AFRICAN CENTRE FOR BIODIVERSITY

Gene editing deregulation in Africa: Key implications for farmers rights, farmer seed systems and the future of food and agriculture

International Farmer Seed Gathering – Antibes, Nice

Sabrina Masinjila – 5th October 2024

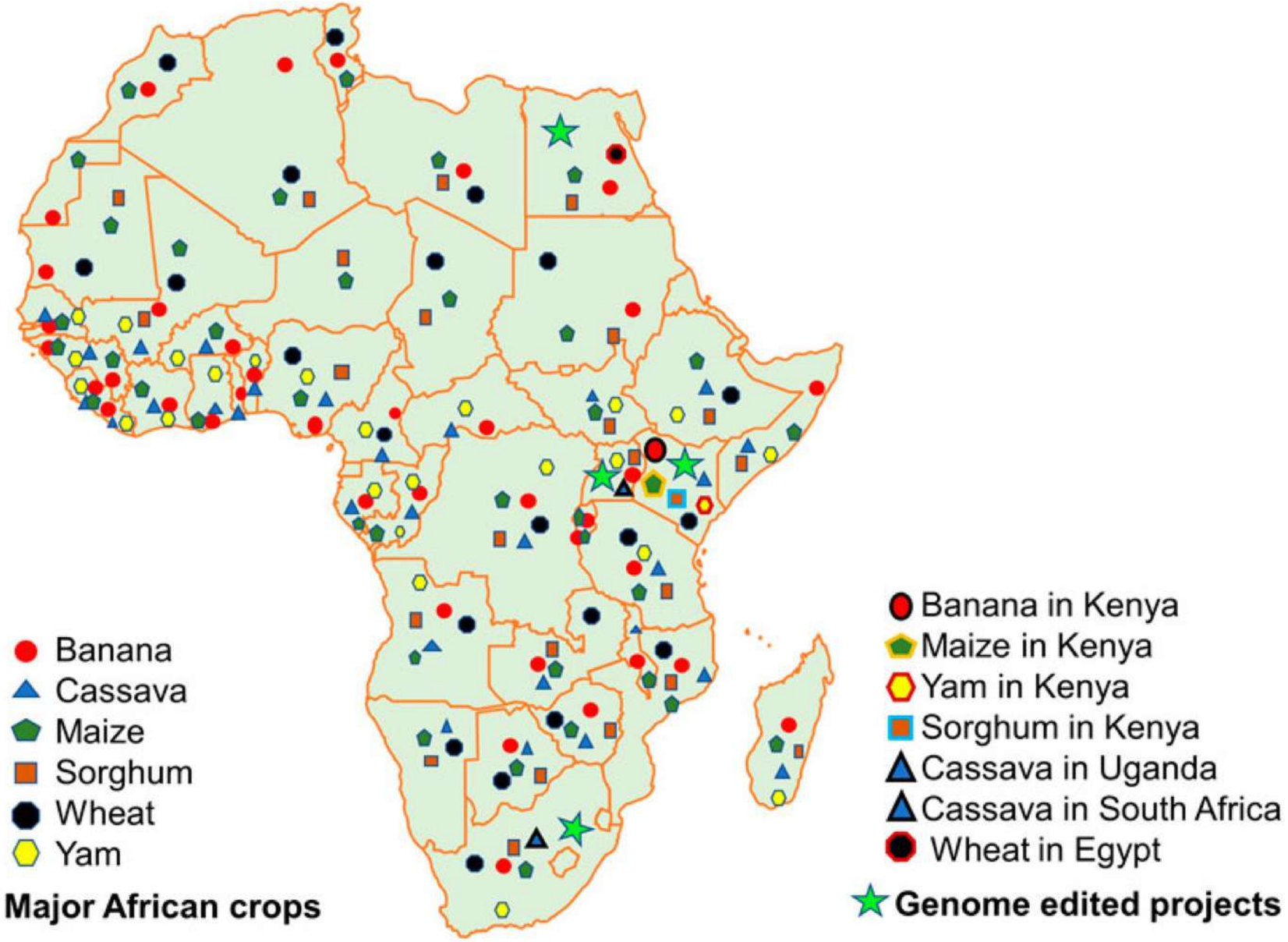
Genome editing projects are at various stages of development

- Countries targeted include:

  Kenya, Nigeria, Uganda,

  Ethiopia and Ghana
- Through PPPs
- Use of CRISPR/Cas

Targeted crops in Africa



Credit: Tripathi, L., Dhugga, K., Ntui, V., Runo, S., Syombua, E., Muiruri, S., Wen, Z. & Tripathi, J.N., 2022. Genome editing for sustainable agriculture in Africa. https://www.frontiersin.org/articles/10.3389/fgeed.2022.876697/full.

