CAPACITY-BUILDING WORKSHOP ON THE NEGOTIATION OF MUTUALLY AGREED TERMS FOR ACCESS TO GENETIC RESOURCES, TO SUPPORT EFFECTIVE IMPLEMENTATION OF THE NAGOYA PROTOCOL ON ACCESS AND BENEFIT SHARING

Hosted by the Caribbean Community Secretariat
In cooperation with the ABS Capacity Development Initiative
& the Government of Suriname

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ABS and academia: Experiences with Mutually Agreed Terms (MAT) & benefit-sharing at the University of the West Indies (UWI)

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Summary

- **Experiences with negotiations**
  - Country position
  - Nagoya Protocol & value chain from biodiversity to finished product
  - CASE STUDIES
    - Periwinkle
    - UWI
    - TRAMIL
    - Research CASE STUDIES
  - RESPONSE

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You do not get what you deserve,

You get what you negotiate

Chester L. Karrass

http://www.activegarage.com/you-don%E2%80%99t-get-what-you-deserve-you-get-what-you-negotiate

http://www.amazon.com/In-Business-Life-Deserve-Negotiate-ebook/dp/B00E3HS6M0

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Jamaica's status @ 01.12.15

- ***CBD***: Party since 1995-01-06 by Ratification
- ***National Biodiversity Status and Action Plan (NBSAP)***: 4th National Report submitted July 2013 for period 2005-2009.
- **December 2014** - began process of updating the country's NBSAP. The targets set will be in line with the Aichi Biodiversity Targets outlined in the Strategic Plan Biodiversity 2011-2020. The project will also prepare the Fifth National Report***. NOT FINISHED YET***
- ***Cartagena Protocol***: Party since: 2012-12-24 by Ratification
- ***Kuala Lumpur Protocol***: Non-Party
- ***Nagoya Protocol***: Non-Party

http://www.cbd.int/countries/?country=jm

Country position

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- JIPO / WIPO
- International Agreements - CBD
  - NEPA
    - Material Transfer Agreements
    - Wildlife Research Agreement
  - CHM
- The future
  - 2016 -Nagoya Protocol

Country position

- Intellectual Property (IP)
  - Trade secret
  - Copyright
  - Patent
  - Trademark
  - Industrial Design
  - Geographical Indicator
- Plant protection
- Traceability – DNA fingerprint
- UWI Ethics approval
- UWI – IP office
- BSJ Standards, certification, accreditation
- NEPA - MTA
- Nagoya Protocol - ABS
  - Licenses & Agreements
  - MAT

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Recognized needs

- "Additionally, there are a number of areas of constraint, which have been indicated in respect of particular pieces of legislation and which need to be addressed. These areas, particularly those relating to genetic resources, intellectual property protection and the Maroons may be addressed by appropriate projects. In this regard, the following Acts should be strengthened and legislation developed:

- 4.enact legislation to address the preservation and utilization of traditional knowledge;

- 5. develop a clear comprehensive policy as to how to treat with the Maroons, their lands, knowledge, culture and related matters; and

- 6. develop legislation to protect genetic resources and provide for intellectual property protection for breeders of and accessing new plant varieties."

Access and Benefit Sharing

Nagoya Protocol

- The Nagoya Protocol applies to genetic resources that are covered by the CBD, and to the benefits arising from their utilization.

- The Nagoya Protocol also covers traditional knowledge (TK) associated with genetic resources that are covered by the CBD and the benefits arising from its utilization.

  http://www.cbd.int/abs/about/default.shtml

WHERE DO WE NEED MUTUALLY AGREED TERMS ?

Access and Benefit Sharing

What is a Value chain?

- *A value chain is a chain of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market (Porter 1979).*

- *Products pass through activities of a chain in order, and at each activity the product gains some value. The chain of activities gives the products more added value than the sum of added values of all activities.*

How to add value?

- Capturing the value generated along the chain is necessary.
- For example, a manufacturer might require its parts suppliers to be located nearby its assembly plant to minimize the cost of transportation.
- By exploiting the upstream and downstream information flowing along the value chain, the firms may try to bypass the intermediaries creating new business models, or in other ways create improvements in its value system.

