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Acknowledgment

- This report is the result of the partnership, expertise, and work of numerous specialists from FSD Kenya, Agusto & Co., The National Treasury and Economic Planning, The Capital Markets Authority, ADA Consortium, the Nairobi Securities Exchange, and the County Governments of Embu, Kirinyaga, Kisumu, Laikipia, Nairobi City, Makueni, Nandi, Taita-Taveta, Vihiga, and Wajir.

- FSD Kenya wishes to express particular thanks to the National Treasury and Economic Planning, the Council of Governors, and the County Governments of Embu, Kirinyaga, Kisumu, Laikipia, Nairobi City, Makueni, Nandi, Taita-Taveta, Vihiga, and Wajir. This report would not have been possible with their vision, commitment, and collaboration.
Project background

- The **county green finance assessment** is related to FSD Kenya’s mission to support the development of an inclusive green finance ecosystem in Kenya.
- The 2010 Kenyan Constitution devolved important natural resource and environment-related sectors such as agriculture, water provision and transport to the counties. Thus, counties have a pertinent role to play in Kenya’s sustainable development agenda which can only be realised if counties have the requisite capacities and capabilities including financial resources.
- Green finance instruments present an opportunity for counties to generate resources for the much-needed development of county infrastructure such as water piping, county roads and the development of agriculture, in a green and climate-resilient manner.
Focus areas of the assessment

- **Economic and fiscal assessment**: County fiscal performance (historical and projected), strengths, challenges, and ability to take on (additional) debt including the consideration of potential revenue generation sources.

- **Credit risk assessment**: Estimate the county government’s relative likelihood of defaulting on its obligations from capital raising initiatives - including a shadow credit rating.

- **Green asset and activity assessment**: Availability of green investment opportunities in the selected counties.

- **Green finance capability assessment**: County government skills and ability to manage green financial instruments and related projects.

The **green finance market** is defined as the pool of funding constituting a range of green financial instruments that meet the objectives of green finance such as government grants; development grants; guarantee funds; subsidies; concessionary loans; commercial loans; results-based finance; blended finance; green bonds etc.
The 10 counties assessed

- Embu County
- Kirinyaga County
- Kisumu County
- Laikipia County
- Makueni County
- Nairobi City County
- Nandi County
- Taita-Taveta County
- Vihiga County
- Wajir County
Economic and fiscal assessment

1. Relatively Low Contribution to Kenya's GDP
2. Significant Dependence on Exchequer
3. Low Compliance with Public Finance Management Act
4. Less Diversified Economic Base
5. Growing Alternative Financing Options
6. Youthful Population
7. Stable Political Environment
8. High Mobile Banking Penetration Level

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## Credit risk assessment

### Creditworthiness

- Medium to high risk profile
- Low own source revenue
- Low fiscal autonomy
- High level of pending bills
- High personnel expenses above regulatory threshold
- Limited financial flexibility
- Favourable climatic condition suitable for agricultural activities
- Stable political environment

<table>
<thead>
<tr>
<th>Counties</th>
<th>Shadow Credit Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embu</td>
<td>Bb-</td>
</tr>
<tr>
<td>Kirinyaga</td>
<td>Bb-</td>
</tr>
<tr>
<td>Kisumu</td>
<td>Bb</td>
</tr>
<tr>
<td>Laikipia</td>
<td>Bb-</td>
</tr>
<tr>
<td>Makueni</td>
<td>Bb</td>
</tr>
<tr>
<td>Nairobi City</td>
<td>Bbb</td>
</tr>
<tr>
<td>Nandi</td>
<td>B+</td>
</tr>
<tr>
<td>Taita Taveta</td>
<td>B+</td>
</tr>
<tr>
<td>Vihiga</td>
<td>Bb-</td>
</tr>
<tr>
<td>Wajir</td>
<td>B+</td>
</tr>
</tbody>
</table>

- Ratings definitions in annex.
- Ratings assigned by Agusto&Co.
Green finance capability assessment

- Presence of Climate Change Legislations and Act
- Growing Knowledge on Climate Finance and Sustainable Practices
- Openness to Creative Green Financing Structures
- Presence of Ancillary County Legislations Supporting Green Activities
- Opportunity to Access FLLoCA County Climate Funds
There are 4 clusters that counties fall into regarding the green assets they possess and the type of green finance opportunities that represent low hanging fruit.

