

MEETING OF THE ECPGR NETWORK OF GENE BANK MANAGERS

13-15 MAY 2024

Hosted by INIAV – BPGV, BRAGA, PORTUGAL

MINUTES

Tuesday 14 May 2024

1. Welcome by the chairperson and the President of INIAV Nuno Canada.

The meeting was opened, and the participants were welcomed by the network's Chairperson Lise Lykke Steffensen and the President of INIAV Nuno Canada.

2. Introduction to the Portuguese National Genebank (BPGV)

Vice-Chair and BPGV host Ana Maria Barata presented the work and organization of the Portuguese National Genebank (BPGV).

3. ECPGR Network of Genebank Managers – how to use it in the best possible way.

All participants presented themselves shortly.

Network Chair Lise Lykke Steffensen introduced the topic on how to use the Network in the best possible way by presenting a few facts on the background, beginning and participants of the network, rules and guidelines for the network as well as input from the previously conducted questionnaire for the members of the network.

It was emphasized that according to the terms of reference of the network, the contact persons for all countries will be the main participants of the physical meetings. This is due to issues such as costs and in order to keep the group size manageable.

The participants were divided into groups to discuss topics and arrangements of the network onwards. Input from all groups can be found in Annex 2.

The general opinions of the participants included:

- One of the main aspects should be learning from each other, knowledge exchange and getting to know each other better.
- A digital tool for sharing ideas and documents would be beneficial.
- One network is currently sufficient, subgroups might form in the future if relevant.
- Currently there is no clear view on potential topics for upcoming meetings, this will be further considered and developed during and after this meeting.
- The involvement and engagement of the participants is emphasized for the network to be active and beneficial.

4. AEGIS: A European Genebank Integrated System

Lorenzo Maggioni presented the European Genebank Integrated System (AEGIS), a rational system of regional cooperation in the conservation and sustainable use of plant genetic resources for food and



agriculture (PGFRA) in Europe. The objective of AEGIS is conserving in a collaborative way and at agreed quality standards, the genetically unique and important accessions for Europe of all crops and making them available for breeding and research through SMTAs.

The network discussed the following topics:

- The corner stones of AEGIS are an important basis and will be very beneficial further on. However, currently AEGIS is not flying, and further development and integration is needed to see the whole potential, perhaps in a setting such as PRO-GRACE.
- Uploads only need to be done once in EURISCO by checking the box to add to AEGIS, which should not add to the workload.
- Each one can put into AEGIS the accessions he judges important, these accessions having a variety name or not (id est it is possible to put landraces without names into AEGIS). However, to avoid to many duplicates, each country should contribute to AEGIS with its own accessions, guaranteeing a minimum of uniqueness. According to Theo, Germany and Netherlands put national accessions and accessions from other countries that were thought to be nowhere presently.
- The quality system of AEGIS, giving fundamentals but not monitored, which means, according to some participants, that it is presently impossible to know the quality level of the genebanks.

5. Let's fly high: the perfect genebank community in Europe (and improving the current by collaborating more effectively)

Theo van Hintum presented the ideas for a perfect genebank community in Europe. How it has been, current situation and the future potential, with the common objective of conserving PGR for future generations and making it available for current users.

A common quality system could create more collaboration and possibilities for all genebanks in Europe. Some areas emphasized as benefits of this quality system was convincing politicians of the importance of genebanks, the cost effectiveness of sharing tasks and experiences, capacity building, ensuring continuity and availability, and the potential of making safety duplicates available for others depending on certain circumstances to ensure the safety of these.

The participants were also encouraged to prioritize the work with quality management and safety duplications.

The network discussed the following topics:

- External reviewers are needed in order to ensure the quality. However, genebanks have the most knowledge and authorities cannot be expected to have enough expertise for this.
- What can hinder this kind of collaboration and quality system can depend on factors such as country regulations and living up to the quality, as well as costly efforts for obtaining or maintaining the certification of quality.

