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Younger Generations and Sustainability: productive or counter-productive relationships?

(Subtheme 1)

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The discussion about sustainable governance is all but new. The basic assumption of the paper is the necessity to understand the observation, that all the talk about this topic had only little impact on public policies and their administrative implementation.

1. The paper starts with a short review of the discussion initiated by the “Club of Rome” more than 40 years ago about the limits of growth as a key problem of sustainability. What follows is a short reconstruction of the development of the economic growth ideology, its driving forces and its consequences.

2. The second part will refer to two aspects which have accompanied this development: narrow and short term views concerning the global development. It will choose observations in the field of environmental politics as examples – in order to describe the restrictions which these two aspects have imposed on issues of sustainable development.

3. By using these background information a regional strategy in Germany is described in the third part: the development of an Umweltschutz-Plan (environment protection plan - 2015) – designed as a participatory approach towards the implementation of the Umweltschutz-Gesetz (environmental protection law) in Northrhine-Westfalia (Germany from 2013).

4. Are there any indications from the research results that special care is taken to include the younger generations into the processes of sustainable governance which concerns their future? Part 4 concentrates on this specific element in recent communications about the sustainable (climate) governance (in the future). The element can be symbolized by the preface to the book “2052” (Club of Rome): “for our children and grand-children”. However, the paper takes a slightly different approach by indicating, that these and many other communicators of the same message have missed their chance to improve the situation concerning future developments and failed to mobilize the younger generation on this behalf. The paper, therefore, summarizes data (Shell-Jugendstudien / Shell-youth-surveys etc.) about the orientations of the youth toward environment/climate issues.

5. The final part includes a summary and describes some options for improving the involvement of young people in the process of sustainable governance.

Younger Generations and Sustainability: a productive or counter-productive relationships?

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Paper to be presented at the IIAS-Conference 2016 in Chengdu, China

(Subtheme 1 //Strategic Visions and Priorities for Sustainable Governance //)

1. The report to the Club of Rome: 1972; 2012: 2052 describes the line of development 4
2. Specifics of sustainability in the context of climate change 8
3. Recent German initiatives: Umweltschutzplan NRW 13
4. Sustainability as a concern of younger generations (?) 20
5. Conclusion 26

The discussion about sustainable governance is all but new¹. The starting assumption of this paper is the necessity to describe and explain the observation, that all the talk about this topic had only little impact on public policies and – especially - their administrative implementation. With other words: before starting with more global or national action plans and projects we should have an idea why all the agendas and plans, watch-organizations and indicators have failed so often to make a sustainable impact on the development of modern societies.

Among the problems we can identify, the meaning of the term and concept of sustainability is of special relevance. As soon as this term has begun to articulate a specific concern of global development it has been “captured” by various stakeholders: many actors are *nodding*, but are *doing* quite the opposite. Many arrangements and products which use the label sustainability might not hold their promises. This makes it necessary and complicated to argue on the basis of a common understanding of the concept. For the following observations the term sustainability will be used in the way the Brundtland-Commission (WCED 1987: 43) has defined it:

¹ An account of the discussion in Germany (in the international context) is given in *Nachhaltigkeit* (2014).

“Sustainable development is a development that meets the needs of the present without compromising the ability for future generations to meet their own needs”.

Two concepts/issues are included: needs of world population and limitations of environmental capacities. These terms are often re-phrased in terms of intra- und intergenerational justice.

This definition is still widely accepted, because it seems to be open for conceptual adaptations over time – by referring to new states of needs und limitations. Important for our topic are the issues of global concern (Rio Declaration 1992) and the participation of all societal groups – especially during implementation processes (Agenda 21 topics).

1. The report to the Club of Rome: 1972; 2012: 2052 describes the line of development

The paper starts with a short review of the discussion initiated by the “Club of Rome” more than 40 years ago about the limits of growth as a key problem of sustainability. What follows is a short reconstruction of the development of the economic growth ideology, its driving forces and its consequences.

A review of the debates and declarations over time (f.e. Hölz 2012) describes a process of the perception of increasing complexity. In part it may indicate a growing awareness of the natural and human factors involved. However, it could also be interpreted as an attempt to “disguise” the increasing conflicts included: between different interests involved as well as the diversity of societies/states affected. The basic lines of conflicts are between rich and poor, north and south, younger and older generations, developed and less developed countries, functioning and failing states. On the background of these semantics it can be expected, that the attempts to solve any of the problems – f.e. by proposing *institutional reforms* - are not very promising. The Agenda 21 is a good example for this type of propositions: financial resources for capacity building; science and education for promoting sustainable development; information for decision making; setting up commissions.

In Germany we have a saying for this: „Wenn du nicht mehr weiter weißt, gründe einen Arbeitskreis“. With other words: commissions, reports, declarations and conferences will pile up ever more paperwork – with little or even no effect. These observations can be used as possible starting points for an abstract reconstruction of these processes. A complex scenario is developed in the new report to the Club of Rome (2012). Looking forward towards the midst of the century five question are raised: end of capitalism?; end of economic growth?; end of “slow” democracy?; end of the consensus between generations?; end of a stable climate? The consequences of wrong decisions will be witnessed in the second part of the century – with two versions: guided decay or a breakdown triggered by nature. The key factors influencing the detrimental process are population growth, overuse/destruction of natural resources by economic growth and mass consumption. The conclusions are quite strict: the narrow view of capitalism and democratic procedures concerning short term benefits will result in a lack of necessary decisions with regard to long term effects (Online-text, p.90%).

The key issue or the red line of the sustainability debate is the *contradiction between economic growth and the limitations of the natural habitat* - which ends up in persistent conflicts about the distribution of scarce resources, worldwide.

A look at the UN Agenda 2030 (Sustainable Development Goals) shows a mixture of perspectives which – so far at least – have shown up as *contradictory*.

- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts

It is more than questionable whether these goals can be harmonized by putting the word “sustainable” into each goal specification. To pick up one example: Goal 12 does not indicate clearly enough, that many developed countries have to share their wealth with less developed countries, and that the standards of consumption have to be reduced. The trend in the “emerging market countries” (BRICS) is quite the opposite². The same holds often true with regard to motives for migration: seeking a better life of extended consumption. And, in addition, the technological progress does not always support the sustainability goals: there are many rebound effects.

All this can be related to the more specific elements of goal 12.

Goal 12. Ensure sustainable consumption and production patterns

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

12.2 By 2030, achieve the sustainable management and efficient use of natural resources.

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

² A personal observation can be included here. On a touristic tour in Hong Kong, the tour guide explained the “vision” of the population in East Asia: to become rich as fast as possible. She also added that her husband has an additional dream: to visit all the Disney Lands of the world.

