UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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# *Research priorities, types of use and changes in intention along the value chain*

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MÔI TRƯỜNG VIỆT NAM

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# Research priorities, types of use and changes in intention along the value chain

## Plan

Preambule

I – Utilization:

- ❖ Definitions / how to approach “Research & Development”
- ❖ The Nagoya Protocol  mechanic and dynamic

II – Common facts on Biodiversity utilization

III – Value chains:

- ❖ steps and actors
- ❖ examples of changes in intention
- ❖ Value and traceability considerations

IV – Some recommendations

# Research priorities, types of use and changes in intention along the value chain

## I – Utilization

Art. 2: “Use of terms”

=> “**Utilization** of GR” **means to conduct research and development** on **the genetic and / or biochemical composition of genetic resources**, including through the application of biotechnology as defined in Article 2 of the Convention.

- Research and development

- **Genetic Resources (GR)**

=> Contain functional units of heredity (ex: seeds, leaves, roots, etc.)
=> Art. 15 (3) – CBD: notion of **endemism**

- **Biochemical composition of GR**

=> As a result of the genetic or metabolic expression of a GR: notion of derivatives as well as biomimetic mechanisms (i.e. interactions amongst molecules)

Ex: R&D on specific extracts (sap, solvent extracts etc.), isolated compounds (polyphenols, anti-oxidants, enzymes, etc.),

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## I – Utilization

Art. 2: “Use of terms”

=> “Utilization of GR” means to conduct research and development on the genetic and / or biochemical composition of genetic resources, including through the application of biotechnology as defined in Article 2 of the Convention.

- **Research and development**

⇒ **How to define it?**

Various sectorial guidelines are under preparation, to try to better define what could be considered as R&D. But when / if considering them, it will be important to distinguish those drafted by providing countries from those designed from the users perspective.

=> How to approach this definition, to build on to a national ABS strategy in a providing country?

# I – Utilization

❖ **Research and development**

=> How to approach this definition, to build on to a national ABS strategy in a providing country?

**Research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge.**

OECD (2015), *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development*, The Measurement of Scientific, Technological and Innovation Activities, OECD publishing, Paris.

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## I – Utilization

=> **How to approach this definition, to build on to a national ABS strategy in a providing country?**

> "Research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge."

=> CBD:

- « States have sovereign rights over their own biological resources »
- « general lack of information and knowledge regarding biological diversity and the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures »

=> **On principle: any information or knowledge that could help to establish better resources assessment and management**

# I – Utilization

i.e.: any activity that generates new information to better understand the GR and /or its biochemical composition

Examples:

- Extraction or refining processes may be comprised in R&D activities if the outcomes reveal new relevant information (decrease of a safety issue, development of new properties due to concentrated molecules, or new extracted molecules)

- An existing "Derivative" currently / commonly used for cosmetic applications may represent an interest in Food uses.

- Safety assessment / R&D for specific sectorial uses (e.g: Personal Care, Food, Fragrance, etc.)

