



**BTC TRADE FOR DEVELOPMENT**

# Tara Powder

*A look into current and future markets*



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## **1 EXECUTIVE SUMMARY**

This market study commissioned by the Trade for Development Centre and realised by Globally Cool is planned to contribute to improving the business management, market information and strategic planning capacities of producers' and export organisations in the production countries in South America. Based on more than 40 interviews and additional desk research, the global market for tara powder has been detailed. The main findings of the several chapters are the following:

### **1.1 Global trade flows 2012-2015**

Peru supplies practically all tara powder available on the world market. Production is driven by international demand, as domestic demand is currently almost inexistent. In recent years global tara powder exports have increased enormously, from 15 thousand tonnes in 2007 to 25 thousand tonnes in 2014. Major reason for this growth was the sharp increase of Chinese imports since 2012. In 2014, tara powder had a 3.3% share in worldwide tanning agent exports. This is the highest share since 2007, when it stood at 1.9%. In turn, vegetable tanning agents account for between 20-25% of the total tanning agents exports worldwide in 2014.

China is the largest importing country of tara powder by a long way; China imports about four times more than Brazil, and almost three times more than Italy.

Since 2012 prices have been relatively high, above USD 1,60 per kilogram. Major reason for that continuous high price level is the strong and growing demand from China since 2012, not only from the leather tannery segment but also from the vegetable acid production segment.

### **1.2 Global trade channels, segments and requirements**

Exporters usually supply an importer (generally a chemical company) that might add value to the tara powder, e.g. by blending it with other tanning agents to create a custom product ("formulation") to suit their customers' specific needs. The leading market segment is vegetable tanning of leather, followed by some small market segments: wine making and production of organic acid.

Specifications differ especially for mesh sizes, depending on the market segment. Secondly, the tannin content is an important factor in establishing an export price. As an indication, the difference between powder with 50% tannins content and with 64% tannins can be USD 250 per ton.

The market opportunities for both organic and fair trade certified tara powder can be considered as limited, because the tara powder is only used during the leather production process and not so much recognizable in the finished leather product.

### **1.3 Global trends**

Tara powder is mainly used in the tanning process for car interior leathers, but also for upholstery (furniture), shoes, garments and other leather goods. The leading trends in the leather chemicals market offer good opportunities for tara powder, as these trends are related to possibilities to replace mineral tanning agents. These trends can be summarized with 'environmental awareness', 'doubts about synthetic tanning with Chromium VI', and 'stricter legislation in the automotive industry limits Chromium use'. This offers good opportunities for tara powder, as tara-tanned leather is both chromium free and more easily biodegradable than mineral-tanned leather.

### **1.4 Global forecast and opportunities**

Despite the variable character of the tara powder market, there is a promising upward trend in the focus countries' imports of tara powder. This trend will be stimulated further by current developments in the leather industry towards more environmentally responsible tanning processes. China is expected to remain a main driver of tara powder demand, also in the next 10 years. An interesting, be it smaller scale, additional opportunity for tara powder is its possible use in niche market segments, such as wine making.

On average, the tara powder market is forecast to grow by 2-4% per year on average in the period 2015-2025.

## 2 INTRODUCTION AND METHODOLOGY

The Trade for Development Centre (TDC) of the Belgian development agency BTC aims at economic and social empowerment of small producer organisations by enhancing their business knowledge and improving their access to markets. Tara (both powder and gum) from South America is one of the products that receives attention of TDC, and the results of this market study by Globally Cool will contribute to improving the business management, market information and strategic planning capacities of producers' and export organisations in the production countries in South America.

Tara powder is a vegetable tanning agent which is mainly used in the tanning process for car interior leathers, but also for upholstery (furniture), shoes, garments and other leather goods.



### 2.1 Statistical product definition

The classification of tara powder in this document is based on the Harmonised System (HS) classification developed by the World Customs Organisation. Table 1 shows which HS codes have been used to calculate international trade statistics such as imports and exports.

Table 1 Selected HS codes for tara powder

HS codes	Description
1404902000	Tara powder ( <i>Caesalpinia Spinosa</i> )
3202909000	Inorganic tanning substances, tanning preparations, enzymatic preparations for pre-tanning

Source: International Trade Centre, ITC

### 2.2 Methodology

#### 2.2.1 Primary research

Within the period of September 2015 – February 2016, 13 telephone interviews were conducted with buyers and traders in the world's leading markets (China, Italy and Brazil). In addition, another 30 buyers and traders were interviewed during two trade fair visits: Lineapelle in Milan (February 2016), and APLF MMT in Hong Kong (April 2016).

##### 2.2.1.1 Focus countries

The following countries were selected to focus on in the primary research process: China, Brazil and Italy. These countries are among the world's main leather producers (Table 2), making them especially interesting markets for tara powder as a tanning agent.

*Table 2 Production of light leather from bovine animals in million square ft*

	2010	2011	2012	2013
China	2416	2300	2430	2463
Brazil	1684	1804	1806	1802
Russian Federation	1301	1293	1317	1316
Republic of Korea	1055	1037	1113	1103
Italy	1189	1049	1012	1047
India	666	673	689	701
Argentina	644	638	653	669
USA	585	587	580	577
Mexico	541	556	554	546

### 2.2.2 Desk research

Desk research consisted of scanning online available statistics, market studies, news and company profiles. In short the main group of sources used are the following:

- Statistical data (Eurostat, Trademap, customs databases)
- Relevant generic and country specific internet sources
- Previous market studies executed by several organisations.

