THE LIVING AMAZON:

BIODIVERSITY AS A FOUNDATION FOR JUSTICE AND RESILIENCE

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A JUST TRANSITION FOR THE AMAZON

BIODIVERSITY, EQUITY, AND A NEW DEVELOPMENT PARADIGM

10%

MAJOR ECOSYSTEM SERVICES PROVIDER

The Amazon stores 130 billion metric tons of carbon, regulates hemispheric rainfall, and harbors more than 10% of all species on Earth , playing a fundamental role in climate stability, hydrological balance, and global biodiversity maintenance.

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A LIVING TERRITORY:

Home to 35–40 million people, including Indigenous Peoples and Local Communities (IPLCs), representing rich socio-cultural diversity and more than 330 languages.

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A NEW PARADIGM

Development models that protect forest and non-forest ecosystems, and their, animals and people to truly improve lives.

THE AMAZONIAN PARADOX

EXTRAORDINARY WEALTH, PERSISTENT VULNERABILITY

THE AMAZON HOLDS:

- Critical climate regulation functions
- Strategic mineral and biological resources
- Greatest concentration of biodiversity on Earth
- Massive freshwater reserves (20% of global supply)

YET POPULATIONS STILL FACE:

- Economic exclusion
- Educational inequalities
- Limited access to healthcare
- Energy and sanitation deficits
- Weak infrastructure & institutional support

WHY DOES THE AMAZON MATTER TO EUROPE AND THE WORLD?

The Amazon plays a fundamental role in sustaining essential ecosystem services that benefit both regional and global environmental stability. Its importance is reflected in its influence on:

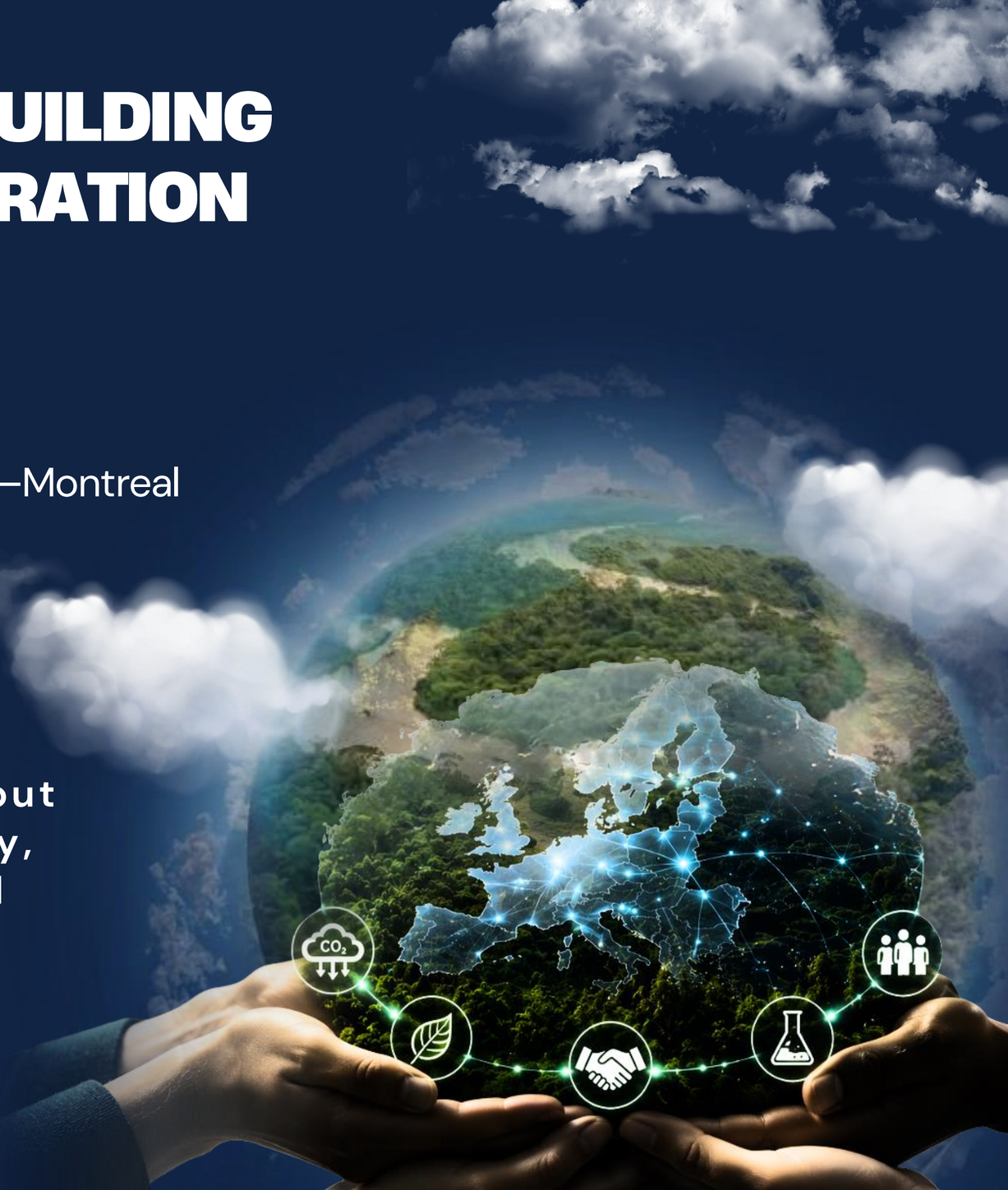
- Global climate stability
- Agricultural productivity
- Biodiversity conservation
- Rainfall systems across South America
- Carbon storage and climate regulation
- Pharmaceutical and biotechnological innovation

