REPORT

EU-China Workshop on ABS and DSI

Access and Benefit Sharing and Digital Sequence Information

28-29 May 2020, virtually

Organised by the EU-China Environment Project

Table of contents

EU – China Workshop on ABS and DSI

Report

Access and Benefit Sharing and Digital Sequence Information
28-29 May 2020, virtually
Organised by the EU-China Environment Project

Report prepared by

Dr Christopher Lyal, Natural History Museum, London

Dr Fu-Wei Zhao, Nanjing Institute of Environmental Sciences,
Ministry of Ecology and Environment of China

Executive summary

The EU-China Workshop on Access and Benefit Sharing and Digital Sequence Information was held virtually on 28-29 May 2020. The 26 Participants represented national authorities in China and the EU, the European Commission, the current and future Presidencies of the European Union and the Secretariat of the CBD. Stakeholder sectors were represented by senior personnel from databases, research, biological collections, forestry, ecology, agriculture and business.

The workshop was a platform to help develop ideas and build a shared understanding on issues of common concern and thus contribute to the preparation of COP15. The objective in this context was the exchange of views on one of the central enabling topics for the post-2020 biodiversity framework: Access and Benefit Sharing (ABS) and Digital Sequence Information on Genetic Resources (DSI). A further objective was to better understand respective ABS requirements of the Parties, and to explore the operation of the ABS regulations of the EU and China to inform both counterparts.

ABS Regulations

Lack of clarity on ABS regulations in Provider and User countries hinders compliance by users with those regulations. Knowledge about regulatory requirements is the first step of compliance. In this context more efforts should be made to place information about ABS related regulations on the ABS Clearing House.

ABS and DSI

Benefit sharing from the use of DSI under the CBD is a core issue for COP15 and the agreement of the post-2020 Framework. DSI is a placeholder term with no generally-understood meaning. The AHTEG on DSI has provided options. The largest databases that make DSI available (the International Nucleotide Database Consortium - INSDC) is open access, shares data with specialist databases that cater for particular needs, and has users globally. There is clear collaboration between China and the EU in the generation, storage and use of data. Open data is a key component of the smooth functioning of science globally. However, open access may restrict options to address benefit-sharing, and the challenge is to generate a different approach that maintains the efficiencies of the current model in delivering societal monetary and non-monetary benefits arising from activities within the current system while responding to the calls for benefit-sharing in the context of the CBD.

DSI, COP15 and the post 2020 Framework

Parties are likely to come to COP15 with different perspectives and requirements regarding DSI. It is crucial that all the Parties reach a coincident conclusion on the topic. It may be desirable to closely cooperate among all Parties to work on this.

1. Introduction

The EU-China biodiversity workshops are a series of activities to support China in its preparation of the 15th Conference of the Parties (COP15) of the Convention on Biological Diversity (CBD) in China, and also to support EU-China dialogue on biodiversity under CBD. Following three successful workshops on 9-10 October 2018[1], 13-14 May 2019[2], and 31 October-1 November 2019[3], the EU-China Environment Project organized a workshop focused on ABS-DSI issues on 28-29 May 2020, held virtually because of the outbreak of the COVID-19. The focus of the meeting was on access and benefit sharing (ABS) and digital sequence information on genetic resources (DSI), which are important elements in the negotiations of the post-2020 framework in COP15. The meeting was held under Chatham House rules. It gathered representatives from China (stakeholders and government authorities), Croatian and German authorities, as Presidencies of the EU, the European Commission (EC), as well as stakeholders from Germany, the UK, Switzerland, EBI-EMBL and the Secretariat of the Convention on Biological Diversity.

2. ABS and DSI

2.1. Technical issues on DSI

In the circumstance of the Convention on Biological Diversity and its Nagoya Protocol, Access and Benefit Sharing (ABS) addresses ways in which genetic resources and associated traditional knowledge may be 'accessed' for research and development and how monetary and non-monetary benefits that result from their utilization are shared between the user and the provider.

