



Stevia: the path to a benefit sharing agreement

Update on communications with companies, demands of the Guarani and developments in the legal framework

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PHOTOS The pictures that illustrate this report were taken by Luis Vera on August 4 and 5 2016, during the Guarani meeting at the Jasuka Venda sacred site, Province of Amambay in Paraguay. On this occasion, representatives of Brazilian and Paraguayan Guarani communities adopted a declaration to demand a fair and equitable sharing of the benefits arising from the utilization of stevia.

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Introduction

One year ago, in November 2015, a new report called *The Bitter Sweet Taste of Stevia* was released by the Berne Declaration (now Public Eye), CEIDRA, Misereor, Pro Stevia Switzerland, SUNU and the University of Hohenheim. This report showed that the commercialization of Stevia-derived sweeteners violates the rights of indigenous peoples and is based on misleading marketing, and that controversial SynBio production is moving ahead.¹ A new partner, France Libertés, has since joined the coalition and translated the report into French.

The Bitter Sweet Taste of Stevia demonstrated that neither the Guarani (Paï Tavyterâ and Kaiowa), who discovered Stevia's sweetening properties, nor Paraguay or Brazil, the countries of origin of the plant, are receiving a fair and equitable share of the benefits arising from the commercialization of steviol glycosides.

The report also alerted that progress with plans for steviol glycoside to be produced using synthetic biology meant that the market for stevia leaves may disappear, so the entire added value would flow into the pockets of a few transnational corporations based in developed countries. Furthermore, consumers will probably be unaware of whether they consume steviol glycosides produced by synthetic biology.

Finally, it was shown that products containing steviol glycosides are often marketed as “natural” or “Stevia extract” when this is clearly not the case: these molecules are produced by complex chemical/physical processes that are often even patented.

In this follow-up report, the coalition of organizations behind the original report wishes to provide an update on several areas: the resulting communications with companies, the demands of the Guarani, new developments in the legal framework and the path ahead.



Over a 100 Guarani Paĩ Tavyterã and Kaiowa representatives gathered early August at Jasuka Venda, a sacred place in the North-East of Paraguay. | © Luis Vera

1

Communications with Companies

Following the release of the report, a questionnaire was sent to selected companies selling products containing steviol glycosides in Switzerland, Germany and France. Companies were asked if they would be willing to call on the producers of the steviol glycosides in their products to enter in negotiations with the Guarani and the countries of origin for fair and equitable benefit-sharing.²

They were also asked if they would forego expressions such as “natural,” “Stevia extract” and “sweetened with Stevia” as well as illustrations of Stevia leaves in advertisements and on product labels. Finally, companies were asked if they would forego steviol glycosides, produced using synthetic biology (until impact assessments with a positive outcome can be established), and if they would inform consumers in a transparent manner about the SynBio origin of steviol glycosides in their products.

Some companies and associations, including companies producing steviol glycosides, also reacted spontaneously to the release of the report.

Several companies did not respond at all (e.g. Unilever or Ricola), and others simply responded by saying that they would not answer our questions. However, many gave positive and encouraging responses, and discussions are still being held with some of the main producers of steviol glycosides.

1.1 – BENEFIT SHARING

Several companies responded to say that they were supportive of the idea of benefit sharing with the Guarani and the countries of origin.

Nestlé (Switzerland) said it “fully supports the principle of fair and equitable sharing of benefits arising out of the utilization of genetic resources as described in the Convention on Biological Diversity and is currently evaluating the possibility of further engaging into the issue”.

Also in Switzerland, Migros (a supermarket) stressed its support for the principles of benefit sharing with Indigenous Peoples and the countries of origin, and added that it would be ready to discuss it directly with its suppliers in the case of steviol glycosides.

Goba (soft drinks), still in Switzerland, indicated its willingness to cooperate in implementing the idea of benefit sharing

with the Guarani. Similarly, Bernrain (chocolate) expressed its support for benefit sharing and its willingness to work with suppliers that source their raw material from the countries of origin and share benefits with the Guarani.

