

Global education module

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COUNTRY:	Hungary
TITLE:	Coffee
AGE GROUP:	12+
SUBJECTS:	geography, economics, ethics
TIME REQUIRED:	45 minutes

Coffee

the aim of the exercise:

- to discover the economic and social aspects of sustainability through a given product (coffee)
- to get acquainted with the concept of fair trade

subjects related: geography, economics, ethics

age group: 12+

number of participants: 5-30 people

tools: a description of the process of coffee production (each role on a separate sheet)
 a description of the changes of the world market price of coffee
 sheets of paper, pens or pencils

time required: 45 minutes

Description of the exercise:

The facilitator divides the group into smaller groups (3-6 people) and hands them the cards with descriptions of the different steps of coffee production and consumption (Appendix 1). Instruction: *“The cards on the table represent different steps of the process from the coffee bean to the coffee in the cup. Put them in the right order. Attention! Picking the coffee beans can be done in three different ways, and roasting them in two ways, so more than one steps are possible simultaneously.”*

(Note: in the end, the cards will have to form an A4 format sheet.)

After checking the result, the group should discuss what they have read. They should write down important and interesting new facts they’ve learned.

The facilitator then distributes the texts on the changes of the world market price of coffee (Appendix 2).

Question after reading the text:

“How do changes of the price of coffee affect growers and us, consumers? Where does the coffee we drink come from? How can we get information on the origin of the products we buy? Write your answers on the poster.”

After completing the exercise, the group discusses the new information.



Appendix 1

<p>Cultivation of the coffee plantation The process begins with sowing. Coffee seeds sprout only if they are sown within 8 weeks after picking. As soon as the first pair of leaves appear, seedlings are planted in special greenhouses and then in beds. After six months, they are planted to their ultimate place, the plantation. Here they are grown possibly in the shade of trees to protect them from direct sunshine. Plants start to bear fruit in their third to fifth year and are fertile for 10-15 years.</p>		
<p>Harvesting Nine months after flowering, the fruit becomes ripe and can be harvested. Harvesting lasts for about 4 months in the case of Arabica species and a little longer for Robusta species. In Columbia, harvesting lasts almost throughout the whole year. The berries, called coffee cherries, do not reach maturation at the same time: the same branch may have ripe and unripe cherries at the same time. There are three methods of harvesting coffee.</p>		
<p>Selective picking The finer Arabica beans are mostly handpicked. Workers are moving between the lines of coffee bushes and only pick the ripest cherries. A good coffee picker averages approximately 100 to 200 pounds of coffee cherries a day.</p>	<p>Strip picking In Brazil, Robusta producing African countries and Indonesia, berries are not individually picked. All of the cherries are stripped off from the branch at one time, both ripe and unripe ones. The berries fall onto a sheet under the plants, together with leaves and broken twigs, from where they will be collected later on.</p>	<p>Mechanic harvesting On big plantations in Brazil, harvesting machines are used to shake off the beans from the bushes.</p>
<p>Processing Following the harvest coffee cherries will have to be processed. The two coffee beans account for only two thirds of the cherry fruit, the rest is pulp, skin and outer casing, which have to be removed; only the green beans are preserved. There are two basic methods of processing world-wide: the “wet” and the “dry” method.</p>		
<p>Wet process Cherries are washed and a machine peels the pulp from the beans, then they are gathered in a big container where they are fermented in water, so that the remaining pulp and the sticky film-coat can be later removed. This method gives coffee its rich aroma and special taste. In this phase, coffee beans are still covered in a parchment-like casing, that’s why they are sometimes called parchment coffee. The washed beans are then spread in concrete vats or drying racks, and left in the sun to dry. The dry beans are then husked and sorted by size and quality.</p>	<p>Dry process Coffee cherries are dried in the sun. A husking machine removes the pulp and the parchment skin from the beans. After husking, coffee beans are cleansed, and the remaining unwanted particles are removed by a vibrating screen. Beans are then sorted by size and stored in bags.</p>	



Export

Coffee beans are usually packed into 60 kg hemp or jute bags, and get a quality label indicating its place of origin and the method of processing. Coffee bags are transported by trucks or trains to the port warehouses, where they await shipping. Coffee is then sold to exporters from whom it is bought by importers somewhere in the world, who finally sell it to a coffee roaster.