EUROPE AND THE AMAZON: BUILDING RESILIENCE THROUGH COOPERATION

WHY WOULD EUROPE ENGAGE

- Climate stability and tropical forest integrity
- Implementation of the Rio Convention and the Kunming–Montreal Global Biodiversity Framework
- Sustainable supply chains and biodiversity innovation
- Scientific cooperation and resilience-building

A resilient Amazon is globally relevant, but cooperation must be grounded in equity, multilateral commitments, and shared responsibility.



HOW CAN ENVIRONMENTAL WEALTH BECOME SOCIAL WELL-BEING WITHOUT DESTROYING THE FOREST?

BEYOND EXTRACTION: THE BIOECONOMY OPPORTUNITY

A MODERN AMAZONIAN BIOECONOMY MUST INCLUDE:

- Non-timber forest products (Açai, Brazil nuts, Guaraná, Cupuaçu)
- Biotechnology and biomimicry
- Nature-based pharmaceuticals [Pilocarpine (glaucoma), Captopril (Hypertension), Tubocurarine (Anesthesia)]
- Sustainable fisheries (Pirarucu, Tambaqui)
- Agroforestry systems
- Ecotourism and cultural economies
- Carbon+ and ecosystem service markets

The value of a living forest must exceed the value of deforestation, through long-term mechanisms such as the Tropical Forests Forever Facility.

SUCCESS CASE

PSA Pirarucu Program

Bioeconomy in Action — Amazon, Brazil

The PSA Pirarucu Program compensates Indigenous and traditional communities for **sustainable management** of the species and the **conservation** of Amazon biodiversity

ORGANIC PIRARUCU CERTIFIED

Conserves more than **20 million hectares** of Amazon biodiversity

Certified sustainable pirarucu earns up to **30% higher** prices in premium and public markets

Proves that biodiversity conservation and income generation are fully compatible.

