment) should in the first instance obtain an Environmental Impact Assessment licence or an approved Preliminary Environmental Report from the Ministry of Environment and National Development Unit. The local authority shall then grant a development permit. Likely, the Morcellement Act, which occurs under the MHL, ensures that land parceling projects are adequately provided with infrastructure services prior to the grant of the Morcellement Permit.

The promotion of sustainable agriculture and rural development is being implemented through specific Government projects and supported by two major Acts, the Sugar Industry Efficiency Act and the Town and Country Planning Act.

Air-quality: The Ministry of Environment and National Development Unit, Ministry of Health and Quality of Life and the National Meteorological Services are responsible for the protection of the atmosphere in the Republic of Mauritius. The National Transport Authority and the Police Department are the enforcing agencies for the control of vehicle exhaust emission.

Programmes and Projects: *Poverty:* Provision and promotion of social welfare are under the responsibility of the Ministry of Social Security, National Solidarity & Senior Citizen Welfare and Reform Institutions. A World Bank Study has estimated at 9.7% of the Mauritius population in 2001-2002 as poor. The study has also noticed significant regional differences, with higher incidence in rural areas, at 15.6% compared to 7.7% in semi urban areas. The Island of Rodrigues was observed to have the highest incidence of poverty with 37.6% of the population below the absolute poverty line. The Government of Mauritius is deeply concerned about the social and economic inequality and potential risk

of social explosion in the country. Accordingly, various poverty alleviation programmes have been put in place. These programmes include:

Trust Fund for the Social Integration of Vulnerable Groups (Ministry of Finance and Economic Development):

- Trust Fund for the Social Integration of Vulnerable Groups, set up in 1999, established an Action Plan in 2001 with overall vision to achieve 'social cohesion and integration in poverty free Mauritius'. It aims at financing community development projects, micro credit schemes and loans to needy students.

A Nou Diboute Ensam (financed by European Union): This project aims at supplementing Government's effort where possible and of intervening in those areas where Government cannot intervene. The ANDE Programme has been focusing on social infrastructural, income-generating and technical assistance projects. The scope of its intervention will now be widened to include provision of free meals to the poorest primary school students. Individual assistance will also be provided to the inhabitants of these regions for the development of small poultry farming unit/gardening. One hundred and three projects have been approved since the inception of this programme. Among these, sixteen projects concern Rodrigues and one the Island of Agalega.

Committee on Poverty: Another major initiative is the setting up in 1997 of the Committee on Poverty under the chairmanship of the President of the Republic with a view to bolster the efforts of voluntary work and coordinates activities of major stakeholders. The aim of this Committee is to alleviate poverty through educational projects.

Ministry of Woman's Rights, Child Development and Family Welfare: Besides, the Ministry of Woman's Rights, Child Development and Family Welfare in collaboration with the Trust Fund for the Social Integration of Vulnerable Groups (Ministry of Finance and Economic Development) and the 'A Nou Diboute Ensam' Programme provides assistance to projects initiated by poor women from various deprived areas.

National Solidarity Fund: The Ministry of Social Security and National Solidarity Fund has been implementing a series of measures to enhance the quality of life of the elderly. In addition, the Ministry provides financial assistance to fire victims, patients needing urgent medical treatment abroad, dialysis treatment etc through the National Solidarity Fund. The Fund also provides direct assistance to individuals who have undergone severe personal hardship, like loss of their house and belongings in fires.

Zone D'Education Prioritaire: Poverty alleviation calls for action on several fronts, beginning with education. The Ministry of Education and Scientific Research runs a special programme called the Zone D'Education Prioritaire (ZEP), which gives special support and compensatory education to pupils attending low performing primary schools. The ZEPs are found in the most deprived localities.

Environmental health: The Environmental Health Unit of the Ministry of Health and Quality of Life monitors and controls the quality of water supplied for drinking and domestic purposes, and noise and odour pollution to safeguard and promote public health and the environment.

Water Borne Diseases: The Ministry of Health and Quality of Life provides free medical services to the population. The total number of beds in Government Hospitals amount to 3587. The Preventive Division of this Ministry consists of 124 Health Inspectors, who visited 94010 private premises. Good environmental control and health education of the public gave good results. No indigenous cases of malaria and no schistosomiasis have been notified since the last five years. No amoebiasis case was notified in 2002. A unique case of leptospirosis and typhoid fever were declared. However, eleven cases of infective hepatitis were notified.

Water Sampling: Water samples are taken daily from different places over the whole island and are both chemically and bacteriologically analysed to assess the quality of drinking water, for residual chlorine and contamination. The results of the analyses are discussed at a meeting held each month. Remedial actions are immediately taken in cases of contamination.

