

Allanblackia – an ingredient for poverty reduction?

As soon as the multinational corporation Unilever realised the potential of the oil-rich seeds of the Allanblackia tree and obtained food clearance from the European Food Safety Authority, Allanblackia became an interesting source of income for African farmers. A network of commercial and non-profit-making organisations are working on the implementation of a sustainable growing and marketing strategy.

From the uplands of the Eastern Arc Mountains in Tanzania to the lowlands of Sierra Leone in West Africa the oil-rich seeds of the Allanblackia tree have been harvested by local communities for generations for food, to make cooking oil, and in more recent times for soap. Originally mainly collected from the wild, the domestication of this tree and increased demand for the oil is an opportunity to boost incomes for African farmers. The increase in demand has come from potential uses of the oil identified by the international company Unilever for use in food products like spreads, vegetable-based dairy products and ice cream. The commercialisation of this resource is an exciting opportunity to influence the supply chain from its early stages of development.

■ The tree and oil

With growth restricted to the humid forests of West, Central and East Africa

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the nine species of Allanblackia are found in areas high in biodiversity and subject to habitat loss, with three of the species considered “vulnerable”, according to the International Union for Conservation of Nature (IUCN) Red List. It grows primarily in tropical rainforests, but can also be found in cultivated farmland areas. Many Allanblackia sites are considered to be areas rich in biodiversity and high in poverty, meaning that demands on the local forest resources are high, and underlining the importance of investing in this tree to achieve conservation, forest restoration and poverty reduction goals. The interest from a commercial perspective is that the oil is high in stearic and oleic acids and has a very precise melting point, around 34 degrees Celsius, which means that it remains solid at room temperature. However, owing to the precise melting point, it melts easily once ingested; hence its excellent properties for cream-based spreads like margarine. The main benefit in the manufacturing process is that, unlike common palm

oil, Allanblackia oil does not need much further modification such as fractionation, hardening, etc.

■ Novella Partnership

In 2002 the Novella Partnership was founded to support a programme of scaling up the production of Allanblackia oil in Ghana, Tanzania and Nigeria, and at the same time to reduce poverty and promote sustainable enterprise and biodiversity conservation in Africa. The vision of this partnership is

The Allanblackia tree is found in the humid forests of Western and Central Africa, mainly in areas with high biodiversity.



Photo: IUCN

to build a sustainable (environmental, economic and social) supply chain that will contribute to the development of Allanblackia businesses in Africa.

Novella is an international public-private partnership with a wide range of actors. Unilever is the largest investor and buys the harvest in pre-processed crude oil for refining at Rotterdam in the Netherlands. It has received food clearance for Allanblackia oil in spreads from the European Food Safety Authority, which is the entry ticket into the food market. The opportunity of having such a key market player as Unilever in the partnership is critical in encouraging an increased supply of Allanblackia seeds.

The World Agroforestry Centre (ICRAF) is leading the scientific work on the domestication of Allanblackia to boost harvest levels to commercial viability. The National Forestry Research Institutes in Ghana and Tanzania are supporting this work by coordinating field activities. Technoserve provides business advice, and supports access to markets and capital, for business people in developing countries. Whilst IUCN works to facilitate the integration of forest landscape restoration principles into the different models for increased production of Allanblackia, it is also supporting the development of a market differentiation system for the Allanblackia oil in collaboration with the Union for Ethical Bioproducts.

Novel International is the African partnership member and consists of the companies developing the supply chain in the main three countries of focus at present, Ghana, Tanzania and Nigeria. In 2008 Unilever withdrew from the management of the national level supply chain and it was handed over to three local companies in Africa (Novel Ghana, Novel Tanzania and Novel Nigeria). The reasoning behind this decision is to strengthen decision-making, ownership and implementation at a national level and support



the vision of Allanblackia being a product from Africa for the benefit of Africans.

■ Pathway to domestication

A study by SNV (Netherlands Development Organisation) and Novel Development Ghana Ltd. concluded in 2007 that the initial investment for planting Allanblackia is greater per acre than for cocoa or oil palm, but the annual management costs are considerably lower. Net annual cash benefit per acre will rise with Allanblackia. It can offer an important additional income opportunity for farmers living below the poverty line, or for households with unbalanced seasonal incomes. Allanblackia's harvest season, especially, falling between other cash crops, from January to April, is particularly important for income security.

Some important breakthroughs have been made in capturing the best traits of female wild Allanblackia trees (only female trees bear fruit) for domestication. Vegetative propagation can also produce trees which have both male and female flowers and bear fruit in just four to five years from planting. Such improvements are crucial for reducing the planting work and growing space of male trees, and in shortening the gestation period of the first harvest to just half of the natural pattern.

Today most Allanblackia seedlings are still raised from seed in nurseries, but they are used as rootstock for grafts from good female trees, instead of being planted directly in the field. Gene banks have been created to conserve its genetic diversity.

