INTERNATIONAL JOURNAL OF INTEGRATED LAW REVIEW

Volume 1 | Issue 1

2020

Eudafano Women's Cooperative and Marula Tree: From Local use to International recognition and Benefit Sharing

MOHIT ARORA[1]

ABSTRACT

In southern Africa, local communities derive many benefits from the marula tree. These include the contribution of this species to health , nutrition, food safety and conservation through the sharing of local skills and related knowledge. Fresh, squeezed to make juice, brewed in traditional beer or used to make jam and jelly, Marula fruits can be eaten. The kernels are also edible and can be pressed for cooking oil extraction and cosmetics, i.e. for application to skin and hair. The bark, roots , seeds and leaves are exploited for traditional medicinal purposes. Since its fruit and other products have entered the local , regional and international trade in southern Africa, Marula has acquired significant commercial value. Several domestication initiatives have been carried out at regional and international levels in order to diversify fruit production and meet the increasing demands for this resource. Therefore, the accumulated knowledge and skills relevant to the establishment and marketing of marula are an effective guide in areas where marula remains undomesticated or underused. In southern Africa, we discuss the great importance of marula in revealing its great potential to regions where it remains unexploited.

Keywords: *Sclerocarya birrea, marula, non-timber forest products, commercialisation, domestication, intellectual property, benefit-sharing, policy*

I. INTRODUCTION

Namibia, although known as the driest country south of the Sahara, is blessed with outstanding natural resources and an impressive range of species and habitats. Biodiversity and natural resources is of great importance to the country's development. The natural resource-based sectors are the backbone of Namibia's economy, with mining, fisheries and agriculture. Namibia is a member of a number of international organisations dealing with IPR issues, including the World Intellectual Property Organization (WIPO), the World Trade Organization (WTO) and the African Regional Intellectual Property Organization (ARIPO)

[1] Author is a student at Manipal University, Jaipur, India

and its Trade Intellectual Property Agreement (TRIPS). Although the national implementation of the patent system is somewhat flexible, Namibia also acceded to the Patent Cooperation Treaty in 2003 and, consequently, has certain obligations with respect to international patent applications. Namibia is not a member of the Union for the Protection of New Plant Varieties (UPOV) because UPOV rules tend to favour the rights of plant breeders and companies over the rights of local farmers. African Model Law covers the rights of communities and farmers to protect their genetic resources, including agricultural genetic resources such as landraces and indigenous animal breeds.

The Marula Tree (Sclerocary Birrea) found throughout southern Africa has been used by humans for thousands of years, with archaeological findings using it as early as 9000 BC. The fruit of the marula tree has a fragrant, juicy white flesh that clings to a hard brown kernel about the size of a plum with a leathery skin that is buttery yellow when ripe. Two or three seeds that are so rich in oil are inside the kernel that a simple squeeze of the hand can release a significant amount. The flavor of marula fruit has been compared to a cocktail of guava, lychee, apple and pineapple, and harvest traditionally takes place between February and June. Marula is not only popular with humans, but also with animals; elephants have been known to travel many kilometers just to get a taste of the fruit.[2]

The fruit and nuts of the marula tree, rich in protein and high in vitamin C, have enabled people throughout southern Africa to make permanent settlements. It has also been used for generations as the base for some of the most popular alcoholic beverages in the region. Marula, which has traditionally been harvested almost exclusively by women, is also extremely rich in linoleic fatty acids, antioxidants and oleic acid, which are essential for maintaining healthy skin. Marula-derived oils are readily absorbed into the skin and soften, nourish and revitalise it naturally, making marula oils ideal for topical application. Being ten times more oxidation resistant than olive oil, it is one of the world's most stable natural oils. Marula oil is an ideal ingredient for use in many cosmetic products because of its exceptional chemical stability. Furthermore, marula's nutritious properties make it an ideal ingredient for fortified foods and other health care products.

II. THE CONVENTION ON BIOLOGICAL DIVERSITY

One of the main international instruments for conservation and sustainable use is the UN Convention on Biological Diversity (CBD), signed at the Earth Summit in Rio de Janeiro in 1992. One hundred and eighty-six countries are parties to this Agreement, which has three

[2] http://www.marula.org.za/

main goals :

(1) the conservation of biological diversity;

(2) the sustainable use of biological resources;

(3) the equitable sharing of benefits arising from the use of genetic resources.

