

**Film and News articles**

Please note that you should watch these before using them with young people as they may not be appropriate.

- <http://www.theguardian.com/global-development/video/2014/jan/14/drc-child-refugees-victims-war-video>

Child refugees in DRC speak out about war.

- <http://www.theguardian.com/world/video/2011/sep/02/congo-blood-gold-mobile-phones-video>

Congo: Blood, gold and mobile phones

- <http://www.theguardian.com/stage/2013/dec/11/columbite-tantalite-film-congo-chiwe-tel-ejiofor>

Columbite Tantalite: a film that fuses Congo's past and present struggles

- <http://bloodinthemobile.org/>

Blood in the Mobile

- <http://www.bbc.co.uk/news/technology-27346567>

Keepod: Can a \$7 stick provide billions computer access?

**Chapter 6**

**Meat**



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## BACKGROUND INFORMATION

An insatiable demand for meat has grown worldwide. Once a luxury, meat is now abundant in the Global North with consumption steadily rising in the Global South. The demand for cheap animal protein has created a *livestock-industrial complex*. This industrial scale meat production relies on the availability of cheap animal feeds, and environmental standards, which bow under industry pressure. An examination of the countless facets of meat production and consumption brings global issues into sharp focus. The production and consumption of meat offers an excellent introduction to the greater issues of globalisation and interconnectivity.

### Why is the production and consumption of meat relevant in a global context?

#### Use of Farmland for Livestock Production

Keeping and growing cattle, pigs or poultry for meat consumption requires a lot of land, not just in terms of actual space for the animals, but also land to grow grains to feed these animals. Globally, nearly one-third of the world's 14 billion hectares of cultivated land is used to grow animal feed, and three-quarters of all cropland is used to produce animal feed in some way. All in all, livestock production accounts for 70% of all agricultural land.

As the production of animal feed is now more and more separated from the meat production, farmers rely on artificial fertilizers and pesticides for their fields instead of manure – which adds to the degradation of the soil, but also to the health risks associated with the chemicals used in fertilizers and pesticides. With soil quality decreasing, the yields of soy, corn, wheat and rice are stagnating, which according to a recent study is likely to be attributed to the intense production of animal feed.

#### Environmental Impact

Environmental and health concerns, as well as social and economic inequities, characterize current industrial meat production techniques. The consequences of these methods are felt globally. They include native land degradation, coastal 'Dead Zones', and decreased flora and fauna diversity, health issues due to meat overconsumption, especially from the diet and over-immunization of livestock reared in feedlots, and social problems driven by the need for cheap grain to satisfy the global demand for cheap meat.

Increased demand for meat has resulted in vast native *land degradation*. With former grazing lands occupied or depleted, livestock producers are carving their places in untrammelled environs. Worldwide, this phenomenon has stripped the earth of rare resources: rainforests, rangelands, and riparian zones. Furthermore, livestock introduction has overwhelmed fragile ecosystems with non-native flora and fauna, and the addition of chemicals and nutrients to the soil and watershed.

Increased chemicals and nutrients, from livestock production and livestock feed production, have caused coastal 'Dead Zones' to emerge worldwide. 'Dead Zones' are found in the Gulf of Mexico, the Baltic and Caspian Seas, on the east coast of Vietnam and the west coast of the United States. They are characterized by high levels of phosphorous and nitrogen in coastal waters due to runoff from agriculture and livestock production. Excess nutrients cause the over-production of algae, bacteria and aquatic plants. These aerobic organisms deplete the oxygen from seawater. The resulting 'Dead Zone' is rendered inhospitable to other marine life.

Large-scale industrialised meat production also wipes out a wide *diversity of species*; the variety of livestock has dramatically reduced, as has the variety of grains for feed.

#### Genetically Modified Crops, Antibiotics and Pesticides

Wherever a large quantity of animals is being kept on a small space, the risk of illness is high. For this reason, antibiotics are given to prevent livestock from catching diseases. Animals are usually given

the same kind of *antibiotics* that humans take, which implies the risk that bacteria in animals mutate and become resistant to the antibiotics. These resistant bacteria can then enter our bodies when we eat meat. Antibiotics will then be ineffective, since the bacteria have already developed a resistance to them.

