




Empowered lives.  
Resilient nations.

## Del océano al laboratorio:

Recursos genéticos marinos y su aplicación en la producción de nuevas moléculas bioactivas



**Legal and responsible marine research and biotechnology: Access to marine genetic resources and fair and equitable sharing of the benefits derived from their utilization (ABS)**

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*ABS is genetic resources for sustainable development*

1. What is ABS and why is important in regard to marine genetic resources?
2. Key features of the Nagoya Protocol, the EU Regulation and related legislation
3. What is the function of the checkpoint and which ones are in the EU?
4. Checklist: how to ensure that we are ABS proof!
5. Innovation on Genetic Resources for Sustainable Development
6. UNDP-GEF Global ABS Project

# What is ABS?



- **ACCESS TO GENETIC RESOURCES (AND TRADITIONAL KNOWLEDGE ASSOCIATED TO GENETIC RESOURCES) AND THE FAIR AND EQUITABLE SHARING OF THE BENEFITS DERIVED FROM THEIR UTILIZATION**

**LET'S SEE SOME EXAMPLES**

**[HTTPS://WWW.YOUTUBE.COM/WATCH?V=9UY5OWFUUSE](https://www.youtube.com/watch?v=9UY5OWFUUSE)**

**[HTTPS://WWW.YOUTUBE.COM/WATCH?V=3KBNB2U\\_XWQ](https://www.youtube.com/watch?v=3KBNB2U_XWQ)**

*ABS is*



# 1. Why is ABS important in regard to marine genetic resources (for your research institution)?



## SOME KEY QUESTIONS

1. Does your research institution utilize genetic resources?
2. Do you know the origin of the genetic resources that you utilize?
3. Do you know if they have been legally obtained (in compliance with the legislation of the provider country)?
4. Do you know the Nagoya Protocol and how the European and national legislations can affect you?

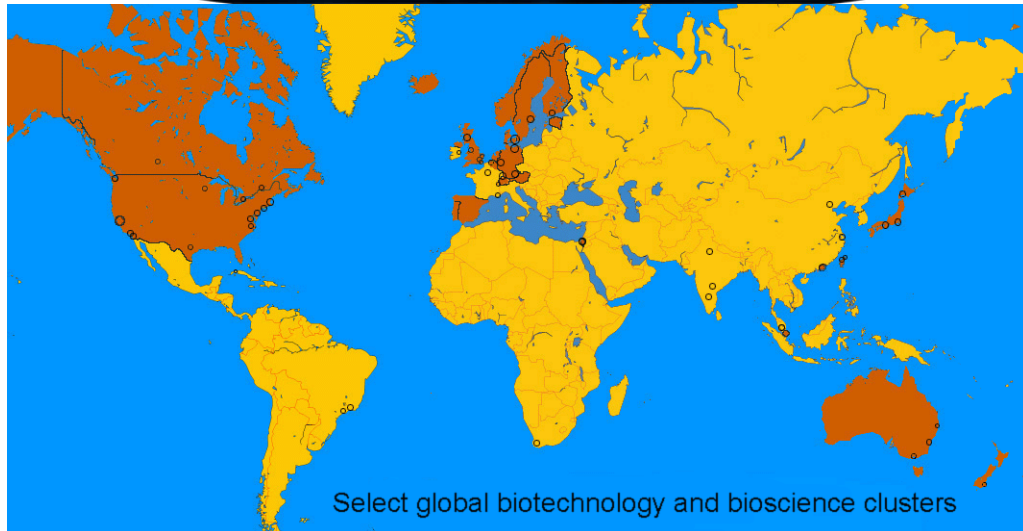
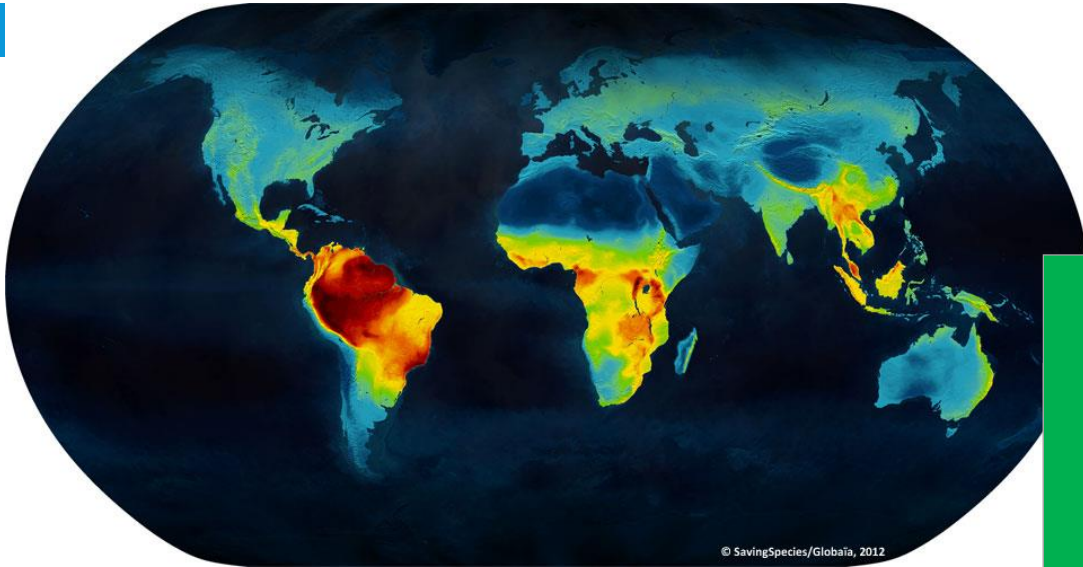
## 2. Key features of the Nagoya Protocol, the EU Regulation and related legislation