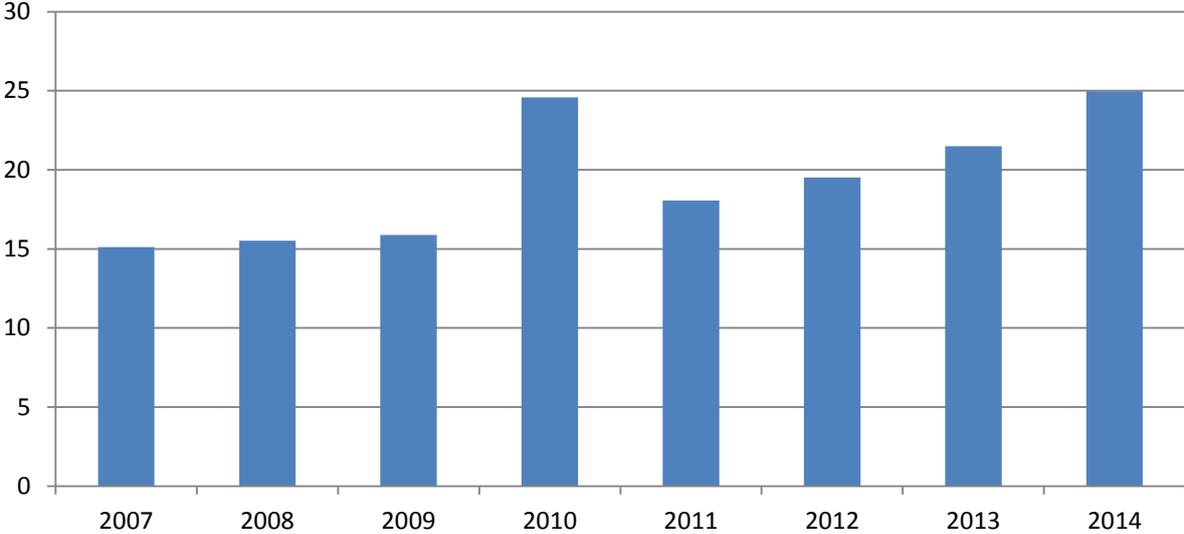
### 3 GLOBAL TRADE FLOWS 2012-2015

This chapter contains an analysis of global trade flows, covering exports and imports, trade prices and production.

#### 3.1 World exports

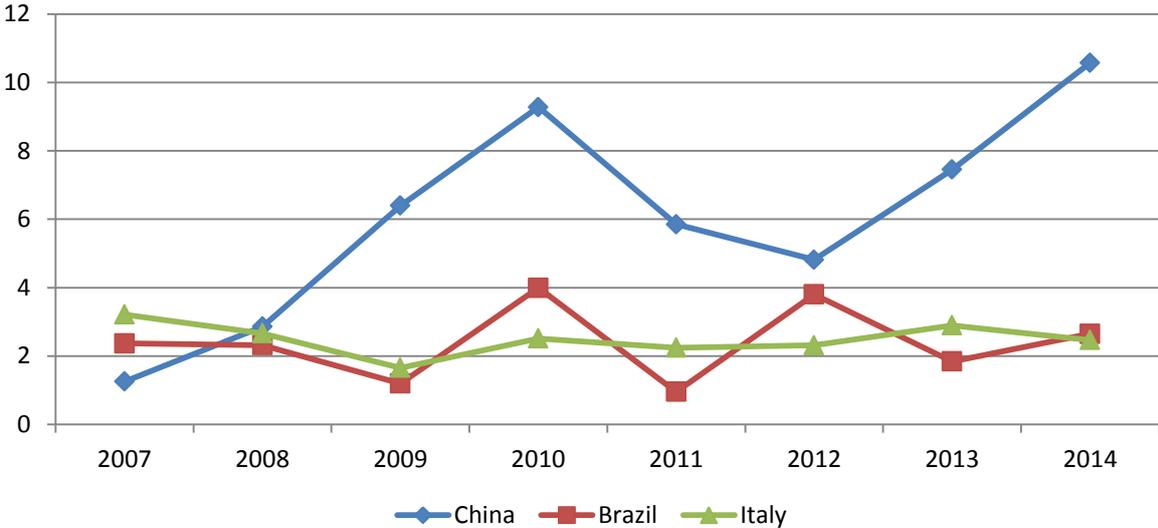
In recent years global tara powder exports have increased enormously, from 15 thousand tonnes in 2007 to 25 thousand tonnes in 2014. The peak export volume in 2010 is further clarified after Figure 2. In the period 2011-2014, export volumes increased year-on-year, by 11% on average per year. Major reason for this growth was the sharp increase of Chinese imports since 2012. Figure 2 shows that Italian imports are rather stable, while these of Brazil show considerable fluctuations (which is further described after Figure 2).

Figure 1 Volume of worldwide tara powder exports, 2007-2014, in 1,000 tonnes



Source: International Trade Centre, ITC

Figure 2 Volume of tara powder exports to each focus country, 2007-2014, in 1,000 tonnes



Source: International Trade Centre, ITC

The 2010 peak in tara powder exports was mainly due to disproportionately high exports to China and Brazil in that year. Exports of tara powder to these countries were relatively modest in the following year, most likely because companies were using up their stocks rather than importing new supplies. According to industry sources this type of import behaviour is common for their companies, making developments on the tara powder market difficult to predict accurately.

