

COVALENCE INTERN ANALYST PAPERS

And another gold... Argan Oil – an emerging gold rush ?

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1. Introduction

For a long time Argan oil has been known as being very valuable; it is a traditional beauty product and a healthy edible oil. For these reasons and its scarcity the bar for its value is set very high. The trees which produce the fruit and the seeds, from which this rare oil is produced, grow only in Morocco, on the far north-west of the continent of Africa.

Drop by drop this oil is emerging as a food delicacy and as an anti-aging skin product. It is found in speciality shops and in both urban and rural markets in Europe that sell this exotic rarity, which only a few people know about. In addition there are several Internet websites whose providers are specialists or claim to be specialists in argan products, which they sell on the web. Nevertheless, argan oil has been stated to be “the world’s most expensive vegetable oil” (Charrouf/Guillaume 2008:632).

In Switzerland it is available at the Coop food-store under the label « Slow Food » in a 35ml bottle for CHF 14.00. One litre is around CHF 50.00. Still only a few people buy it because it is very expensive, too special and unfamiliar in taste. Doesn’t this remind us of the olive oil’s popularity north of the alps 25 years ago? Additionally, argan oil is found in Le Petit Marseillaise’s shower gel and increasingly in other beauty products. It seems that this oil is experiencing a boom.

Questions concerning property laws and patents turn up. How are the links regulated between local stakeholders and (multi-) national companies? Listening to Moroccan traders on a Swiss village market, apparently French cosmetic companies now buy large amounts of argan oil for their own products and profits. This paper gives a short wide overview on the current situation of the oil’s emerging presence in the multinational cosmetic industry. Companies like Cognis Care Chemicals, Pierre Fabre and L’Oréal will be discussed below. In this paper the relation to the local culture and environment, as well as the production process of the oil, is the focus point of discussion. The research is based on scientific reports in the fields of ethno pharmacology, chemistry, ecology, social anthropology as well as on the information given on commercial internet websites from the three companies mentioned above, and of several Moroccan and international cooperatives.

2. Origins – Speciality – Local Culture

2.1. Biodiversity and UNESCO policy

Worldwide Argan trees cover only about 8000 km² of land. This means the trees and consequently the oil is very rare. Therefore the argan grove is part of the Convention for biodiversity.

The argan tree (lat. *Argania Spinosa*) grows only in the South Moroccan Sousse-plain, between the High Atlas and Anti-Atlas mountains and the Atlantic Sea. The living fossil originates from the tertiary era, which was 2,6 million to 25 million years ago, and was once spread widely in North Africa and Southern Europe. In later years its presence declined. Thanks to its deep roots the tree survives droughts and other environmentally difficult conditions and it can live up to 200 years or even longer. It survives very hot periods by shedding its leaves and going into a dormant state. In addition, the trees protect the soil from erosion caused by heavy rain and wind.

And last but not least stop the desertification of the region. In the trees' shade the soil remains fertile and gives good conditions for the growth of other vegetation. (Charrouf/Guillaume 1998:7-8).

In 1998 UNESCO put the argan tree in the MAB Biospheres Reserve Directory because it

“is not only the focus for conservation, but also for research and socio-economic development. Research topics to improve the knowledge on this tree species are its usage, and its physical and socio-economic environment. Traditional uses of the Argan tree are for example forestry, pastoralism, food, medicine and cosmetics. Growing along the border of Sahara, it also functions as a buffer against desertification. »¹

In rural areas the tree is seen as public property and its leaves as “hanging forage” for goats and camels. Local inhabitants are being educated by UNESCO to not over-use the rare trees for wood and cattle forage, because it hastens the orchard's decline. Charrouf/Guillaume (1999:8) argue that “Indeed, growing trees producing domestic food, valuable derivatives and forage [press cake, see below] makes the populations more confident to spontaneously reinvest in this kind of culture.”

2.2 The oil's value and impact on human health

The uses of argan oil are multi-faceted. On the one hand it is an edible oil; on the other hand it can be applied directly onto the skin. In Morocco argan oil is eaten with bread for breakfast. Also it is used in pastes, salads and various cooking for a special final taste. As Charrouf/Guillaume (1999) confirm scientifically, it is traditionally taken for medical purposes because it is rich in vitamin E, anti-oxidants and essential unsaturated fatty acids. Applied on the skin, argan oil helps to reduce skin irritations, juvenile acne, chicken pox pustules and wrinkles. It acts as a moisturizer and makes the skin very soft. It is traditionally prescribed to take orally for “choleretic, hepatoprotective agent, and in the case of hypercholesterolemia and atherosclerosis.” (Charrouf/Guillaume 1999:9).