Some encouraging responses also came in from Germany. Dr. Oetker (pastry) expressed its support for benefit sharing with the Guarani and expressed its readiness to cooperate further with the University of Hohenheim and its partners on this issue. Zentis (fruit processing) also expressed its support for benefit sharing with the Guarani and stressed that they had already contacted their suppliers to see what steps could be taken to do so.

However, there have also been less encouraging responses, so far, from some of the biggest players that use steviol glycosides in their products. Coca Cola regularly uses the image of the Guarani and the fact they have been using stevia for centuries to boost the sales of its Coca Cola Life drink. But when asked about benefit sharing, it simply referred to the activities carried out by the International Stevia Council (ISC) in Paraguay.³ When confronted with the facts that those activities do not constitute benefit-sharing with the Guarani, and that the ISC refused to give any additional information about their activities, Coca Cola simply replied that it “will not be able to provide further responses to [our] questions.”

PepsiCo, using steviol glycosides in its Pepsi NEXT drink, was even worse: it simply refused to address our questions regarding benefit sharing!

When it comes to the companies that produce steviol glycosides, we had some encouraging responses. The Basel-based company Evolva, which has a joint-venture with Cargill to produce steviol glycosides using synthetic biology (Eversweet), reacted spontaneously to the release of the report and invited the organizations behind it to discuss its findings. A meeting was held in January 2016 in their headquarters which was attended by Neil Goldsmith, CEO of Evolva, and Stephan Herrera, Director of Public Affairs and Media, amongst others.

Evolva indicated that “there are some 30 genes involved and these genes could come from many sources. The number of genes involved is, in fact, constantly changing, and only when the product is finalized will [it] be sure about what genes will be in it.”

Evolva also indicated that it is “fully committed to the spirit of the Convention on Biological Diversity (CBD) and that [it] already supports the conservation of biological diversity, and science education in developing countries, with a 1% share of [its] revenue, whether the ABS rules apply or not.”

Evolva said it would be “willing to engage in discussions regarding benefit sharing with the Guarani as per the spirit of the CBD”. Evolva also said that it is “open to exploring the mutual benefits of an academic/research collaboration with them”.

Reacting spontaneously to the release of the report, the International Stevia Council (ISC), indicated that it “firmly disagrees” with the report and in particular “its assertion that some of its members are committing biopiracy”. It also reported that “the members of the ISC have engaged with the Paraguayan farmers to ensure that stevia cultivation remains profitable and that more value is returned to local farmers as the global interest in stevia surges”. It mentioned that it is “cosponsoring the VIII International symposium on Stevia in Paraguay organized by the Paraguayan Chamber of Stevia”.

The ISC further invited the authors of the report to contact them “to get an accurate understanding of the situation in Paraguay”. But when contacted, and confronted with the fact that its activities in Paraguay do not qualify for benefit sharing, it then backtracked from its offer and said, through a consultant, that “the ISC respectfully declines to comment further on this matter”. Later, end of October 2016, the ISC released a written statement where it indicated “The ISC and its members abide to international and country rules and regulations and will, therefore, abide by the Na-

goya Protocol and the Convention on Biological Diversity on benefit sharing, if applicable”. So there seems to be now some openings from the ISC to discuss benefit sharing. And this is to be welcomed.

The authors of the report also received an invitation from EUSTAS, the European Stevia Association, and made a presentation on fair and equitable benefit sharing related to Stevia at a EUSTAS symposium in September 2016.

1.2 – MARKETING

Regarding the marketing of products containing steviol glycosides, and in particular the use of expressions such as “natural,” “Stevia extract” and “sweetened with Stevia” as well as illustrations of Stevia leaves in advertisements and on product labels, the report seems to have had a positive impact on several user companies, at least in Switzerland.

Goba, Bernrain and Henniez (Switzerland), for example, indicated that they had changed their labelling and marketing practices to be in line with Swiss rules. Migros responded by saying that consumers should obviously not be misled about steviol glycosides and that Swiss laws and regulations must be respected. Responses from many companies, such as Dr. Oetker, FritzKola, Zentis (Germany) and Hero (Switzerland), stated that they are already complying with national regulations in their marketing and labelling practices.

