



SCHOOLS
GO GREEN



Co-funded by the
Erasmus+ Programme
of the European Union



SCHOOLS
GO GREEN

Project number: 2020-1-DE03-KA201-077258

M4: Sustainable Consumption and Production

Leibniz University Hannover

10.03.2022, Hannover

1

TEACHERS HANDBOOK



This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Project Information

PROJECT: Schools Go Green

PROJECT TITLE: DEVELOPING A WHOLE-SCHOOL APPROACH TO PROMOTE SOCIAL CHANGE AND SUSTAINABLE DEVELOPMENT AS A RESPONSE TO ENVIRONMENTAL CHALLENGES

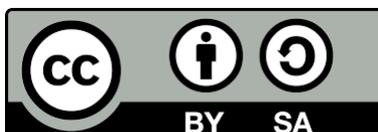
ACRONYM: SCHOOLS GO GREEN

PROJECT WEBSITE: <https://schoolsgogreen.eu/>

PROJECT NO.: 2020-1-DE03-KA201-077258

PROJECT COORDINATOR: LEIBNIZ UNIVERSITÄT HANNOVER, GERMANY

2



This document by SchoolsGoGreen
is licensed under CC BY-SA 4.0.
To view a copy of this license, visit
<https://creativecommons.org/licenses/by-sa/4.0>

Contents

Project Information	2
Key Symbols.....	4
General Objective of the Module.....	5
Learning Objectives Basic.....	5
Learning Objectives Advanced	5
Introduction.....	6
1. Sustainable Consumption & Production of Food	8
Labels for sustainable food products	9
Popularity and Effect of Labels for Sustainable Food Products	11
2. Sustainable Consumption & Production of Clothes	12
Labels for sustainable clothing	14
Popularity and Effect of Labels for Sustainable Clothing	16
3. Didactic Strategies.....	17

Key Symbols

Symbols	Explanation
	Definitions
	Case study
	Additional Resources
	Tips
	Activities
	Reminder
	Video

4

General Objective of the Module

The Module “Sustainable Consumption and Production” provides strategies and material to show primary school students why sustainable consumption is important, what they can do to make a change and how this affects the production of goods. The module will mainly focus on food and clothes products.

Based on this handbook for teachers, the module provides a presentation for students to be used in class, lesson plans for the age groups 6-10 and 10- 12 and a data bank with further resources.

Topics:

Introduction

- 1) Sustainable Consumption & Production of Food
- 2) Sustainable Consumption & Production of Clothes
- 3) Didactic Strategies

5

Learning Objectives Basic

- What can one individual act in private and in school settings to make a change?
- How consumption can be reduced as a whole (what do I really need to live a health life? What is unnecessary?)
- Which products are regional and seasonal in the respective countries?

Learning Objectives Advanced

- How the production cycle of a piece of clothing (for example a t-shirt) and of a food example looks like
- How many stations does it run through?
- Who is involved (and to which conditions?)
- How material gets wasted during this cycle
- What are Eco-Textiles and what are the benefits?
- What is Eco-Farming and what are the benefits?
- What are sustainable fisheries?
- How does a recycling circle looks like in clothing and food?
- How much packaging is needed and wasted?

Introduction

It seems almost superfluous to explain the relevance of the sustainability issue, because it is on everyone's lips and has fortunately already produced a great change in people's awareness. Issues that Fridays for Future, for example, and ecological associations in many places are bringing out with more and more energy are being heard by an increasing number of people. Eco-labels have established in many countries. Fair trade is no longer a foreign word, people recognize the dangers of chemicals, pesticides and artificial ingredients in their food and clothing. A growing market of alternatives is enjoying increasing popularity. Many companies, for example, already have their own sustainability experts and point out their environmentally friendly standards and efforts on their websites. These references should always be taken with a grain of salt and checked carefully, because companies have long known that sustainability sells well. In any case, the result is that the supply of corresponding products increases in line with their popularity among the population. It is certainly worth asking whether we need new markets that also follow the traditional market logic, or whether we can rethink our approach to the extent that we resort to recycling and second-hand, and are more concerned with our own supply and regionality.

