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## **County Climate Change Readiness Index for Laikipia County**

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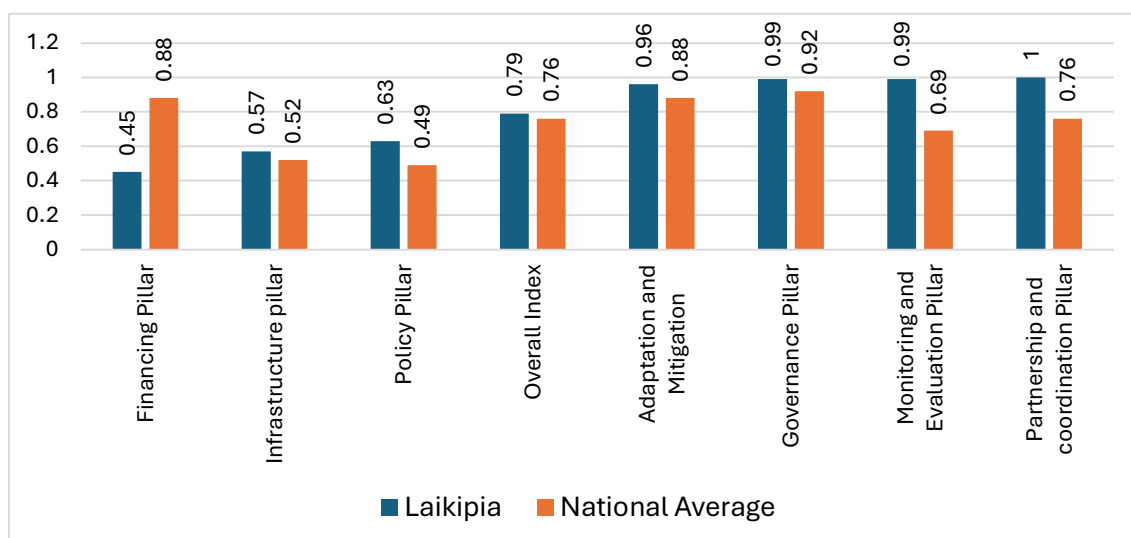
### **Key Highlights**

Climate change readiness builds resilience against climate shocks such as extreme weather, helping communities and governments minimize damage and recover quickly. It supports sustainable development, long-term solutions, and compliance with global frameworks such as the Paris Agreement and the Sustainable Development Goal (SDG) 13 on ensuring future generations can thrive in a changing climate.

The County Climate Change Readiness Index (CCCRI) was developed for Kenya's counties based on self-assessment. It evaluates preparedness for climate change across seven key pillars: Policy, Governance, Financing, Infrastructure, Monitoring and Evaluation, Partnerships, and Adaptation and Mitigation. A perfect score of 1.00 means the county has fully met the best standards, while lower scores indicate areas needing improvement. A higher score means better preparedness, and a lower score suggests significant gaps in climate readiness.

The overall index score for Laikipia County is 0.79. The financing, policy and infrastructure pillars have the lowest relative scores of 0.45, 0.49 and 0.55, respectively. The county has put in place robust governance, M&E, partnerships, and adaptation and mitigations frameworks as reported in Figure 1.

**Figure 1: Overall and pillar scores for county climate change readiness index for Laikipia County**



Data source: County Climate Change Survey

To improve the County Climate Change Readiness Index scores, there is need to:

- (i) Develop and implement a comprehensive Climate Change Policy guiding adaptation and mitigation efforts;
- (ii) Incorporate and align climate change mitigation mechanisms into the county annual development plans;
- (iii) Establish a dedicated climate change fund to ensure consistent and reliable financing for climate-related projects; and
- (iv) Invest in local industries and small businesses by offering microfinance options, skills development, and entrepreneurship training to increase household incomes.

