

Implementation of LEDS

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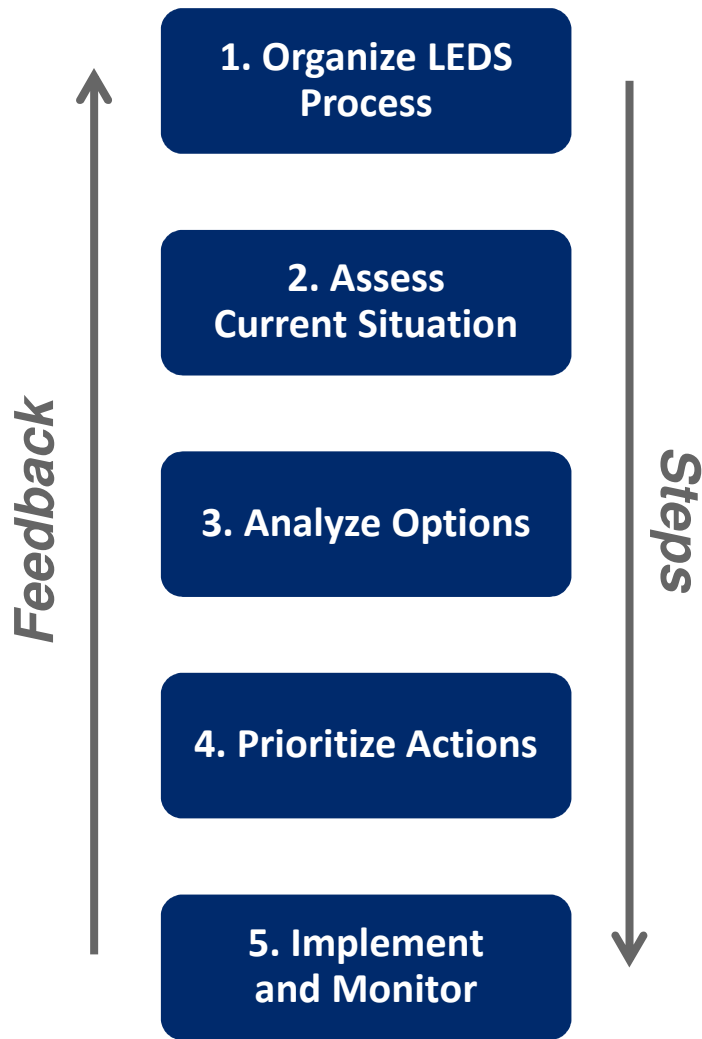
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Organizing, Developing & Implementing LEDES



- Each step serves as foundation for next
- Feedback loops make LEDES process iterative

Organizing, Developing & Implementing LEDS

**1. Organize LEDS
Process**

**2. Assess
Current Situation**

3. Analyze Options

4. Prioritize Actions

**5. Implement
and Monitor**

- Stakeholder buy-in and engagement
- Institutional and governing structures
- Work plan for LEDS development