### NAGOYA PROTOCOL

- Adopted 29<sup>th</sup> October 2010
- Entry into force 12<sup>th</sup> October 2014
- Truly international system to monitor and control the utilization of genetic resources:
  - **Checkpoints and sanctions to users in user countries**
- Why article 15 of the Convention on Biological Diversity was not enough? (Based on the sovereignty of countries-national legislations on access to genetic resources)

# The Convention on Biological Diversity (CBD) in 1992 introduced ABS



## ABS IS:

- Acknowledgement of the place of origin of the genetic resource
  - Incentive for biodiversity conservation, in exchange of:
    - Biotechnology
    - Social and economic welfare

# The Convention on Biological Diversity (CBD) in 1992 introduced ABS



1. State **sovereignty over genetic resources**.  
Access is subject to national legislation (art. 15.1).
2. States have to **facilitate access to their genetic resources** for research and development (art. 15.2)



# The Convention on Biological Diversity (CBD) in 1992 introduced ABS



If a country decides to regulate access to their genetic resources the CBD establishes two possible elements to articulate such a system:

- 1. Prior Informed Consent (PIC)** (art. 15.5).
- 2. Mutually Agreed Terms (MAT)** (art. 15.4)  
(also for benefit sharing)



# The Convention on Biological Diversity (CBD) in 1992 introduced ABS



## What kind of benefits need to be shared?

Research and exchange of biotechnology is at the heart of the ABS system:

1. “develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties” (art. 15.6)
2. National research institutions and national researchers become the key actors to put in value the rich biodiversity of their countries and at the same time channeling most of the benefits back to the country

# The Convention on Biological Diversity (CBD) in 1992 introduced ABS



## Main limitation

- **Scope: only applies to the genetic resources under the jurisdiction of the States (marine and terrestrial)**
- **Marine biodiversity beyond national jurisdiction**
  - important source of bioactive compounds, with a higher ratio of success in comparison with terrestrial organisms
  - high seas represent 64% of the surface of the oceans (50% of the total surface of our planet)
  - a single corporation (BASF) has registered nearly half of all existing patents associated with genes from marine organisms
  - 10 countries accounts for 98% of all the marine patents