Large-scale industrialized meat production requires intensive agriculture to cultivate animal feed. Even though animal feed varies across the globe, the demand for soy has more than tripled globally since 1980. Intensive agriculture of one crop requires large amounts of fertilizers and herbicides to kill weeds. Only genetically modified crops are tolerant to these herbicides and thus are widely grown in large-scale farms

#### A Question of Power?

Meat production is more and more controlled by large international companies that push small-scale meat producers off the market. JBS SA, a Brazilian beef company currently counts as the largest meat producer globally, having acquired meat and poultry producers in the USA, Australia and Europe. It has the capacity to slaughter 85,000 head of cattle, 70,000 pigs, and 12 million birds per day worldwide. Its meat is distributed in 150 countries. Its food sales reached more than 38 billion USD in 2012. The increasing intensification and corporate consolidation of meat production threaten the existence of small-scale farmers and meat producers, who simply cannot compete with the prices of the multinational meat corporations. Highly intense agriculture also brings with it an intensification of pesticides, herbicides, fertilizers and animal feed production – all equally part of the global corporate structures to a large extent. Large-scale intense meat production is dependent on affordable prices of grains for animal feed – which in turn are volatile and subject to international speculation. This affects not only the large-scale meat producers, but also has a huge impact on food security for millions of farmers who depend on grains as basic staple of their diet.

#### Destruction of Local Markets

The overproduction and cheap export of mass-produced meat is a danger to local markets in many countries. Globally, chicken meat is gaining increased popularity, but especially European consumers favour chicken breast over chicken wings, which leads to large excess of chicken wings. These are then dumped on the African market, where local chicken farmers have no possibilities to compete with the prices of the cheap imported meat.



**PART 1 EXPLORING THE ISSUE AROUND MEAT**

**ACTIVITY 1 Exploring the topic – What is Meat?**

<p><b>Overview</b> This activity will introduce the group to the topic of meat by encouraging the participants to think about types of meat, meat dishes and about changing eating habits.</p> <p><b>Goals</b></p> <ul style="list-style-type: none"> <li>• Explore different kinds of meats</li> <li>• Reflect on changes in eating habits and their social and cultural dimension</li> </ul> <p><b>Time Requirements:</b> 1 hour, but can be divided into 2 parts</p>	<p><b>Group size:</b> 10 – 30 people</p> <p><b>Age Group:</b> 12+</p> <p><b>Materials Needed:</b></p> <ul style="list-style-type: none"> <li>• paper cards (A5 or smaller)</li> <li>• markers</li> <li>• coloured stickers</li> </ul> <p><b>Preparation:</b> You don't need to prepare much, just have the material ready.</p>
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**Instructions**

**Step 1:** Divide the group into 2 smaller groups. Each group gets a set of empty cards and markers to write on. Now ask both groups to think of as many types of meat and meat dishes as they can, noting each one on a different card. The groups have 5 minutes for this brainstorm. You could turn this into a small competition and give a prize to the group that comes up with the higher number of meat types and dishes.

**Step 2:** In plenary, gather all the cards and try to cluster them together. You could do this on the floor, or on the wall. Read them all again, and ask the group to point out those that represent a rather traditional dish in their country or region. As they mention a dish, ask the participants to stick a colourful sticker dot on the corresponding card. Allow for discussion in the group about what is traditional and what might not be.

**Step 3:** Divide the group in smaller groups, and ask all groups to think about how our habits of eating meat have changed over the years. You can prompt the groups by asking them to try and remember what dishes their grandparents, or other older friends and family members used to cook, and what they eat now. What has changed? Ask the groups to discuss the changes in eating habits, and think of changes in relation to:

- o *The social aspect* of food and meat – did you used to have a Sunday lunch? What about your parents/ grandparents? How and when do you eat meat? Alone, as a quick lunch (burger, kebab...), every day, or as family meals...
- o *The cultural aspect* of meat – what kind of meat dishes did you identify as traditional? What do people eat nowadays?
- o *The way* in which animals are being eaten – using a whole animal with all its parts for different dishes, using only chicken breast...