**Principle: first utilization versus known utilization comprising full related information**

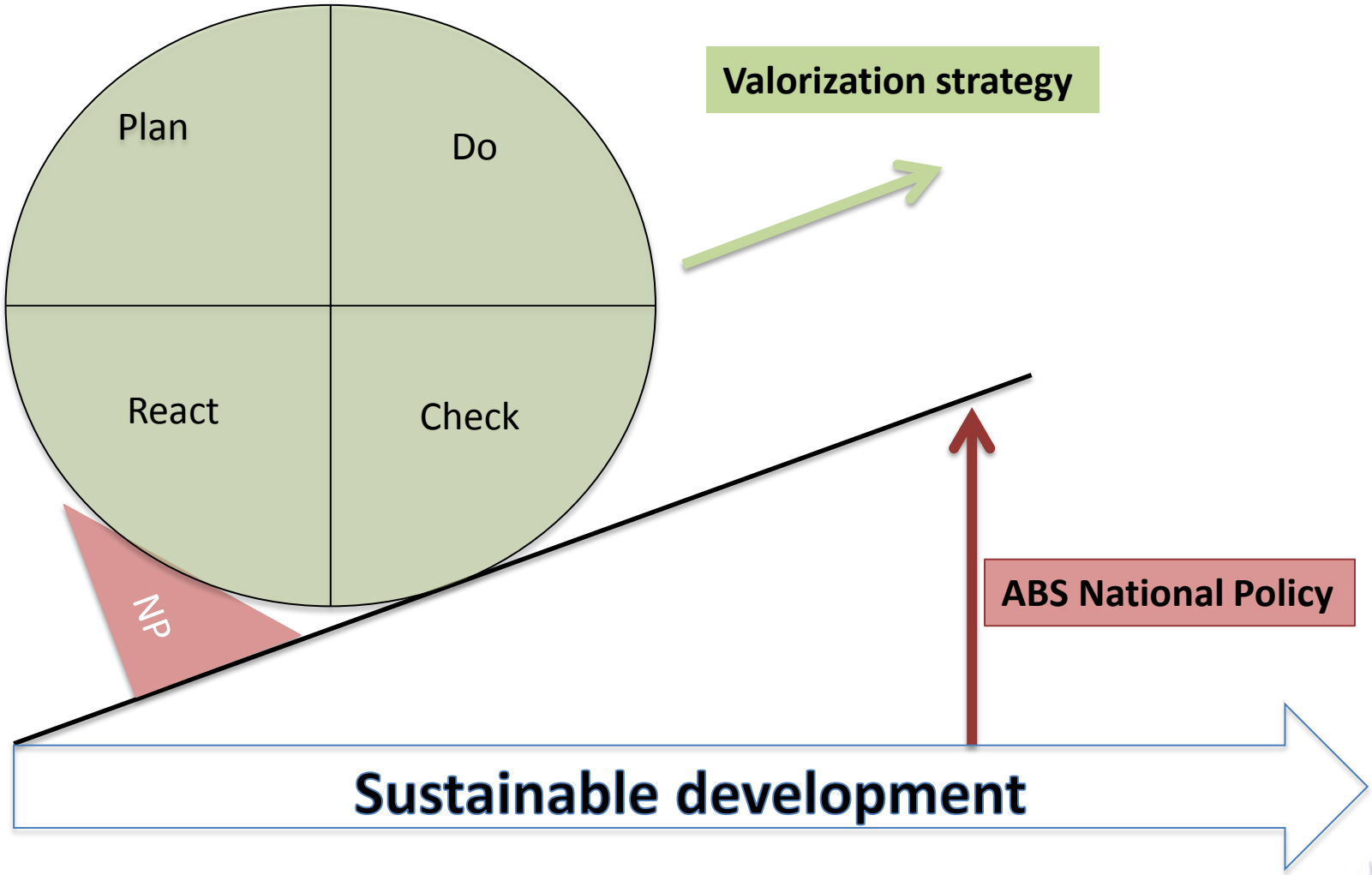
# Research priorities, types of use and changes in intention along the value chain