# The Nagoya Protocol (2010)



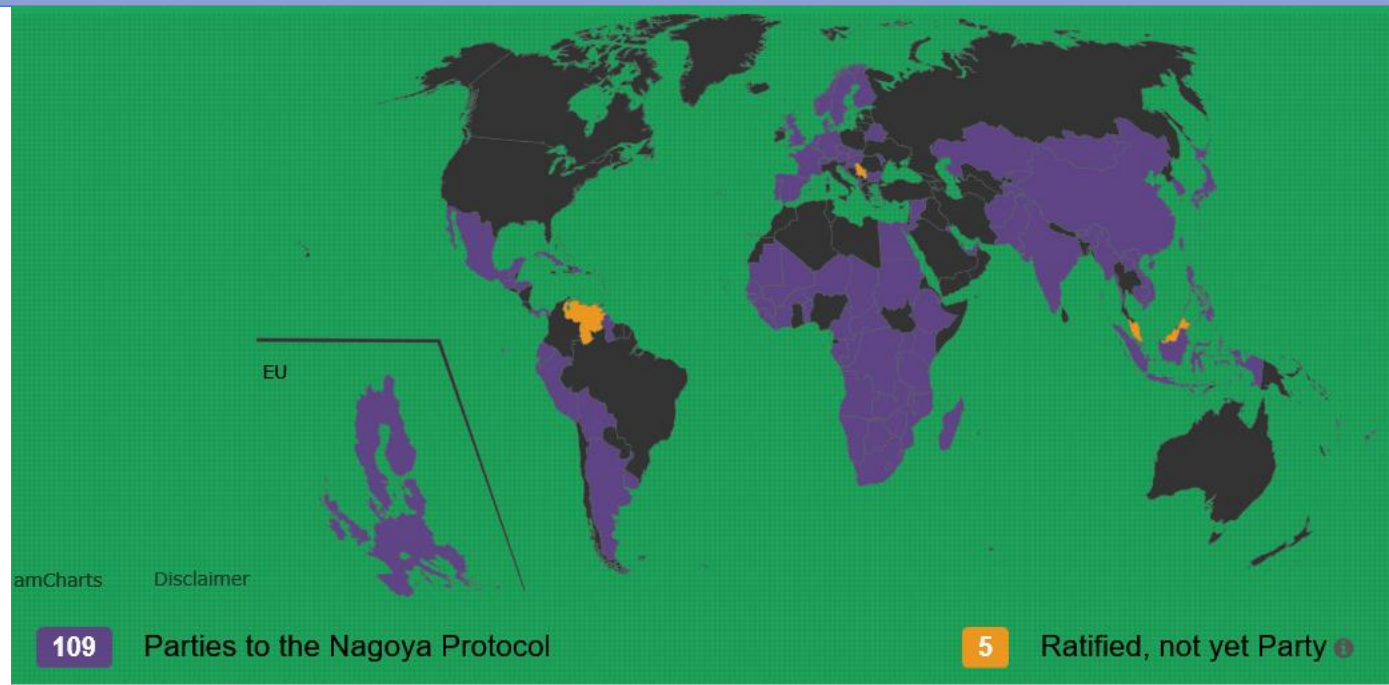
**Why the international community requested the negotiation of a new international agreement on Benefit Sharing (what kind of gaps needed to be filled at the international level)?**

1. Lack of information on the utilization of genetic resources
2. Impossibility to keep track or monitor the utilization of the genetic resources once they have left the provider country (**approach limited to Access**)
3. Lack of regulation in regard Access to traditional knowledge associated to genetic resources held by indigenous and local communities

## 2. Key features of the Nagoya Protocol, the EU Regulation and related legislation



### 109 Parties to the Nagoya Protocol



## 2. Key features of the Nagoya Protocol, the EU Regulation and related legislation



### EU REGULATION 511/2014

- European Union has ratified the Nagoya Protocol
- Main obligation of users- **Due Diligence**
- Main obligation of Member States-
  - **Collect information from users and send it to the ABS-CH, and**
  - **sanction national users in case of violations of ABS legislations of provider countries**
- EU registered collections
- Commission Implementing Regulation 2015/1866
- Member States of the European Union need to establish specific national measures to make operational the EU system (**Spain- Royal Decree 124/2017**)

### 3. What is the function of checkpoints and which ones are in the EU?



To **collect information** related to the **legal access to the genetic resources** and **submit it to the ABS-CH**

- 1. Beneficiaries of research funding** involving the use of genetic resources or the use of traditional knowledge associated with such resources.
- 2. Users** of genetic resources or traditional knowledge associated with such resources **at the final stage of a product's development.**

