REPUBLIC OF KENYA

THE MINISTRY OF ENVIRONMENT, CLIMATE CHANGE AND FORESTRY

DRAFT REGULATORY IMPACT STATEMENT (RIS)

ON

FOREST CONSERVATION AND MANAGEMENT (CHARCOAL) REGULATIONS, 2025

MAY 2026

1. INTRODUCTION

The Forest Conservation and Management (Charcoal) Regulations, 2025 are made pursuant to Section 71 (1) of the Forest Conservation and Management Act (Cap. 385), which empowers the Cabinet Secretary for Environment, Climate Change and Forestry (MoECCF) to make regulations for, or with respect to, any matter which is necessary or expedient to be prescribed for carrying out or giving effect to the Act.

Section 6 and 7 of the Statutory Instruments Act, 2013 requires proposed Regulations likely to impose significant costs on the community to undergo a Regulatory Impact Assessment and a Regulatory Impact Statement (RIS) prepared and submitted for parliamentary scrutiny.

In this respect, This Regulatory Impact Statement (RIS) presents findings of regulatory impact assessment of the draft Forest Conservation and Management (Charcoal) Regulations, 2025. The RIS describes the objectives and effects of the proposed regulations, evaluates regulatory and non-regulatory alternatives, and provides an assessment of costs and benefits across stakeholder groups in the charcoal value chain. The assessment draws on evidence from Kenya's charcoal governance experience, literature reviews, and feedback from stakeholder consultations.

1.2 Statement of Objectives

The proposed Regulations aim to:

1. To enhance self-regulation by providing for the registration and licensing of commercial charcoal producers.
2. Guide on the sustainable management of trees and forest resources on community lands and private lands for production of charcoal.
3. Provide for the adoption and use of improved and efficient charcoal production technologies to reduce wood wastage, environmental pollution and emissions of greenhouse gases.
4. Establishment and enforcement of requirements and standards in packaging, storage, transportation and trade of charcoal.
5. Establishment of incentives to enhance private sector investments in sustainable charcoal value-chain.
6. Strengthening of law enforcement to reduce illegal production, transportation and trade of charcoal.

1.3 Reasons for Regulation

Four market and institutional failures justify regulatory intervention:

First, unsustainable charcoal production is associated with deforestation, soil erosion, carbon emissions and biodiversity loss.

Second, charcoal production is characterized by inefficient production technology, unsustainable extraction of feedstock, and without sustainable management plans.

Third, the charcoal Market involves many actors who are unregulated, characterized by unstandardized packaging and without quality control

Fourth, uncoordinated governance characterized by overlapping roles between government agencies regulating the charcoal value chain leading to over-regulation and taxation burden

2. Statement of the Impacts of the Proposed Regulations

2.1 Overview of Key Provisions and their anticipated impacts

Table 1: Summary of key provisions and anticipated impacts

Provision	Description	Anticipated impacts
Mandatory membership to Charcoal producers' association and production licence	Under the proposed regulation, no person may engage in commercial charcoal production without: 1) without being a member of a charcoal producers' association and 2) a valid licence from county government, demonstrating efficient technology and a conservation and management plan.	Increases compliance cost; raises entry barriers; reduces illegal production over time.
Marketing and trade of charcoal	No person shall trade in charcoal without a valid licence issued by respective county government, and a permit from KFS for imports and export purposes	Streamlining trade in charcoal and additional revenues to the government
Conservation and management plan	The regulation requires that each production site must operate under an approved conservation and management plan covering feedstock sourcing, efficient charcoal production technology, and site restoration commitments.	Introduces sustainable production standards; increases cost of development, monitoring, enforcement of management plans.
Movement permit	Under the regulation, no person shall transport charcoal and charcoal products above 500 kilogram without a valid movement permit.	Streamlines the chain of custody, reduces informal checkpoint payments; increases costs of permit acquisition for transporters.
Prohibited production areas and tree species	The regulation prohibits charcoal production in ecologically sensitive areas, biodiversity hotspot areas threatened/ endangered species, and culturally significant sites.	Protects most ecologically valuable woodlands and threatened/endangered species;
Packaging and labelling	The regulation also mandates sorting of charcoal, packaging in approved materials and labelling with producer name, tree species used, county and area of production.	Enables traceability from source to market; facilitates market differentiation and certification. Increases packaging and branding costs
Enforcement and monitoring	Under this regulation, a forest officers will conduct regular surveillance, inspection and monitoring of charcoal production, transportation and collection sites.	Strengthens enforcement mandate; Increases administrative and enforcement cost for regulating agencies.