Most of the traditionally claimed properties of argan oil have been confirmed by scientific researches such as cardiovascular-protective properties, antioxidant properties and cholesterol- and triacylglycerol-lowering effects. (Charrouf/Guillaume 2008:635). Researches in those medical effects and evidences have been carried out by various Moroccan and international research groups and scientists especially during the last ten years.

2.3 The hand-made production embedded into local culture

The production of argan oil is very time consuming. The following description is the traditional method that has existed, probably for decades. Still today you can find this method being used, although there are some machines that facilitate the process.

Goats like to eat the argan tree's leaves. They will climb the tree's branches to reach them. They also eat the fruits (which are not very delicious for human beings) whose hard shelled seed they neither crack nor digest. Until recently people would collect these excreted seeds from the ground. Then the hard shell of the nut is opened with a stone revealing up to three kernels shaped like an almond, which later give the oil. They are air-

¹ <http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&code=MOR+01> (11.03.2009)

dried in clay containers. Firstly the white seeds are roasted on an open fire. This process gives the oil a special scent (the oil for cosmetic purposes does not go through this stage of the process, because the scent would be too strong). The roasted seeds are put into a simple stone-mill and ground. A brownish dough is produced. A little water is added and hand-mixed for a while until the oil can be pressed out by hand. The “press-cake” is finally fed to cattle (Charrouf/Guillaume).

Because of hygienic reasons, today the fruits are collected directly from the tree and peeled free from the pulp. Thanks to a mechanical press, the oil can be directly extracted from the kernels, which saves time.

For cosmetic purposes there is a different production process for argan oil. These are flash distillation and solvent extraction (It has to be mentioned that biochemical researches around the argan tree and its products are in full process and there is definitely more to come.) However, the process remains meticulous and all in all takes a lot of time. (Charrouf/Guillaume 1999:9).

An average weight of 34 kg dried fruits, from 6-8 trees, and 20 hours of work are needed to obtain 1 litre of argan oil (Charrouf 2007:761).

Because of emerging demand and interest, Zoubida Charrouf², a Moroccan chemistry professor, organised the first women’s cooperatives to protect this specifically female work and improve the status of rural women. In 1996 she created a network of several cooperatives called Targanine. Around Charrouf a local economic interest group has been formed who invest into development, preservation and valorisation of the forest. Besides, as Stussi et al (2005:46/50) add, they run a “full program including the optimisation of the women’s work, the protection and maintenance of existing *Argania* trees, and also the planting of young trees.” The local people are educated in the protection of their heritage and women are taught to manage the cooperatives themselves. Women working for the cooperatives “receive a salary equivalent to the local minimum wage” which is a big step towards their social recognition, and the organised work is a change of scene in their daily life.

Additionally, due to this intensive program production techniques have been improved and a high chemical and microbiological quality of argan oil has been secured (Charrouf/Guillaume 2008:632).

However, more pessimistic opinions exist parallel to these positive perspectives. Lybbert already announced in 2005 unfulfilled hope and proved the contrary of expected changes: “The direct benefits of expanded commercialization seems to have accrued primarily to outsiders, not to AFR [Argan Forest Region] residents, as was widely hoped.” (2005:135)

In May 2009 Cécile Raimbeau published an article in the German edition of the newspaper *Le Monde Diplomatique*. The author describes the appearance of middlemen which obviously starts disturbing the network of cooperatives and makes the financial balance crack. Without doubt losers are the women and their families.

² Laboratoire de Chimie des Plantes et de Synthèse Organique et Bioorganique, Faculté des Sciences, Université Mohamed V-Agdal, Rabat, Morocco

3. Spreading into the global market

The special quality of argan oil as a pure product and as an active ingredient for cosmetics has been increasingly appreciated in the international cosmetic industry. Laboratory-based biochemical and pharmaceutical research is also taking place. This emerging new cosmetic argan market encourages production of the oil.

However, there seems to be no strict rules concerning controls in regard to rights in general and cultural or intellectual property rights in particular, Until now there is no clear and official regulatory status over patent disclosure requirements or no private or even individual agreements between the different stakeholders. Also confusing property rights are emerging, concerning the trees in general: Are they royal property or public?

3.1 Ways into multinational enterprise and commercialisation

In 1983, before biodiversity and sustainable development became such high profile issues, Pierre Fabre Dermo-Cosmétique submitted the first argan patent application in France. Today the company “holds three active patents that appear to cover their current Argane™ product line” under the brand Galénic (Lybbert 2007:14). Pierre Fabre laboratories have confirmed skin protective properties of argan oil, namely restoration, stimulation of intracellular oxygenation and neutralisation of free radical agents (Charrouf/Guillaume 1999:11).

The speciality chemical company Cognis Care Chemicals works together with the above mentioned Zoubida Charrouf. Cognis also sought patents for its argan-based inventions. However, in contrast to Pierre Fabre, Cognis has developed a range of argan-based active ingredients for cosmetics. They are currently being tested clinically. Cognis plans to sell them to cosmetic companies for use in retail products. (Lybbert 2007:14).