No doubt, this list contains many important aims – but no ideas how to implement them. This might even be the typical occasion, in which the following phrases will be cited: “We do not allow our living standard to be questioned”; or: “Why are we going to drive the same cars in the next 200 years?: because we want it”; - and the like. To pick up some other examples – from Germany: 1. companies are successfully opposing sustainability standards in public procurement procedures; 2. each person uses 71 plastic bags per year (average in the EU: 178): although the negative effects on the environment are well known, it seems to be impossible to stop the use of the bags; 3. the scandal about manipulated emission rates in cars (VW etc.) has revealed, that public (control) authorities have known at least some of the facts since a long time – and did not intervene; 4. there are many new applications of German airports to extend their territory and number of flight slots; 5. every day 78 ha of land are being sealed in Germany; 6. there was an “outcry” in the public when the Green Party suggested to introduce *one* veggie day each week in public canteens (“eco-dictatorship”); 7. ever earlier children are “trained” as mega-consumers by electronic media advertisement³.

The (possible) solutions for those conflicts are also prevailing topics for a theoretical discourse: on the level of decision making processes the discourse concentrates on the “common pool” resources and the “tragedy (i.e. overuse) of the commons”. In the context of rational choice models the Nash-Equilibrium is seen as the expected outcome: opportunistic short term benefits are dominating the choices. The key problem of these models is the *normative* turn: the “prognosis” is turned into an advice. From this point of view the only alternative is seen in a hegemonic (despotic) power structure. Elinor Ostrom argues against these propositions. She claims that there are *various modes* of rational behaviour. To improve cooperative behaviour she proposes four mechanisms: direct (inter-personal) communication; sanctions against opportunistic behaviour; establishing a learning background for cooperative behaviour (starting

³About 200 billion US\$ are “invested” worldwide into advertisement.

in schools); good examples of altruistic decisions – to strengthen cooperative principles (Ostrom/Walker 2003, 19pp).

To circumvent such a direct confrontation many suggestions and practical attempts have been made to identify co-existing modes of “sustainable” production and consumption: ecological productions processes, energy saving and efficiency, renewable energy and other technical innovation, recycling strategies etc. The risk-centred discourse has changed towards a discourse of potentiality, the strategy of fostering resilience. The UN agenda is just one example. Many ideas - but limited effects: the “Earth Overshoot Day” comes up already in August (the 13th in 2015) and moves evermore towards the beginning of each year. The resources which are used until the end of the year are taken from the planet’s substance and from future generations.

In an even more abstract perspective – the system theory of Niklas Luhmann – all the attempts to coordinate or even integrate sustainable goals and activities are not functioning in the complex “post-modern” world. Complex problems cannot be solved in an integrated way. Sustainability has to be part of different *functional subsystems* (politics, economy, science, health, education, religion, law, civil society, family etc.) which apply their own special code of communication. Those functional subsystems organize their observations of the societal environment and might irritate other systems with regard to sustainable processes. By this, the role of the sustainability concept cannot be much more than a horizon and a “directing device” for communication. In spite of lots of “window dressing” it still has to be seen whether this “directing device” will become a substantive part of the communication in all functional subsystems (Hölz 2012, 190pp).

2. Specifics of sustainability in the context of climate change

The second part will refer to two aspects which have accompanied this development: narrow and short term views concerning the global development. It will choose observations in the

field of environmental politics as examples – in order to describe the restrictions which these two aspects have imposed on issues of sustainable development.

The selected elements of the debate about sustainable development have indicated that the increasing occasions and numbers of communication have promoted its character as an “empty signifier”. A specification of the selected concern and focus of an argument is ever more necessary to understand risks and options for further trends of development. There are many problems which are easy to define and not too demanding with regard to technical and/or administrative solutions: like using renewable materials avoiding destructive behaviour which is followed by high costs for repair, avoidance of dept-compilation, internalizing environmental costs into product prizes etc. Similarly with regard to territory and/or population variation: water circulation, local energy and food supply, recycling of waste instead of burying it or polluting rivers with it ---and others. However, all this is much more complicated with increasing interdependencies between action areas, with regional or even global overlap or diffusion and with long-term impacts (even possible disasters) which in part are difficult to foresee.

Such a scenario is often typical for issues which are related to *climate change* - because of its global and long term dimensions. Especially with regard to water (oceans) and air the men-made pollution and warming effects of climate change triggers long term scales: loss of land, desertification, water shortage, rise of sea level, loss of fishing opportunities etc.

Therefore, the list of concerns and actions to be taken is long, as the Agenda 2030 shows:

Goal 13. Take urgent action to combat climate change and its impacts*

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

13.2 Integrate climate change measures into national policies, strategies and planning.

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context

of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries.

14.b Provide access for small-scale artisanal fishers to marine resources and markets.

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want.

The irritating aspect of this list is the observation, that all these propositions are not new. Two examples: 1. Since many decades Japan (as well as Norway or Iceland) resists an international demand for stopping whale hunting – pretending that it is a research project. The same is true

and even more severe: the hunting of sharks. 2. Among the voters for Brexit in the UK are many fishermen who do not accept any fishing restrictions - defined by the European Union.

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products.

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.

15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

The background paradox of the long list of necessary action concerns the existing/possible “predictions” of some (climate) developments on one side and the continuous inability to solve the conflicts over priorities, distributive justice, responsibilities etc. on the other side. A special topic is related to the question, how different parts of the world are affected by climate change, whether the polluters are also the most affected – and – finally - whether we all are somehow sitting in the same/one boat (earth). This latter question draws the attention to the possibility of

a small group of very rich people, to organize their survival individually – f.e. by buying a shelter in one of the missile-silos (US) or an “island” in the orbit, as the movie “Elysium” describes.

Although it might be said, that climate change-effects are more severe “nudges” for taking action in the sense of sustainable governance than for example the future lack of oil or special minerals, the trust in adequate action in due time is rather low.

The results of the almost “last hope” – the “UN climate change conference” (Paris 2015) – are ambivalent, at best.

To keep the global warming below 2 degrees Celsius is one of the most important goals of the conference. Although the Paris Agreement (of 196 parties) had been signed by 174 directly in Paris, the real challenge is the agreement of 55 countries which together represent 55% of global greenhouse emissions. This is not yet done. And furthermore ([Wikipedia 2016](#)):

Prior to the conference, 146 national climate panels publicly presented draft national climate contributions (called "[Intended Nationally Determined Contributions](#)", INDCs). These suggested commitments were estimated to limit global warming to 2.7 degrees Celsius by 2100. For example, the [EU](#) suggested INDC is a commitment to a 40 percent reduction in emissions by 2030 compared to 1990. The agreement establishes a "global stocktake" which revisits the national goals to "update and enhance" them every five years beginning 2023. However, no detailed timetable or country-specific goals for emissions were incorporated into the Paris Agreement– as opposed to the previous Kyoto Protocol. It is evident, that any more ambitious goal would further increase the restrictions and controls of emissions: If 1.5 degrees average warming are focused, the zero-emission situation would have to be reached in the midst of this century. Without any control and enforcement strategy available, this goal will most likely not be reached.