## I – Utilization

=> An incentive for an adaptive approach

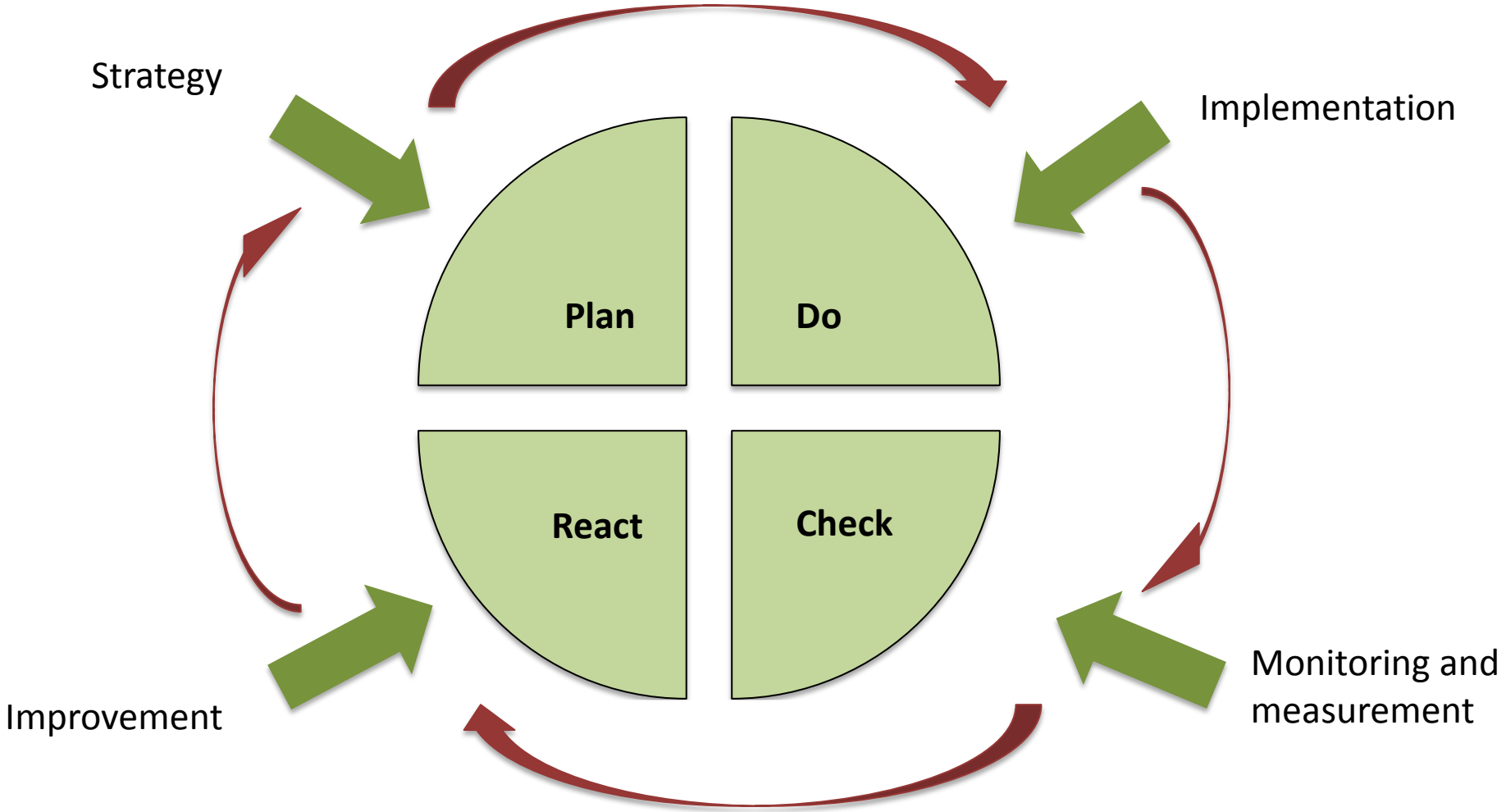
# Research priorities, types of use and changes in intention along the value chain

