

Pilot: Genebank Peer Reviews

Observations and conclusions based on one cycle of three genebank peer reviews

Background

Based on a plan¹ formulated in June 2018, and a presentation given at an ECPGR meeting about 'Assessing current practices and procedures to strengthen AEGIS'² held in Madrid December 2018, a pilot was organised to test the concept of 'Genebank Peer Reviews'. During and after the Madrid meeting Theo van Hintum (CGN, the Netherlands) approached María José Díez (COMAV, Spain) and Wieslaw Podyma (IHAR-PIB, Poland) with the idea of visiting and reviewing each other's genebanks on the basis of a self-description using the AEGIS 'Template for the preparation of operational genebank manuals'. Genebank manuals were written, and visits were organised to the COMAV genebank in Valencia, Spain (February 7-8, 2019), the CGN genebank in Wageningen, The Netherlands (March 6-8) and the IHAR-PIB genebank in Radzików, Poland (April 16-18). Each genebank was visited by the other two genebanks where Spain was represented by María José Díez and José Vicente Valcárcel, Poland by Wieslaw Podyma and the Netherlands by Theo van Hintum. After each visit a report was written with observations and recommendations.

This short report presents some observations made regarding the idea and the experience of genebank peer reviews.

Observations

The concept

The idea of peers reviewing and discussing each other's genebanks worked very well. It resulted in critical questions, useful suggestions and constructive recommendations. All participants to this pilot cycle of reviews agreed that it had been time very well spent. Furthermore it resulted in completed Genebank Manuals and reports that can be used to improve the participating genebanks.

Team size

The initial idea was to have three genebanks represented by one representative each. This representative should be knowledgeable, experienced and fluent in English. Since Spain was the first genebank visited, and the COMAV genebank is run by two people

¹ Improving PGR Conservation and Access in Europe; a plan to create a voluntary genebank's peer-review system, Theo van Hintum June 2018

² Engels JMM, Maggioni L, Lipman E. 2019. Assessing current practices and procedures to strengthen AEGIS, the initiative for A European Genebank Integrated System. Report of a Workshop, 10-12 December 2018, San Fernando de Henares, Madrid, Spain. European Cooperative Programme for Plant Genetic Resources, Rome, Italy.

each with wide experience, the other two reviewers proposed that Spain would send two reviewers to the reviews of CGN and IHAR-PIB. This proved effective.

A team of three genebanks seems optimal. It limits the number of visits to two as a reviewer and one as a host, but still allows having review teams of two (in the pilot's case sometimes three) reviewers during the visits. Larger teams would require more visits, and thus more time needed for the visits. Teams of only two genebanks would imply that the reviewer would be alone in the reviewing process, an undesirable situation as the discussion amongst the reviewers, having different perspectives, proved most productive.

Alternatives such as having a larger group of genebanks, e.g. ten, and selecting two or three reviewers for each review from the group, could also be considered. In the pilot it was observed that a stable group of three genebanks creates a friendly and constructive atmosphere that might not arise with a varying composition of the team.

Team composition

The pilot used a team of a large, a moderate and a small genebank in East, North West and South West European countries. The genebanks had various levels of 'quality' in terms of sophistication of procedures, continuity, etc. This mix proved very positive, however it is difficult to predict how other, possibly more homogeneous teams would work. It was however felt important to have at least one relatively high quality genebank in the team, to serve as a reference.

Transparency

The participating genebanks in this pilot all gave complete transparency, in terms of access to information, facilities and staff. This included financial information (staff costs and running operations as well as budget), information about distributions, etc. This transparency was experienced as essential for creating the open atmosphere, and possibly also beneficial to the hosting genebank as it resulted in new insights in the own genebank.

Reporting

The reports were kept brief, c. 5-6 A4, listing only observations and associated recommendations, between 5 and 15 per report. Having longer reports would require too much time from the reviewers. Reaching consensus about the reports proved easy.

Alternatives for the reporting, such as having a separate rapporteur from one of the participating genebanks included in the team, or using a checklist could be considered.

Funding

The pilot used as a rule that the reviewers only covered their transportation costs getting to the country of the genebank to be reviewed. The host covered all local costs, including hotel, meals and local transportation. This modus was chosen to make it easier for poorer countries to participate even in more expensive countries. (In the pilot, due to local administrative reasons, the Polish reviewer had to fund his own hotel costs during his visits, and to compensate the reviewers paid their own hotel costs in Poland.) This worked out well, it created the atmosphere of the reviewers being truly hosted, with joint meals and no worries about logistics.

