

Madagascar: biodiversity and patent rights

Marisol Cardoso, Patent Consultant at Inventa International, explains the patenting of biodiversity in relation to Madagascar's unique life and agriculture.

Madagascar is an island country in East Africa, located in the Indian Ocean. As a result of the island's long isolation from neighboring continents, Madagascar is home to various plants and animals found nowhere else on Earth, therefore being considered as a biodiversity hotspot.

Due to its abundant and diverse natural resources, the island's economy has its mainstays in agriculture, mining, fishing, tourism, and textiles. Still, the rapidly growing human population, poor soil management (due to inappropriate traditional agricultural practice), illegal logging and other environmental threats have put Madagascar among the poorest countries in the world.

In this context, several national and international attempts to control and manage the sustainable use and mutual benefit of Madagascar's economically valuable natural resources, as well as to encourage the entry of foreign investments in the country, are being put into practice.



Marisol Cardoso

Résumé

Marisol Cardoso

Marisol Cardoso is a Patent Consultant at Inventa International, with complete and dynamic knowledge of the entire process involving patents (prior art searches, patent drafting, patent filing, and responses to actions of patent offices), in the pharmaceutical and biotechnology sectors.



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Thus, considering the role of patent activity in overall innovation and economic growth, is it possible to, at the same time, protect Madagascar's biodiversity and grant patent rights?

IP rights in Madagascar

Madagascar was a French colony from 1897 until 1960 and due to this fact, the island developed political, economic, and cultural links with the French-speaking countries of West Africa.

After their independence from France, Madagascar and twelve other African States signed the Libreville Agreement (1962), which established a uniform regime for the protection of industrial property and created the Office Africain et Malgache de la Propriété Industrielle (OAMPI). This authority was responsible for common administrative procedures for all the thirteen member states regarding industrial property rights.

Following the effective termination of this Agreement in 1976, a legal and administrative void existed in the area. Thus, after many legislative drafts, a regime for the protection of industrial property in Madagascar was promulgated in 1989 and, in 1992, the Office Malgache de la Propriété Industrielle (OMAPI) was established and organized.

Today, OMAPI is the authority responsible for the receipt and registration of all acts relating to industrial property rights, including the examination and the granting of patents of invention, inventors' certificates, trademarks, trade names and industrial designs.

As regards authors' rights and copyrights, the Office Malgache des Droits d'Auteurs (OMDA), created in 1984, is the only organization admitted to operate in the island in matters of scientific, literary and artistic property.

Patent protection in Madagascar

Madagascar is a member state of the Paris Convention and the Patent Cooperation Treaty (PCT), thus, the protection of an invention is available via a national filing, or a national phase application based on an international application.

For an invention to be patented in Madagascar, it must be new, inventive (i.e., not obvious to a person skilled in the art) and it must be capable of industrial application. Patent applications are firstly submitted to a formal examination and a substantive examination is only performed in case an international preliminary examination report has been drawn up. Otherwise, the examination is limited to determining whether the invention belongs to a field for which a patent may not be issued and whether the application comprises a description and claims

drawn up in accordance with the requirements of national legislation.

In Madagascar, patents are granted for inventions and addition certificates. As regards the time limit, the protection granted to a patent is of 15 years from the date of filing of the application. However, an additional five years may be granted upon request.

Even though the Malagasy authorities are responsible to protect the patent holders against infringement, opposition against a patent application can't be raised during prosecution and the enforcement capacity is quite limited due to resource constraints (such as poor digitalization) and a weak and unprepared judicial system.

According to the data provided by the World Intellectual Property Organization (WIPO)¹, patent activity in Madagascar is low and the majority of applications is filed by non-residents (406 applications in the last 10 years, out of the 459 total applications filed). Despite this, the number of patent applications filed by residents is slowly increasing since 2015.

As regards the patent documents having Malagasy applicants obtained from Espacenet², almost 30 % of them relate to inventions allotted in the international patent classification A61 (medical or veterinary science and hygiene) – one third thereof being specifically related to preparations containing material from algae (in Madagascar, the characteristics of the sea, the depth of water and the movement of swells and waves offer good conditions for algaculture).