6. PRO-GRACE – Horizon European Research Infrastructure status and discussion on the strategic pros and cons of the initiative

Lorenzo Maggioni presented the PRO-GRACE project, explaining the research infrastructure definition and explaining potential pro's and con's of the project. [PRO-GRACE](#) is an EU-funded project to develop the concept for a novel European Research Infrastructure dedicated to cataloguing, describing, safeguarding and enhancing European plant genetic resources for food and agriculture.



The ESFRI definition of "Research infrastructure":

"Facilities, resources and related services that are used by the scientific community to conduct top-level research... and covers major scientific equipment or sets of instruments; knowledge-based resources such as collections, archives or structures for scientific information; enabling Information and Communications Technology-based infrastructures ..., or any other entity of a unique nature essential to achieve excellence in research".

The following were mentioned as potential pro's and con's for the project:

PROS

- EU funded process to consolidate PGR Networking in Europe
- Entire sector aligns towards professionalism, efficiency, standardization, addressing shared research targets
- Research enterprise: Build the Atlas of Crop Diversity?!

CONS

- Long and challenging process (need of many likeminded people working in the same direction for several years)
- RIs requirements may deviate from simple to complex effort

The network discussed the following topics:

- The process is long and challenging and depends on the people involved but will however be very important for future generations.
- The need for the project to be further defined and refined with transparency and a clear vision for it to work long term.
- Defining a proper structure to begin with is part of the current project and important moving forward.
- It is important that this system will not be seen as a way to fix national issues but rather as a collective engagement.

Wednesday 15 May 2024

Theme: Distribution and Quality

7. Quality management system set up in genebanks

7.1 Thoughts about elements in a quality management system

Lise Lykke Steffensen presented a perspective on the elements and standards of the QMS systems, with examples from NordGen.

Quality Management System (QMS) being a formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives, ensures that products or services are consistently in compliance with customer, standards and regulatory requirements.

It was emphasized that there is no QMS system and standards that can stand alone today for genebanks, only elements that fit the purpose and ambitions should be used, QMS is only as good as the internal



ownership of the system and its procedures, and all of staff should be involved, learning from and auditing your own organisation.

The network discussed the following topics:

- The numbers of genebanks using and the importance of taking active ownership of their QMS in order for it to have an impact on the work of the genebank.
- Sharing and making content and manuals from the QMS of genebanks public. The benefits of this were considered the transparency and openness it provides, being able to inspire and help each other develop. The downsides mentioned was the risk of others not taking an active role in their QMS if information can be copied without real implementation, rather than using it as inspiration.

7.2 Experiences from EU Horizon AGENT project

Dagmar Janovská presented the EU Horizon AGENT project. The aim of the project is to unlock the full potential of the biological material stored in gene banks around the globe by using FAIR international data standards and an open digital infrastructure for the management of plant genetic resources.

Dagmar Janovská also shared the experiences from the Crop Research Institute of the Czech Republic being evaluated as part 7.1 of the Work Package 7 of the project - GB community capacity building. It was emphasized that receiving an external perspective and evaluation of the organization can be daunting, but very beneficial and useful for further development and improvement of the organization.

7.3 Examples from genebanks on quality management systems

Jelka Šuštar Vozlič presented the structure and functions of the Slovene Plant Genebank, current status of the QMS in PGB.SI and future steps such as preparation of operational genebank manual for Slovene Genebank operating through Public Service for PGR, Finalization of AEGIS Operational genebank manual of the Slovene Plant Genebank, increasing safety duplication and increasing inclusion of accessions in the European Collection.

The benefits of sharing and learning from each other were also emphasized, not to copy but to help each other develop and improve the QMS of genebanks.

8. The Network hour – questions that have been brought up for discussion among us.

8.1 What are the legal provisions for distribution of seeds with a SMTA?

Alvaro Toledo and Francisco Lopez from the Treaty Secretariat held an online presentation, introducing the Multilateral System of Access and Benefit-sharing (MLS) and the Standard Material Transfer Agreement (SMTA).