6

In line with the general goals of the project *SchoolsGoGreen* this module focusses on ecological sustainability and action against climate change. It has to be acknowledged that there are different strategies towards these goals and also aspects like social standards in the production or the health of the consumers are important. Therefore this handbook is not intended to make purchasing recommendations, but to take a holistic view of sustainability and provide practical guidelines to approach this topic in primary schools.

Current studies also indicate that the greatest concern of the young generation for the future is the climate or climate change¹. It is therefore time to create a sense of empowerment and thus replace the feeling of powerlessness.

In 2006 the goal to *Ensure sustainable consumption and production patterns* was established by the United Nations among the 17 Sustainable Development Goals. Until 2030 the United Nations should „achieve the sustainable management and efficient use of natural resources”².

Taking into account that agriculture and production of clothes³ are regarded to be main polluters of clean water the awareness grew that this topic should already be addressed in early school education. Next to strategies aiming at a transformation of the production of food and clothes the United Nations launched the campaign *#actnow* which provides strategies and educational guidelines for individual or collective action as informed consumers.

In 2020 the European Union introduced the *European Green Deal* connected with the goal to become climate neutral in 2050, which means that there should be no net emissions of greenhouse gases anymore⁴. Next to large investments into the transformation of the industrial sectors the European

¹ <https://wien.orf.at/stories/3068047/>

² <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

³ https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf

⁴ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

Union also launched campaigns like the *Climate Pact*, which aims at connecting people all over Europe to join their forces in climate action ⁵

The following two chapters provide general information about sustainable consumption and production of food and clothes. This handbook doesn't claim to provide exhaustive information about these topics. To get more detailed information, the data bank of the project [\[to be found here\]](#) provides additional resources if information.

As described above, the focus lies on the connection to the everyday life of students and options for individual or collective action. In this sense the chapter provide facts and figures about production and consumption and guidelines for individual consumption decisions. As this project presents an European cooperation of organisations from different countries, aspects like labels for food and clothes or ecological standards might differ from country to country.

⁵https://ec.europa.eu/commission/presscorner/api/files/attachment/862911/climate-pact-for-all-europeans-march-2020_en.pdf.pdf

1. Sustainable Consumption & Production of Food

The globalized production and transportation processes of food have brought benefits for retailers and consumers, that now have access to a huge variety of both fresh and stored food from all over the world. On the other hand these complex processes lead to massive consumption of energy for transportation and cooling systems.

“The food sector accounts for around 30 per cent of the world’s total energy consumption and accounts for around 22 per cent of total Greenhouse Gas emissions” (United Nations 2022)⁶

Another major problem is the increased amount of food that is wasted without being consumed.

„Each year, an estimated 1/3 of all food produced – equivalent to 1.3 billion tons worth around \$1 trillion – ends up rotting in the bins of consumers and retailers, or spoiling due to poor transportation and harvesting practices.” (ibid)



The large number of companies and retailers within the production and transportation chain increases the difficulty of implementing sustainable strategies for ecological friendly production or energy efficient transportation. According to the United Nations Environment Programme the way towards a sustainable production of food include the dimensions of businesses, governments and citizens.⁷

8

- Businesses should be supported with, financial aid, technical innovation, best practices or local knowledge to achieve ecofriendly production and transportation.
- Governments should act by establishing regulatory frameworks, institutional setups, tariff designing and subsidies & guarantees.
- Citizens should be made aware about the options and power they have as customers and be encouraged to have a willingness to pay for sustainable produced food.

A major challenge on the path from a general awareness and willingness to actual sustainable consumption patterns is to make informed decisions when buying a product. There is a large number of logos and labels trying to convince consumers, some of them present monitored standards, some are just invented by the production company itself to produce a better image. The following section will give an overview on trustworthy labels for food to be presented students. As mentioned above, this overview presents a general European perspective and might have to be adjusted for the situation in different countries.

