



# PLACES FACES SPACES

## ENERGY AND ENVIRONMENT FOR SUSTAINABLE DEVELOPMENT

Integrated Community Based and Nationally Driven Environmental Management

United Nations Development Programme (Namibia)





# WORKING TOWARDS A BETTER ENVIRONMENT TOGETHER

Namibia's immense beauty and vast open spaces are increasingly under threat from unsustainable land use and climate change. Luckily, the country has recognised the challenges that population growth and global warming pose and has embarked on a unique integrated management of the environment by and for the communities that inhabit the Namibian space. As such, the country is a global pioneer in community based integrated approaches whether relating to land management, ocean or water governance, energy solutions, or capacity building.

Together with its partners, the Namibian Government, the Global Environmental Facility, ICEIDA and many other organisations, the United Nations Development Programme (UNDP) has implemented many projects promoting sustainable use of natural resources, energy, building capacity and protecting Namibia's unmatched biodiversity. In this brochure you will find an overview of past and future endeavours to preserve the Namibian environment for future generations.



# ECOSYSTEMS AND SUSTAINABLE LAND MANAGEMENT

The Namibian Government identified land degradation as a serious problem, which demands immediate action. As a result, the Country Pilot Partnership (CPP) for Integrated Sustainable Land Management (ISLM) programme was devised in 2004 and implemented in 2007 as a way to reach Millennium Goal 7, calling for environmental sustainability. As the driest country South of the Sahara Namibia was the perfect place to pilot dryland sustainable land management (SLM) projects.

The \$7 million programme enhanced capacities to live with and manage land degradation through inter-cross sectoral institutional collaborations, while at the same time piloting projects that introduced innovative ways of sustainable land management such as conservation agriculture and water harvesting, as well as other methods that help farmers adapt to unpredictable climatic conditions.

The CPP, as the second Namibian UNCCD NAP, set a foundational partnership that aims to promote a country-driven and nationally-owned Action Plan to combat land degradation through a suite

of pilot initiatives. Successful pilot initiatives will be up-scaled and replicated to codify the lessons and practices for uptakes.

## Management by and for communities

Namibia prides itself in involving communities directly in the management of their surroundings. Whether it concerns agriculture, conservation, water or wildlife management, the country is recognised as a global pioneer in integrated management practices. One of the CPP sub-projects dealing with enhancing human capacity was CALLC that aimed to mitigate the impact of land degradation on communities by promoting integrated rangeland management. The subproject on Climate Change Adaptation (CCA) on the other hand, piloted various practical techniques to improve traditional crops and livestock farming practices by introducing indigenous drought tolerant crops and animals such as Boer Goats or Guinea Fowl in order to adapt communities against droughts caused by climate change.



## Between two deserts

*Namibia is the most arid country in sub-Saharan Africa. Squeezed between the Kalahari and the Namib deserts, farmers and rural communities eke out a living on the dry land. Over the years, climate change and unsustainable land use have further aggravated the processes of desertification and land degradation; threatening livelihoods and increasing the vulnerability of land users.*

## Adapting to Climate Change

Already a multitude of fragile ecosystems, Namibia is extremely vulnerable to global warming. Adaptation, rather than reducing emissions is the biggest challenge in the fight against climate change. The Africa Adaptation Programme (AAP) aimed to help countries on the continent formulate a national approach to address climate change risks. In Namibia the AAP-NAM project specifically focused on how to bolster the response to the uncertainties of climate change by decentralised rural communities, especially relating to droughts and floods. Practical examples of this were pilot projects that addressed the risk to sanitation and health in settlements in flood prone areas. In addition AAP-NAM looked at how to finance future national adaptation efforts and offered solutions on how to incorporate climate change adaptation in the overall national development agenda.

## Strengthening Protected Areas

Over 40 percent of Namibia's landscape is under some form of protection. Often this is done in close cooperation with the inhabitants to ensure that communities as the custodians reap the maximum benefits of sustainable natural resource management and protection of biodiversity. The Strengthening Protected Areas Network (SPAN) project that ended in 2012, aimed to weave together the different protected areas and leverage natural wealth for communities, while simultaneously maximising the benefits of tourism, Namibia's third biggest industry, for conservancies. In the process the management of protected areas was greatly enhanced.