Table 3 Volume of worldwide tanning agent exports, 2007-2014, in 1,000 tonnes

	2007	2008	2009	2010	2011	2012	2013	2014
Tanning agents	758	709	616	866	728	683	725	750
..of which..								
.. vegetable tanning agents	205	205	167	215	192	189	191	175
..of which..								
..tara powder	15	16	16	25	18	19	22	25

Source: International Trade Centre, ITC

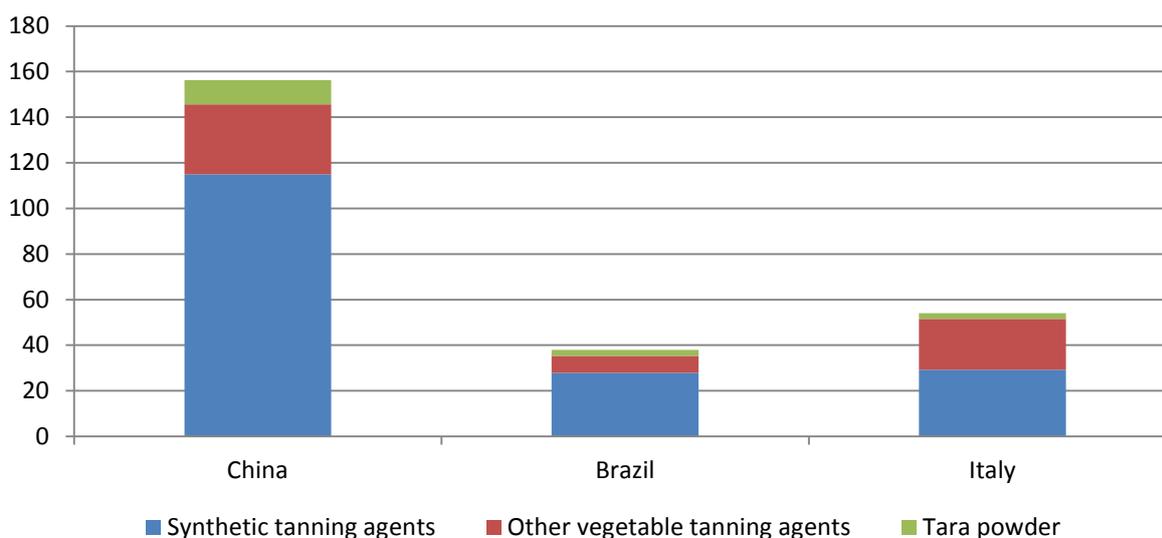
Vegetable tanning agents (such as tara powder, quebracho, mimosa) account for between 20-25% of the total tanning agents exports worldwide in 2014. This share was at highest in 2007 (30%), and declined every year to a share of 25% in 2010. In the period 2010-2012, it showed a gradual increase every year to 28% in 2012; after that it declined to 26% in 2013, before decreasing further to 23% in 2014.

In 2014, tara powder had a 3.3% share in worldwide tanning agent exports. This is the highest share since 2007, when it stood at 1.9%. The period 2007-2010 is marked by year-on-year growth, reaching 2.9% in 2010. The share dropped in 2011 (2.5%), which is related to the sharp drop in trade that year. From 2012 onwards the share has shown steady growth again.

The share of tara powder in vegetable tanning agents practically doubled from 7.3% in 2007 to 14.3% in 2014. This is both caused by increasing tara powder exports (from 15,000 tonnes in 2007 to 25,000 tonnes in 2014) and decreasing exports of other vegetable tanning agents, such as quebracho from Argentina and mimosa from South Africa and Brazil. The most important importing country and also 'responsible' for the large growth of tara powder exports, is China. The development of Chinese tara powder imports can be also seen in Figure 2. For a considerable part, the growing exports of tara powder to China are applied in gallic acid and tannic acid production.

In the focus countries, the share of tara powder in tanning agent imports is relatively high: 7.3% in China, 7.5% in Brazil and 4.8% in Italy. The absolute volumes in 2014 in these countries are revealed in Figure 3. This figure also shows that China is the largest importing country by a long way; China imports about four times more than Brazil, and almost three times more than Italy.

Figure 3 Volume of tanning agent export to each focus country, 2014, in 1,000 tonnes



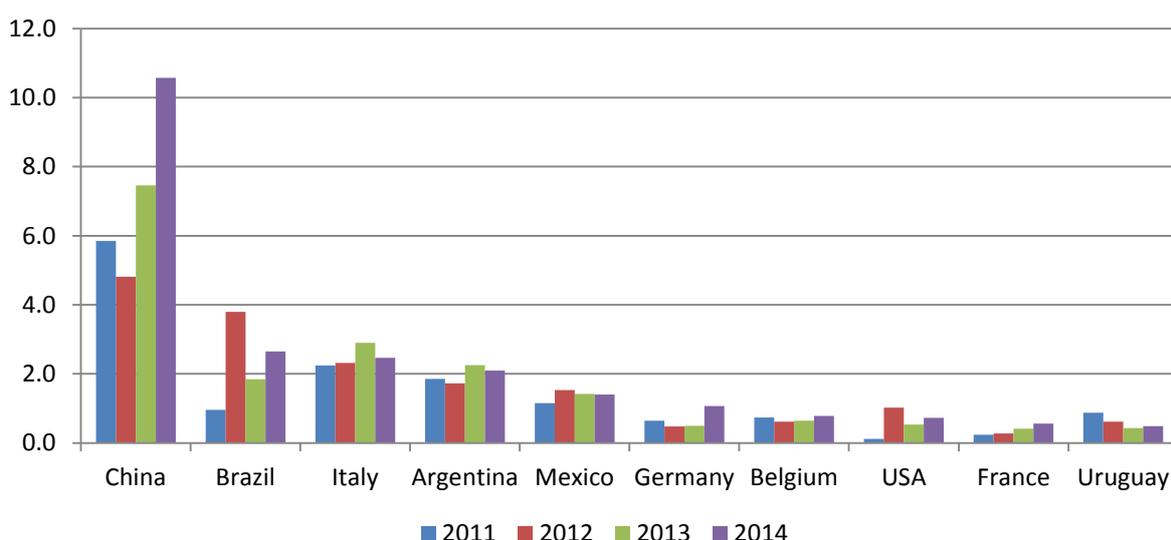
Source: International Trade Centre, ITC

### 3.2 World imports and leading importing countries

The main findings of the next two figures, also in relation to the selection of focus countries, are:

