

# A New Scheme (NIEMA) for Transferring Microbes across the border under the Nagoya Protocol

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# NAGOYA PROTOCOL ON ACCESS TO GENETIC RESOURCES AND THE FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THEIR UTILIZATION TO THE CONVENTION ON BIOLOGICAL DIVERSITY



The Nagoya Protocol was adopted at 1:29 a.m. 30 October 2010.

# **NAGOYA PROTOCOL ON ACCESS TO GENETIC RESOURCES AND THE FAIR AND EQUITABLE SHARING OF BENEFITS ARISING FROM THEIR UTILIZATION TO THE CONVENTION ON BIOLOGICAL DIVERSITY**

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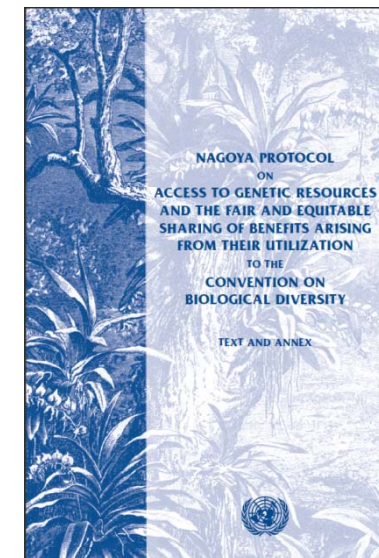
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Article 33

*Entry into Force*

**1. This Protocol shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession by States or regional economic integration organizations that are Parties to the Convention.**

**92 Signatures**

**29 Ratifications:** Albania, Benin, Bhutan, Botswana, Burkina Faso, Comoros, Cote d'Ivoire, Egypt, Ethiopia, Fiji, Gabon, Guinea-Bissau, Honduras, India, Indonesia, Jordan, Lao, Mauritius, Mexico, Micronesia, Mongolia, Myanmar, Norway, Panama, Rwanda, Seychelles, South Africa, Syria, Tajikistan

# Science vs. CBD & NP

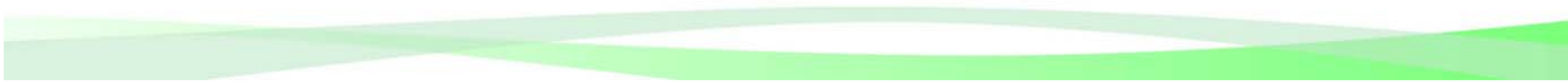
The CBD and NP may be a barrier to the development of Science !



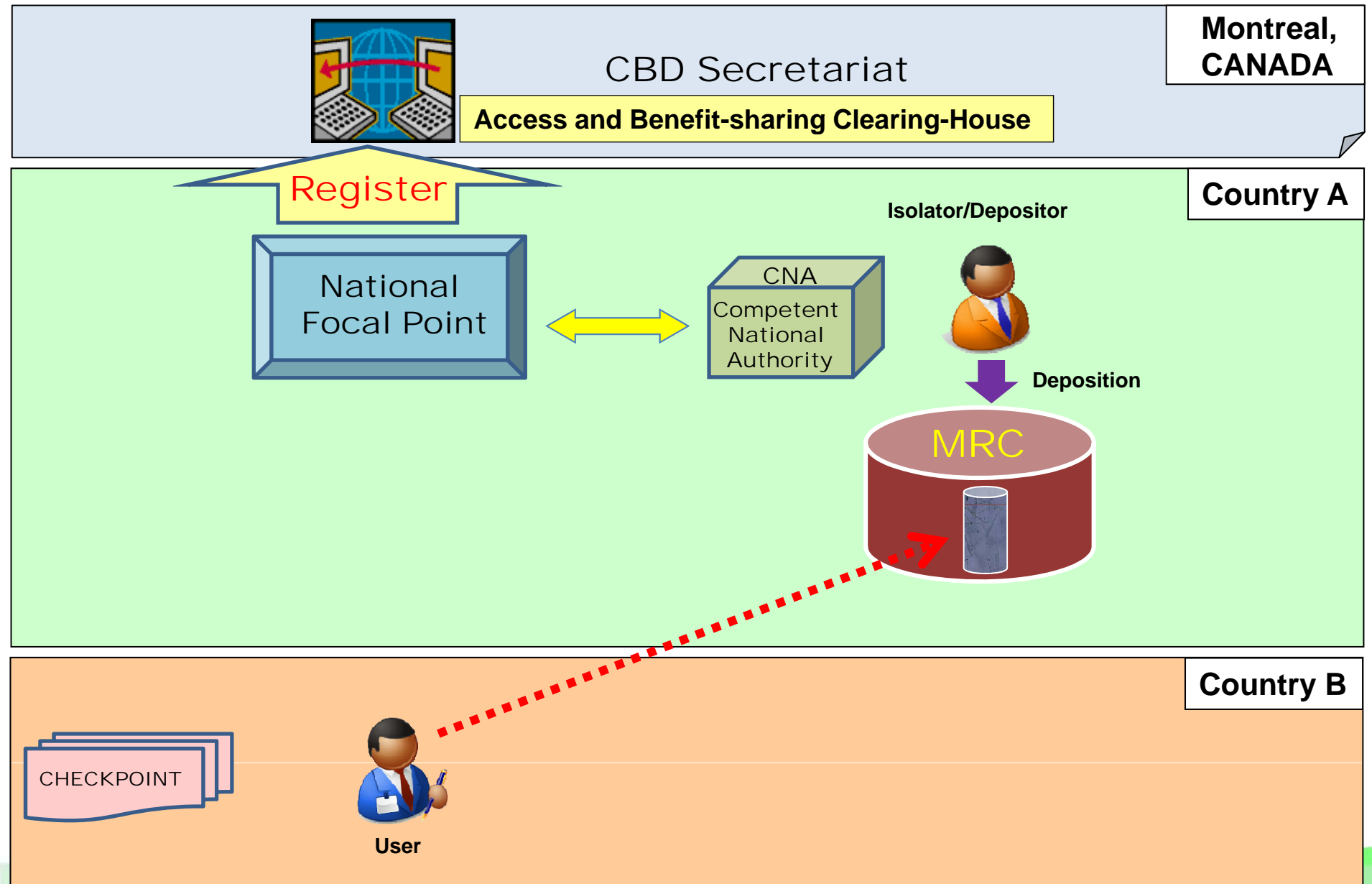
Article 15

*Compliance with Domestic Legislation  
or Regulatory Requirements on Access  
and Benefit-sharing*

