

Article 9 Ex situ conservation

125. What is the relative priority afforded to implementation of this Article and the associated decisions by your country?						
a) High		b) Medium	X	c) Low		
126. To what extent are the resources available adequate for meeting the obligations and recommendations made?						
a) Good		b) Adequate	Micro-org.	c) Limiting	X	d) Severely limiting
Further comments on relative priority and on availability of resources						
(126 b) Resources are adequate for meeting the obligations and recommendations in relation to micro-organisms. Article 9 is implemented since the establishment in 1983 of the 'Belgian Co-ordinated Collections of Micro-organisms (BCCM)'. The BCCM consortium consists of four complementary research-based service culture collections financed and co-ordinated by the Belgian federal Office for scientific, technical and cultural affairs (OSTC). Each five years, the BCCM action is scientifically and financially evaluated.						
(126 c) For the other collections, resources can be considered as limiting.						
For the same reason, two answers, one general (X) and one specific for the micro-organisms (Micro-org.), are indicated for questions 130 and 131.						

127. Has your country adopted measures for the <i>ex situ</i> conservation of components of biological diversity <i>native</i> to your country (9a)?	
a) no measures	
b) some measures in place	X
c) potential measures under review	
d) comprehensive measures in place	
128. Has your country adopted measures for the <i>ex situ</i> conservation of components of biological diversity <i>originating outside</i> your country (9a)?	
a) no measures	
b) some measures in place	X
c) potential measures under review	
d) comprehensive measures in place	
129. If the answer to the previous question was yes, is this being done in active collaboration with organisations in the other countries (9a)?	
a) no	
b) yes	X
130. Has your country established and maintained facilities for the <i>ex situ</i> conservation of and research on plants, animals and micro-organisms that represent genetic resources <i>native</i> to your country (9b)?	
a) no	
b) yes - limited extent	X
c) yes - significant extent	Micro-org.

131. Has your country established and maintained facilities for the <i>ex situ</i> conservation of and research on plants, animals and micro-organisms that represent genetic resources <i>originating elsewhere</i> (9b)?	
a) no	
b) yes - limited extent	X
c) yes - significant extent	Micro-org.
132. If the answer to the previous question was yes, is this being done in active collaboration with organisations in the other countries (9a)?	
a) no	
b) yes	X
133. Has your country adopted measures for the reintroduction of threatened species into their natural habitats under appropriate conditions (9c)?	
a) no measures	X
b) some measures in place	
c) potential measures under review	
d) comprehensive measures in place	
134. Has your country taken measures to regulate and manage the collection of biological resources from natural habitats for <i>ex situ</i> conservation purposes so as not to threaten ecosystems and <i>in situ</i> populations of species (9d)?	
a) no measures	
b) some measures in place	X
c) potential measures under review	
d) comprehensive measures in place	
<i>If a developed country Party -</i>	
135. Has your country co-operated in providing financial and other support for <i>ex situ</i> conservation and in the establishment and maintenance of <i>ex situ</i> conservation facilities in developing countries (9e)?	
<i>If a developing country Party or Party with economy in transition -</i>	
136. Has your country received financial and other support for <i>ex situ</i> conservation and in the establishment and maintenance of <i>ex situ</i> conservation facilities (9e)?	
a) no	
b) yes	X

Further comments on implementation of this Article

(general) The Belgian Co-ordinated Collections of Micro-organisms (BCCM) consist of four complementary culture collections at the service of the scientific and industrial communities. The BCCM consortium holds about 34,700 filamentous fungus or yeast strains, 18,000 bacterial strains, 1,900 plasmids (as pure DNA) and 14 unique cDNA libraries (www.belspo.be/bccm).

BCCM/IHEM at Brussels holds 7,700 strains, representing 336 genera and 1,007 species of filamentous and yeast-like fungi of public health and related environmental interest.

BCCM/MUCL at Louvain-la-Neuve holds over 27,000 strains, representing 1,094 genera and 3,627 species of filamentous and yeast-like fungi of all major taxonomic groups, mainly of biotechnological and agro-industrial importance. The herbarium contains about 40,000 species.

BCCM/LMG at Ghent holds over 18,000 bacterial strains, representing 260 genera and 1,508 species, encompassing plant-associated and phytopathogenic bacteria, bacteria of medical and veterinary importance, marine bacteria and various groups of biotechnological importance.