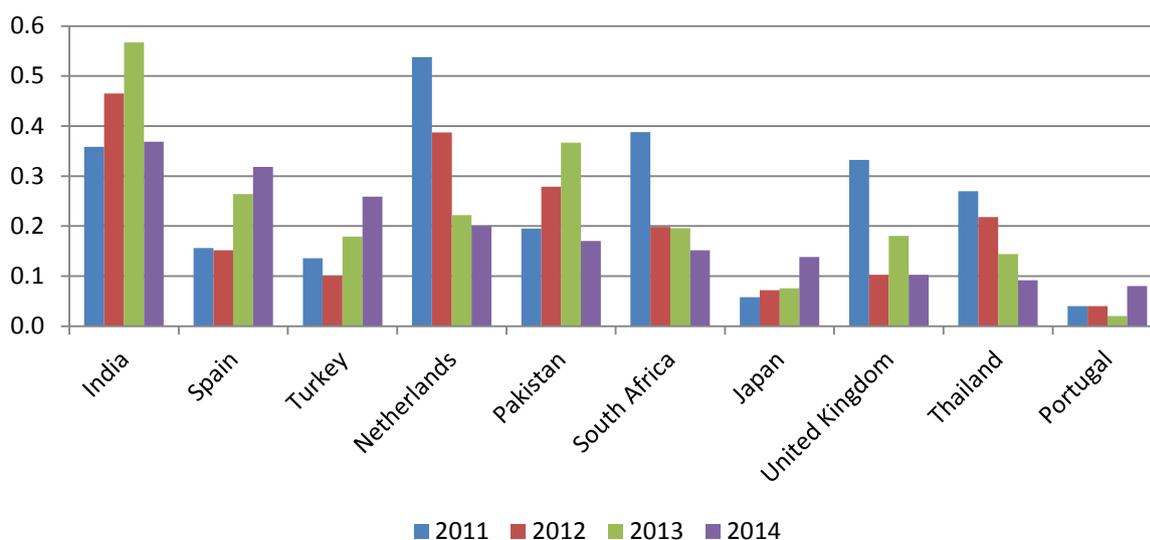
- The focus countries China, Brazil and Italy are the world's main importers of tara powder.
- Leading importing country in Europe is Italy, at large distance followed by Germany, Belgium and France.
- Argentina, Mexico, the USA and Uruguay complete the list of top ten importing countries.

Figure 4 Top 10 importing countries of tara powder, 2014, in 1,000 tonnes



Source: International Trade Centre, ITC

Figure 5 Top 11-20 importing countries of tara powder, 2014, in 1,000 tonnes



Source: International Trade Centre, ITC

These figures clearly illustrate the variable character of the tara powder market, in which companies can buy stock for years in advance and delay imports until e.g. prices are at an attractive level.

### 3.3 Leading exporting countries of vegetable tanning agents

Table 4 shows that Peruvian exports of tara powder performed best of all exports of vegetable tanning agents in the world in the period '07-'14.

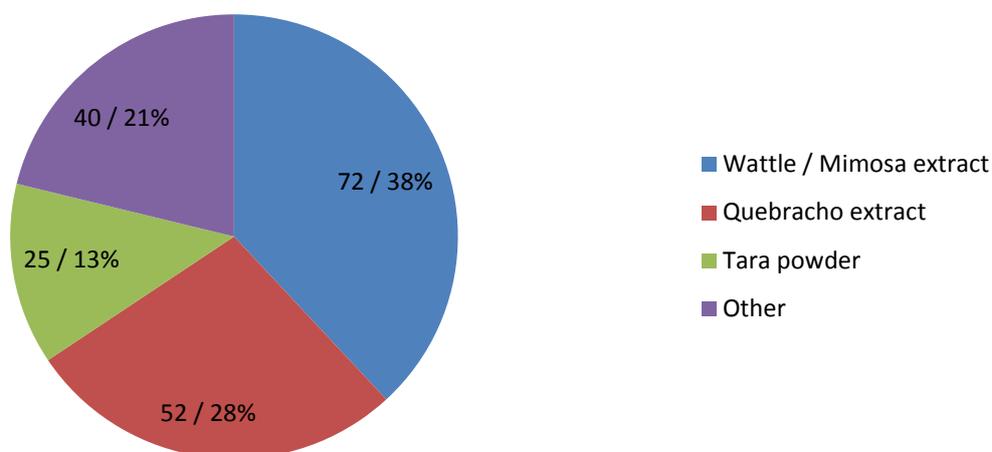
Table 4 Top 10 exporting countries of vegetable tanning agents, 2008 and 2014, in 1,000 tonnes

Exporter	'07	'14	Annual growth	Main product
Argentina	60	44	-4.5%	Quebracho
South Africa	45	37	-2.6%	Wattle/Mimosa
Brazil	40	30	-4.2%	Wattle/Mimosa
Peru	15	25	7.4%	Tara
Indonesia	14	14	0.6%	Mangrove extract
Slovenia	7	7	-0.9%	Chestnut
Italy	10	6	-6.5%	Chestnut
USA	8	6	-4.1%	Re-exports of several products
India	3	4	5.0%	Wattle/Mimosa, Gallnuts
Tanzania	0	2	24.9%	Wattle/Mimosa

Source: International Trade Centre, ITC

China seems to be an absentee in the foregoing table, however, the Chinese vegetable tanning agents production is destined for the local market only and as a result China does not export vegetable tanning agents. Instead, China is importing an increasing volume of vegetable tanning agents in recent years. This is because the country has more than 10 processing plants for the production of tannic acid (tanning agents) and gallic acid with a total capacity of about 25,000 tons. Although initially this processing was based on the input of gallnuts (China takes 95% of the worlds' gallnuts production, more than 5,000 tons per year), increasingly China has imported low-cost raw materials for its' gallic acid production, such as tara powder.

Figure 6 Global trade of vegetable tanning agents, 2014, in 1,000 tonnes and share of total trade.