According to *Article 15* of the Convention, genetic resource-providing countries should benefit from the commercialisation of their genetic resources, including a fair share of the profits generated, as well as non-monetary benefits such as technology and research opportunities. In exchange, access to their genetic resources and associated knowledge should be facilitated by supplier countries. The objective of the CBD is to ensure that this access is granted on *"mutually acceptable terms"* and is subject to the provider country's prior informed consent. The CBD recognises in *Article 8(j)* the rights of traditional knowledge and technology generators and the importance of fairly sharing the benefits derived from the use of this knowledge. The sustainable use of species is addressed by *Articles 6, 7 and 8.* Importantly, all countries where marula occurs naturally are part of the CBD. This involves South Africa and Namibia, although efforts have generally been slow to develop national legislation to bring the CBD into full effect in these countries. The CBD provides an international legal framework within which NTFPs, such as marula, are commercialised. Marketing of NTFPs has been explicitly on the CBD agenda in recent years, and will be more so in the future.

III. THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

The revision of the FAO International Undertaking on Plant Genetic Resources and the subsequent development of the International Treaty on Plant Genetic Resources for Food and Agriculture, adopted in November 2001 after seven years of negotiation, led to attempts to bring other treaties into line with the CBD. This legally binding treaty, which will enter into force upon ratification by at least 40 States, provides for a multilateral system to provide access to seeds and germplasm for a large part of the world's food supply, as well as to share fairly and equitably the benefits derived from their use. A provision on the rights of farmers to save, use, exchange and sell farm-saved seed is also included. The multilateral system set up comprises a collection of 35 food crops and 29 feed crops, of which samples are to be provided by the national gene banks of the ratification countries. Importantly, farmers, researchers and others using the system are prohibited from claiming any intellectual property or other rights that restrict the facilitated access of food or agriculture to plant genetic

resources. Although marula is not included in the multilateral system, the treaty is nonetheless important in establishing a new plant genetic resource policy framework and has important implications for some of the CGIAR centres, such as the World Agroforestry Centre (formerly ICRAF), involved in marula conservation and domestication initiatives. The CGIAR, or Consultative Group on International Agricultural Research, is an informal public and private donor association set up in developing countries to secure food and eradicate poverty. It supports a network of 16 international agricultural centres that together hold more than 600,000 samples of agricultural seeds, or 40% of the world's germplasm. These centres are explicitly called upon by the Seed Treaty to put their samples in the treasury. National legislation and a supportive policy framework are likely to be required for the implementation of the Treaty at national level. The treaty was signed but not yet ratified in Namibia, whereas the agreement was neither signed nor ratified by South Africa.

IV. TRIPS

The World Trade Organization's (WTO) Trade-Related Intellectual Property Rights (TRIPS) Agreement is another relevant international agreement. This controversial agreement establishes a global system for intellectual property rights over biological resources and has a major impact on Member States – These include South Africa, Namibia and other countries where marula is found, which are now required to implement minimum IPR standards and to allow patents and other forms of IPRs to enter the fields of agriculture, food production and health. There are two provisions that are particularly relevant to this report:

- *Article 27 3(b), which requires member states to provide for the protection of plant varieties either by patents or by an effective suit generis ("of its own kind") system or by any combination thereof; and*
- *Articles 22-24, which set out a number of measures relating to indications of geographical origin.*
- *Article 27 3(b), and its imposition of legal protection for plant varieties, has been one of the more contentious provisions of TRIPS, and constitutes a significant departure from previous practice in Africa and elsewhere, which typically emphasised the free sharing of knowledge and germplasm.*

Although there is little clarity or experience of alternative property rights systems that meet the needs of developing countries and communities and do not involve monopoly rights, some leeway is provided in allowing member states to develop their own intellectual property protection models. Instead, adopting systems based on the International Convention for the

Protection of New Varieties of Plants (UPOV) has been the most common response.