## The Deming wheel applied to the Nagoya Protocol on ABS:



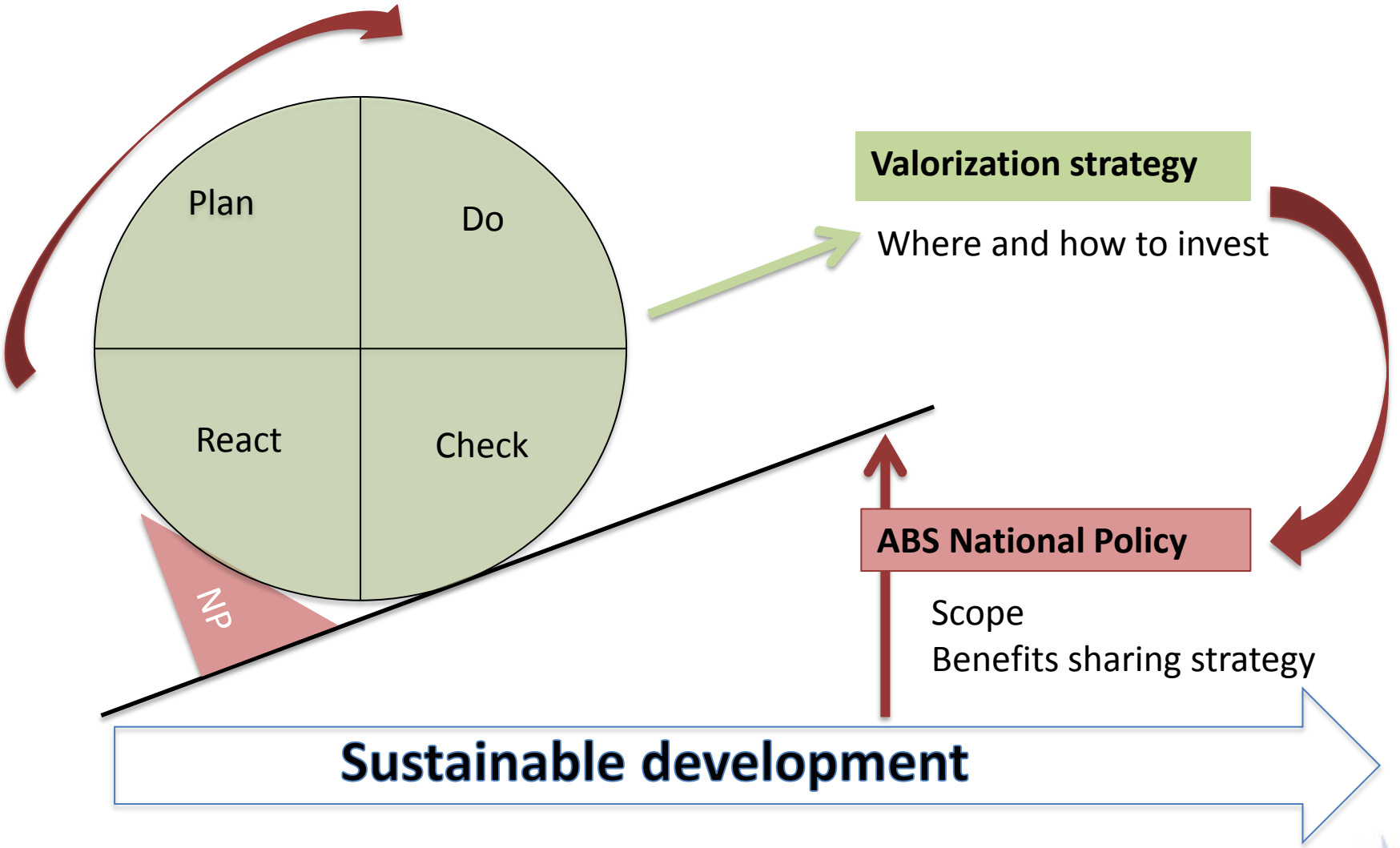
# Research priorities, types of use and changes in intention along the value chain