There is now a large volume of information on genetic resources stored online in databases, and freely available to users in line with open access policy. Use of this 'Digital Sequence Information on genetic resources' (DSI) contributes to scientific research as well as to other non-commercial and commercial activities in areas such as biological diversity, food security and human, animal and plant health. In some cases DSI can be used instead of physical genetic resources, thus without Prior Informed Consent (PIC) and Mutually Agreed Terms (MATs), and resulting in benefits not being shared with the providers of the physical genetic resource underlying DSI.

ABS, DSI and the post-2020 framework

The disagreement whether benefit sharing applies to the use of DSI has led to challenging negotiations on the topic known as DSI. Parties agreed at COP14 that DSI is important for the three objectives of the CBD, that access to and use of DSI contributes to scientific research as well as to other non-commercial

1 Rankovic, A., Shen, X. (2019). First Biodiversity Workshop - Summary Report: Sharing perspectives on CBD implementation and options for the post-2020 global biodiversity framework, 9-10 October 2018, Beijing. EU-China Environment Project.

2 Rankovic, A., Shen, X. (2019). Second Biodiversity Workshop – Summary Report: Perspectives on biodiversity commitments, the 2030 Mission, the other elements of the post-2020 global biodiversity framework, and the Belt and Road Initiative, 13-14 May 2019, Beijing. EU-China Environment Project.

3 Rankovic, A., Zou, Y. (2019). Third Biodiversity Workshop - Summary report: EU-China dialogue on the road to COP15: 2030 Mission; Smart targets; Implementation, assessment, reporting, and review; ABCMs and ecological redlines, 31 October – 1 November 2019, Beijing. Organized by the EU-China Environment Project.

and commercial activities, and that further capacity to access, use, generate and analyse DSI is needed in many countries. However, there was no agreement on addressing benefit-sharing from use of DSI under the CBD at COP14. The issue will be discussed at COP15 in the context of the post-2020 Global Biodiversity Framework. Peer reviewed studies have been carried out under the COP14 mandate[4], and an Ad-Hoc Technical Expert Group (AHTEG) has reported[5]. This report will be considered by the Open-Ended Working Group (WG2020-3) on the post 2020 Global Biodiversity Framework, which will make recommendations to COP15.

Meaning of DSI

Workshop participants expressed uncertainty of the scope of 'DSI', recognising a possible axis from DNA through RNA to proteins and finally metabolites, as identified in the AHTEG report. The AHTEG Report provided groups of elements that might comprise DSI, which is a good basis for further discussion by all Parties and other stakeholders.

Participants expressed differing views on whether DSI could or should be treated as equivalent to a genetic resource, some considering that it could be treated in the same way, others considering it as a distinct concept. The point was made that functioning DNA can be created from downloaded DSI constituted through technical means.

2.2. Source and Use of DSI

Sources of DSI

DSI is mostly created from physical genetic resources through scientific research. Publication in scientific journals requires that the molecular data on which they are based are also published. This publication is generally through a database, of which the largest and most used are open access. The largest international database is the International Nucleotide Sequence Database Collaboration (INSDC), made up of DNA Data Bank of Japan (DDBJ), National Center for Biotechnology Information (NCBI) and the European Nucleotide Archive (EMBL-EBI). The collaboration members share data daily, and data are also shared automatically with at least 1800 other databases that provide more specialist services to user communities[6]. Data come from the whole world, and are used by 10-15 million users from every country in the world. Data have been validated, curated, indexed for discovery and reuse, and comply with established standards, all factors that increase their value. Open access is an important consideration when considering smooth functioning of data provision for scientific research.

2.3. ABS and DSI in EU and Chinese legislation

Both the EU and China have regional / national regulations and further sub-regional (national in EU Member States; e.g. province in China) regulations that provide specific legislative tools.