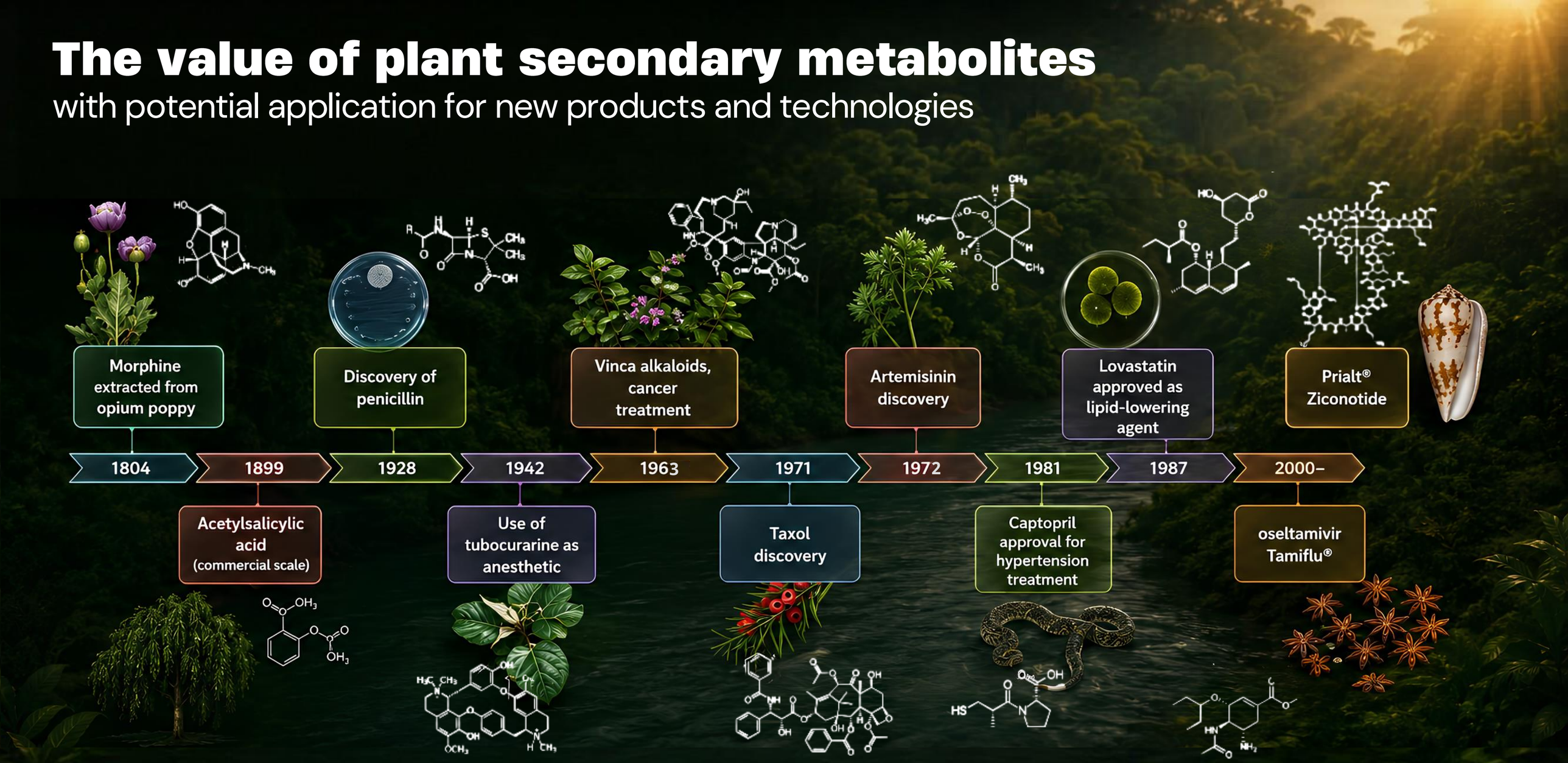
5,000 people directly benefited.

41 Indigenous Lands & Protected Areas.

These models exist — they need to scale up

The value of plant secondary metabolites

with potential application for new products and technologies



A few natural products used as medicines identified in the last centrury. Valli and Bolsani 2019

The value of secondary metabolites from Brazilian biodiversity

with potential application for new products and technologies

Alpha-bisabolol – soothing and calming effects on the skin, reducing redness, inflammation, and irritation.

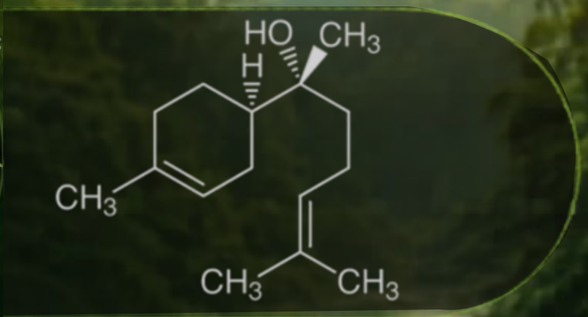
Eremanthus erythropappus (US$200/ml)

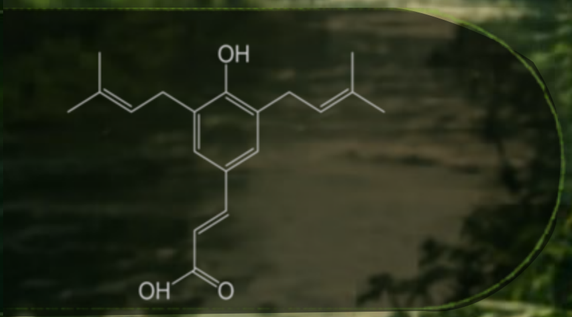
Artepillin C – Inhibit tumor cell proliferation, induce necroptosis, improve insulin resistance and inhibit liver lipid synthesis.