Meanwhile, some companies publicly claim that they comply with national regulations when this is clearly not the case. One such example is Ricola (Switzerland) which claimed in a newspaper article (after the release of the original report) that it does not see any conflict between its practices and Swiss guidelines, although it uses pictures of Stevia leaves and the word “natural” on its labelling.⁴

Coca Cola argued that it complies “with all labelling laws where [it] operates”. But in Switzerland for instance, Coca Cola Life continues to be marketed as containing sweeteners of “natural” origin, in complete breach of the guidance enacted by the Federal Office of Public Health in 2010. And the same is true in many other countries.

Then there’s PepsiCo, which refused to respond to any questions and continues to mislead consumers with its Pepsi Next, which is marketed as “sweetened with stevia leaf extract” and thus contravenes Swiss guidelines.

1.3 – SYNTHETIC BIOLOGY

Evolva and Cargill had initially announced their intention to launch their new SynBio sweetener EverSweet in 2016. But Evolva indicated in a press release in March 2016 that it “no longer believed that EverSweet will be launched in 2016” because “production costs are currently above where [Evolva] and Cargill want them to be”.⁵

Two months later, in May 2016, Evolva announced that a European patent was granted for its method for producing steviol glycosides through synthetic biology.⁶ It indicated that it now had four relevant stevia sweetener patents granted.





And in June, Cargill announced that the U.S. Food and Drug Administration (FDA) had issued a GRAS (generally recognized as safe) No Objection Letter, for Eversweet, on 27th May 2016, qualifying it for use in food and beverages. This means that SynBio steviol glycosides are now authorized for commercial use in the US.

In the meantime the chemical giant DSM (Netherlands) also received a GRAS Non-objection letter from the FDA, on 24th June 2016, for Rebaudioside A made using *Yarrowia lipolytica* (yeast). DSM is going to produce Rebaudioside A via SynBio, which is already included in JEFCA (Joint FAO/WHO Expert Committee on Food Additives)⁷ and EFSA specifications (although in this latter case not based on the SynBio process). Cargill intends to produce Rebaudioside M, which has been approved by the EU Commission in October 2016, when it amended the Regulation (EU) No 231/2012 laying down specifications for food additives⁸. But also this decision does not include products produced by SynBio.

To date, only the USA has authorized SynBio steviol glycosides for commercial use. In Europe, a dossier would need to be submitted to the European Food and Safety Authority (EFSA) for approval, which doesn't seem to have been done at this stage.⁹

During the meeting held with the authors of the report in January 2016, Evolva representatives indicated that they were aware that an impact assessment needs to be done, including a review of social and economic aspects and the impact on stevia

growers, but that it will be done once the production process is clear and the product gets on the market.

They also said that Cargill will take the lead on it but that Evolva will be involved one way or another. Evolva representatives understand that Cargill intends to publish the assessment.

In response to the report, Coca Cola indicated it had “a commitment to sustainably source [its] key agricultural ingredients, including stevia”. Stevia was in fact not in its list of sustainably sourced ingredients at that time, but it was added following an email exchange held with the authors of the report. Anyway, Coca Cola refused to respond if they would use SynBio steviol glycosides in the future and if they would inform consumers accordingly. This means that nobody consuming Coca Cola Life will know what they really drink and in particular if it contains SynBio steviol glycosides or not.

Similarly, PepsiCo sent its code of conduct together with a commitment to sustainably source its raw materials, but refused to respond to the specific questions related to synthetic biology and transparency with consumers.

Most of the other user companies that responded indicated that they were not interested in SynBio steviol glycosides at this stage, but that if they would use them in the future, they would not do so until an impact assessment (including socioeconomic aspects) is performed and provides a positive outcome. And they also committed to inform their consumers in a transparent manner.

2

The Demands of the Guarani

The Guarani Paï Tavyterâ and Kaiowa peoples living across the Paraguay and Brazilian border are the holders of the traditional knowledge related to the traditional use of the stevia plant as a sweetener. They have known the stevia plant for time immemorial and their relationship with Ka' a He' e (the plant we call stevia) is sacred.