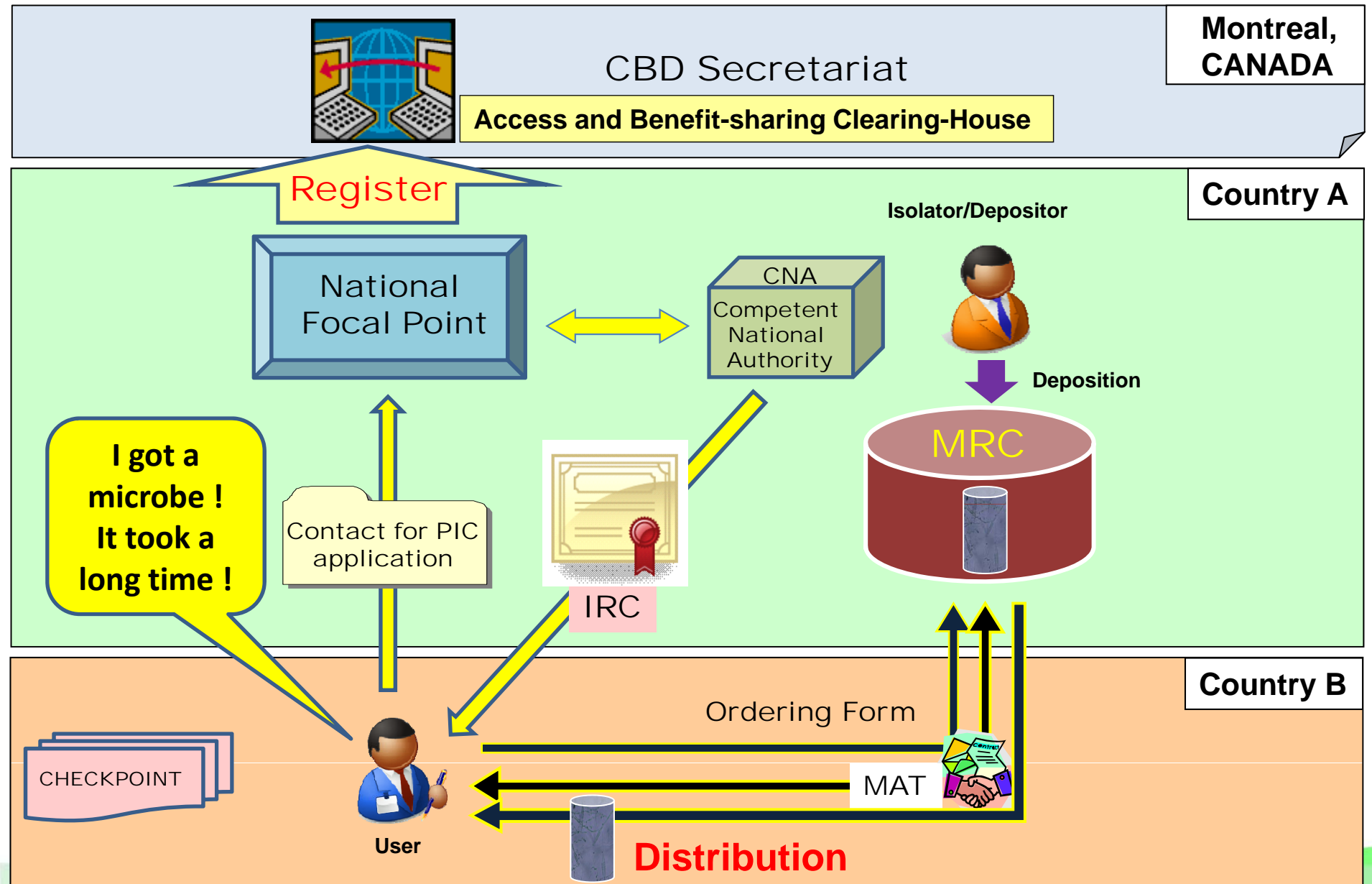
**1. Each Party shall take appropriate, effective and proportionate legislative, administrative or policy measures to provide that genetic resources utilized within its jurisdiction have been accessed in accordance with **prior informed consent** and that **mutually agreed terms** have been established, as required by the domestic access and benefit-sharing legislation or regulatory requirements of the other Party.**



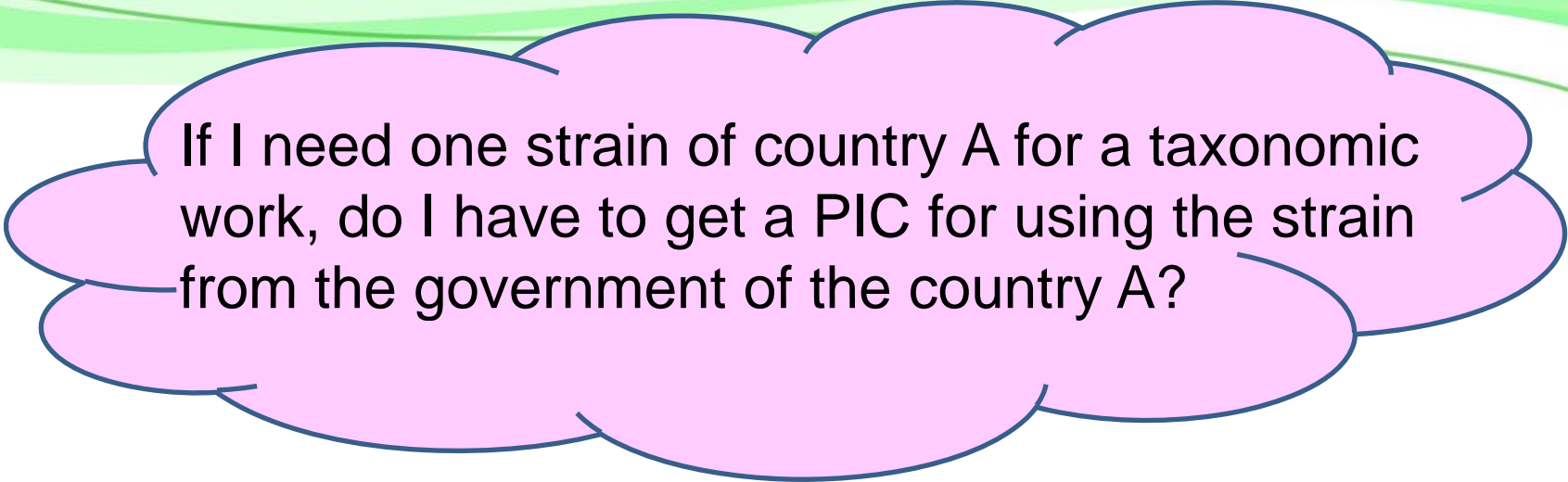
# Distribution of microbes preserved in MRC in Country A to user living in Country B under Nagoya Protocol



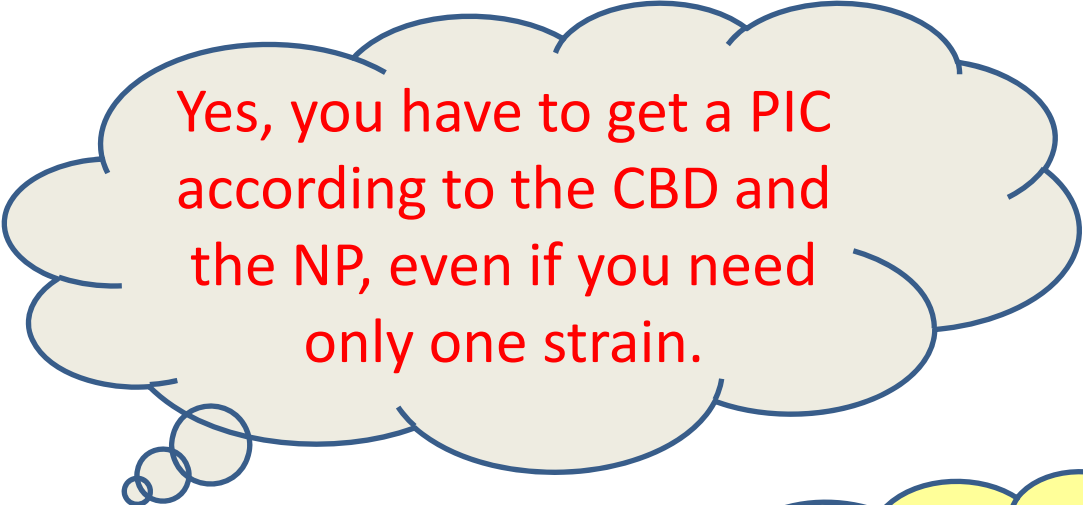
# Distribution of microbes preserved in MRC in Country A to user living in Country B under Nagoya Protocol



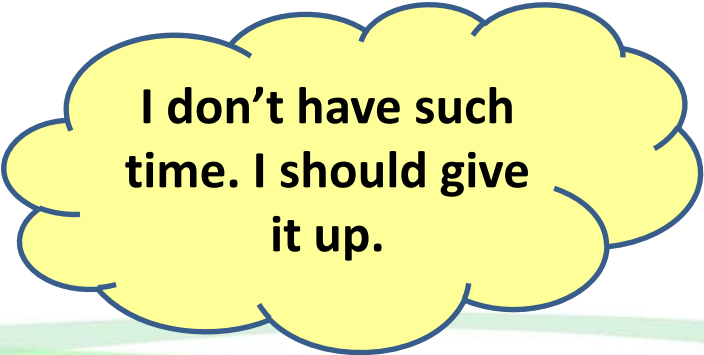




If I need one strain of country A for a taxonomic work, do I have to get a PIC for using the strain from the government of the country A?



