



# MALDIVES NATIONAL STRATEGY FOR SUSTAINABLE DEVELOPMENT



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**FOREWORD BY  
MINISTER OF HOUSING, TRANSPORT AND ENVIRONMENT**

We are striving to improve the total quality of life of the people who live in the Maldives and to provide unparalleled environmental quality for people who visit the Maldives for holidays and business. The high achievements of the Maldives in reaching Millennium Development Goals shows that the country is getting the basics of development right.

However, our development is not without challenges. There are people living in extreme poverty in certain islands. Climate change is a high danger looming in the horizon. The coral reefs which are the backbone of our islands and the economy are under excessive stress from natural and human interventions. Energy security and food security are key challenges for an import dependent nation. The geographic dispersal of the inhabited islands and tourist resorts makes efficient transport a daily basic necessity. Changing lifestyles and environmental pressures are adding to the disease burden of the population. Drug addiction and high youth unemployment are root causes of most of the social problems faced by the community.

The National Sustainable Development Strategy (NSDS) is designed to face these challenges. The NSDS establishes specific goals, objectives and targets the government, businesses and community must achieve together. The NSDS also includes progress indicators to help measure our success as we endeavour to march ahead on the path of sustainable development.

President His Excellency Mr Mohamed Nasheed has committed the country to become carbon neutral by 2020. The NSDS takes the carbon neutrality goal as the basis of all future policy targets. Special attention would be given to inform the public and enable all the sectors to achieve carbon neutrality.

I am pleased to thank the United Nations Environment Programme for the support they have provided to formulate the Maldives NSDS. We recognize the critical role UNEP has played in developing the environmental management systems in the Maldives in the past and look forward to the support of UNEP and other international partners in the implementation of the NSDS.

Mohamed Aslam





## CHAPTER 1

# Introduction

**S**ustainable development is defined as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.

Sustainable development is about safeguarding the earth's capacity to support life in all its diversity and aims at the continuous improvement of the quality of life and well-being on Earth for present and future generations. Thus all development actions must be based on the principles of democracy, gender equality, solidarity, the rule of law and respect for fundamental rights, including freedom and equal opportunities for all. Sustainable development promotes a dynamic economy with full employment, a high level of education, health protection, social cohesion and environmental protection.

Since the submission of the National Report of the Maldives to the Earth Summit in 1992, sustainable development has been an over arching objective of the Government of the Maldives. To this end, the Government has formulated several sector master plans, a National Biodiversity Strategy; a National Programme for Adaptation to Climate Change (NAPA); a National Energy Policy; and three National Environment Action Plans (NEAP).

However, unsustainable trends in relation to over dependency on imported fossil fuels, youth unemployment, drug addiction, coral reef degradation and biodiversity loss, reclamation of lagoons and increasing vulnerability to sea level rise, food insecurity

issues, child malnutrition, threats to public health, population distribution, and inadequate transport still persist.

The main challenge is to change the current development patterns and the non-integrated approach to policy-making. Negative trends such as reef fish export and reclamation of lagoons bring about a sense of urgency, and short-term action is required, whilst energy security and food security requires a longer term perspective.

In this context, and on the basis of nationwide consultations on development and environment conducted over the last three years, as well as policy directions set out in sectoral master plans, the Government has decided to adopt a National Sustainable Development Strategy (NSDS) for the Maldives, in 2009.

The NSDS sets out the strategy on how the Maldives will fulfill its commitment to meet the challenges of sustainable development. The overall aim of the NSDS is to identify and develop actions to enable the people of the Maldives to achieve continuing improvement in their quality of life both now and in the future - promoting both intra- and inter-generational equity. This will be achieved through the maintenance of the critical capital assets and continuous investment in expansion of the national wealth base. It recognizes the role of economic development in facilitating the transition to a more sustainable society. Investments in human, social, natural and produced capital as well as technological innovation are the prerequisites for long-term competitiveness and economic prosperity, social cohesion, quality employment and better environmental protection.

The NSDS also recognizes the importance of strengthening policy coherence and coordination. Thus, the NSDS sets out an approach to better policy-making based on the principle that sustainable development is to be integrated into policy-making at all levels. This requires all levels of government to support, and to cooperate with, each other, taking into account the different organizational settings and strategic objectives.

In this respect, all government ministries and provincial level offices should ensure that major policy decisions are based on proposals that have undergone rigorous Impact Assessment (IA). An IA must assess in a balanced way the social, human, natural and economic dimensions of sustainable development and take into account the external dimension of sustainable development and the costs of inaction. The IA process must have adequate and meaningful public and stakeholder consultation and participation. Adequate funds must be allocated for IA, when developing strategies, programmes and projects.



CHAPTER 2

# Vision, Objectives and Principles



## VISION

The Vision outlined by the Government on 11 November 2008 provides the direction for sustainable development of the Maldives and is also the basis for current national development policies.

To serve as the foundation for the NSDS, the following objectives and principles will be pursued:

## OBJECTIVES

### *1. Sustain Critical Natural Capital*

Safeguard the critical life support functions provided by ecosystems in all its diversity, respect the limits and thresholds of the natural resource base for renewal and ensure highest level of protection and improvement of the aesthetic and ambient quality of the environment.

## ***2. Renew Social Capital***

Promote a democratic, cohesive, caring, just society with respect for human rights and diversity that creates equal opportunities and combats discrimination in all its forms. Encourage the establishment and defend the stability of democratic institutions in the country, based on justice, fairness and openness. Ensure that the values of the society are consistent with global sustainable development and other international commitments.

## ***3. Nurture Human Capital***

Promote a knowledge-rich, innovative, healthy and fit society that enjoys high living standards and full and high-quality employment and is resilient to withstand shocks and stresses.

## ***4. Invest in Produced Capital***

Invest time and resources constructing facilities and infrastructure that can, in turn, be used to enhance future income and the capacity for future well-being. Continuously upgrade and renew the transport, energy, sanitation, information and communication infrastructure.

## **PRINCIPLES**

### ***1. Promotion and protection of fundamental human rights***

All development policies must be citizen centred and guided by the principle of respecting and protecting human rights. The policies and strategies shall be targeted to address the most critical needs of the people and to promote and protect human rights. Priority shall be given to address economic and social rights such as the rights of each Maldivian to health, education, shelter, security and decent work as well as the political, civil and cultural rights of the population.

### ***2. Equity within and between generations***

Consistent with the principles of Agenda 21, the development policies should not compromise the ability of future generations to achieve non-declining per capita well being. Development policies shall ensure the optimal use of the available natural

resources and pave the way for the protection of critical natural capital such as coral reefs and fish breeding grounds. The new development programs shall consider the carrying capacity of the environment; assess the significant environmental impacts and identify impact mitigation measures where appropriate.

### ***3. Democratic and open society***

The development policies should be designed to enhance trust and maintain public confidence in the leadership and government processes. Good governance is a pillar of sustainable development and government decision making shall be subject to full public disclosure and accountable to the people for its actions and operations. Special efforts must be made to guarantee citizens' rights of access to information and develop adequate consultation and participatory channels for all interested citizens, parties and associations.