Provision	Description	Anticipated impacts
Incentives	The Cabinet Secretary for the National Treasury may provide tax and other fiscal incentives to promote investments in sustainable charcoal value chain.	Increases investment and encourages sustainable commercial charcoal production

2.2 Interaction and alignment of the Proposed FCMA (Charcoal) regulation 2025 with existing Legislation

The proposed regulations interact with several key legislative instruments. The table below summarises the most significant alignments and tensions.

Table 2: Legislative Interaction Matrix (Key Instruments)

Legislation	Relevance	Nature of Interaction	Action Required
Constitution of Kenya, 2010	Articles 27, 40, 42, 43, 69: reiterates the right to clean environment, sustainable resources, property rights, equality	Foundational: regulations must be constitutionally justified with demonstrable distributional equity	Ensure compliance; inclusive public participatory processes
FCMA, No. 34 of 2016	Sectoral law; Article 71 (2) (r) Provides for the development of charcoal regulation, CFA rights Article 67 (1) (e) Defines Charcoal offences,	Enabling: the regulation provides for the operationalisation of FCMA	The development and operationalisation of charcoal regulation
Charcoal Rules, 2009	Predecessor instrument; same subject matter	Replacement: Must be expressly revoked on commencement	Express revocation of charcoal rules 2009
Energy Act, 2019	Categorizes Charcoal as an energy source/fuel; EPRA jurisdiction over fuel licensing	Jurisdictional tension: Dual licensing risk	MOU between MoECCF and Ministry of Energy to delineate mandates
EMCA, 1999 (Rev. 2015)	EIA requirements; NEMA mandate; ecological area protection	Overlap: management plan vs ESIA requirement needs clarification	Gazette framework for management plan to satisfy ESIA below threshold
County Governments Act, 2012	Devolved licensing authority; county levies	Consistent with intergovernmental implementation framework but implementation capacity is weak; levy proliferation risk	Intergovernmental support mechanism; cap on county levies

Legislation	Relevance	Nature of Interaction	Action Required
Land Act, Community Land Act, Land Registration Act	Feedstock access rights; community land consent	Gap: weak land and tree tenure rights Complexity of community land and tree tenure rights	requires evidence community involvement decision making for production on community land
Climate Change Act, 2016 & 2023 Amendment	NDC commitments; carbon market framework	Reinforcing the country's climate change Act but underexploited: carbon market linkage missing	establish frameworks for compliant producers to access carbon markets
Statutory Instruments Act, 2013	Procedural compliance; RIA requirement; parliamentary scrutiny	Procedural mandate: this RIS is the primary compliance instrument	CS Certificate of Compliance must be issued before gazettement
Kenya Wildlife Conservation Act 2025	Article 46 and 47 provides for the protection of game reserve ecosystems and threatened/endangered species	Enhances protection of game reserves and other protected areas from charcoal production Overlaps between community lands, game and forest reserves,	Strengthen inter-Agency coordination

3. Practicable Alternative Means of Achieving the Objectives of the Proposed Regulation

3.1 Category I: Regulatory Options

Regulatory options derive authority from statute and impose legally enforceable obligations on value chain actors. The Statutory Instruments Act, 2013 requires assessment of each alternative and reasons for rejecting those not adopted.

Option A: Status Quo – Continuation of the Existing Framework

Under the status quo, charcoal governance would continue under the Forest (Charcoal) Rules 2009, made under the repealed Forest Act of 2005, alongside the general provisions of the FCMA 2016. The 2009 Rules require producers to obtain a production licence from KFS, transporters to obtain movement permits for quantities exceeding three bags, and sellers to maintain records of charcoal sources. No new requirements would be introduced.