BCCM/LMBP at Ghent holds over 1,900 plasmids and 14 unique cDNA libraries derived from a variety of organisms.

The collections contain micro-organisms native to Belgium as well as organisms originating from other countries. In the latter case, the cultures are often exchanged in the framework of a scientific co-operation project with (an) institute(s) of the country of origin.

The BCCM has co-ordinated the concerted action 'MOSAICC, Micro-organisms, Sustainable Use and Access Regulation, International Code of Conduct'. This project has been financed by the European Commission's Directorate General for Research and translates the principles of the Convention on Biological Diversity into practical procedures designed to facilitate access to and transfer of microbial genetic resources. The MOSAICC Code of Conduct can be consulted at www.belspo.be/bccm/mosaicc (see also Articles 15 et 16).

In the framework of a bilateral agreement with the Kingdom of Morocco, BCCM has launched a project with a network of Moroccan laboratories and the Moroccan Centre of Co-ordination and Planning of Scientific and Technical Research, and with the support of the Belgian Directorate-General for International Co-operation. This project aims to establish a national Moroccan culture collections network, with a view to the *ex situ* preservation of the Moroccan microbial diversity and the sustainable development of the country in fields like public health, agriculture, etc.

(127) Fruit tree *ex situ* collections are very important in Belgium both at the formal and informal (NGOs) level. Total amount of accessions at national level: *Malus* - 4,300; *Pyrus* - 3,600; *Prunus* - 1,600. Other important collections of plant genetic resources used for agriculture are held e.g. for *Rosa sp.*, *Azalea sp.*, *Triticum spelta*, *Phaseolus sp.*, forage plants, etc.

(128) The International Network for the Improvement of Banana and Plantain (INIBAP), a programme of the International Plant Genetic Resources Institute (IPGRI), maintains the largest *ex situ in vitro* collection of banana (*Musa*) germplasm in the world. This international collection, which was established in 1985, is housed at the INIBAP Transit Centre, hosted at the Laboratory of Tropical Crop Improvement, KU Leuven (www.agr.kuleuven.ac.be/dtp/tro/itc.htm)

The collection holds 1,136 accessions, consisting of wild relatives (15%), landraces and natural cultivars (75%) and improved materials (10%). In 1994, this collection was placed under the auspices of FAO within the International Network of *Ex Situ* Collections and is held in trust by INIBAP for the benefit of the international community. Germplasm is freely available to users under

the terms and conditions of a Material Transfer Agreement (MTA), which ensures that the genetic material, and related information, stays in the public domain. On average, samples of five accessions are supplied every day for agricultural research projects in NARS, IARCs and ARIs in developed and developing countries. The Belgian government is funding through the Directorate-General for International Co-operation INIBAP's *Musa* germplasm conservation and dissemination activities.

(128) The National Botanic Garden of Belgium assures the management of a wild Phaseoleae/Phaseolinae germplasm collection. It has been designated by the 'International Plant Genetic Resources Institute' (IPGRI), as a base collection for wild species of *Phaseolus* (in 1979) and of *Vigna* (in 1983). The main objective is to secure long-term conservation in the form of seed samples. The collection contains 1,560 accessions representing 192 taxa. *Phaseolus* and *Vigna* are the most highly represented genera with respectively 29 species (677 accessions) and 61 species (709 accessions). Most accessions are made for the consultation of wild or weedy materials (77%).

The Zoo of Antwerp and its antennae in Planckendael contribute to the *ex situ* conservation of wild animal species, through their participation in the European Endangered Species Programme. Among others, they have reproduction programmes for the Okapi (*Okapia johnstoni*), the Bonobo (*Pan paniscus*), the Golden-headed Lion Tamarin (*Leontopithecus chrysomelas*), the Military Macaw from Mexico (*Ara militaris*) and the Congo Peafowl (*Afropavo congensis*).

(134) Between 1989 and 1997, the National Botanic Garden of Belgium collected seeds from characteristic and endangered species in the different phytogeographical districts of Belgium. The long-term conservation of about 600 seed samples is assured by the storage at -20°C .

Plants of 18,000 taxa are cultivated in the open air collections or in the greenhouses. Even if most of them are only represented by a few specimens, they are sometimes the last representatives of rare and endangered species.