The network discussed the following topics:

- Cost coverage of material not registered within the Multilateral System of Access and Benefit-sharing (MLS) and whether it will become an obligation in the future to send these under SMTA.
- Direct use materials that are not under legal obligation for SMTA's for direct use for farmers, although national regulations may apply.
- The exclusion of Hobby from the SMTA requirement.
- Breeding companies using SMTA and whether they therefore were excluded from royalties if not all requirements are met for payment.



- The reasons why some currently prefer not to use the MLS, including termination, current legal uncertainty, impacting factors, operational and legal aspects, focus on SMTA.

8.2 Providing seeds to private persons/hobby gardeners

Küllli Annamaa introduced the topic of providing seeds to private persons/hobby, input on how to do this and what information is needed to do this.

In Opinions and advice of the Ad Hoc Technical Advisory Committee on the Multilateral System and the Standard Material Transfer Agreement, FAO 2015, the following information is stated:

PGRFA distributed to farmers for direct use for cultivation should not be transferred with the SMTA. They should be transferred with a statement that the material can be used directly for cultivation. The following is a suggested wording for the statement: "This material can be used by the recipient directly for cultivation and can be passed on to others for direct cultivation."

The network discussed and came with the following input:

- The SMTA does not need to be signed, and assisting documents can be sent with the orders to help the user understand the conditions as the SMTA can be difficult to comprehend.
- The users agree to the SMTA when purchasing the seeds.
- It is an obligation to make sure the end-user is using the seeds for the right reasons. However, difficult to know how the end-user will use the seeds. The responsibility is eventually transferred to the user.
- It is beneficial to provide seeds and to the general public to maintain a good relationship and trust in the work we do.
- Not charging any fee for the seeds can lead to misuse, unnecessary work and competition with commercial sellers. Handling fees and potentially order limitations could balance the market for the better.
- Conservation varieties do not need to be included in the assortment available to private persons/hobby. Focus should be on the seeds that cannot be found anywhere else.

9. Recap of the two days

The participants discussed in pairs and provided the following input:

Did we meet the expectations?

- All participants agreed that the expectations were met and appreciated the efforts that had been put to organize the meeting.

What has been useful?

- The presentations and discussions on SMTA and QMS were especially important
- The networking opportunities and discussions have been very appreciated and beneficial
- New ideas, impressions and getting involved in the network
- Smaller genebanks also found the topics and discussions beneficial for them.
- The discussions about the videometer were useful for those involved or considering getting involved.

What could be better?



- Most participants agreed that there could be more time and room for discussions, as it is one of the most important aspects of the network.
- More of improvement ideas, sharing experiences, technology knowledge exchange etc.
- Specific topics could be dived into more in depth after this first meeting.
- When specific topics have been decided for a meeting, participants could prepare input on their perspective for short presentations from participants at the meeting followed by discussions and knowledge exchange.
- The sub-group work was appreciated
- Suggestion for the next physical meeting: One conference could be open to everyone in the network through online conference

As no specific topics for upcoming meetings were decided, a request to provide suggestions to topics will be sent out to all participants shortly after the meeting.

10. Next meeting

Next physical meeting will be arranged in 2025 at Crop Research Institute in the Czech Republic, hosted by Dagmar Janovská.