To ensure a constant water flow at all times, most premises are provided with water storage tanks usually made of easily cleansable fibre glass.

For a period June 1999 to June 2000, 2298 samples of water were analysed. In year 2003, the number of samples analysed was 3113.

There is an ongoing training programme held at the University of Mauritius where Health Inspectors are trained in Public Health Engineering leading to a diploma. These officers are responsible for water quality monitoring.

A. Providing Adequate Shelter for All: The National Housing Development Co. Ltd. (NHDC) has been set up by Government for the implementation of a national housing programme mainly in favour of the economically disadvantaged segments of the population. In this connection, mention must also be made of an ambitious sites and services project which has just got off the ground and is *(rewritten text)* targeted towards poor households.

In addition, the Housing Development Certificate (HDC) Scheme and the New Incentives for Residential Development Scheme have been introduced to encourage the private sector to play a more proactive role in housing and settlement development. Following a trial period, revisions are being incorporated in the HDC Scheme in view of boosting housing production by the private sector through the HDC mechanism.

The above initiatives are supplemented by the upgrading of housing estates through the installation therein of a piped sewer network. Similarly, the provision of social facilities (in terms of education, health, recreation/leisure etc.) across the country is being enhanced both in quantitative and qualitative terms.

Government's policy as outlined in the National Development Strategy (NDS) is to improve the quality of life whilst at the same time providing adequate housing for every household. The country is steadily moving towards this goal, as in 2000, more than 86% of Mauritian families own their houses. However, the housing problems of the poor still remain fairly acute. As a result, notwithstanding the sites and services scheme being implemented, Government is currently looking into ways and means of improving the overall performance of the NHDC in respect of housing supply; at the same time, Government is trying to encourage the private sector to invest more heavily in low-income housing.

GOM has been encouraging the initiatives of the NGOs in the provision of adequate infrastructure for the benefit of street people, MSSNS, has, jointly with Caritas, launched a Night Shelter Project and is supporting the initiatives of other NGOs in this sector.

B. Improving Human Settlement Management: A comprehensive programme has been initiated to empower the poor and vulnerable groups. Mauritius has put in place an entirely new strategy to better respond to the housing requirements for those most in need, that is, the low and very low income groups. Work is well advanced on the construction of some 2600 units on some 34 sites across the island. Some 150 families previously living in squatters camps will be rehoused shortly, while construction of the new village for the residents of the Dockers' flats has started.

C. Promoting Sustainable Land-Use Planning and Management: The major guiding instrument is the NDS that unfortunately has no legal basis yet. The strategies and policies of the NDS are operational in the Outline Schemes prepared under the Town and Country Planning Act and

covering the country as a whole. Both public and private sector investments are in principle carried out within the spatial context of the NDS.

The NDS provides a more flexible and positive framework for economic growth and physical development whilst safeguarding and enhancing the nation's natural and built assets.

Key Development Strategies: Within the new National Development Strategy, the strategic vision for Mauritius over the next 20 years and beyond includes stimulation of high and stable levels of economic growth and employment, effective protection of the environment and prudent use of natural resources and social progress which recognises the needs of all Mauritians.

The key development principles centre on economy in the use of land by appropriately locating sustainable coastal and rural development, achieving a multi-purpose countryside and coast and promoting an urban renaissance. The main development concepts underpinning strategies and policies devised in the new National Development Strategy are those of:

- Clustering development so as to promote the efficient provision of infrastructure and utilities and improve transport network (both now and in the future);
- Reinforcing economic vitality of urban and rural settlements by generating a threshold of development capable of promoting economic activity which sustains local employment and enables services and facilities to be provided close to where people live and work.
- Promoting regeneration clusters where economic diversification, employment generation and transport provision can be integrated and mutually reinforcing;
- Adopting a sequential approach to the release of new 'greenfield' sites for the development which aims to ensure that good quality agricultural and environmentally sensitive lands are protected and existing scattered "fringe" development can be consolidated to form better balanced settlement.
- Encouraging urban and rural design quality, and landscape and environmental improvements.

Policy Background: A range of policies is proposed within the NDS that support the clustered growth development principle and promote a multi purpose countryside.

Environment policies support the protection of Environmentally Sensitive Areas (ESAs) as defined by the Ministry of Environment including those along the coast such as wetlands, mangroves and dunal systems and within the countryside including forests, hillsides, mountain tops and rivers, protecting them from inappropriate development.

Projects include: Review of the Outline Schemes; Low-cost housing projects.

The implementation of the National Sewerage Master Plan will reduce pressure resulting from the disposal of untreated wastewater into the coastal zone. The implementation of the National Development Strategy will help to control development occurring along the coastal zone. For coastal development, Environmental Impact Assessment (EIA) reports or Preliminary Environmental Reports have to be submitted to the Ministry of Environment.