**The Deming wheel applied to the Nagoya Protocol on ABS:** the mechanic



# Research priorities, types of use and changes in intention along the value chain

**The Deming wheel applied to the Nagoya Protocol on ABS:** the dynamic

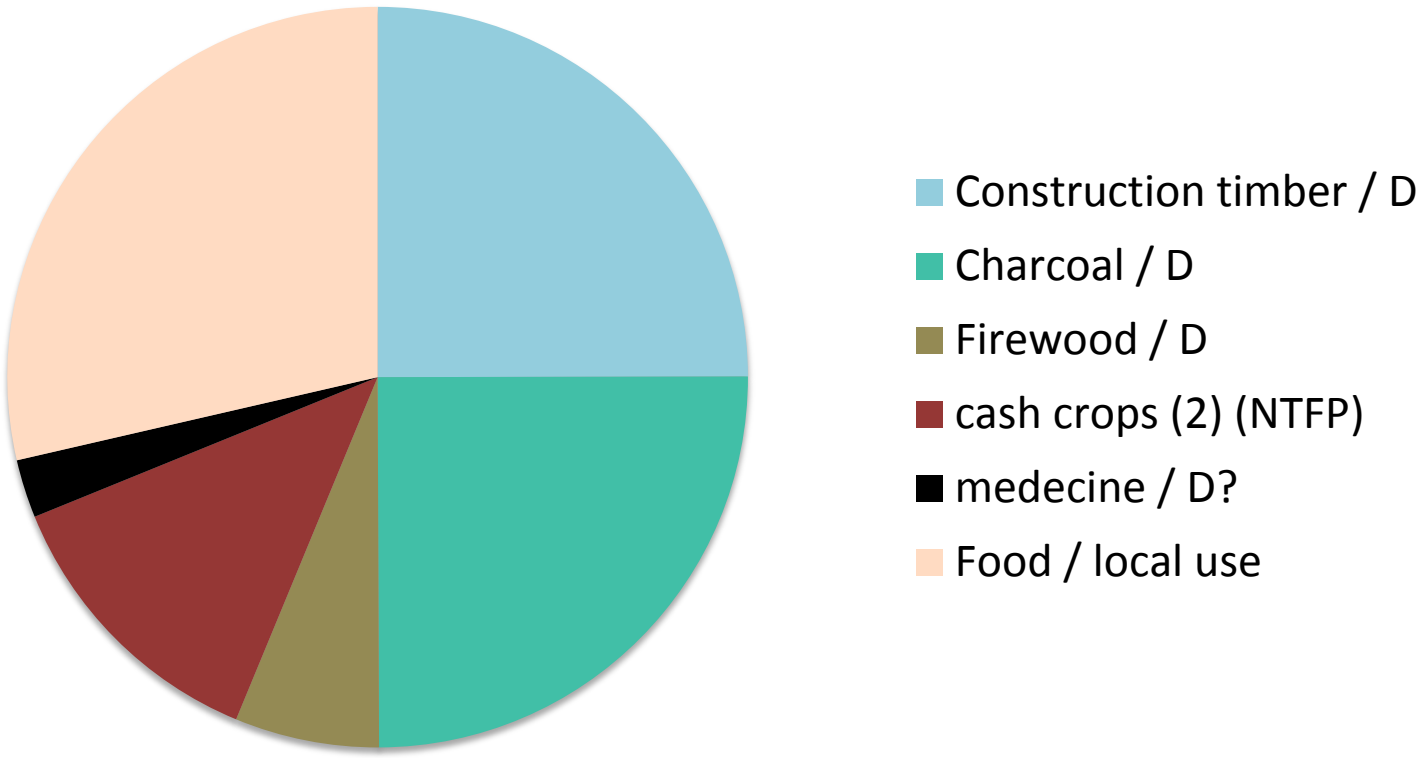


# Research priorities, types of use and changes in intention along the value chain

## II – Common facts on Biodiversity utilization

- It can be for subsistence and for generating income

**Example from Malawi*: value (in %) of typical BD utilization in a selected area**




* source: TreeCrops

# Research priorities, types of use and changes in intention along the value chain

## II – Common facts on Biodiversity utilization (endemic)

❖ Wild versus cultivated

✧ "Cultivation" comes with income generating activities

=> Outside of "utilization" (i.e. scope) once production practices and quality are assessed
=> Quantities are "controlled" as well as impacts on surrounding Ecosystems

✧ "Wild" requires resource assessments and thorough quality control based on well defined harvest and storage practices

=> Priority should be considered depending on the use (ex: food versus cosmetic, export versus local consumption°
=> High potential for ABS (soft IP such as GI, aTK, non monetary benefits)

**Consideration: there might be some "caps" to be defined when valorizing a species**
=> incentive to invest in research to diversify the offer