Another aspect should be mentioned: even if the goals are followed, this will not stop the existing and future worsening effects and costs of climate change: rise of sea-level, heat, heavy rain and storms, desertification, crop failure, diseases etc. Therefore, compensation payments (etc.) are part of the agreement. For example: starting in 2020 each year 100 billion US\$ (until 2025) should be made available for poor countries. The paradox with such a concept is that it indirectly acknowledges the deficiencies or even an anticipated failure of the whole “project”. Climate change and its consequences could be interpreted as a calculable risk: as a job for risk insurance companies. However, this omits the unpredictable implications – often described as “tipping points” (melting of the arctic area or the permafrost soil in Russia). Somehow, these possibilities suggest that the strongest impact on sustainable solutions could come from fund management and risk insurance companies: taking off any money from companies/projects/products with climate change hazards (i.e. carbon based industries).

3. Recent German initiatives: Umweltschutzplan NRW

By using these background information a regional strategy in Germany is described: the development of an Umweltschutz-Plan (environment protection plan - 2015) – designed as a participatory approach towards the implementation of the Umweltschutz-Gesetz (environmental protection law) in Northrhine-Westfalia (Germany from 2013).

Environmental policies have a long tradition in Germany – starting in the 1960; one of the manifestations in a legalistic public system (like Germany) is the number of laws and decrees: 82/165. This has lead to attempts to formulate a law book which integrates all the issues and goals – however without success so far⁴.

⁴ It should be mentioned that this failure was the consequence of a conflict between political/administrative levels: the national level was suspected to strengthen environmental standards.

In spite of the many issues concerning environmental questions some dominant topics or trends can be observed. In Germany as elsewhere there is a new concern with climate (change) – which might have global causes – especially CO₂ emissions - and global consequences. Many controversial debates are centring on questions about the relative importance/impact of the „human footprint“, and about adequate locating causes and consequences (at quite remote places). The conclusions are referring to aspects of mitigation as well as of adaptation.

Mitigation has been enforced by the Fukushima (Japan, 2011) accident. It accelerated the shift away from atomic power (which was always accompanied by controversial debates) towards renewable energy production (esp. solar and wind). The overall policy shift is called „Energiewende“ (energy turn).

- In the context of a major policy shift like the energy turn, the political and administrative architectures and procedures become especially visible. This includes the governance character as well as the multilevel architecture. The energy turn addresses many issues: the shift towards renewable energies – away from coal and nuclear power plants; the saving of energy (reduction of energy consumption – passive and active) and the increase of energy efficiency – of all kinds of machines.
- As energy use is present in all aspects of everyday life the policies address many actors in public administration, business, science, technology-development and civil society. In this context the multilevel (federal) architecture and the different types of actors and organizations: state, semi-state structures - like chambers of commerce, chambers of handicrafts; specialized agencies etc.; private enterprise; voluntary organizations, private households (as owners and or consumers). The network character (governance) allows for many forms of information exchange, initiatives, resource transfers, competition concerning effective solutions etc.

- As it is difficult to anticipate all kinds of problems in such a major policy shift there is the necessity to monitor and readjust the development continuously.

Chart 1

As a recent example for these complicated interlaced, sometimes piecemeal like activities the case of the Climate Protection Law from 1/2013 in North Rhine Westfalia (NRW) and its development of a climate protection plan; these processes are characterized by a multi-level participation strategy of many different actors (including the general population).

§3 Klimaschutzgesetz

defines the goals of climate protection (“Klimaschutz-Ziele”)

- (1) Emission reduction (base 1990) by 25% (2020); by 80% (2050).
- (2) Measures/action: protection of resources; energy saving; priority of renewable energy ; energy efficiency
- (3) Limitation of negative effects of climate change by sectional/regional adaptation

§ 6 of the law defines the development of a climate protection plan:

* The state government develops under a comprehensive participation of societal stakeholders and communal associations the climate protection plan, which will be finally decided upon by the NRW parliament.

*First version of the plan 2013; revision every five years.

* Goals: reduction of emission rates; renewable energy gets priority (energy turn); energy efficiency; defining the possible contributions of all societal sectors; including measures of adaptation; regulating financial issues with regard to this policy, etc.

The process of preparation takes place in two phases:

* Autumn 2012: start of concept development by 400 experts: six working groups (sector-specific); 4 workshops (issue-specific); Proposition of strategies and measures/action

* NRW Climate Congress Dec.2013: Results of concept phase were presented to the public; the role of NRW in the national and international climate politics was discussed

* Diffusion, differentiation and networking Dec.2013 – March 2014 (online interviews; small scale congresses and workshops)

Chart 2

The 6 working groups have developed 258 propositions – the largest number in the building/construction segment. *About half of the propositions are qualified as controversial.* In an open participatory process all kinds of actors could write their comments to these propositions or add some further elements.

Many organizations endorsed the request for participation - as the example of the *Essener Klima-Agentur* shows:

- *Klimaschutzplan mitgestalten* (“please engage in the development of the climate protection plan”)
- *Breit angelegte Online-Beteiligung der Landesregierung läuft noch 66 Tage* („there are 66 more days to go for online participation“)
- 18.12.2013 : “don’t miss the expert conference” .
- “Climate protection is one of our central issues for the future”.
- „Klima Agentur Essen exerts active involvement“.

- „Jede und jeder kann jetzt die von Experten vorgeschlagenen Maßnahmen bewerten und auch eigene, neue Maßnahmenvorschläge einbringen. Klimaschutz lebt von breiter Beteiligung.“ (Climate protection demands for participation).
- “The Online-questionnaire can be used until February 21st. 2014 at www.klimaschutz.nrw.de”.

The participation was very intensive; however, the stakeholders of different economic/business branches were dominating. The list of activities/measures to be taken: 154 concerning mitigation; 66 concerning adaptation (from 16 problemsegments). Quite a few propositions have been omitted, because “it would not be possible to implement them” (?). On Dec.17th 2015 the plan was accepted by the Landtag (NRW parliament); a review and adjustment is planned for every five years. As the list of goals already indicates, the catalogue of future action is a long remuneration of compromises between economic interests and climate hazards. No radical shift of production or consumption is to be expected. Whether the only “red border line” – the warming up by 2 degree Celsius or less and its locally defined preconditions – can be realized, remains an open question.

In the context of these various participatory debates and suggestions, a growing emphasis on *adaption* to climate change can be observed in many similar initiatives. It leaves the question open, whether this means a retreat from the expectation of a successful climate protection strategy.

In 2008 the German government has formulated the “Deutsche Anpassungsstrategie an den Klimawandel” (DAS⁵). Parallel initiatives have been taken by the EU-Commission: Whitebook 2007; Greenbook 2009.