### ***4. Full participation of businesses and civil society***

Priority must be given to promote education and public awareness of sustainable development. Government shall take the lead in informing citizens about their impact on the environment and their options for making more sustainable choices. Enhance the social dialogue, corporate social responsibility and private-public partnerships to foster cooperation and common responsibilities to achieve sustainable development.

### ***5. Policy coherence and coordination***

Promote coherence between all national policies and coherence between island, regional, national and global actions in order to enhance their contribution to sustainable development. Promote integration of economic, social and environmental considerations so that they are coherent and mutually reinforce each other by making full use of instruments for better regulation, such as balanced impact assessment and stakeholder consultations.

### ***6. Use best available knowledge***

Ensure that development policies are developed, assessed and implemented, based on best available knowledge and documented facts to as great extent as possible. Ensure that policies are economically sound and cost-effective and not designed to pursue self interest or short term gains.

### ***7. Precaution first***

Where there is threat of irreversible damage and when the factual basis is inadequate or science is uncertain apply the precautionary principle. Implement evaluation procedures and take appropriate preventive action in order to avoid damage to human health or to the environment.

### ***8. Make polluters pay***

Ensure that prices reflect the real costs to society of consumption and production activities and ensure that polluters pay for the damage they cause to human health and the environment.



CHAPTER 3

# National Sustainable Development Goals



## MILLENNIUM DEVELOPMENT GOALS

At the millennium summit of the United Nations held in September 2000 new goals and high benchmarks were set to make the lives of all citizen's better. All the countries agreed to use universal indicators to measure development progress and committed to reach the Millennium Development Goals (MDGs) at national level. The MDGs are the world's time-bound and quantified targets for addressing human development.

The Millennium Development Goals Maldives Country Report 2007 highlighted climate change, growing income disparities, high youth unemployment, child malnutrition, and access to safe drinking water as critical challenges to sustainable development in the Maldives.

The Millennium Development Goals and targets are:

**Goal 1: Eradicate extreme poverty and hunger**

- ▶ Target 1: Halve between 1990 and 2015, the proportion of people whose income is less than \$1 a day
- ▶ Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

**Goal 2: Achieve universal primary education**

- ▶ Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

**Goal 3: Promote gender equality and empower women**

- ▶ Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2015, and in all levels of education no later than 2015

**Goal 4: Reduce child mortality**

- ▶ Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

**Goal 5: Improve maternal health**

- ▶ Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality rate

**Goal 6: Combat HIV/AIDS, malaria, and other diseases**

- ▶ Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- ▶ Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

**Goal 7: Ensure environmental sustainability**

- ▶ Target 9: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources
- ▶ Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation
- ▶ Target 11: Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers

**Goal 8: Develop a global partnership for development**

- ▶ Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system
- ▶ Target 13: Address the special needs of the Least Developed Countries
- ▶ Target 14: Address the special needs of landlocked developing countries and small island developing states
- ▶ Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term
- ▶ Target 16: In cooperation with developing countries, develop and implement strategies for decent and productive work for youth
- ▶ Target 17: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
- ▶ Target 18: In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technologies.

## NATIONAL DEVELOPMENT CHALLENGES

The seventh NDP identified 11 key challenges that constrain sustainable development in the Maldives. They are: devastation caused by the tsunami; vulnerability of low lying islands and fragility of reef systems; smallness, remoteness, and wide dispersal of island communities; over-reliance on tourism; extreme dependency on imported fuel; disparities in income and access to infrastructure and services; high levels of female and youth unemployment; drug abuse; poorly developed financial market; weak legal framework for development; eroding moral values and social norms.

## THE SEVEN NSDS GOALS

Bearing in mind worsening environmental trends, the economic and social challenges coupled with new competitive pressures and new international commitments, the NSDS identifies 7 key goals, operational objectives, corresponding targets, existing policies and proposed actions.

The 7 goals are:

- ▶ Goal 1: Adapt to climate change
- ▶ Goal 2: Protect coral reefs
- ▶ Goal 3: Achieve carbon neutrality in energy
- ▶ Goal 4: Ensure food security
- ▶ Goal 5: Establish a carbon neutral transport system
- ▶ Goal 6: Protect public health
- ▶ Goal 7: Achieve full employment and ensure social security

These 7 goals also embody the national vision of achieving carbon neutrality in the Maldives by 2020.



CHAPTER 4

GOAL 1

# Adapt to Climate Change

## OBJECTIVES

The objectives of this goal are to:

- ▶ Make the inhabited islands resilient against the threats posed by global climate change
- ▶ Protect critical infrastructure such as international airports from sea induced hazards and predicted climate change impacts
- ▶ Provide innovative coastal protection for selected islands and tourist resorts
- ▶ Strengthen human, technical, regulatory and institutional capacity for coastal zone management

## STATUS AND TRENDS

The small size, extremely low elevation and unconsolidated nature of the coral islands place the people, their livelihoods and critical infrastructure at very high risk from sea level rise. Maldives is the sixth smallest sovereign state in terms of land area estimated to be approximately 235km<sup>2</sup>. This land is divided over 1192 coral islands and 96 per cent of the islands are less than 1km<sup>2</sup> in area. Only 10 islands are more than 2.5km<sup>2</sup>. The largest island Laamu Gan, has an area of 6.1km<sup>2</sup>. The small size of the islands forces people to live next to the sea.



Over 80% of the total land area of the Maldives is less than 1m above MSL (MHAHE 2001). As future sea level is projected to rise to 88cm between 1990 and 2100 in the worst case scenario, the islands of Maldives would be submerged. Given the close proximity of the settlements to the sea and low elevation of the islands, homes of people are at severe risk of inundation even with lower rises in sea levels. At present, 44% of the settlement footprints of all islands are within 100m of coastline. This translates to 42% of the population and 47% of all housing structures being within 100m of coastline.

The small size of the islands and their low elevation also makes human settlements defenceless against severe weather events and storm surges. Over the last 6 years more than 90 inhabited islands have been flooded at least once and 37 islands have been flooded regularly or at least once a year (Shaig 2006). The beaches that represent 5% of the total land area of the Maldives, are of unconsolidated nature and naturally dynamic and unstable. More than 97% of inhabited islands reported beach erosion in 2004, of which 64% reported severe beach erosion. More than 45% of the 87 tourist resorts have also reported severe erosion (Shaig 2006).

The scarcity of land in the Maldives, the smallness of the islands and extreme low elevation makes retreat inland or to higher grounds impossible. Building setback has limited utility and beach replenishment may only be a temporary remedy for beach loss. Unless expensive coastal protection measures are undertaken the human settlements face the threat of inundation.