**Step 4:** Give each group 15 minutes to discuss and then have a joint discussion in plenary about the changes in eating habits. What has changed? Did they change for the better? Why? Why not?

**Debriefing and Reflection**

There are many different ways in which meat is consumed, and habits have changed quite significantly over the past decades. Reflect together with the participants:

- *Was it difficult to think of meat dishes?*
- *How have habits changed?*
- *Why do you think these habits have changed?*
- *What problems/ challenges arise from the change of meat-eating habits?*

**Tips for the facilitation**

You could either do this activity all in one, or you could do Step 1 and Step 2 together, and Step 3 and 4 as a separate activity, depending on your time. If the group is small, you can work altogether instead of splitting into smaller sub-groups.

**Follow-Up**

This activity can be followed by any of the activities in this chapter. You can also follow the activity with a joint dinner, either a traditional meat recipe or maybe a modern or even a vegetarian dish, based on discussions within your group.



## ACTIVITY 2. Debating Meat

### Overview

This is an interactive debate, where participants are asked to express their opinion about certain statements related to meat by positioning themselves along an imaginary line, according to how much they agree or disagree with a statement, and are then given the opportunity to engage in a discussion about their position.

### Goals

- Reflect on own opinions and understandings of meat production and consumption
- Engage in a lively but structured discussion around various aspects of meat

**Time Requirements:** 20 minutes

**Group size:** 10 – 30 people

**Age Group:** 12+

### Materials Needed:

- list of statements
- big 'Agree' and 'Disagree' signs

### Preparation:

Stick the 'Agree' and 'Disagree' signs on opposing walls in the room. Have the list of statement easily available for you to read. You could also print them large enough for participants to read.

### Instructions

**Step 1:** Explain that there is an imaginary line connecting the two extremes, 'Agree' and 'Disagree'. You will be reading out statements, and participants are asked to position themselves on the imaginary line, according to how much they agree or disagree with the statement.

**Step 2:** Once everyone finds their spot, you will ask for a volunteer from each side to share her/his position. Allow for debate among the group.

**Step 3:** After several people have been heard, ask if there is anyone who would like to change their position based on the arguments heard. Move on to the next statement.

### Debriefing and Reflection

This activity mainly aims at stimulating discussion in a safe and controlled space. You can facilitate a brief reflection using the following questions:

- Did you find it easy to position yourself along the imaginary line? Why/ why not?
- Did the discussion make you think of something you had not thought of before?

### Tips for the facilitation

If the entire group stands on one side of the imaginary line, ask for a volunteer to represent the opposite view – how would that be formulated? What might an argument be? Remind participants that they are free to change their position as they are listening to each other's arguments. Also remind the participants that this exercise is not about knowing a right answer to a question, but simply about the discussion and exchange of opinions.

### Statements

1. It is good that meat is fairly cheap nowadays
2. The mass production of animal feed – like soy – is a good business opportunity
3. It is more important to buy local meat rather than buying organic
4. I am happy to eat less meat to save our climate
5. I like eating the same type of meat regularly
6. How farm animals are fed, doesn't affect me.

Agree

Disagree

## PART 2 GETTING DEEPER

### ACTIVITY 1 Creating 'live' Infographics

#### Overview

During this activity, participants will develop their own visual infographics to portray how much water and grains are needed to produce different types of meat.

#### Goals

- Visualise in creative ways the amount of water and grains needed to produce different types of meat
- Reflect on our meat consumption and its effects on the environment

**Time Requirements:** 40 minutes

**Group size:** 10 – 30 people

**Age Group:** 12+

#### Materials Needed:

- large number of cups/ glasses/ containers that are all of the same size
- bowls

- water and bottles/ jugs
- grains (or other small items to represent grains)
- Compass Rose
- signs with the different types of meat ('1 kg of poultry meat', '1 kg of pig meat', '1kg of beef')
- sheet with the control data

#### Preparation:

Prepare three different stations across the room, each with plenty of plastic glasses, a jug to fill the glasses with water, and bowls. Allocate one sign to each station. Ensure that the space you are using is suitable for potential spilling of water and grains.