## CPP OUTCOMES

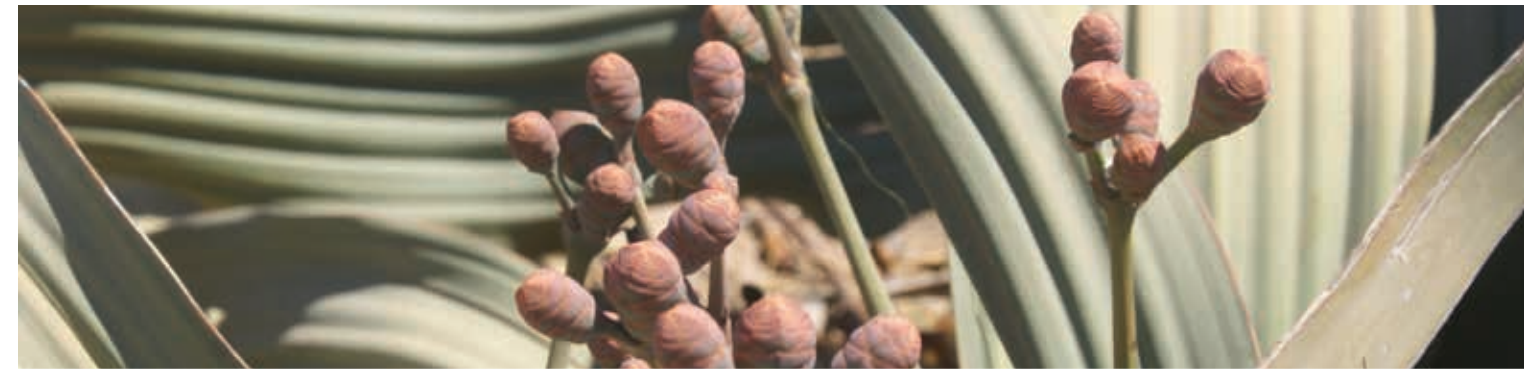
- Harmonised policies for sustainable land management
- Effective Monitoring and Evaluation of Adaptation Initiatives
- Promotion of community-led sustainable land management initiatives and capacity building in that area
- Best practices for sustainable land management identified, tested, shared and replicated amongst communities

## SPAN OUTCOMES

- Enhanced Protected Areas management effectiveness
- More effective use of financial and human resources
- Expanded management know-how through innovative field management demonstrations
- Budget: \$15,200,000
- Time-frame: 2004-2012







## NAMPLACE

A logical sequel to SPAN is the NAMPLACE project which is currently being rolled out at a cost of \$4.5 million and will run till 2015. Whereas SPAN strengthened the network of protected areas, NAMPLACE takes this mandate further and looks at land uses in areas adjacent to protected zones to establish whether these are compatible with biodiversity conservation objectives and to establish corridors to sustain the viability of wildlife populations. The nationwide project looks at wildly divergent landscapes ranging from hyper-arid deserts with less than 10 millimetres of rainfall to subtropical wetlands and savannas receiving over 600 millimeters of rain per year.

Through the NAMPLACE project some existing threats to habitat and species will be lifted and an additional 15,550 hectares of land will come under protected areas management. For instance through the establishment of five Protected Landscape Conservation Areas that will be managed with an eye on preserving biodiversity and ecosystems and protect these from threats against the landscape.

### Keeping it up: PASS and NAFOLA

Going forward protected areas need continued management and funding. The PASS programme that is currently in the starting blocks will mobilise new funding gap for the enduring management of protected areas. The programme will reduce the protected area funding, currently standing at \$14 million by 50 percent through improved revenue collection and the implementation of a revised fee and licensing structure, as well as

exploring of untapped revenue opportunities. These new funds will benefit some additional 33,530 square kilometres of protected areas and new communal conservancies covering an area of 30,837 square kilometres. Very importantly, the money will be used to prevent the increase in wildlife poaching seen elsewhere in the Southern African region and reduce the destructive seasonal occurrence of wildfires by fifty percent.

PASS aims to address new challenges that are facing PA managers globally, although much more pertinent in the region. These includes, poaching, securing sustainable funding and will try to demonstrate that enforcement economic models inclusive of all chains work.