The status quo excludes County Governments from management, and regulation of charcoal production in accordance with the devolved forestry functions under FCMA 2016. Further, very few charcoal producers hold valid permits, increasing rent-seeking behaviour along the charcoal value chain. The level of woodland extraction from community lands, game/forest reserves and ecologically sensitive areas remains high and unsustainable. Government revenue recovery from the subsector remains minimal. The status quo achieves none of the six regulatory objectives.

Option B: Total Prohibition or Production Ban

A total ban on commercial charcoal production would prohibit all production activities in community and public land. Evidence from Kenya's 2018 logging moratorium and charcoal production had unintended consequences. It shifted charcoal business underground, prices rose severely affecting low-income consumers, smuggling networks expanded, and corruption at enforcement checkpoints increased. Prohibition without a credible affordable substitute would cause immediate welfare harm to majority of household dependable on charcoal as primary energy source and livelihoods while entrenching informality in charcoal business.

Option C: Devolved County-Led Regulatory Frameworks

This option would devolve primary charcoal governance responsibility to each of Kenya's 47 counties. While intuitively appealing, evidence from post-2010 devolution is cautionary: counties have limited institutional capacity, and uncoordinated individual county actions has generated a contradictory patchwork of levies, permits and movement restrictions that increases transaction costs without conservation benefits. A structured coordination mechanisms between the national and county governments as envisaged in the proposed draft regulations, represents the appropriate balance.

3.2 Category II: Non-Regulatory Options

Non-regulatory options achieve policy objectives through positive incentives, market mechanisms, technology programmes and complementary public policy rather than legally binding obligations.

Option A: Voluntary Sustainability Certification Scheme

A voluntary certification schemes such Forestry Stewardship Council (FSC) promotes sustainability production standards for producers and market chain players hence is also relevant to sustainability of charcoal business. However, it relies on premium markets for sustainably produced products which remain limited in Kenya. Further, most consumers are unlikely to distinguish certified from uncertified charcoal in the markets hence certified producers are likely to lose competitive advantage from uncertified producers with lower costs. Voluntary schemes can only complement but not replace the regulatory framework.

Option F: Invasive Species Feedstock Strategy – *Prosopis juliflora* Charcoal

Redirecting charcoal production toward invasive *Prosopis juliflora* ('mathenge') offers a compelling synergy: it simultaneously addresses the invasive species crisis, provides sustainable feedstock, supports ASAL livelihoods, and produces commercially acceptable charcoal. It is estimated that about an existence of 37 million tonnes of Prosopis biomass suitable for charcoal use is available across 15 counties in Kenya. However, *Prosopis* charcoal value chain will face challenges without robust regulatory framework because of difficulties in differentiating between charcoal from *Prosopis* and other tree species. The proposed regulations should include an explicit fast-tracking licensing pathway for producers exploiting Prosopis and other invasive tree species for feedstock, recognising the net environmental benefit. This strategy, however, cannot be used as a standalone alternative because *Prosopis* is not found in all charcoal producing counties and the supply and distribution is not enough for stable supply of charcoal feedstock in the country.

Option G: Community Forestry Concessions and Co-Management agreements

CFA-based co-management agreements as provided for in the FCMA 2016 would serve as the primary governance instrument in charcoal-producing landscapes through registration as charcoal producers association. In addition, community forestry concession arrangement demonstrates environmental effectiveness where communities have strong tenure rights and functional governance. However, not all charcoal-producing areas have functional CFAs, and establishing governance structures requires significant investment and time. This option is an important complementary governance layer to be incentivised within the regulatory framework, not a standalone alternative.