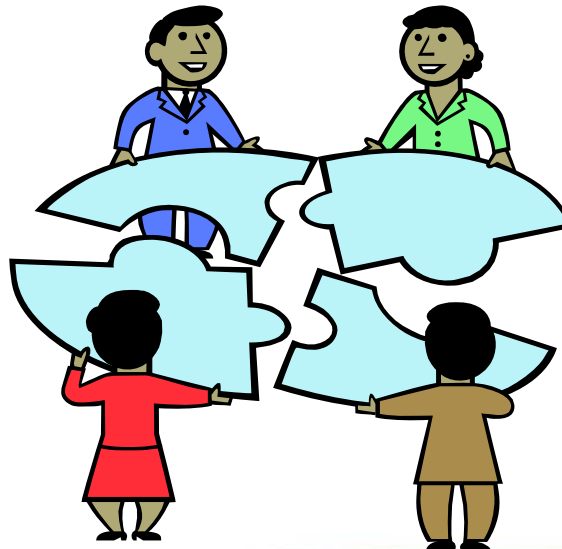
Yes, you have to get a PIC according to the CBD and the NP, even if you need only one strain.



I don't have such time. I should give it up.



Create new idea adapting  
transfer of microbes to  
CBD and NP







**ACM 1: Oct. 2004, Tsukuba, Japan**



**ACM 2: Nov. 2005, Bangkok, Thailand**



**ACM 3: Nov. 2006, Beijing, China**



**ACM 4: Nov. 2007, Chibinon, Indonesia**



**ACM 5: Oct. 2008, Daejeon, Korea**



**ACM 6: Nov. 2009, Hanoi, Vietnam**



**ACM 7: Oct. 2010, Kazusa, Japan**



**ACM 8: Oct. 2011, KL, Malaysia**



**ACM 9: Oct. 2012, Chang Mai, Thailand**



**ACM 10: Sep. 2013, Beijing, China**



# ACM

nite

# Asian Consortium (ACM) for the Conservation and Sustainable Utilization of Microbial Resources

Member countries

Institute of Biology  
Mongolian Academy of Sciences



Institute of Microbiology  
Chinese Academy of Sciences



KRIBB-BRC



NBRC

Research Institute of Science



Vietnam National Univ.



Patheir Univ.



BIOTEC



Ministry of  
Environment



Univ. Philippines



MARDI



LIPI

ACM Task Force

1. Asian Biological Resource Center Network (ABRCN)
2. Human Resource Development (HRD)
3. Management of Material Transfer of Biological Resources (MMT)





# Task Forces in ACM

## 1. Asian BRC Network (ABRCN)

Chair: Ken-ichiro Suzuki (Japan)

## 2. Human Resource Development (HRD)

Chair: Rosario G. Monsalud (Philippines)

## 3. Management of Material Transfer (MMT)

Co-chairs: Katsuhiko Ando (Japan) and  
Bubpha Techapattaraporn (Thailand)

The ACM members expect the expansion of the activities to reach the international standardized scheme to encourage microbiologists to study biological diversity to solve the global problems on environments and human welfare.



# What is **MMT** in ACM?

**M**anagement of **M**aterial **T**ransfer  
for Acquisition and Distribution  
of Microbes in **Microbial**  
**Resource Centers** (MRCs) on the  
basis of the Convention on  
Biological Diversity (CBD) and  
Nagoya Protocol (NP)