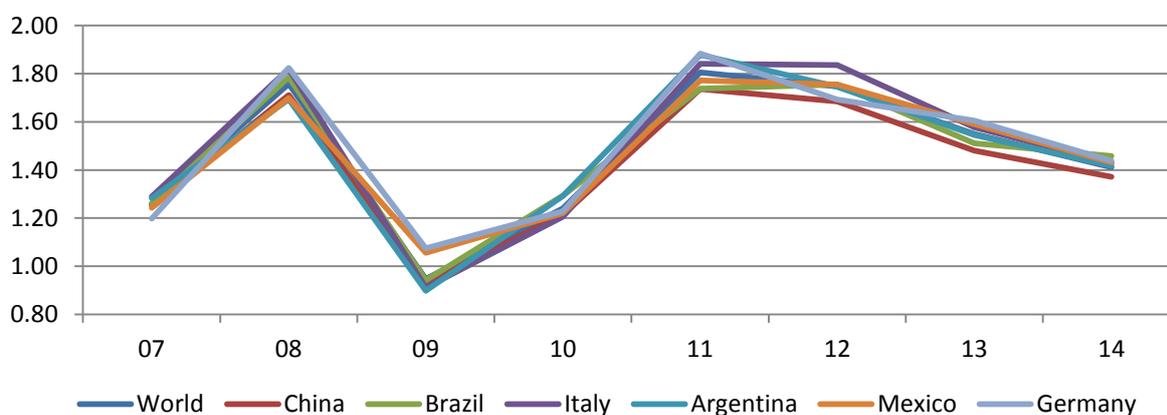
All these vegetable tanning agents have a specific regional or country origin:

- Wattle/mimosa: The main producers are Brazil, China, Kenya, India, South Africa, Tanzania and Zimbabwe.
- Quebracho: There are at least three similar commercially important tree species that grow in the Gran Chaco region of South America (located west of the Paraguay River and east of the Andes, mostly an alluvial sedimentary plain shared among Paraguay, Bolivia and Argentina).
- Gallnuts are a native product of China and Southeast Asia, but are also produced in small amounts in Turkey, India, Japan, and Korea. Guizhou and Yunnan are the biggest gallnut-producing areas in China, as a result China is good for 95% of global production.
- Chestnut: production only takes place in Europe on the northern side of the Mediterranean Sea (mainly Italy, France, Slovenia and Croatia).

### 3.4 Trade prices

The price of tara powder is of course dictated by the demand:supply ratio, but is also influenced by the success of the harvest. Harvests can be negatively affected by phenomena such as El Niño (a climate cycle in the Pacific Ocean with a global impact on weather patterns).

Figure 7 Global tara powder prices, 2007-2014, in USD per kilogram



Source: International Trade Centre, ITC

As this figure illustrates, the price of tara powder on the world market doesn't significantly differ between countries. Between 2008 and 2009, prices for tara powder practically halved. These low prices can explain the peak in exports to China and Brazil in 2010, when companies tried to benefit by buying extra tara powder for their stock before prices rose back to their 2008-level in 2011.

Although the international price levels have been far above USD 1.40 for several years, it is this price level which was mentioned in the period 2009-2011 as the absolute price maximum for importers at which tanneries will start to switch to other tannins. However, this has not proven to be true, as price levels have been above USD 1.60 for almost 3 years and not led to falling demand. Major reason for that continuous high price level is the strong and growing demand from China since 2012, not only from the leather tannery segment but also from the vegetable acid production.

### **3.5 Production**

Peru supplies practically all tara powder available on the world market. In 2015 Peruvian tara production amounted to 37 thousand tonnes, after an average annual increase of 3% since 2010 (PROMPERU). Production is driven by international demand, as domestic demand is currently almost inexistent. Exports of tara powder are dominated by three companies: Exandal, Molinos and Silvateam.

Tara powder is extracted from dried tara pods by grinding the husks, whereas tara gum is produced by grinding the endosperm from the roasted seeds. From 1kg tara, 600gr powder and 80gr gum can be produced. This means Peru produced around 22 thousand tonnes of tara powder in 2015. Peru accounts for about 80% of the world's tara production.

Although native to Peru, the tara plant (*Caesalpinia spinosa*) can be found throughout northern, western and southern South America, from Venezuela to Argentina. It is also cultivated in drier parts of Asia (in China, India), the Middle East and Africa (Ethiopia, Kenya, Morocco) and has spread into California. This means these regions could possibly produce tara commercially in the medium to long term.

## 4 GLOBAL TRADE CHANNELS, SEGMENTS AND REQUIREMENTS

Chapter 4 details global trade channels, market segmentation and product requirements.

### 4.1 Trade channels and segments

The following figure shows a simplified trade channel structure for the global trade of tara powder.



Source: Globally Cool

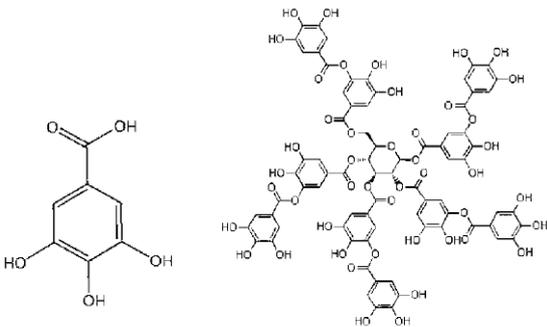
Exporters are mostly located in Peru but they can also be re-exporters in another country. Re-exporters in another country are mainly located in neighboring countries (e.g. Netherlands and Germany).

Exporters usually supply an importer (generally a chemical company) that might add value to the tara powder, e.g. by blending it with other tanning agents to create a custom product (“formulation”) to suit their customers’ specific needs.

Many industry sources cite the reliability of supplies via exporters as a great advantage of doing business with these parties, whereas others would prefer to directly pay farmers’ associations a fair price. It seems companies’ preferences are mainly based on their previous experiences with the reliability of suppliers in general.