**Agriculture food baskets**
- Dominant and productive agriculture sector with a highly rural population.
- Low hanging fruit for green investment: Climate-resilient agriculture, water resource management, green agro-processing facilities.

**ASAL ecosystems with high RE Potential**
- Counties vulnerable to perennial drought but with high solar & wind energy potential.
- Low hanging fruit for green investment: Solar and wind energy generation; water infrastructure development, ecosystem rehabilitation.

**Cities and urban centres**
- Vibrant cities with high population densities.
- Low hanging fruit for green investment: Water and sewerage infrastructure; waste management; green affordable low-cost housing; green urban transport infrastructure.

**Rapidly urbanising counties**
- Rapid urbanisation where the agriculture sector still dominates, but with strong emerging sectors.
- Low hanging fruit for green investment: Climate-resilient agriculture; eco-tourism; green agro-processing; green affordable low-cost housing; water infrastructure development.
Top green finance sectors in counties

- Agriculture & livestock
- Water & sanitation
- Public infrastructure
- Waste management
- Energy
- Healthcare
- Eco-tourism
- Housing
- Forestry
- Natural resources
- Urban development
- Green trade & industrialisation
### Examples of county green projects

<table>
<thead>
<tr>
<th>County</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embu County</td>
<td>Affordable Low-cost Green Housing Scheme in Embu (Majengo, Majimbo, Blue Valley &amp; Spring Valley), Runyenjes, Siakago and Kiritiri</td>
</tr>
<tr>
<td>Kirinyaga County</td>
<td>Development of a climate-smart agro-industrial park at Sagana for Agro-processing of key agricultural products</td>
</tr>
<tr>
<td>Kisumu County</td>
<td>Upscaling of Public Infrastructure (upgrade of Kadinda – Soko road in Nyakach, existing markets &amp; 200km rural access roads and connecting bridges)</td>
</tr>
<tr>
<td>Laikipia County</td>
<td>Development of Wind Mill (Laikipia North &amp; West) and Solar Farms (Rumuruti) to generate electricity</td>
</tr>
<tr>
<td>Makueni County</td>
<td>Development of 20 mega watts solar farm along Wote-Makindu road.</td>
</tr>
<tr>
<td>Nairobi City County</td>
<td>Affordable Green Housing Schemes in Bahati, Jericho, Lumumba, Embakasi North, Ziwani, Maringo, Woodley, and Kariobangi North Estates</td>
</tr>
<tr>
<td>Nandi County</td>
<td>Construction of an Eco-Tea Factory at Nandi Hills and Aldai, completion of the Coffee Processing Plant at Tinderet</td>
</tr>
<tr>
<td>Vihiga County</td>
<td>Upgrade of water schemes (Maseno, Lunyerere &amp; Kaimosi)</td>
</tr>
<tr>
<td>Taita-Taveta County</td>
<td>Refurbish and expand water harvesting and distribution networks (Mzima Springs, Njoro Kubwa Springs, Lake Chala and Kitopo Spring)</td>
</tr>
<tr>
<td>Wajir County</td>
<td>Development of renewable energy solutions - Solar and Wind Farms at Diff, Tarbaj, Hadado, Bute and Eldas</td>
</tr>
</tbody>
</table>
Key challenges

- **Ambition vs Viability**: Some counties have grand green finance ambitions but limited viable projects.

- **Ownership of projects**: High-potential green projects in some counties are owned by national government and/or shared across neighbouring counties.

- **Young Green Finance Market**: Limited precedence of green financial instrument use such as government green bonds (national or sub-national), translates to a shallow pool of local expertise.

- **Lack of regulatory clarity**: On processes and approvals required if county government access debt-funded green finance.

- **County Credibility**: Most counties are not in a strong fiscal position, have a poor market reputation, and limited green finance and bond skills.

- **Fiscal Challenges**: National Government’s fiscal position limits scale of funding available to guarantee debt-financed county green projects.
Key opportunities

- **The time is right**: Immense interest and enthusiasm for green finance by different stakeholders- National & County Government, Regulators, Private Sector, DFIs etc.
- **Momentum for strategic partnerships**: Different stakeholders with different mandates willing to join forces to scale green finance.
- **Appetite to learn**: By all stakeholders.
- **Kenya’s ambition to pioneer and lead Africa in green finance**.
- **Openness to creative financial structures**: To enable the green finance markets to scale.
- **Aggregation** of general green financing opportunities at sub-national level.
- **Leverage County Regional Economic Blooms** for multi-county green financing opportunities.
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County Green Financial Instrument Options