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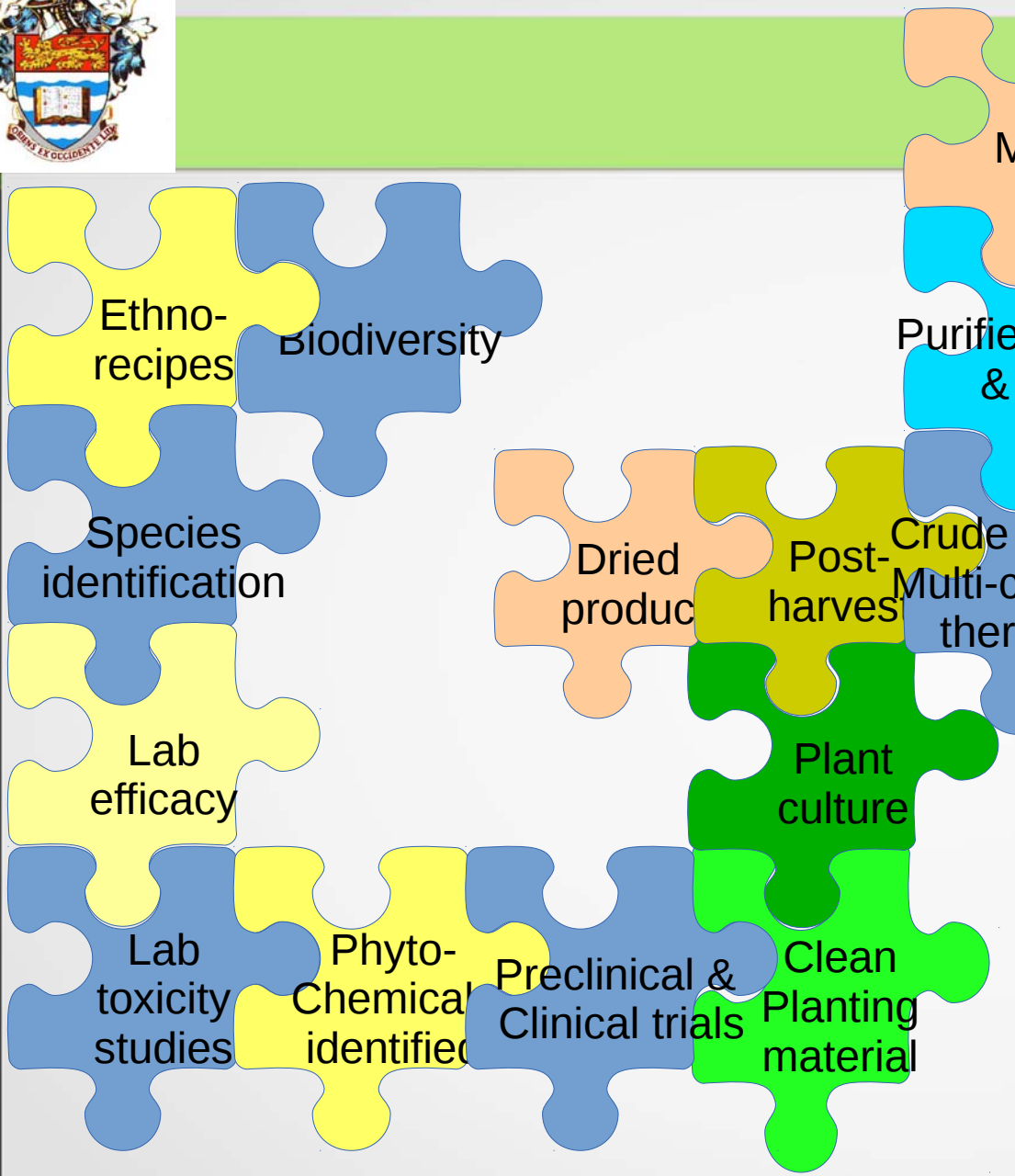


Value chain

Access and Benefit Sharing

In vitro screens

In vivo screens

Pharmaceuticals

Nutraceuticals

Clinical trials

CASE STUDY - Periwinkle

1. Genetic Resource – Periwinkle

2. Traditional Knowledge developed

3. Ethnobotany study

4. Testing for folk use for diabetes (ethnomedicine)

5. Extract used in a test for cancer

6. Two phytochemicals found with bioactivity towards leukemia – vincristine and vinblastine

7. No benefit-sharing agreement was in place

- WIPO/JIPO: Advanced Training Program on Successful Technology Licensing (STL)
  - No mention of source of GR or TK
  - *Origin is mentioned in LCA (Life Cycle analysis)*
- UWI Ethics Committee: All research dealing with people has to get ethics approval
  - Foreign Botanical Garden
    - Institutional demands
    - Journal requires ethics approval
    - Also had to have NEPA approval