**ACM 3** (China) in Oct. 2006: **Establishment of MMT-TF**

# MMT Taskforce Members

Co-Chair System

**Chairpersons:**

**Ms. Bubpha Techapattaraporn  
(Thailand)**

**Dr. Katsuhiko Ando (Japan)**



## New members of MMT Taskforce



**Ms. Rie Funabiki (Japan)**  
NITE



**Dr. Tae-Eun Jin (Korea)**  
KRIBB



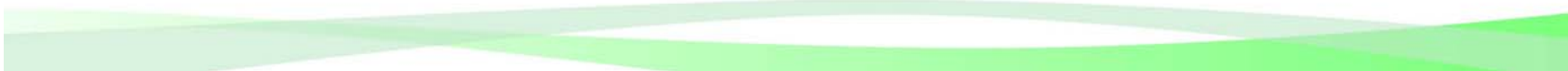
**Dr. Linhuan Wu (China)**  
EDCM/IMCAS

# Conclusion

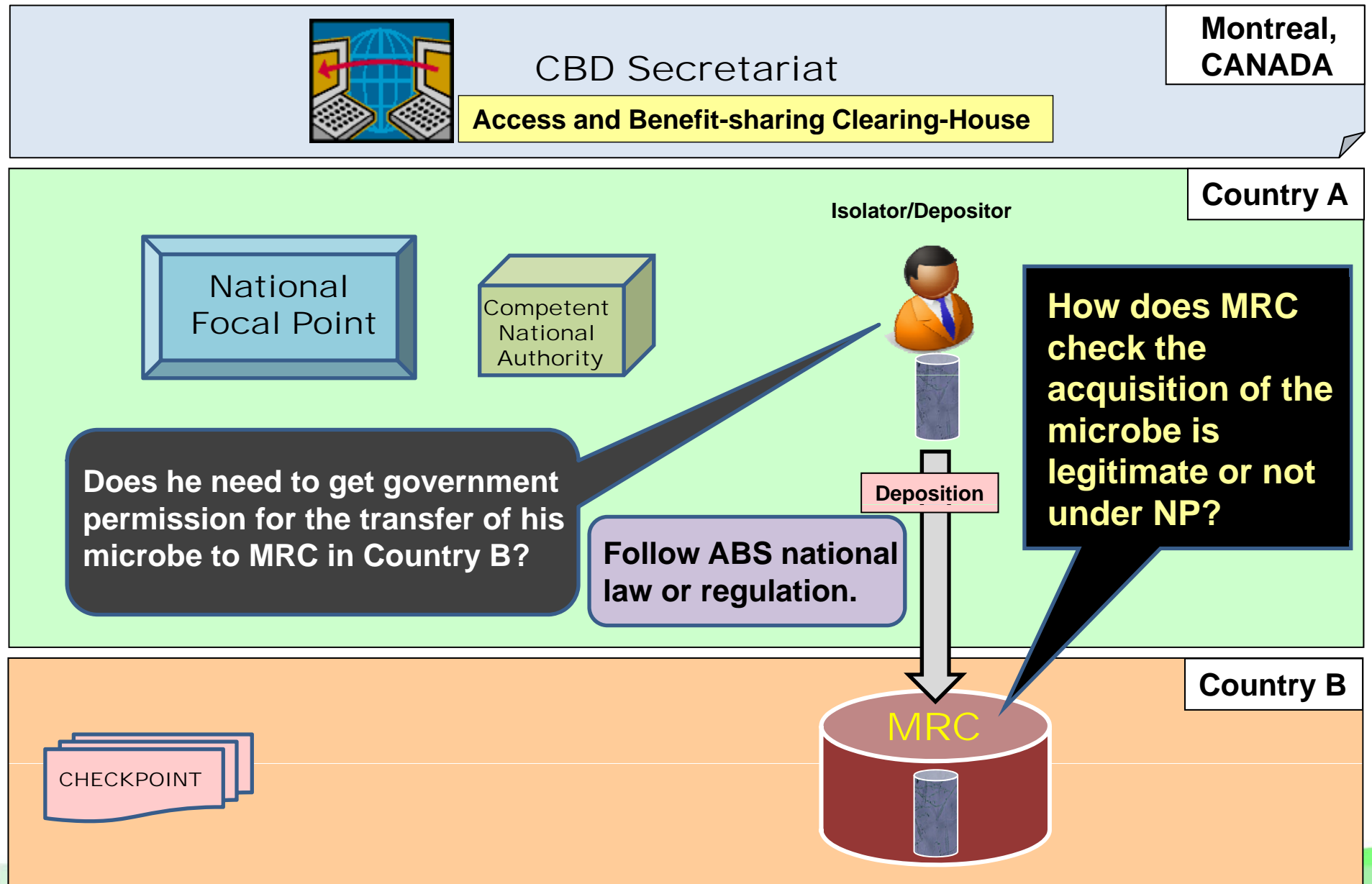
After discussion in MMT-TF members,

**There are many gray areas we can not decide from those articles describes in the NP.**

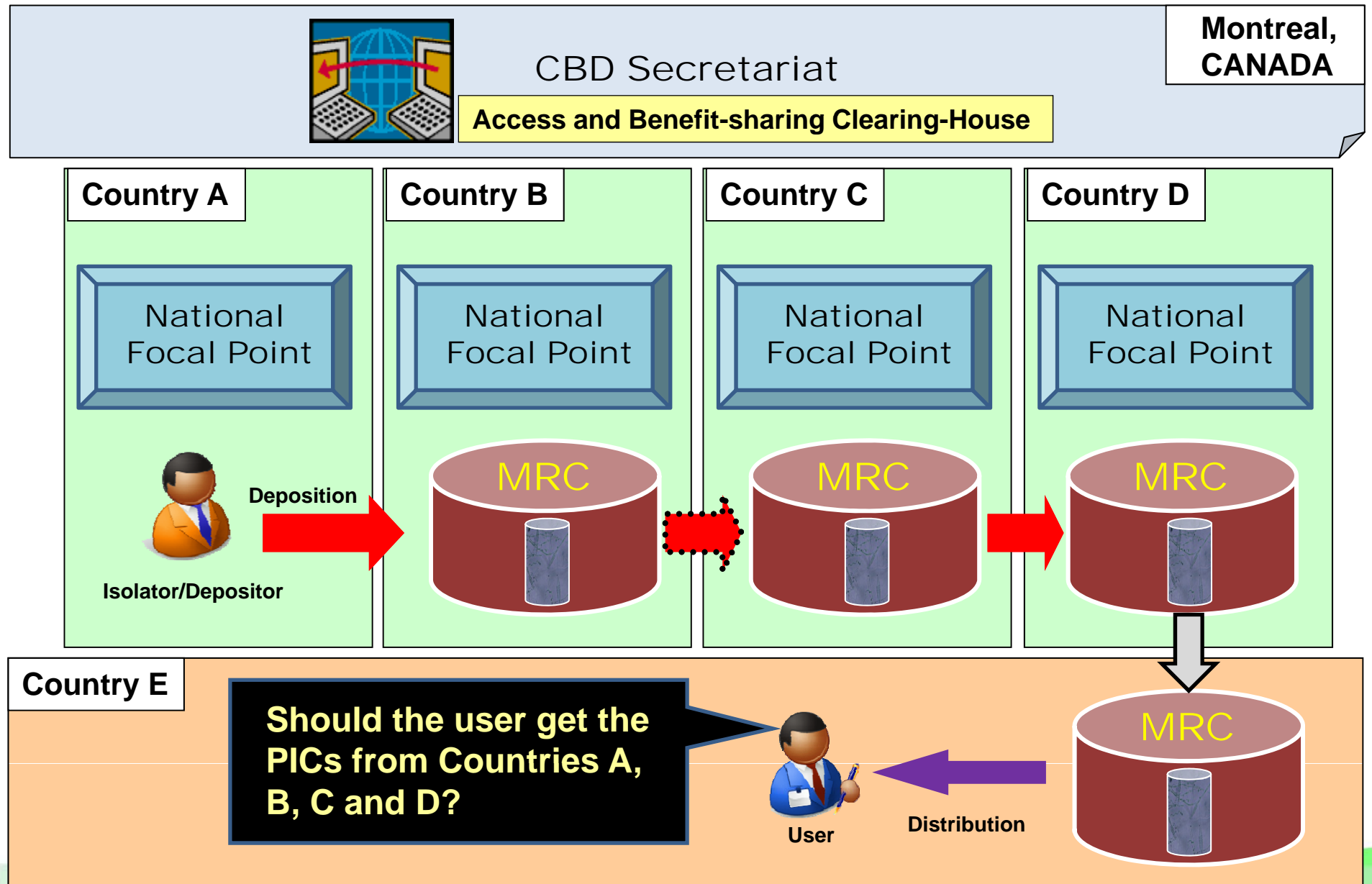
For example .....



# Acquisition of microbes isolated in Country A from isolator in Country A to MRC in Country B under NP



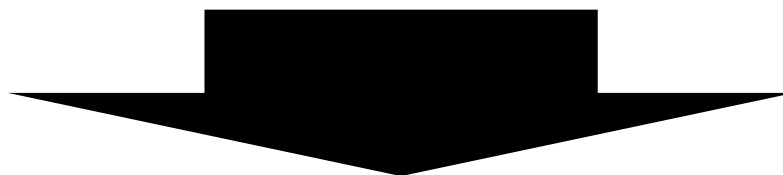
In a case: Microbes, through exchange system among MRCs, transferred to MRC in Country E under Nagoya Protocol





# Conclusion

**After the Nagoya Protocol enters into force, it could be a hard work for MRCs and USERS to use overseas microbes preserved in MRCs.**



**We should develop streamlined way using overseas microbes preserved in the MRCs for MRCs and USERS under the Nagoya Protocol.**


# NAGOYA PROTOCOL on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity

## ARTICLE 8

### SPECIAL CONSIDERSTIONS

In the development and implementation of its access and benefit-sharing legislation or regulatory requirements, each Party shall:

**(a) Create conditions to promote and encourage research** which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries, including **through simplified measures** on access **for non-commercial research purposes**, taking into account the need to address a change of intent for such research;



**In order to facilitate international transfer of microbes, a new scheme is necessary that shall be in full compliance with the principles of the Convention on Biological Diversity and the Nagoya Protocol.**

**What and how can  
we do it?**



# Challenge

## of MMT Taskforce members

- **Recognizing the principles in the Nagoya Protocol**
- **Facilitating the exchange of microbes among Microbial Resource Centers (MRCs)**
- **Facilitating the distribution of microbes from MRC to users**
- **Secure the traceability of transferred microbes**
- **Encouraging the sustainable use of microbes**
- **Encouraging the scientific progress**

Bridge the gap between MRC management and NP

# Network of International Exchange of Microbes in Asia under ACM (NIEMA)





# Base of the NIEMA

The base of the NIEMA is the registration of Microbial Resource Centers (MRC) declaring their adoption of a common policy (NIEMA Code of Conduct) which is in compliance with the obligations of the CBD and the Nagoya Protocol.