## 1. Introduction

The County Climate Change Readiness Index (CCCRI) measures the preparedness of a county in handling climate change phenomenon based on seven main areas or pillars: Policy, Governance, Financing, Infrastructure, Monitoring and Evaluation, Partnerships, and Adaptation and Mitigation. These pillars reflect how well a county has established systems such as having a climate change policy and proper infrastructure. A perfect score of 1.00 means a county has fully met the best standards in place for managing climate change. As the score drops below 1.00, it shows that the county has more gaps or areas that need improvement to reach ideal readiness for climate change action. The higher the score, the better prepared the county is, the lower the score, the more work is needed to be fully ready for climate change challenges.

**Table 1: Laikipia County climate risk profile**

	County	National
County size	9,532.2km <sup>2</sup>	582,646 km <sup>2</sup>
Arable land	1,998.7 km <sup>2</sup>	59,372 km <sup>2</sup>
Food poverty head count (2016)	28.5%	32.0%

<b>Absolute poverty</b>	45.9%	36.1%
<b>Percentage of population employed in agriculture</b>	47.0%	31.0%

## 2. Policy Pillar

This pillar consists of two sub-pillars: the Policy Framework and the Legal and Regulatory Framework. The policy framework includes four key indicators while the Legal and regulatory framework is evaluated using seven indicators (Table 2).

**Table 2: Policy pillar, its sub-pillars and indicators**

Indicators	County index	National index
<b>Policy pillar</b>	0.63	0.69
<i>Policy framework</i>		
<b>Overall sub-pillar score</b>	1.00	0.69
<b>Climate change policy</b>	0.48	0.84
<b>Climate change action plan (or strategic plan)</b>	1.00	0.95
<b>Disaster risk management policy</b>	1.00	0.59
<b>County energy plans (or energy strategic plan)</b>	1.00	0.38
<i>Legal and regulatory framework</i>		
<b>Overall sub-pillar score</b>	0.78	0.69
<b>Climate Change Act</b>	1.00	0.88
<b>Climate Change Fund Act</b>	1.00	0.76
<b>Environment Act</b>	1.00	0.45
<b>Disaster Risk Management Act</b>	1.00	0.59
<b>Climate change fund regulations</b>	1.00	0.76
<b>Submission of 5 statutory reports to the County Assembly</b>	0.50	0.38
<b>Designated County Executive Committee Member to coordinate climate change affairs</b>	1.00	1.00

### Areas of Concern

The county has implemented most of the necessary policies, including the Disaster Risk Management Policy. Regarding the legal and regulatory framework, some progress was evident, and the county has a designated structure. However, two key concerns remain:

- (i) Absence of a climate change policy, which scored 0.48, indicating a gap in climate change frameworks.
- (ii) Lack of submission of all five statutory reports to the County Assembly, which is critical for monitoring and reporting in climate action progress.

### Policy Recommendations

The following recommendations emanate from the identified concerns:

- (i) Develop and implement a comprehensive climate change policy to guide the adaptation and mitigation efforts.

- (ii) Strengthen accountability in reporting to ensure timely and consistent submission of statutory reports to the County Assembly.

### 3. Governance Pillar

The governance pillar was measured using three sub-pillars that included organizational frameworks, planning framework, and capacities. Each of the sub-pillars and their respective indicators had relatively high scores, indicating the county had put in place envisaged governance structures, which included having in place: climate change action team, an environment Directorate/Department or Unit and functional climate change Ward Committees. With respect to the planning framework, eight (8) indicators were assessed. The average scores for each indicator were relatively high, and the only gap was the extent the County Annual Development Plans incorporate climate change issues. The capacities to handle climate change had four (4) indicators, and the county indicated it had expertise and tools to undertake climate risk assessments and a disaster rescue centre (Table 3).

