

Exploring the Pulses of India in Africa

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Many see East Africa as a last frontier for significantly expanding the global production of pulses. Since India is the world's biggest producer, consumer and importer of pulses, it is no surprise that many Indians are engaged in expanding the production and trade of pulses in various East African countries. A new research project aims to shed light on the dynamics of these 'Indian pulses' in Mozambique and Ethiopia.

While India is experiencing falling water tables and increasing climate change impacts on agriculture, the population is expected to rise from 1,3 billion to possibly 1,7 billion by 2065 (UNPD 2012). Furthermore, India still has 214 million chronically undernourished citizens (FAO 2013).

Pulses are a staple providing most Indians a key protein component of their food. On average, an Indian consumes 15 kilos of pulses a year (Chandrashekar 2013), which makes India by far the world's largest consumer of pulses. Although India is also the world's largest producer of pulses, it has to import about 3 million tonnes (mt) of pulses annually to meet domestic demand (The Hindu 2014). Imports are predicted to increase in the future (GOM 2015), and analysts argue that India's supply of pulses is becoming "a silent emergency" (Gopalakrishnan 2009). Since 2006, the Government of India has several times extended a temporary ban on the export of pulses, a ban which in April 2014 was extended "till further orders" (The Hindu 2014).

At a summit in New Delhi in 2010, India's Food and Agriculture Minister Sharad Pawar asked the delegates to consider the "*viability of Indians leasing land abroad for growing pulses and exporting it back to India*", while praising those Indian agricultural entrepreneurs who had already attempted growing lentils in Africa (Rowden 2011).

There is indeed a lot of potential of establishing new connections, and strengthening existing ones, between several African countries and India through pulses. Importantly, such connections may not only improve the supply of pulses to India and the world; they also have the potential to improve food security, nutrition, soil fertility and environmental sustainability in the countries where the pulses are produced. Seen in this light, pulses are not just any commodity. Compared with other resources extracted from Africa, they are perhaps more likely to create a win-win situation.

In the spirit of the UN International Year of Pulses 2016, I am currently working on a cross-disciplinary research project in Mozambique and Ethiopia. It is an explorative on-the-ground fieldwork, which follows the pulses from the production at both small and large farms, through middlemen and traders, to East African ports, where they are shipped across the Indian Ocean or to other destinations. While the key interest of the research is the links to the biggest producer, consumer and importer of pulses – India – the project is also taking place in a context of an interest in substituting meat with pulses in rich countries, where consumers are increasingly concerned about health, animal ethics and the environment.

The research project is taking place for 10 months (it is still ongoing) along the value chains of pulses; e.g. among all those who are involved in the production and trade of pulses: Farmers, workers, merchants, entrepreneurs, investors, government officials, relevant organizations, etc. The project is following the

pulses, in all senses of the word. Due to time constraints, however, the project only follows the pulses until they reach the harbor from where they are shipped abroad.

Indian pulses in Mozambique

India's connections with Mozambique date back to at least the late 15th century, and with 20,000 inhabitants having Indian origins, Mozambique is the country of mainland Africa with the third largest Indian diaspora. Indian merchant families have for centuries controlled most of the trade along the East Coast of Africa, including Mozambique (Bastos 2005). They began working as commercial middlemen between Mozambican farmers and national and foreign export firms, and later Indians established their own import/export firms in Mozambique. After the liberalization of the Mozambican economy in the 1980s and 1990s, the practices of Indian businessmen became increasingly transnational, directly involving India (Bastos 2005). Today, virtually all agricultural traders in Mozambique are either Indian or, at least, South Asian.

Mozambique has 9 million undernourished citizens; 37 % of the country's population (FAO 2013). With 75 % of the people in Mozambique depending on agriculture for their livelihoods and 70 % of the population living in rural areas, agriculture is the most important sector for the development of Mozambique's economy (FAO 2014). According to the World Bank, Mozambique is one of the countries in the world with the largest potential for increasing agricultural production: Only around 15 % of the arable land is cropped (World Bank 2010).

In this situation, it is interesting to note the different qualities of the crops most commonly produced by smallholders and later exported. Two of the most prominent Mozambican export crops are sesame and pigeon peas. While sesame is entirely a cash crop, pigeon pea is both a cash crop and potentially a staple food for poor Mozambicans.

