Can AEGIS increase access to genetic resources and improve use in research/breeding?

Frank Begemann  & Imke Thormann

Federal Office for Agriculture and Food, Germany

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Can AEGIS increase access to genetic resources and improve use in research/breeding?

Yes, AEGIS can…..

but, we should enable AEGIS to do that…..

AEGIS should become a „premium mark“
Overview

• AEGIS features that facilitate access

• AEGIS features that improve use in breeding and research

• Additional features that enhance access and use
AEGIS features that facilitate access to genetic resources

Access is facilitated through

1. Well defined standard terms of access
2. Nagoya compliance through access conditions
3. Availability of seeds
AEGIS features that facilitate access to genetic resources

1. Well defined standard terms of access

All AEGIS accessions of Annex I species are exchanged through the Standard Material Transfer Agreement (SMTA) of the International Treaty on PGRFA

Here, AEGIS does not offer additional benefits for facilitated access as these accessions might already be included in the Multilateral System of the ITPGRA (if ITPGRFA members & conditions of Art. 11 are met)
AEGIS features that facilitate access to genetic resources

2. Nagoya compliance through access conditions

AEGIS accessions of non-Annex I species are exchanged under the same conditions as the SMTA

➔ User: Nagoya compliant, no need to go through Nagoya related procedures (PIC and MAT); if collected free from such obligations (e.g. before 1993, no NP, no contradictory MAT etc.)

➔ Genebank: easier management as Annex 1 and non-Annex 1 distributed under same conditions
Plant Treaty and Nagoya Protocol

- **Multilateral System**: for facilitated access and Benefit Sharing for about 60 important crops (ANNEX I)

- **Standard Material Transfer Agreement (SMTA)**
  - Only for research, breeding and training for food and feed
  - **Benefit-Sharing** provided for in SMTA

- **Monitoring via Treaty-Secretariat**: each signed SMTA to be reported to the Secretariat

- **Bilateral System**: Each access to a genetic resource has to be negotiated with the Country of Origin (Prior Informed Consent, PIC and Mutually Agreed Terms, MAT)

- **Individual ABS-Regulations** of Contracting Parties

- **Individual Benefit-Sharing-Contracts**(case-by-case) between user and Providing Country

- **Compliance obligations** of countries, where uses take place

**Europe**: Due diligence obligations of users according to Regulation (EU) 511/2014
ABS under the Nagoya Protocol

Two pillars:

**Access Pillar:**
- The providing country **may establish** national ABS-Regulations and provide for transparency
- [https://absch.cbd.int/](https://absch.cbd.int/)

**Compliance Pillar:**
- User Countries **have to designate** National Checkpoints to provide that GR used have been accessed in accordance with PIC and MAT

No EU-wide regulation

EU-wide regulation
AEGIS features that facilitate access to genetic resources

3. Availability of seeds

Associate member institutions should try to facilitate prompt access to and availability of their AEGIS accessions, hence regeneration and seed quantity (as of particular attention)
AEGIS features that can improve use in research and breeding

Use in research & breeding is facilitated through

1. High diversity in crops / species
2. Pre-selected diversity of accessions
3. High quality of material
4. Reduced risk of loss of material
5. Knowledge about accessions
AEGIS features that can improve use in research and breeding

1. High diversity of crops / species

Non-Annex 1 crops include many „forgotten foods“ (NUS)

„forgotten foods“ are even more dispersed than Annex 1 (mainly major crops)
AEGIS features that can improve use in research and breeding

2. Pre-selected diversity in accessions

Inclusion based on pre-selection of genetically unique material

Users presented with pre-selected international collections from wide range of genebanks and origins
AEGIS features that can improve use in research and breeding

3. High quality of material
   (AQUAS by Theo van Hintum separate)

   Managed and regenerated under appropriate crop conditions

   Expected to be of good viability

   Unlikely to be mis-labeled
AEGIS features that can improve use in research and breeding

4. Reduced risk of loss of material

Conserved under appropriate storage conditions

Special attention for long-term storage

Safety-duplicated
AEGIS features that can improve use in research and breeding

5. Knowledge about accessions

All passport and non-confidential C&E data are included and available in EURISCO

Opportunity to prioritize public funds for characterization and evaluation of public domain European Accessions

Characterization and evaluation across a range of agro-ecological conditions

Accessions evaluated within ECPGR-EVA expected to include AEGIS accessions
Additional features that could enhance access and use

Associate member institutions should / could offer additional related services such as
• evaluation under different agro-ecological conditions,
• regeneration capacity,
• safety-duplication space,
• etc.

Yet, a largely unexploited potential throughout Europe
Easy access to genetic resources supports research and breeding

Thank you for your attention