Organizing, Developing & Implementing LEDS

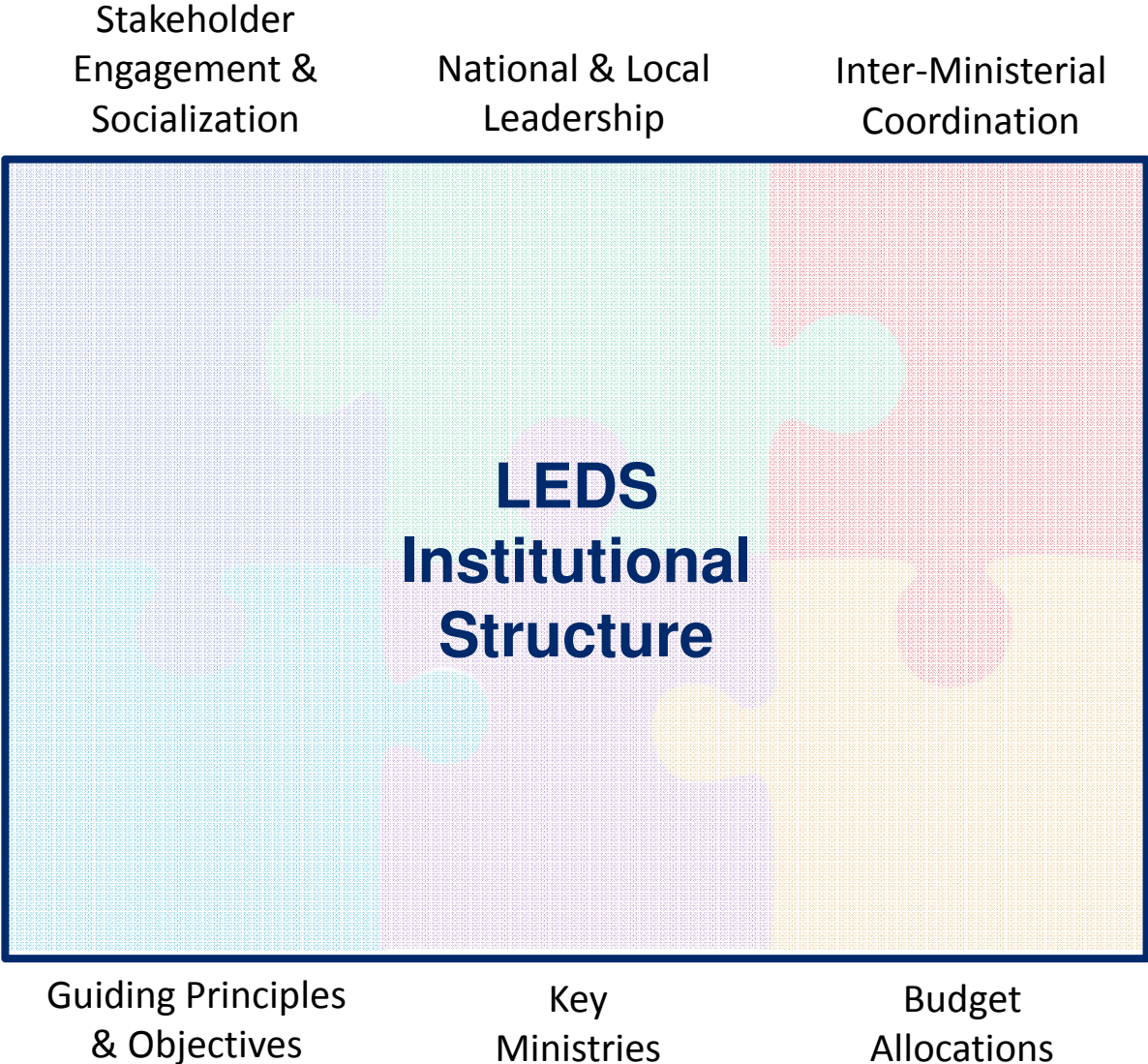
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Key observations and considerations relating to institutions and governance structures:

- Links between climate change planning and economic development planning
- No one-size-fits-all governing structure
- Changes in leadership impact momentum
- The following are crucial:
 - Inter-ministerial cooperation
 - Leadership at all levels of government
 - A multi-stakeholder LEDS task force

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- Current climate, energy and economic development plans, policies, and programs
- Alignment with development goals
- Availability of economic and GHG emissions inventory data
- Strengths and weaknesses of existing local capacity
- Donor efforts

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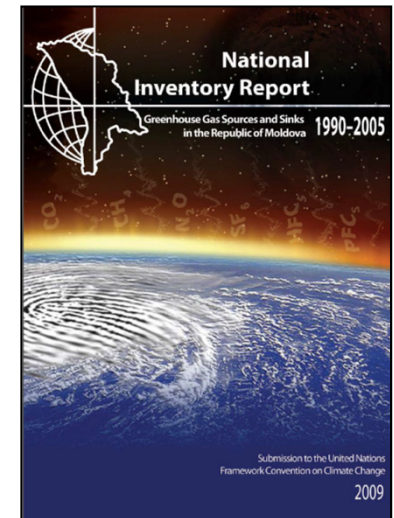
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GHG inventories assessment

- Year of most recent GHG inventory?
- What needs to be improved?
 - Additional data previously missing
 - Quality of data
 - Country-specific emissions factors
 - Data standardization and sharing
- What additional capacity is needed?



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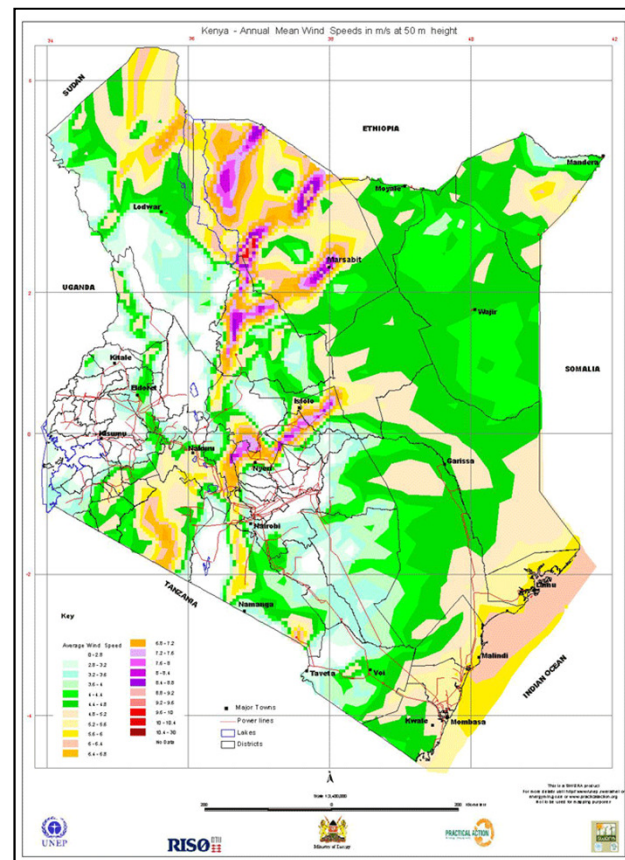
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Renewable resources assessment