They were already contacted for the drafting of *The Bitter Sweet Taste of Stevia* in 2015. A group of cultural researchers started to work with their memories of *Stevia Rebaudiana* and its uses. Some of their testimonies are available in the report.

The Guarani Paï Tavyterâ and Kaiowa have gathered twice since, in May and August 2016, to get organized to lay a claim to their rights over their traditional knowledge and the related benefit-sharing.

At the first meeting, on 9th and 10th May 2016, where representatives from the *Consejo Continental de la Nación Guarani*²⁰ also participated, it was concluded that the Paï Tavyterâ and Kaiowa peoples living in the centre of origin of *Stevia rebaudiana*

are indeed the rightful holders of the traditional knowledge associated with *Stevia rebaudiana*.

At a second meeting, on 3rd, 4th and 5th August 2016, at a sacred place in the department of Amambay (Paraguay), near the border with Brazil, the Paï Tavyterâ and Kaiowa peoples, represented by over a 100 leaders and other community members, discussed the issue in greater depth and adopted a Declaration.

In the Declaration, they denounce “the usurpation of [their] knowledge and biodiversity by multinational companies, who use, sell and profit from ka' a he' e (*Stevia rebaudiana*) without [them] Paï Tavyterâ and Kaiowa, who it truly belongs to, having been consulted”. They therefore demand “the restitution of [their] rights for the use of our knowledge related to *Stevia rebaudiana* through benefit-sharing” and decided to “form a permanent assembly to monitor the claim for a fair and equitable sharing of benefits arising from the utilization of stevia and its derivatives.”



The Guarani demand their right to a fair and equitable share of the benefits arising from the use of their knowledge. | © Luis Vera

“Gathered at the sacred spot where Ñande Ramoi Jusu Papa laid his footsteps and created (ombojasojavo) the Earth.

The here gathered participants, Tekoaruvicha, Mburuvicha, Jarikuery, Yvyraija, Kumnumirusu, kunumi kuera and Kuña mene’y kuera¹¹, have come together to reaffirm the way of life and beliefs of the Paĩ Tavyterã and Kaiowa peoples. Gathered at the Assembly (Aty Guasu), we discussed our knowledge, which has been preserved and protected for time immemorial, related to the ka’a he’ê (*Stevia rebaudiana*) plant and its uses.

The Tekoaruvicha (spiritual leaders) here gathered confirm the sacred origin of this plant created by the grace of Ñande Ramoi Jusu Papa (Our Eternal Great Grandfather) and Ñande Jari Jusu (Our Grandmother) on this land passed down to their children, the Paĩ Tavyterã and Kaiowa people, for their use and care. The Ñande Jari kuera (wise women) here gathered confirm the use of this plant in our sacred ceremonies, for its abilities to strengthen the body, the spirit and our peoples with its sweetness. We Tekoaruvicha and Ñande Jari Kuera reveal to the world the sacred name of this plant that the white people call stevia: Ka’o e’ê.

We denounce:

- The usurpation of our knowledge and biodiversity by multinational companies, who use, sell and profit from ka’a he’ê (*Stevia rebaudiana*) without us Paĩ Tavyterã and Kaiowa, who it truly belongs to, having been consulted.
- The conditions of poverty that we’ve historically been subject to through the loss of our territory, biodiversity and knowledge.
- The genocide that has been practised on our lands, affecting our communities, families and leaders, causing much pain and fear amongst our people. In just the last year, our Kaiowa brothers have suffered more than 33 attacks, with tens of us injured and 2 killed in the Mato Grosso do Sul state in Brasil.

We demand:

1. The respect of our territory, our world view, our autonomous regions and our authorities, principally Paĩ Tavyterã and Kaiowa, as well as the other indigenous peoples of this continent.
2. The restitution of rights for the use of our knowledge related to *Stevia rebaudiana* through benefit-sharing.
3. Respect of the rights consecrated in the constitutions of the nation states that our ancestral communities lie within, as well as international agreements in force that guarantee the rights to life, autonomy, biodiversity and the right to a free, prior and informed consultation on the use of our knowledge.