For ABS the EU has three key documents: the EU ABS Regulation (511/2014)[7], the EU Implementing Regulation (2015/1866)[8] and a non-binding Guidance document on the scope of application and core obligations (2016/C 313/01)[9]. These all cover compliance; the EU ABS Regulations do not put in place requirements on access to or sharing of benefits from us of EU genetic resources. Decisions on whether to have access and benefit sharing regulations, and the provisions of these, are made by individual Member States.

In China the requirements on ABS are distributed in several laws and/or regulations. The State Council has issued several plans to develop and implement

4 https://www.cbd.int/dsi-gr/2019-2020/studies/

5 SCBD (2020) CBD/DSI/AHTEG/2020/1/7: Report of the Ad Hoc Technical Expert Group on Digital Sequence Information on Genetic Resources. https://www.cbd.int/doc/c/ba60/7272/3260b5e396821d42bc21035a/dsi-ahteg-2020-01-07-en.pdf

6 Rohden F, Huang S, Dröge G, Hartman Scholz A, and contributing authors (2019). Combined study in DSI in public and private databases and DSI traceability. https://www.cbd.int/abs/DSI-peer/Study-Traceability-databases.pdf

7 Regulation on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization 511/2014 (April 2014). http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0511&from=EN

8 Implementing regulation as regards the register of collections, monitoring user compliance and best practices EU No 2015/1866 (October 2015) http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL_2015_275_R_0003&from=FR

9 Guidance document on the scope of application and core obligations of Regulation (EU) No 511/2014 of the European Parliament and of the Council on the compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union. C/2016/5337. https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1472592469771&uri=CELEX:52016XC0827(01)

an ABS regime or regulation (e.g. in the NBSAP 2011-2030[10]), but this specialized legislation is still being formulated. There are, however, elements of ABS in many individual pieces of legislation, including the Constitution of the People's Republic of China, the Environmental Protection Law, the Wildlife Protection Law, the Regulations of the People's Republic of China on Wild Plants Protection, the Seed Law, the Livestock Law, the Law on Traditional Chinese Medicine and the Notice on Strengthening Management of Utilization and Benefit Sharing of Biological Genetic Resources in Foreign Cooperation and Exchanges. Particularly, the requirements of original disclosure of genetic resources are integrated within the Patent Law when it was amended in 2008. In addition to the national regulations currently being developed, provincial and sub-province legislation is also being developed or is in place, such as the Regulation on Biodiversity Protection of Yunnan Province (2019).

3. China-EU cooperation

3.1. Technical cooperation

Presentations in the workshop indicated significant cooperation taking place among stakeholders in China and the EU, and also globally, particularly in the context of scientific databases. Collaboration is taking place both through initiatives, such as the World Federation of Culture Collections and WDCM or NGDC and INSDC (EBI-EMBL) and through individual contacts.

3.2. Perspectives on legal coverage of respective ABS regulations

The legal management of ABS in the EU is more focussed on compliance, while China puts more emphasis in access and benefit sharing requirements. It is important for EU and Chinese researchers to better understand the legal provisions in both legislations in order to enhance and extend scientific collaboration. Setting up a mechanism to deepen conversation between the EU and China and improve mutual understanding on ABS measures in the two jurisdictions is an important next step.

3.3. ABS, DSI, COP15 and the post-2020 targets

Open access to scientific data and scientific cooperation has important value to the implementation of the objectives of CBD. Parties have big divergence on DSI issue. Developing a positive solution to the problems raised by DSI is an important part of the post-2020 Framework and to the success of COP15. Both China and the EU expressed interest in a closer collaboration to set up a process which can engage Parties and other stakeholders with different views to seek a solution acceptable for all.

10 China National Biodiversity Conservation Strategy and Action Plan (2011-2030). Available at https://www.cbd.int/countries/?country=CN

EU-China Workshop on ABS and DSI

Report

Access and Benefit Sharing and Digital Sequence Information

28-29 May 2020, virtually

Organised by the EU-China Environment Project