When I first spoke to representatives from the Mozambican Government in December 2014, they said pulses were not very important export crops. They barely mentioned pigeon peas. However, as little as 9 months later, the Mozambican Government published a report (GOM 2015), written by a team of both national and international experts, praising the inherent qualities of pigeon peas and emphasizing the huge gap between demand and supply in India – stressing how that gap is bound to increase in the future.

One of the interesting characteristics of pigeon peas, notes the above mentioned report, is that it is very well suited for poor smallholder farmers. Competition from large-scale commercial farms is considered unlikely. However, smallholder farmers are of course careful about choosing what to grow. Just because a Government report highlights a golden future of pigeon peas, that alone will most likely not convince farmers.

When tur dal prices soared in India in September, October and November 2015, this by implication effectively tripled the prices paid for raw pigeon peas to smallholder farmers in Mozambique. Nonetheless, most of these farmers have learned from past experiences that prices are volatile and may change dramatically from one year to the next. It was very clear among all the smallholder farmers, whom I spoke to, that they had absolutely no idea about where the pigeon peas, which they were producing, finally ended up. They had no clue about the demographics and food culture of India. In short, they had no solid knowledge base for ascertaining whether growing more pigeon peas in the upcoming years would be a safe choice or a risky bet.

Pulses are one of the main exports from Mozambique to India; approximately 60,000 tonnes a year and growing steadily. Almost all of these pulses are pigeon peas (the remainder being a small, but also growing, amount of mung beans). Compared to production in India, this amount may seem small. But Mozambique has, perhaps to a larger extent than any other country in the world, the potential to multiply this amount. In fact, it is difficult to see India meeting its future demand for tur dal without the help of the smallholders of Mozambique.

Mozambique has until now seen very limited foreign direct investment from India in agriculture and only a fraction of these investment projects include the cultivation of pulses (currently mung beans). This might change in the future. But currently the production of pulses in Mozambique seems to be in the hands of smallholder farmers.

Indian pulses in Ethiopia

India's connections with Ethiopia are not dominated by a large, and for centuries business-oriented, Indian diaspora as in the case of Mozambique. Although a few Indian companies were established decades ago (the oldest one century ago), most of the people in Ethiopia with Indian origin arrived much more recently. The majority of them are working as researchers and teachers at universities, the rest are engaged in various forms of business activities of which agriculture is just one.

While pulses exported from Mozambique are only consumed to a quite limited extent within the country, in Ethiopia some of the exportable pulses are consumed to a very large extent by the Ethiopians themselves. This applies to chickpeas and red lentils in particular – for the latter, there is even an export ban on both raw and processed products.

Pulses feature prominently in the diets of many Ethiopians. Almost half of the population are Orthodox Christians, and there are between 150 and 250 fasting days a year, depending on the particular religious practices followed, where only vegetarian (in fact vegan) food is consumed. Pulses play the dominant role in fasting food. Chickpeas and red lentils are the preferred pulses, however due to increasing prices many Ethiopians substitute these for other pulses such as fava beans, field peas and even grass peas.

The largest export commodity from Ethiopia to India is pulses. Some of this is chickpeas, but it is to a very limited extent, as Ethiopia is not yet very competitive within the sector of chickpeas. However, it is the ambition of the Ethiopian Government that the country will eventually export both chickpeas and red lentils competitively. Currently, the main pulses exported to India are red kidney beans; however, the production and export of mung beans is increasing. While chickpeas and red lentils are grown in the highlands, where the climate is more suitable for them, but which are also densely populated, mung beans can be cultivated in the lowlands, where there is less population density. These are also the areas which the Ethiopian Government prefers to lease to foreign investors as a means to develop the land and increase export revenues.

India is the largest agricultural investor in Ethiopia, both in terms of the number of projects and the size of projects. Hundreds of thousands of hectares have been leased to Indian companies, who have together invested approximately 2 billion USD in Ethiopia. Furthermore, Indian-managed trading companies are present in Ethiopia, processing both for the domestic market and for export.

There are approximately hundred other Indian agricultural investments in Ethiopia, which are progressing year by year and already exporting e.g. mung beans to India and the world market. Some are also developing seeds for pigeon peas, which apart from feeding the demand in India could also help improve food security in Ethiopia due to their drought-resistance.

This article has presented some general background information about the pulses connections between India, Mozambique and Ethiopia, together with some preliminary findings from my own work on the ground. The full research project will be completed in November 2017. I would like to extend my special thanks to the Observatorio do Meio Rural in Mozambique and ILRI/ICRISAT in Ethiopia for hosting me as a guest researcher.

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