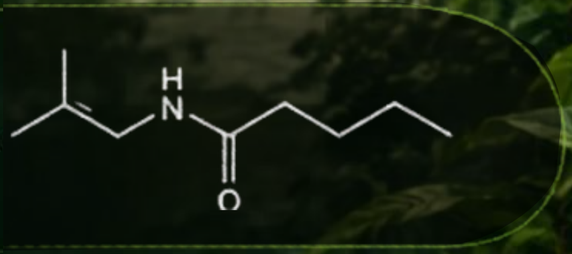
Baccharis dracunculifolia (US$180/gram)

Jambu extract – natural anesthetic, anti-inflammatory, and muscle relaxant

Acmella oleracea (US$2,000/kg)







Sustainable use of Brazilian biodiversity

High value for new products and technologies

Science-based innovation

Potential to generate health, economic and environmental impact

SCIENCE AS FOUNDATIONAL INFRASTRUCTURE

BIODIVERSITY KNOWLEDGE IS STRATEGIC

TROPICAL ECOSYSTEMS ARE EXTRAORDINARILY COMPLEX:

- Species richness is immense
- Ecological interactions remain only partially understood
- Many ecosystem services remain economically invisible
- Sustainable solutions must consider biodiversity, climate, and land degradation together

THEREFORE:

- Long-term ecological research is essential
- Monitoring technologies and scientific cooperation must expand
- Brazil and Europe should co-develop scientific and technological capacity
- Nature-based solutions and/or ecosystem-based approaches can contribute to adaptation, conservation, restoration, and sustainable use, in accordance with national circumstances and multilateral frameworks
- Strengthening synergies among the three Rio Conventions through coherent alignment of NDCs, NBSAPs, and LDNs is essential to maximize ecosystem-based co-benefits for adaptation, conservation, restoration, and sustainable use.
- Knowledge from Indigenous Peoples and Local Communities (IPLCs) must be integrated with advanced science, respecting their rights.

