

# FAO's WORK TO PROMOTE SUSTAINABLE AND CIRCULAR BIOECONOMY IN THE WORLD



**Food and Agriculture  
Organization of the  
United Nations**

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# FAO'S WORK ON BIOECONOMY – BACKGROUND

- In 2015, FAO's **bioeconomy area of work** was established in response to the request of over 60 Ministers of Agriculture during the Global Forum for Food and Agriculture (GFFA).
- In 2021, FAO was once again urged by these ministers to develop a **sustainability framework** for the bioeconomy.
- Also in 2021, FAO was the first UN entity to embed bioeconomy in its Strategic Framework (2022-2031) as a Programme Priority Area (PPA), including the GBS2020 definition, with a focus on:
  - Up-scaling the transition to a bioeconomy, through integrated evidence-based **policies, practices and partnerships**
  - SDG12 on **sustainable consumption and production**



**FAO worldwide :**

Present in more than 130 countries,  
with 194 Member Nations

# FAO'S WORK ON BIOECONOMY – 2022-2031 PROGRAMME

## BE2 › Bioeconomy for Sustainable Food and Agriculture



### THEORY OF CHANGE

#### Cross-Cutting Themes

Gender-responsive bioeconomy solutions and technologies

Youth-responsive bioeconomy policies and strategies

Inclusive-innovation ecosystems and stakeholder engagement in bioeconomy transition

#### Accelerators

Biological, digital and engineering solutions

Bio-based innovations

Disaggregated data to monitor new bio-based solutions

Policy, investment and partnership decisions in bioeconomy innovation

### Impact



#### Better environment

Protect, restore and promote sustainable use of ecosystems and combat climate change

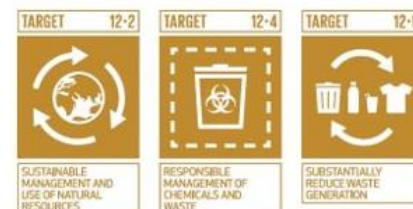
### Outcome

A bioeconomy balancing economic value and social welfare with environmental sustainability through evidence-based policies and practices

### Key thematic components

Facilitate the deployment of sustainable bioinnovations

Develop integrated, evidence-based bioeconomy strategies, policies and programmes



#### Assumptions

- Interests of vulnerable groups duly considered
- Adequate political support to invest in bioeconomy capacity building
- Sufficient resources are directed towards sustainable recovery efforts

#### Partners

- International Sustainable Bioeconomy Working Group (ISBWG)
- International Advisory Council on Global Bioeconomy (IACGB)
- Inter-American Development Bank (IDB)
- Eastern Africa Science and Technology Commission (EASTECO)
- European Union
- Latin-American Bioeconomy Network

#### Normative aspects

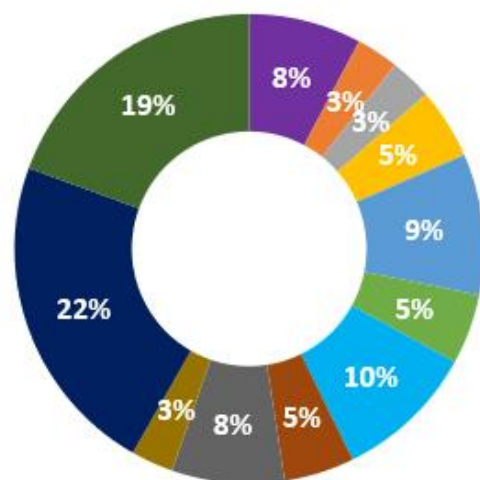
- Cartagena Protocol on Biosafety to the Convention on Biological Diversity
- International Code of Conduct on Pesticide Management
- International Plant Protection Convention

