

Developing UK indicators for the Strategic Plan for Biodiversity 2011-2020. (Defra contract 1301).

Supporting information for the survey on plant genetic resource indicators and data sets.

This project is considering options for developing a UK indicator for **plant genetic resources for food and agriculture**. Availability of suitable datasets is a significant constraint on possible options.

The [review and synthesis of metadata](#) used in the UK National Ecosystem Assessment identified data sets that might be used in relation to plant genetic resources (Table 1). Indicators were also identified at the [second meeting of the Executive Committee](#) of the European Cooperative Programme for Plant Genetic Resources (ECPGR, 2011), which might be applicable.

We are keen to identify existing indicators of plant genetic resources and additional data sets that relate to:

- a. **Cultivated plant genetic resources, including traditional varieties and modern cultivars.**
- b. **Wild plant genetic resources, falling within taxon groups 1-3 as defined in the [taxon group concept](#) (Maxted *et al.*, 2006).**

Please bear in mind the criteria that will be used for quality testing indicator options ([Annex 1](#)) when listing any indicators or data sets that you think may be suitable.

The information that you provide will be used in an expert workshop, which will: review and rank all datasets identified against the criteria for quality testing indicator options; consider the pros and cons of different types of indicators and rank them against the criteria for quality testing indicator options; and identify a maximum of three possible options for developing an indicator of plant genetic resources.

Table 1. Data sets identified in the scoping study and by ECPGR that might be used in relation to developing an indicator on crop genetic resources.

Title of dataset/indicator	Identified by
Distribution of forested land in the UK	NEA
Changes in wetland plant species	NEA
Species richness of vegetation plots in Great Britain	NEA
Extent of ancient and semi-natural woodland in the UK	NEA
Number of SMTAs (Standard Material Transfer Agreements) signed	ECPGR
Number of accessions included in SMTAs	ECPGR
Number of accessions registered in EURISCO	ECPGR
Number of European Accessions registered as AEGIS (A European Genebank Integrated System) accessions	ECPGR
Number of collections AQUAS-certified	ECPGR
Number of crops for which complementary <i>in situ</i> and <i>ex situ</i> conservation programmes exist	ECPGR
Number of contributing partners	ECPGR
Number of National and subregional programmes	ECPGR
Number of accessions included in breeding programmes/new varieties	ECPGR

References

ECPGR (2011) *Minutes of the 2nd ECPGR Executive Committee meeting*. Maccaresse, Italy. 17-19 October 2011.

Maxted, N., Ford-Lloyd, B.V., Jury, S., Kell, S. & Scholten, M. (2006). Towards a definition of a crop wild relative. *Biodiversity and Conservation* 15(8): 2763-2685.

Annex 1. Criteria for quality testing indicator options.

Criteria	Levels
Precision	1. Unknown precision or precision quantifiable but unable to statistically assess trends due to small sample size/unrepresentative/biased/high volatility
	2. Uncertainty quantifiable and signal-to-noise ratio allows for statistical assessment of trends
	3. Uncertainty quantifiable and signal-to-noise ratio allows for year on year statistical assessments
Time series availability	1. Insufficient data for assessment (<5 years)
	2. Sufficient data to make an assessment of progress (5-10 years)
	3. Both long and short -term trends can be assessed (10+ years data)
Data security	1. Future data sources known to be uncertain
	2. Future data unthreatened
	3. Future data secure
Data transparency and auditability	1. Data unavailable to public
	2. Limited summary data available
	3. Full raw/primary data set and detailed description available
Transparency and soundness of methodology	1. Methodology not available
	2. Methodology available but not peer reviewed
	3. Methodology externally published and peer reviewed
Data verification	1. Unverified data
	2. Some verification checks in place
	3. Detailed verification in place and documented
Frequency of updates	1. Periodic
	2. 3-5 years
	3. Annual or biennial
Geographic coverage	1. Not full UK
	2. UK coverage, some bias
	3. Full UK coverage
Capacity for disaggregation	1. Cannot be disaggregated
	2. Can be disaggregated but data quality issues arise
	3. Can be disaggregated to Country level and assessed