- As with first generation GMOs – promises that new technologies will address the continent's multiple and complex agricultural challenges and crises – lots of hype with no commercialized products yet

- Done through lobbying, communication, campaigns, research funding, and policy development including deregulation and multiple IPR regimes

- There is a lot of hype and promises surrounding these technologies, with no commercialised products yet

- Push by industry for regulation of gene edited products same way as conventionally bred crops – places techniques and products out of the scope of national biosafety laws and Cartagena protocol
- 4 countries: Nigeria, Kenya, Malawi and Ghana – adopted guidelines for genome editing that excludes technology and its products unless detectable DNA is present in the final product. Eswatini and Burkina Faso to follow
- Only South Africa – decided to regulate both technology and genome edited seed/crop in terms of biosafety legislation

This means that we will have gene edited crops – which are essentially GMOs
considered as conventionally bred varieties in these countries!!!

Push for investment for gene editing and its deregulation is happening through:

- **Policy level influence**; through OFAB forums, push for govts to provide tax incentives and enable regulatory frameworks to attract venture capital for genome editing start ups.

- **Research level**; targeting African scientists and researchers, and pushing for allocation of 1% GDP for research investment for genome editing

- **Consumer buy-in:** developing communication strategies and even coming up with media awards

- **PPPs**: USAID and FtF with African Universities and ISAAA, FtF Striga Smart Sorghum project in Kenya and Ethiopia

Why the push for deregulation by the industry?

- Allows agrochemical – biotech corporation to ‘hide’ knowledge related to test results, manufacturing processes and other related information as trade secrets
- Allows broad patent applications lacking the detail that would enable another company to generate the same product on the expiry of the patent – extending monopoly

Implications for deregulation and why we should push against it

- Huge implications for the broader African food and agricultural system

✓ Violates consumer rights – Labelling and traceability requirements are not mandated making it impossible for farmers and consumers to know the origin on what they are using or consuming

✓ It will also be difficult to know what is happening in the long run with farmer seed and germplasm when deregulation takes place as it will be difficult to trace and detect such seed/plants when treated as conventionally bred varieties. Huge implications on African seed germplasm.

✓ Lack of consideration of ethical, social and sustainability issues – especially in the context of corporate concentration in seed and agricultural input markets