# BIOECONOMY ACROSS THE ORGANISATION

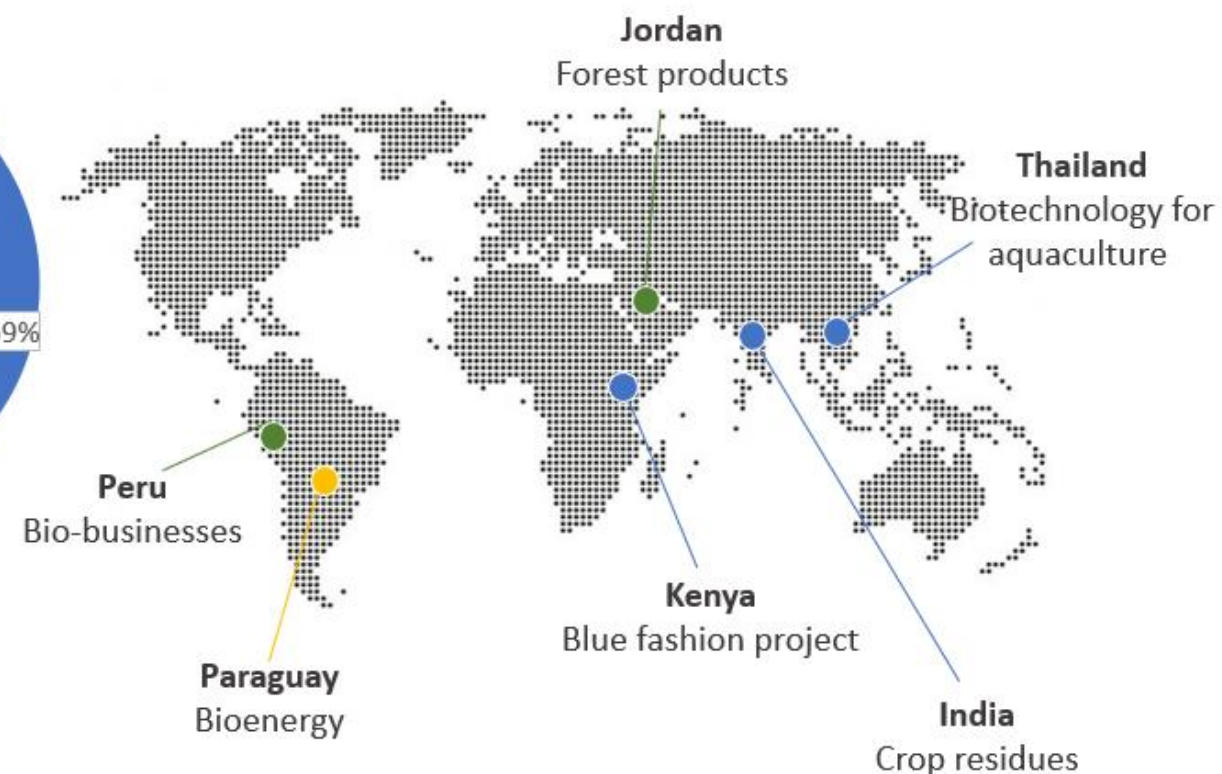
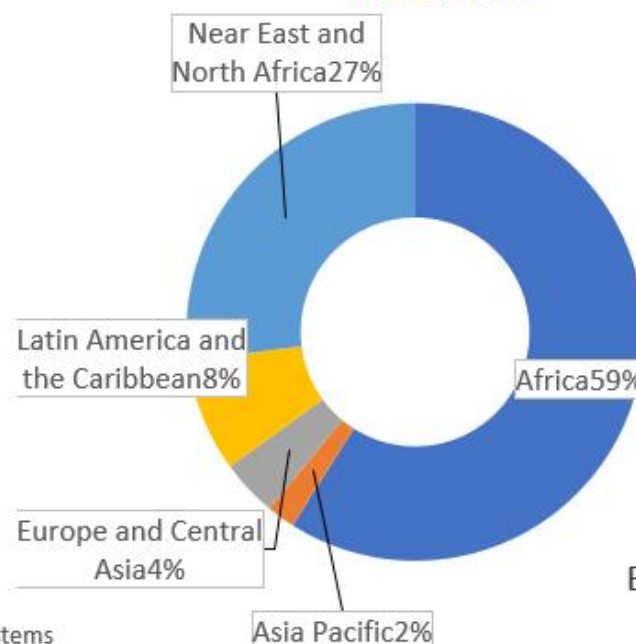
In the current biennium, **almost 150 FAO projects** have been associated with PPA BE2 - **worth almost USD 330m.**

(source: FPMIS)

## TECHNICAL DIVISIONS



## REGIONS



(source: PIRES)

# EXAMPLES OF BIOINNOVATIONS ON THE GROUND

## BIOFIBRE FOR CLOTHING (PAKISTAN)



Turning non-edible waste from the banana value chain into sustainably produced fabrics to reduce waste from banana production, estimated at two-thirds of the overall biomass, while reducing chemicals requirements in the manufacturing.