Participants

Alix Pernet	INRAE, France
Ana Maria Barata	INIAV, Portugal
Beate Schierscher	Agroscope, Switzerland
Brian O Connor	Department of Agriculture, Food and Marine, Ireland
Dagmar Janovská	Crop Research Institute, Czech Republic
Humberto Nobrega	University of Madeira
Jelka Šuštar Vozlič	Agricultural Institute, Slovenia
Joana Brehm	University of Birmingham, UK
Josefin Granö	NordGen
Küllli Annamaa	Centre of Estonian Rural Research and Knowledge
Laima Šveistytė	Lithuanian State Forest Service
Lise Lykke Steffensen	NordGen
Lorenzo Maggioni	ECPGR Secretariat
Luis Guasch Pereira	Spanish National Research Council
Maja Boczkowska	Plant Breeding and Acclimatization Institute, Poland
Maja Ječmenica	Directorate for National Reference Laboratories, Serbia
Miguel Carvalho	University of Madeira
Noam Chayut	John Innes Cente Germplasm Resources, UK
Sylvia Vogl	AGES, Austria
Tamar Jinjikhadze	Scientific Research Center of Agriculture, Georgia
Theo van Hintum	CGN, the Netherlands
Zoran Jovović	Biotechnical faculty University of Montenegro

Online participants for the agenda item Network hour – questions that have been brought up for discussion among us, Wednesday 15 May:

Francisco Lopez	Secretariat of the ITPGRFA, FAO
Alvaro Toledo	Secretariat of the ITPGRFA, FAO
Parthenopi Ralli	Hellenic Agricultural Organization, Greece
Gitana Štukėnienė	Forest Genetic Resources Department, Lithuania



Annex 1

Feedback on the question 'What are your expectations for the meeting?'

- To find project partners
- Use of genotyping to create a European collection of strategic crop resources. Collaboration in field trials on different conditions.
- To have a group of people that can help me
- Meet the genebank community, learn about the management on plant genetic resources and collaboration between plant gene bank
- Exchange good practises.... avoid wrong approaches performed before Use the network as a platform for capacity building Show our policy makers, PGR conservation is global, and it goes beyond National borders
- To understand what are the challenges for the future
- To discuss the most "hot" topics we are all fight with, to create functional network of genebank managers, to exchange the views on the storing and maintaining PGRFA in Europe
- Organizing genebanks
- Creating links for future collaborations
- Understanding the challenges faced by my fellow genebanks' managers
- Getting to know the Portuguese Genebank structure
- Share experiences, including on documentation systems.
- Progress on a common view on European genetic resources organisation
- Fun
- Share the expertise on gene bank magement from other genebanks in order to improve the management system in our own genebank system respecting all the guidelines, standards, quality management requirements, etc
- New collaborations
- Get organised.
- To be able to get involve with other genebanks in Europe to discuss common situations
- Get experience about quality management of the gene bank
- What are standards for creating National PGR collection
- Get new information and have a more converte idea of the work of other genebanks
- Improve
- We have a plan for the network
- Collaboration and Training with others
- Learn from each other
- Collecting topics for the next meeting
- Closer collaboration
- Increased collaboration at regional level
- To learn about "Right" or good management of a genebank (Storage, database, Exchange, qm,...)
- Getting to know each other
- Material requests of private persons
- Quality managent of other genebanks



Group discussions: ECPGR Network of Genebank Managers – how to use it in the best possible way

1. **Topics – ideas and suggestions for the next 3 years and a list of topics for the next year**
 1. Leadership
 2. Management
 3. Professional
 4. Policy
2. **Functioning and engagement within the network**
 1. How should the Network function in the best of all worlds? And how to get there?
 2. Engagement of participants and organization of digital and physical meetings
 3. Set-up of infrastructure like meeting documents and maybe a platform to raise questions or dialogue
4. **The hot potato – one or more networks?**
5. **Anything else important going forward?**

GROUP 1:

Topics:

- Ideas for the next 3 years the Management was prioritised
- quality **management system**.

About the function the network best way is to support each other and share the knowledge to improve the weak points.

- To organize the National networks within the countries will be very useful
- How to be involved in the network – organize the meetings, use social media, internet tools.
- Will be good to set up common infrastructure to share documents, to have a forum.
- At this stage one network will be enough.

