

AI for Sustainable Tourism and Cultural Heritage

Victor Apollo, Head of Solutions Mapping UNDP Accelerator Lab, Kenya

Co-building the Accelerator Labs as a joint venture with:

Action Partner:



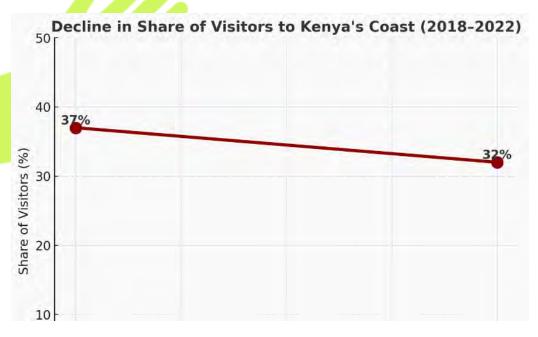


UNDP Core Partners









UNDP Accelerator Labs ■■

The Challenge

- Coastal tourism in Kenya is in the decline.
- Cultural heritage is being lost faster than it can be documented.
- Tourism content increasingly rewards what is searchable, "shareable", and easy to package.

Risks:

- Erosion of indigenous knowledge
- Weak community benefit from tourism value chains
- Under-visibility of authentic experiences vs. generic beach tourism

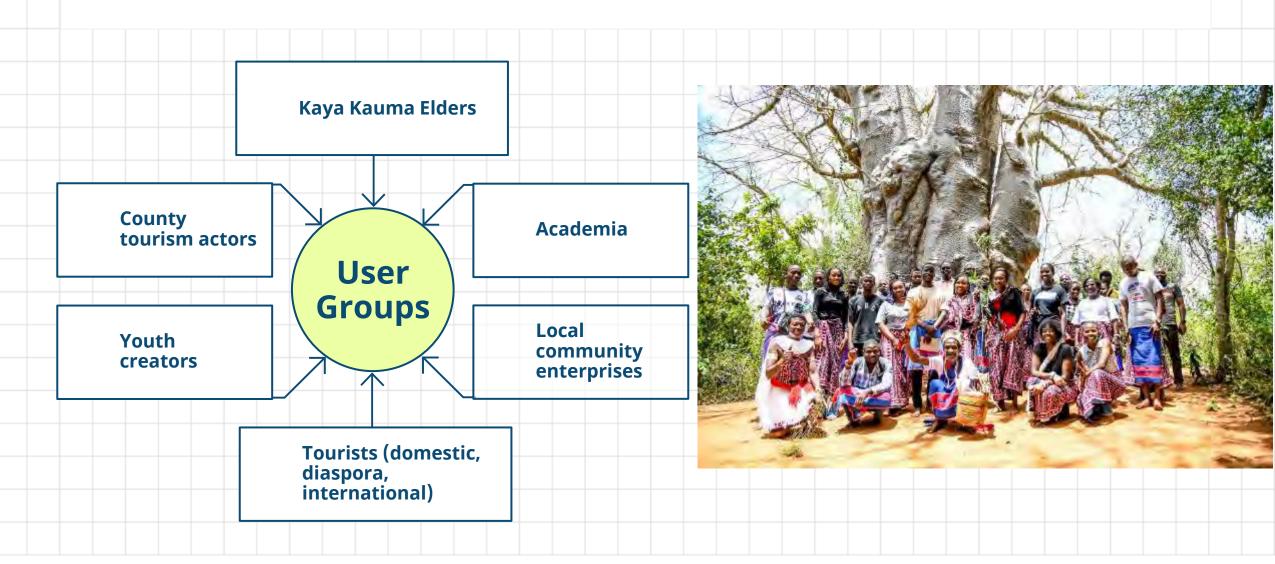
OUR HYPOTHESIS

If youth, elders, and partners cocreate digital cultural content with AI tools, then:

- Kaya Kauma cultural heritage will be preserved
- Cultural tourists will be attracted
- Communities will generate new income streams



Stakeholders



Our AI Prototype

A community-owned "AI co-creation studio" that turns Kaya Kauma knowledge into ethical digital tourism content.

Core technology:

Speech-to-text + translation Generative AI for story drafts Human-in-the-loop cultural review

What it does:

- Records audio stories (audio/video) and local practices.
- Transcribes + translates (local languages -> English/Swahili).
- Generates draft narratives, itineraries, microstories.
- Curates with elders to ensure accuracy + consent
- Outputs: web tours, short video, podcasts, craft catalogues



AI Workflow Case Study – From Story to Digital Experience

Story Collection

Elders share indigenous knowledge; youth record stories

Story Refinement with AI

Convert audio to text using TurboScribe; Refine narratives using **ChatGPT** summarize, translate, and structure stories.

Kaya Kauma Medicine

Website Design Prompting

 Use prompts on Vercel v0 to auto-generate a website documenting medicinal plants.

Output: Digital Repository of Indigenous Medicine

 A community co-created platform showcasing stories, plants, and rituals.
 Accessible via QR codes at heritage sites.



Kaya Kauma Traditional Medicine

Ancient healing wisdom from the sacred forests of Kilifi, Kenya.

Discover time-tested remedies passed down through generations of the Kaya Kauma people.

Explore Our Medicines

Learn Our Story

Quantifiable pilot outputs (prototype stage)



<u>Kileafy Tours</u> – a functional tourism website built by a student using AI tools.