Even the big multinational company L’Oréal exploit the argan oil’s value commercially. Some of their products contain the oil. They also express interest in protecting biodiversity, respecting local knowledge and support environmentally friendly production. L’Oréal owns The Body Shop among other cosmetic enterprises. L’Oréal openly sympathises with The Body Shop’s philosophy and ethics and strives to enhance their principle of fairness in exchange with communities within the commercial group.

The Argan oil was introduced by L’Oréal by this code:

“L’Oréal Laboratories have introduced 6 raw materials from fair trade sources in the projects for products scheduled to be launched in 2008, [...] 5 raw materials draw directly on the Body Shop’s expertise and the 6th, Argan Oil, comes from a subsidiary based on a fair trade agreement that L’Oréal is working on with suppliers.”³

L’Oréal states that diversity is a fundamental value: “The Group also wants to apply this diversity policy within its community of suppliers, by developing efforts, particularly with local companies, medium and small

³ http://www.loreal.com/_en/_ww/HTML/suppliers/responsible-sourcing/responsible-sourcing-fair-trade.aspx (March 2009)

businesses, and workplace integration companies.” Another focus is mutual benefit and growth. They declare they base their relationship with the suppliers “on a fundamental respect for their business, their culture, their growth, and the individuals who work there. [...] Each of these relationships is based on dialogue, shared efforts aimed at promoting growth, and mutual profits that make it possible for suppliers to invest, innovate and compete.”

In their Corporate Social Responsibility-report and on their website, they mention their support of women scientists all over the world (*For Women in Science Program*; UNESCO-L'ORÉAL collaboration), researching on local resources which are used in cosmetics. In 2005 they employed a Moroccan fellow, Mrs Mariam Allach⁴, a biologist who made a seed study in-vitro for a more resistant argan tree. She also compared traditional and industrial methods extracting argan oil to improve its commercial exploitation.

Although, there is a profile of a young Moroccan woman scientist working on local products, and although there are promising CSR values mentioned, there is no specific collaboration or cooperative named by L'Oréal. Interestingly, and maybe fortunately, the products are not presented in an exotic shape and wrapped in a fair trade label. On the shampoo bottle argan oil is stated quite modestly. Additionally on the website it is mentioned only briefly. Is this also part of L'Oréal's marketing strategy not to make this rare essence more desirable, so there would be no run on the product? Is this the reason why it is not yet a Body Shop line? Or is the oil too expensive, posh and almost unreachable in the end?

3.2 Who owns the argan tree and its products?

Apparently there exist experiments to grow argan trees elsewhere in the world outside of Morocco. Lybbert (2007:13) argues, the difficulty in cultivating lies in the tree insisting on growing well on domestic soil only. However, these efforts endanger also the oil's certified quality and lead to pinchbecked products and cheap mixes. Also in Morocco itself fake oil that has been coloured golden-reddish can be found. But to really ensure the originality of argan oil embedded into Berber culture and local argan oil business, legal protection and rights are indispensable. Apparently, the Moroccan government is applying to obtain a Geographical Indication (GI) for argan oil. It indicates that “only argan oil prepared from seeds collected in Morocco and following strictly established rules will be sold as such.” This is comparable to e.g. the case of Parmesan cheese in Italy (Charrouf/Guillaume 2008:634).

For the moment, pharmaceutical research and cultivation of trees is valued as more important than a uniform solution concerning rights. Apparently the interest lies in, on the one hand saving the argan tree as a plant with special phytochemical essentials, and on the other hand, the need to sensitize the public as to how the tree is culturally and socially embedded. There is also a need to recognise the trees potential for the rural area's economy and all the positive effects that are derived from it for local women's personal and professional situation.

⁴ http://www.loreal.com/_en/_ww/index.aspx?direct1=00008&direct2=00008/00003 (March 2009)

Charrouf/Guillaume (2008:633) argue, that thanks to the result of phytochemical analyses and other research that influence the argan tree's cultivation and finally the worldwide marketing, the rescue of the groves should be secured. They add: "Nevertheless, only the discovery of new outputs for argan products will ascertain the safety of the argan groves in the long term." Also Lybbert (2007:14) reasons that in order to introduce cosmetic Argan Oil into a high value international market, research into chemical properties and potential extraction and processing technologies are required.