An interesting development is the direct supply from intermediaries to the industries. Chemical companies are currently noticing that their suppliers are encroaching on their territory, by supplying directly to tanneries, effectively turning into their competitors rather than suppliers. This, in turn, is reason for chemical companies to consider sourcing their tara powder directly from farmers associations.

Table 5 Major segments and applications for tara powder

Segment and application	Benefits
<p><b>Leather, vegetable tanning</b></p> 	<p>Tara powder (mesh 150-200, 200 is finer and has a better penetration) provides environmentally responsible tanning processes, free of chromium. It doesn't dye the leather, making it clear and light resistant. Tara powder tanning creates full and soft leather with a fine, tight granular and smooth structure. Some sources mentioned that tara powder also offers unique opportunities in the tanning of reptile's and ovine pelts.</p>
<p><b>Wine making</b></p> 	<p>Tara powder (mesh of e.g. 100) stabilises the colour, adds body and flavour and improves taste and mouth-feel. Although wine making is by far the most important clarification (and astringency) application for tara powder, it can do the same in tea, coffee, cacao, beer and other food.</p>
<p><b>Production of organic acid</b></p>  	<p>Thick tara powder (mesh 20-50) is used as raw material by the – mostly Chinese – chemical industry to obtain organic acids: mostly tannic and gallic acid (others are Propilgalate and Pyrogallol). Both have multiple and partly the same kind of applications:</p> <ul style="list-style-type: none"> <li>• Tannic acid is used in several medical and pharmaceutical applications (e.g. treatment of burns, or as antidiarrheal agent), as flavouring agent in foods and beverages, in ink manufacturing, and conservation of furniture (killing dust mites).</li> <li>• Gallic acid is obtained by the hydrolysis of tannic acid. It can be used as antioxidant in food, in cosmetics and in the pharmaceutical industry. In addition, gallic acid is applied as a source material for inks, paints and colour developers.</li> </ul> <p>Probably the largest Chinese company buying tara powder for this kind of production is <a href="#">Awei Science and Technology</a>. In 2014, at least about 10% of total Chinese tara powder imports was applied in organic acid production.</p>

## 4.2 Barriers to trade

Tara powder is usually traded under HS-code 140490(2000) or 320290(9000). It can enter all top 10 markets duty-free, provided when exporting to China the HS-code 320290(9000) is used. On products in the 140490 product group, China levies a low import tariff of 1.25%.

## 4.3 Product and additional requirements

As tara powder is used as input in a production process as also explained in 4.1, it needs to meet the buyers' specific requirements. If the producers or suppliers do not master these specifications, they won't be able to export. Generally a new supplier to a new market needs to submit 4 to 5 samples until the specifications are fully met and the tara powder is approved by the importer.

### 4.3.1 Basic specifications

The basic specifications vary considerably around the world. They vary from company to company and also from country to country, depending on the country's legislation in place. Usually the buyer in the destination country is able to provide the right information on specifications set out in legislation.

### 4.3.2 Physical, organoleptic and chemical

The physical, organoleptic and chemical specifications for tara powder do not differ a lot across the world, however they may vary from company to company. The most common specifications are:

- Particle size: mostly 100 to 200 mesh, or 20-50 mesh for thick or coarsely ground tara powder
- Colour: light (white-beige)
- Odour: characteristic astringent
- Tannins: >48%
- Humidity: <13%
- pH (6.9°Be): 3.0-4.0

A major factor in establishing an export price is the tannin content. As an indication, the difference between powder with 50% tannins content and with 64% tannins can be USD 250 per ton.

Another important factor is the iron content; the lower the iron content, the better. For that reason, processors should invest in stainless-steel equipment.

### 4.3.3 Packaging and handling

Packaging and handling is in the first place according to the customer's requirements. But in practice, there are some commonly used packaging sizes worldwide. By far the most common packaging size is 25 kg stitched bags of 84x52cm, made of polypropylene, (kraft) paper with inner polyethylene or multiwall (kraft) paper. Another packaging size for larger quantities is a polypropylene super ton bag of 1000kg.

The packages shall be legibly coded as per customer's coding procedures, which often prescribe to provide the following information, mostly in the English language: production month, date, year and production line.



Containers are usually fully stacked, up to the roof, to use all container space and reach a 20 tonnes weight per container. For this practice, it is very important to thoroughly clean the container beforehand. Another option is the use of pallets, usually for 1000kg, which is safer but it makes transport per tonne more expensive. If the customer requires the use of pallets, the customer will also prescribe the type of pallet and its security (like shrink-wrap, pallet-wrap or banding). In practice, the type of pallet depends on the warehouse requirements. It is also possible for the customer to request their tara powder in bulk shipments, in order for them to package the tara powder in their own facility.

#### **4.4 Opportunities for organic or fair trade tara powder**

This paragraph describes the situation for organic and fair trade products, which are relevant for tara powder. The market opportunities for both organic and fair trade certified tara powder can be considered as limited, because the tara powder is only used during the leather production process and not so much recognizable in the finished leather product.

##### *4.4.1 Organic*

So far, no real certifications exist for organic leather. The general consensus in the industry is that organic leather is produced from (certified) organic cattle hides, using chromium-free vegetable tanning. An interesting example of voluntary certification is [Naturleder](#), a natural leather certification by the International Association of Natural Textile Industry ([IVN](#)). This programme prohibits the use of chrome and other mineral tanning agents. As a vegetable tanning agent, tara powder is very suitable for organic leather production.



##### *4.4.2 Fair Trade*

There is no Fairtrade Mark for leather as such. When leather articles such as bags are considered Fairtrade, this is mainly related to the production process (and mainly dealing with labour conditions) of the actual article, in which tara powder doesn't play a role. For instance, manufacturers can obtain a Fairtrade Mark for their fairly produced [sports balls](#).