CASE STUDY – TRAMIL

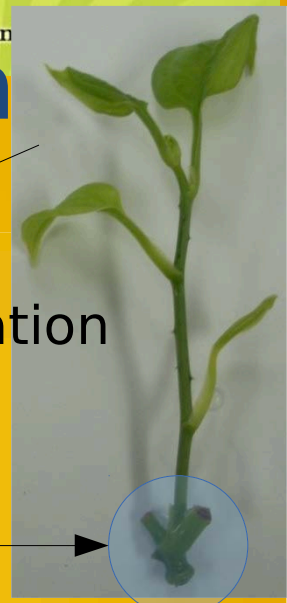
- Biodiversity
- Traditional Knowledge
- Questionnaires – individual PIC, community PIC where identifiable
- TRIGS – safety and efficacy
- TRADIF
- Caribbean Pharmacopeia

TRAMIL

http://www.tramil.net/

Last updated 2011

CASE STUDY - Sarsaparilla Micropropagation



Initiation

Original nodal explant

Multiplication

Rooting

Hardening

Two month after transfer

USAID project

The Micro-propagation Process

Stage 1: Initiation

Once the selected plants have been identified and collected from the field, they are sterilized with bleach to rid them of bacteria and fungi and then placed into test tubes, where they are grown for several weeks as a small plantlet under ideal growing conditions. This is the 'initiation' stage.

Stage 2: Multiplication

The second stage, 'multiplication', involves again screening the plants for bacteria and fungi once they have started to grow. At this stage, the plantlets are taken from the test tubes, sub-divided, and multiplied into more plants for several additional weeks in the lab.

Stage 3: Rooting

The third stage, 'rooting', is the last part in the process that takes place in the laboratory. In this stage the plants produce as many roots as possible and are then removed from the tissue culture vessel and prepared for the field.

Stage 4: Hardening

In the field, 'hardening' involves removing the rooted plants from their jars, placing them in seedling bags or pots and covering them with a plastic cup for two weeks. After the third or fourth week, the hardened plants are then planted in the field,

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Establishment of hardening facilities within selected farming communities – Cockpit Country

USAID project

CASE STUDY – Extracts - 1

- Graduate student discovers the bioactivity of a plant extract
- Part of the research work entailed making extracts from the plant
  - Presents it at a conference
  - Researcher at the conference asked if essential oils from the plant could be added to a chemopreventing-anticancer screen the researcher was contemplating at an overseas university
  - All asked was to send the samples and a letter of collaboration
- WHAT protects the IP of the LOCAL UNIVERSITY and any COMMUNITY from which the GR and TK were obtained?

CASE STUDY – Extracts - 2

- Graduate student discovers the bioactivity of a plant extract
- As part of the research work, the researcher goes to an overseas university whose lab carries out a screen not present locally.
- WHO owns the INTELLECTUAL PROPERTY that is developed? And what protection is there from any COMMUNITY from which the GR and TK were obtained?

CASE STUDY – Extracts - 3

- Graduate student undertakes questionnaires in local communities, and using individual PIC, learns of ethnomedicinal uses of plants
- OR
- Graduate student learns of ethnomedicinal uses of plants by literature review
- Screens are done at a local university. Results are published.
- Foreign university reads papers, obtains the plant from some other country, does further screens, makes a product, patents it.
- HOW DOES THE SOURCE COUNTRY OBTAIN ANY BENEFIT?

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THE RESPONSE – How do we strengthen our hands in negotiations?

Practical Considerations for Access and Benefit Sharing of Plant Derived Medicinal Compounds based on Local Knowledge

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Strengthen our Hands

Identify your plant

- Scientific name
- Associated local names for the plant
- Pictures
- Herbarium sample
- DNA fingerprint

Protect your plant

Be able to propagate your plant

Be able to do your own farm research and record it

Scientific name - local name - picture

Croton linearis

Rosemary

Rosmarinus officinalis

DNA fingerprinting

- To protect a new plant variety
  - People spend a tremendous amount of time developing strains of a plant by old breeding techniques, and they were never able to gain intellectual property protection for it, never get patent protection on it, because there's no way to prove this plant was theirs.
  - So they put all this work into developing the strain, and someone steals the strain, and they can't prove anything about it.
  - Now you can do DNA fingerprinting on plants, and many large seed companies routinely maintain databases of the DNA fingerprints of all their important varieties, so they can go to court and prove their ownership.
  - It creates economic protection, and it gives people an incentive to develop things.