Also prepare copies of the Compass Rose or prepare one large version on a flipchart paper for the discussion. Make sure that you have the control sheet easily available for yourself.

#### Instructions

**Step 1:** Explain that the aim is to show how much water and grain/ feed different animals require. Split the group into 3 sub-groups. Each group is assigned to one 'station' and is given the task to fill the glasses with water, and the bowl with grains according to how much they imagine is needed to produce 1 kg of meat. Once glass of water represents 1,000 l of water, and one grain represents 1 kg of grains.

**Step 2:** After each group is done, they are invited to look at the 'infographics' created by the other groups. Altogether they can discuss and modify the data. When they believe they have reached a result, reveal the actual numbers and ask a volunteer to adjust the water and grains accordingly

**Step 3:** Now, with the help of the Compass Rose, discuss what these graphics mean – what does the group think are implications for the environment? For the economy? For the society? And what do they think about the power structures behind the meat industry?

#### Debriefing and Reflection

After the discussion, take some time to reflect on the exercise.

- *What does data tell us? Are numbers alone sufficient? What helped you understand the meaning behind the data?*
- *What did you find most surprising in this activity?*
- *If such information would be more widely known, do you think it would influence people's eating habits?*

#### Tips for the facilitation

Since you are dealing with water, make sure that the room is suitable – otherwise you might want to do the activity outside.

If you have not done an activity with the Development Compass Rose before, you might want to take some time to explain it before using it as a guide for the discussion