## 5 GLOBAL TRENDS

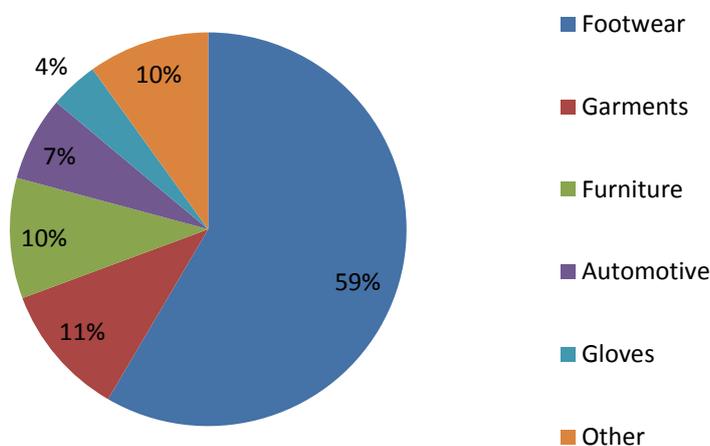
First, this chapter gives a broader overview of the leather chemicals market and a short profile of the focus countries. Secondly, it lists the main trends that shape the market for tara powder.

### 5.1 Leather and leather chemicals – a broader perspective

The global market size for leather chemicals reaches between USD 5.5-6.0 billion per year in the period 2014-2016. According to several global market reports from a couple of research agencies, this market is expected to grow with an average of 4-7% annually to about USD 8 billion in 2020. Tanning and dyeing chemicals, like tara powder, account for about 40% of the leather chemicals market.

The primary drivers of demand for leather chemicals are the global footwear and automotive markets. Footwear is also the largest segment of the global leather market, while the automotive segment is number 4 (7% market share in 2012).

Figure 9 Global leather market shares in 2012



Source: UK Leather Federation

Tara powder is mainly used in the tanning process for car interior leathers, but also for upholstery (furniture), shoes, garments and other leather goods. For upholstery, shoes, garments and leather goods, tara powder is primarily used if a white colour is required.

Each of the focus countries is now briefly described in terms of its leather industry.

#### 5.1.1 China

Although China uses a large amount of tara powder for its' organic acid production, China is also a huge leather producer. The country has a large and fast-growing domestic market for footwear, premium leather goods and upholstery. This combination makes it a very interesting target market for tara powder. There are, however, some developments that might limit China's leather tanning capacity in future, such as potential limitations in water and energy supply. Another major concern are the environmental issues that are emerging due to the leather industry's polluting waste material. Current government policy is to close smaller tanneries and tanneries without effluent treatment, but this policy's impact on total production capacity is unclear.

#### 5.1.2 Brazil

Brazil is another of the world's main leather producers, with a strong domestic footwear and leather goods (especially for travel) market. The Brazilian leather industry also has strong links to the US

footwear market and is an active worldwide exporter. Tanneries in Brazil are specialised and operate at very high efficiency levels. The [Centre for the Brazilian Tanning Industry \(CIBC\)](#) is the official representative of Brazilian tanners. Their project [Brazilian Leather](#) stimulates sustainable leather production.

### 5.1.3 Italy

Italy is Europe's leading leather producer, with large domestic and regional (Europe, North Africa) markets. The Italian leather industry has a strong innovation capacity and is highly flexible and versatile. Its strong international connections are aided by Italian leather's good reputation and fashionability. In Italy, the [Genuine Italian Vegetable-Tanned Leather Consortium](#) promotes the concept of natural vegetable tanning.

### 5.1.4 Structure of the global leather chemicals industry

The leather chemical companies are traditionally large multinationals with a broad range of products for the leather industry, who supported the development of leather technology by carrying out important research and development activities (but so far they have not managed to find the perfect synthetic alternative to tara powder, although Clariant launched [Tanicor RS-34 P](#) in 2013, which is produced in India and was good for 924 tons of export in 2014, equal to 3.7% of global tara powder trade in that year). Some of the main global players in this industry are [Mathiesen](#) and [Stahl](#). Stahl strengthened its position in the leather chemicals industry by acquiring Clariant's rival leather chemicals division in 2014.

Nowadays, leather processing chemicals have become more or less a commodity. This has led to a rising role for smaller chemical companies, focused on a specific type of product (like tannins) and/or a specific region (mainly in areas with a strong presence of tanneries). Examples of such local players are [Figli di Guido Lapi](#) (Italy), [Getti Química](#) (Brazil), and [Sichuan Tingjiang](#) (China).

## 5.2 The trends are promising

The leading trends in the leather chemicals market offer good opportunities for tara powder, as these trends are related to possibilities to replace mineral tanning agents.

### 5.2.1 Environmental awareness gives room for more use of vegetable tanning agents

Worldwide, environmental awareness is growing and legislation is becoming stricter. In the leather industry, traditionally very toxic and polluting, is also moving in a more environmentally responsible direction. For instance, the [LeatherWorkingGroup](#) promotes sustainable and appropriate environmental business practices within the leather industry. The group's members consist of brands, suppliers and tanneries. Tanneries can be awarded with Gold, Silver or Bronze ratings based on the group's environmental audit policy.

Waste material from vegetable tanning, such as tara tanning, is free from chromium and can be degraded in composting facilities. The wastewater does not need to be recovered through a complicated and expensive chemical procedure. This makes tara powder a very interesting alternative to mineral tanning agents. Especially since tara powder, unlike other vegetable tanning agents who tend to give leather a reddish hue, does not contain any dyes.