4. That the relevant nation states guarantee us lands of sufficient quality and quantity within our traditional territories to live a dignified life in line with all the values of our culture.

We decide the following:

1. That the here present, members of the Paĩ Tavyterã and Kaiowa people, will form a permanent assembly to monitor the claim for a fair and equitable sharing of benefits arising from the utilization of stevia and its derivatives.
2. That from this moment on we shall act in a manner guided by our own world view as we continue along the path we have started.
3. That we will no longer permit the usurpation of our sacred knowledge and the use of the biodiversity present in our territories without the due process of free, prior and informed consultation.

We recognise other similar indigenous organisations and those who support our claim.

We make a call

For people and organisations that feel solidarity with our cause to join us and support our claim.

For the people of the world to be aware that the Earth is our mother, who is in danger because of the continually-growing consumption and greed for profits that poison our lands, our seeds, our waters and our communities, destroying our forests and leaving us, and all of humanity, without the biodiversity required for life to carry on. Without access to and care for our territories, where life flourishes, the balance of OUR PLANET is placed in danger.”



3

Developments in the Legal Framework

Since the publication of *The Bitter Sweet Taste of Stevia* in November 2015, there have been a number of relevant developments in the legal framework at national, regional and international levels.

3.1 – BRAZILIAN REGULATION

In May 2016, the President of Brazil adopted Decree 8.772 regulating Law No. 13,123, of May 20, 2015, on access to genetic resources, the protection and access to associated traditional knowledge and the sharing of benefits for the conservation and sustainable use of biodiversity (at the time the earlier report was published, only the law was available, not the regulation).¹² This is highly relevant since the stevia plant originates from the region along the border between Paraguay and Brazil, and the holders of the associated traditional knowledge have a strong presence in both countries across the border.¹³

According to the Brazilian regulation, the scope does not include access to genetic resources or associated traditional knowledge from before June 30, 2000. All access made after that date falls under the regulation.¹⁴ The regulation defines “access” to genetic resources or associated traditional knowledge as “the practice of any research activities or technological development”¹⁵ (art.2.1.). It goes on to specify that “evidence of research activities could include the publication of an article in a scientific journal, communications at a scientific event or the filling of a patent application [and that] evidence of technological development can be proved by the filling of a patent application, as well as the registration or proof of commercialization of the product” (art.3.2.).

Therefore it doesn’t matter when the genetic resource or the traditional knowledge was actually accessed. What counts is if research activities or technological development based on genetic resources or traditional knowledge originating from Brazil are made after June 2000. So the commercialization of steviol glycosides is clearly covered in the scope due to the intense post-2000 patent activity (as well as post-2000 registration and proof of commercialization of the product).

Article 43 makes it clear that “benefit sharing is due as long as there is economic exploitation of a finished product or a re-

productive material resulting from access to genetic resources or associated traditional knowledge”. Meanwhile, article 44 states that the product “is subject to benefit sharing by the producer of the finished product or reproductive material, regardless of who carried out the access” (art. 44). In the case of a finished product, the genetic resource or associated traditional knowledge elements must be one of the main elements of added value.

This means that the producers of steviol glycosides have an obligation to share benefits, but also companies selling products containing steviol glycosides might have, if steviol glycosides represent one of the main elements of added value of the product.

On the level of benefit sharing, the regulation reiterates the provisions of the law: 1 % of sales to a national benefit sharing fund (NBSF) in the case of access to genetic heritage, while in the case of access to associated traditional knowledge, the amount is freely negotiated between the provider (the indigenous peoples holding the traditional knowledge) and the user, but an additional 0.5 % of sales is in any case due to the NBSF.

On traditional knowledge, the regulation (art.12) states that indigenous peoples that create, develop, own or conserve traditional knowledge have “the right to participate in the decision-making process on issues related to access to traditional knowledge and the right to sharing the benefits arising from such access”. It further makes it clear that “access to traditional knowledge associated with identifiable origin is subject to obtaining informed consent” (Art.12.1) and that “any indigenous population that create, develop, own or conserve traditional knowledge is considered as the identified origin of it” (Art. 12.3). The regulation also explicitly recognizes the right of indigenous peoples to refuse to consent to access to their traditional knowledge (Art.13).