⁶ <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

⁷ <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/sustainable-food>

Labels for Sustainable Food Products

Eco labels are used to work with manufacturers to give consumers more clarity about the product and, for example, how it is made, the working conditions of workers, and transportation routes. This information can relate to ethical to purely ecological characteristics. These labels are voluntary. According to a Forbes survey, 88% of consumers consciously choose brands to make more sustainable choices. But it's not that easy: although there are currently many eco-labels (and the trend is rising), they usually refer to only one or a few individual aspects of the supply chain and all apply their own standards.

„A report from the Changing Markets Foundation found that “despite the proliferation of different initiatives, there is no overarching scheme that satisfactorily addresses sustainability performance across the whole supply chain”. As many of these eco-labels only cover one aspect of the supply chain, they lack full transparency into the life-cycle of a product and its total impact.“



To address the issue of labels, the Website <https://www.siegelklarheit.de/en/> has made it its mission to list all labels in a transparent and comprehensible manner.

EU Organic Logo

9



„The European Union organic logo gives a coherent visual identity to organic products produced in the EU. This makes it easier for consumers to identify organic products and helps farmers to market them across the entire EU. The organic logo can only be used on products that have been certified as organic by an authorised control agency or body. This means that they have fulfilled strict conditions on how they must be produced, processed, transported and stored. The logo can only be used on products when they contain at least 95% organic ingredients and additionally, respect further strict conditions for the remaining 5%. The same ingredient cannot be present in organic and non-organic form.”⁸

More information: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organic-logo_en

Bio-Siegel



„All agricultural products produced according to the requirements outlined in the EU Regulation on Organic Farming, as referenced in the German Organic Food Labelling Act, are permitted to use the Bio-Siegel label. At least 95% of the agricultural ingredients contained in processed products must come from organic production.”⁹

More information: <https://www.oekolandbau.de/en/bio-siegel/>

⁸ https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organic-logo_en

⁹ <https://www.ecolabelindex.com/ecolabel/bio-siegel>

Fairtrade International



®

„For farmers and workers, Fairtrade means:

- Prices that aim to cover the average costs of producing their crop sustainably – a vital safety net when market prices drop
- The Fairtrade Premium – an extra sum of money paid on top of the selling price to invest in business or community projects of their choice
- Decent working conditions and a ban on discrimination, forced labour and child labour
- Access to advance credit ahead of harvest time
- Being able to plan more for the future with more security and stronger relationships with buyers¹⁰

For consumers, Fairtrade means:

- „A product with the FAIRTRADE Mark means the producers and businesses have met the stringent [Fairtrade social, economic and environmental standards](#).
- According to a 2015 GlobeScan study of consumers in 15 countries, more than 50 percent of consumers are familiar with the FAIRTRADE Mark and of those, 80 percent say they have a more positive perception of brands that carry it.“ (ibid)

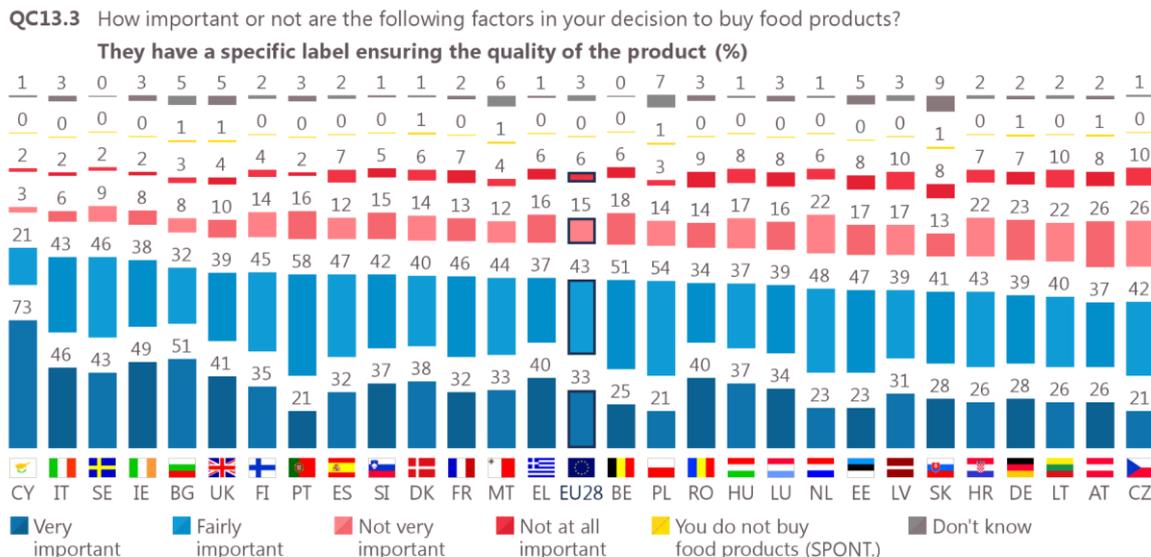
More information: <https://www.fairtrade.net/about>