### 5.2.2 Doubts about Chromium VI

In 2012, a Danish survey showed that 44% of the leather articles reviewed contained more than 3 mg/kg Chromium VI, which can cause strong contact dermatitis and is also extremely toxic to leather production workers. Although currently about 80% of worldwide leather production uses

chromium III as a tanning agent, which can transform into the toxic Chromium VI under certain production and storage conditions, there is a trend towards using less harmful substitutes. For instance, in 2014 the European Union published a regulation [banning Chromium VI in leather articles](#). As of May 2015, leather articles and articles containing leather parts coming into contact with the skin are banned from sale, if they contain Chromium VI in concentrations of 3 mg/kg or more. These developments provide good market opportunities for tara powder as a vegetable alternative to mineral tanning agents.

### *5.2.3 Stricter legislation in the automotive industry limits Chromium use.*

The growing automotive leather sector is a promising development for tara powder, as the automotive industry is the biggest user of chromium-free leather. For instance, since January 2015 the [EU End-of-Life Vehicles \(ELV\) Directive 2000/53/EC](#) dictates that all new vehicles in Europe must be reusable and/or recyclable for >85%, reusable and/or recoverable for >95% and free from Chromium VI. Good news for tara powder, as tara-tanned leather is both chromium free and more easily biodegradable than mineral-tanned leather.

Chrome-free leather currently accounts for about 5% of total automotive leather production, with the major automotive leather producers at around 30%. A great example is Audi, whose car interior leathers are completely chromium-free.

## 6 GLOBAL FORECAST AND OPPORTUNITIES

Based on an analysis of statistical data and a considerable number of interviews (see Methodology), a forecast can be made for the 3 focus countries: China, Brazil and Italy. Despite the variable character of the tara powder market and Italy being affected by the recent Euro-crisis, there is a promising upward trend in the focus countries' imports of tara powder. This trend will be stimulated further by current developments in the leather industry towards more environmentally responsible tanning processes. China is expected to remain the largest importing country of tara powder, also in the next 10 years. On average, the tara powder market is forecast to grow by 2-4% per year on average in the period 2015-2025.

As tara powder is mainly used as a tanning agent, its main opportunities are in countries with a strong leather industry, and especially countries where concern for the environment provides opportunities for tara powder to replace mineral tanning agents. Besides the focus countries, particularly interesting target markets could be Argentina, Germany and Mexico/USA (Mexican leather companies are predominantly USA companies). These countries follow for the list of tara powder importers in Figure 4.

The global tara powder trade for tanning agent use is expected to remain rather competitive, as competition takes place in established markets where margins are generally low. Prices of the chemicals used are normally set with cost-plus pricing, which requires a close and ongoing monitoring of competitor's prices. Some of the Peruvian exporters try to distinguish themselves from the competition by offering added value and services to their customers (e.g. Silvateam).

The long-term development of the tanning agent segment, which will continue to dominate global demand for tara powder, is difficult to predict. This is because speculative trade plays an important role (as mentioned in Chapter 3), and application of tara tannins in leather fashion articles depends strongly on fashion trends that differ from year to year. However, it is still possible to make the foregoing conclusions.

An interesting, be it smaller scale, additional opportunity for tara powder is its possible use in niche market segments, such as wine making, or the making of tea, coffee, cacao, beer and other food products. In the particular case of wine: although some companies already use tara powder in their wine making process, this is a relatively untapped market. When tara powder is added as a tannin to (mainly red) wine, it stabilises the colour, adds body and flavour and improves the taste and mouth-feel of the wine. This adds some of the world's main wine producing countries to the potentially interesting target markets for tara powder, like France, Spain, Chile, Australia and South Africa.

## 7 CONCLUSION AND RECOMMENDATIONS

Discussions with more than 40 buyers showed that often the relationships between buyers and exporters of tara powder are relatively weak. Although tara powder mostly takes a relatively small share in total production costs for buyers or customers in the leather tanning industry, there is a strong focus on price.

The Chinese import of thick tara powder (mesh 20-50) for the production of organic acid is an exemption on the rule mentioned in the first paragraph. Here, the tara powder takes a considerable share of the production costs. For that reason, Chinese companies show speculative buying behaviour. But at the same time, the strong Chinese demand has kept import prices relatively high since 2012. Also some Brazilian companies in the leather tannery segment aim at buying large quantities and stock excessive amounts of tara powder in years with low prices.

Some ideas for exporters of tara powder to improve their competitiveness are the following:

### 7.1 Develop Unique Selling Points

Of course, the tara powder must meet the buyer's requirements in all cases. The critical factor is particle size. But there are also opportunities to get Unique Selling Points. The most important Unique Selling Point is the ability to offer a low iron content. For that reason, processors or exporters should invest in stainless-steel equipment. Another one could be to obtain the Fairtrade label or organic certificate, although these markets are still small and need to be developed.

### 7.2 Build strong relationships

The following tip is especially for exporters of large volumes of tara powder, but in fact it is valid for every exporter applicable to all volumes. It can be wise to invest in strong relationships with the Chinese (and other ) buyers. And, convince them of the benefits of long term relationships at fair prices. For example, fair prices offer the possibility to invest in sustainable production, like improved water supply, securing the tara powder production for the next generations.

### 7.3 Share information

To get more engagement of buyers and customers of tara powder in the tara powder supply chain, there should be more transparency. The tara supply chain in Peru should join forces and invest in an information portal, sharing tara production issues and news. This kind of information services can be developed together with the marketing services mentioned below.

### 7.4 Launch a marketing campaign

Tara powder is not the most important tanning agent, and for that reason it is relatively unknown. Although tanneries seem to be exactly aware of how and when to apply tara powder, it can be an option to join forces and start a joint marketing campaign for tara powder. Until now, only the two market leaders Silvateam and Exandal invest in global sales and marketing activities for tara powder. Some activities that could be part of a joint marketing campaign:

- Promotion of tara powder at trade fairs
- Offer a dedicated tara powder sourcing portal with information about production, supply, applications, research and development, etc.
- Invest in Research and Development activities which can eventually lead to increased use of tara powder.
- Share best practices in the tara powder sourcing portal (written articles, application video's etc.).