

Subject area IV

Worksheet (M3) – page 1 (Solution)

Task:

Analyse the linked material below and explain biopiracy in English.

Explain political strategies to combat biopiracy - but now in German.

Follow the guiding questions below throughout. Write down your results in bullet points, either in German or English.

A contribution of Deutsche Welle on the topic of biopiracy can be found [here](#).



Moreover, [here](#) you can find information from the Federal Agency of Nature Conservation on the Nagoya Protocol.



What is meant by “genetic resources”? Give examples.

Genetic Resources are basically understood to be biological structures that can be used by humans – for example as food or medicines (BfN: Nagoya). Examples are the medicinally usable Madagascar periwinkle as well as the spice and remedy turmeric (Baig 2013).

What is meant by “biopiracy”?

“Biopiracy” is the appropriation and patenting of genetic resources. In this process, pharmaceutical companies or agricultural corporations appropriate the knowledge of indigenous groups about the possible uses of biodiversity without giving the original owners of this knowledge a share in their profits (Baig 2013).

How is traditional knowledge protected?

It is a conceivable strategy to file a lawsuit against the respective patent office. For example, the patent on the use of turmeric as a wound healing agent was brought down this way. With an ancient Sanskrit text, it could be proven that people have been using the spice as a remedy for centuries (Baig 2013). In this case, things were favorable because a written testimony facilitated the evidence. This is not possible with indigenous groups who do not have a written tradition. With the Nagoya Protocol, a treaty binding under international law has been in force since 2014, which is intended to regulate fair access to genetic resources (see below) (BfN: Nagoya. Grundlagen). Another significant strategy is to raise awareness about the problem of biopiracy in the affected developing countries, but also in Europe among consumers (Baig 2013; Yoke Ling Chee zit. ebd.).

What is meant by “traditional knowledge”?

Traditional knowledge is the knowledge of local population groups about the possible uses of genetic resources (Baig 2013).



What is the Nagoya Protocol?

The Nagoya Protocol is an international agreement designed to guarantee the equitable sharing of benefits arising from the use of biodiversity. It is based on the principle of ABS (Access and Benefit-Sharing) (BfN: Nagoya. Grundlagen). The term "Benefit-Sharing" refers to a procedure that is intended to enable the legal use of traditional knowledge. This is released against a license, the owners from the country of origin are involved in its marketing (Baig 2013). The implementation of the protocol is supported by the "ABS Clearing House". It provides information on ABS (BfN: Nagoya. Grundlagen).

Why is the implementation of the protocol also being criticized?

The accusation is made that the EU's implementation strategy does not contain any new regulations for the granting of patents. Furthermore, it is criticized that the Protocol as a whole has hardly been implemented in law (Baig 2013).

How is the protocol being implemented in Germany and the EU?

The EU ratified the Nagoya Agreement in 2014 and adopted a corresponding implementation strategy. The ABS rules must therefore be observed at EU level. In Germany, no supplementary legal regulations have been adopted beyond this. Genetic resources in the FRG are therefore freely accessible and subject solely to the regulations of public or private law - unless they fall under the regulations of other countries (e.g. in the case of biological collections) (BfN: Nagoya. Rechtsfragen).

Bibliography

Baig R. (2013). Im Kampf gegen Biopiraterie. In: *DW. Made for Minds*: <https://www.dw.com/de/im-kampf-gegen-biopiraterie/a-16731192> (zuletzt abgerufen am 25.11.2021).

BfN (Bundesamt für Naturschutz). *Nagoya Protokoll*: <https://www.bfn.de/nagoya-protokoll> (zuletzt abgerufen am 25.11.2021).

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Teff

Task: Research information about the Teff patent, and add the information into the boxes below in partnerwork. One person will do it in German, the other person in English.



Biological Key Data:

Scientific name:
Eragrostis/abyssinica

Place of origin:
Ethiopia, it has been cultivated there for 3000 years, it is considered the most important food in the country (Wilhelm 2020).