Significant investments have been made to develop infrastructure in the country. The location of infrastructure within close proximity to the coastline makes them highly vulnerable to sea level rise and storm conditions. The transport infrastructure includes three major commercial sea ports, more than 128 island harbours, and five airports of which two are international. The infrastructure of the two international airports is within 50m of the coastline. About 30% of the infrastructure of Male' International airport lies within this range and land reclamation towards the ocean-ward side has resulted in parts of the airport being within 15m of the wave break zone (Shaig 2006).

Other critical infrastructure includes utilities and environmental services. The average width of inhabited islands is 566m and in both inhabited islands and resorts 80% of the powerhouses are located within 100m of coastline. Also, 90% of the islands have their waste disposal sites within 100m of coastline and on the ocean-ward side of the island. More than 75% of communications infrastructures are located within 100m from the coastline (Shaig 2006).

If appropriate adaptation measures are not taken, frequent inundations could virtually obliterate the critical infrastructure damaging the economy threatening safety and security of the people. The scale and magnitude of damage that may be caused to infrastructure can be deduced from historical records. The flooding event of 1987 caused damages worth US\$4.5 million to the Male' International Airport alone (MHAHE 2001). During tsunami waves of 2004, damage to transport and communications infrastructures were estimated to be US\$20.3 million where 4,200m length of quay wall and 15,000m of harbour/sea walls and breakwaters were damaged or destroyed (World Bank 2005).

## TARGETS

The targets are:

- ▶ Build coastal defences for Male' International Airport and Gan International Airport
- ▶ Develop coastal defences around 10 selected islands
- ▶ Train 40 coastal engineers

## EXISTING POLICIES AND STRATEGIES

The existing policies and strategies for adaptation to climate change are provided in the:

National Adaptation Programme of Action (NAPA)  
Seventh National Development Plan (NDP7)  
Third National Environment Action Plan (NEAP3)  
First National Communication of the Maldives to UNFCCC

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Undertake technical and engineering studies to protect Male' International Airport and regional airports using hard and/or soft engineering solutions, develop financing plans for MIA, develop detailed engineering and design of coastal protection measures for MIA, and implement the public works for MIA protection.
- ▶ Demonstrate innovative coastal protection measures for inhabited islands
- ▶ Integrate climate change concerns in regional development.

- ▶ Strengthen the capacity to implement practically the regionalisation strategy for adaptation to climate change.
- ▶ Improve the land use planning process through developing environmental guidelines, informing the land use planners on latest science of climate change and sensitizing them on pragmatic long term adaptation
- ▶ Incorporate climate change concerns into the land use planning laws, regulations and guidelines
- ▶ Demonstrate on-the-ground the practicality of regionalisation as adaptation to climate change.
- ▶ Develop the human resource and institutional capacity at atoll and island level to manage coastal zones
- ▶ Establish a Coastal Zone Management Training Course in the Maldives.
- ▶ Establish environmental surveying units and develop basic coastal surveying capacity at Provincial level.
- ▶ Train coastal engineers to be based in the 7 Province Offices.
- ▶ Enhance the technical capacity to design coastal modifications suitable for small coral islands.
- ▶ Develop standards and guidelines for access infrastructure development and land reclamation projects to complement EIA requirements.

## MONITORING MECHANISM

### Indicators

Trends in mean sea level  
 Number and frequency of islands flooded  
 Number of islands provided with coastal protection  
 Total investment value for coastal protection in islands  
 Length of coastal protection provided for international airports  
 Total investment value of coastal protection for international airports  
 Number of people trained in coastal engineering and coastal zone management



CHAPTER 5

GOAL 2

# Protect Coral Reef

## OBJECTIVES

The objectives under this goal are to:

- ▶ Minimize human stress on coral reefs of Maldives
- ▶ Develop policy and legal framework to protect and manage coral reefs
- ▶ Develop the capacity of national organizations and communities to manage coral reef environment.
- ▶ Increase the knowledge base and understanding of the natural processes in coral reefs.

## STATUS AND TRENDS

Coral reef ecosystems of the Maldives are significant both at international and national level. They form the seventh largest reef system and are among the richest in the world in terms of species diversity. It has two of the largest natural atolls in the world, Thiladhunmathi Atoll with a total surface area of 3,788km<sup>2</sup> and Huvadhoo Atoll with a total surface area of 3,278km<sup>2</sup>.

The reef system of the Maldives supports rich marine biological diversity. Over 1090 species of fish, 36 species of sponges, 180 species of stony corals and 250 species of hermatypic corals are found. In addition, 15-20 species of sharks, nine species of



whales, seven species of dolphins and five species of turtles have also been observed (MHAHE 2002; MEC 2004).

According to the World Travel Awards 2006, Maldives is the World's Leading Dive Destination and Indian Ocean's Leading Destination (World Travel Awards 2006). At any resort at any given time 70-80% of tourists are snorkellers while 25-35% of tourists visit the Maldives primarily for diving (Westmacott 1996). Investments in a resort range from US\$10 million for an average tourist resort with 200 beds to over US\$ 40 million for modern high-end resort (MHAHE 2001). The present total investments in tourist resort infrastructure exceed US\$ one billion. Loss, or even under-utilization, of such infrastructure due to reef degradation will devastate the Maldivian economy. Vulnerability of tourism is evident as shown by the combined cost to tourist resorts and loss of Government revenue as a result of the Indian Ocean tsunami in excess of US\$300 million (MPND 2005).

The dependency of pole-and-line tuna fishery method on livebait makes the country's second industry - the tuna fishery highly vulnerable to coral reef health. For every 7-10kg of tuna catch a kilogram of livebait is required (Adam 2006). The bait is taken from small schooling varieties associated with the coral reefs. Without adequate and continuous supply of livebait pole-and-line fishery will not exist in the Maldives. More than 20% of the population depend on fisheries as the major income earning activity and fisheries contributes 7% to the GDP. The total fish catch was 186,000 metric tons in 2005 and export revenue then stood at over US\$100 million. Decline in tuna fishery will also have direct implications on food security in the Maldives. Fish is the primary source of dietary protein for the Maldivians and tuna is served daily in every meal (Adam 2006). Local consumption of fish exceeds 50,000 metric tons a year (MPND 2006). Reef fish is also a significant item of the tourist resort cuisine and impacts on reef fishery will affect tourism and communities who depend on reef fishery as a source of income.

Corals are highly sensitive to changes in temperature and some species of corals live at or near their thermal limits (Goreau 1992). As a result the incidence of bleaching will increase in frequency and intensity with the projected rise in SST. Coral reefs in the Maldives are also vulnerable to the projected rise in sea level. Most reefs of the Maldives appear to be at the point where they are sea level limited and with no potential for upward growth. Reefs appear to be now growing outwards laterally and filling up inside (Naseer 2006). It is predicted that sea level rise would induce reefs to grow vertically upwards. Reef health is also being severely affected by human activities.