However, as Lybbert (2007:15) argues, there are counterfactuals coming up concerning the benefit sharing. Apparently, the Convention on Biodiversity (CBD), and more precisely the Bonn Guidelines, "which *inter alia* encourage countries to require patent applicants to disclose the country of origin of any genetic resources or traditional knowledge used in the invention," (Lybbert 2007:13), have been impeded by the WTO's Trade Related Aspects of Intellectual Property TRIPS. This debate is not yet resolved: Developed countries argue that "far from impeding the CBD, functional and effective patent systems outside the source country play a critical role in facilitating the negotiation of private contracts and generating monetary benefits to share." (Lybbert 2007:13). Developing countries, on the other hand, are concerned (see also Sunder 2007 on that issue). They plead for patent disclosure requirements (PDRs) as a supplement to avoid conflicts between the CBD and TRIPS. Then again, in case the argan trees might finally grow outside of domestic soil, points within the PDRs would be unclear. Additionally, companies like Cognis and Pierre Fabre "have been quite proactive recently in sharing benefits of their own accord" (Lybbert 2007:17), because biodiversity and sustainable development has become a crucial trend in marketing and business issues.

Pierre Fabre, and more precisely Galénic, is collaborating with the Mohammed VI Foundation for Research and Protection of the Argan Tree. They undertake to⁵:

- Replant argan trees
- Develop and protect the natural equilibrium
- Improve the quality of life of local populations
- Develop scientific research on the argan tree in the domains of both health and beauty

Cognis Care Chemicals, more precisely Laboratoires Sérobiologiques, are working closely together with Zoubida Charrouf, as mentioned above.

"[They] set up a partnership with the aim to protect the biological richness of the Argan forest, to ensure sustainable trade and to support the local cooperative members, while contributing to the development of the commercial potential of the Argan sector in Morocco, including sustainable diversification of revenues. »⁶

Not forgetting local rights which may not collaborate easily with ideas of globally secured laws. Obviously, the legal status of the argan forest was already a political discussion in 1925 and 1983. These two agreements defined it a "state owned forest with extensive rights of use reserved for the local populations: right to harvest

⁵ <http://www.galenic.com/uk/exception/engagements.php> (June 2009)

⁶ <http://www.cognis.com/company/Company/Sustainability/Sustainability+put+into+practice/Argan+Case+Study/> (June 2009)

fruits and collect wood for personal use, right to free passage.” The right for cultivation is payable and authorised by the water and forest government agency (Stussi et al 2005:48).

Lybbert et al (2005:128) describe in more detail these two clearly established rights. The rights dictate villagers’ spatial as well as temporal use of a specific forest tract: *Agdal* is quasi-private right and defines the harvest period from May to September. During this time a household has full access to certain trees. *Azroug* defines the rest of the year where all forest is used communally.

The boundaries between the different legal systems and terminologies are fuzzy and blurred. The definitions of Intellectual Property Law as well as traditional knowledge has been criticised by Sunder (2007) and Vermeulen et al (2008), and earlier by Coombe (1998) and Posey (2004). They all suggest new perspectives and clearer definitions. As Sunder (2007:110) states “Tradition is cultivated, not discovered.” she approaches the critique from the view of developed countries. In doing this, she summarizes the problems of the invention of traditional knowledge. As Greene (2004:213/214) mentions, the debate seems to have begun amongst social anthropologists, when Posey around 1990 promoted the idea of traditional knowledge as the indigenous groups’ collective intellectual property. In contrast, Coombe started to criticize the slip-over of the intellectual property system on indigenous systems. She “is critical of this move because intellectual property is historically associated with an ideology of possessive individualism and romanticized individual authorship, a peculiar feature of and for capitalist societies.” Exactly this last point would not be coherent with Morocco’s alternating rural rights *agdal* and *azroug* mentioned above. I even claim that this could be a threat to the basis of a democratic system.

The question remains as to whether argan oil is a cultural or even intellectual property or simply a geographical indicator. In my research of the literature, no specific academic discussion is going on or has been published yet in regard to argan oil. Nevertheless, further research should clarify whether argan oil should be declared as an intellectual or cultural property. Unfortunately, these terminologies and definitions are extremely complex and not applicable for all disciplines.

4. Conclusion

On seeing the appearance of several new lotions, shampoos and other products containing argan oil, I thought we might have to face another gold-rush. However, knowing that the trees are so rare at the moment and hence the production limited, in my view, the emerging gold-rush will not appear. The situation might remain more or less stable as long as big cosmetic companies (and food retailers) stay connected with Moroccan cooperatives and initiatives supporting biodiversity and Corporate Social Responsibility.

Nevertheless, once a very resistant argan tree is created and is also able to grow and flourish in other parts of the world, argan oil will not necessarily be Moroccan anymore. In this situation the country of origin its local culture, and last but not least, its traditional knowledge will not play a major role any more. At the same time,

the “culture thing” and the exotic touch will have disappeared, and the focus will be on the oil’s pure value at the expense of the local Moroccan people and their lives.

Still I think that the discussion around cultural and traditional knowledge rights needs to be ongoing and should be clarified in the case of argan oil.

Remark: In 2010 The Body Shop introduced a product containing argan oil.

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