Wind map of Kenya.
Source: Solar and Wind Energy Resource Assessment (SWERA).

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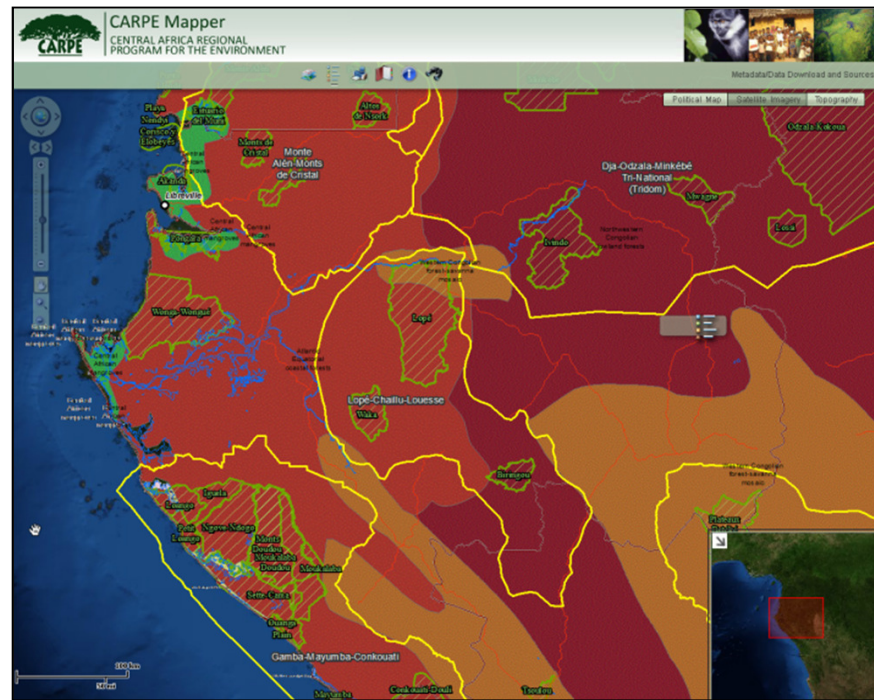
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EC- LEDS

Forestry and land-use sectors assessment



Forest mapping, Congo Basin.
Source: Central Africa Regional Program for the Environment (CARPE).

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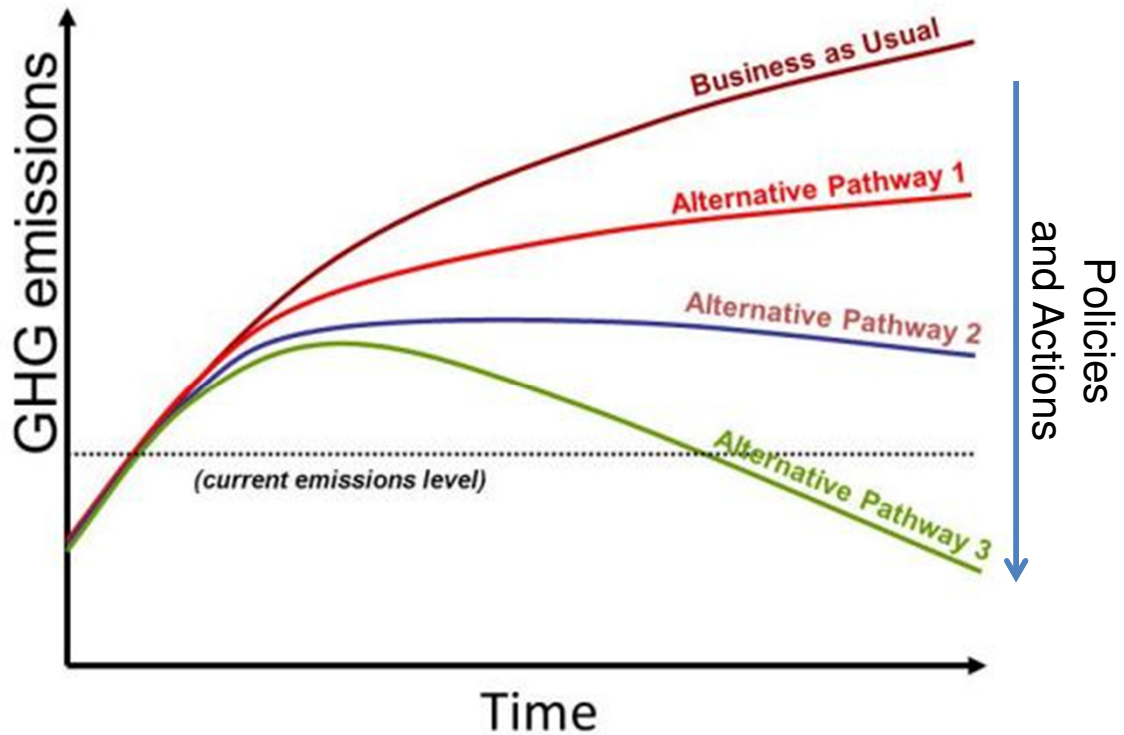
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Economic and GHG emission models are tools for forecasting and analysis. Models aid in making better-informed, data-driven decisions amongst different low emission scenarios.