Local knowledge

- Plant – farmer varieties
- Soil – cultivation methods
- Climate – how to mitigate

- Location – what grows well where

- Post-harvest – processing methods

- Products

Consider & Protect

Plant Variety

- Traditional
- Developed
  - Local
  - Imported

✔Traditional Knowledge

✔Farmers Research

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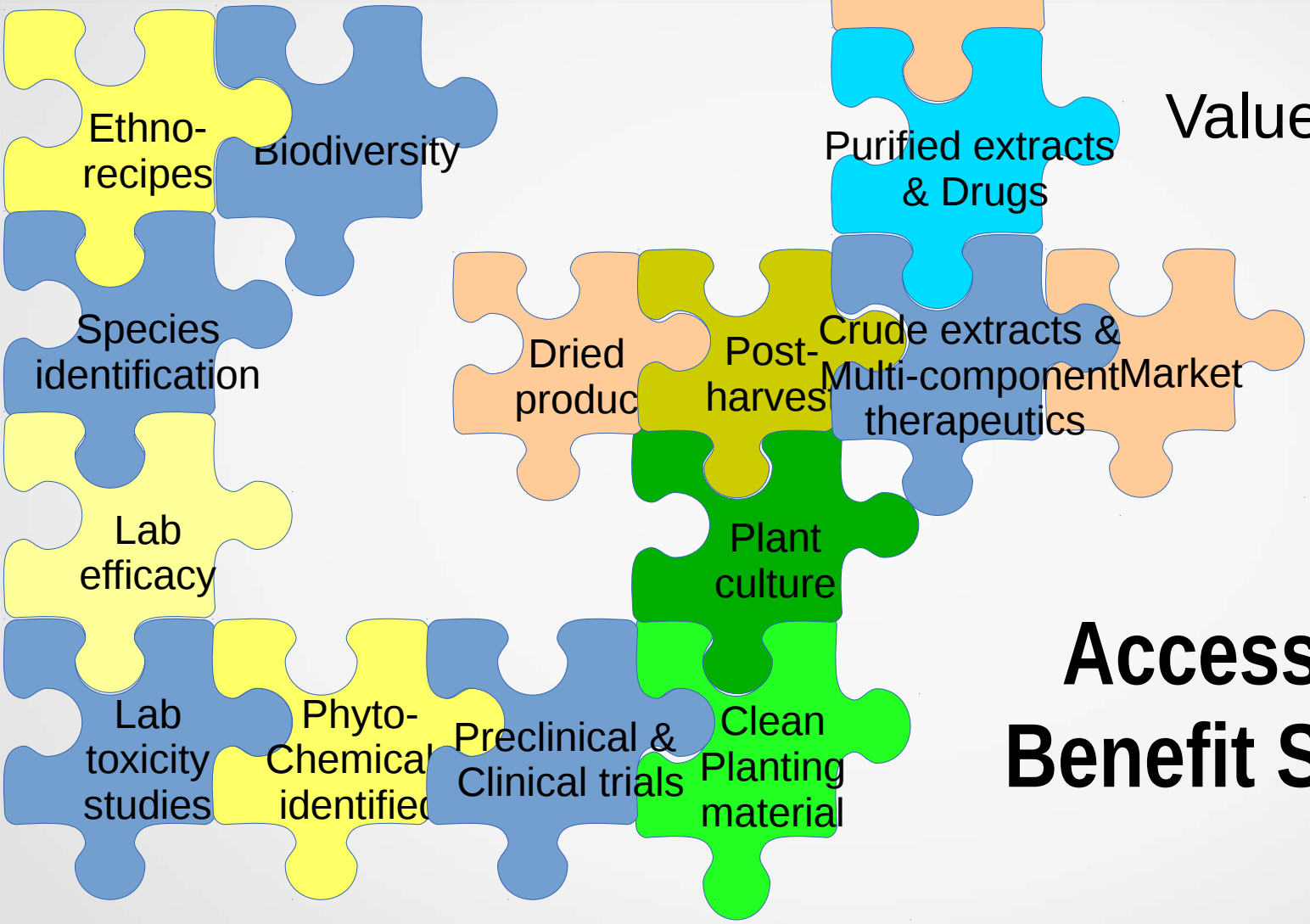
Are we linked together?
Can we use MAT to do this?
Can we learn from our past?



Value chain

Access and Benefit Sharing

Do we know what we have?

There is a story of an old lady who one day got a strange letter. She opened it and admired it and liked the colours so much that she framed it and hung it on the wall of her small hut. She lived simply for many years afterwards. One day, a stranger, also admiring the colours, looked closer. It was a check for a million dollars, more than enough to have taken care of the old lady magnificently since she received it for the rest of her life.

This is how we are treating the biodiversity in the Caribbean. DO WE KNOW WHAT WE HAVE? ***OTHERS DO!***

We are not going to get what we deserve,

We are going to get what we negotiate

Thank you!