¹⁰ <https://www.fairtrade.net/about/how-fairtrade-works>

Popularity and Effect of Labels for Sustainable Food Products

As the graph below indicates labels that ensure the quality of food products are very popular among the people of the European Union. But it has to be noted that this applies to food labels in general, not only for labels that ensure sustainability. Another important aspect is also the geographical origin where the food was produced.

Figure 1: Importance of labels for food products¹¹

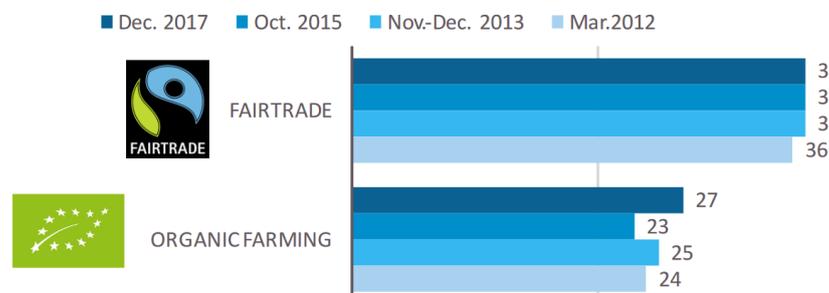


11

The knowledge or familiarity about sustainable labels for food and willingness to buy labelled products is observed to be very different among clusters within societies¹². In general it can be noted that at least one third of the EU population is aware of the Fairtrade-Label and about one quarter is aware of the EU-Organic-Farm-Label.

Figure 2: Awareness about sustainable labels for food products¹³

QC14 Which of the logos are you aware of? (MULTIPLE ANSWERS POSSIBLE)
(% - EU)



¹¹ https://www.ucg.ac.me/skladiste/blog_43432/objava_71812/fajlovi/ebs_473_en.pdf, p. 97

¹² https://mdpi-res.com/d_attachment/sustainability/sustainability-11-07240/article_deploy/sustainability-11-07240.pdf

¹³ https://www.ucg.ac.me/skladiste/blog_43432/objava_71812/fajlovi/ebs_473_en.pdf, p. 98

2. Sustainable Consumption & Production of Clothes

A quite new trend in the fashion industry is called "fast fashion" which means that new collections are coming onto the market at ever shorter intervals, and the spiral of new trends and "outdated" fashion is turning ever faster. Many items of clothing are only bought for one season and are mostly correspondingly sloppy in quality. This results in a short life cycle of products that can be observed for example in Germany: here consumers buy an average of sixty items of clothing per year. The rapidly increasing proportion of online purchases are exacerbating this trend. Not only low prices and extremely high discounts are typical for fast fashion, but also the marketing strategies are designed for the short-term satisfaction of the buyer's interests and always give rise to new ones. One in five pieces of clothing is hardly ever worn. The trend in the global clothing production shows a rather alarming development: the production of clothing has more than doubled since the turn of the millennium and further studies show that the textile sector might continue to grow steadily in the coming decades. All the signs are there of excessive, unsustainable development.