**Table 3: Governance pillar, sub-pillars and indicators**

Indicators	County index	National index
<b>Governance pillar</b>	0.99	0.93
<i>Organizational framework</i>		
<b>Overall sub-pillar score</b>	1.00	0.98
<b>Environment Directorate, Department or Unit</b>	1.00	0.38
<b>Functional climate change Ward Committees in place</b>	1.00	0.96
<i>Planning framework</i>		
<b>Overall sub pillar score</b>	1.00	0.93
<b>Annual Development Plans incorporates climate change issues</b>	0.88	0.91
<b>Data collection and reporting mechanism</b>	1.00	0.81
<i>Capacities framework</i>		
<b>Expertise and tools to undertake climate vulnerability assessments</b>	1.00	0.96
<b>Disaster and rescue centre including for climate related impacts</b>	1.00	0.64

#### Areas of Concern

The county has put in place most of the necessary governance structures and the key concerns were:

- (i) Incorporation of climate change issues in the annual development plans.
- (ii) More robust assessment of governance frameworks, which may have been overstated due to reliance on self-assessment methods.

#### Policy Recommendations

The county has established most of the necessary governance structures, and recommendations from the identified concerns include the need to:

- (i) Fully align climate change issues into the county annual development plans.

- (ii) Conduct more rigorous evaluation of the governance frameworks moving beyond self-assessment methods, which may overstate progress or performance.

#### 4. Financing Pillar

The financing pillar was measured using four indicators that included whether the county has; established a climate change fund, allocated at least one per cent of its budget to the climate change fund in the last allocations (2022/23), a vote or budget line for climate change issues and on the annual budget, and at least one innovative climate related Finance Instrument. The overall national score for the pillar was 0.85 while Laikipia County had a score of 0.50 (Table 4).

**Table 4: Financing pillar and indicators**

Indicators	County index	National index
<b>Financing Pillar</b>	0.99	0.85
<b>County has put in place a County Climate Change Fund</b>	0.00	0.96
<b>County allocated between 1-2% of its total CIDP budget (2018/19 to 2022/23) to the County Climate Change Fund</b>	1.00	0.55
<b>The county annual budget has a vote or budget line specifically to deal with climate change issues</b>	1.00	0.98
<b>County has at least one innovative Finance Instrument</b>	0.00	0.89

#### Areas of Concern

The key concerns are:

- (i) Lack of a dedicated climate change fund to ensure consistent and reliable financing for climate-related projects.
- (ii) Absence of innovative financial tools/instruments such as green bonds, carbon credits, or insurance products, to diversify funding sources.

#### Policy Recommendations

- (i) Establish a dedicated climate change fund to ensure consistent and reliable financing for climate-related projects. This will enable the county to effectively respond to climate risks, support adaptation and mitigation efforts, and attract additional funding from external sources.
- (ii) Introduce innovative financial instruments such as green bonds, carbon credits, or insurance products, to diversify funding sources and create sustainable financial mechanisms that support climate resilience and low-carbon development initiatives.

#### 5. Infrastructure Pillar

The infrastructure pillar consists of two sub-pillars that encompass physical infrastructure sub-pillar with six (6) indicators and the social readiness sub-pillar with two indicators (Table 5). The pillar provides a broad measure of overall readiness of a jurisdiction to adapt to climatic shocks. The Infrastructure Pillar had an overall score of 0.57 and Laikipia County had a score of 0.57.

**Table 5: Infrastructure pillar and sub-pillar scores**

Indicators	County index	National index
<b>Infrastructure pillar</b>	<b>0.57</b>	<b>0.58</b>
<i>Physical infrastructure</i>		
<b>Overall sub-pillar score</b>	0.61	0.73
<b>Mobile phone subscription</b>	0.82	0.73
<b>Proportion of households accessing Internet</b>	0.35	0.29
<b>Proportion with access to radios and/or TV</b>	0.82	0.73
<b>Proportion accessing WASH</b>	0.79	0.74
<b>Proportion accessing energy (proportion using electricity)</b>	0.42	0.39
<b>Proportion accessing adequate housing</b>	0.61	0.57
<i>Social readiness</i>		
<b>Overall sub-pillar score</b>	0.54	0.49
<b>Proportion of individuals with at least secondary education</b>	0.49	0.55
<b>Proportion of non-poor households (defined using national poverty lines)</b>	0.54	0.43

### Areas of Concern

- (i) The proportion of households accessing Internet though higher than the national average is relatively low (0.35).
- (ii) The proportion of households using clean energy, electricity (0.42) is still insufficient.
- (iii) Only 49 per cent of individuals have at least secondary education.
- (iv) Proportion of non-poor households (defined using national poverty lines) is low at 54 per cent.