The DAS defines the goals of adaptation as follows:

⁵http://www.bmub.bund.de/pdf/das_zusammenfassung.pdf

„Langfristiges Ziel der Anpassungsstrategie ist die Verminderung der Verletzlichkeit bzw. der Erhalt und die Steigerung der Anpassungsfähigkeit natürlicher, gesellschaftlicher und ökonomischer Systeme. Hierzu sind im Sinne von Handlungszielen Gefahren und Risiken zu benennen und zu vermitteln, d. h. Wahrscheinlichkeiten und Schadenspotenziale sowie Unsicherheiten transparent zu machen, Bewusstsein zu schaffen und Akteure zu sensibilisieren, Entscheidungsgrundlagen bereit zu stellen, die es den verschiedenen Akteuren ermöglichen, Vorsorge zu treffen und die Auswirkungen des Klimawandels schrittweise in privates, unternehmerisches und behördliches Planen und Handeln einzubeziehen, Handlungsmöglichkeiten aufzuzeigen, Verantwortlichkeiten abzustimmen bzw. festzulegen; Maßnahmen zu formulieren und umzusetzen. Die Anpassungsstrategie orientiert sich an den Grundsätzen Offenheit und Kooperation; Wissensbasierung, Flexibilität und Vorsorgeorientierung; Subsidiarität und Verhältnismäßigkeit; Integraler Ansatz; Internationale Verantwortung; Nachhaltigkeit.“⁶

For purposes of implementation the following statement is important:

“Da Klimafolgenanpassung in den meisten Fällen auf regionaler oder lokaler Ebene erfolgen muss, sind viele Entscheidungen auf kommunaler oder Kreisebene zu treffen“⁷.

The central point of this argument is the observation, that ever more people – also in a country like Germany, which is not (yet) extremely affected by climate change – have experienced some hazards and negative consequences. For them, adaptation it is not just an abstract issue of

⁶The long term goal of the adaptation strategy is the reduction of vulnerability by keeping and increasing the resilience of natural, societal and economic systems. In the sense of action-goals, dangers and risks have to be described and communicated. The probability and the scope of damage should be made transparent – in order to increase awareness of the actors. They should be enabled to take decisions that help others to develop preventive measures in the public, economic and private context: planning, participation, defining options and division of labour for implementation. Adaptation strategies are following the principles of openness, cooperation, knowledge base, flexibility, preventive perspective, subsidiary, commensurability, integrated approach and international responsibility, sustainability.

⁷As adaptation measures have most often to be taken on local and regional level, the decisions have to be taken in local councils and administration.

international conferences. Therefore, they are important addressees and actors in any implementation process.

As an example of accompanying region-based research initiatives the “Klimzug” – projects (2009-2014; financed by the national government) should be mentioned. One of them (“Dynaklim”) was located in the Ruhr-District.

A few results of recent representative population surveys (2010, 2012, 2013) (Grunow 2014) concerning the *adaptation* to climate change in the Ruhr-District can illustrate a few implications of these issues for the perception of the citizens (from this region).

- about 80% of the citizens think that climate change and its implications are important public issues;
- almost 50% agree that they are already affected by climate change implications (storm, heavy rain, flooding, heat);
- the respondents use various media for information; more than 80% are following the discussions in the mass media; even more are discussing the issues in the context of peers/family;
- many citizens (40%) feel uninformed – especially with regard to strategies of adaptation (to climate change) and about the implications and side-effects of these strategies;
- more information is demanded especially from mass-media, NGO (environment) and public administration (all about 80%);
- only 15% see local politics and administration making a “good job” on behalf of environmental protection; 60% see local politics too little engaged in adaptation initiatives (concerning climate change);
- more than $\frac{3}{4}$ of the respondents *agree* with the following statement: *whether some progress is made in the context of environmental issues depends on the initiative and pressure of the citizens;*

- between 30 and 50% of the respondents are willing to engage in various forms of public participation (with regard to environmental projects/programs)

Table 1

- in answering a special question about a project (sub-surface pump storage) which is part of the energy-turn (“Energiewende”) in Germany, the respondents articulated clearly their demand for transparency – by asking for early and detailed information about goals, costs (and why they often rise far beyond the projection), side-effects and how to deal with them, participation strategies etc. If such a procedure is not installed sufficiently a protest initiative is seen as necessary and legitimized.

In the context of the interviews we could observe two ambivalences with regard to the actors involved or concerned. Although there is a high level of awareness concerning the climate change issues: there is some interest in further talk but only little willingness for private action:

Table 2

The comments of the population have often referred to future developments and the negative effects for the *younger generation(s)*. On the other hand the younger interview partners were much less interested in the topics than the older ones.

4. Sustainability as a concern of younger generations (?)

Are there any indications from the research results that special care is taken to include the younger generations into the processes of sustainable governance which concerns their future?

Part 4 concentrates on this specific element in recent communications about the sustainable (climate) governance (in the future). The element can be symbolized by the preface to the book “2052” (Club of Rome): “for our children and grand-children”. However, the paper takes a

slightly different approach by indicating, that these and many other communicators of the same message have missed their chance to improve the situation concerning future developments and failed to mobilize the younger generation on this behalf.

The paper, therefore, summarizes data (Shell-Jugendstudien / Shell-youth-surveys etc.) about the orientations of the youth toward environment/climate issues.

It is not surprising that within the debate about climate change references are made to our children and grandchildren. President Obama mentioned this, when he visited Alaska in 2015.

A report about environmental hazards attracted a great deal of attention in China, because the author took her little daughter up onto the stage and declared that this is the person for which she had designed the film. These and many other signals indicate that sustainability in the climate change context means *inter-generational justice*.

This leaves us with two general options. One was described in an article in a German newspaper (Frankfurter Allgemeine Sonntagszeitung Nr.49/2015) – with regard to the problematic situation of the younger generation in Europe. The author proposed that the youth should leave the continent and have the older generations clean up the “mess” which they have depredated. Why should they take over the legacies?⁸

The second option is to motivate the younger generation to articulate their interest in the position of points towards the future. In Germany, first discussions about education in terms of sustainability started in 1996 – initiating model-projects since 1998/99 (Bildung für nachhaltige Entwicklung: BNE) (Beyer 1998). In spite of verbal support of many projects, a “sustainable” integration of the concepts into standards of education is widely missing. In a survey in Brandenburg (2012) only 40% of the pupils had received any information about sustainability. In an OECD study from 2010 it is shown that the knowledge of young people about environmental issues is insufficient and often even false.

⁸The argument is somehow also related to the concepts of time: how about our relationship to history (forgotten?) and to the future (euphoric or depressed?): or are we just swallowing the never ending data-chain of the presence?

Therefore, recent discussions about changing the voting age (down to 16) or increasing the number of votes given to families in order to enlarge the impact of the younger generation on political decisions, seem rather questionable. This leads us to another perspective on the issues. Even if the information-base of the youth regarding environmental issues is not very sufficient: how about the impact of such knowledge on value judgements and preferences? A recent survey of the UBA (Federal Environment Agency – a subunit of the ministry) came up with the result that the general population is widely concerned with environmental issues, but only 19% (2014) see them as top priority. It seems that these issues are important if they have a role in keeping consumption standards and wealth. Concerning the younger generation (14-25) a study from 2016 registers only little interest in a healthy environment (1/3), whereas more than 2/3 are more interested in fancy outfit and electronic devices – which they would not want to miss in the future. However, they also see some relevant interdependencies between consumption habits and environmental issues: they support modes of a sharing economy (f.e. cars).

The President of the UBA, Maria Krautzberger, summarizes:

"Die Bereitschaft, das Handeln nach Umweltgesichtspunkten auszurichten, nimmt vor allem bei Jüngeren eher ab"⁹.