- Green Bond/Sukuk
- Blended Finance Options
- Concessionary Funds
- Public-Private Partnership Financing
- Result-Based Finance
- Government / Development Finance Grants
## Green Islamic finance instruments

Some counties are well-positioned to implement projects by leveraging green finance opportunities with a particular focus on Islamic financial instruments such as:

<table>
<thead>
<tr>
<th>Financial Instrument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sukus (Islamic Bonds)</strong></td>
<td>Wajir County can issue Sukus, which are interest-free bonds compliant with Shari’ah principles. These bonds represent ownership in a tangible asset, providing investors with a share of the returns generated by the underlying project.</td>
</tr>
<tr>
<td><strong>Green Sukus</strong></td>
<td>Green Sukus tailored for environment related projects, can be issued to fund Wajir County’s initiatives in renewable energy, environmental conservation and sustainable development.</td>
</tr>
<tr>
<td><strong>Musharakah (Joint Venture)</strong></td>
<td>Musharakah, a form of partnership where the profits and losses are shared, could be applied to specific development projects, fostering collaboration between public and private entities.</td>
</tr>
<tr>
<td><strong>Ijarah (Islamic Leasing)</strong></td>
<td>Under Islamic leasing, known as Ijarah, the County could lease assets required for its projects, ensuring that the transactions comply with Shari’ah guidelines.</td>
</tr>
<tr>
<td><strong>Murabaha</strong></td>
<td>Wajir County could utilise Murabaha (sale of a commodity at a price that includes a profit margin agreed upon by both parties) to finance specific projects aimed at environmental conservation, renewable energy development such as generation of electricity from mini-grids.</td>
</tr>
<tr>
<td><strong>Islamic Project Financing</strong></td>
<td>Islamic project financing, involves partnerships such as public private partnerships (PPP) where profits and losses are shared, promoting a risk-sharing model.</td>
</tr>
<tr>
<td><strong>Engagement with Islamic Financial Institutions</strong></td>
<td>Collaboration with Islamic banks and financial institutions to facilitate the implementation of Shari’ah-compliant financial solutions.</td>
</tr>
</tbody>
</table>

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The FSD Kenya County Green Project Preparation Facility

- From this assessment FSD Kenya will provide further technical support to all 10 counties through the County Green Project Preparation Facility.
- PwC Kenya has been selected as the manager of the Facility and will work with county governments to prepare priority green projects.
- PwC Kenya will report to FSD Kenya and responsible for:
  - Selection of Viable Green Projects
  - Preparation of County Green Projects
  - Investor Awareness and Engagement (to financial close where possible)
- FSD Kenya aims to scale the assessment and facility to additional counties across Kenya.
County green finance assessment reports

- **Embu County**
  Green finance assessment of Embu County – Full report
  Green finance assessment factsheet – Embu County
- **Kirinyaga County**
  Green finance assessment of Kirinyaga County
  Green finance assessment factsheet – Kirinyaga County
- **Kisumu County**
  Green finance assessment of Kisumu County – Full report
  Green finance assessment factsheet – Kisumu County
- **Laikipia County**
  Green finance assessment of Laikipia County – Full report
  Green finance assessment factsheets - Laikipia County
- **Makueni County**
  Green finance assessment of Makueni County - Full report
  Green finance assessment factsheet – Makueni County
- **Nairobi City County**
  Green finance assessment of Nairobi City County – Full report
  Green finance assessment factsheet – Nairobi City County
- **Nandi County**
  Green finance assessment of Nandi County – Full report
  Green finance assessment factsheet – Nandi County
- **Taita-Taveta County**
  Green finance assessment of Taita-Taveta – Full report
  Green finance assessment factsheet – Taita-Taveta County
- **Vihiga County**
  Green finance assessment of Vihiga County – Full report
  Green finance assessment factsheet – Vihiga County
- **Wajir County**
  Green finance assessment of Wajir County – Full report
  Green finance assessment factsheet – Wajir County
### Annex: Details of Agusto & Co. shadow credit ratings of the 10 counties