D. Promoting the Integrated Provision of Environmental Infrastructure: water, sanitation, drainage and solid waste management: See under Freshwater and Sanitation Profiles.

E. Promoting Sustainable Energy and Transport Systems in Human Settlements: Mauritius signed the UN Framework Convention on Climate Change during the UNCED conference at Rio in September 1992 and was the first member state to ratify it.

Projects related to the UNFCCC: Energy Resources Programme: In view of the particular conditions of Mauritius as an insular country with no potential for interconnection, it is Government's policy to encourage greater use of local and renewable energy sources for electricity generation.

In April 2002 Government commissioned a study on the audit of optimal generation capacities. The study has concluded that bagasse, a local renewable fuel supplemented by coal is the least cost production for electricity generation in the country.

It is the intention of the Government to include in the forthcoming Electricity Act provisions that will allow the Government to achieve its policy objective with respect to renewable energy. This is likely to consist of an obligation for a reasonable percentage of electricity generation to be from renewable energy.

The Government and the Central Electricity Board embarked on the Bagasse Energy Development Programme to encourage the use of bagasse, a local renewable fuel, in electricity production. Private companies were also granted permission to establish co-generation power plants to produce electricity from bagasse and coal.

Mauritius being quite exposed to windy conditions of the South East Policy Trade Wind, is exploring possibilities for wind energy exploitation. Furthermore, Government's Policy is to substitute as far as possible imported oil for power generation and wind power is considered as a priority. In this regard, a Memorandum of Understanding will soon be signed with the Government of India to seek technical assistance for the setting up of a wind farm in the country.

The country is also envisaging to use Ocean Thermal Energy Conversion (OTEC) as Mauritius has a very large Exclusive Economic Zone and is geographically well placed to harness ocean energy.

Energy Sector:

- There is considerable potential for the use of solar energy. A study carried out in year 2000 showed that 3.9 % of 297,881 households surveyed in Mauritius used solar energy for shower. The Development Bank of Mauritius is providing soft loans to householders for the purchase of solar water heaters.
- The use of appliances which are energy efficient is being encouraged to participate in the global effort to curb emissions of Green House Gases. In this context the use of compact fluorescent lamps, which consume one fifth of the energy of an ordinary bulb for the same light, is encouraged. A certain number of these bulbs have been distributed freely in some villages.

Integrated National Transport Strategy: The project prepared by the Consultancy firm Halcrow and submitted to the Ministry of Public Infrastructure, Land Transport and Shipping seeks to review the whole transport sector to come up with an integrated national strategy for its development. It focuses particularly on the legal, institutional and economic as well as administrative and structural aspects in order to cope with the problems associated with traffic management in Port Louis and the Curepipe-Port Louis corridor. Various alternatives to resolve this problem have been carefully examined and one option, the Light Rail Transport (LRT) is being considered.

The road network will be extended further with the implementation of the South Eastern Highway. The Rose-Hill Ebène-Trianon Link Road has been completed. The old road from the region of Nouvelle France to Plaine Magnien will be upgraded and the Causeway at Macondé will be replaced by a bridge. The upgrading of the Victoria Bus Station and the uplifting of the surrounding areas are under implementation. Procedures and criteria for licensing of taxis are being reviewed to make the taxi transport system more efficient.

F. Promoting Human Settlement Planning and Management in Disaster-Prone Areas: *National Drainage Committee:* A study was commissioned by the Government of Mauritius to carry out a systematic study

of the whole land drainage system in the country in order to identify the locations of flood prone areas, the causes of flooding and to propose an action plan for proper flood control. Subsequently a new item has been introduced in the 2003-2004 budget for a National Water Drainage Programme, which will be implemented by the National Land Drainage Committee set up under the Ministry of Local Government and Rodrigues.

G Promoting Sustainable Construction Activities: Mauritius is exposed to tropical depressions that can build up into cyclones in the summer months extending from October to April. A tropical cyclone, Firinga, passed near the island in the year 1989. The implementation of Firinga-type houses for very low income groups is well under way, with 422 units already completed. The next batch of 670 units will be ready in September 2004 while work on another 578 units will start in the course of this year.

The construction of housing units for low -income groups is also well advanced. By December 2004, there will be 564 new house owners in several regions around the island. The number will rise to 1,522 by December 2004. In the case of these houses, Government is meeting the full cost of infrastructure.

The budget 2003-2004 makes provision for development of serviced plots at different regions in Mauritius and 317 such plots will soon be available.

The grant of up to Rs 40,000 to low income families for casting of slab will be continued. During the year 2004 alone, some 4, 500 families have taken advantage of the scheme at the total cost of Rs 150 million.