Transportation

Coffee is usually transported from the producing country to the consuming country. Earlier, coffee bags had been piled up individually in the underdeck of cargo ships, but lately beans are carried in bulk.

Import

Importers buy coffee through three channels: by local purchase (at the destination), by transport (they buy the coffee from a place where it has to be further transported), or they trade it in future contracts. Future contracts are traded on the New York Coffee and Sugar Exchange. The aim of the future contracts is to protect the position of the coffee price; in actuality, coffee rarely changes hands in these cases.

Cupping

After the coffee has been chosen for purchase by roasters, it is checked for quality. Roasters take a sample from the coffee to be bought for tasting. Cupping is a coffee tasting technique to test its quality. First a sample is taken from the coffee beans, which is then roasted and ground. A little grind is placed into a cup and hot water – just off the boil – is added to it. The “cupper” – the coffee expert – then smells and tastes the coffee.

Blending

In order to reach the desired taste, at least four, but often more coffee varieties are blended before roasting, when beans are still raw. The main purpose of blending is to create a taste which is easy to reproduce on the long term. Since coffee is a crop whose quality depends on many natural factors, blending formulae have to be regularly updated.

Roasting

During the process of roasting, coffee beans are exposed to a heat of around 500 Celsius degrees. This is the temperature needed to evaporate the humidity within the seeds, to liberate the aromatic oils, and to caramelize the sugars in the beans. This is what gives coffee beans their characteristic flavour and dark brown colour. There are three methods of roasting: (1) light roasting gives coffee a light flavour, which is popular in Scandinavia for instance; (2) medium roasting results in a slightly stronger flavour, which is popular in Central Europe and the USA (3) dark roasting gives coffee a very strong, intense flavour, and it has to be drunk black – this is most popular in Southern Europe.

Grinding

After having been roasted, beans are usually ground. Because of modern filtering systems, one grinding is not enough.

Packaging

Ground coffee often gets vacuum-packaged in order to preserve its aromas as long as possible, because the quality of ground coffee quickly degrades if the grind gets in contact with air.

Preparing the coffee

The choice is yours to decide which kind of coffee you want to drink: Turkish, espresso, filtered, or instant – the range is wide.





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The European Union is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

Appendix 2

THE PRICE OF COFFEE

Coffee used to be the world's second most important commodity, after crude oil. It is produced in more than 70 countries, mostly in African, Latin American, and South East Asian countries by the tropical and subtropical belt, as well as in Indonesia. More than 25 million people are directly involved in coffee production.¹ 70 percent of the total quantity are grown on plots of less than 10 hectares, mostly on 1-5 hectare family farms.

The biggest part (80 %) of the coffee on the world market is traded by future contracts and only 20 % of them result in actual movements of the goods. The rest serves speculative purposes and has no connection to actual stocks or demands. Local farmers have absolutely no influence on this volume, even though the trading of their produce will be determined by this speculation.

The fluctuation of the world market price of coffee began at the end of the 1980s, when the International Coffee Agreement collapsed. The participating parties could not reach an agreement, mainly because of the USA's resistance. This resulted in a free-market situation, which ended in a drastic decrease in the price of coffee. Coffee producing countries were absolutely unable to influence this process. In order regulate fluctuations an agreement was made about predetermined stocks and export quotas. This allowed the coffee price to be between US\$ 1.2–1.4 per pound. In following years, this price fell to US\$ 0.77, and by 2001, to 0.45. In recent years an improvement has taken place, the price per pound rose to US\$ 1.15 (ICO 2010²). But it is important to note that 1 dollar in the 1980s would be worth 3.5 dollars today, so even with the current spectacular increase, the price of coffee today is still less than one third of the 1980s' price. This price often does not even cover production costs, making it impossible for farmers to ensure a proper standard of living for their families, who often drift to the verge of poverty.