Why is fast fashion a problem? The consequences of the problems described above are mainly ecological and social problems, about which many consumers do not really know much at all: Large amounts of water are needed to grow cotton, especially in water-scarce areas. About 200 bathtubs full of water are needed to grow one kilogram of cotton. Pesticides and fertilizers are a particular problem in conventional cotton farming. This sector accounts for about 14 percent of the global insecticide market and about 5 percent of the pesticide market. Dyes and other chemicals pollute wastewater in producing countries, which often lack adequate wastewater treatment facilities.

In addition the issue of working conditions and wages in the textile sector is yet another huge problem., tailors in many producing countries work under inhumane conditions.

The use of polyester or elastane results in microplastics entering waterways and oceans during washing. So far, there is no reliable data on how many fibers are released in this way. It is estimated that a total of 80 to 400 tons of microparticles are released by clothing in Germany each year.

All these aspects listed show that it is a systemic problem, which basically only a holistic view can really do justice to.

Young people display the achievements of their shopping trips through the cities (or internet) on social networks, blogs and/or YouTube: In the so called HAULS they present their purchases not only to relatives and friends# but also, depending on the "privacy setting" used, to a wide audience. For the clothing manufacturers, this results in an advertising effect that cannot be paid for, because what could be more authentic than the appreciation of the products by the consumers themselves? More and more fashion companies are therefore sponsoring successful bloggers with free clothing samples, which they then put in the right light in their videos. There have been the first legal disputes for some years now, because the labeling of advertising is an important factor in so-called influencer marketing. The online community itself is also becoming more sensitive in this regard.

Pupils in postmodern society are accustomed to the constant availability of consumer goods and services. Through the Internet, two enormous aspects come together: the constant availability and the constantly growing and even overwhelming offer of consumer goods such as clothing, which is visible around the clock (online stores obviously do not follow opening hours). This results in a high risk of quick and therefore wrong purchases. In addition, advertising awakens further needs which, in the absence of reflection, not only young people can mistake for their own desires.

When it comes to holism, recycling is of course also important. In the textile industry, this does not look very promising. Recycling in the sense of a closed material cycle does not de facto take place. Worldwide, A very surprisingly low number of less than one percent (!) of the material used for textile production is reused to make clothing. Around eighty percent of the used clothing produced worldwide is incinerated or ends up in landfills. About twenty percent goes through a process known as "downcycling," which is the production of rags or insulation material from used clothing.¹⁴

It's not that consumers don't care about where their product comes from, the environmental impact of its production, and the working conditions of the workers involved. More and more people are trying to include these aspects in their purchasing decisions. But In comparison to food products, where already a large part of the European population is concerned about sustainable aspects, the purchase of clothes is merely connected to a low price. According to the special Eurobarometer 501 from 2019 "around half of respondents (49%) say that clothes should be available at the lowest possible price, regardless of the environment or the working conditions under which they were made."¹⁵



Consuming sustainable fashion does not exclusively refer to buying clothes with certain labels. It may be that no new product is needed at all, because there are already enough similar items in one's own closet. So the first thing that counts is questioning one's own needs:

Do I really need this item? If it is then the case that the product is needed, then one can consider: does the product have to be bought (new) or is there perhaps a clothing swap party in one's own environment (very modern and popular in German cities) or does someone offer the desired item of clothing second-hand so that I don't have to order it?

¹⁴<https://www.bmu.de/themen/nachhaltigkeit-digitalisierung/konsum-und-produkte/produktbereiche/mode-und-textilien#c38787>

¹⁵ <https://webgate.ec.europa.eu/ebsm/api/public/deliverable/download?doc=true&deliverableId=72423>, page 2

Labels for Sustainable Clothing

In addition to seals that identify specific characteristics of sustainable production, there are also a growing number of companies in the fashion sector that set their own standards and do not rely on conventional seals. Here, of course, it must be very clear how these own standards are created and how they are defined and continuously monitored. Consumers often have to find out for themselves and do their own research.

Here we present a few of the largest and most relevant global seals. Due to the complexity and diversity of the range, we cannot go into detail about individual fashion labels.