Option H: Carbon Finance and Payment for Ecosystem Services Frameworks

Carbon finance and PES frameworks could incentivise sustainable charcoal production without mandatory licensing. Under this model, producers or communities demonstrating sustainable forest management would earn tradable carbon credits through frameworks such as Verra's VM0045 methodology, Gold Standard's cookstove methodologies, or the emerging Article 6 framework of the Paris Agreement. UNDP observes that Africa's carbon markets could raise up to USD 6 billion by 2030, creating 30 million green jobs, if appropriate governance frameworks are established. Cookstove credits and avoided deforestation credits could generate income subsidising compliance costs, incentivising improved kiln adoption and funding community woodland restoration.

However, several risks must be managed: Carbon credit integrity concerns, including inflated baselines, non-additionality and community benefit failures have depressed prices and undermined buyer confidence. Cookstove credits at below USD 10/tonne may be insufficient to fully offset compliance costs. The MRV capacity requirements exceed current institutional capacity of most small-scale producers.

Option I: Clean Fuel Transition Acceleration

Accelerating household transition from charcoal to cleaner fuels (LPG, bioethanol, electric cooking) through subsidies and infrastructure investment is the most fundamental long-run solution to Kenya's charcoal-deforestation nexus. Kenya's National Cooking Transition Strategy (2024–2028) already pursues this agenda through VAT removal on LPG and clean cookstoves, targeted LPG subsidies, expansion of cylinder access programmes, and public investment in bioethanol and electric cooking infrastructure. However, a full transition sufficient to eliminate charcoal demand is a multi-decade process. The KNCTS's own projections acknowledge that 10 per cent of households will still use biomass in 2050 (KNCTS, 2024), and significant charcoal demand will persist for at least the next two decades. Clean fuel transition complements but does not obviate the need for charcoal regulation in the interim.

4. Assessment of Costs and Benefits

4.1 Economic Costs and Benefits

Kenya produces and consume approximately 1.6 million metric tonnes of charcoal per year, an equivalent of 32 million bags of 50kg valued at KES 70 billion. The sector employs directly and indirectly approximately 2 million persons across the value chain, thus placing it as a significant natural resource based economic activity in the county. Therefore, the regulation is likely to have significant impacts in terms of costs and benefits to the key actors across the value chain. The following section highlight the costs and benefits:

4.1.1 Economic Benefits

a) Value-chain formalisation: Licensing and standardisation reduces informal exchanges and economic losses from rent-seeking at unregulated checkpoints estimated at KES 6–12 billion annually. Standardised weights, packaging and quality grades enable price discovery and reduce information asymmetries.

b) Investment and credit access: Licensed enterprises gain legal standing facilitating access to formal credit, insurance, and business development services, unlocking capital for uptake of improved technology and value-addition.

c) Tax revenue: The charcoal subsector generates KES 135–150 billion in annual turnover largely outside the formal tax net. Conservative estimates suggest potential annual revenue of KES 3–5 billion from a fully formalised subsector through licence fees, transit permits, VAT and county cess.

d) Sustainable biomass supply and energy security: Regulations requiring sustainable charcoal production management plans will incentivise investment in charcoal woodlots and on-farm tree growing. This ensures long-term feedstock availability, reducing supply volatility and supporting Kenya's energy security objectives, 15 billion tree growing agenda, and Country's contribution to the NDC commitment under the Paris Agreement.

e) Value addition and industrial development: A regulated, standardised market creates conditions for downstream value addition including briquetting from charcoal dust, carbonisation of agricultural residues, and packaging for export markets. The regulations provide the quality assurance and traceability infrastructure needed to access premium domestic and regional markets, supporting Kenya's manufacturing and industrialisation objectives under Vision 2030.

4.1.2 Economic Costs

a) Compliance costs

Producers, transporters and traders will incur costs for licences, permits and certificates. Producers will also be required to form functional Charcoal Producer's Associations (CPAs). For micro-scale producers in remote ASAL areas, these may represent a significant proportion of operating margins.

b) Technology transition costs

Mandating improved carbonisation technologies imposes capital and learning costs. Upfront investment ranges from KES 5,000–15,000 for improved earth kilns to KES 50,000–200,000 for metal retort kilns.

c) Supply disruption and price effects

Enforcement of production zoning and licensing may temporarily reduce charcoal supply, driving short-term price increases for urban consumers, disproportionately affecting low-income households.

d) Market restructuring

Large-scale licensed operators may capture market share from informal micro-producers. Women and youth currently participating with low entry barriers may face exclusion.

e) Enforcement and corruption risks

Inadequate institutional safeguards, weak enforcement or over-regulation, could paradoxically increase unofficial payments, particularly at county level.