The figure below compares the price of a Swiss knife (a manufactured product) to that of coffee per kilogram between 1980 and 2001. The continuous drop in prices did not only affect coffee; the world market prices of a lot of other agricultural commodities and raw materials fell drastically too, which greatly accounted for the export income of economically weaker countries. Thus trading supports post-industrial countries, which can buy raw materials cheap and can sell the manufactured products at a higher price.

¹ There are two main varieties of coffee bean which are internationally traded: Arabica and Robusta. Arabica is a high quality coffee which has to be grown in special conditions (sunshine, humidity, thermal fluctuation).

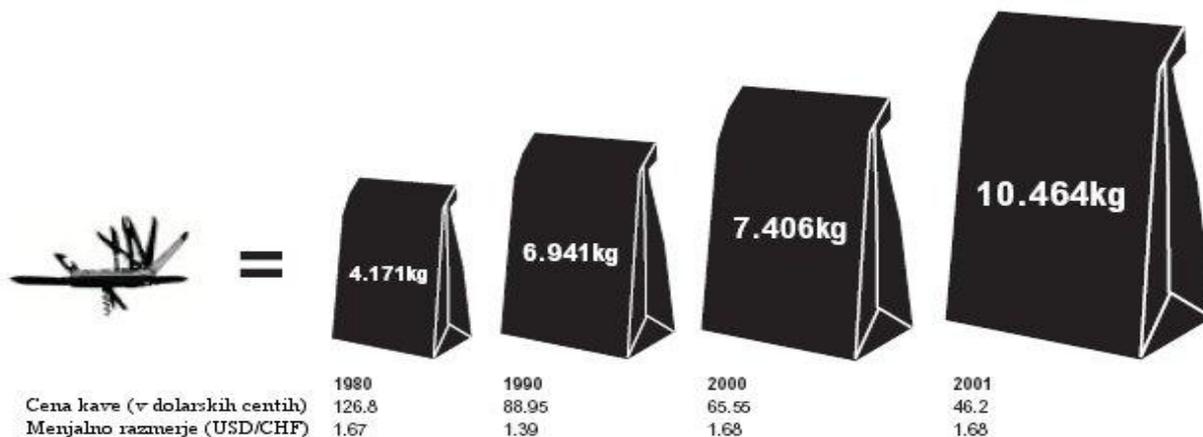
Robusta is less recognised, less demanding, and can be grown on plantations.

² International Coffee Agreement.

³ One pound is 453.59 g.

⁴ International Coffee Organization.





Source: Oxfam, 2002

Producers get only a small part of the market price of coffee, the remaining larger part goes to local, regional and international traders. The price of coffee is determined by those who take part in the complex processes of selling and re-selling. Despite the big fluctuations in prices, small farmers have nearly no chance to protect their interests and to sell their product when coffee prices are high. The reason is simple: they need the money immediately; therefore, they often sell the coffee when the crop is still on the branches. Thus they are not the proprietors of their crop anymore when it gets transported. Local market prices often do not reflect world market trends because the coffee was sold in advance.

Think about it: a cup of coffee (5 g) costs easily more than 300 HUF in a café! This is much, much more than what producers get for 1 kg of raw (unroasted) coffee.



Background information for facilitators:

THE ORIGIN AND HISTORY OF COFFEE

Legend has it that coffee was discovered by a goatherd called Khaled in 850 AD in Egypt. Khaled noticed that his goats became very frisky after nibbling from the plant. He himself also tasted the berries of the mysterious plant and experienced its stimulating effects. It is, however, more likely that coffee was discovered on the territory of today's Ethiopia. Coffee trade began to gradually develop in the Arab world. In the 15th century, one of the biggest coffee markets was situated in the port of Mocha in Yemen (the famous Moca coffee machine got its name from this market-place). From here coffee was brought to Italy by Venetian merchants, and from there it spread all over Europe, and later to the whole world. In the 18th century, the Dutch brought it to South and Latin America. Brazil became the number one coffee producer in the 19th century and has maintained its leading position ever since.