In the following some results from Shell youth studies will be presented. The series of studies started in 1953; each study is based on a representative survey of the 12-25 year old persons and some 20 biographical in depth interviews. The information presented are from survey 16 (2010) and 17 (2015).

*Betr.: Klimawandel (2010)*¹⁰ Ein Thema, das Jugendliche heutzutage besonders stark beunruhigt, ist der Klimawandel. 76 Prozent halten ihn für ein großes oder sogar sehr großes

⁹The willingness to orient one's decision-making on environmental concerns decreased especially in the younger generation.

¹⁰Concerning the topic climate change, in the study of 2010 the younger generation indicated awareness of the threat of climate change. However, the interpretation was quite differently – concerning the responsibility and credibility of arguments. But almost half of the respondents are rather fatalistic: it is too late for any mitigation.

Problem. Sogar zwei von drei Jugendlichen sehen durch das sich verändernde Klima die Existenz der Menschheit bedroht.

Auch bei der Sichtweise auf dieses Thema lassen sich drei unterschiedliche Typisierungen vornehmen: die Kritiker des Klimawandels, die den reichen Industrieländern die Schuld für die ökologischen Veränderungen geben; die Klimaoptimisten, die, auch wenn sie den Klimawandel für ein Problem halten, die öffentliche Darstellung dieses Phänomens übertrieben finden; und schließlich die fatalistischen Beobachter, die fast zur Hälfte davon ausgehen, dass es bereits zu spät sei, etwas gegen den Klimawandel zu unternehmen.

Ein Teil der Jugendlichen zieht inzwischen persönliche Konsequenzen und achtet auf ein umweltbewusstes Verhalten. Immerhin jeder zweite spart im Alltag bewusst Energie, 44 Prozent versuchen, häufiger mit dem Fahrrad zu fahren und das Auto stehen zu lassen, und 39 Prozent entscheiden sich für ein kleineres Auto mit geringerem Verbrauch. Besonders klimakritische junge Leute engagieren sich darüber hinaus zunehmend für den Umweltschutz.

*Betr. Globalisierung (2010)*¹¹ Was die Öffentlichkeit in erster Linie kritisch diskutiert, wird von Jugendlichen in Deutschland zumeist eher positiv bewertet: die Globalisierung. 84 Prozent verbinden sie an erster Stelle mit der Freiheit, in der ganzen Welt reisen, studieren oder arbeiten zu können. Zunehmend wird die weltweite bereichsübergreifende Verflechtung allerdings auch mit wirtschaftlichem Wohlstand in Verbindung gebracht. Im Jahr 2006, also noch vor der Wirtschafts- und Finanzkrise, haben nur 37 Prozent diese Verbindung hergestellt, 2010 schon 53 Prozent. Auch die Assoziation von Globalisierung mit Umweltzerstörung tritt heute sehr viel häufiger in Erscheinung.

¹¹With regard to globalization the general reaction is rather positive: concerning mobility, wealth and personal development. In the mainstream there are as well positive as also negative implications. The group which is more critical relates their argumentation mainly to ecological devastation, poverty and underdevelopment.

In Hinblick auf die Haltung der Jugendlichen zur Globalisierung lassen sich drei unterschiedliche Profile ausmachen: Globalisierungsbefürworter, Globalisierungsgegner und Globalisierungs-Mainstream. Globalisierungsbefürworter sehen in der Globalisierung vor allem die Chance auf wirtschaftlichen Wohlstand, Frieden und Demokratie. Globalisierungsgegner erkennen in ihr mehrheitlich Umweltzerstörung, Arbeitslosigkeit, Armut und Unterentwicklung. Beim kritisch-differenziert bewertenden Globalisierungs-Mainstream halten sich Vor- und Nachteile der Intensivierung der globalen Beziehungen die Waage.

*Betr. Politik (2010)*¹²Auch wenn das politische Interesse bei Jugendlichen weiterhin deutlich unter dem Niveau der 1970er und 1980er Jahre liegt, ist der Anteil der politisch Interessierten im Vergleich zu 2002 und 2006 wieder leicht angestiegen.

Dieser leichte Anstieg ist zum einen auf die mittleren und gehobenen Schichten und zum anderen auf die Jüngeren zurückzuführen. Bei den 12- bis 14-Jährigen ist das Interesse von 11 Prozent in 2002 auf mittlerweile 21 Prozent gestiegen. Und auch bei den 15- bis 17- Jährigen gab es eine positive Trendwende: In 2002 waren in dieser Gruppe 20 Prozent politisch interessiert, heute sind es 33 Prozent. Kein Anstieg ist hingegen bei den Jugendlichen im Alter von 18 bis 25 Jahren zu verzeichnen.

Stabil bleibt die politische Selbsteinschätzung der Jugendlichen: Die Mehrheit ordnet sich etwas links von der Mitte ein. Auch beim Vertrauen in gesellschaftliche Institutionen hat sich wenig geändert: Hohe Bewertungen gab es für Polizei, Gerichte, Bundeswehr sowie Menschenrechts- und Umweltschutzgruppen, niedrige für die Bundesregierung, die Kirche, große Unternehmen und Parteien. Kaum verwunderlich, dass in Zeiten der Wirtschafts- und Finanzkrise das Vertrauen in Banken am meisten gelitten hat. Entsprechend zeigt sich bei den

¹²The interest in political issues is (2010) still rather low – so is the trust in public and business organizations. In spite of their disenchantment with politics and political parties ¾ would take part in protest initiatives.

Jugendlichen heutzutage nicht nur Politikverdrossenheit, sondern auch ein ausgeprägter Missmut gegenüber Wirtschaft und Finanzen.

Trotz der allgemeinen Politik- und Parteienverdrossenheit sind Jugendliche durchaus bereit, sich an politischen Aktivitäten zu beteiligen, insbesondere dann, wenn ihnen eine Sache persönlich wichtig ist. So würden 77 Prozent aller jungen Leute bei einer Unterschriftenaktion mitmachen. Immerhin 44 Prozent würden auch an einer Demonstration teilnehmen.

*Steigendes Politikinteresse, aber abseits etablierter Parteien (2015)*¹³ 41 Prozent der Jugendlichen bezeichnen sich heute als politisch interessiert (2002: 30 Prozent). Damit einher geht die gestiegene Bereitschaft, sich politisch zu engagieren. Häufige Aktivitäten sind der Boykott von Waren aus politischen Gründen und das Unterzeichnen von Petitionen. Online-Petitionen sind beliebter als Unterschriftenlisten. Jeder Vierte hat bereits an einer Demonstration teilgenommen, und zehn Prozent engagieren sich in einer Bürgerinitiative. Von dem wachsenden Politikinteresse können die etablierten Parteien jedoch nicht profitieren. Jugendliche bringen den Parteien wenig Vertrauen entgegen. Auch große Unternehmen, Kirchen und Banken genießen eher weniger Vertrauen. Am meisten vertrauen Jugendliche dagegen Polizei, Gerichten sowie Menschenrechts- und Umweltschutzgruppen.