V. UPOV

UPOV is an international agreement offering common rules for the protection of the national level of the ownership of new plant varieties by commercial plant breeders. A group of Western European nations first adopted it in 1961, following pressure from the private sector, which argued that their development was impeded by a lack of IPRs. UPOV has been commercially oriented from the outset and sought to provide the private sector with incentives to engage in commercial plant breeding through the provision of plant breeders' rights (PBRs). Rights granted to breeders under UPOV are powerful and, with each revision of the Convention, have become more powerful and more patent-like. Farmers are permitted under the 1978 version of the agreement to reuse propagating material from the previous year's harvest and to exchange seeds of protected varieties freely with other farmers. Plant breeders are also permitted to use protected varieties freely for the development and commercialization of newer ones. The 1991 Convention, however, removes these'privileges' and further strengthens the rights of commercial plant breeding, which is the only one open for accession to countries wishing to join UPOV. This includes the obligation for Member States to provide all plant genera and species, including indigenous trees such as marula, with plant variety protection. Farmers growing protected materials are prohibited from selling the seeds they harvest from the crop and are increasingly prevented from non-commercially saving and exchanging the seeds. On every purchase of the seed, farmers must also pay royalties. Although the TRIPS Agreement gives Member States the opportunity to devise their own system for the protection of plant varieties, significant pressure has been put on developing countries over the years to adopt UPOV as the preferred system. South Africa, which is one of the few African countries to have a protection regime for plant varieties in place, is a party to the UPOV Act of 1978 and is considering ratifying the 1991 version. This is consistent with the history of industrial agriculture in the country, and the presence of a powerful commercial breeding sector. There is currently, however, little supportive legislation to extend the system to include farmers and communities that have traditionally bred and developed crops and have provided knowledge and resources to commercial breeders in some instances. Farmers' rights are also poorly defined in Namibia, although legislation based on model legislation developed by the (then) Organisation for African Unity has been drafted to address this gap. Namibia is not a party to any of the conventions of the UPOV.

VI. AFRICAN MODEL LAW

The imposition of monopoly rights in agriculture, such as patents or PBRs, is not appropriate for most African nations, and indeed for many farming communities. The majority of African farmers practise traditional farming, and over 90% of food in sub-Saharan Africa is produced by customary farming practises based on multiple crops, farm-saved seeds, low chemical inputs, rainfall, and selection of crops on the farm. As a great honour, ownership of resources, seeds, knowledge and technologies is often held collectively, shared and given away. There are also practical considerations, aside from this fundamental difference in world views, that make it extremely difficult for systems such as UPOV to operate fairly and properly at the level of the community. For example, there is virtually no chance for a variety tended by farmers to meet the conditions set out by UPOV to be'new',' distinct',' uniform' and'stable' and this prevents farmers from being recognised as'breeders'. The administrative and financial obstacles involved in the registration of a variety are also significant and are practically prohibitive for farmers who do not have support. A'Model Law' was developed by the Organisation for African Unity (now the African Union) on the basis of these considerations, and in recognition of the need for an alternative system to IPRs that protects the rights of local communities, farmers and breeders. The model law is intended to help African governments develop their own biodiversity and livelihood protection legislation and is based on the rejection of life patents or the exclusive appropriation of any life form. Farmers' rights include the protection of their traditional knowledge relevant to the genetic resources of plants and animals, the right to a fair share of the benefits stemming from the use of genetic resources, the right to participate in decisions on issues relating to the conservation and use of genetic resources, and the right to save, use, exchange and sell seed or propagating material stored on the farm. Although broad exemptions are granted, including the right to use a protected variety for non-commercial purposes, the right to sell plant material as a foodstuff, the right to sell it at the place where the variety is grown, and the right to use the commercial variety of a breeder to develop other varieties, the breeders' rights that are generally defined follow that of UPOV 1991.[3]

VII. TRADITIONAL KNOWLEDGE

Marula trees are revered in Namibian culture, and the marula tree continues to play an important role as a source of food and income, with over 60% of Namibia's population living in rural areas. There are women who have long prized marula for its remarkable qualities and

[3] http://www.fairtrade.org.uk/

have used it for generations in a variety of ways. Prior to marriage, a brew made from the bark was traditionally administered as a cleansing ritual, and marula wood was used by Namibian women to make kitchen utensils for thousands of years. The most important part of the marula tree is the oil, as it can be used as a meat preserve, skin moisturizer and an ingredient for popular foods such as jam and alcoholic beverages. For generations women in rural Namibian communities have been using traditional techniques to produce marula oil for their families and to sell in their communities on an informal scale.[4]

Rural Namibian communities have traditional knowledge of marula and its use plays a vital role in their livelihood. Namibian women continue to use methods that have been passed down to them for generations to harvest and process marula. Women would dry marula kernels in the hot Namibian sun thousands of years ago and then crack them open to extract the oil, and the overall technique hasn't changed that much since then. To this day, similar instruments are used to open the marula kernels to crack and access the oil-rich seeds.