4.2 Administrative Costs and Benefits

4.2.1 Administrative Benefits

a) Regulatory clarity: A single comprehensive instrument reduces interpretive ambiguity, eliminates contradictory provisions, and provides a unified reference for regulatory Agencies.

b) Improved data systems: The licensing framework generates systematic data on production volumes, species utilisation, producer demographics, trade flows and revenue, addressing the critical data scarcity that undermines evidence-based policy decision and community actions.

c) Devolution-compatible governance: The regulations operationalise the devolved framework by clearly delineating national government (policy, standards, oversight) and county government (licensing, enforcement, revenue) functions, resolving persistent institutional confusion and overlap.

d) Enhanced enforcement efficiency: Standardised licences and digital permit systems replace informal documentation, enabling rapid verification and shifting enforcement from discretion-heavy policing to systematic, rules-based regulation.

e) International reporting: Systematic data supports Kenya's reporting under the Paris Agreement (NDC), CBD, UNCCD, and enhances credibility in results-based climate finance mechanisms (REDD+, GCF).

4.2.2 Administrative Costs

a) Institutional setup and capacity building

Establishing regulatory infrastructure in counties requires developing and gazetting licensing systems, constituting and training County Charcoal Management Committees, and training enforcement personnel.

b) Digital infrastructure

Effective implementation requires investment in digital licensing platforms, permit verification systems, and data management systems.

c) Monitoring and enforcement costs

Field inspections, compliance verification, and roadblock operations generate recurrent personnel, transport and operational costs, particularly in geographically dispersed ASAL counties.

d) Coordination costs

The multi-level governance architecture involving KFS, county governments, CFAs, NEMA and County Charcoal Management Committees generates inter-agency coordination costs. Joint enforcement operations, data sharing protocols and dispute resolution mechanisms all require administrative resources.

e) Regulatory review and adaptive management

Good regulatory practice requires periodic review and amendment in response to implementation experience, changing market conditions and emerging evidence. Each review cycle incurs costs for stakeholder consultation, legal drafting and gazettement.

4.3 Environmental Costs and Benefits

4.3.1 Environmental Benefits

a) Reduced deforestation: Linking charcoal production licences to conservation management plans, harvesting quotas and designated production zones is expected to reduce forest/tree cover losses from charcoal production estimated at 50,000–80,000 hectares annually.

b) Biodiversity conservation: Approved species lists and production-area zoning protect ecologically sensitive habitats, endangered tree species and biodiversity-rich areas, reducing habitat fragmentation and preserving ecological integrity.

c) Climate change mitigation: Improved kilns increase carbonisation efficiency from 10–15% (traditional) to 25–35% (improved), roughly halving biomass requirements per kilogram of charcoal. These reductions contribute to Kenya's NDC targets and may generate carbon credits under Article 6 of the Paris Agreement.

d) Watershed protection: Reducing unsustainable charcoal production will contribute to protection of critical water catchments including the Kenya's five water towers valued at over KES 30 billion annually.

e) Soil conservation and landscape restoration: Sustainable harvesting practices maintain soil structure and fertility, while replanting and woodlot requirements support Kenya's FLR commitments under AFR100, the Bonn Challenge and NLERS 2023–2032.

4.3.2 Environmental Costs

a) Displacement and leakage

Enforcement in regulated counties may displace production to unregulated or weakly regulated areas, including cross-border areas (Uganda, Tanzania, Somalia), potentially worsening outcomes in those areas.

b) Monoculture plantation risks

If replanting is met primarily through fast-growing monocultures (e.g. Eucalyptus spp., black wattle), environmental benefits may be partially offset by reduced biodiversity, altered hydrology and pest vulnerability.

c) Energy substitution environmental trade-offs

overregulation is likely to increase charcoal prices accelerating household switching to alternative source of energy such as firewood and fossil fuels that is likely to increase deforestation and carbon footprints.