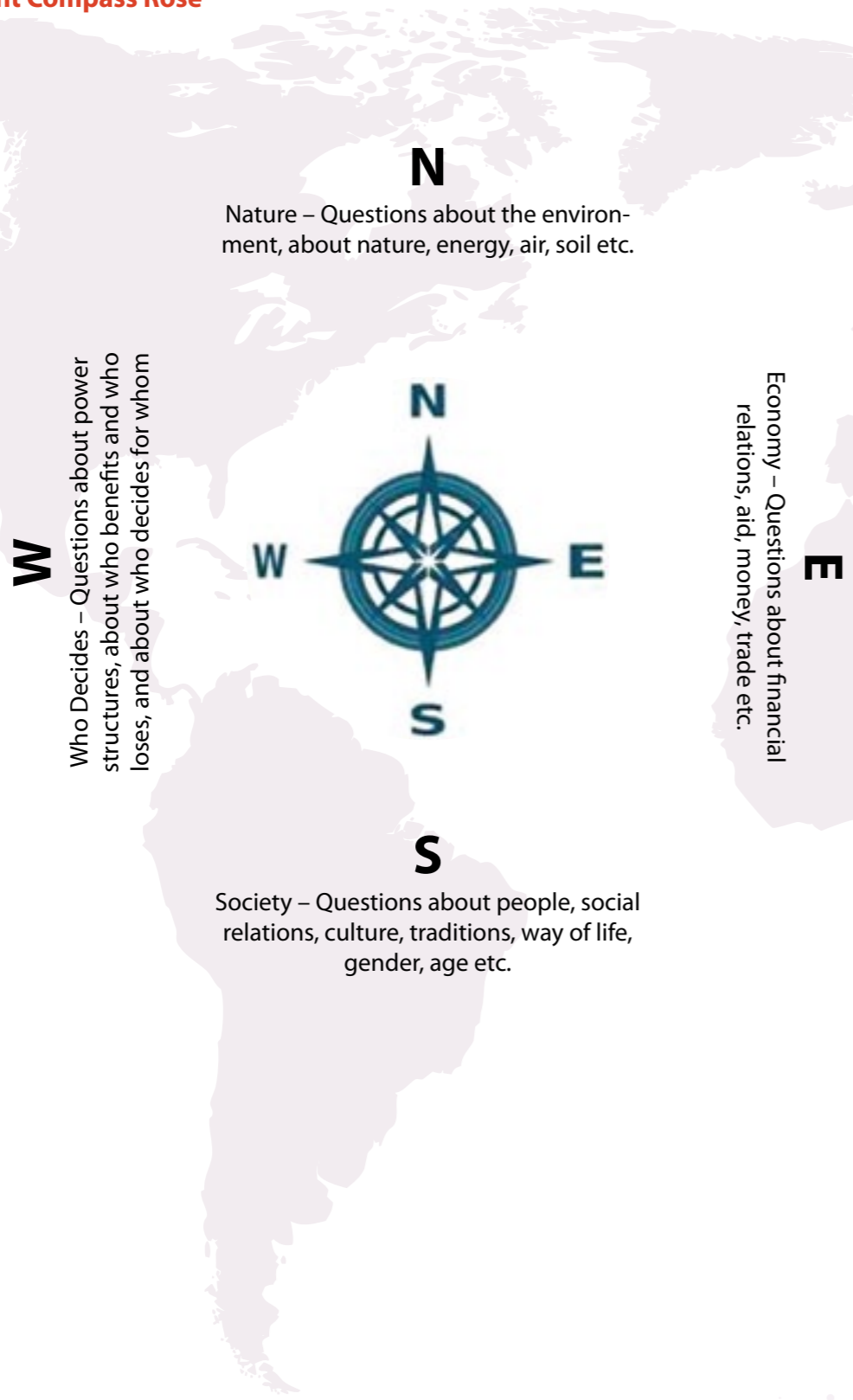
#### WORKSHEET

##### Control Data for Infographics:

1 kg of poultry meat	2 kg of grains 3,500 l of water	2 bowls of grains 3,5 cups/glasses of water
1 kg of pig meat	4 kg of grains 6,000 l of water	4 bowls of grains 6 cups/ glasses of water
1 kg of beef	7 kg of grains 43,000 l of water	7 bowls of grains 43 cups/ glasses of water



Development Compass Rose



ACTIVITY 2: Land Deals – Role-Play

Overview

This activity is a role-play during which participants will experience the negotiations between farmers, local government and a large farming enterprise about land to be used for mass soy production.

**Time Requirements:** 40 minutes

**Group size:** 10 – 30 people

**Age Group:** 12+

**Materials Needed:**

- Role cards

**Preparation:**

Copy the role cards so that there are enough cards for each participant.

Goals

- Explore the viewpoints of different stakeholders involved in land deals
- Better understand the different dimensions and the impact of land acquisition in the context of the meat industry

Instructions

**Step 1:** Split the group in 3 small groups. Explain them that they will represent different actors in a fictional country with increasing high exports of animal feed, such as soy and corn. A big farming enterprise now wants to acquire cheap land from the local government in order to turn it into large soy plantations. Hand each group a set of role cards. Give them 5 minutes to read. Each group now has ten minutes to discuss and note down several key arguments supporting their case.

**Step 2:** Ask the group representing the large farming enterprise to begin the negotiations with the local government. Both groups can exchange arguments and discuss.

Next, ask the Multinational Company to address the farmers.

After the initial sharing of opinions, let the group try to reach an agreement that is acceptable by all parties.

**Step 3:** Once a deal is found, ask participants to step out of their roles. How did they feel? Could they identify with their role? How might a similar situation have looked in real life? What might have been different? Can they relate to a similar situation in their own community? If so, was there any action by the people in the community?

How does the story relate to our meat consumption?

Debriefing and Reflection

Land acquisition is a critical development that is connected to the meat industry, which we might not be aware of when consuming our lunch or dinner. Since animals need to be fed intensively, large farming enterprises acquire more and more land in order to plant grains to turn into animal feed. Profit-hungry, they often turn to remote and cheap areas, buy or lease the land from the government and turn it into large monocultures. Small-scale farmers are being pushed off the land or pressured into selling their land. These monocultures bring a wide set of other problems with them, such as the intensive use of herbicides and pesticides, degradation of the soil and loss of biodiversity.