Because the marula tree has been so important to the rural population of Namibia for so long, it is not possible to understate their knowledge of the palatability of the fruit and which specific trees produce the best and largest fruit. Israeli scientists were some of the first to study the use of indigenous marula trees in the 1980s, and the selection and classification of desirable marula traits by local people has been well documented.[5]

VIII. COMMERCIALIZATION

The collection of information on different qualities, yields and locations of marula trees began in Israel in 1984, with the use of Botswana Propagation resources and knowledge carried out in different ecozones around the Negev Desert with different soil qualities, temperatures and irrigation water salinity. Seeds from fruits with desirable characteristics were selected for potential new export crops and 10 clones were propagated, The basis for long-term research and development of marula in Israel is thus created. The introduced trees produced abundant fruits from an early age.

Traditionally, the only major marketing of it outside local communities in modern times has been for the distillation of Amarula Cream, a popular South African alcoholic beverage sold by the South African Distell Group (Distell). The majority of marula commercialization in Namibia was very ad hoc, with household women recognising an opportunity to earn extra income through the sale of marula products , particularly marula-based beer. Informal, local,

[4] http://www.cifor.cgiar.org/dryforest/publications/CIFORenterprise_TC31Dec07.pdf
[5] http://allafrica.com/stories/201007220943.html.

highly seasonal and complementary to other livelihood activities were these efforts.

All of this changed in 1999, when CRIAA SA-DC, a Namibian Non-Governmental Organization (NGO), had the idea of producing higher quality and larger quantities of marula oil so that it could be sold to the cosmetic industry as an export product. Women from north-central Namibian villages joined forces with the NGO and established the Eudafano Women's Cooperative (EWC) with the help of the Namibian government to market marula products to local and export markets. By 2008, the EWC had more than 5,000 women in 22 groups producing marula oil from wild trees as members. As of 2010, EWC is Southern Africa's second largest producer of marula products. Rural Namibian women can now produce marula products at the household level and reach an international market, drawing on their traditional knowledge of harvesting and processing the hard nuts of the marula tree.

A number of steps have involved the commercialization of marula through this new initiative. Education is the first requirement; every woman joining the cooperative must first become familiar with hygiene, storage, packing, and bookkeeping matters. Harvesting is the second step. The women, armed with new knowledge, combine it with their traditional knowledge to harvest marula fruit from the finest wild trees and deliver kernels and seeds to the Windhoek capital's processing factory. In the final step, the oils and juices are then extracted at a factory in Ondangwa, the heart of the marula growing area, through a combination of hand and machine processing. Companies such as The Body Shop, Marula Natural Products of South Africa (Marula Natural), and Distell sell the resulting marula products harvested and manufactured by the EWC.

IX. MARULA - FROM LOCAL USE TO PARTNERSHIP AGREEMENTS AND INTERNATIONAL REPUTATION

The Body Shop, one of the largest cosmetic companies in the world, was looking to diversify its product range in the mid-1990s to include a wider range of natural and organic products. The company also wanted to participate in the certification initiative for fair trade, which establishes international standards and fair prices for products from developing countries. In 2000, EWC became The Body Shop's exclusive supplier of marula oil, using it in products such as lipsticks, baseboards, blush and eye shadow. The Body Shop attests that marula is an incredible natural moisturiser and advertises the long history of marula through EWC with Namibian culture and its modern day production. With over 140 of the company's products and nearly all of its lipstick containing Namibian marula produced by the EWC, Marula has

since become an important part of The Body Shop's natural product portfolio.[6]

X. MARULA: FROM PHYTOTRADE AFRICA TO BENEFIT SHARING

Rural producers throughout southern Africa realised that they needed to organise to protect their traditional knowledge and to stimulate economic growth through international commercialization as the popularity of natural products such as marula increased. To this end, EWC became an early member of PhytoTrade Africa, a non-profit organisation founded in 2001 as the Southern African trade association for the natural products industry. PhytoTrade is a membership-based organisation representing the Southern African region's private sector companies, development agencies, individuals and other stakeholders. Its aim is to alleviate poverty and protect the region's biodiversity through the development of an industry that is not only economically successful, but also ethical and sustainable. EWC is able to receive fair prices for the marula products it manufactures for international markets through its membership in PhytoTrade.[7]