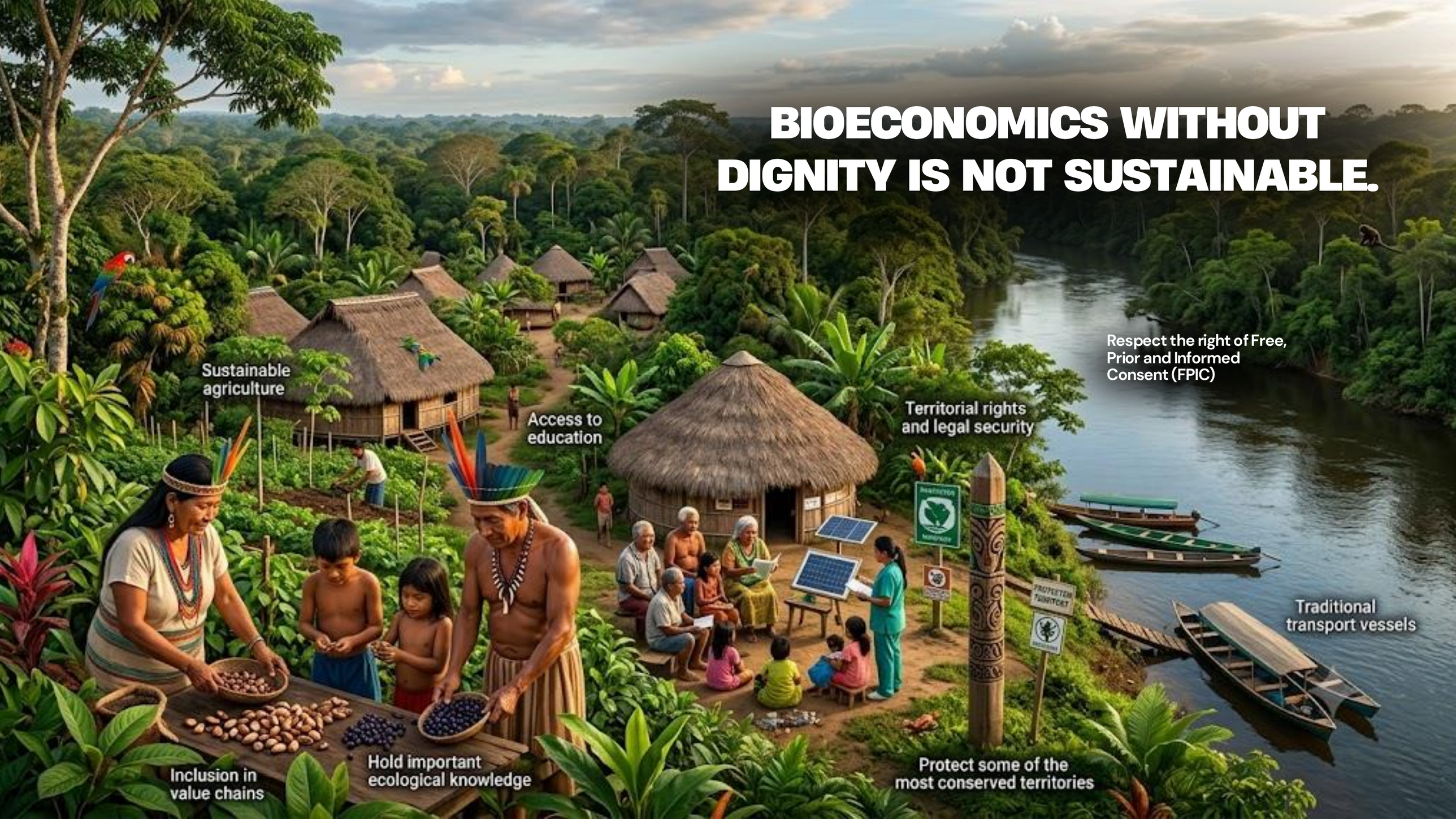
LOCAL COMMUNITIES MUST BE CENTRAL: NO JUST TRANSITION WITHOUT SOCIAL JUSTICE

INDIGENOUS PEOPLES AND LOCAL COMMUNITIES:

- Hold important ecological knowledge
- Are often excluded from economic benefits
- Protect some of the most conserved territories in the Amazon

A FAIR TRANSITION REQUIRES:

- Inclusion in value chains
- Respect for cultural diversity
- Fair benefit-sharing mechanisms
- Territorial rights and legal security
- Access to education and healthcare


BIOECONOMICS WITHOUT DIGNITY IS NOT SUSTAINABLE.
Sustainable agriculture
Access to education
Territorial rights and legal security
Respect the right of Free, Prior and Informed Consent (FPIC)
Traditional transport vessels
Inclusion in value chains
Hold important ecological knowledge
Protect some of the most conserved territories

GOVERNANCE AND INVESTMENT: ALIGNING FINANCE, POLICY, AND ACCOUNTABILITY

EFFECTIVE TRANSFORMATION DEPENDS ON:

- Stable governance frameworks
- Long-term investment mechanisms, such as the Tropical Forests Forever Facility (TFFF)
- Public-private-scientific partnerships
- Transparent environmental monitoring
- Traceable and deforestation-free supply chains
- Truly green industrial policies with environmental integrity and sustainability standards

GOVERNANCE AND INVESTMENT: ALIGNING FINANCE, POLICY, AND ACCOUNTABILITY

EUROPE AND BRAZIL CAN JOINTLY SUPPORT:

- Sustainable innovation hubs
- Research and technology transfer
- Bioeconomy startups aligned with zero-deforestation objectives
- Assisted restoration initiatives aligned with multilateral commitments and aimed at avoiding biotic homogenization

RISKS OF A POORLY DESIGNED TRANSITION: WHAT MUST BE AVOIDED

RISKS INCLUDE:

- Afforestation and biotic homogenization
- Commodification without local participation
- “Green” extractivism without social inclusion
- Carbon colonialism, including biodiversity neglect
- Technological dependence without adequate technology transfer
- Simplified environmental metrics for highly complex tropical systems

IMPORTANT REMINDER:

Tropical ecosystems require ecologically realistic policies that respect national and local particularities.