GROUP 2:

Topics:

Leadership:

- Development Strategies to help on national level (not at characterization that it is done in ECPGR more in management or to deal with policy makers at national level)
- Change management
It was the lowest rate at the questionnaire but through a peer review the system can be tackled
- Digitalization
Old data and tools are used and for collecting data as field app.
- Security back up / multiplication / how to deal with CWR /externalization ?
- Fund raising through common projects.

Management

- Optimization of techniques. Introduction of use techniques.
Genebank methodologies. Share methodologies
People management. Important but different to deal

Professional

- AEGIS, AQUAS, Foster other WG activities for example eg working group.



Operational System

- Uploading informations of operational protocols / sharing Chat/e-mail list for doubts or problems.

Policy

- Promote implementation of Conservation Strategies by sharing
Priorize what is really relevant. Push characterization to AEGIS/ detect duplications.
- Maintaining topics relevant to the network - As long as it is of interest it will be relevant

GROUP 3:

Leadership: Not such an important topic is national thing

Management:

- important topic, somehow depends on country
- define work of a genebank manager, duties in comparison with national coordination What is task of genebank manager & what of national coordinator?
- Examples from genebanks, how their management system works à possible topic for the next meeting, collect key points and come out with some core definition
- Raise awareness

Definition for genebank is primary issue (for public, government, users)

→ Maybe prepare questionnaire for that

Professional:

- core questions to deal with,
- how to get more professional,
- learn from each other: how people operate within the system,
- main important topics depend on the scope of the genebank,
- identify item to issue à topic for next meeting (subgroups)
- everyone preserves seeds; Storage, information needs to be stored: database

Policy:

- important topic knowledge transfer
- impact not only accepting, meet with policy makers à
- transfer knowledge and what we learn from others
- questions for the ministry:
- do I ask for money for distribution
- do I use SMTA
- how to interpret Nagoya
- arrangement with Svalbard

Meetings are important in person once a year and 1-3 times online is good I

→ find topics: member present ideas on that topic (10-15min), then discussion of ideas

Platform within ECPGR: not public document sharing (QM documents → AEGIS is public), Forum for questions should be private



One or more network?

- too early to be discussed
- let it develop, separate if necessary
- subgroups may be formed for special topics (relevant for genebank),
- important to have an overall group (network)

GROUP 4:

Leadership (strategy, vision):

- The issue about leading small or large group of people working in the gene bank was raised
- Some genebanks have strong leaders but then they become very dependent on those leaders
- What are the trends and tendencies of where we want the genebank to go (e.g., now we will be collecting, now we want to improve quality management,...) and where do want to go as a network
- Finding ways of promoting/raise the value of the genebank
- Where the genebank starts and the research ends
- Funding strategy

Management:

- Genebank standards
- Capacity building: help each other?
- Communication to raise awareness of the importance of the gene bank for general public but also for policy makers and funders. But the question about whether communication is actually important was raised

Professional:

- Documentation and databases
- Quality management
- Safety back-up
- Management of the gene bank collections
- Acquisition strategy: massive collecting – expeditions to areas that have not been sampled yet (especially due to climate change) and perhaps even recollection (due to genetic erosion, selection by farmers)

Policy:

- Top three from the questionnaire: (i) promote the implementation of national and regional conservation strategies; (ii) Get overviews of EU and European political initiatives, (iii) when relevant...
- This platform can help developing the strategic ideas of where we want to move, and these ideas can then form a message to policy-makers in order for us to get what we need to implement those strategic ideas

Added value of being together.

1. How should the Network function? Active people, well-functioning genebanks and this group of genebanks can then be expanded. Exchange of experiences. Platform where we think about the future (quality management, collaboration, etc).
- 2-4. Engagement of participants and organization of digital and physical meetings. The network needs to provide the possibility of having sub-groups for specific topics and the possibility to raise questions. People come up with issues and then members of the network who are interested in those issues are brought together and then sessions to discuss those issues are organized.