### Policy Recommendations

- (i) Launch community-based digital literacy programmes to help individuals and businesses harness the full potential of Internet access for communication, education, and innovation.
- (ii) Provide incentives for households and businesses to adopt renewable energy technologies, such as solar home systems.
- (iii) Implement programmes to improve school enrolment and retention rates, such as providing scholarships for marginalized populations.
- (iv) Reduce poverty levels by investing in local industries and small businesses by offering microfinance options, skill development, and entrepreneurship training to increase household incomes. This can be supported by social safety nets, such as employment opportunities for vulnerable households.

## 6. Monitoring and Evaluation, Learning and Risk Management

The monitoring and evaluation, learning and risk management pillar had 8 indicators. The pillar had an overall national score of 0.71 and Laikipia County had a score of 0.63.

**Table 6: M&E, learning and risk management pillar scores and its indicator scores**

Indicators	County index	National index
<b>M&amp;E, Learning and Risk Management</b>	<b>0.63</b>	<b>0.71</b>
The County has a framework in the various identified areas	1.00	0.87
County tracks the number of persons affected by disaster (SDG 13.1.2)	1.00	0.72
County maintains data on forest area as a percentage of total land area (SDG 15.1.1)	1.00	0.77
County has data on the proportion of land that is degraded over total land areas (SDG 15.3.1)	1.00	0.60
County has in place county climate information service plans	0.00	0.64
County has a functional early warning system that receives and communicates information efficiently	0.00	0.64
Country integrated monitoring and evaluation system (CIMES) is used to monitor climate change issues	0.00	0.57
The CIDP (2023/24-2027/28) includes indicators to monitor climate change	1.00	0.94

### Areas of Concern

- (i) There are no climate information service plans.
- (ii) The county integrated monitoring and evaluation system is not used to monitor climate change issues.

### Policy Recommendations

- (i) Establish a dedicated climate information service plan to ensure accurate, timely, and localized climate data is available for decision-making.
- (ii) Revise the county's integrated Monitoring and Evaluation (M&E) system to include specific climate change indicators that track adaptation, mitigation, and resilience-building efforts.
- (iii) Integrate regular climate impact assessments into the county's M&E system to monitor the effects of climate change on local communities and sectors.

## 7. Partnership and Coordination Pillar

The partnership and coordination pillar had 5 indicators that included presence of: ongoing public private partnerships on climate change; ongoing partnerships between the county and non-state actors; climate change expert(s); coordination structure to enhance partnerships; and accessible credit lines for various special interest groups such as the youth and persons with disability (PWDs). The partnership and coordination pillar had an overall score of 0.80 (Table 7). Laikipia County scored the highest possible score for the selected indicators.

**Table 7: Partnership and coordination pillar and its indicator scores**

Indicators	County index	National index
<b>Partnership and Coordination Pillar</b>	<b>1.00</b>	<b>0.80</b>
<b>Ongoing public private partnerships on climate change</b>	<b>1.00</b>	<b>0.77</b>

Ongoing partnerships between the county and non-State actors	1.00	0.87
Climate change expert(s)	1.00	1.00
Coordination structure to enhance partnerships	1.00	0.94
Accessible credit lines for various special interest groups such as the youth and PWDs	1.00	0.45

### Areas of Concern

The main concern was the reliance on self-assessment in the Monitoring and Evaluation (M&E) framework pillar, which may have led to inflated scores.

### Policy Recommendations

To address the concern regarding the reliance on self-assessment in the Monitoring and Evaluation (M&E) framework pillar, the following recommendations are proposed:

- (i) Provide targeted training for county staff to enhance their capacity for unbiased self-assessment.
- (ii) Incorporate independent reviews to provide more accurate assessment of progress, reducing the risk of inflated scores due to self-assessment.

