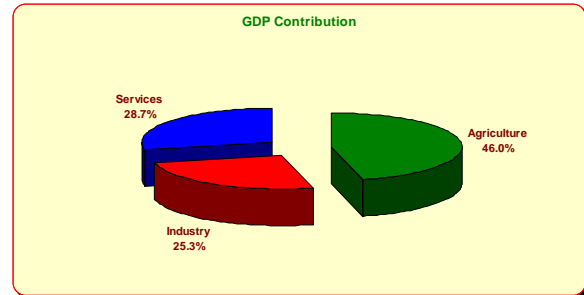


Congo DRC: Climate Risk Factsheet



| | |
|--|---------|
| GDP (US\$ billion; 2006) ¹ : | 7.1 |
| Population (million; 2006): | 57.5 |
| Land Area (1,000 sq. km) | 2,267.1 |
| Agricultural land (percentage of total land area, 2005 ²): | 10 |



| Observed Historical and Current Climate Trends | Projected Future Climate Trends |
|--|---|
| <p>Temperature: The average temperature in the region was 23.95°C between 1960-1990 (Cline, 2007).</p> <p>Rainfall: Central Africa's climate is predominantly wet. Two peak rainy seasons can be identified by in comparison to other regions of Sub-Saharan Africa intra-seasonal and inter-annual rainfall variability is low. On an aggregate level the average precipitation amounted to 4.21mm/day in the period from 1960-1990 (Cline 2007).</p> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Climate Impact Diamond - Congo, Dem Rep</p> </div> | <p>Temperature: It is projected that the temperature will be an average of 27.93°C between 2070–99 (Cline 2007)</p> <p>Rainfall: Most climate simulations suggest increases in precipitation for the region. On the country level, average daily rainfall amount projected for the period of 2070-99 is projected to be 4.27 mm/day (Cline 2007).</p> <p style="text-align: center;">Time-series Of Normalized GDP Growth And Precipitation</p> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Variability of GDP and Precipitation - Congo</p> </div> |
| <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Climate Vulnerability Diamond - Congo, Dem Rep</p> </div> | <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">Mitigation Climate Diamond - Congo, Dem Rep</p> </div> |

¹ World Bank, 2007, World Development Indicators. Available at: <http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport>
²World Bank, 2007, The Little Green Data Book

Key Sectors Affected

Agriculture: Agriculture is the mainstay of the Congolese economy, accounting for 46% of GDP in 2006. The main cash crops include coffee, palm oil, rubber, cotton, sugar, tea, and cocoa. Food crops include cassava, plantains, maize, groundnuts, and rice³. The main staple is cassava, however, agricultural production has suffered due to recent wars, and crop diseases, such as cassava mosaic virus, have exacerbated poverty and hunger (USAID)

Water Resources: Most of Congo DRC is served by Congo River system. Congo and its tributaries provide the country an extensive network of navigable waterways as well as vast hydroelectric potential.

Health: Due to the conflicts of the last decades, there has been large-scale population movements, the collapse of the public health system, the presence of foreign troops from countries with high HIV prevalence, and sexual violence during the conflicts are seen as the major causes for this accelerated spread of HIV/AIDS. 3.5 million people are internally displaced and live in appalling conditions, and a growing number of orphans and street children. Malaria is estimated to be widespread, and this is expected to be exacerbated with climate change. Rehabilitating the health sector; which has suffered considerable damage during the conflict - with a view to both improve access to health services and implement public health programs throughout the country. This will require both putting in place an adequate financing system and tackling a number of urgent rehabilitation issues. (World Bank)

Energy: The energy sector is dominated by the high consumption of the house energy sub-sector mainly based on wood resources (wood and biomass remnants).

Forestry: Rainforests in the central and northern regions of the Democratic Republic of Congo occupy more than half of the country's total area. The greatest threats to DR Congo's forests are subsistence and plantation agriculture; fuelwood collection; poaching, already widespread; increased logging; mining, and hydroelectric projects. DR Congo has 13 percent of the world's hydroelectric potential. Infrastructure investments could rapidly drive new development, which has been stymied over the past 30 years by impassable roads, failing electricity grids, and crumbling transportation systems.

³ Available at: <http://www.state.gov/r/pa/ei/bgn/2823.htm>

Recommendations for Improved Management of Climate Risks

Overall Objective: Improve climate-smart development through appropriate institutional and investment activities.