# Research priorities, types of use and changes in intention along the value chain

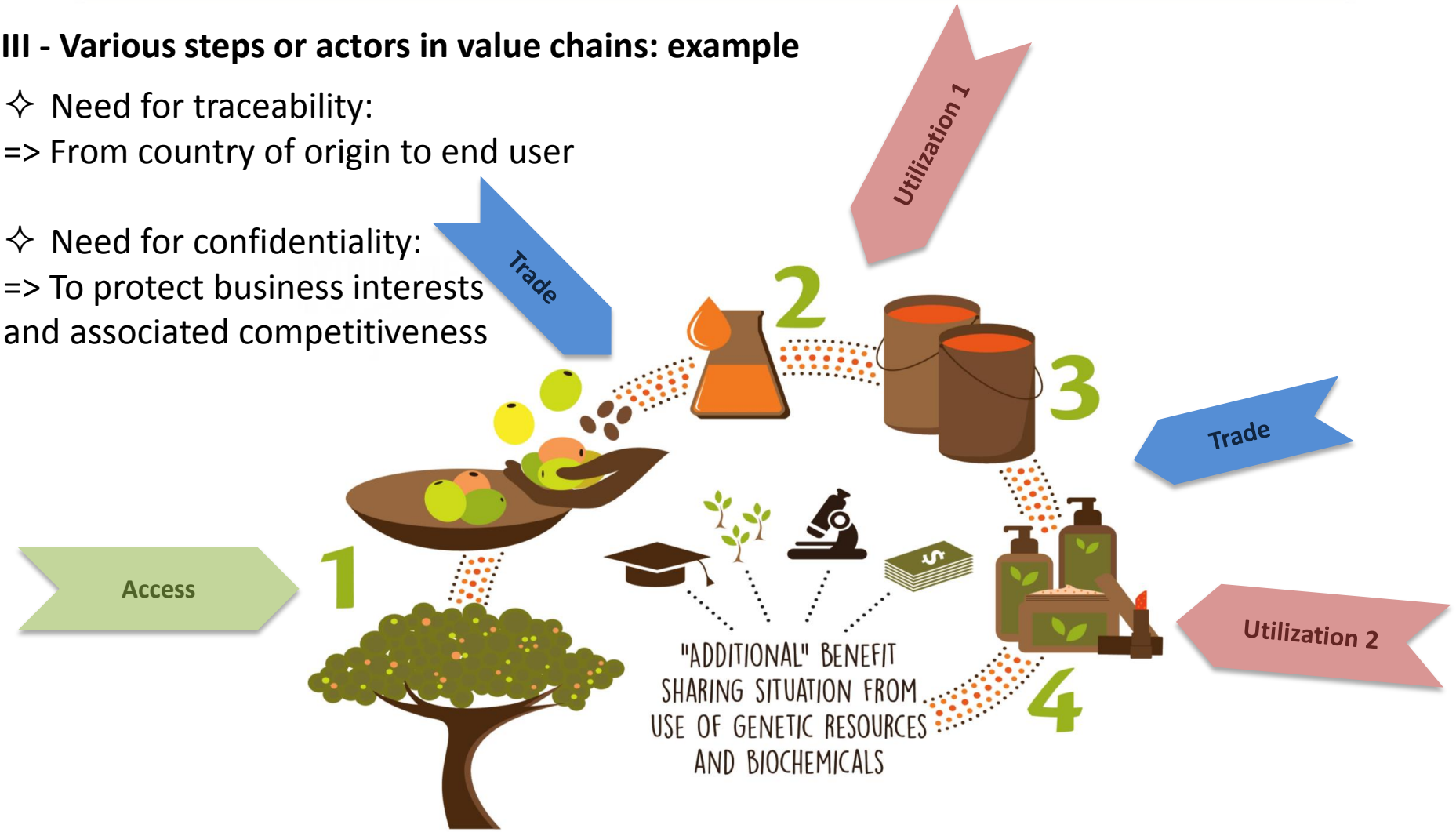
## III - Various steps or actors in value chains