## BETWEEN TRADITION AND INNOVATION (NAMIBIA)



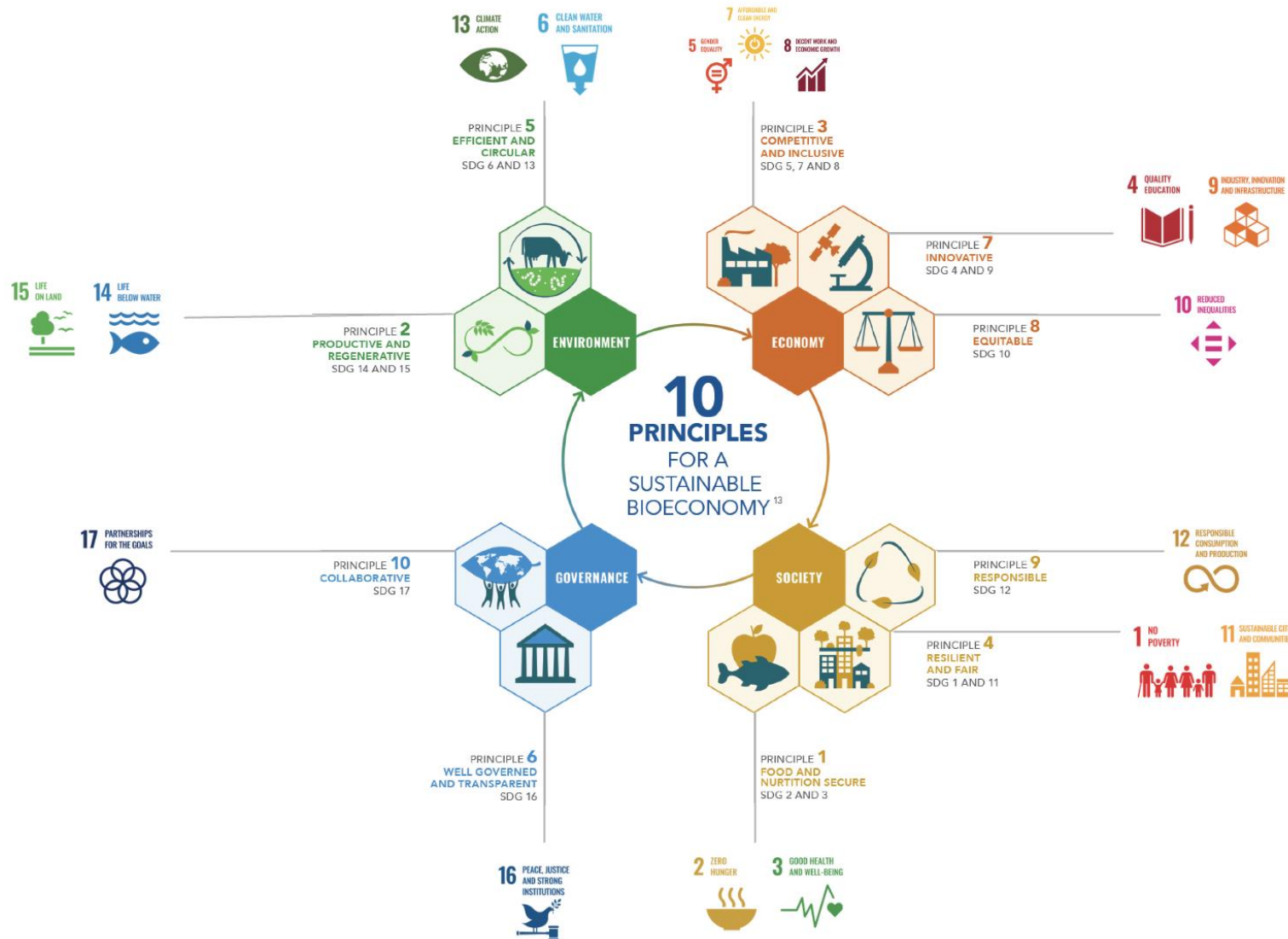
Eudafano Women's Cooperative harvests and processes the nuts of the marula tree using circular bioeconomy principles to extract the marula oil, which is sold in international markets for cosmetic use, in line with Namibia's new National Bioeconomy Strategy 2023 – 2028.