### 3. What is the function of checkpoints and which ones are in the EU?



Member States can establish additional checkpoints

#### **SPAIN**

- Patent application: Law 24/2015 and Royal Decree 124/2017



## 4. Checklist: how to ensure that we are ABS proof!



- **If we access the genetic resource in situ:**
  1. Check if there is ABS legislation and access procedures in place in a specific country (<https://absch.cbd.int/>)
  2. If it is not your own country, check with your national counterparts
  3. Comply with the national legislations- obtain PIC, negotiated mutually agreed terms to share benefits and obtain the national access permit= Internationally Recognized Certificate of Compliance
  4. Transfer genetic resources (only if allowed) in the same conditions as you have received them
  5. Comply with the terms of your agreements and share benefits with provider countries

## 4. Checklist: how to ensure that we are ABS proof!



- **If we access the genetic resource *ex situ*:**
  1. Request the ex situ collection/provider the exact origin of the genetic resources and the corresponding documentation (PIC, MAT, permit or IRCC)
  2. If there is an Internationally Recognized Certificate of Compliance check its terms
  3. Use the genetic resources within the conditions they have been accessed and transferred to you
  4. Share benefits with the provider country

# If marine biotechnology and marine and marine research are not for Sustainable Development, what are they for?



**SUSTAINABLE  
DEVELOPMENT GOALS**

17 GOALS TO TRANSFORM OUR WORLD



# BASIC INFO GLOBAL ABS PROJECT



24 countries

**OBJECTIVE:** Strengthening human resources, legal frameworks and institutional capacities to implement the Nagoya Protocol

GEF funding per country:  
USD 350.000

3 years (end of the Project  
August 2019)

*Access and Benefit-Sharing (ABS) is*

# 4 PROJECT COMPONENTS



1. Strengthening the legal, policy, and institutional capacity to develop **national ABS frameworks**

3. Strengthening the capacity of indigenous and local communities to contribute to the implementation of the Nagoya Protocol

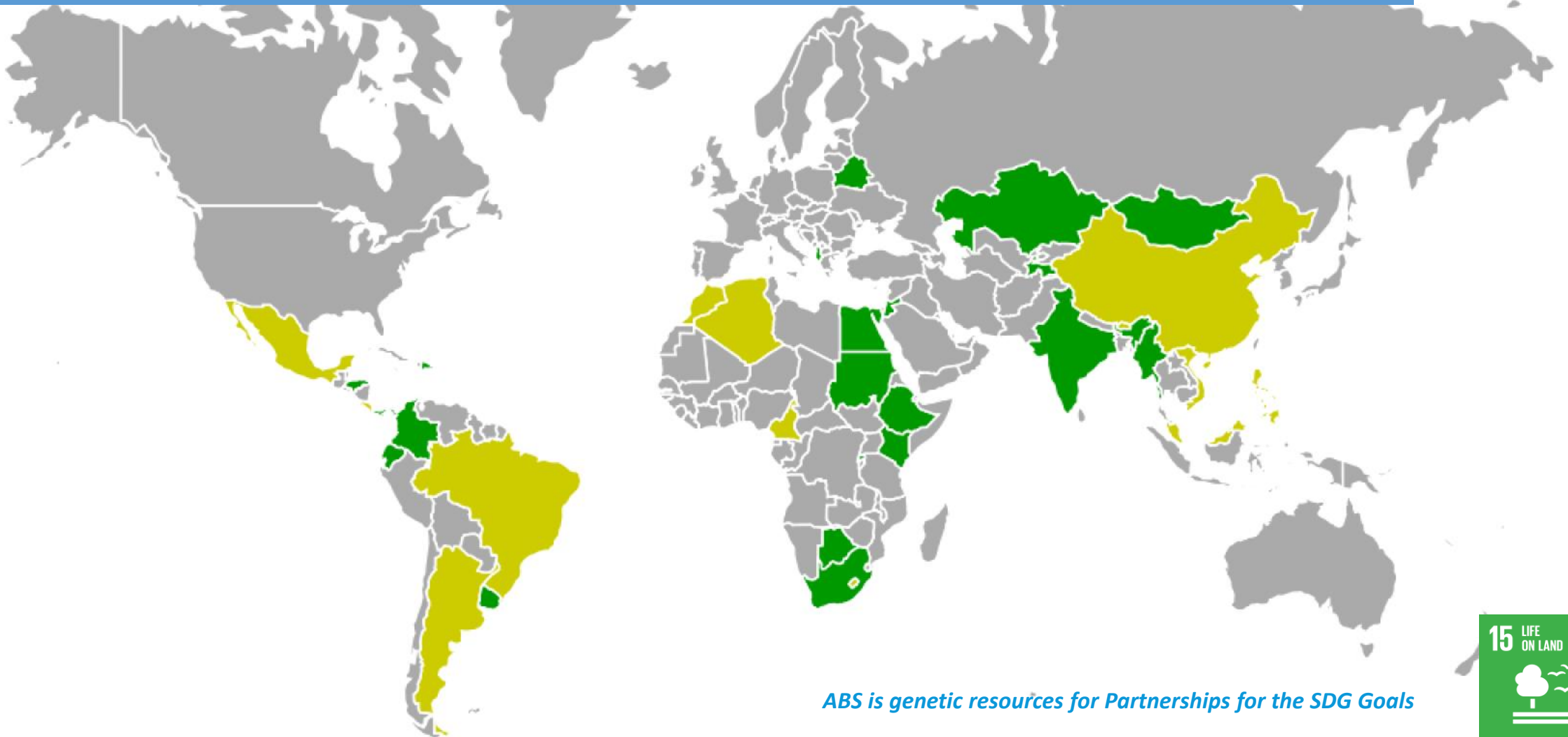
Strengthening human resources, legal frameworks and institutional capacities to implement the Nagoya Protocol