Another programme that will launch soon looks at the sustainable management of Namibia's Forested Lands. The \$500,000 NAFOLA project aims to maintain current dry forests and the ecosystem goods and services they provide in over 500,000 hectares of forest lands, through widescale adoption of sustainable land management and other improved technologies. The programme will integrate forest use with overall land management and strengthen the management of community forests in some of Namibia's northeastern regions. NAFOLA will also look at innovative ways to combine increased crop and livestock production in deforested areas spanning 450,000 hectares, with reforestation and a reversal of forest degradation. A special programme focusing on alternative and efficient wood use for fuel should greatly decrease deforestation in eight wooded areas.



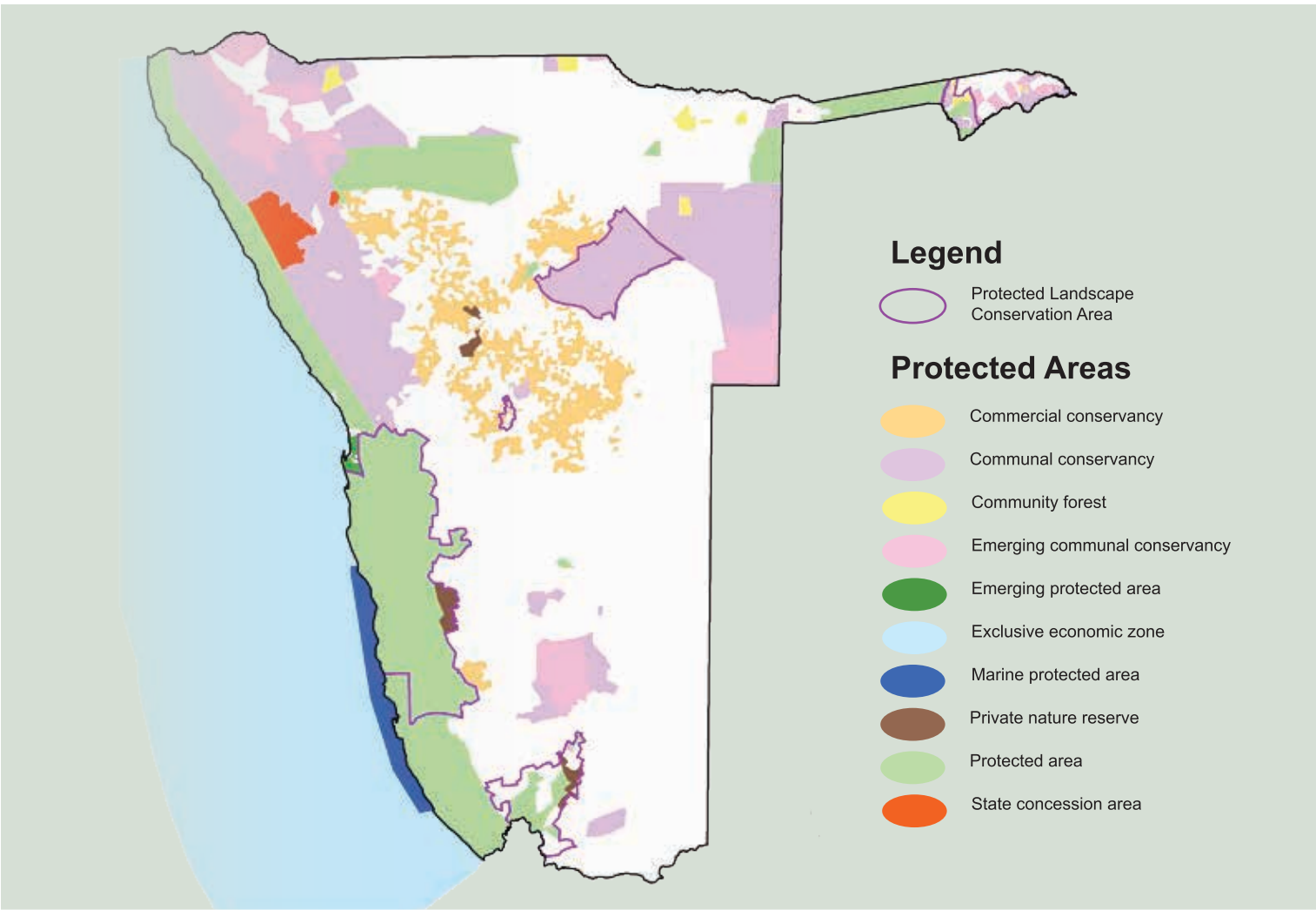


# ADAPTING TO A CHANGING CLIMATE: SCORE

Communities are increasingly faced with the negative effects of climate change. Innovative and sustainable methods of utilising natural resources are needed to to secure livelihoods and upscale diversification options and measures that are aligned to changing socioeconomic and environmental dynamics. Together together with civil society and locally based institutions, UNDP with Govt of Namibia are initiating a new programme, the first to be funded under the SCCF -special climate change fund that will boost resilience to climate variability and climate change in Northern Namibia, with a special focus on women and children.

The programme, called SCORE will build capacity and reduce

the vulnerability of 4000 households, 80 percent of which are female-headed, and 75 schools, to droughts and floods in Northern Namibia by scaling up climate-smart livelihoods which have been piloted in earlier projects. The \$3.3 million programme, which will run between 2014 and 2016 will strengthen the smallholder farmer adaptive capacity for implementation of climate resilient agricultural production practices. SCORE will work towards reduced vulnerability to droughts and floods through restoration of wells and harvesting of floodwater for food security and the programme will mainstream climate change into national agricultural sector policy, including adjustments to budgets for replication and up-scaling.



## Boosting Plant Genetic Resources for Food and Agriculture

Several barriers exist to effective Plant Genetic Resources for Food and Agriculture (PGRFA) conservation and small farmer empowerment. Most subsistence farmers in communal areas keep their seeds supplies from season to season. They are not able to maintain their seed stocks during poor seasons and they often lack the capital to buy quality seed from open markets. Increasing their access to good quality seed of crop varieties that are suitable to their environment will increase agricultural production and help farmers adapt to climate change. UNDP is initiating a \$300,000 Benefit Sharing Fund (BSF). This Fund will foster the conservation of plant genetic diversity that is crucial to food security by small farmers through targeted capacity building, investment, policy development and strengthening of supporting government and other institutions dealing with the impact of climate change in Namibia. Outcomes of the BSF will include stronger research, awareness raising, a feasibility study into early warning systems and strengthening Plant Genetic Resources for Food and Agriculture (PGRFA).

# CLIMATE CHANGE MITIGATION: RENEWABLE ENERGY & ENERGY EFFICIENCY

Worldwide emissions could be reduced by up to 40 percent by simply being more energy efficient. Technology advances and lifestyle changes now make it possible to be a lot more energy efficient without forgoing modern day conveniences. In other words a lot of energy is simply wasted without us noticing. The Namibia Energy Efficiency Programme (NEEP) in Buildings focuses on one area where Namibia, that doesn't emit many greenhouse gasses overall, could make a contribution in the fight against global warming.

*The programme foresees the reduction of Namibia's energy-related GHG emissions through the nationwide adoption of energy-efficient technologies and practices in the commercial and*

*residential buildings such as government office buildings, hospitals, hotels, schools and possibly a sample of residential buildings.*

The activities are especially geared towards local authorities that are responsible for 50 percent of energy consumption, largely because of an inherited energy inefficient Apartheid-era mindset.

NEEP, with a budget of over \$850.000 will focus on improved regulations and building codes for energy saving in developed buildings, organised provision of energy auditing in at least 20 buildings and energy marketing services, as well as awareness raising and structured monitoring and evaluation.



## Power to the People

*With energy prices and CO2 emissions skyrocketing and blackouts looming, renewable energy and energy efficiency gain in popularity. Increasingly consumers and countries are looking at cleaner and cheaper ways of powering their lives and societies. UNDP introduced several programmes in Namibia that promote wiser use of energy and tap into renewable energy sources.*

## NAMREP

The Namibia Renewable Energy Programme is another initiative UNDP developed in cooperation with the Namibian Government and with funding from the Global Environmental Facility. The programme aims to improve livelihoods and income generation opportunities of rural people by providing them access to off-grid solar energy technologies

The \$2.6 million programme aims to reduce dependency on increasingly expensive imported fuels by promoting solar water heating and solar water pumping. The first phase of the programme focused on removing technical barriers and capacity building, while the second phase that ended in 2010 focused on implementing solar schemes and appropriate financing mechanisms.