Biodiversity and patent rights

When it comes to biodiversity and IP rights, it is important to consider two international agreements, both of which Madagascar is signatory: the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs) under the World Trade Organization (WTO) and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (CBD), issued 20 years later.

The TRIPs Agreement, dated 1994, provided common ground rules on how to protect intellectual property, with the purpose to ensure that minimum standards of protection exist in all WTO members states. Such minimum standards must be incorporated through national legislation, for example, by extending protection for any inventions in all fields of technology without discrimination.

Even though the TRIPs Agreement marked a new era of obligations regarding intellectual property, WTO least-developed countries (LDC, such as Madagascar) were granted a transition

¹ https://www.wipo.int/ipstats/en/statistics/country_profile/profile.jsp?code=MG

² https://worldwide.espacenet.com/search/Results?submitted=true&locale=en_EP&DB=EPODOC&ST=advanced&TI=&AB=&PN=&AP=&PR=&PD=&PA=%22%5BMG%5D%22&IN=&CP C-&IC=&Submit=Search

period to comply with all requirements needed. Such transitional period was initially of eleven years with the possibility of extension upon duly motivated request. It is now on its third extension (which is due 2034 or until a member ceases to be an LDC, whichever comes first).

The CBD was the first attempt by the international community to address biodiversity (its conservation, sustainable use and the fair and equitable sharing of benefits arising from its genetic resources) in a global legal instrument.

In this context, the Nagoya Protocol emerged in 2014 as an instrument which establishes a framework for regulating how users of genetic resources and / or traditional knowledge associated with genetic resources may obtain access to the same and provides for general obligations on sharing the benefits arising from the use of such resources and knowledge.

It is important to emphasize that the TRIPS Agreement was not designed as a treaty that inherently promotes CBD objectives. As regards patents, for example, WTO Members may define the respective patentability criteria of novelty, inventive activity and industrial application in light of their policy priorities and needs.

The TRIPS Agreement allows countries to exclude substances existing in nature, such as plants and micro-organisms *per se*, from patentability. However, at the same time, countries are not allowed to wholly proscribe the "patenting of life". As regards plants, when not covered by patent protection, an effective *sui generis* system of protection must be provided. As regards micro-organisms, some genetic change needs to have occurred for a micro-organism to be patentable.

Thus, discussions are being made in what regards the necessity of amending the TRIPS Agreement to ensure that both treaties are implemented in a mutually supportive manner.

The Madagascar's vanilla case

Vanilla is the world's second most treasured spice (after saffron) and, much like fine wine, its beans vary in flavor and aroma according to their growing location and climate conditions. Its time- and labor-intensive process of cultivation requires manual pollination and multistep postharvest, therefore, making vanilla a high-value crop.

Due to its agroecological conditions, Madagascar vanilla is considered the world's gold standard for quality and up to 80% of all vanilla comes from the island. Thus, to promote the long-term stable supply of high-quality, natural vanilla in an economically and environmentally sustainable way, several programs and initiatives are being put into practice.

When analyzing the large-scale vanilla

production in Madagascar, one point to increase and improve breeding is to provide farmers with high-value and productive genetic material. In the perspective of patent protection, the Malagasy law exclude plants and their parts from patentability.

Also, even though TRIPS Agreement requests that an WTO member must choose the intellectual property regime applicable to plant varieties, up to the moment, there is no legislative provision for plant breeders' rights or other *sui generis* protection for plants in Madagascar.

It is important to note that, apart from plants, pharmaceutical, veterinary, cosmetic and food products are also excluded from protection according to the Malagasy patent law and an enabling environment will have to be created in the form of incentives and legal protection to stimulate agricultural productivity and investments.

Conclusion

Patent protection is vital to generate return on investments incurred during research and development in face of competition. On the other hand, patents give to their holders the right to deny access to commercial exploitation by others without authorization.

Nature is the most important source of new and useful products to address existing and future challenges and it is fundamental to explore natural resources to seek innovation. Thus, patent applications based on natural resources must ensure that the fruits of exploitation benefit all. In Madagascar's case, the patent law (and the IP system as a whole) should be reviewed to this end.

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