Adherence to fair trade principles is an important component of the partnership between EWC and PhytoTrade, which ensures that local producers are not taken advantage of and receive sufficient compensation for the use of their traditional knowledge. As a result, not only for women in the EWC, but for almost all local producers, new income opportunities have opened up. Through the combination of partnerships and fair trade, the market opportunities provided local producers with tangible development benefits such as higher revenues, renewed their sense of pride and built cohesion within communities. Since the partnership's success has its roots in the traditional knowledge of rural communities, it has also helped ensure that such knowledge continues to be passed on to younger generations who might not otherwise have been so interested.

XI. RESEARCH AND DEVELOPMENT

The partnership with PhytoTrade resulted in increasing markets for marula, and new research and development (R&D) projects in the tree began to take shape as more companies took note of the potential marula harboured. Aldivia S.A. in 2005 (Aldivia), a French company specialising in the manufacture of natural and organic ingredients for cosmetic manufacturers, has launched an R&D effort with PhytoTrade and the Southern African Trade Association of Natural Products to use marula to create a natural environment friendly

[6] http://www.thebodyshop-usa.com/beauty/namibian-marula-oil
[7] http://www.lightyearsip.net/scopingstudy/namibian_marula_oil.aspx

botanical ingredient for cosmetics.[8] The result of the project was the creation of a proprietary process to produce cosmetics without petrochemicals or solvents, leaving behind a limited carbon footprint, called "Ubuntu." This innovation has been dubbed'green chemistry,' and Maruline, a 100 percent natural marula oil with enhanced antioxidant properties, was the first resulting product to use the Ubuntu process.[9]

Maruline is the first active botanical ingredient in the world to be developed through scientific collaboration between traditional resource users, represented by EWC and PhytoTrade, the rural marula producers of Namibia, and a specialised international R&D company.[10] Maruline's production is based solely on the principles of fair trade and sustainability of the environment.*"It's a win-win situation,"* explains Cyril Lombard, Market Development Manager of PhytoTrade. *"When consumers buy products containing Maruline, not only are they buying a quality product with properties they want, but because of PhytoTrade Africa's strategy of targeting benefits to primary producers, they can also be sure that they are making a meaningful contribution to the local livelihoods. By creating viable markets for marula in this way, local value is added, traditional culture is preserved, food security is enhanced, and we can be pretty sure that the marula trees will be conserved for generations to come."* Maruline has garnered significant attention in the international market since its innovation, and The Body Shop has integrated it into many of its anti-aging skin care products.

This R&D partnership is an outstanding example of how traditional knowledge, modern science and collaborative business strategies can help alleviate poverty, while at the same time increasing public interest and participation in the sustainable use of the biodiversity of Africa. By linking rural producers with international companies, owners of traditional knowledge, such as EWC members, have the opportunity to benefit themselves and their communities more economically, while helping to develop a safe and natural products for global market.[11]

XII. MARULA TO MARULINE PATENTS: WHAT BENEFITS TO RURAL NAMIBIAN FEMALE COMMUNITY?

In 2006, Aldivia filed a patent application with the International Patent Cooperation Treaty System for the process used for the creation of Maruline. Aldivia and the primary African

[8] http://www.phytotradeafrica.com/downloads/news/07-Welford.pdf
[9] http://www.nwl.ac.uk/research/winners/MarulaReviewPaper2.pdf
[10] Supra note 7
[11] Ibid

producers represented by the Southern African Natural Products Trade Association co-own this patented process. This co-ownership is a unique partnership which has set new standards for the sharing of benefits between traditional knowledge holders and international companies. For cosmetics with marula, retail prices sell four times more than for products without marula.

XIII. EUDAFANO'S ACHIEVEMENT & BENEFITS

Interest in international markets for marula has skyrocketed since Namibian women organised to set up EWC and partnered with PhytoTrade. This has not only benefited the companies selling marula products, but has also had a major impact on local producers in Namibia. Demand shot up to 20 tonnes of oil worth over US $20 million in 2008. Marula retail prices sell four times more than non-marula products, and marula has gone from a supplementary source of income to the primary source of income for many women in rural Namibian communities.[12]

The success of marula oil has offered opportunities for new products based on marula to be marketed for export. In Namibia, traditional "ondjove" cooking oil made from marula is well-known and loved by communities and has been produced and traded informally for generations, like marula oil. With the launch of a range of marula food oils at the Namibia Tourism Expo in Windhoek in June 2010, EWC's efforts to produce them for international markets took a big leap forward. The product was well received, and sales of around sixty litres were used to raise awareness of more food products from marula.