Debrief the activity by asking:

- How did you feel in your role?
- Did you feel you were being heard by the other parties? Could you defend your position?
- What do you think about the power structures? Who should have the say over land?



- What mechanisms do you think would be more beneficial to the local community?
- Whose interests are being promoted?

Have you ever witnessed any similar deals (even on a smaller scale)? What were the reactions?

**Tips for the facilitation**

You could alternatively have several parallel rounds of negotiation, with small teams of 3, and then share your experience in the larger group.

**WORKINGSHEET**

**Role Cards**

**Farmer**

You are a family of tenant farmers. This means that you do not own the land that you use for farming, but you have a long-term lease from the local government. Your farm provides you with most necessities. It allows you to sell some food on the local market, and also allows you to raise a few animals, for milk production and your family's meat consumption.

You have heard of big companies wanting to acquire the land that you farm. You are aware that farmers are not usually consulted in decisions like that and you don't have a lobby to defend your interests.

**Large Farming Enterprise**

You are representing a large farming enterprise searching to acquire cheap land from the government to expand its soy plantations. You are supplying one of the largest meat industries and demand for soy is continuously rising. You heard of cheap land that is owned by the local government and that would be highly suitable for planting genetically modified soy, which would produce 3 harvest a year with high yields at a decent price for you. It would add significantly to the export capacity of the country and would give new value for the currently under-used land.

**Government**

You represent the local government. You own a lot of the land that is being cultivated by local farmers. It does support the local population, but does not otherwise add much to the country's GDP. Other regions of the country have recently turned into large-scale soy and corn plantations for the lucrative meat industry, and you are quite excited when you hear that one of the large farming enterprises is interested in upgrading the land in your area. This would increase the value and economic significance of your entire region! Of course it might have long-term impacts on the environment, but at the moment your region is struggling and you will need to run for election next year, so an upgrade of the region, which would also bring new jobs with it, might help you re-election.



### ACTIVITY 3: GMO – News Report

#### Overview

During this activity, the participants will prepare their own news reports and act them out on the 'TV', highlighting the benefits as well as the dangers of genetically modified organisms in animal feed.

#### Goals

- Explore the topic of genetically modified organisms and their impact on our health
- Reflect on the bias of media and public information

**Time Requirements:** 1 hour

**Group size:** 10 – 30 people

**Age Group:** 12+

#### Materials Needed:

- Copies of the 'GMOs and Meat Production' fact sheet
- Table and tablecloth
- TV-sign reading 'Community Evening News'

#### Preparation:

Copy the fact sheet for the participants. Prepare the room so that it will resemble a TV studio – you could either do that yourself, or ask the participants to help you. Depending on your group and their interest, you could get very creative!

#### Tips for the facilitation

Depending on the size of the group, you could split the group into four smaller groups and then have two groups prepare a report on the benefits, and two groups prepare a report about the risks. You might also allow the group to use the internet for further research to support their news report.

#### Instructions

**Step 1:** Divide the group into two smaller groups (or, if the group is very large, split into four sub-groups). Both groups read the 'GMOs and Meat Production' fact sheet. One group is asked to prepare a news report about the benefits of GMOs, whereas the other group is asked to prepare a report about the dangers and problems of GMOs. Tell them that they will be on the 'Community Evening News'. The groups have 30 minutes to prepare and rehearse their News Reports. You could have arts and crafts material as well for them to use if needed. Each group should designate a presenter.

**Step 2:** Set up a table with a tablecloth as the TV News-table. Place the TV sign in front of it, and/or decorate and prepare in any other creative way the group might enjoy. As the youth leader, you can take the role of the main news-presenter, announcing the breaking news about genetically modified organisms and hand over to the first group to present their news. All other participants watch as the audience.

**Step 3:** Next, invite the second group to present their version of the story. Invite all participants to sit in a circle and discuss what they liked, and what was different. Which side was more plausible? Discuss how media and news reports often only show one side of the story, and how much power is connected to the selection of information.