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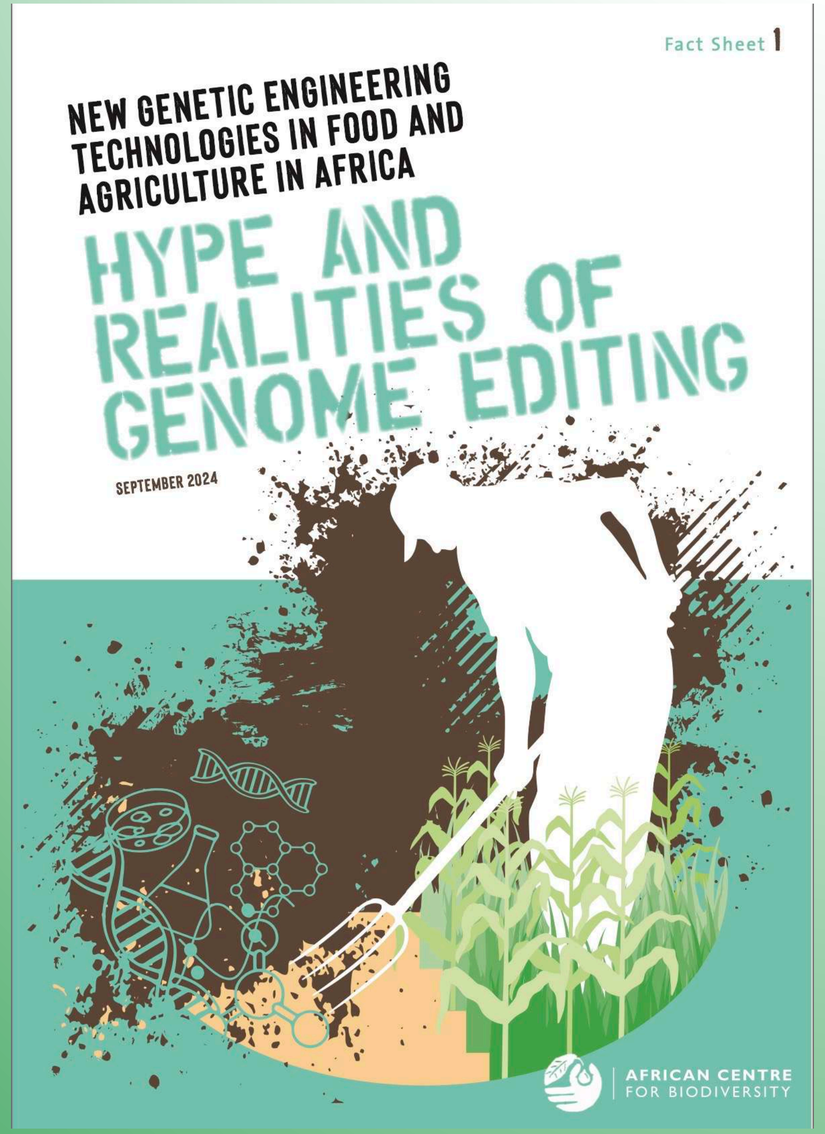
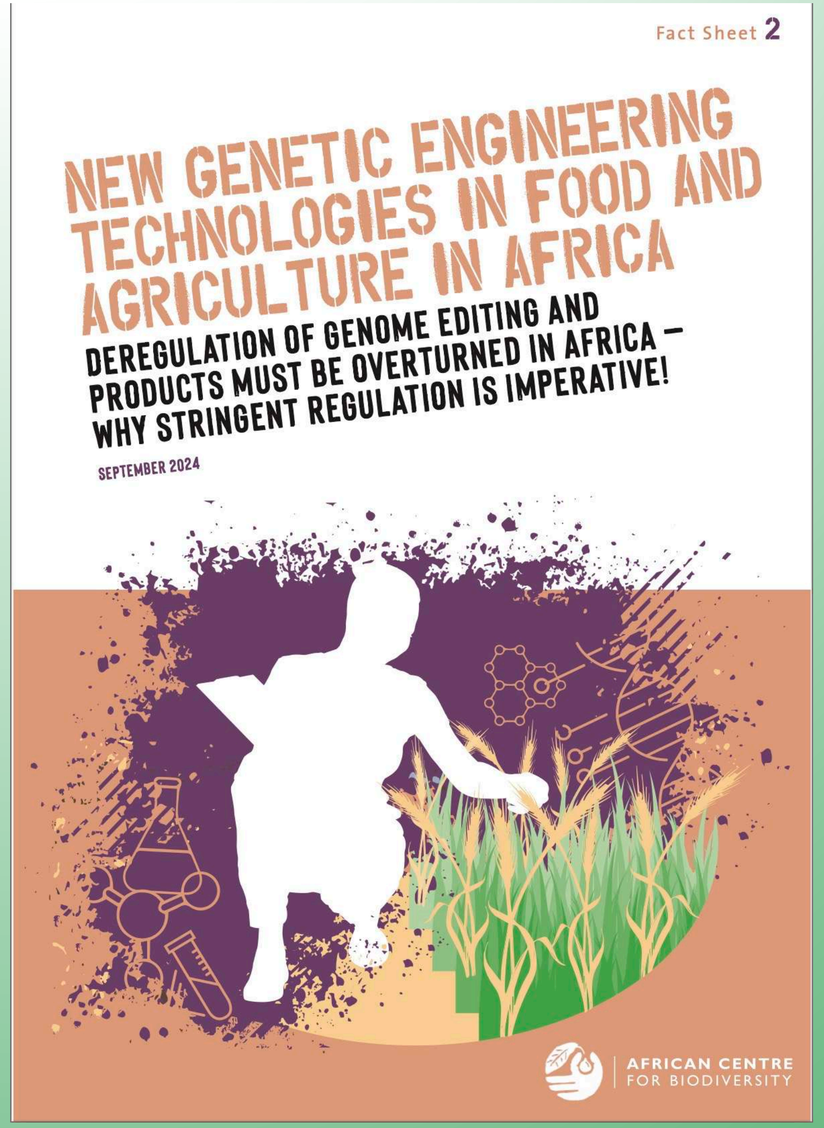
✓ Patents and even PVP laws do not require the disclosure of the origin of the gene sequences, and digital sequence information (DSI) and tracking this is enormously difficult. This is happening in the context where protection measures are not in place to stop the rapid extraction and privatisation of these resources

✓ In this regard, this perpetuates illegal appropriation of digital traditional seed system knowledge locked in the DSI impacting farmers' rights, and further marginalization of traditional rights, which results in the loss of traditional and farmer seed varieties and the knowledge associated with them.