## INSECT PROTEIN FROM WASTE (CÔTE D'IVOIRE)



Using black soldier fly (BSF) larvae to bioconvert organic waste from local markets into nutritious protein feed for poultry and aquaculture, and using the residues as organic fertilizer, by promoting small, female-led businesses in Abidjan.

# MAINSTREAMING *SUSTAINABILITY* PRINCIPLES IN PROJECTS



**Bioeconomy is part of the solution** to support farmers and local communities in addressing the **challenges** of our time:

- Natural resources depletion
- Biodiversity loss
- Pollution
- Climate change

**Bioeconomy** covers all SDGs, thus holistic cross-sectoral policies should be a central part of implementing Agenda 2030

# UPCOMING: THE FAO BIOECONOMY TOOLBOX

AIM:

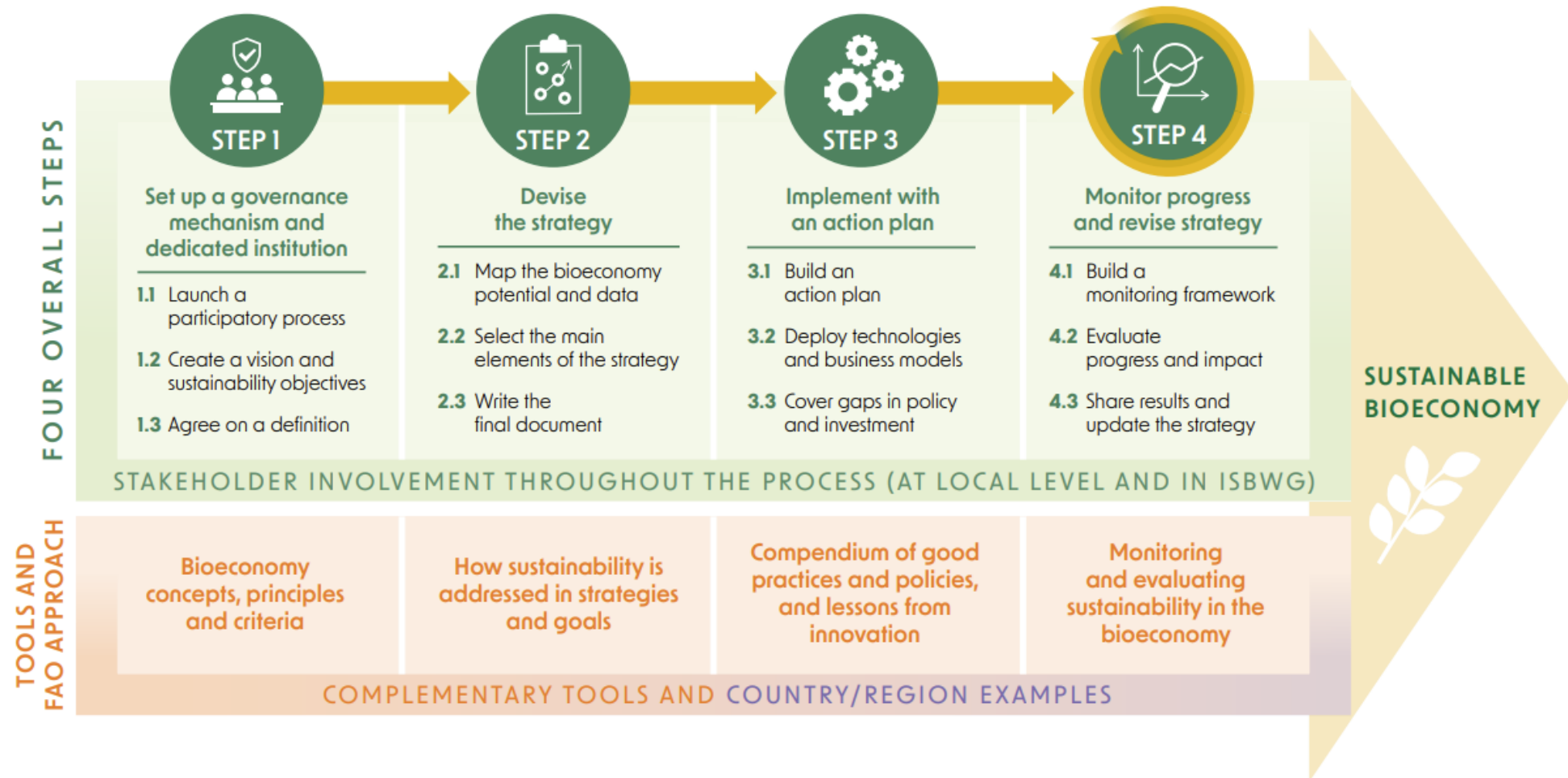
TO SUPPORT POLICY-MAKERS IN DEVELOPING AND IMPLEMENTING BIOECONOMY STRATEGIES

- This toolbox presents guidance and examples of tools for each of the four steps of bioeconomy development.
- It serves to ensure the sustainable development of bioeconomy at different stages of deployment.
- It shows how bioeconomy is implemented in different contexts/ countries.



# BIOECONOMY STRATEGY DEVELOPMENT TOOLBOX

Toolbox for Sustainable Bioeconomy Strategy development process – A guiding approach *for policy makers*