The data show quite a few ambivalences, and also changes of opinions in rather short time periods. This is quite expectable for young generations which start to explore the world. It leads to questions about typical sources of information and the modes of communication of young people: especially the internet.

¹³ Five years later (2015) the survey shows increasing political interest (41%) and willingness to engage in critical political action. ¼ has already participated in public demonstrations. This combines with high levels of distrust in large institutions – political parties, companies, banks and churches alike. Trust is articulated – as in the general public – to legal institutions, policy and NGOs (human rights; ecology).

*Betr.: Internet (2010)*¹⁴Das Freizeitverhalten der Jugendlichen unterscheidet sich je nach sozialer Herkunft. Während sich Jugendliche aus privilegierten Elternhäusern verstärkt mit Lesen und kreativen Tätigkeiten befassen und vielfältige soziale Kontakte pflegen, sind Jugendliche aus sozial benachteiligten Familien vornehmlich mit Computer und Fernsehen beschäftigt. Allen gemeinsam ist jedoch eines: Fast alle Jugendlichen (96 Prozent) haben mittlerweile einen Zugang zum Internet (2002 waren es nur 66 Prozent). Nicht nur die Zahl der Internetnutzer ist damit gestiegen, sondern auch die Zahl der Stunden, die Jugendliche im Netz verbringen: im Schnitt fast 13 Stunden pro Woche.

Bei der Art der Nutzung des Internets zeigt sich erneut eine soziale Spaltung – insbesondere bei den männlichen Nutzern. Die vier verschiedenen Nutzertypen machen dies deutlich:

- Die Gamer (25 Prozent der Jugendlichen mit Netzzugang) – vor allem jüngere männliche Jugendliche aus sozial benachteiligten Familien – verbringen ihre Zeit im Netz hauptsächlich mit Computerspielen.
- Digitale Netzwerker (24 Prozent) – vor allem jüngere weibliche Jugendliche – nutzen vor allem die sozialen Netzwerke (Facebook, StudiVZ).
- Für Funktions-User (17 Prozent) – eher ältere weibliche Jugendliche – ist das Internet Mittel zum Zweck: Sie gebrauchen es für Informationen, E-Mails und Einkäufe von zu Hause aus.
- Die Multi-User (34 Prozent) – eher ältere männliche Jugendliche aus den oberen Schichten – nutzen schließlich die gesamte Bandbreite des Netzes mit all seinen Funktionalitäten.

¹⁴ Almost all young people have access to the internet. However, the way it is used differs a lot – according to social background: “gamer” (25%); “digital networkers” (24%); “function-specific users (buying, selling)” (17%); “multi-functional users” (34%) .

*Online, aber misstrauisch (2015)*¹⁵Im Jahr 2015 ist die Online-Vollversorgung Wirklichkeit geworden: 99 Prozent der Jugendlichen haben Zugang zum Internet und sind durchschnittlich 18,4 Stunden pro Woche online, 2006 waren es noch weniger als 10 Stunden. Gleichzeitig sind die Jugendlichen über die Problematik der Datennutzung im Internet informiert und sehen diese auch kritisch. Mehr als vier Fünftel von ihnen glauben, dass große Konzerne wie Google und Facebook mit ihren Nutzern und deren Daten viel Geld verdienen. Obwohl mehr als die Hälfte der Jugendlichen angibt, häufig oder gar sehr häufig Facebook zu nutzen, fällt das Vertrauen in dieses Unternehmen gering aus.

The research results show, that the young generation can best be reached by the new media. It is necessary, however, to establish a trustworthy and attractive platform – to cope with distrust and data-overloads. And it is necessary to start immediately – before they will be encapsulated completely in their digital “echo-chamber”.

5. Conclusion

The final part includes a summary and describes some options for improving the involvement of young people in the process of sustainable governance.

The paper has indicated that the “sustainability talk” over the last decades did not have much of a “sustainable” effect. In abstract terms this might be called the “complexity fallacy” of the modern world. One of the basic deficiencies of the rhetoric is the impression that somehow most aspects of consumption or the living conditions will not be severely affected by this concept. However, the three basic elements – population growth – consumption style and natural resources – are in strict conflict. Normally, this is expressed by the saying that with the

¹⁵ Five years later, the youth is on an average more than 18hours per week online. But at the same time they are critical with regard to the risks of using the new media companies (Google, Facebook). Although half of them are using Facebook very often, they don't trust this corporation.

western style of living – which is copied everywhere now – the globe can only bear about 2.5 billion population (not 7-9). Another attempt to describe the parting of the ways is formulated by Naomi Klein (2014) "Capitalism vs. climate". Looking more closely onto climate change problems (CO₂, methane) it might be interesting to take up an idea which is formulated in the novel "Macht" (Duve 2015): every person (worldwide) gets a few "pollution stamps" per year: so everybody has to *decide/choose* whether eat another steak, or book a flight or use more air-conditioning per day. It makes the fact quite visible, that resources will have to be much more shared within each society and between societies. With other words: many persons have to give up their "comfort zone" – as it is called sometimes. It could be an interesting thought experiment: "what do you think will happen in your country when such a project is launched?" This can be called the implementation problem of climate related sustainability.

One of the possible pathways was described in this paper: starting with the UN-level and moving down to local action plans and citizens' attitudes and behaviours. It was demonstrated that IMPLEMENTATION is the key problem. As soon as sustainability moves from paperwork to action all kind of doubt merchandizing is under way. Many of the arguments are covered by the saying "not in my backyard" (NIMBY) – which could be extended by "not in my lifetime" (NIMLT). This can be deduced from the message "for our children and grandchildren". This has led us to the question whether the young generation is aware of the risks they face directly or indirectly by climate change effects. The lack of trust in any world wide action program leads to the assumption that it is not worth while to take individual initiatives. However, this does not mean that there are no trends towards collective action on a smaller base. But, as the example of vegan food consumption shows, quite often it is not clear whether it is just another hype which stops after a while. Anyhow, this does not prevent excessive air travel or energy use for uploading iPhones.

The conclusion could be, that these kinds of contradictions should be communicated much more – in school as well as in the new communication tools and the media. The answers given

in our survey concerning the willingness to participate in discussions and planning processes for the future could be used as a starting point – even if the issue concentrated on “adaptation”. Why not using the first year after the completion of school to work in a sustainability project, including international cooperation? There are already good examples for this strategy available (NGOs, Help-Organizations etc.). By making this a compulsory element, it could give credits for university access or job offers. It should be easy to advertise it: “this is a project to save your future”. And, why not using the new media for a “sustainability app”: how much will specific consumption decisions (goods and services) take off from your future? With regard to the implementation dilemma it seems to be essential that the “earth overshoot day” is being broken down to the individual level¹⁶.

Coming back to the overall task of sustainable governance, one of its indicators of success should be the involvement of the young generation. And: the (dis)incentives must be visible and severe: no contract, no funds, no advancement in the career, prosecution of misbehaviour etc. Too often all the nice rhetoric has been diluted or counteracted by other interests¹⁷. This has ignored the fact, that many ecological issues are not a matter of opinions or preferences: after a natural system has been destroyed (like the devastation of oceans or desertification) it very often cannot be restored.