## TARGETS

The targets are:

- ▶ Give protected status to five percent of the coral reef areas
- ▶ Ban reclamation of reef areas and fish breeding grounds
- ▶ Ban export of reef fish

## EXISTING POLICIES AND STRATEGIES

- ▶ The existing policies and strategies are elaborated in the:
- ▶ National Biodiversity Strategy and Action Plan (NBSAP)
- ▶ National Adaptation Programme of Action (NAPA)
- ▶ Seventh National Development Plan (NDP7)
- ▶ Third National Environment Action Plan (NEAP)

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Synthesize and enhance the knowledge on Maldivian reef biology and ecology
- ▶ Conduct research on how human induced stresses such as reef fishery, tourism, land reclamation and other developmental activities affect growth and functioning of coral reefs to facilitate informed decision-making on coral reef management.
- ▶ Develop a GIS-based national coral reef database to enable the management and analysis of ecological and socioeconomic data on coral reefs.
- ▶ Develop the coral reef management framework that enables the relevant institutions to designate zones, uses and marine protected areas systems.
- ▶ Review the existing institutional framework to identify gaps and barriers in coral reef management and recommend roles and responsibilities for custodians, users and managers.
- ▶ Develop regulations and conflict resolution mechanisms for resource use among competing industries such as fishing and tourism to ensure balance between resource protection and resource usage.
- ▶ Develop standards and guidelines for high impact coastal development activities, especially land reclamation and island access infrastructure development.
- ▶ Sensitize public infrastructure contracting agencies and contractors on coral reef protection regulations relating to design and construction of coastal developments

- ▶ Strengthen the capacity of island and provincial offices to enforce regulations including training on coral reef management and designation of staff responsible for enforcement and monitoring.
- ▶ Organize an information dissemination campaign to inform public on all regulations related to coral reef management.
- ▶ Identify the criteria for the selection of Marine Protected Areas (MPAs).
- ▶ Review the effectiveness of designated MPAs and recommend ways and means to strengthen MPA management.
- ▶ Develop guidelines on different reef resource uses, and establish best practice guidelines on snorkelling, diving and water sports activities..
- ▶ Develop quotas and control methods to prevent over-exploitation of specific species, ban destructive fishing practices such as use of chemicals and explosives and regularly monitor status of fish stock.
- ▶ Develop monitoring plans for reef fishery stock.
- ▶ Investigate the effectiveness of mooring buoys, navigation aids and signs in preventing boat damage on reefs.
- ▶ Develop the terms of reference, organisational structure and staffing needs for a National Coral Reef Management Authority (NCRMA) with nodal agencies in selected islands.
- ▶ Undertake training needs assessment to determine the training requirements for the NCRMA and nodal agencies and a strategy for human resource development.
- ▶ Develop a comprehensive training package on coral reef science and management to be integrated into the existing Coastal Zone Management Training Course (CZMTC).
- ▶ Conduct appropriate training programmes for atoll and island office staff on coral reef management.

## MONITORING MECHANISM

### Indicators:

- Percentage of reef area under protected status
- Number of reef reclamation projects undertaken
- Area of reef reclaimed
- Quantity of reef fish catch
- Quantity of reef fish exported
- Value of reef fish exported



CHAPTER 6

GOAL 3

# Achieve Carbon Neutrality in Energy

## OBJECTIVES

The objectives of this goal are to:

- ▶ Make energy supply secure and affordable
- ▶ Reverse the increasing dependency on diesel powered electricity generation in the Maldives and limit climate change
- ▶ Provide for reliable delivery of energy and guard against energy emergencies
- ▶ Invest in advanced energy technologies that will enable carbon neutrality and improve energy efficiency
- ▶ Acquire and demonstrate sound water technologies suitable to small coral island environment

## STATUS AND TRENDS

The Maldives has an extreme dependency on imported petroleum based fuels to provide for power generation, transportation, lighting, water production and food preparation. In 2007, the Maldives imported 250, 866 MT of diesel, 28,115 MT of petrol, 14, 125 MT of aviation gas, and 6,051 MT of LPG. The total CIF value of imported petroleum products stood at Rf 2.6 billion in 2007.



The electricity generation sector is the largest consumer of fuel and is one of the fastest growing sectors. This trend reflects increased electrification in the islands as well as the growth in the tourist resorts. The production of electricity can be classified under four segments for comparative analysis: (1) Stelco operated electricity production in 32 islands including Male', Villingilli, Hulhumale' and S Gan; (2) Inhabited islands covered by community and private operators in the atolls; (3) Private electricity production in 97 tourist resorts; and (4) Electricity production for industrial purposes and industrial islands such as Felivaru, Maandhoo and Kooddoo.

At present the total fuel consumption per year by STELCO is around 63 million liters. The consumption of diesel for electricity production in the inhabited islands is estimated to be 7.5 million liters. Assuming average use of 3,807 liters of diesel per bed and 18,498 beds, the diesel consumption of tourist resorts for electricity generation is estimated to be 70 million liters. From the data available from the three fish canning and freezing installations of MIFCO, the estimate of annual diesel consumption for industrial fisheries is 6 million liters. In addition, Male' Water and Sewerage Company (MWSC) provides desalinated water for consumption in Male', Villingilli, Hulhumale' and Maafushi. More than 5000m<sup>3</sup> of water is produced daily and MWSC used 2,126 tonnes of diesel to produce water in 2004.

The top five consumers of diesel for electricity generation among the Stelco operations were: Male' (30,796 MT); Hulhule (4,445 MT); Hithadhoo CPH (3,005 MT); Villingilli (1,098 MT) and Khulhudhuffushi (947 MT).

The fluctuations in world oil prices make the economy of the Maldives extremely vulnerable. For example, in mid 2005 the price of diesel delivered to STELCO operations was around Rf8.45 per liter. In mid 2008, the retail price per liter of diesel was Rf17.50 and this amounts to a total fuel expense of around Rf1.1 billion per year for STELCO operations alone.

According to the first greenhouse gas inventory of the Maldives, total greenhouse gases emissions amount to 665,000 tons of carbon dioxide equivalent. Improvements in energy efficiency and the introduction of feasible, alternative sources of energy are therefore high priority needs.

The Science and Technology Master Plan of the Maldives identifies six alternative sources of energy for practical use in the Maldives. They are solar (including thermal as well as photovoltaic); oceanic; biogas; biomass and fuel wood; garbage; and wind. A survey conducted by Ministry of Communications, Science and Technology in 2004

showed that 10-15% of energy requirements (excluding transport) could be met by renewable resources.

Solar energy and wind energy are considered to hold the best short-term supplemental opportunities for application in Maldives. Solar thermal is already widely used in resorts to heat water and lighting and in the islands for communication and navigational lighting. There is also good potential for use of solar energy for traffic signals, street lighting and other similar uses. Recently a demonstration solar-diesel hybrid power generation was established in Mandhoo where daytime electricity demand is met by solar.

## TARGETS

The targets to advance energy security are:

- ▶ Become carbon neutral in the energy sector by 2020
- ▶ Ensure 50 percent of the electricity is from renewable sources by 2015
- ▶ Achieve a 50% reduction by 2015 in energy sector greenhouse gas emissions compared to 2000 levels.
- ▶ Reach a saving of 7.5% of final energy consumption over 10 years until 2020 through efficiency.