4.4 Social Costs and Benefits

4.4.1 Social Benefits

a) Livelihood formalisation: The regulations transition an estimated 700,000+ value-chain actors from informal, often criminalised activity into legally recognised enterprises with access to formal financial services and predictable operating conditions.

b) Health and air pollution reduction: Improved carbonisation technologies reduce occupational exposure to carbon monoxide and other harmful gases reducing acute respiratory infections and associated health hazards.

c) Gender equity: Formalisation provides legal protection for women who dominate retail and last-mile distribution, reduces harassment and extortion, and creates enabling conditions for women and youth-led micro-enterprises.

d) Conflict reduction: Clear licensing and zoning provisions will reduce conflicts between charcoal producers, land owners, KFS and counties, replacing confrontation with predictable, rules-based engagement.

e) Public revenue and benefit-sharing: The licensing framework will generate revenue that, when transparently managed, can be ploughed back for forest restoration and social infrastructure.

f) Consumer protection: Standardised packaging, weight and quality requirements will protect consumers from exploitation (adulterated or underweight charcoal).

4.4.2 Social Costs

a) Livelihood disruption for informal operators

Micro-scale producers, women headed households and youth dependent on charcoal value chain activities will face the greatest risk of livelihood losses if unable to meet licensing requirements.

b) Increased household energy costs

Formalisation may increase producer prices in the short to medium term, disproportionately affecting low-income urban and peri-urban households for whom charcoal represents 10–20% of total expenditure with. women-headed households bearing a disproportionate burden.

c) Cultural and social identity disruption

In pastoral and agro-pastoral communities, collective resource management is often embedded in their cultural identity and entry of charcoal production is likely to disrupt their community livelihoods and cultural systems.

d) Exclusion and elite capture risks

Where regulations are not properly enforced, well-resourced commercial operators may dominate at the expense of smallholder producers, worsening income inequality.

e) Labour market displacement

The shift to improved production technologies may reduce labour demand in some segments while creating demand for new skills across the value chain may lead to displacement of unskilled vulnerable groups.

f) Enforcement-related human rights risks

Enforcement carries risks of heavy-handed actions such as kiln destruction, vehicle confiscation, criminalisation of subsistence activities, and potential human rights abuses, particularly affecting women, youth and marginalised communities.

5. Conclusion

The status quo is rejected because the existing framework has so far failed to achieve environmental, economic or governance objectives associated with sustainable charcoal production in the country.

A total production ban is rejected based on extensive evidence from 2018 moratorium experience and other African countries for prohibition drives production underground, increases consumer prices, generates widespread non-compliance and increases corruption.

A purely devolved county-led approach is rejected because experience demonstrates that uncoordinated county actions generate contradictory regulatory outcomes without proven conservation benefits.

A voluntary certification scheme alone is rejected because the market conditions for effective voluntary schemes involving price differentiation by consumers may not yield sufficient producer margins, and credible certification information, do not exist at scale in Kenya’s charcoal market.

Community forestry concessions, carbon finance mechanisms, invasive species feedstock strategies and clean fuel transition programmes all play important complementary roles within the recommended hybrid model but cannot deliver the scale of governance improvement required as standalone options.

6. Recommendation

The preferred approach is the proposed Forest Conservation and Management (Charcoal) Regulations, 2025, layered with the most impactful non-regulatory complementary instruments. The regulatory instruments provide net benefits spanning reduced forest degradation, increased government revenue, reduced corruption, access to credit facilities, and premium markets. The non-regulatory instruments will address the positive incentive gap that makes purely regulatory approaches costly, inequitable and prone to the enforcement paradox. Realisation of projected benefits will, however, depend on mitigating risks associated with implementation, compliance, and governance processes.

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Cabinet Secretary

Ministry of Environment, Climate Change and Forestry