- My Lugha a prototype promoting preservation of local languages through digital storytelling.
- Podcasts, videos, and slides narrating six cultural themes justice system, traditional medicine, arts, foods, and environment.

Lessons learned

- Youth engagement works. Students became active creators, not just learners.
- Elders' wisdom grounds innovation. Their stories gave cultural depth and legitimacy.
- Simple, off-the-shelf AI technologies can generate meaningful prototypes.
- Community validation matters. Human-in-the-loop is non-negotiable: Outputs were well received during *World Tourism Day* and community feedback sessions.
- Distribution is the growth engine. Partners matter more than "better content".





What didn't work (yet) - Distribution is the bottleneck: content needs partner channels to reach audiences and convert to revenue



Business Intelligence & Market Opportunity: Cultural Regional Revitalization

Heritage → Digital IP → Experiences → Commerce → Community benefit

Heritage assets
stories, sites, craft

Al co-creation
draft + curate

Digital products
tours, clips, catalog
platforms + partners

tickets, merch, licensing

Unique value proposition

- Tested in a high-trust / low-resource setting → strong "last mile" learnings
- Governance-first: content is co-owned and curated with custodians
- Frugal stack: reduces cost to scale across other heritage communities
- Produces both ESG impact + investable digital assets (content/IP)

Opportunities for scale

Beyond one site: the same model can be applied to other Kenyan heritage and coastal tourism destinations.

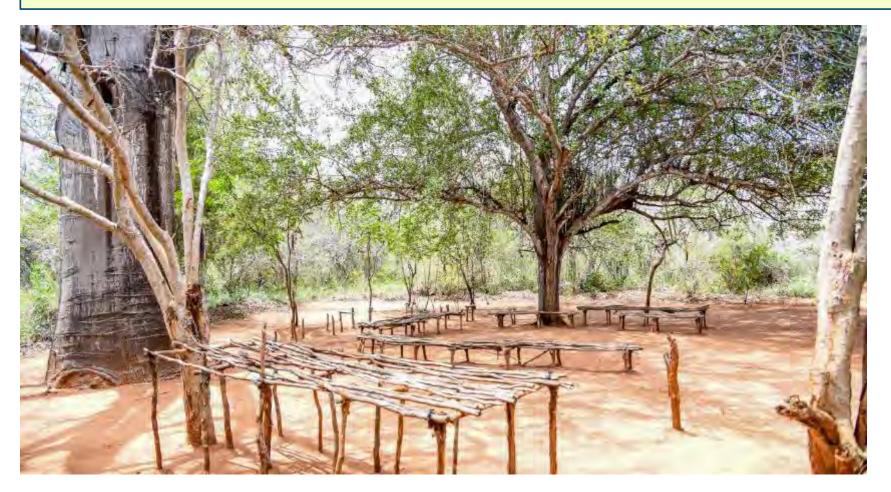
Key growth lever: distribution partnerships (travel platforms, telecoms, media, hospitality brands).

From Digital Demand-> Physical Readiness-> Cultural Products



If digital storytelling increases visits, we must upgrade the "real-world experience" and expand community income streams

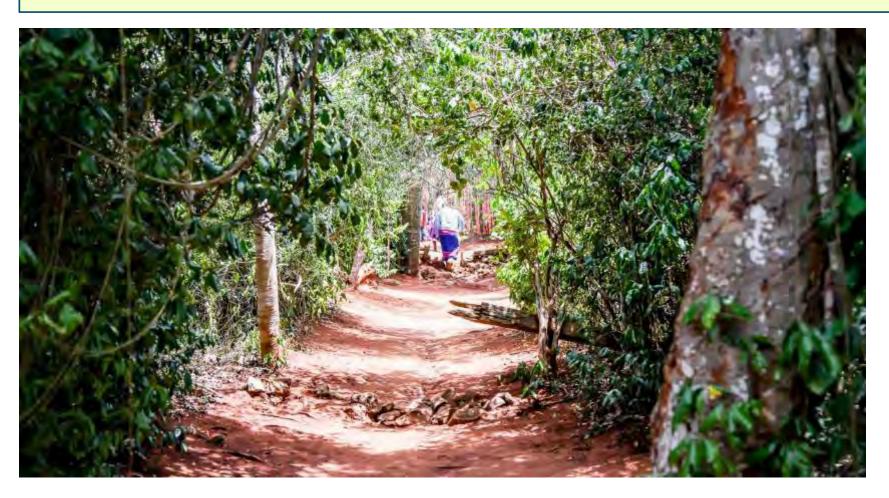
Heritage Hospitality & Site Readiness Fund (Physical Infrastructure)



What it supports

 Restoration/repair of homesteads in the holy village, meeting spaces, traditional court areas, visitor pathways, signage, basic amenities (shade, seating, sanitation, water points), safety and accessibility.

"Kaya Experience Standard" (Service + quality assurance)



What it supports

A lightweight service design + quality standard for Kaya Kauma visits: visitor flow, etiquette, interpretation, guide training, customer care, environmental protection

Cultural Product & Design Lab (Fashion -> crafts value addition)



What it supports

- A community-owned design lab that translates traditional attire motifs/colors into modern products:
- Basketry + beadwork + textiles + accessories
- Limited editions for diaspora and export markets
- Packaging, labeling, provenance and storytelling that protects authenticity





Best Next practices for a more sustainable future

Get in touch

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