Global Standard



The Global Standard stands for:

- Annual on-site inspection of premises of the processor, manufacturer or trader, performed by an independent and specially accredited certification body.
- Tracing the organic fibre product flow.
- Assessment of all the inputs and accessories used.
- Verification of the wastewater treatment system as part of the environmental management programme.
- Monitoring social criteria and implementing a risk assessment based quality and residue policy are key elements of the inspection protocol.

More Information: <https://global-standard.org>

EU Ecolabel for Textiles/Clothing



The EU Ecolabel stands for:

- A more sustainable fibre production
- A durable product
- A lesser polluting production process
- Strict restrictions on the use of hazardous substances

The EU Ecolabel can be awarded to all kinds of textile clothing and accessories, interior textiles, fibres, yarn, fabric and knitted panels. **The detailed criteria:**

https://ec.europa.eu/environment/ecolabel/documents/textile_factsheet.pdf



Better Cotton cooperate with farmers that...

- minimise the harmful impact of crop protection practices
- promote water stewardship
- care for the health of the soil
- enhance biodiversity and use land responsibly
- care for and preserve fibre quality
- promote decent work
- operate an effective management system

More Information: <https://bettercotton.org>

OEKO-TEX

OEKO-TEX®
INSPIRING CONFIDENCE

- The product labels STANDARD 100 by OEKO-TEX® and LEATHER STANDARD by OEKO-TEX® are available for textile and leather products that have been tested for harmful substances and which are thus safe from a human-

ecological perspective.

- With the MADE IN GREEN by OEKO-TEX® label, you can identify textiles which have been tested for harmful substances and also manufactured under sustainable working conditions.
- The STeP by OEKO-TEX® certification and the DETOX TO ZERO analysis by OEKO-TEX® optimise the manufacturing process for ecological and socially responsible textile and leather production.
- The ECO PASSPORT by OEKO-TEX® identifies environmentally friendly chemicals, auxiliaries and colourants used in the textile and leather industry.
- The MADE IN GREEN label identifies textiles and leather goods tested for harmful substances and which have been manufactured under sustainable and socially responsible conditions.

More Information: <https://www.oeko-tex.com/en>

Cradle to Cradle



- Is not (only) a seal in the classical sense, but a globally recognized measure of a safer and more sustainable product for the circular economy
- It is a transformative way to design and manufacture products with positive impacts
- To receive certification, products are evaluated on their environmental and social performance in

several sustainability categories: material health, material reuse, renewable energy, carbon management, water stewardship, and social fairness.

More Information: <https://c2c.ngo>

Popularity and Effect of Labels for Sustainable Clothing

“Making informed purchases also helps. For example, the textile industry today is the second largest polluter of clean water after agriculture, and many fashion companies exploit textile workers in the developing world. If you can buy from sustainable and local sources you can make a difference as well as exercising pressure on businesses to adopt sustainable practices.”¹⁶

To take up the German situation, which can also apply in other European countries: 38 percent of the fashion fans surveyed as part of the Statista Global Consumer Survey stated that sustainable fashion was too expensive for them. Many also do not know the sustainability labels and their criteria and standards. The resulting lack of trust in these labels is also a reason for Germans to avoid fair fashion. 23 percent of the participants stated that sustainability is often just a fad and that there are no really fair conditions behind it. The lack of chic of fairly produced clothing was still a reason for 14 percent of respondents to forego eco-fashion, while 18 percent preferred to stick with established brands out of habit.¹⁷

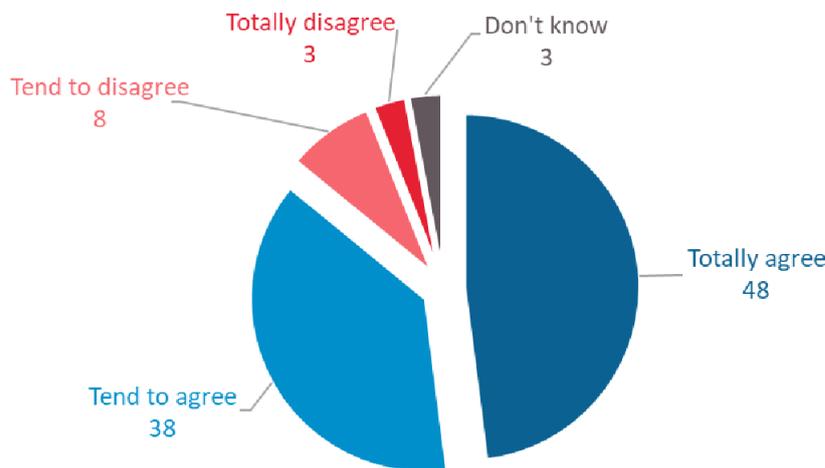
According to the Special Eurobarometer from 2019 a large majority of Europeans would like to receive more informations about sustainable clothes. But as stated above this doesn't mean that the customers are actually willing to pay more for clothes with sustainable aspects.