COFFEE VARIETIES

The coffee plant belongs to the *Coffea* species and has more than sixty varieties. The coffee we consume comes mostly from the *Coffea Arabica* (Arabica bean) or the *Coffea Robusta* (Robusta bean) variety.

The leaves are wide, dark green and very shiny. The flower of the coffee shrub is small, white, star-shaped, it smells and looks somewhat like jasmine. The coffee shrub can grow to a height of 10-15 meters in the wild. On plantations, plants cannot grow higher than 3 meters; this guarantees that yields are higher and harvesting is easier. A single shrub may remain fertile for over 25 years.

Coffee shrubs in Brazil and Mexico are in flower for 6-8 weeks. In equatorial countries like Kenya and Columbia, the shrub can have sprouts, unripe and ripe berries at the same time and on the same branch (berries are called coffee cherries). The time needed from sprouting until harvesting is generally 8-9 months, depending on the altitude and weather conditions. Coffee shrubs remain fertile for 20-25 years and produce around 2000 beans a year, which is equal to roughly 1 kg of raw coffee. Thanks to modern farming technologies, one hectare yields 3-4000 kg of crop a year. Coffee beans are the seeds of the berry-fruit. The fruit looks somewhat like blueberry, its flesh is sweetish, and it is enveloped in a parchment-like skin and a so-called "silver skin". Unprocessed coffee is called green coffee. Two varieties of coffee shrubs are grown for commercial purposes.

Arabica coffee

Arabica is the more ancient and preferred variety which accounts for 75 % of the coffee available on the market. Arabica grows at altitudes of 600–1800 meters above sea level and ripens in 6-9 months. Arabica coffee is the more expensive, because its production at high altitudes is more labour-intensive and therefore more costly. Shortly after ripening, beans fall to the ground; therefore the crop has to be harvested quickly after ripening in order to avoid contamination from the ground. Coffee at high altitudes is more easily exposed to frost therefore farmers incorporate this risk in the price. Production costs are further increased by the fact that most Arabica cultivars, especially those grown at high altitudes, are hand-harvested and processed by the most expensive wet method.

Robusta coffee



The first wild Robusta shrub was discovered in the 1870s in Congo. It accounts for 26 % of the world's coffee trade. It is primarily grown in West Africa and South East Asia. The Robusta shrub is a hardy variety, it grows at lower altitudes (600 meters above sea level), endures cold and high humidity, and it is much more resistant to diseases than the more sensitive Arabica. Robusta turns mature in half the time as Arabica, and yields twice as many berries. Unlike those of Arabica, its berries do not fall to the ground; therefore it does not have to be harvested immediately. It is often sold in blends mixed to Arabica so that the particular aroma of the more expensive Arabica may enhance the cheaper coffee.

COFFEE AND FAIR TRADE

Due to the fluctuation of the world market price of coffee and the unfair distribution of profit – which affect farmers of economically less developed countries the most –, coffee is one of the most important fair-trade products. The first fair trade coffee was imported by the Dutch Fair Trade Organization in 1973.

Fair trade guarantees a fair price for farmers which covers production costs and also contains a certain percentage that serves environmental and social purposes. Thus farmers can make a living, production can be improved, which guarantees a future for the local community. Coffee is a commodity the quality of which is certified by the International Fairtrade Labelling Organizations International (FLO-I).

Examples of local co-operations based on the principle of fair trade:

CECOCAFEN - Central de Cooperativas Cafetaleras del Norte: this is an umbrella organization which protects and controls the activities of its nine member organizations, based on the principles of fair trade in Nicaragua.

It controls quality, guarantees environment-friendly production, and supports local farmer communities. From profits made by coffee trade, among other things, they have realized a program promoting cancer screening for women.

CECOVASA: it is a Peruvian co-operative founded by local farmers in the 1970s, in order to cut out middlemen from the trade. Money made from the fair trade of coffee is spent on modernization of the production and on local communities (e.g., they realize educational programs in schools that promote a healthy lifestyle).