The NIEMA covers:

- (1) Transfer of **type and ex-type strains of microbes** from countries of the origin to member MRCs of the NIEMA
- (2) Exchange of the microbes **between only NIEMA member MRCs**
- (3) Could distribution of the microbes from NIEMA member MRCs to third parties, whose applicable is **ONLY for non-commercial research purposes.**
- (4) Each NIEMA member MRC shall make available to a **NIEMA Clearing-House** any data of transfer information of microbes from MRC to MRC and from MRC to third parties.

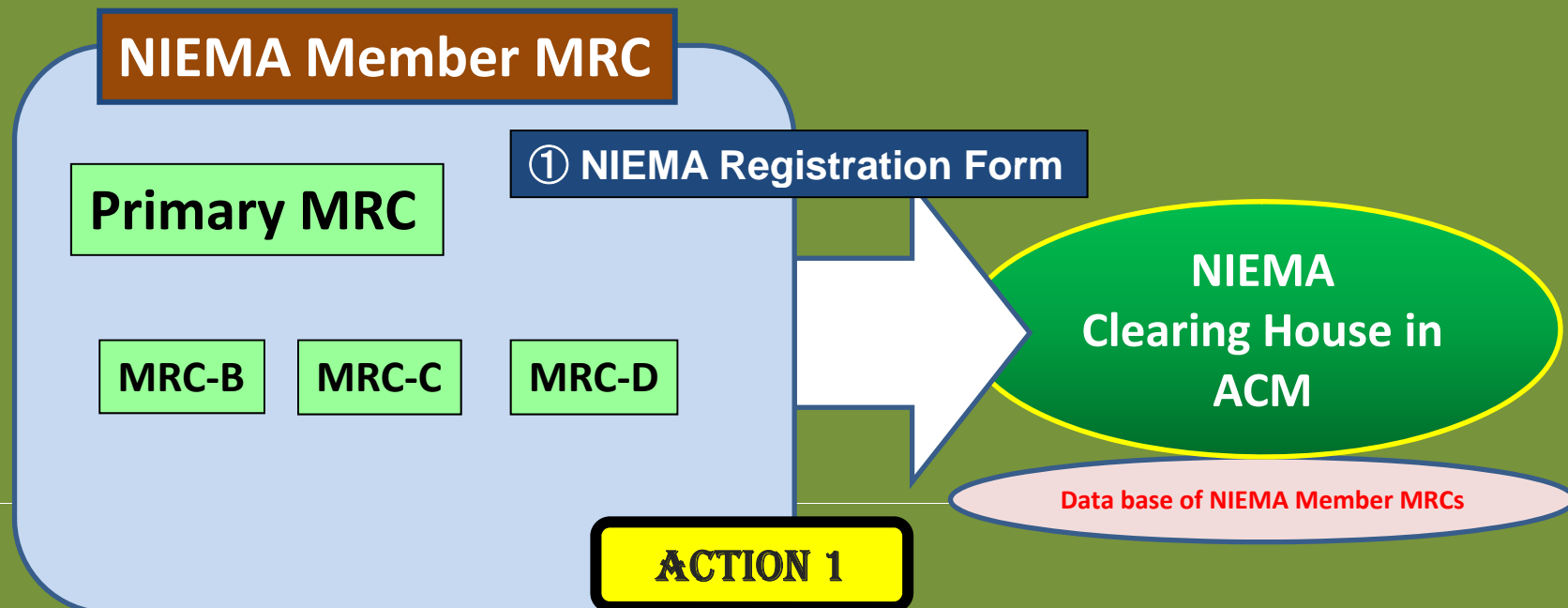
# NIEMA Scheme

## 1. NIEMA Membership

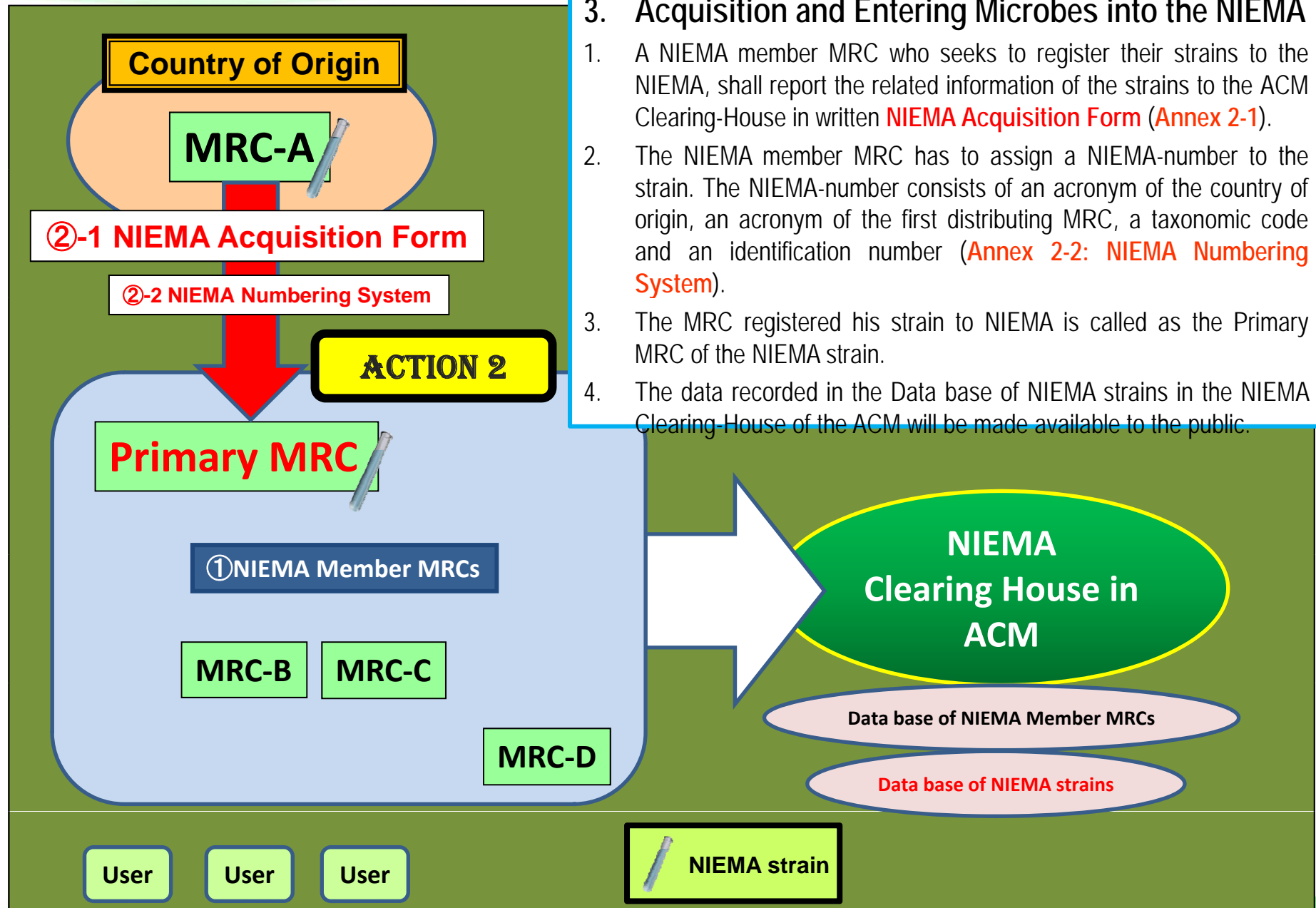
A MRC who wishes to become a member of the **Network of International Exchange of Microbes in Asia (NIEMA)**, shall send a written declaration (**Annex 1-1: NIEMA Registration Form**) to the secretariat of the **Asian Consortium for the Conservation and Sustainable Use of Microbial Resources (ACM)** through the NIEMA secretariat, and shall be decided the membership of the MRC under the Board Member meeting of the ACM. After the approval, the MRC become the member of the NIEMA and is registered in the list of NIEMA member MRCs of a Data base of Clearing House in ACM.