## EXISTING POLICIES AND STRATEGIES

- ▶ The existing policies and strategies are provided in:
- ▶ National Energy Policy
- ▶ Seventh National Development Plan (NDP7)
- ▶ Science and Technology Master Plan
- ▶ Technology Needs Assessment (TNA)

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Develop policy to harmonize in all the islands of the Maldives electricity tariff with market fuel prices and limit power sector subsidies.
- ▶ Introduce market incentives and life line tariffs to ensure affordability of energy supply throughout the country.

- ▶ With regard to energy generation, acquire renewable energy, co-generation, demand side management, and improved transmission technologies
- ▶ Promote energy efficiency in electricity production, distribution and storage.
- ▶ Produce an analysis of how to achieve the existing targets for renewables and how further to promote renewable energies in a cost-efficient manner over the long term
- ▶ Without delay establish the institutional framework to implement clean development mechanism in the Maldives.
- ▶ Promote demand side management with focus on key energy users such as public buildings.
- ▶ Establish a regional power grid for Male' urban region and in Addu with submarine cables linking the different centres.
- ▶ Adopt and implement an ambitious and realistic Action Plan on Energy Efficiency with particular attention to the tourism sector and growing air-conditioning needs in Male'.
- ▶ Energy suppliers should enhance the efficiency of power stations in particular by further promoting the use of combined heat and power.
- ▶ Without further delay invest in regional fuel storage farms in five different locations of the Maldives.
- ▶ Ensure strategic and emergency fuel reserves are in place in selected supply centres.
- ▶ Acquire efficient energy use technologies, particularly in the buildings and residential Subsector. The specific technologies identified are: Efficient building design; Energy efficient air-conditioning and natural ventilation system; CFLs and solar lights; Solar water heaters/individual heaters; Building materials – glass, aluminium, wood
- ▶ Demonstrate infiltration gallery technology in selected islands.
- ▶ Undertake an in-depth assessment of solar desalination technology and pilot test the technology in a selected location.
- ▶ Enable household and community level rainwater harvesting through providing rainwater tanks free of charge to needy households and assist in roof retrofitting where necessary to prevent potable water shortages.
- ▶ Make it mandatory to harvest rainwater from all public buildings.

## MONITORING MECHANISM

### Indicators:

- Total fuel consumption by type and sectors
- Total fuel consumption as a percentage of GDP
- Total value of power sector subsidies
- Percent share of renewables in fuel mix
- Total fuel storage capacity by region



CHAPTER 7

GOAL 4

# Ensure Food Security

## OBJECTIVES

The objectives of this goal are to:

- ▶ Ensure that all people, at all times, have physical access to sufficient, safe and nutritious food to meet their dietary needs
- ▶ Ensure that people have affordable and economic access to nutritious and safe food to meet their food preferences for an active and healthy lifestyle.
- ▶ Improve significantly the nutritional status of children in the Maldives

## STATUS AND TRENDS

Expanding agricultural productivity to meet food needs of an estimated eight billion people by 2025, in the face of increased competition for water resources and declining soil fertility, remains a major global challenge. Climate change is predicted to exacerbate this global challenge. Increasing development pressure on coral reefs, fishery stocks, forests and arable land adds to the problem. As a result, economists are ringing alarm bells that the world is facing a severe food shortage, one of the worst in recent history.



In March 2008, the United Nation's Food and Agricultural Organisation warned that the global foodstock outlook had reached a critical stage. Wheat stocks in 2008, are forecast at 142 million tonnes, down from 197 million tonnes in 2001, and the lowest since 1982. Rice stocks are expected to decline to 107 million tonnes in 2007 from a high of 136 million tonnes in the corresponding period. The World Bank highlights that food shortage has caused global food prices to rise 75 per cent since 2000. Wheat prices have risen 200 per cent in the past eight years. In the year 2007, global wheat prices have jumped more than 50 per cent to over \$10 a bushel (27.215 kg). The food-price index of the United Nation's Food and Agricultural Organisation, based on the export prices of 60 internationally traded foodstuff, rose 37 per cent in 2007.

Since the Maldives is a predominant importer of food items, the global food shortage and the rise in global food prices is a serious sustainable development challenge for the country. Maldives imported 20 million kg of rice (Rf 124 million); 17 million kg of wheat (Rf 99.4 million), 9.8 million kg of sugar (Rf 65.4 million), Rf 300 million worth vegetables and vegetable produce, and Rf 200 million worth of fruits in 2007. In addition to the financing of 300 million rufiyaa for annual staple food bills, there are serious issues in obtaining a regular supply of staple foods due to factors beyond control in the supplier market such as climate induced flooding, droughts and transport constraints.

Poor child nutrition adds to the gravity of the food security challenge. The 2004 Vulnerability and Poverty Assessment showed the prevalence of underweight in children under five years of age at 27 percent (MPND 2005). The geographical analysis of malnutrition shows significant atoll variations. With stunting as an indicator of malnutrition, the highest observed rates of malnutrition are found among children in Gaafu Alifu at 55 percent. The lowest observed incidence of stunting is found among children in Dhaalu at 4 percent. The prevalence of stunting among children in Male' is 17 percent (MPND 2005).

The total fruit production in the atolls and commercial farms in 2004 was 14,870 mt. Banana production was the highest at 9,000 mt (61%), followed by watermelon (17%), coconut (7%), and mango (3%). The quantity of vegetables produced in 2004 amounted to more than 2,300 tons, pumpkin with a production of 1,070 mt appeared to be the highest, representing more than 46% of the total vegetable produced followed by breadfruit (21%) and leaf cabbage 10%. Many of the traditional vegetables such as curry leaf, luffa, bitter gourd and balimbi are produced in small quantities.

The main constraints to agricultural development identified in the Strategic Economic Plan are: lack of transportation, harbours, and loading and unloading

facilities; poorly organised marketing systems and poor market information; lack of storage, preservation, and processing technologies and facilities; limited availability of cultivable land low fertility of the soil with problem of water supply; lack of quarantine and other regulatory systems to control pests and diseases; and abundant cheap imports of vegetables and fruits.