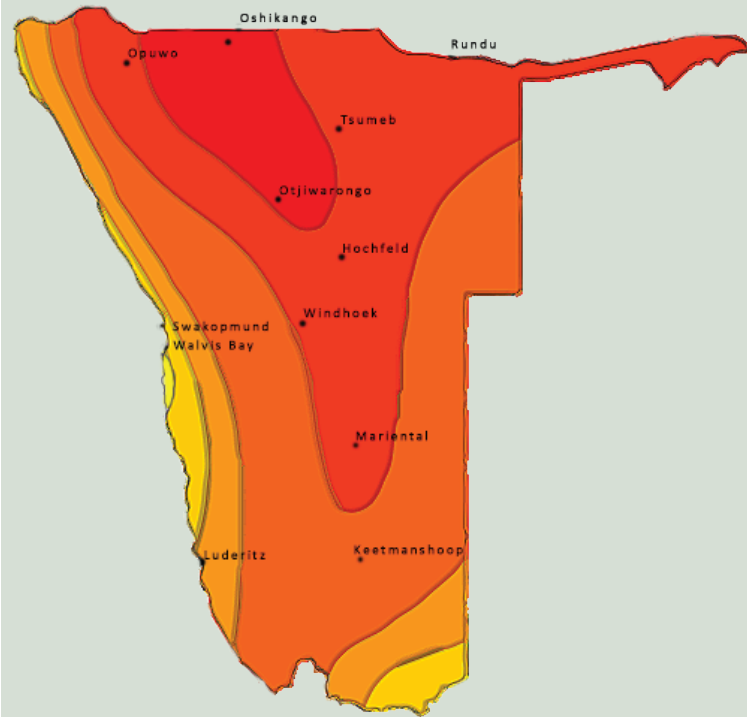
## NAMREP I AND II OUTCOMES

- Outcome 1: Built capacity in public and private sectors and in NGOs
- Outcome 2: New policies, laws and regulations and actions in support of RETs are in place
- Outcome 4: Appropriate financing and product delivery schemes set up and expanded.
- Outcome 3: Increased public awareness and social acceptability amongst stakeholders
- Budget: \$5,000,000
- Time-frame: 2004-2010





# THE SUN, AN INFINITE RESOURCE



Reducing emissions by tapping into renewable energy sources ultimately is the only way to generate and use energy in a responsible manner. The Concentrated Solar Power (CSP) project's goal is to increase the share of renewable energies in the Namibian energy mix by developing the necessary technological framework and conditions for the successful transfer and deployment of Concentrating Solar Power (CSP) technology for on-grid power generation, thereby reducing greenhouse gas emissions. Namibia has one of the best solar regimes in the world with an average high direct insolation of 2200kWh /m<sup>2</sup>/year with minimal cloud cover. In recognition of this unique endowment, the Government has actively promoted the use of solar energy and uptake of solar energy has increased significantly as a result of Government efforts. While this has been almost exclusively for small off-grid applications, the project aims to mainstream this form of energy generation by establishing technology partnerships, policy frameworks and look into feasible business models and financing of CSP power plants, ultimately culminating in a pre-commercial demonstration plant.

The CSP project investigates the possibility a semi-commercial pilot plant of between 50 and 100 megawatts to determine the viability of large solar power installations that can feed energy into the region.



## LOCAL ACTION WITH A GLOBAL IMPACT

An essential part of Namibia's efforts under the United Nations Framework Convention on Climate Change (UNFCCC) are the National Communications outlining climate change threats, vulnerability, adaptation and mitigation plans and budgets.

Namibia is currently preparing its Third National Communication (TNC) to the UNFCCC Secretariat, a highly specialised and complex process, requiring extensive consultation and the input of experts. The UNDP through its national programme supports this effort so that Namibia's needs are well recorded and acknowledged in the international arena of climate change negotiations.



## Reporting on greenhouse gases emissions (GHG)

UNDP Namibia is currently assisting the country to prepare and compile Namibia's First Biennial Update Report (FBUR). At the UNFCCC COP 16 & 17 decisions were taken, which require developing countries to submit biennial update reports containing updates of national greenhouse gas inventories, including a national inventory report and information on mitigation actions, needs and support received.

