

For Teachers

ResourceRation – A Serious Board Game

Module 1

Solutions for Questions for Students After Playing The Game



Additional materials

- See the document “Teaching Materials for Preparation and Follow-up” for info on all modules of the toolkit.

Appendix: [02_Teaching materials_ResourceRation.pdf](#)



Solutions for “Questions for Students After Playing The Game” - Module 1-Student’s Card

Possible answers

- Give two examples of resources that are particularly rare or already overused and explain why these resources are being overused and what problems this will cause:
 - **Land / Soil:** In some places around the world, land is starting to run out. On the one hand, the ever-expanding cities are consuming the land, and on the other, more and more land is needed to feed the world's growing population. In addition, land from poor countries is increasingly being bought up by rich countries.
 - **Sand:** Sand is also becoming scarce in many places. Sand is added to concrete and used in rough quantities. As this sand is lacking in the seas, beaches are disappearing and islands are slowly sinking.
- Give two examples of resources, which have negative effects on the environment when they are (over)used. Explain why these resources become problematic for people if they are used too much.
 - **Petroleum:** Burning petroleum for transportation or energy production produces large amounts of greenhouse gases and thus promotes climate change. If climate change and greenhouse gas emissions from fossil fuels like oil are not stopped, the consequences for humans and the environment will be catastrophic.
 - **Wood:** If we use too much wood and thereby destroy our forests, we lose an important reservoir of greenhouse gases, important ecosystems and recreational areas. Sustainable wood use, on the other hand, can help us save greenhouse gases and protect ecosystems.

For Teachers **ResourceRation – A Serious Board Game**

- Explain three factors (as seen in the game) that contribute to the overuse and/or unfair distribution of a resource.
 - Without dialog between the users of a resource, the focus is on their own profit motives. This leads to everyone diverting as many resources as possible for themselves, and the resource is therefore overused.
 - The absence of rules for community use and fair sharing of resources further encourages this.
 - The lack of an entity that implements the rules for collaborative resource use makes it difficult to establish and adhere to any rules.
- Name three different strategies to fulfil the needs of society without overuse of resources and elicit their advantages and disadvantages for society, economy and the environment:

- **Sufficient consumer behaviour**

	For society	For economy	For the environment
Advantages	- Non-material needs are more in focus. - Less dependence on possessions and a smaller gap between rich and poor.	- Production of more long-lasting goods with a higher quality	Decreasing use of resources → Less impact
Disadvantages	Sufficiency is often seen as renouncement → negative association	Decreasing productivity → Growth is no longer the main focus	

- **Efficient processing of resources and technological solutions**

	For society	For economy	For the environment
Advantages	- Lower costs for the same product - No behavior change necessary	- Lower costs with higher output - Potentially increasing consumption through money saved	- Conservation of existing resources
Disadvantages	- increased consumption due to rebound effects	- Investment costs in new systems and technologies	- Potential rebound effects

- **Circular economy and use of alternative resources**

	For society	For economy	For the environment

For Teachers **ResourceRation – A Serious Board Game**

Advantages	<ul style="list-style-type: none"> - Less dependence on fossil raw materials - Less ownership needed through sharing and reusing 	<ul style="list-style-type: none"> - New economic sectors emerge - Lower costs over the entire product life cycle 	<ul style="list-style-type: none"> - Decreasing demand for primary raw materials - Lower CO2 emissions
Disadvantages	<ul style="list-style-type: none"> - We have to rethink our behavior 	<ul style="list-style-type: none"> - Established and powerful companies lose importance - Old economic system is being challenged 	<ul style="list-style-type: none"> - In some cases, more energy is needed to manufacture products

• Political regulations, incentives and sanctions

	For society	For economy	For the environment
Advantages	Clear guidelines for all	Same rules and standards for all companies	Quick and concrete goals. According to the measure, large positive impact on the climate.
Disadvantages	Encroachment on the freedom of the population (potentially low acceptance / approval)	Restrictions (potentially low acceptance / approval)	Persuasive or cooperative instruments have a relatively small impact on leverage