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- What are the costs and benefits of low carbon development relative to business-as-usual?
- How do the costs of interventions compare across sectors and over time?
- What are the lifetime GHG mitigation potentials of interventions across sectors?
- What are the co-benefits of LEDS?

Example: Economic and environmental implications of electric vehicles vs. biofuels?

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- The process of prioritizing actions and policies
- The development of detailed implementation plans
 - Assignment of institutional responsibilities
 - Financing and budgeting plans, including private finance and investment
 - Performance monitoring plans

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Sample prioritization criteria:

- Cost and benefits, cost effectiveness
- GHG mitigation potential
- Barriers to implementation, such as political feasibility
- Social, cultural, and economic impacts/benefits
- “No regrets” actions/policies
- Capacity for implementation
- Consistency with donor assistance

development Impacts of LEDS

Tool to assess social, economic, and environmental impacts of LEDS

| Technologies | Social Impacts | | | | | Economic Impacts | | | | | Environmental Impacts | | | | Ease of Implementation | | | | | |
|--|---------------------|--------------------------------|---------------|------------------------------|------------|--|-------------|-------------------------------------|------------------------------|-------------------------|-----------------------|---------------------------|-------|-------------------------------|--------------------------|-------------------------------|-----------------------------|---|--------------------------------------|-------------------|
| | Health ¹ | Rural Development ² | Energy Access | Quality of Life ³ | Employment | Competitiveness of Industry ⁴ | Cost-Saving | Reduce Dependence on Imported Fuels | Market Development Potential | GHG Emissions Reduction | Local Air Quality | Biodiversity Preservation | Water | Waste Management ⁵ | Awareness and Acceptance | Developed Market ⁶ | Low Investment Requirements | Low Technological Intervention Requirements | Supportive Policy Framework in Place | Trained Workforce |
| Aluminum Production | | | | | | | | | | | | | | | | | | | | |
| Increasing energy efficiency by interventions related to electrolyte composition | + | | | | | + | + | | | + | + | + | | | | | | | | |
| Inert anodes | + | | | | | | | | | + | + | + | | | | | | | | |
| Smelting process automation and improved process control | + | | | | | + | + | | | + | + | + | | | | | | | | |
| Transport Technologies | | | | | | | | | | | | | | | | | | | | |
| Transport management- intelligent transport systems | | | | | | | | | | | | | | | | | | | | |
| Increasing diesel engine efficiency | | | | | | | | | | | | | | | | | | | | |
| LPG Technology-Liquified Petroleum Gas | | | | | | | | | | | | | | | | | | | | |
| Biofuels | + | | | | | | | | | | | | | | | | | | | |
| Hybrid vehicles | | | | | | | | | | | | | | | | | | | | |
| Plug in hybrid | | | | | | | | | | | | | | | | | | | | |
| Energy Consumption Technologies | | | | | | | | | | | | | | | | | | | | |
| Solar thermal system for hot water in domestic and service sectors | | | | | | | | | | | | | | | | | | | | |

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- Secure finance
- Implement actions and policies



Components of LEDS

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1. National development goals and objectives
2. National GHG inventory and economic data
3. Macro-level assessments of threats to economic development

4. Long-term business-as-usual economic and emissions pathway and alternative low emission scenarios

5. Prioritized actions

6. Implementation and financing plans
7. Monitoring, reporting and verification plans