A SHARED VISION FOR THE FUTURE: FROM FRONTIER ECONOMY TO KNOWLEDGE ECONOMY

THE AMAZON CAN BECOME:

- A source of inclusive prosperity
- A leader in biodiversity innovation
- A model for low-carbon development
- A living laboratory for climate resilience
- Conservation and sustainable use of biodiversity

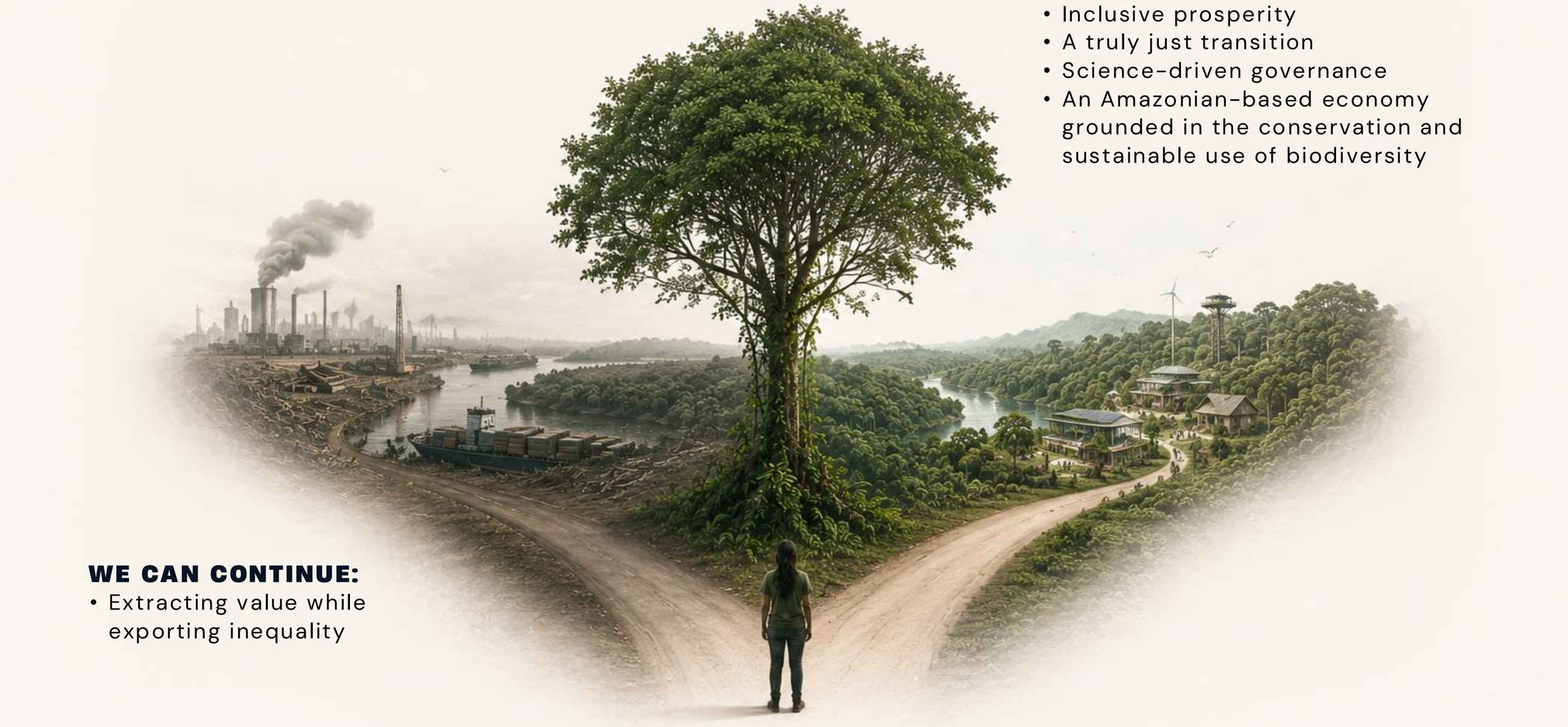
BUT THIS REQUIRES:

- Ethical investment
- Scientific integrity
- Local empowerment
- Long-term commitment
- International cooperation
- Follow the trends on Biodiversity development

THE FUTURE OF THE AMAZON IS A CHOICE

OR WE CAN BUILD:

- Climate resilience
- Inclusive prosperity
- A truly just transition
- Science-driven governance
- An Amazonian-based economy grounded in the conservation and sustainable use of biodiversity



WE CAN CONTINUE:

- Extracting value while exporting inequality


The Amazon does not need to become the next industrial frontier it needs to keep up being the Amazon and we cannot afford loosing it.
It can become the world’s greatest example of development aligned with life.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