## 8. Adaptation and Mitigation Pillar

The adaptation and mitigation pillar included two sub-pillars, which are the adaptation sub-pillar and the mitigation sub-pillar. The pillar had 24 indicators and each of the 2 sub-pillars has 12 indicators. Some of the indicators for the mitigation sub-pillar included whether a county: conducts participatory climate risk and vulnerability assessments; develops adaptation plans; conducts risk and vulnerability assessment of existing infrastructure (roads, buildings, ICT); and conducts capacity building on infrastructure climate proofing. Some of the indicators for adaptation include whether the county: has in place long term low Green House Gas (GHG) emission development strategies; has annual afforestation activities (planting new trees); and has put in place measures to promote waste reduction and recycling (Table 8).

**Table 8: Adaptation and mitigation pillar scores and its indicator scores**

Indicators	County Index	National Index
<b>Adaptation and mitigation pillar</b>	<b>0.96</b>	<b>0.88</b>
<i>Adaptation sub-pillar</i>		
<b>Overall sub-pillar score</b>	0.92	0.83
<b>The County integrates climate change scenarios into spatial planning</b>	0.75	0.78
<b>The County updated land-use plans with climate scenarios</b>	0.75	0.77
<b>The County promotes conservation agriculture – or use of crop rotation and mulching</b>	1.00	0.88
<b>The County supports crop variety and diversification and the use of quality seeds</b>	1.00	0.86
<b>The County promotes indigenous knowledge on crops</b>	1.00	0.89
<b>The County supports agroforestry</b>	1.00	0.89
<b>The County works with farmers to improve post-harvest management</b>	1.00	0.86



The County rehabilitates water catchment areas	1.00	0.91
The County established and promoted the use of water projects such as water pans, boreholes	1.00	0.93
The County enhances capacity of institutions responsible for water and sanitation on climate change impacts	1.00	0.86
The County conducts capacity building on green jobs and enterprises	1.00	0.77
Installs solar, wind, nuclear, and other renewable energy systems network to provide power to off-grid areas	1.00	0.81
<b>Mitigations sub-pillar</b>		
Overall sub-pillar score	1.00	0.93
The County has put in place, long term low Green House Gas emission development strategies	1.00	0.87
The County has ensured low share of renewable energy as a percentage of total energy consumption	1.00	0.87
The County is involved in annual afforestation activities (Planting new trees)	1.00	1.00
The County is involved in annual Reforestation (Replacing cut trees)	1.00	0.99
Restoring forests (reforestation) to absorb carbon dioxide from the atmosphere and promote carbon sequestration).	1.00	1.00
Promote sustainable agriculture such as precision farming, organic farming, and agroforestry, to reduce emissions from land use	1.00	0.99
The County implements carbon pricing/ taxes or cap-and-trade systems to create economic incentives for reducing emissions in industry and transportation	1.00	0.80
The County has put in place measures to promote waste reduction and recycling	1.00	0.93
The County has developed and deployed technologies that capture carbon dioxide emissions from industrial processes	1.00	0.80
The County has put in place programs to raise awareness and educate individuals, communities, and businesses about climate change	1.00	0.99
The County has put in place measures to promote climate-friendly transportation like the electric vehicles (EVs), hybrids, and other	1.00	0.85
The County promotes adaptive agriculture through adoption of climate-resilient agricultural practices that can withstand changing weather patterns.	1.00	1.00

Laikipia had one of the highest scores at 0.98. The County would further strengthen the pillar by building further collaboration with national government agencies, non-governmental organizations, and international partners to access technical and financial support for both policy development and capacity-building around reporting and accountability.

## References

Munga B., Lutta, P., Malot K., Mwatu, S., Sitati, M. Nyakundi, G. Nyaware B. (forthcoming). County Climate Change Readiness Index. KIPPRA Discussion Paper.

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