## TARGETS

The targets to increase food security are:

- ▶ By 2010 develop a national food security strategy
- ▶ Increase investment in agriculture to xx% of GDP
- ▶ By 2010, double the area of land allocated for agriculture in 2005
- ▶ By 2010, double the production of fruits and vegetables from 2004 levels
- ▶ Establish food storage facilities in seven regions of the Maldives

## EXISTING POLICIES AND STRATEGIES

The existing policies and strategies for food security are given in the:

- ▶ Agriculture Master Plan
- ▶ Seventh National Development Plan
- ▶ National Adaptation Programme of Action

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Formulate a National Food Security Strategy that includes review of existing mandates, designating a national focal agency, defining roles and responsibilities and, strengthening food storage and distribution
- ▶ Enhance access to credit, resources, technology, and information required for local food production
- ▶ Effectively integrate existing organized farmers and the home gardening farmers into commercialisation schemes,

- ▶ Resolve land tenure issues related to agriculture and provide access to land with the aim of ensuring food security as the objective, rather than increasing government revenue.
- ▶ Assist farmers to improve their agricultural productivity and food production and distribution infrastructure
- ▶ Provide technical assistance for food producers to meet international standards of food quality and safety such that local food produce is competitive in the local market
- ▶ Undertake an analysis of the agriculture market and identify major consumer preferences with regard to local food crops.
- ▶ Organize an annual local food produce fair to link farmers with buyers and sellers.
- ▶ Undertake feasibility study on elevation of current subsistence crops to commercial use.
- ▶ Improve physical and economic access of the poorest and most vulnerable to sufficient, nutritionally adequate and safe food and ensure children are provided with nutritionally adequate food
- ▶ Promote sustainable agricultural, fishery and forestry production and management of natural resources
- ▶ Establish food storage facilities in seven different regions to prepare for disasters and emergencies to meet transitory and emergency food requirements
- ▶ Secure preferential trade agreements with major bilateral, regional and international trade partners to ensure food security for essential food items.
- ▶ Enable integrated pest control and better quarantine of imports.
- ▶ Undertake proactive agricultural research and development
- ▶ Disseminate information on better irrigation technologies, water governance and delivery systems.

## MONITORING MECHANISM

Indicators:

Quantity of fish catch and consumption for local use  
 Quantity of agricultural production by type  
 Value of agricultural production by type  
 Percent share of agriculture in GDP  
 Quantity and value of vegetables and fruits imported  
 Quantity and value of staple foods imported  
 Number and capacity of storage facilities by region



## CHAPTER 8

GOAL 5

# Carbon Neutral Transport System

## OBJECTIVES

- ▶ Ensure that transport systems meet society's economic, social and environmental needs whilst minimizing their undesirable impacts on the economy, society and the environment
- ▶ Reduce demand for transport to Male' from the different islands
- ▶ Reduce significantly transport sector greenhouse gas emissions.
- ▶ Reduce pollutant emissions from transport to levels that minimise effects on human health and/or the environment.
- ▶ Achieve a balanced shift towards environment friendly transport modes to bring about a sustainable transport and mobility system.

## STATUS AND TRENDS

With increasing globalization, international connectivity is critical for sustaining economic growth. Male' International Airport (MIA) at Hulhule with a runway of 3200m by 45 m is the main gateway to the Maldives. In 2006 more than 35 airline companies operated 10,470 international flights. The total number of international arrivals reached 734,733 while there were 113,854 transit passengers. Cargo freight that came into the Maldives was 20,350,648 kg while 15,118,680 kg of cargo was exported. In order to upgrade facilities and relieve congestion a new development

phase is underway at MIA. The regional airport in Gan in the south was upgraded recently to international standard and direct international flights began operation in 2008.

Male' Commercial Harbour (MCH) has been the only international sea port until December 2005 when two regional sea ports, in Khulhudhuffushi in the North and Hithadhoo in the South, were commissioned and opened for international service. The Male' Commercial Harbour can accommodate vessels up to 15,000 GT (10.5m draught) and has 1.7 ha of open storage (up to 819 loaded TEU containers) and 0.3 ha of closed storage area. The annual cargo throughput reached 1,234,700 freight tonnes in 2004.

Due to the geography of the country, air transportation is crucial for the development of the country. In addition to the two international airports, there are three regional airports Hanimaadhoo, Kaddhoo and Kaadedhdhoo. Island Aviation Services, a 100 percent state owned company offers daily scheduled services to the four regional airports and transported approximately 110,000 passengers in 2005. Two private companies, Maldivian Air Taxi (MAT) and Trans Maldivian Airways (TMA) provide sea plane operations for transfer of tourists from Male' International Airport to tourist resort islands. They operate more than 40,000 flights a year and transported approximately 400,000 passengers in 2005.

An efficient maritime domestic transport network is critical for the holistic development of the nation. From 1995 to 2005, harbour construction projects in 74 islands, channel deepening projects on 14 islands, and 08 land reclamation projects were completed. Of the 198 inhabited islands in the Maldives 105 have proper harbours and access facilities.

Cargo-cum-passenger vessels carry most of the inter-island cargo and passenger traffic. Cargo vessels usually berth at the North Harbour in Male'. The average time at port is 7 days for "front loading" cargo vessels while it is 17 days for "side loading vessels".

Although a number of ferries are operated by island communities, private parties or the Maldives Transport and Contracting Company, the scheduled ferry services network in the Maldives is still very limited.

Recently, land transport has become an issue of major concern, especially in the capital Male'. The increase in the number of passenger vehicles, especially motor cycles and cars, is threatening the safety on roads and the quality of the



environment. Concerns have also been raised about the type and extent of fuel used for land transport. Throughout the inhabited islands a complex network of roads is found and is built generally with coral sand. The two most significant inter-island roads are found in Addu Atoll and Laamu Atoll, both approximately 14 km in length. Proper traffic engineering designs, construction of safe roads and establishing road safety measures is a priority.

## TARGETS

The targets are:

- ▶ Establish an integrated public passenger transport service by 2010.
- ▶ Halve road transport deaths by 2015 compared to 2005.
- ▶ Reduce CO<sub>2</sub> emissions from light vehicles - the average car fleet should achieve CO<sub>2</sub> emissions of 140g/km by 2015.
- ▶ By 2015 not less than 10 % of transport fuel should consist of biofuels, as an indicative target, considering raising their proportion to 20% by 2020.

## EXISTING POLICIES AND STRATEGIES

The existing policies and strategies are given in:

- ▶ Draft Transport Master Plan
- ▶ Male' International Airport Master Plan
- ▶ Seventh National Development Plan
- ▶ Technology Needs Assessment (TNA)

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Take measures to improve the economic and environmental performance of all modes of transport and, where appropriate, measures to effect a shift towards lower transport intensity through production and logistic process reengineering and behavioural change combined with a better connection of the different transport modes.
- ▶ Improve energy efficiency in the transport sector by making use of cost-effective instruments.