Namibia has made great strides in implementing the three Rio Conventions together with international donors and communities on the ground. The Global Environmental Facility's (GEF) Small Grant Project (SGP) over the past two decades has brought the Rio Conventions from the negotiation rooms to remote rural areas for the benefit of communities.

In Namibia, a suite of SGP projects has tested innovative methods for conservation agriculture designed to support sustainable land management and community-based adaptation to climate change, specifically conservation tillage and the ripper furrowing method.

The SGP proudly celebrates twenty years of community action for the global environment.





# OCEAN AND WATER GOVERNANCE: BCC

Established in 2007, the Benguela Current Commission has a mandate from Angola, Namibia and South Africa to promote the integrated management, sustainable development and protection of the Benguela Current Large Marine Ecosystem (BCLME). This system extends from Angola's Cabinda Province in the north, to just east of Port Elizabeth in South Africa. It is one of the richest marine ecosystems on earth and supports an abundance of life.

UNDP supports both the Benguela Current Commission (BCC) with capacity building, as well as the BCLME directly through the implementation of a strategic action programme focusing on the overall reduction in degradation of the BCLME, with emphasis on the restoration of its depleted fisheries.



## A Current of Plenty

*The Benguela Large Marine Ecosystem is one of the world's grandest upwelling currents teeming with life. Unhindered by national boundaries, species float across some of the globe's iciest fishing grounds, perpetually fed and renewed by nutrient rich water rising from the Ocean deep. However, climate change and overfishing threaten the mighty Benguela, necessitating a unique transboundary conservation effort.*

## Sustainable use of Marine Resources

Co-sponsored by the Global Environmental Facility (GEF), Angola, Namibia and South Africa embarked on a \$5 million regional programme to save the Benguela. This regional management approach is essential if the countries are to reverse the significant decline in the global important fish stocks within the Benguela and to provide sustainability to fisheries through an overall ecosystem approach that links the welfare of the fishery and associated predator-prey relationships to effective habitat conservation and management. One of the BCLME programme's main objectives was to better understand the complexities of this immense ecosystem with the aim to implement activities and policies that lead overall ecological integrity. The lessons learned and best management practices developed in the BCLME action programme will be applied in large marine ecosystems elsewhere in the world.

## Three Countries joining hands

The Benguela Current Commission (BCC) is the institutionalised continuation of the original BCLME programme that ended in 2008. The BCC affords the three countries a permanent platform from which to coordinate their activities geared at sustainable utilisation of the Benguela, while restoring, maintaining and conserving the ecological integrity of the system. During 2012, UNDP handed over all three components of the BCLME to the Commission as part of strengthening the capacity to regionally manage the Benguela and ensuring a smooth transition of responsibilities. The implementation of some transboundary and judicial elements, however, still falls under the BCLME. The priorities of the BCC are the successful continuation of the impressive scientific work of the BCLME, while at the same time regionally implementing the N\$9 million BCC science programme. The BCC seeks to be an efficient and lean organisation relying on the member countries to supply key inputs such as scientific data and information.



# CAPACITY ENHANCEMENT

The CEGEM project that ended in 2011 was specifically designed to enhance capacity with regards to the three major United Nations environmental treaties, also known as the Rio Conventions. Cegem financed skills developed, both to further integrated community based natural resource management and to build capacity to address environmental issue on a national level. CEGEM aimed to increase capacity at a national level to meet

Namibia's commitments to the Conventions and, importantly, to mainstream the Conventions into national and regional development planning. This happens for instance by engaging and training councillors, politicians, media practitioners and traditional authorities and creating technical skills and knowledge at key governmental organisations and NGOs.



## Knowledge, a renewable resource

*Creating understanding and growing skills is perhaps the most renewable resource of all. Throughout UNDP's programmes in Namibia there is an emphasis on nurturing people and institutions in order to formulate and implement environmental policies. Long after our projects have ended, their ripple effects of enhanced capacity to face challenges continue to move communities and individuals.*

## CEGEM OUTCOMES

- Outcome 1: Increased capacity to meet Namibia's commitments to the Rio Conventions through training and awareness creation;
- Outcome 2: Rio Conventions provisions mainstreamed into national and regional development planning
- Budget: \$500,000
- Time-frame: 2007-2012



## THE FUTURE WE WANT

Advocating, raising awareness, supplying information and educating for sustainable development towards the future we want.