Figure 3: Information about sustainable clothes through labels¹⁸

16

QA13.5 Please tell me to what extent you agree or disagree with each of the following statements related to environmental problems and working conditions linked to clothing.

Clothes labelling should provide information on their environmental impact and the working conditions under which they were made (% - EU)



Base: all respondents (n= 27,498)

¹⁶ https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf

¹⁷ <https://de.statista.com/infografik/26399/gruende-fuer-den-verzicht-auf-nachhaltige-mode-in-deutschland/>

¹⁸ <https://webgate.ec.europa.eu/ebsm/api/public/deliverable/download?doc=true&deliverableId=72616>

3. Didactic Strategies

In general it can be assumed that the questions which type of food and clothes are consumed are topics for discussions within families on a daily basis. Aspects like taste or look have a direct impact on the life of students and might therefore be of most importance for young people. Discussions about sustainable aspects are additional challenges for a family setting in which several people have to agree on a certain standard. When bringing these topics to school it should be taken into account that different students have varying perspectives, attitudes or levels of knowledge about them. When it comes to clothes in particular, also group dynamics within the peer group should be acknowledged that might influence students regarding their preferences.



The goal for teachers should be achieve a situation in which the students share their perspective and encourage each other to pay attention to sustainability instead of creating situations in which students might feel ashamed or receiving peer pressure.

One important aspect in introducing these topics is therefore to clarify that there is not the one path towards sustainability. A dogmatic approach here might lead to exclusive processes. Instead all students should be welcomed to join the discussion no matter what consume patterns they or their family are practising at the moment. When it comes to food or clothes consumption also social, cultural or religions factors might be of importance and might limit the students possibilities to make their own choices. Therefore it should be made clear that there are different alternatives to make small steps towards the goal of getting to a sustainable way of purchasing food products and clothes.

17

When it comes to the challenge of explaining these complex topics to students, teachers should create a link to the living world. This varies depending on the age group. Whereas younger children may already be able to influence their parents' purchasing decisions, older children are already concerned with using their own resources and weighing up what a sustainable product is worth. Both groups are able to perceive the effects of their consumption decisions directly or indirectly. Here, a sensitivity for the influence on different areas of life is to be established. After all, it is not only theoretical knowledge that is decisive for learning success, but also concrete experience.

After taking into account these aspects, it should be discussed with the students that there are several options for individual and collective action that can actually make a change. Even younger students can have an impact when they discuss these topics with their parents and make their first steps to become informed consumers.

Regarding food products students can be motivated to search for sustainable labels, grow vegetables and fruit by themselves and avoid packaging or food waste. Regarding clothing consumption it can be suggested to repair clothes, recycle, sell at flea markets or donate clothing. It can be recommended to buy clothes second hand or if buying new, then rather invest in few high-quality pieces, than in many little-quality ones or also pay attention to sustainable labels. Also the proper storage, care and washing of clothes can increase the wearability.

As mentioned above, these strategies only present an overview on the possible forms of individual or collective action that can make a change towards sustainable consumption and teachers should present them as options, not as mandatory rules, because students might not be in the position to implement them at home.

In the lesson plans of this module teachers find more detailed guidelines how to bring these strategies into the classroom and discuss them with the students.

It should also be noted, that younger students need be protected from the impression that it is their duty alone to save the environment. At this stage also the responsibility for companies and politics should be mentioned.