- ▶ Focus on possible alternatives to transport to Male' for freight and passengers including the appropriate development of the regional ports as hubs.
- ▶ Network and establish links for freight logistics, for tourist resorts.
- ▶ Establish effective solutions for the reduction of harmful impacts of maritime travel such as waste and oil disposal.
- ▶ With a view to halving road transport deaths as well as reducing the number of injured in road traffic, increasing road safety by improving road infrastructure, by making vehicles safer, by promoting awareness campaigns with a view to changing road user behavior, and effective driving lessons and testing.
- ▶ In urban centres, councils should develop and implement urban transport plans and road side tree planting to make roads pleasant for pedestrians.
- ▶ Develop a long term and coherent fuel-strategy for transport needs across the Maldives
- ▶ The following technologies are needed for the management and policy improvement of land transportation system, public transport systems, cleaner efficient fuel vehicles, using natural gas or LPG, hybrid vehicles, Urban traffic planning and landscaping, air quality emissions testing vehicle inspection and monitoring equipment, traffic control systems.
- ▶ Technologies needed for the marine transport sector are: scheduled ferry system, regional ports and hubs (integrated tourism and fisheries service centres); organized cargo delivery; hybrid vessels

## MONITORING MECHANISM

Indicators:

Number of organized public transport services and coverage of population served

Total fuel consumption by transport sector

Greenhouse gas emissions by transport sector

Number of road accident deaths

Number of maritime accidents and loss of life



CHAPTER 9

GOAL 6

Protect Public Health

## OBJECTIVES

- ▶ Curb the increase in lifestyle-related and chronic diseases, particularly among socio-economically disadvantaged groups and areas.
- ▶ Reduce health inequalities within and between atolls by addressing the wider determinants of health and appropriate health promotion and disease prevention strategies.
- ▶ Reduce drug addiction and substance abuse and provide appropriate treatment facilities
- ▶ Improve mental health and tackle suicide risks.
- ▶ Reduce environmental pollution and adverse health impacts.

## STATUS AND TRENDS

Health has improved significantly over the last two decades. In 1977, 120 babies in every thousand in Maldives died before reaching the age of one. In 2006, the comparative infant mortality rate figure was 16. In 1977, life expectancy at birth was 46.5 years. In 2006 it was 72 years for males and 73 years for females. The sex differentials in life expectancy also has changed from an atypical situation of lower female life expectancy for females than males to the more universal trend of slightly higher life expectancy for females compared to males. Improvements in health care

delivery and referral services have also had a significant impact on maternal deaths. Maternal mortality rate declined from 6 per thousand live births in 1978 to less than 1 per thousand in 2006.

Maldives has made notable achievements in the control of communicable diseases as well. Malaria has been successfully eliminated. Vaccine preventable diseases have also been controlled to such an extent that diseases like polio, neonatal tetanus, whooping cough and diphtheria may soon be eliminated. Tuberculosis continues to persist though data shows a decreasing trend in cases under treatment and in prevalence rate. The Maldives is well within the leprosy elimination target set by World Health Organisation.

The country's geography and human resource capacity still pose enormous challenges in providing health care for all. There are communities that are yet to be completely serviced, and where people have to travel a great distance to access health services. The population per practising doctor was 715 in 2006 and there were about 232 general doctors and 186 specialist physicians in the country (MPND 2007). Malé with one third of the country's population has 119 specialists and 92 general duty doctors. The atolls have 67 specialist doctors and 55 general duty doctors. It takes about 12 hours for some islanders to reach the main referral hospital in Malé and more than 2 hours to reach their next Health Centre or Hospital. A significant number of the highly qualified health professionals and doctors are expatriates, which raises the issue of local human resource development to sustain and improve the level of health care.

With the control of communicable diseases and lifestyle changes associated with development, chronic non communicable diseases have emerged as the main cause of mortality in the country. Cardiovascular diseases, diabetes and cancer are the leading causes of death in the country. In 2004 cardiovascular diseases accounted for 45.1 percent of all deaths that occurred at Indhira Gandhi Memorial Hospital (IGMH). In 2003, 29 of the 202 institutional deaths at IGMH were due to cancers. This accounts for 11.43% of deaths in IGMH. Thalassaemia and renal diseases are other common chronic diseases of concern. In year 2002, diseases of the genitourinary system accounted for about 9% of all institutional deaths in IGMH. Added to this is the growing problem of accidents and injuries leading to death and disabilities.

Although this epidemiological transition has occurred in the disease pattern, the country is burdened with emerging communicable diseases and high prevalence of malnutrition. Environmental health problems continue to be of public health concern.

According to the Drug Control Master Plan, hardly a community or a family is free from the harmful effects of drug abuse which is a problem cutting across all age groups and social strata. The number of drug abuse cases reported to the police increased from 200 in 1997 to 1714 in 2007. Reported cases to police is not an accurate reflection of the scale of the problem and social workers believe that number of regular drug users may be as high as 45,000. In the Presidential Address of 2009, President Nasheed highlighted that in the year 2008, three people were murdered on the streets of Male', while four persons were killed in other islands. About 30 people committed suicide for various reasons.

## TARGETS

- ▶ Increase access to safe water to 95% of the population by 2015.
- ▶ Reduce percentage of females who consume tobacco to less than 10% by 2015.
- ▶ Increase percentage of adults with BMI between 18.5 – 24.9 to 65% by 2015.
- ▶ Reduce percentage of underweight children under five years to 20% by 2015.
- ▶ Increase contraceptive prevalence rate to 65% by 2015.

## EXISTING POLICIES AND STRATEGIES

The existing policies and strategies are given in:

- ▶ Heath Master Plan
- ▶ Seventh National Development Plan
- ▶ National Adaptation Programme of Action (NAPA)

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ Develop and strengthen capacities to respond to health threats in a co-ordinated manner inter alia by upgrading existing action plans on handling health threats.
- ▶ Promote better health and disease prevention by addressing health determinants across all relevant policies and activities.
- ▶ Prepare and implement strategies and measures targeting life-style related health determinants, such as drugs, tobacco use, poor diet, physical inactivity, drinking, and chronic diseases.



- ▶ create and implement strategies to help women and men in achieving and maintaining positive emotional states thus improving their well-being, their subjective perception of quality of life and their physical and mental health.
- ▶ Develop legislation on food safety with particular attention on food preparation and genetically modified food.
- ▶ Continue implementation of activities to combat HIV/AIDS with intensified efforts targeted at drug users.
- ▶ Increase information on environmental pollution and adverse health impacts and coordinate research into the links between environmental pollutants, exposure and health impacts to improve understanding of which environmental factors cause health problems and how best to prevent them.
- ▶ Implement the air pollution prevention strategy
- ▶ Pay special attention to the health of vulnerable groups, in particular children and develop a Children's Health Action Plan.
- ▶ Develop a Transport Health and Environment Pan and integrate environmental and health aspects into transport policy decision-making, monitoring and impact assessment.
- ▶ Ensuring that chemicals, including pesticides, are handled and used in ways that do not pose significant threats to human health and the environment.
- ▶ Adopt regulation for the registration, evaluation, authorisation and restriction of chemicals the aim being to eventually replace substances of very high concern by suitable alternative substances or technologies.
- ▶ Reduce the supply of drugs and provide treatment to 75% of drug users.



## CHAPTER 10

GOAL 7

# Achieve Full Employment and Ensure Social Security

## OBJECTIVES

- ▶ Take steps that will make a decisive impact on the reduction of the number of people living in poverty and those at risk of poverty.
- ▶ Significantly increase the labour market participation of women and youth
- ▶ Increase the labour market participation of disabled and socially vulnerable persons
- ▶ Develop a national foreign labour policy, accompanied by policies to strengthen integration of labour and their families, taking into account also the economic dimension of foreign labour.
- ▶ Harmonize and modernise social protection in view of demographic changes.
- ▶ Ensuring a high level of social cohesion at national level as well as respect for diversity.