¹⁶ One interesting example is to observe the visitors of a water tower in my hometown: there is a simulator of water usage by everyday activities in the household: water balance like energy balance. Many of the visitors are shocked.

¹⁷ From another area of recent interest: in the UK the young people are organizing protest against the Brexit decision of the population. $\frac{3}{4}$ of the young voters have voted against Brexit. Unfortunately most of them missed the decision about their future: they did not show up at the polls. How could this happen?

Chart 1: Actors of environment politics

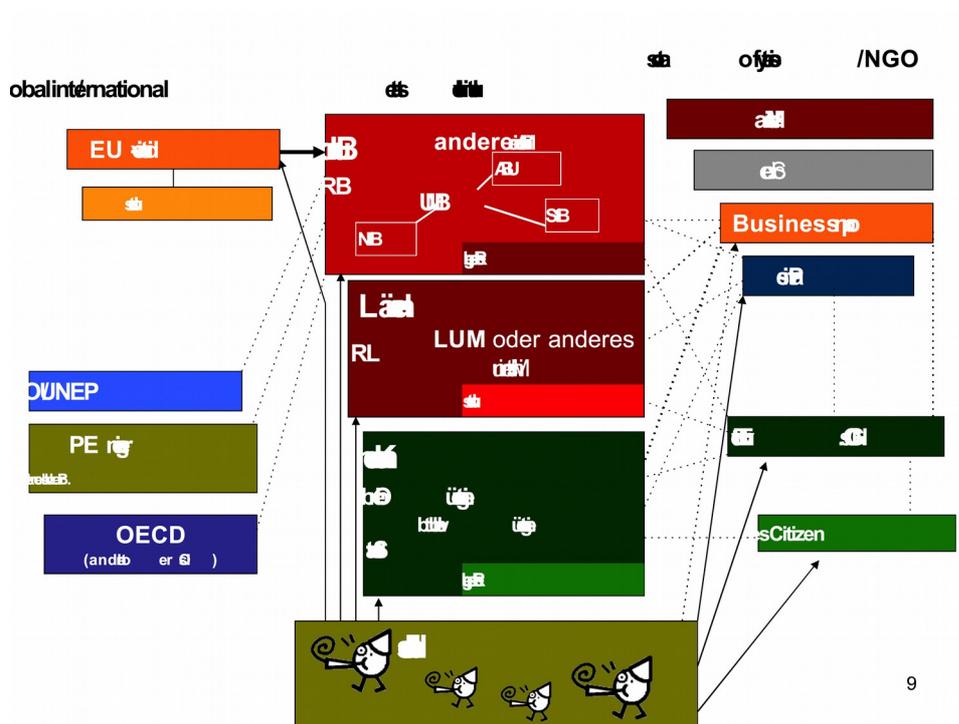
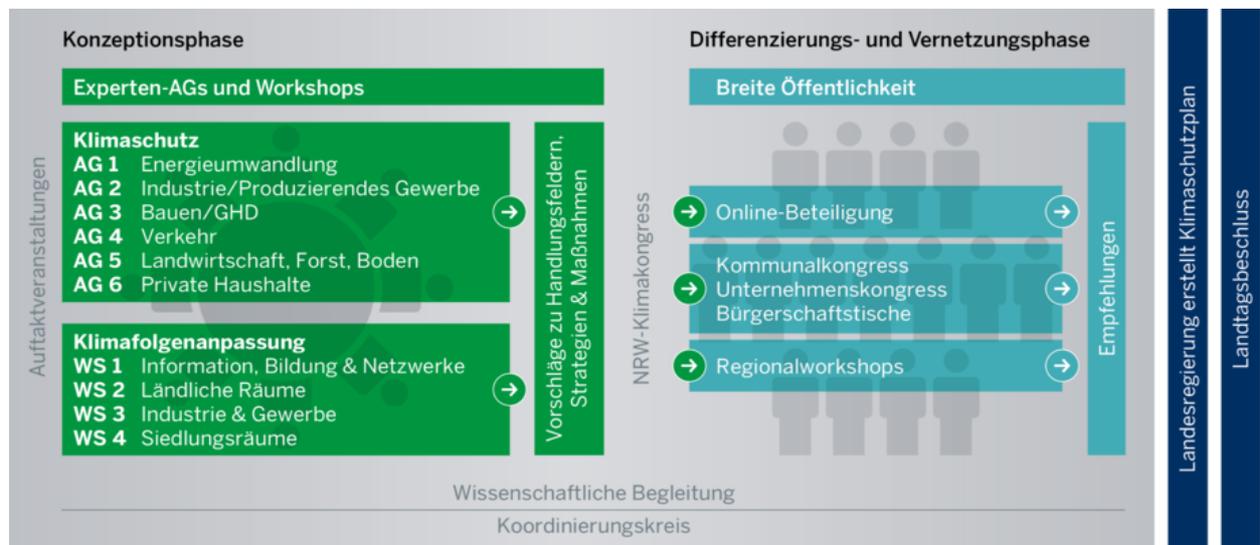


Chart 2: Climate Protection Plan: Participation procedures¹⁸



¹⁸Explanation of the graphic: Concept development (expert meeting/workshop); Mitigation: Energy Transformation; Industry/business; Construction/buildings; Traffic; Agriculture, Forestry, soil; Private households; Adaptation: Information, Education; rural districts; industry/ craft; 4. dwelling areas; Differentiation/Networking for general public: Online interviews; local administration congress: local business congress; citizen round table; Suggestions: Plan formulated by government; Plan decided upon by parliament

Table 1: Citizen Participation

Discussions; Initiatives; Information-meetings; voluntary activities; Internet; energy cooperative: (1) I do already; (2) I might do it; (3) no interest