2. Building trust between users and providers of genetic resources to facilitate the identification of bio-discovery efforts

4. Implementing a Community of Practice and South-South Cooperation Framework on ABS



# UNDP-GEF Projects on ABS

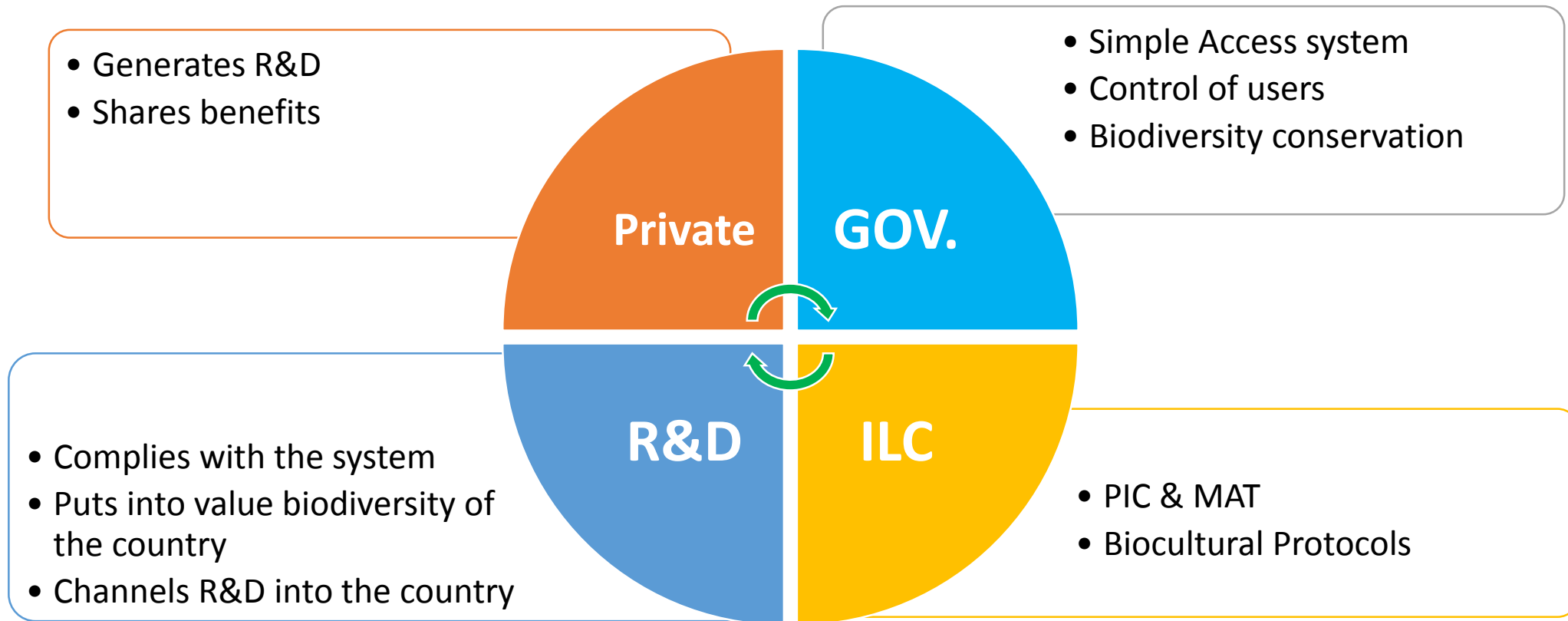


*ABS is genetic resources for Partnerships for the SDG Goals*

15 LIFE ON LAND



# Virtuous circle on ABS





# UNDP-GEF Global ABS Project



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## ABS is Genetic Resources for Sustainable Development



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UNITED NATIONS DEVELOPMENT  
PROGRAMME

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ABS is Genetic Resources for Sustainable Development

## ABS is Genetic Resources for Sustainable Development

### SETTING THE SCENE

Ethiopia is endowed with geographical diversity and climatic variability. From 126 m below sea level in the Danakil Depression to 4 620 m above sea level at Ras Dashen Mountain, agroecological zones spread across rugged mountains, flat topped plateaus, deep gorges, incised river valleys and rolling plains, making Ethiopia one of the world's biodiversity hotspots.

Out of 6 000 higher plant species known in Ethiopia, 10% are considered endemic. There are 75 breeds of cattle, sheep, goat, dromedary, equines and chickens and six species of honey bees. Large numbers of wild species of mammals, birds, reptiles, fish, amphibians and arthropods have been recorded with many being endemic to Ethiopia.

In fact, the country has a large number of endemic plant and animal species, and a higher number of endemic bird species than any other country in mainland Africa.

Biodiversity in Ethiopia is of very high agricultural and industrial significance. Agriculture amounts to 40% of national GDP and generates about 74% of export earnings. The country is a center of origin for cultivated crops like coffee, tef (*Eragrostis tef*, Poaceae), enset (*Ensete ventricosum*, Musaceae), and is a center of diversity for many crop species like durum wheat, barley and sorghum. Industries in the country that produce food and beverage, textile and leather, largely depend on plant and animal resources for their raw materials.

ABS DELIVERING SUSTAINABLE DEVELOPMENT GOALS AROUND THE WORLD

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환경부  
Ministry of  
Environment