<table>
<thead>
<tr>
<th>Counties</th>
<th>Total Revenue</th>
<th>Total Expenditure</th>
<th>Total Debt</th>
<th>Total Pending Bills</th>
<th>County GCP to Kenya’s GDP</th>
<th>Total Revenue to GCP</th>
<th>Exchequer to Total Revenue</th>
<th>OSR as a% of Total Revenue</th>
<th>Payroll as a% of Revenue</th>
<th>Capital to Total Expenditure</th>
<th>Shadow Credit Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Embu</td>
<td>6.86</td>
<td>6.11</td>
<td>-</td>
<td>1.37</td>
<td>1.50%</td>
<td>4%</td>
<td>90%</td>
<td>10%</td>
<td>50%</td>
<td>19%</td>
<td>Bb-</td>
</tr>
<tr>
<td>2 Kirinyaga</td>
<td>7.07</td>
<td>6.44</td>
<td>-</td>
<td>0.23</td>
<td>1.30%</td>
<td>4%</td>
<td>91%</td>
<td>9%</td>
<td>41%</td>
<td>19%</td>
<td>Bb-</td>
</tr>
<tr>
<td>3 Kisumu</td>
<td>10.3</td>
<td>9.08</td>
<td>-</td>
<td>2.04</td>
<td>2.50%</td>
<td>3%</td>
<td>89%</td>
<td>11%</td>
<td>50%</td>
<td>17%</td>
<td>Bb</td>
</tr>
<tr>
<td>4 Laikipia</td>
<td>6.68</td>
<td>6.55</td>
<td>-</td>
<td>2.05</td>
<td>0.96%</td>
<td>5%</td>
<td>85%</td>
<td>15%</td>
<td>55%</td>
<td>10%</td>
<td>Bb-</td>
</tr>
<tr>
<td>5 Makueni</td>
<td>10.46</td>
<td>9.85</td>
<td>-</td>
<td>0.42</td>
<td>1.10%</td>
<td>9%</td>
<td>91%</td>
<td>9%</td>
<td>42%</td>
<td>26%</td>
<td>Bb</td>
</tr>
<tr>
<td>6 Nairobi City</td>
<td>32.06</td>
<td>30.71</td>
<td>4.5</td>
<td>107.33</td>
<td>27.5%</td>
<td>1%</td>
<td>69%</td>
<td>31%</td>
<td>38%</td>
<td>12%</td>
<td>Bb</td>
</tr>
<tr>
<td>7 Nandi</td>
<td>8.06</td>
<td>7.93</td>
<td>-</td>
<td>0.17</td>
<td>1.60%</td>
<td>4%</td>
<td>98%</td>
<td>2%</td>
<td>46%</td>
<td>25%</td>
<td>B+</td>
</tr>
<tr>
<td>8 Taita Taveta</td>
<td>6.5</td>
<td>6.13</td>
<td>-</td>
<td>1.02</td>
<td>0.60%</td>
<td>9%</td>
<td>93%</td>
<td>7%</td>
<td>50%</td>
<td>7%</td>
<td>B+</td>
</tr>
<tr>
<td>9 Vihiga</td>
<td>6.68</td>
<td>5.95</td>
<td>-</td>
<td>1.35</td>
<td>0.80%</td>
<td>5%</td>
<td>96%</td>
<td>4%</td>
<td>38%</td>
<td>22%</td>
<td>Bb-</td>
</tr>
<tr>
<td>10 Wajir</td>
<td>11.06</td>
<td>10.23</td>
<td>-</td>
<td>5.51</td>
<td>0.50%</td>
<td>17%</td>
<td>99.6%</td>
<td>0.04%</td>
<td>41%</td>
<td>23%</td>
<td>B+</td>
</tr>
</tbody>
</table>
Annex: Agusto & Co. rating definitions

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaa</td>
<td>A county with the best financial condition and the strongest capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>Aa</td>
<td>A county with a very strong financial condition and a very strong capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>A</td>
<td>A county with a good financial condition and a strong capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>Bbb</td>
<td>A county with a satisfactory financial condition and adequate capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>Bb</td>
<td>A county with a satisfactory financial condition but limited capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>B</td>
<td>A county with a weak financial condition and weak capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>C</td>
<td>A county with a very weak financial condition and very weak capacity to meet obligations as and when they fall due relative to all other issuers in the same country.</td>
</tr>
<tr>
<td>D</td>
<td>County in default.</td>
</tr>
</tbody>
</table>

**Rating Category Modifiers**

A "+" (plus) or "-" (minus) sign may be assigned to ratings from ‘Aa’ to ‘C’ to reflect a comparative position within the rating category. Therefore, a rating with + (plus) attached to it is a notch higher than a rating without the + (plus) sign and two notches higher than a rating with the - (minus) sign.
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