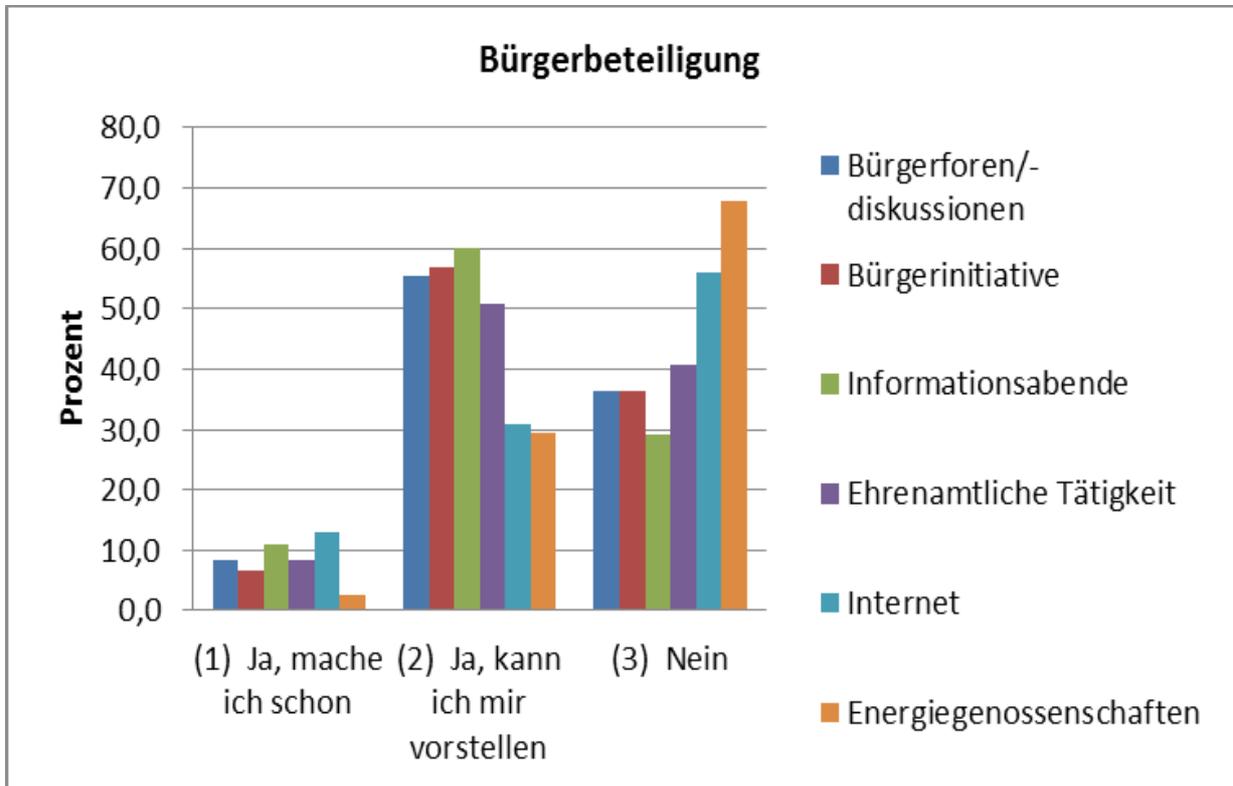
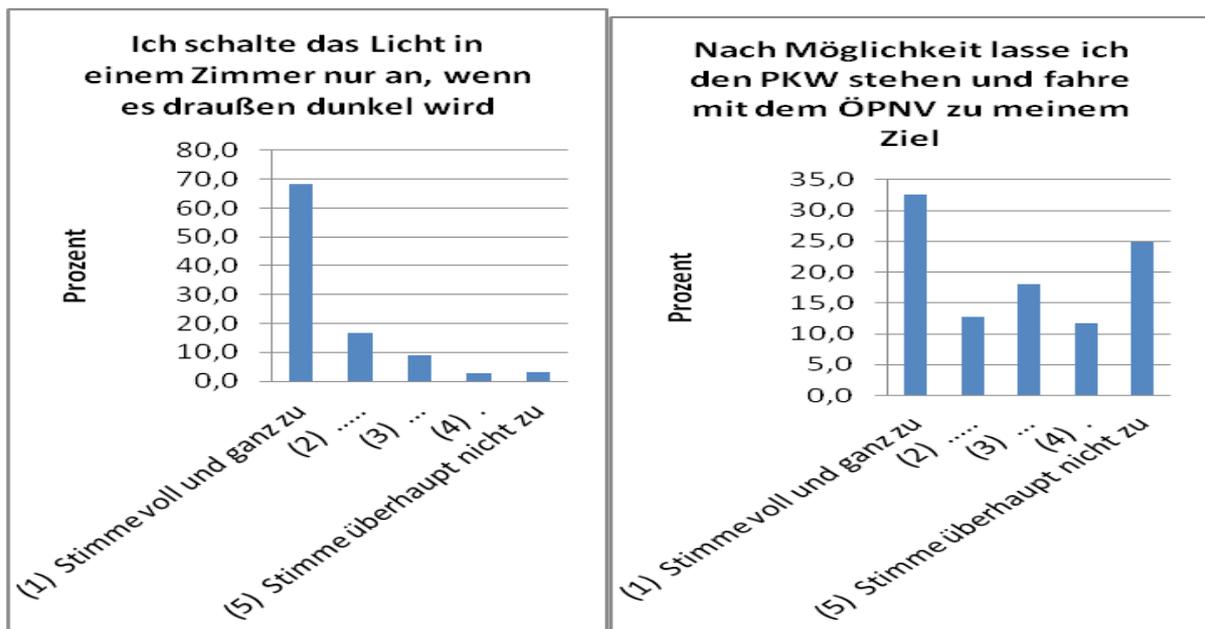
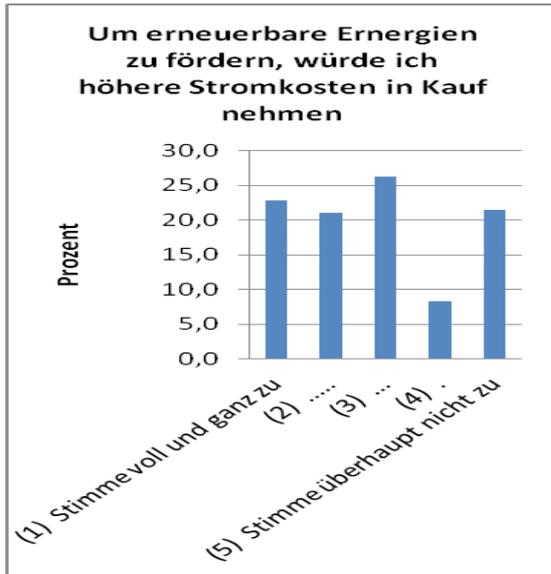


Table 2: Ecological Behaviour: (1) completely agree.....(5) completely disagree

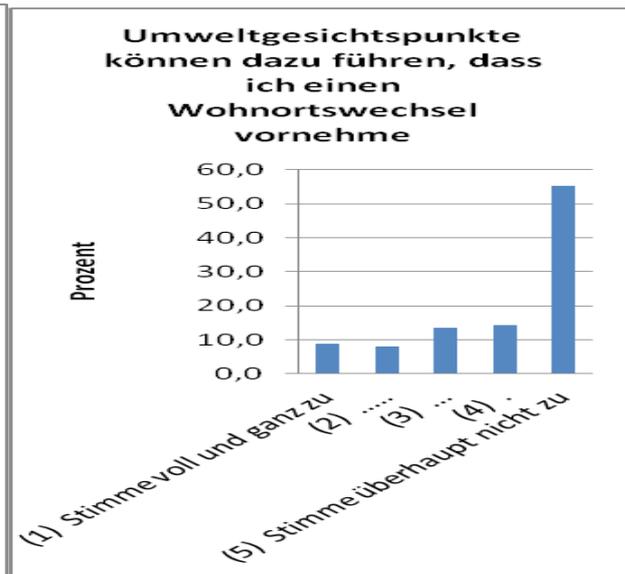
Switch of the light in the room

public transport instead of private car





Accept high energy prices to foster renewable energy



Change living place for ecological reasons

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