Steps for BE strategy development

Tools and  
FAO  
approach

FAO tools  
and  
approaches  
for each sub-  
step

STEP 1

Set up a governance mechanism  
and dedicated institution

Bioeconomy concepts, principles  
and criteria



STEP 2

Devise the strategy

How sustainability is addressed in  
strategies and goals



STEP 3

Implement with an action plan

How sustainability is addressed in  
strategies and goals

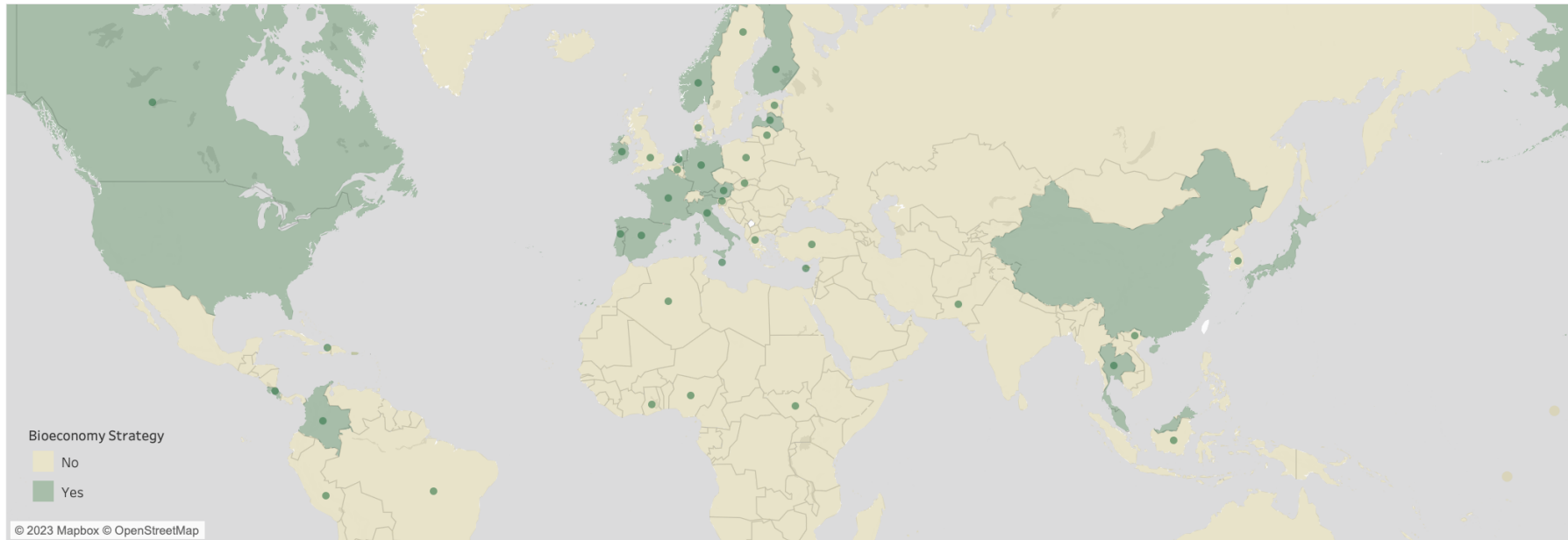


STEP 4

Monitor progress and revise  
strategy

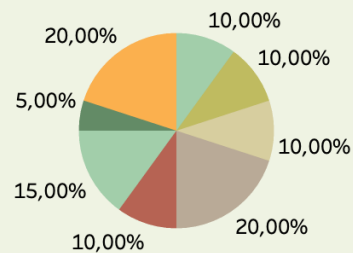
Monitoring and evaluating  
sustainability in the bioeconomy





\* the green dots represent countries that have documents mentioning "Bioeconomy"

## Geographic distribution of national bioeconomy strategies



## Active national bioeconomy strategies

20  
countries

## National strategies under development

20  
countries

Countries that mention Bioeconomy in climate, biodiversity and food system transformation documents

National Biodiversity Strategy & ..	Biodiversity National Reports	National Determined Contributi..	Long-Term Low Emission D..	Food System T ransformation P..	National Adaptation Plan	National Reports and Communicati..
8	9	6	22	9	2	23

Bioeconomy national dedicated strategy

(All)

Bioeconomy regional dedicated strategy

(All)

Mentions Bioeconomy in...

Bioeconomy in NBSAP

(All)

Bioeconomy in Nat. Reports

(All)

Bioeconomy in NDC

(All)

Bioeconomy in LT-LEDS

(All)

Bioeconomy to UNFCCC

(All)

Bioeconomy in NAP

(All)

Bioeconomy in FSTP

(All)

Bioeconomy national strategies

National Analysis

Bioeconomy regional strategies

Mentions in other national doc.

# DASHBOARD STRUCTURE

## 1 General outlook on bioeconomy around the world

1.1

Bioeconomy dedicated  
**national strategies**  
around the world

- Interactive map to visualise all information for each national bioeconomy dedicated strategy

1.2

**Biodiversity, climate and economic analysis** of  
bioeconomy  
dedicated strategies