Art. 15. Clarifies that the process for obtaining the prior informed consent of traditional knowledge providers must “comply with the traditional forms of organization and representation of indigenous peoples and its Community protocol, if any”.

Furthermore, the regulation lays down sanctions for companies that violate the legal or regulatory requirements. According to article 78, “Companies engaged in economic exploitation of a finished product or reproductive material based on access to

genetic resources or associated traditional knowledge without notice will be fined by a minimum of R\$ 30'000 to R\$ 10'000'000 (~minimum € 8,000 up to € 2.7 million). Companies risk similar fines if they apply for intellectual property rights on the basis of access to genetic resources and associated traditional knowledge, in Brazil or abroad, without prior registration, or if they fail other legal or regulatory requirements.

3.2 – OECD-FAO GUIDANCE FOR RESPONSIBLE AGRICULTURAL SUPPLY CHAIN

The OECD and FAO jointly released their Guidance for Responsible Agricultural Supply Chain in early 2016.¹⁶ Compared to the draft available at the time when the Stevia report was published, the final Guidance includes important improvements that are relevant for fair and equitable benefit-sharing related to Stevia.

The paragraph on benefit sharing in the Model Enterprise Policy for Responsible Agricultural Supply Chain is now clear that benefits can be both “monetary and non-monetary”, and that the sharing of benefits is to be done with communities “on mutually agreed terms” and “in accordance with international treaties”.¹⁷

The final Guidance now also includes an Annex on “measures for risk mitigation and prevention along agricultural supply chains” with a specific section dedicated to benefit sharing. Accordingly, “benefit sharing is separate (and may be additional) to compensation for unavoidable adverse impacts; it aims to build a partnership between the company and indigenous peoples or local communities in recognition of their contribution to business operations. In specific circumstances, indigenous peoples or local communities may be entitled to share the benefits arising from business operations if companies use their land, resources or knowledge. Such benefits can be monetary or non-monetary as agreed between the enterprise and the relevant community as part of the consultation process.”¹⁸

The joint OECD/FAO Guidance therefore makes it clear that responsible business conduct in the case of the using stevia and associated traditional knowledge requires negotiating with the Guarani on a fair and equitable benefit sharing.

3.3 – SUSTAINABLE DEVELOPMENT GOALS

This demand is further reinforced by the Sustainable Development Goals (SDGs), adopted in September 2015, as part of a new sustainable development agenda to end poverty, protect the environment and ensure prosperity for all.¹⁹ Each goal has specific targets to be achieved over the next 5-15 years.

Sustainable Development Goal 2, “End hunger, achieve food security and improved nutrition, and promote sustainable agriculture”, has a specific target (2.5) that reinforces the demand for a fair and equitable sharing of the benefits arising from the commercialization of stevia-derived sweeteners: “by 2020 [...] ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge as internationally agreed”.

3.4 – EU COMMISSION ON STEVIA PLANT AND LEAVES

A member of the EU Parliament raised the issue of *Stevia rebaudiana* Bertoni plants and leaves, pointing out in a written question to the EU Commission that “consumers in some EU countries now have increasing access to the plant *Stevia rebaudiana* Bertoni, either through the Internet or at local markets where dried, whole or ground leaves of this plant variety are sold”, while at the same time “commission Decision 2000/196/EC, however, stipulates that *Stevia rebaudiana* Bertoni plants and dried leaves may not be placed on the Community market as a food or food ingredient [and] their use (in purified form) is permitted only as a steviol glycoside sweetener”.²⁰

The MP asked if there had been any developments in relation to the authorisation of *Stevia rebaudiana* Bertoni as a novel food in any of the Member States; when it will be possible to apply for authorisation for this plant as a novel food under the recently approved ‘novel food’ system; and if the entry into force of the new European legislation on novel foods might speed up the approval procedures.

