Economic Commission for Africa

ACPC African Climate Policy Centre

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Low Carbon Development : Challenges and policies

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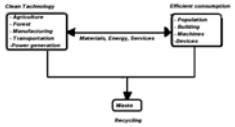
What is the Law Carbon Development?

Low Carbon Economy

1- An economy that integrates all aspects of itself



2- A nation strategy for addressing global challenges of

- climate change mitigation
- diminishing fossil fuel reserves
- environmental management
- finite natural resources

Low Carbon Development

Nation strategy to achieve

1- Economic progress
- Growth and Capital Formation
- Human Capital Formation or Social Development

2- Economic Sustainability
- Energy efficiency
- Resource efficiency

3- Environmental Sustainability
- Ecosystem preservation
- Biodiversity preservation

Law Carbon Development Pathways in Africa

1- Energy-supply and Industrial sectors
- Energy efficiency
- Renewable energy (Solar, wind, biomass)
- Low carbon infrastructures

2- Transport, Buildings and Waste sectors
- Energy and fuel efficiency
- Low carbon infrastructures
- Recycling

3- Forestry and Agriculture sectors
- Avoid deforestation, reforestation, afforestation, improve forest management
- Land restoration, cropland management, pastureland management, livestock management

THE POWER SECTOR

1- Renewable and nuclear power technology development and deployment
- Solar power capacity
- Hydro power capacity
- Thermal power capacity
- Wind power capacity
- Nuclear power capacity

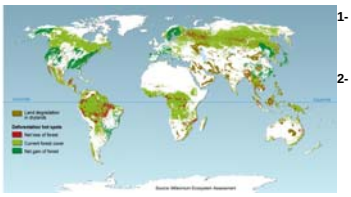
2- Policies in Energy Sector
- Renewable energy laws to create good policies and institutional environment
- Feed-in-taris to encourage renewable power development and competitiveness
- Assigning mandatory renewable power market share in energy market
- Reduce the administrative approval procedures for renewable power projects

THE MANUFACTURING INDUSTRY SECTOR

1- Structural Changes
- Technological capabilities of domestic firms: high efficient equipment, advanced technology
- Sustainability: industrial diversification, deepening and upgrading
- Linkages between agriculture and industry

2- Policies in Manufacturing Industrial Sector
- Policies to promote entrepreneurship
- Technology and innovation policies: Technology improvement, Motors energy efficiency, Buildings energy conservation, Energy system optimization, Green lighting, Petroleum conservation and substitution projects,...
- Education and skill-formation policies : human capital and specific technological knowledge are essential

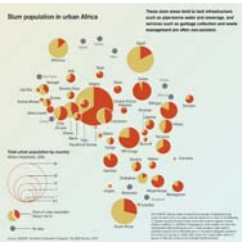
THE FORESTRY SECTOR



1- Structural Changes
- Avoid deforestation
- Improve reforestation
- Increase afforestation

2- Policies in Forestry Sector
- Natural forest protection projects
- Conversion of farmland to forests projects
- Fast growth, high yield forest projects
- Wildlife and natural reserve establishment projects
- Green cities projects

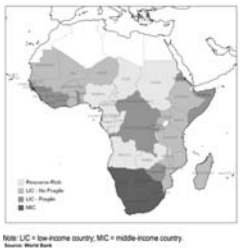
THE BUILDING SECTOR



1- Structural Changes
- Increase building stock in urban areas
- Promote high standards of living
- Energy savings and CO2 emissions reduction

2- Policies in Building Sector
- New buildings with high standard of living projects
- Green lighting projects
- Home appliances energy eciency projects
- Heat reform projects
- Rural, commercial and residential buildings -retrofitting projects

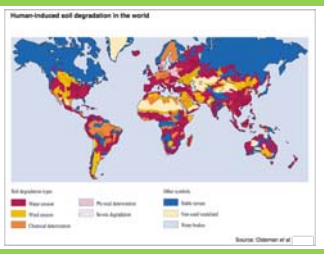
THE TRANSPORTATION SECTOR



1- Structural Changes
- Energy savings and CO2 emissions reduction
- Phase out outdated transportation capacity
- Increase transportation modes
- Promote advanced technology

2- Policies in Transportation Sector
- Fuel economy standards - motorcycles, light commercial and passenger vehicles
- Public transportation prioritization
- Rail transit development
- Highway development
- Road modernization and trac regularization

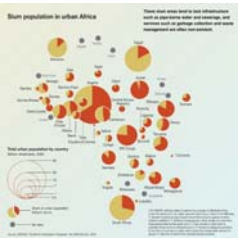
THE AGRICULTURE SECTOR



1- Structural Changes
- Land restoration
- Cropland management
- Pastureland management
- Livestock management

2- Policies in Agriculture Sector
- Conservation tillage and straw return policy
- Agricultural mechanization-machinery that is multi-use, large-scale, and highly efficient
- Soil testing and formulated fertilization- fertilize rationally, save expenditure, and increase food production while reducing methane emissions.
- Fast growth and high yield livestock and vegetable projects

THE WASTE SECTOR



1- Structural Changes
- Land filling of solid waste management
- Wastewater management
- Build infrastructure capacity

2- Policies in Waste Sector
- Recycling projects: biogas, compost production, energy production, ...
- Collection and treatment of wastewater
- Involvement of the Private sector
- Impose high tax on imports of second-hand consumer goods
- human capital formation in waste management and sanitation

Low Carbon Development: Other issues

1- Financing
- Roles of developed nations
- Roles of development institutions
- Roles of public sector
- Roles of private sector

2- Technology Needs Assessment
- Organizing a national technology needs Assessment
- Priority sectors and priority technology
- Accelerating technology development, deployment and diffusion

3-a Policy Assessment
- Assessment of current situations
- Assessment of policy costs
- Assessment of policy benefits

3-b Integrated Model of Climate Change and Economics
- Community based model
- Country based model
- Regional based model
- Global based model

Economic Commission for Africa

African Union Commission

African Development Bank

Note: The boundaries, the names shown, and the designations used on the maps do not imply official endorsement or acceptance by the United Nations.

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