Staff involved in the review

The involvement of staff in the reviews varied strongly during the pilot. In the Wageningen review, there only were short conversations with a few staff members. In the Radzików review, most senior staff gave the presentations and participated in many of the discussions. Both worked well. In the COMAV genebank both members of the review participated in all sessions. The presence of staff gave a different dimension to the review, increased the educational value of the discussions, but possibly also reduced the 'intimacy' and thus openness. In this light, care should be taken not to involve superiors in the review process (this was avoided in the pilot except for a final presentation of findings at the end); the host should be able to share also the things that he/she would not 'show to his/her boss'.

Personal observations María José Díez (COMAV genebank, Valencia, Spain)

My idea when I accepted to be involved in the pilot peer review process was to learn from other genebanks and use this knowledge to improve our genebank. Besides it was an opportunity to think deeply in why and how we do all the activities. Only for preparing the review process we had to write the Genebank Manual and to prepare explanations about our methodology. This was extraordinarily positive. Even before the review, we realized in our own weaknesses and it was an opportunity to get comments and advices about how to solve some of them and how to improve efficiency in our methodologies. To invest a two days period of time sharing expertise with other genebank managers opened our mind and gave us the opportunity to reconsider our purposes and objectives in a narrow and wide sense in the Spanish genetic resources framework. To get involved one of the European highest quality genebanks in the process was extraordinarily positive and should be considered to be maintained in the next review processes. Its guidance in all the process was essential.

Personal observations José Vicente Valcárcel (COMAV genebank, Valencia, Spain)

As a genebank curator to participate in the pilot peer review has been a chance to know how other internationally recognised genebanks work. Although the aim of the three genebanks is the same, this experience brings to light differences in the management of the collections. These differences would be sometimes hardly implemented in our circumstances because of economic issues (lack of technical equipment more sophisticated and of staff), but in other cases it has been possible to identify simple procedure changes that can help us to improve our work. As a host, although the initial sensation was that our genebank was under evaluation, this feeling disappeared as soon as the review started because it was carried out in a friendly atmosphere and we quickly realized that we could take profit of many of the reviewers suggestions.

Personal observations Theo van Hintum (CGN genebank, Wageningen, The Netherlands)

As I had set up this pilot, I had expected that it would be valuable to let genebank experts visit each other, I had experienced that in earlier genebanks reviews done for the CGIAR and the EU. I did not expect it to be so positive, interesting and educational. Visiting the other genebanks was intriguing and thought-provoking, hosting my colleagues in Wageningen was as revealing to me as I think it was to them. Rarely did I have a chance to see, think about and discuss my work - which is my life - as thoroughly

and at such a high level as during these reviews. It certainly pushed up the quality of the CGN genebank, not only thanks to the recommendations made in the report, possibly even more thanks to the discussions and my self-reflection during the reviews. And perhaps most importantly: I loved it!

Personal observations Wieslaw Podyma (IHAR-PIB genebank in Radzików, Poland)

It is always a challenge to submit yourself to an independent assessment, and that gives you a lot of emotions. The peer review was a big event for me and my colleagues. Usually, introducing a gene bank, due to time constraints, we focus "on the bright side of life", and we talk about progress. However the most important is the durability of the undertaking. The team working at the Gene Bank at Radzików is very young and ambitious. Work on the preparation of the Gene Bank Manual required a re-review of all procedures and assessment of their compliance with the others. The manual was the subject of a general discussion with the evaluators, the discussion concerned justification of the reasons for the adopted procedures. For me, after a long break in activities for the gene bank it was an excellent introduction to the subject. I would like to note a huge progress in implementation of safety procedures in genebanks. For my co-workers it was a lesson of the rules of behaviour towards problems solving.

Conclusions

Following conclusions were drawn, unanimously, by the reviewers involved in the pilot, the first cycle of genebank peer reviews:

- 1- The genebank peer reviews included in the pilot were very useful and cost effective.
- 2- The method of peer reviews seems a very effective way of improving the quality in genebanks.
- 3- Working in a team of three genebanks was effective.
- 4- Making a genebank manual in the preparation of the review is an important component of creating transparency, a basis for discussion and a baseline for improvements.
- 5- Transparency, based on trust and respect, is the key to a good review; the reviews are about discussing reality, not about keeping up appearance.
- 6- When applying the concept of peer reviews on other genebanks, care should be taken that the team includes at least one 'high quality' genebank as a reference.
- 7- The genebank peer review is an opportunity to reconsider the objectives and mandate of the genebank, both internally and in the framework of the genetic resources system of the country.

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