The Novella Partnership was founded to scale up the production of Allanblackia trees and successfully market its oil. At the same time, this initiative aims at reducing poverty in Africa.

■ Farmer focus

Unilever has made a specific commitment to purchase oil from seeds grown by smallholders. However, to meet the estimated volumes that the market can absorb (>100,000 tonnes), a vast increase in planting and future production needs to take place. Production volumes at present are too low to render the supply chain viable, owing to the widespread nature of the “wild” trees and the low levels of seed-producing domestic trees. There are also other hindrances, e.g. a lack of planting material to increase production, long gestation periods of seed-propagated trees, and limited capacity and knowledge of *Allanblackia* cultivation and production.

However, with support from the partnership the local in-country partners are overcoming these obstacles and the number of farmers involved in production is increasing; around 10,500 farmers have been mobilised and trained to collect and plant new trees (100,000 planted to date). More than half of these farmers are women. In 2010 over 300,000 trees will be planted and Unilever will purchase over 200 tonnes of oil for use in their margarines.

Those farmers already involved are seeing additional income of around USD 100 from seeds harvested from around 15 trees. A scaling-up of production will generate increased income for more farmers, whilst stabilising the supply of oil. Fair price-setting for purchasing from the farmers and the Novel com-

panies is a commitment that all Novella Partners are striving to achieve.

In order to meet potential market demand the aim of the Novella Partners is to achieve production levels of 10,000 tonnes in ten years and 60,000 tonnes in 20 years with the involvement of over 40,000 farmers and by sustainable planting of eight million trees.

■ Sustainable supply chain

In order to meet these production levels there will also be the development of larger-scale plantings of *Allanblackia*. However, with all members of the partnership committed to a sustainable supply chain, the challenge will be to ensure that any new actors adhere to the same principles as those established by the Novella Partnership. Partners are now investing in using different production models to demonstrate and field-test to ensure the economic viability and environmental sustainability of planting *Allanblackia* trees in agroforestry systems and degraded landscapes, following the principles of Forest Landscape Restoration. In collaboration with the Union for Ethical Biobased Trade a verification framework is being developed for a variety of production systems, including wild collection, agroforestry and small to medium size plantations, and will therefore be applicable to all systems that may be used to increase stocking rates of *Allanblackia*. With the Novella Partners committed to the development of this verification framework an exciting opportunity exists to ensure

that all production of *Allanblackia* oil is sustainable. Through IUCN this work is being supported financially by the Swiss State Secretariat for Economic Affairs (SECO).

■ Work in progress

Since 2002 over USD 10 million has been invested in developing the supply chain, which highlights the Novella Partners’ commitment to making this exciting venture work. However, USD 10 million may be small change compared to the potential value of *Allanblackia* trade in the future. Successes like the increase in farmers’ income and the number of trees planted, and future opportunities for restoration of degraded lands and additional carbon sequestration, can only be realised if certain obstacles can be overcome. Improvement of propagation techniques, biodiversity-rich production systems, equitable benefit sharing throughout the supply chain and consistent prices for farmers are all challenges that need to be met before the *Allanblackia* trade can really be claimed as a success.

However, with interest in *Allanblackia* production mounting in Liberia and Cameroon, the potential to meet the demands of the market is great. And with members of the Novella Partnership all bringing different support to the supply chain, the opportunity exists to build a sustainable supply chain for an African product for the benefits of Africans.

Zusammenfassung

Die ölhaltigen Samen des *Allanblackia*-Baums werden seit Generationen als Nahrungsmittel in verschiedenen Ländern und Regionen Afrikas genutzt. Jetzt hat auch die Lebensmittelindustrie in den Industrieländern das *Allanblackia*-Öl entdeckt. Dieser Markt bietet neue Chancen für viele afrikanische Bauern. Der Anbau von *Allanblackia* kann in kleinbäuerlichen Haushalten aus zwei Gründen zur Ernährungssicherung beitragen: 1. Der Nettoertrag aus dem Anbau von *Allanblackia* ist höher

als der von Kakao oder Palmöl. 2. Die Erntezeit für *Allanblackia* liegt zwischen derjenigen der anderen Feldfrüchte, so dass *Allanblackia* als Zusatzprodukt angebaut werden kann.

Resumen

Las semillas oleaginosas del árbol *Allanblackia* han sido usadas como alimento durante generaciones en las naciones y regiones más diversas del África. Ahora, la industria alimentaria del mundo industrializado ha descubierto el aceite de *Allanblackia*. Este

mercado presenta nuevas oportunidades para los agricultores africanos. El cultivo de *Allanblackia* puede contribuir a la seguridad alimentaria de los hogares de pequeños agricultores, principalmente por las siguientes razones: 1. El ingreso neto proveniente del cultivo de *Allanblackia* es mayor que el del cacao y del aceite de palma. 2. El período de cosecha de las semillas de *Allanblackia* cae entre los períodos de otros cultivos generadores de efectivo, lo cual significa que las plantaciones de *Allanblackia* pueden convertirse en un cultivo adicional.