- In the event that gene edited products will enter the African market, or not, there needs to be regulation of gene editing to enable public scrutiny as to what is being undertaken regarding plant germplasm, farmers' seed rights, agricultural biodiversity, impacts on biodiversity and most of all, as it affects us.





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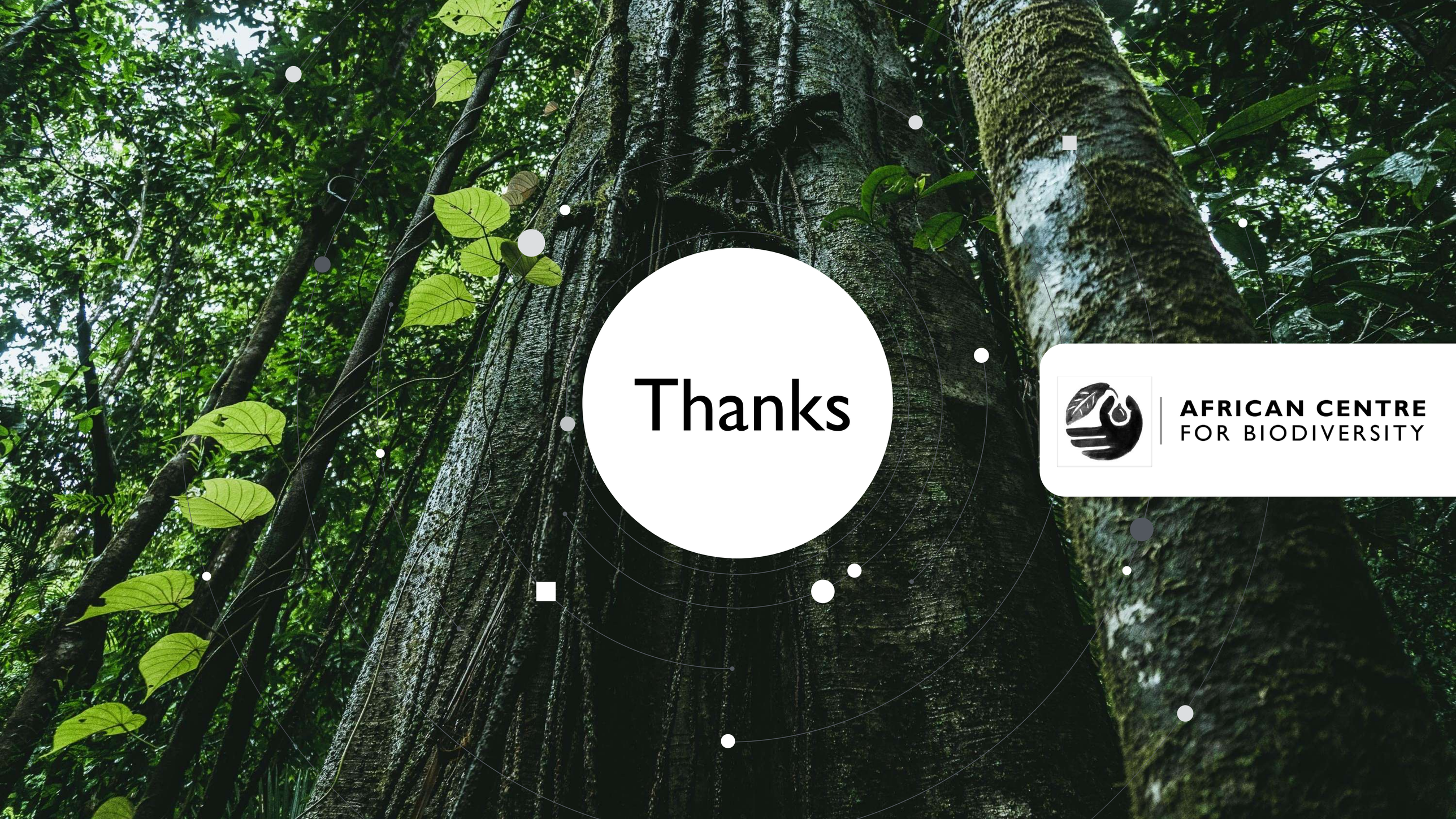

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