Government will continue to provide interest subsidy on housing loans by National Housing Development Company (NHDC) and the Mauritius Housing Company (MHC) to make them more affordable to low and very low income households. Exchange losses on foreign loans contracted by NHDC will continue to be met by Government.

The budget also makes provision for social housing by the Trust Fund for the Social Integration of Vulnerable Groups. Some 600 core houses in Mauritius and 520 in Rodrigues have been built on a self-help basis with building materials provided by the Trust Fund. An additional 200 houses belonging mainly to female-headed households and the elderly have been upgraded. The Trust Fund is also contributing Rs 53 million towards the financing of a new village for resettlement of the inhabitants of Dockers' Flats.

H. Promoting Human Resource Development and Capacity-Building for Human Settlement Development: No information available.

Capacity-Building, Education, Training and Awareness-Raising: Scholarships have been made available by the United Kingdom, Australia and France for training courses mainly at post-graduate level in town and country planning, thereby increasing the number of Town Planners in Mauritius. However, in view of the level of its economic development, Mauritius is no longer eligible for such scholarships. Hence, training in town and country planning abroad needs now to be financed from public funds.

About 40 persons have just received their Diploma in Town and Country Planning from the University of Mauritius. This University envisages to start a degree course in town and country planning. Government has introduced various incentives to promote continuous professional development in the civil service. The authorities concerned regularly embark on awareness-raising campaigns through TV/radio programmes, posters, etc., to sensitise the population on the various aspects of human settlement development.

During the past years, some Municipal/District councils have been providing training to employees in the fields of solid waste management, food sanitation, construction, customer care, Town and Country Planning etc.

Some officers of the Ministry of Environment have benefited from short-term courses on air pollution and vehicle emission in some countries like Singapore and Japan. However, there is need for more capacity building.

Status: Mauritius is one of the most densely populated, agricultural islands in the world with 591 persons per square km (December 2001 estimate). Built-up areas are estimated to cover about 16% of the land in Mauritius and this percentage is increasing every year. Between 6,000 to 8,000 permits, i.e around 1 million square metres (1000 ha) of residential space are granted each year. The value of land for house construction and for industrial development is so high that there is constant pressure on agricultural land. The increasing importance of other sectors of activity in the economy, besides sugar, such as intelligent parks, business activities, tourism and industry will expand pressure on agricultural land as well as other areas of critical importance to the environment and raise other sustainability issues.

The data obtained so far at the ambient air quality monitoring stations indicate that air pollution is below the standard limit for all parameters measured.

Information: Information in respect of the various settlement aspects (including socio-economic indicators) is available at the Central Statistical Office. However, such information is not always updated to the extent that the population census is carried out every 10 years.

A land information system is being set up at the MHL in order to make an inventory initially of State Lands and ultimately of all lands within Mauritius.

Data from the ambient air quality monitoring stations are directly transmitted, via modem, to the National Environmental Laboratory and processed through appropriate software and reports on air pollution are produced. The monitoring of ambient air quality and stack emission is new to Mauritius. Research on air pollution generated by industries and vehicle exhaust and their impacts on ambient air quality needs to be carried out.

Research and Technology: The Mauritius Research council and the Council of Architects are working on a research project designed to reduce housing construction cost especially for the benefit of the low-income groups.

The Ministry of Housing & Lands (MHL) in collaboration with the Mauritius Research Council is embarking on a research project in relation to housing demand on the part of the upper middle-income group. The outcome of the research will help the MHL in the formulation of the appropriate policy for coming to grips with the housing problem of the upper middle-income group in Mauritius.

Recently, the National Trust Fund for the Social Integration Of Vulnerable Groups in collaboration with the Ministry of Social Security, National Solidarity and Senior Citizen Welfare and Reform Institutions and the MHL carried out a survey to assess the housing need of households earning less than Rs 5000 per month. The data from this survey is being analyzed and the result will help the MHL to formulate policies and initiate action, as appropriate.

Financing: Funds for human settlement development are forthcoming mostly from Government sources. Since 1990/91 substantial loans have been obtained from Malaysia and China, by the NHDC for the construction of housing units in favour of low and lower middle- income groups.

Loans for housing construction on private sites are available, generally at concessionary rates of interest, from the Mauritius Housing Co. Ltd., which is financed by the Government and other financial institutions. Commercial banks and insurance companies also provide loans for housing construction- albeit at higher rates of interest.

Cooperation: Mauritius cooperates with mainland Africa, especially with the southern and eastern areas, through meetings and seminars that are often held under the auspices of UNCHS-HABITAT.

In recent years, the Southern Africa Development Community (SADC) has shown keen interest in joint action in the field of human settlements. Mauritius was represented in the preparatory meetings for Habitat II in Uganda (1994) and Johannesburg (1995) and the Habitat II conference itself.

* * *