The development, protection of intellectual property (IP) and marketing of Maruline has made the marula tree an even more important part of the lives of tens of thousands of rural producers, their families and communities. Many women were extracting marula for personal use or to sell it locally prior to these changes. With access to new markets, rural marula producers received more than US$ 60,000 annually in 2000 and US$ 2.35 per kilogramme of marula in 2010. This is revenue that otherwise would not have been received by many women, and they use it for positive development efforts, such as paying to educate their children and helping to develop their communities. Naimi Ndevaetela, a participant in EWC from the start, sums up the good fortune that the cooperative has brought her: *"I live alone, my husband has died. I receive 18 Namibian dollars per kilogram, which I use to pay for school fees, school uniforms and the children's accommodation."*

[12] Supra Note 3

XIV. BRIDGING THE DIVIDE WITH PARTNERSHIPS AND IP

Natural and organic cosmetics are one of the fastest growing sectors in the global skin care market. Prompted by lifestyle choices that increasingly reject synthetic and chemical ingredients in favour of natural alternatives, there is a vast growth potential for consumer demand for environmentally friendly products such as marula. Companies such as Aldivia have worked with cooperatives to capitalise on the organic nature of marula and used IP to create an internationally-reached product. IP can be used to further popularise it, expand its use, and ensure greater revenue generation for Namibian producers using traditional knowledge as the popularity of marula oil increases. For cooperatives such as the EWC, current and future IP strategies translate into economic benefits, increasing access to education and healthcare, raising living standards and stimulating the development of rural communities.[13]

XV. CONCLUSION

Through Bio Trade, EWC hopes that many rural communities will improve their lives for the better as long as the species is preserved and thus contributes to prosperity.This case study established whether sufficient quantities of marula fruit are available to justify the development of further commercial opportunities in North-Central Namibia around this resource. Commercially interesting quantities of at least 300 T of fruit per year were reported.

Despite a large number of uncertainties, including the lack of reliable data on fruit yields per tree, annual yield variations, marula production areas' borders, knowledge of what fruit quality would be appropriate for commercial processing, and the level of logistics efficiency that could be deployed in the commercial purchasing effort, It can be concluded that the resource base and the socio-economic availability of the fruit are undoubtedly more than adequate to justify a commercial investment in the resource.

Although it is highly unlikely that any commercial enterprise would be able to collect all this available fruit in the correct state of ripeness, the figures are so many multiples of the indicated commercially interesting quantity during the short period of time that the fruit is available, The question of logistics, prices and fruit quality is much more important than the availability of resources.

*****

[13] Ibid

XVI. REFERENCES

1. https://www.wipo.int/ipadvantage/en/details.jsp?id=2651
2. http://allafrica.com/stories/201007220943.html
3. http://www.nwl.ac.uk/research/winners/MarulaReviewPaper2.pdf
4. http://ocwr.ouce.ox.ac.uk/research/wmpg/winners-losers/R7795_FTR_App3.1.pdf
5. http://www.lightyearsip.net/scopingstudy/namibian_marula_oil.aspx
6. http://www.phytotradeafrica.com
7. http://www.aldivia.com/
8. http://www.thebodyshop-usa.com/beauty/namibian-marula-oil
9. http://www.phytotradeafrica.com/downloads/Marula-oil-article-Jun-07.pdf
10. http://www.phytotradeafrica.com/downloads/news/07-Welford.pdf
11. http://www.microfinancegateway.org/gm/document-1.9.41484/21.pdf
12. http://www.cifor.cgiar.org/dryforest/publications/CIFORenterprise_TC31Dec07.pdf
13. http://blog.thebodyshop.com.au/2008/02/marula-makes-make-up-fair.html
14. http://www2.gtz.de/dokumente/bib/gtz2010-0167en-biodiversity-namibia.pdf
15. http://www.fairtrade.org.uk/
16. http://www.marula.org.za/

*****