## 2. Microbial Strains objected for NIEMA

Microbial strains objected for and entered in the NIEMA will be restricted to type strains in case of bacteria, archaea, fungi and algae, and strains originated from the type specimen in case of fungi and algae. Microbial strains under the NIEMA which are distributed by a NIEMA member MRC to third parties shall be used for non-commercial purposes only.



# NIEMA Scheme



## 3. Acquisition and Entering Microbes into the NIEMA

1. A NIEMA member MRC who seeks to register their strains to the NIEMA, shall report the related information of the strains to the ACM Clearing-House in written **NIEMA Acquisition Form (Annex 2-1)**.
2. The NIEMA member MRC has to assign a NIEMA-number to the strain. The NIEMA-number consists of an acronym of the country of origin, an acronym of the first distributing MRC, a taxonomic code and an identification number (**Annex 2-2: NIEMA Numbering System**).
3. The MRC registered his strain to NIEMA is called as the Primary MRC of the NIEMA strain.
4. The data recorded in the Data base of NIEMA strains in the NIEMA Clearing-House of the ACM will be made available to the public.

# NIEMA Microbial Strains

## ○ Microbial strains suitable for the NIEMA

Not all microbial strains in the NIEMA member MRC are automatically to be distributed. Only those microbial strains that were acquired without restriction with respect to their use or distribution to third parties will be considered by the NIEMA and be exchanged among the NIEMA member MRCs or third parties.

When the NIEMA member MRC acquires a microbial strain to be entered in the NIEMA, the strain should be obtained from its country of origin.

Furthermore, the MRC should obtain the internationally recognized certificate of compliance from the country of origin, as appropriate. One of the sources of the relevant information is the Access and Benefit-sharing Clearing-House in the NP.

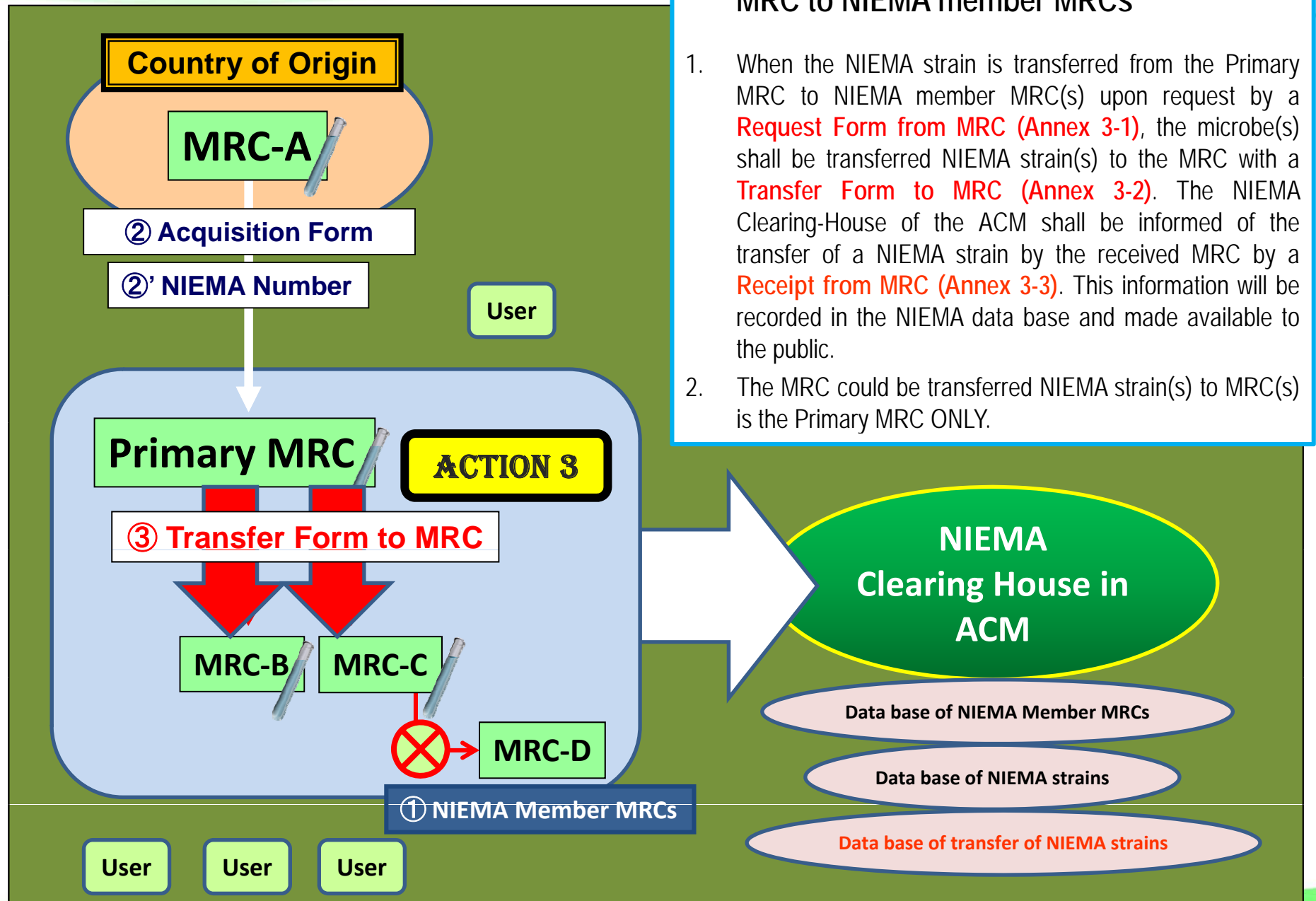
## × Microbial strains unsuitable for the NIEMA

If the terms and conditions under which a microbial strain was acquired do not allow the transfer to third parties, the strain cannot be entered in the NIEMA. Furthermore, if a microbial strain was acquired from a provider country that is NOT the country of origin of the strain, the microbial strain cannot be entered in the NIEMA.

Even in the case where the transfer to third parties is allowed but other restrictions are given, the strain is unsuitable for the NIEMA. Examples of restrictions are as follows:

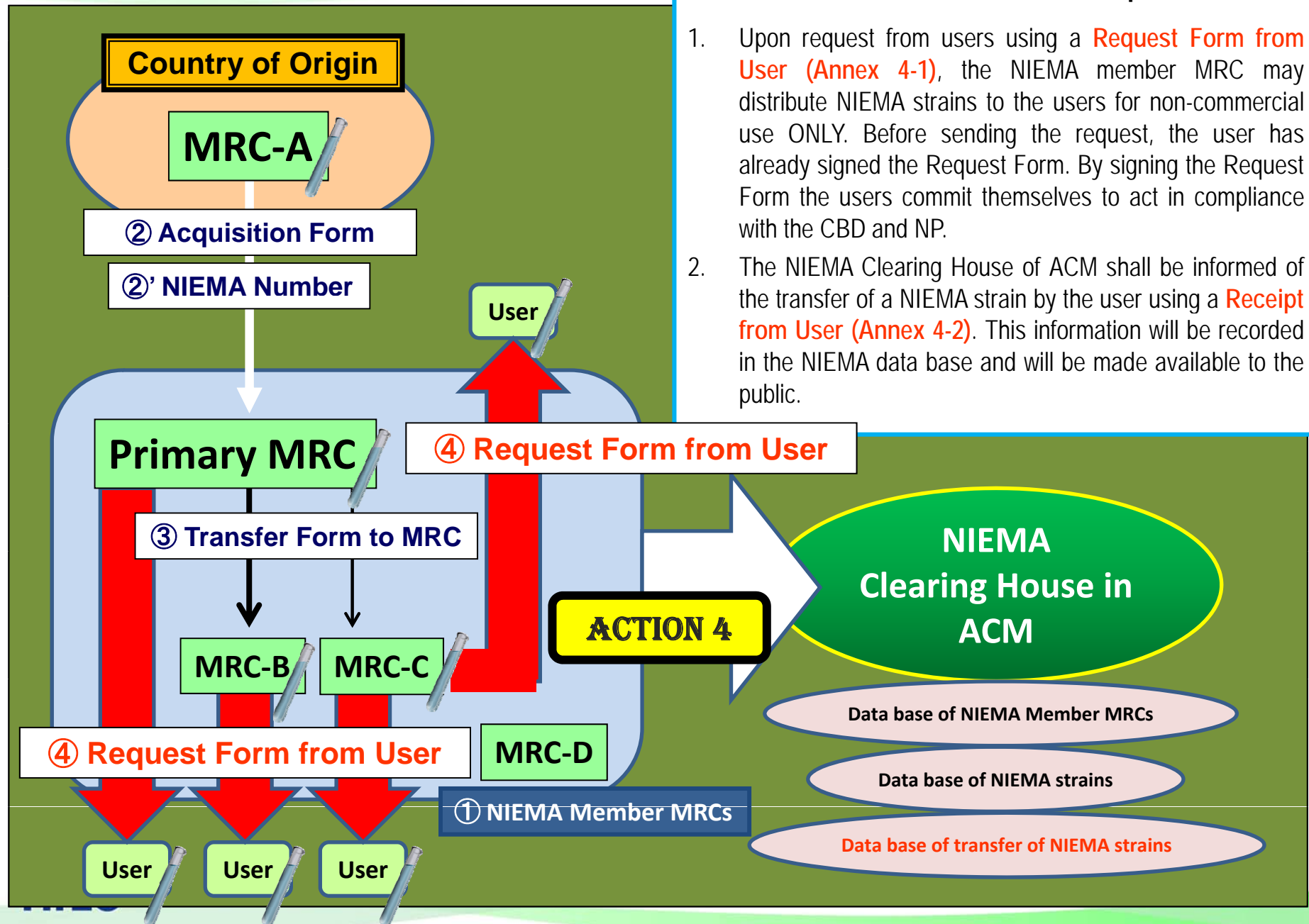
- the country of origin wants to be informed about any microbe transfer in advance
- annual reports on the use of microbial strain are requested by the country of origin