## STATUS AND TRENDS

Since the late 1970s there have been important changes in the structure, conditions, and opportunities for employment and self-employment. The developments that have affected the employment profile include: the shift to a tourism economy and the continuing importance of public sector employment; the inadequate backward linkages of tourism that have failed to enhance productivity and employment in

traditional sectors of agriculture and fisheries; and the apparent growth of the informal sector. Their consequences on employment and self employment also have a spatial dimension on the distribution of opportunities.

In the Maldives there are no labour market surveys and information on employment is provided by the 5 yearly population censuses. According to the 2006 census, the labour force participation rate was 64.1 percent and total employment in the economy stood at 110, 231 while 18,605 persons were unemployed. There is a significant gender gap in the labour force participation rate with males having a labour force participation rate of 75.4 compared to 52.9 percent for females. Labour force participation also varies in different Atolls - Kaafu Atoll (K), has the highest labour force participation rate of 77.6 percent, while Seenu Atoll (S) has the lowest at 59.2 percent. Similarly, female labour force participation rates are especially lower in case of females in Seenu (S) and Lhaviyani (Lh) Atolls with 42.8 and 52.3 percent respectively.

Maldives has a very significant expatriate population. Data on work permits issued indicates that the number of foreign workers in the country increased from 30,664 workers at the end of 2002 to 80,839 workers at the end of 2008. Out of the expatriate population 92% are males while females account for only 8%. The highest number of expatriate labour is from Bangladesh (38,952) followed by India (23,032) and Sri Lanka (9,575).

## TARGETS

- ▶ Reduce early school leaving to 10%
- ▶ Ensure that at least 85% of 22 year olds should have completed upper secondary education.
- ▶ By the end of 2010 every young person who has left school and is unemployed should be offered a job, apprenticeship, additional training or other employability measure within six months
- ▶ Increase female labour force participation rate to 65%

## EXISTING POLICIES AND STRATEGIES

The existing policies and strategies are given in:

- ▶ Strategic Economic Plan
- ▶ Seventh National Development Plan
- ▶ Tourism Master Plan

## PROPOSED POLICIES, STRATEGIES AND TOOLS

- ▶ On the basis of the new objectives and working methods for social protection take the necessary measures to rapidly and significantly reduce income poverty and work towards giving all equal opportunities, regardless of their social background, gender or disabilities.
- ▶ By 2010, the Government would produce a report on the demographic future of the Maldives examining how the nation must respond to the demographic challenges, notably by promoting productive and healthy lifestyles for youth, the balancing of work and family life, better conditions for families, also taking into account the contribution of foreign labour.
- ▶ The Government would also analyse the possible implications of demographic change for land use and resource and energy consumption as well as mobility, and take them into account in planning and investment at all levels.
- ▶ The Government will continue to develop a foreign labour policy, accompanied by policies to strengthen the integration of skilled workers and their families, notably through the policy plan on admissions procedures. Government will intensify cooperation with third countries and work towards joint responses to fight against illegal immigration.
- ▶ Enable the establishment of day care centres and provide fee subsidies for working parents.
- ▶ Establish single shift system in all the schools, match school hours to work hours and introduce after school care in schools so that parents and married women will be able to actively participate in labour force.
- ▶ Make obligatory to employers the provision of daily ferry service to those employees who work away from home, but within 30 minutes of Dhoni travel.
- ▶ Ensure that social services contribute actively to social cohesion, and support the objectives of growth and employment.

- ▶ Establish structured dialogue with young people and organizations active in the field of youth policy, and establish forums to debate on sustainable development issues of interest for young people by preparing these dialogues between youth and government agencies.
- ▶ The sustainability and adequacy of pensions will remain an important issue for the coming decades. There is need to establish new social protection systems and ensure their sustainability. Government should reduce public debt at a satisfactory pace, raising employment rates and productivity, as well as reforming health care and long-term care systems.

## MONITORING MECHANISM

Indicators:

Labour force participation rate  
Female labour force participation rate  
Youth unemployment rate  
Unemployment rate  
Number of expatriates by nationality





## CHAPTER 11

# The Way Forward

**T**he Ministry of Environment will prepare every two years (starting in August 2010) a progress report on implementation of the NSDS and also including future priorities, orientations and actions. As for the monitoring at national and atoll level, the Ministry will, in analysing the state of play with regard to the challenges described above, draw on a comprehensive set of sustainable development indicators (SDIs).

To ensure both a comprehensive and in-depth coverage of the complexity of sustainable development, the indicators are to be developed at the appropriate level of detail to ensure proper assessment of the situation with regard to each particular challenge.

The Ministry will further develop and review indicators to increase their quality and comparability as well as their relevance to the NSDS also taking into account other indicator initiatives and focusing on those indicators marked as most needed.

In 2010 at the latest, and at regular intervals after that, the National Commission for Protection of Environment will examine progress with regard to sustainable development indicators and will consider endorsement of a limited set of indicators for monitoring the NSDS at national level and for communication purposes.

Key ministries of government will appoint a representative acting as NSDS focal point enabled to provide, at the latest by June 2009 (and then at two-year intervals), the necessary input on progress at national level in accordance with National

Sustainable Development Strategy (NSDS) and if appropriate taking into account developments at atoll level.

The Parliament will be invited to contribute views in the context of future progress reviews and engage in close cooperation with the National Commission for Protection of Environment to ensure that the NSDS enjoys the broadest possible support. The Maldives National Chamber of Commerce, the Maldives Association of Tourism Industry and Maldives Association of Construction Industry (MACI) should play an active role in creating ownership inter alia through acting as a catalyst to stimulate sustainable development debate at national level.

The Government would establish a Sustainable Development Network with the aim of facilitating the exchange of good practices and experiences. It could gather views on specific priority themes and issues to be discussed in order to exemplify and document good policies and practices. This network could also be used to enhance the mainstreaming of sustainable development issues, vertical integration and coherence between the national and atoll levels of policy-making.

Government would consider strengthening or, where these do not yet exist, setting up multi-stakeholder national advisory councils on sustainable development to stimulate informed debate, assist in the preparation of NSDSs and/or contribute to national progress reviews. National sustainable development councils are meant to increase the involvement of civil society in sustainable development matters and contribute to better linking different policies and policy levels.

The Government Ministries should improve internal policy coordination between different sectors. While the NCPE should ensure the horizontal coordination of the NSDS, key ministries should verify implementation in their respective areas of responsibility. When reviewing progress, the NCPE should consider different options on how its work could be further strengthened to ensure proper implementation of the NSDS.

At the latest by 2015, the Government will decide when a comprehensive review of the NSDS needs to be launched.