# Research priorities, types of use and changes in intention along the value chain

## III - Various steps or actors in value chains: example

✧ Need for traceability:
=> From country of origin to end user

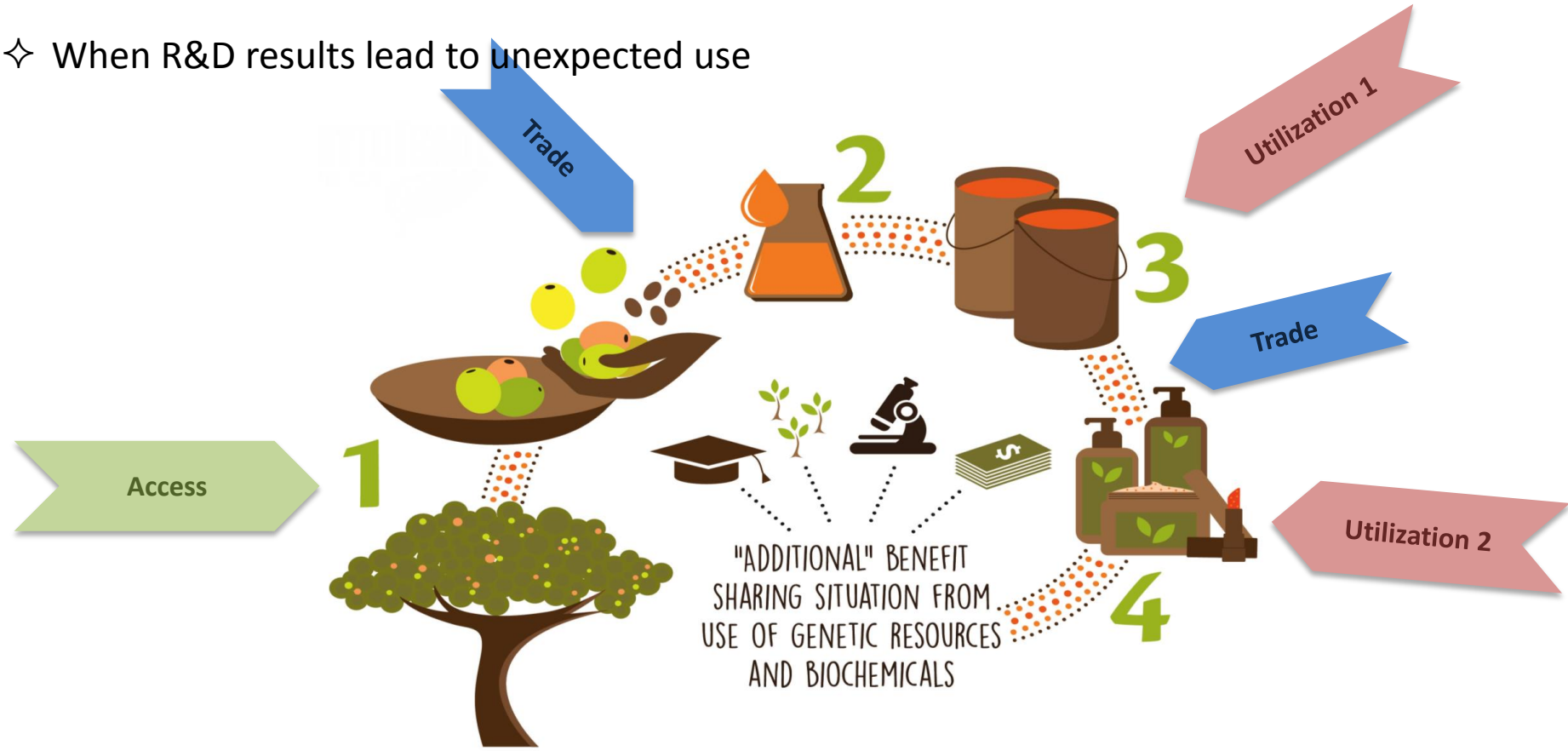
✧ Need for confidentiality:
=> To protect business interests and associated competitiveness



# Research priorities, types of use and changes in intention along the value chain

## III - Changes in intention

- ✧ When use differs from Access conditions (biotrade vs BioTrade vs Bioprospecting)
- ✧ When R&D results lead to unexpected use



# Research priorities, types of use and changes in intention along the value chain

## III – Value and traceability

- A strategy to re-capture values locally
- An incentive to local investment

# Research priorities, types of use and changes in intention along the value chain

## In Viet Nam: links with NBSAP

In 2010, agriculture contributed to over 20% of total gross domestic product (GDP) and accounted for 28% of national export turnover.

• Approximately 20 million people in Vietnam derive their income and/or earnings from marine and aquatic resources through exploiting over 300 marine species and over 50 species of valuable freshwater fish.

• About 25 million people live in or around forests, and 20%-50% of their income is reportedly derived from non-timber forest products, e.g. hundreds of species of medicinal plants, and plants for oil and dyes.

To date, just on Flora:

- 11400 species of vascular plants
- Out of which 1000 are endemic
- 76 aromatic spices
- 160 species producing vegetable oils plus herbal species

=> Where are the “low hanging fruits” to create the “NP dynamic”?

=> How to establish “tools” to really decrease legal uncertainties?

=> Where are the most relevant “checkpoints” to control and measure?

# Research priorities, types of use and changes in intention along the value chain

## IV – Some short terms recommendations

- To create or communicate on a National data base and associated access policy and management to start listing endemic species, potential aTK and their owners.

- To conduct assessments of needs and gaps, in order to help identifying research priorities (ex: analytical capacities per short, medium and longer terms sectors of interest, needs for technologies).

- To increase some “legal certainties”, the **national vision** on the **Biodiversity valorization strategy** should be highlighted: that would reflect **the scope** (Ex: which includes or not the “changes in intention” possibilities). This would allow drawing **communication tools for practitioners** within a same value chain, together with developing related relevant **checkpoints**; then the **Benefits Sharing approach** would be easier to design to match the national objectives.

# Research priorities, types of use and changes in intention along the value chain

## IV – Some short terms recommendations

- ❖ To link with other Conventions and regulatory requirements

=> ITPGR
=> CITES
=> Phytosanitary requirements
=> Users measures

# Questions and answers


## Thank you

**For further information: www.biotrade.org**

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