### Biodiscovery case

The Oyrts Project utilizes genetic resources and derivatives from Oyrts species (*Santalaceae*), such as *Oyrts quadripartita*, known as the African sandalwood, for developing essential oil products based on light, middle and heavy fractions of Oyrts, used in the form of compounds in the cosmetic, perfumery and aromatic industries and as ingredients for the food and flavour industries.

With the involvement of the South Omo people, the products are being developed with Aditi International, a research lab based in Mumbai, India, and with Docomo Oils PLC, an international company which has more than 30 years in the field of essential oils and cosmetics. The Ethiopian Biodiversity Institute (EBI) is the authority that granted a national access permit based on PIC and MAT.

In terms of benefits, the company paid US\$50 000 as an upfront payment when signing the agreement and agreed to pay a lump sum equal to 3.5% of net profits

after taxes, an annual royalty of 3.5% of the net profits, and an annual license fee equal to \$2 000.

The company has invested over \$3 million to start a first-of-its-kind industry in Ethiopia, the factory provides 125 Ethiopians with permanent employment. The project promotes employment and access to an alternative revenue sources to thousands of people in the rural areas as suppliers of the Oyrts materials to the company.

The industry is 100% export-oriented and will bring in a minimum of \$2 million of foreign revenue each year into the country. The company has pledged to pay 2% of the cost of all raw materials purchased from the local community to establish nurseries that propagate new plants for rehabilitation and for sustainability purposes. The company also pays to each collection-site association 30% of the purchase price of all raw material purchased to assist them to grow and support other initiatives within their communities.



ETHIOPIA

for Partnerships for the SDG Goals



# UNDP-GEF Global ABS Project



1. Check our pilot website  
[www.abs-sustainabledevelopment.net](http://www.abs-sustainabledevelopment.net)
2. Join us in the incoming **Global ABS Community** (community of practice on ABS to be launched on 19<sup>th</sup> November 2018 at COP-14 CBD)



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# Building Trust

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*Access and Benefit-Sharing (ABS) is Genetic Resources for Sustainable Development*