That is what UNDP and the Government of Namibia stand for. This is achieved through joining hands with all our partners: global, national, regional and local. One way of voicing our commitment is commemorating and celebrating special days like World Environment Day, the International Day for Biological Biodiversity and One Day on Earth. In the past three years we have developed special initiatives around these days to make people and communities aware of their relationship to the environment, and we will keep doing this in years to come.







# OUR PARTNERS AND STAKEHOLDERS

UNDP would like to thank the following organisations for their fruitful collaboration in the implementation of our Namibia projects

## Namibia

Ministry of Environment and Tourism (MET)  
 Ministry of Mines and Energy (MME)  
 National Planning Commission  
 Office of the Prime Minister  
 Ministry of Agriculture, Water and Forestry (MAWF)  
 Ministry of Lands and Resettlement (MLR)  
 Ministry of Fisheries and Marine (MFMR)  
 Ministry of Regional and Local Government Housing and Rural Development  
 Ministry Of Health and Social Services (Mohss)  
 Global Environmental Facility (GEF)  
 Namibia Nature Foundation (NNF)  
 Desert Research Foundation (DRFN)  
 Namibia Development Trust (NDT)  
 Namibia National Farmers Union (NNFU)  
 University of Namibia (UNAM)  
 Polytechnic of Namibia (PON)  
 European Union (EU)  
 United Nations Educational, Scientific and Cultural Organisation (UNESCO)  
 Local Authorities and Communal Conservancies  
 Gondwana Collection Namibia  
 Namib Rand Nature Reserve  
 Centre For Entrepreneurship Solutions (CES)  
 Integrated Rural Development and Nature Conservation (IRDNC)  
 Namibian Association of Community Based Natural

Resource Management (CBNRM) Support Organisations (NACSO)  
 United States Agency for International for Development (USAID)  
 Kreditanstalt für Wiederaufbau (KfW)  
 Chambers of Mines  
 Rossing Uranium Limited  
 Electricity Control Board (ECB)  
 NamWater  
 Renewables Academy (Germany)  
 Renewable Energy and Energy Efficiency Institute (REEEI)  
 World Wildlife Fund  
 Game Product Trust Fund  
 Habitat Research and Development Centre (HRDC)  
 National Housing Enterprise  
 Electricity Control Board (ECB)  
 Nampower  
 Regional Electricity Distributors (REDs)  
 Namibian Institute for Architects (NIA)  
 Ministry of Finance (MoF)  
 Benguela Current Commission  
 UNDP  
 Integrated Environmental Consultants Namibia (IECN)  
 EMERGO Communications  
 Media for Environment Agriculture and sustainable Development (MEAD)  
 Ministry of Works, Transport and Communication(MWTC)  
 Namibia Chambers of Commerce NCCI  
 RET Suppliers  
 DANIDA  
 Namibian Institute for Architects (NIA)  
 GIZ  
 ICEIDA

Mudumu Landscape Conservation Area  
 Greater Waterberg Landscape Conservation Area  
 Windhoek Green Belt Landscape Conservation Area  
 Greater Sossusvlei-Namib Landscape Conservation Area  
 Greater Fish River Canyon Landscape Conservation Area.  
 Open Society Initiative for Southern Africa (OSISA)  
 National Botanical Research Institute (NBRI)  
 Environmental Investment Fund (EIF)  
 PWC -Namibia  
 GBCNA: Green Building Council of Namibia  
 EU, Dryland Development Centre  
 MRC -Multi Disciplinary Research Centre  
 FAO  
 Ngoma Namibia

## Angola

Ministry of Urban Affairs and Environment  
 Ministry of Fisheries  
 Ministry of Petroleum  
 University of Augustino Netto

## South Africa

Department of Environmental Affairs and Tourism (DEAT)  
 Fishing Associations  
 Mining Sector  
 ICEIDA  
 Cape Peninsula University Technicon (CPUT)

We apologize to anyone whose name has been inadvertently omitted. Please inform us so we can correct this error in following editions.





*Empowered lives.  
Resilient nations.*



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