- Interactive map to visualise how each bioeconomy dedicated strategy can support biodiversity conservation, climate change mitigation and adaptation, and what are the prioritized economic sectors

1.3

Bioeconomy dedicated  
**regional strategies**  
around the world

- Interactive map to visualise all information for each regional bioeconomy dedicated strategy

1.4

Bioeconomy in **other national documents**

- Interactive map of countries around the world that harness bioeconomy for meeting their climate and biodiversity commitments



# ENGAGEMENT OF FAO IN THE GLOBAL BIOECONOMY

1. Scoping work towards how to upscale the **International Sustainable Bioeconomy Working Group**
2. Support to the preparation of the next **Global Bioeconomy Summit**, with an emphasis on the transformative potential of the agricultural sectors within the bioeconomy to gather what countries need
3. **Foundational study** based on both dashboards, to further improve the **knowledge base**, reporting and consolidation of lessons learned and regional coordination, together with the PPA BE2 network.



# KEY WORK AREAS FOR BE IN 2024-2025



**Support development of bioeconomy strategies** and creation of enabling environment for deployment of innovations



**Integrate bioeconomy** into global sustainable development, food security and nutrition frameworks, as well as Multilateral Environmental Agreements



**Support development of indicators and data collection for monitoring systems** to measure bioeconomy impact and its contributions to the SDGs



**Scaling up bioeconomy investments as a part of public and private finance, public-private partnerships**



Mainstreaming themes: **gender, youth, inclusive bioeconomy, education, advocacy, etc.**



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THANK YOU!

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[www.fao.org/in-action/sustainable-and-circular-bioeconomy](http://www.fao.org/in-action/sustainable-and-circular-bioeconomy)



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