# NIEMA Scheme





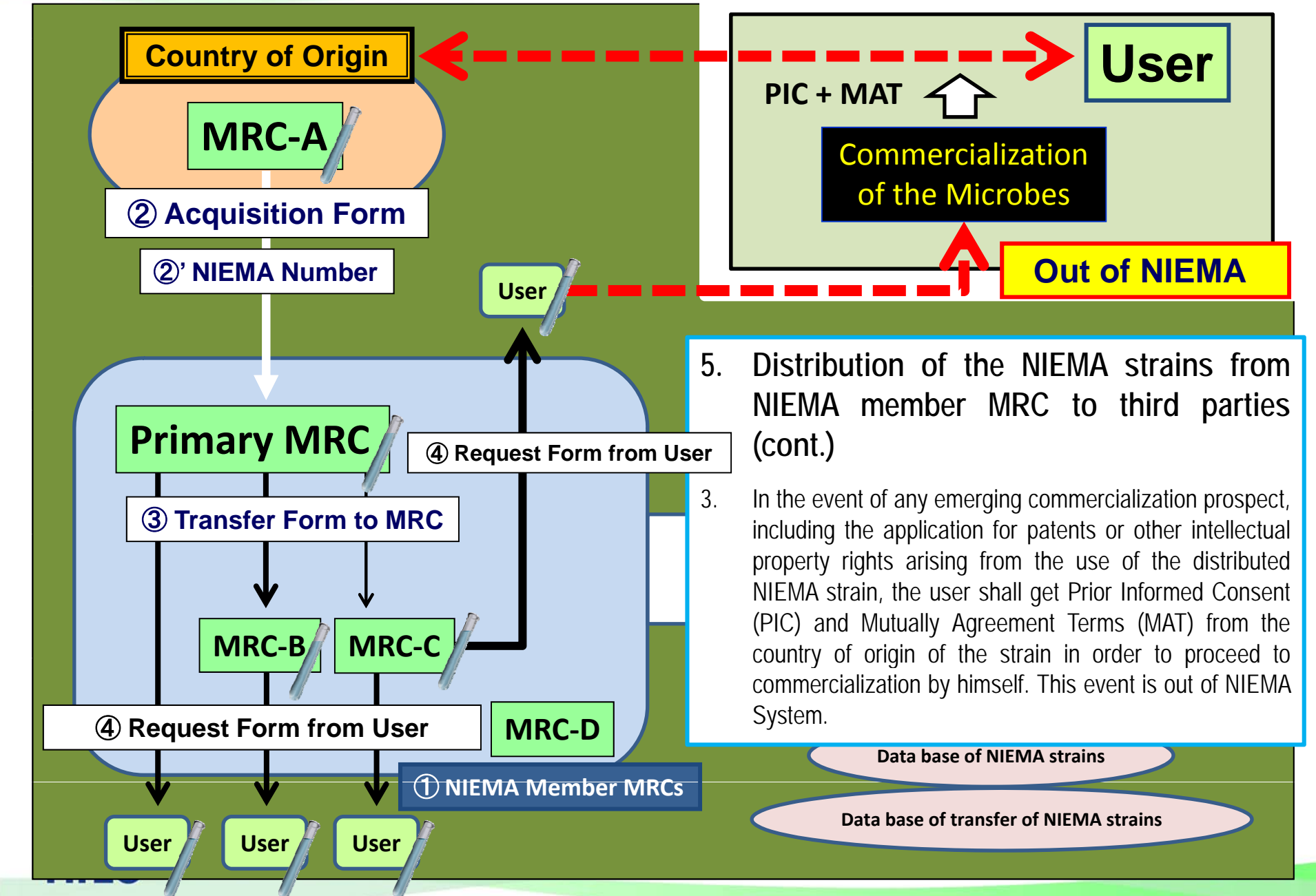
## NIEMA Scheme



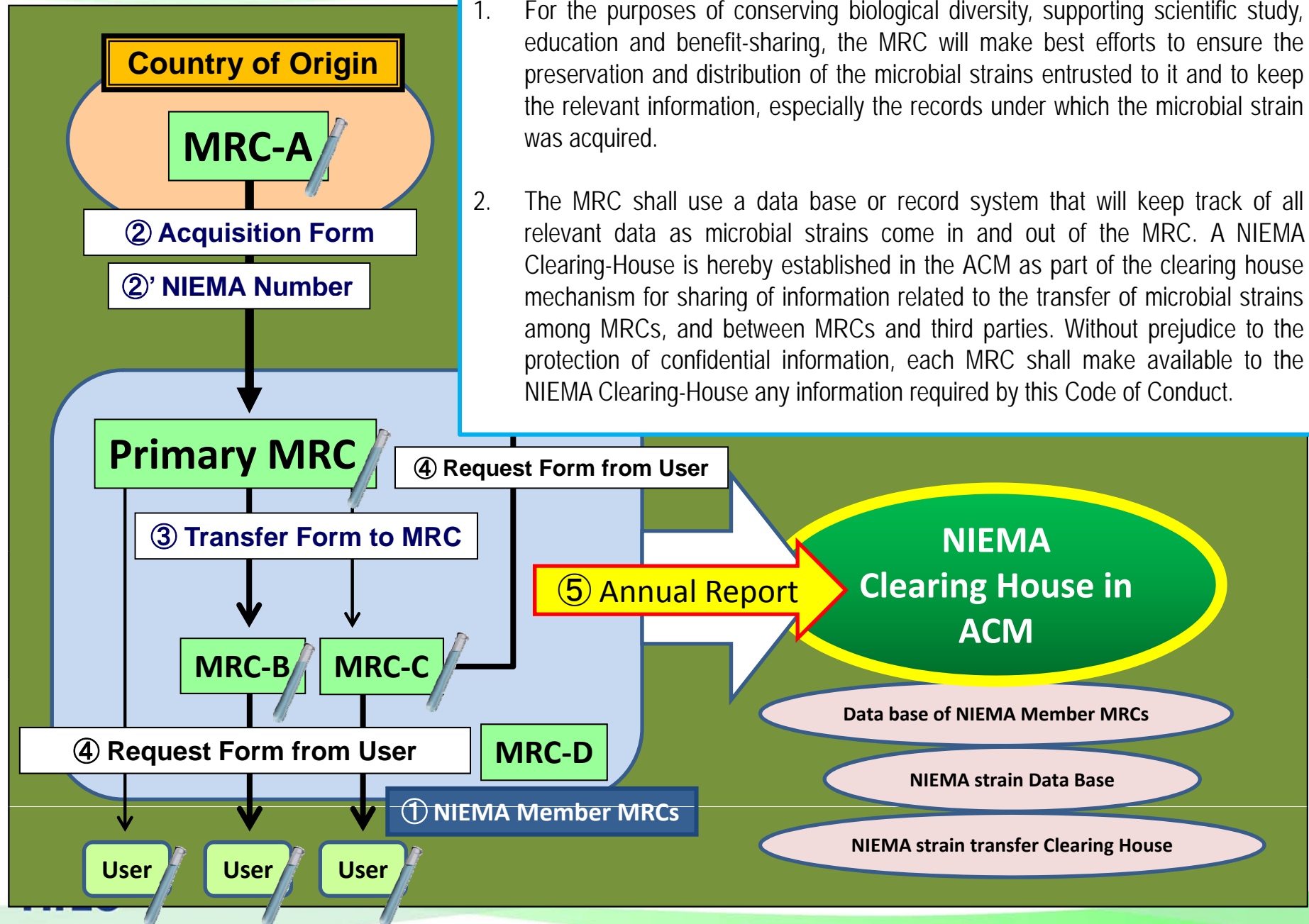
### 5. Distribution of the NIEMA strains from NIEMA member MRC to third parties

1. Upon request from users using a **Request Form from User (Annex 4-1)**, the NIEMA member MRC may distribute NIEMA strains to the users for non-commercial use ONLY. Before sending the request, the user has already signed the Request Form. By signing the Request Form the users commit themselves to act in compliance with the CBD and NP.
2. The NIEMA Clearing House of ACM shall be informed of the transfer of a NIEMA strain by the user using a **Receipt from User (Annex 4-2)**. This information will be recorded in the NIEMA data base and will be made available to the public.

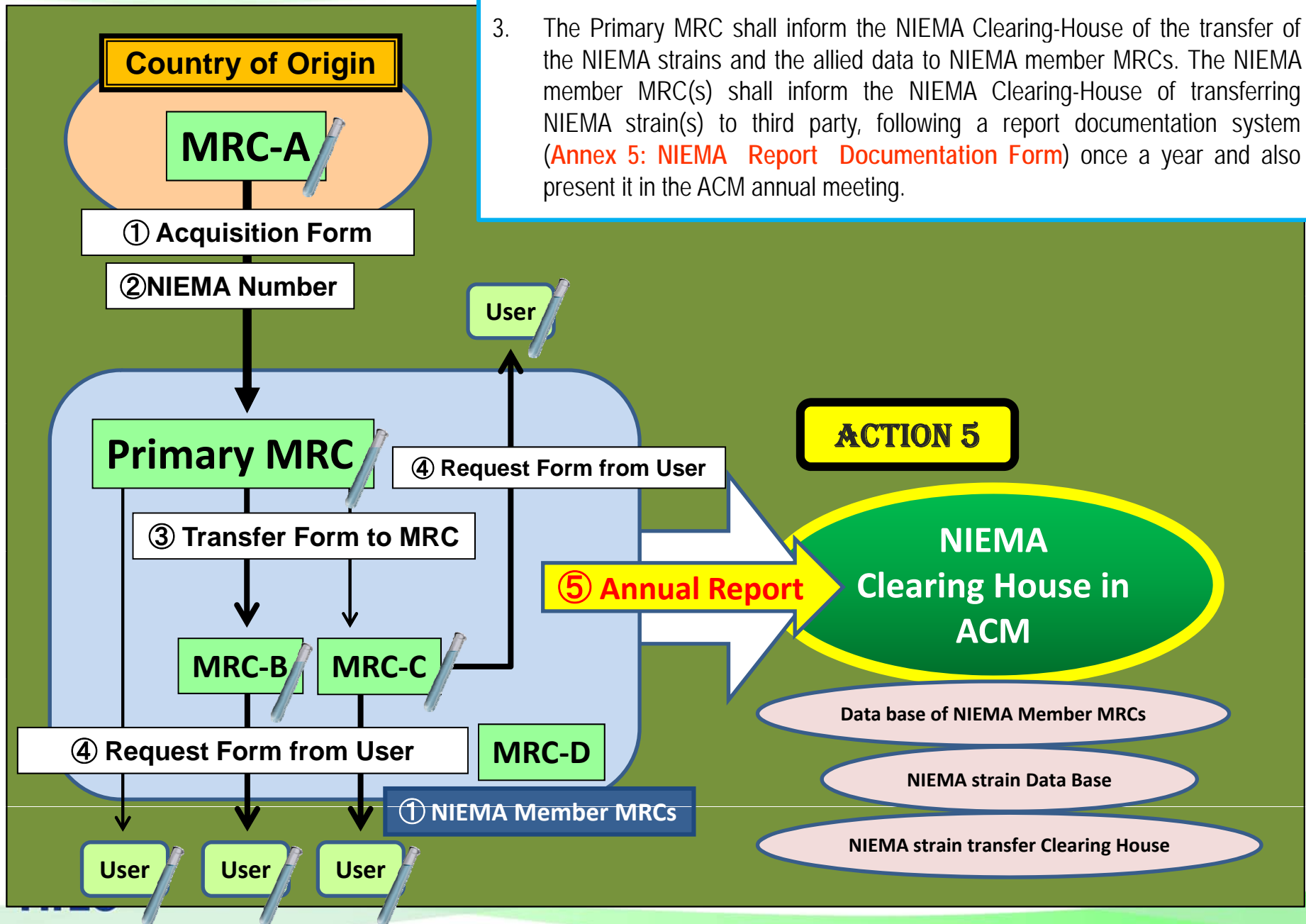
*NIEMA Scheme*



## NIEMA Scheme



## NIEMA Scheme






# NIEMA Code of Conduct

In compliance with this Code of Conduct, Microbial Resource Centers (MRC) and their employees that maintain the diversity of microbes and preserve their vital and important functions, shall contribute to the implementation of the objectives of the Convention on Biological Diversity (CBD) that respects the sovereignty of individual countries over their own genetic resources as elements of biological diversity.

Under this Code of Conduct, the MRC commits itself with regard to acquiring, distributing, and transferring microbial strains to act within the framework of the CBD and the NP. In addition, the MRC will endeavour to comply with national and international laws.





Acknowledgement

Thank you for your attention.



ACM 10 (22 September 2013)