In its response of 22st January 2016²¹, the EU Commission clarified that “*Stevia rebaudiana* Bertoni (plants and dried leaves) is a novel food in the sense of Regulation (EC) No 258/97 on novel foods, as human consumption to a significant degree has not been demonstrated within the European Union before the entry into force of that regulation”. The Commission also responded that there had been no new developments in relation to the authorization of *Stevia rebaudiana* Bertoni plants and leaves as a novel food in any of the Member States. It concluded “the new Regulation (EU) 2015/2283 will apply on 1st January 2018 and from that date applications can be submitted to the Commission”. The Commission also explained that “the authorization system, which will be centralised at EU level, will speed up and simplify procedures for applicants.”

Therefore, while the use of stevia plant and leaves as food or a food ingredient is still not permitted in EU Member States, in 2018 the authorization process will be centralized at the EU level, which could be simpler and faster.

4

The Path Ahead

Establishing fair and equitable benefit-sharing for the use of the traditional knowledge associated with the sweetening properties of *Stevia rebaudiana* is a complex and burdensome project. To be successful it requires the constructive cooperation of the companies producing and using steviol glycosides. The organizations behind this update report hope that a group of companies, being aware of their obligations and social responsibility, will take a lead as first movers to negotiate a benefit-sharing agreement with the Guarani communities holding the associated traditional knowledge. Once this has occurred, others will hopefully follow.

But also the respective Paï Tavyterá and Kaiowa communities have to further discuss and clarify their views and positions to be well prepared for potential negotiations, possibly including the development of a Community Protocol to clarify the rules for access to their traditional knowledge as well as the distribution and use of potential benefits.

The organizations behind this update report stand ready to support both those efforts.

Regarding Synthetic Biology, the upcoming Conference of the Parties to the Convention on Biological Diversity (4th–17th December 2016 – Cancun, Mexico), will further clarify the framework for a potential use of Synthetic Biology. It is expected that the Parties will reemphasize the need to take a precautionary approach and to establish a risk assessment (including socio-economic factors) for the release of any organisms, components or products resulting from synthetic biology techniques.

In addition, it will be crucial that regulators demand full transparency on products for sale about the process used to produce any steviol glycosides that these products contain. There would be a backlash against the use of Stevia and Steviol glycosides as a sweetener if steviol glycosides originating from plants and synthetically produced steviol glycosides could not be differentiated by consumers.



Companies must now sit down and negotiate with the Guarani. | © Luis Vera



Endnotes

- 1 Berne Declaration (Public Eye), CEIDRA, Misereor, Pro Stevia Switzerland, SUNU and University of Hohenheim, [The Bitter Taste of Stevia – Commercialisation of stevia-derived sweeteners by violating the rights of indigenous peoples, misleading marketing and controversial SynBio production](#), 2015. Printed copies can be ordered from Public Eye. The report is also available in French, German and Spanish.
- 2 It is primarily companies producing steviol glycosides or holding patents on the production process and/or use of steviol glycosides that have an obligation to enter into benefit sharing negotiations with the Guarani. Indeed, in the Convention on Biological Diversity (CBD) and the Nagoya Protocol, benefit sharing obligations are triggered by the utilization of genetic resources, defined as conducting “research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology”.
- 3 The International Stevia Council (ISC) is an international industry association of some of the main producers (Cargill, Pure Circle) and users (Coca Cola) of steviol glycosides
- 4 [Stevia – von wegen pflanzlich](#), *Tages Anzeiger*, 18 November 2015. Article published in a Swiss newspaper following the release of the report.
- 5 Evolva, [Evolva Publishes Financial Results for 2015 and Updates on Projects](#), Press Release, March 30, 2016
- 6 Evolva, [Evolva Granted Pivotal Patent for Commercial Production of Best-Tasting Fermentation-Derived Steviol Glycosides](#), Press Release, May 26, 2016
The patent is [EP2742142B1 Recombinant Production of Steviol Glycosides](#)
- 7 [Summary and conclusions of the 82nd Joint FAO/WHO Expert Committee on Food Additives \(JECFA\) meeting](#), June 21, 2016. It was confirmed that Rebaudioside A from multiple gene donors expressed in *Yarrowia lipolytica* is included in the ADI
- 8 [Commission Regulation \(EU\) 2016/1814](#), October 13, 2016
- 9 Niamh Michail, [Evolva Bags European Patent for Fermented Stevia](#), *Foodnavigator*, May 27, 2016
- 10 The Continental Council of the Guarani Nation was created in November 2010 in Asunción, Paraguay. It is a continental organization of the guarani peoples. It includes guarani organizations from Argentina, Bolivia, Brazil and Paraguay.
- 11 Spiritual leaders, political leaders, wise women, community figures, youngsters, children and single women.
- 12 Presidency of the Republic of Brazil, [Decree 8.772](#), May 11, 2016
- 13 However Paraguay still has no access and benefit sharing law in place
- 14 Although access made between June 2000 and November 2015 are subject to transitional provisions, meaning they have one year to conform to the regulation
- 15 All the quotes are unauthorized translations of the Brazilian regulation made by Public Eye
- 16 [FAO and OECD, Guidance for Responsible Agricultural Supply Chains](#), 2016
- 17 See Guidance at page 24
- 18 See Guidance at page 48
- 19 [Sustainable Development Goals \(SDGs\)](#)
- 20 [EU parliamentary question E-014676-15](#), November 12, 2015
- 21 [Answer on behalf of the EU Commission to EU parliamentary question E-014676-15](#), January 22, 2016