| SECTOR | Enabling Environment/ Capacity Building | Investments |
|---|---|--|
| Capacity Building & Cross-cutting | <ul style="list-style-type: none"> - Develop and strengthen the Knowledge Base <ul style="list-style-type: none"> o Data and information – acquisition, analysis, dissemination, utilization o Enhanced hydro-meteorological monitoring systems, and improved and expanded human resources in the hydrological and meteorological services o Analytical tools and products tailored to sector needs o Information on adaptation options based on pilots, field tests and research o Early warning systems o Information exchange networks to enable access to and exchange of data and information between all levels of user and decision makers - Regional and National Networks – Networks of agencies and policy makers, experts, knowledge bases, data and information, research and field experience (pilots, tests) is crucial to stimulating and facilitating investment in adaptation | <ul style="list-style-type: none"> - Introduce modern technology for data collection, transmission and assessment; Introduce the use of compatible standards and systems to enhance data and knowledge sharing across sectors; - Strengthen and expand systematic observations of meteorological and hydrological parameters; strengthen the technical capacity of hydro-met services including the development and dissemination of knowledge products to enhance the adaptation of project design and implementation to climate variability and change; - Strengthening and develop early warning systems for drought and flood hazards and natural disasters to improve preparedness, response and recovery in all the sectors (agriculture, health, natural resource, and energy) |
| Agriculture (including irrigation, watershed management & community development) | <ul style="list-style-type: none"> - Develop flood, drought and drainage risk maps to enhance sector development planning - Combine risk mapping with river basin and sub-basin water resource assessments including rainfall variability. | <ul style="list-style-type: none"> - Pilot and upscale sustainable land management practices focused on enhancing soil fertility, reducing erosion and topsoil loss and protecting watersheds - Scale up investment in livelihood focused participatory rural develop including sustainable land management, watershed management and community driven development (CDD) approaches - Pilot risk insurance schemes including indexed crop insurance |
| Water Resources Mgt | <ul style="list-style-type: none"> - Improve technical capacity of water resource management agencies including hydro-met and groundwater management services - Institutionalize multi-sector, integrated water resources planning and management - Strengthen the analytical and modeling capability of water resource agencies to utilize enhanced hydrologic and metrological data acquisition and monitoring networks and support river basin and sector development and management planning | <ul style="list-style-type: none"> - Scale up investment in: <ul style="list-style-type: none"> o River basin and sub-basin water resource assessments and the associated institutional capacity to sustain such program on a continuous basis o Development of decision support systems (DSS) including hydrologic models and other analytical tools to enhance sector planning and risk assessment o Implement new mechanisms to disseminate these assessments, DSS and tools to support enhance strategic planning in sectors that are dependent on the basins natural resources |
| Energy | <ul style="list-style-type: none"> - Strengthen electricity utilities to improve their efficiency and financial viability - Strengthen sector strategic planning to include a greater emphasis on climate vulnerability and climate change risk by introducing: <ul style="list-style-type: none"> o Assessment of vulnerability of supply systems, including hydropower and the development of other renewable sources less sensitive to climate o Assessment of climate change impacts on demand o Expand off-grid expansion opportunities (potential for renewable energy) o Grid extension - Carbon finance opportunities | <ul style="list-style-type: none"> - Support the expansion and development of regional electricity grid interconnections - Scale up investment in electricity access and energy efficiency - Review the effects of climate variability and climate change on the reliability and capacity of existing and potential hydropower facilities and developments; - Accelerate expanded pre-investment studies of hydropower and other renewable sources for grid and off-grid electricity supply - Coordinate grid and off-grid electricity access planning with rural development and forestry sectors and SLM programs to support efforts to reduce fuel-wood harvesting and use |
| Transport | <ul style="list-style-type: none"> - Enhance the capacity of road and transport sector agencies in the area of strategic planning to identify and incorporate climate vulnerability into sector plans and project designs | <ul style="list-style-type: none"> - Review and revision of planning and design standards for river and stream crossing, and cross drainage, in regions with existing and potentially increased future flood hazard including increases in high intensity rainfall - Increase the use of flood, drought (greater access to |

| SECTOR | Enabling Environment/ Capacity Building | Investments |
|---|---|---|
| | | network) and drainage risk mapping in sector planning in rural and urban areas - Introduce risk assessment into the selection of design standards including pavement type |
| Urban Development, Water Supply and Flood Management | - Enhance strategic supply planning capability of urban water supply utilities including climate vulnerability and risk assessment of water supply sources - Strengthen urban development planning based on improved flood and drainage hazard mapping | - Invest in infrastructure upgrading and improvement to mitigate and adjust to changing flood and drainage hazard patterns - Invest in urban services to reduce flood and drainage risks including housing relocation, reduced encroachment into flood hazard areas, secure solid water management |
| Health | - Develop/strengthen climate-related surveillance systems (as part of overall monitoring system) - Increase awareness of health related climate vulnerability and increase capacity to incorporate adaptation in to the health care system | - Invest in disease vector control systems - Invest in increased surveillance of existing and emerging threat areas affected by climate variability and climate change |
| Forestry, Biodiversity and Coastal Zone Management | - Strengthen capacity to monitor forest and biodiversity resources, evaluate their status and threats and formulate actions - Develop and test new governance arrangements for forest resources, | - Assist the country to prepare to access carbon finance opportunities - Invest in forest resource management to enhance climate resilience, enhance livelihoods of people living near and in forest areas, and promote resource conservation, testing a community based approach - Invest in reforestation and afforestation, and in their sustainable management - Invest in forest fire prevention, risk surveillance, and response |

As can be seen, many of these investments to reduce climate risks involve faster sustainable development, careful assessment of vulnerability, strengthening institutional capacity, and re-orienting investments.