#### Debriefing and Reflection

Debrief the activity by asking the following questions:

- How did you like presenting your side of the story?
- What surprised you?
- Who do you think would be interested in broadcasting the one or the other version of the story?
- Can you think of other examples, where the media report was biased? Whose interest did it serve?
- Which would be the more likely version on real TV? Why do you think that?
- How do you feel about GMOs and the consumption of meat that contains GMOs?
- What have you learnt?





### The Use of GMOs in the Meat Production

*(text from: Meat Atlas: Facts and figures about the animals we eat. Heinrich Böll Stiftung, Friends of the Earth Europe, 2014. Page 38-39)*

The mass production of animals in the European Union depends largely on feeding them with soybeans, and especially genetically modified (GM) soy. The only “positive” effect of the genetic modification is that it makes the soy plant resistant to glyphosate. This is a broad-spectrum herbicide used to kill any plant on the field unless the plant is genetically modified to tolerate it. Glyphosate is the world’s best-selling chemical herbicide. It was patented by the US company Monsanto in the 1970s, and marketed under the brand name Roundup. Monsanto, the world’s largest seed producer, produces more than half of the world’s glyphosate. In 2011, this substance accounted for 27 percent of the company’s total net sales. [...] Monsanto introduced “Roundup Ready” crops that were genetically modified – and resistant to glyphosate. Promising an easy-to-handle weed-control program, Monsanto encourages farmers who grow Roundup Ready soy, maize and sugar beet to buy the company’s corresponding herbicide. Glyphosate-resistant soybeans are the world’s best-selling GM crops. Currently about 85 percent of the worldwide cultivated GM crops are herbicide-resistant, and the vast majority are Monsanto’s Roundup Ready varieties. In 2012, nearly half of all GM crops grown worldwide were Roundup Ready soybeans. Cultivated in South and North America on approximately 85 million hectares, and exported mainly to China and the European Union, glyphosate-resistant soybeans are used to feed poultry, pigs and cattle in intensive livestock production. A loophole in the EU’s GM labeling laws allows meat, dairy and eggs produced with GM animal feed to be sold without a GM label.

Why should meat eaters worry? Because glyphosate residues might be present at low levels in animal products that people consume, and because there are growing doubts about the health safety of glyphosate. The problem is that glyphosate is a systemic herbicide. This means that it moves throughout the plant into the leaves, grains or fruit. It cannot be removed by washing, and it is not broken down by cooking. Glyphosate residues remain stable in food and feed for a year or more, even if it is frozen, dried or processed.

This means that livestock fed with GM soy eat huge amounts of glyphosate residues. Industry studies show that when animals are fed glyphosate at levels allowed in feed, residues may be present at low levels in their milk and eggs, as well as in the liver and kidneys. The European Food Safety Authority (EFSA) is planning to examine the issue of glyphosate residues in animal products. These include meat, because considering the wide use of glyphosate on feed crops, “a significant livestock exposure to glyphosate [...] might be expected, resulting in a carry-over of residues in the food of animal origin”, EFSA announced.

The US Environmental Protection Agency increased the legal limit for glyphosate residues in soybeans from 0.1 milligrams/kilogram to 20 milligrams/kilogram in 1996. This subsequently became the international maximum residue level. This change was made in the year the first GM crops were grown. Evidence suggests that one percent of the glyphosate remains in the body a week after exposure. Because glyphosate is so widely used, most people are exposed to it on a regular basis. But “real life” exposure to glyphosate, meaning long-term uptake in low doses, has never been investigated. And up to now there has been no official testing in the EU of glyphosate residues in imported GM soybeans.

### PART 3: FURTHER INFORMATION

- Friends of the Earth Europe: The Meat Atlas:  
<http://www.foeeurope.org/meat-atlas>
- Oxfam Australia, GROW initiative, exploring the global food system and its challenges:  
<https://www.oxfam.org.au/grow/>
- Food and Agriculture Organisation of the United Nations (FAO), with lots of information and statistics about meat production and consumption across the globe:  
<http://www.fao.org/ag/againfo/themes/en/meat/home.html>
- or go to our website for more activity ideas at [www.youthoftheworld.org](http://www.youthoftheworld.org)