PUBLISHERS



PUBLIC EYE For around fifty years, the swiss NGO Public Eye has offered a critical analysis of the impact that Switzerland, and its companies, has on poorer countries. Through research, advocacy and campaigning, Public Eye also demands the respect of human rights throughout the world. With a strong support of some 25,000 members, Public Eye focuses on global justice.

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MISEREOR is the German Catholic Bishops' Organisation for Development Cooperation. For over 50 years we have been committed to fighting poverty in Africa, Asia and Latin America. We believe in supporting initiatives driven and owned by the marginalized and the disadvantaged people themselves.

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UNIVERSITÄT HOHENHEIM

**UNIVERSITY OF HOHENHEIM, GERMANY**

The Department for Agricultural Engineering works since 1992 under the supervision of Professor Jungbluth on *Stevia rebaudiana* as a new crop. We started in 2005 with first efforts on Benefit Sharing for Stevia. We initiated four pan-European research projects financed by the EU Commission on Stevia where the idea of Benefit Sharing is embedded. Our Stevia information web pages are: www.stevia.uni-hohenheim.de and www.go4stevia.eu

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**CENTER FOR STUDIES AND RESEARCH ON RURAL LAW AND LAND REFORM**
(of the CATHOLIC UNIVERSITY OUR LADY OF THE ASSUMPTION, Asunción – Paraguay)

Established in 1973, its main activities are related to the study and analysis of national legislation with regard to comparative law, land reform and environmental law. It conducts research and offers guidance to research projects by students of the Catholic University and the development of specific projects in areas above mentioned and other areas such as rural development and the environmental situation of rural habitats.

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SUNU is a Paraguayan non-governmental organization, which promotes intercultural bridges between people, communities and organizations at the national and international levels since 2000.

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PRO STEVIA SWITZERLAND is an independent information platform on stevia and was founded in 2001.

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FONDATION DANIELLE MITTERRAND – FRANCE LIBERTÉS The Fondation Danielle Mitterrand - France Libertés, established in 1986 by Danielle Mitterrand, seeks to defend human rights and the global commons. The foundation's activities focus on two programmes, the first covers water as a commons and the second works to uphold people's rights. As such, the foundation is actively involved in supporting indigenous peoples, both to ensure their rights are recognised and respected, particularly their rights to natural resources, and to highlight their traditional knowledge and ways of life.

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In November 2015, an international coalition of organizations released a report called *The Bitter Sweet Taste of Stevia* that showed that the commercialization of Stevia-derived sweeteners violates the rights of indigenous peoples and is based on misleading marketing, and that controversial SynBio production is moving ahead.

One year later, this follow up report provides an update on communications held with companies, demands of the Guarani, developments in the legal framework and the path ahead.