Special properties and ingredients:
Gluten-free cereal with easily digestible glucose, high iron content and all essential amino acids (unlike other cereals) (Weyh 2020.; Kamp-Diester/ Furtmayr: 17-19).

Possibilities of use:

In Ethiopia, Teff is used to make the flatbread Injera. It is suitable as a substitute food for people with gluten intolerance. In Germany, the plant could be cultivated in the future if rainfall decreases as a result of climate change, because Teff tolerates drought. In addition, the plant is relatively undemanding and requires hardly any fertilization. The assessment as a "superfood" is controversial, as the nutrient content is not significantly higher than in other cereals (Weyh 2020, as well as Horn/Asendorf/Kabisch cited in ibid.).

Partner dispute

This led to the patenting of teff:

Although patents on plants are prohibited in the EU, in 2004 a Dutch company succeeded in patenting Teff. To this end, a technical processing method was patented that had not yet been officially described; however, this did not constitute an innovation. Subsequently, the owners of the patent had to conclude an ABS agreement with Ethiopia, but by 2015 only 4000 euros had been paid out to the Ethiopian government. This is because after the insolvency of the patent owner, the patent was transferred to another corporation, and the ABS agreement was not renewed (Weyh 2020 and Anton Horn cited ibid.; Wilhem 2020).

Thus, the patent was revoked in Germany:

A lawyer appealed against the patent in Germany and obtained its annulation in 2019. It is still valid in other European countries, and further lawsuits are necessary for its cancellation (Weyh 2020; Wilhelm 2020).

You can find the necessary information here ([Weyh 2020](#)) and here ([Wilhelm 2020](#)).



African geranium

Research information about the African geranium patent, and add the information into the boxes below in partnerwork. One person will do it in German, the other person in English.

Biological Key Data:

Scientific name

Pelargonium sidoides

Place of origin:

South Africa, more precisely in the Eastern Cape Province (endemic) (Schwab 2010).

Possibilities of use:

In South Africa the plant is being used since a long time as a medicine against respiratory diseases and tuberculosis (Schwab 2010).

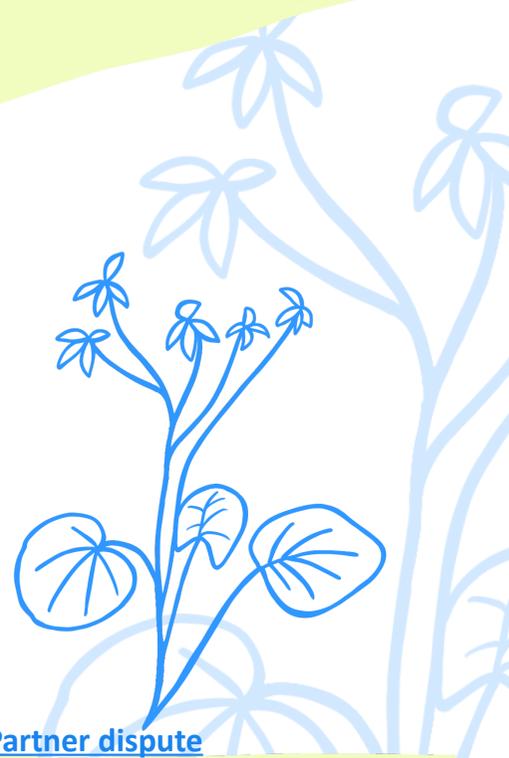
Partner dispute

How a patent came to be:

A German company produces the cold syrup "Umckaloabo" from the roots of the plant, in 2007 they patented the manufacturing process (Schwab 2010).

Revoking the patent:

Residents of the South African village of Alice filed a lawsuit against this patent, as they have long used the plant. In 2010, the European Patent Office revoked the patent on the manufacturing process. The corporation then voluntarily waived five more patents (Schwab 2010; Abramson 2010).



You can find information
here [Abramson 2010](#)
and here [Schwab 2010](#).

