



WHAT CAN FORESIGHT BRING TO THE ADAPTATION TABLE – MEGATRENDS AND WILDCARDS



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- ❖ **PLACARD Foresight Workshop – How can foresight help to reduce vulnerability to climate-related hazards?**
- ❖ **24-25 October 2016 – National Met Service (ZAMG) Vienna**
- ❖ **40 participants (European) from academia, national and international agencies, foresight companies, ...**
→ **Multi-disciplinary**
- ❖ **Follow-up workshop in 2018**



Workshop mainly aimed to:

- ❖ Identify relevant long-term trends (using global mega-trends) and surprises events (wildcards) in developments of socio-economic or natural systems which would have implications for DRR and CCA
- ❖ Assess needs and priorities for improving interactions and maximizing synergies on foresight activities between the two communities in Europe
- ❖ Explore potential role of foresight methods to inform implementation of climate adaptation and DRR mechanisms

Three clusters of relevant megatrends were identified:

Living and working

- Urbanization
- Technological change
- Economic growth and inequalities

Health and well-being

- Growing and ageing population
- Disease burdens and pandemics
- Environmental degradation and pollution

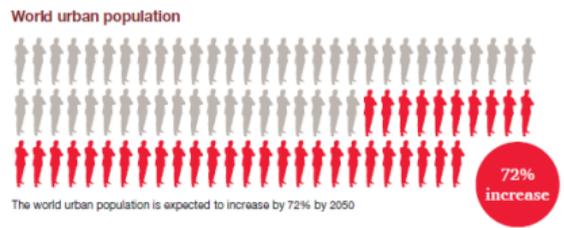
Safe and Secure

- Migration
- Diffusion of power
- Global competition (for resources)

- What are the likely development of these megatrends?
- How do these megatrends affect climate-related vulnerability and risks?

Urbanization

- Large increase of urbanization, driven by pop increase, economic development, and industrialization
- Great regional disparities (global South vs global North)



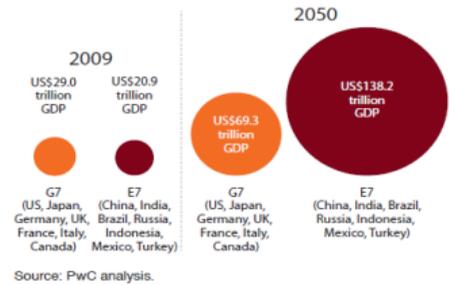
Technological change

- Cheaper access to technology
- Globalization of innovation
- Digital connectivity for everyone to everything, anywhere at anytime



Economic growth

- Continued but uneven economic growth
- Towards an increasingly multipolar world
- Shift of power to developing countries (notably Asia)





LIVING AND WORKING – B

- ❖ **Urbanization may:**
 - Lead to higher exposure of both people and economic assets
 - Disconnect people from the natural environmental
 - Lead to greater challenges in terms of urban planning of critical infrastructures
- ❖ **Technological change may:**
 - Modify the ratio of centralized/decentralized activities in society
 - Increase dependence on technologies → deepen inequalities
 - Highly modify the way in which we live and we work
- ❖ **Economic growth and inequalities may:**
 - Speed up depletion of natural resources
 - Increase resilience of those benefiting from economic growth, and decrease it for those who do not
 - Modify structures of future labour markets, impacting the social system



HEALTH AND WELL-BEING – A

Growing & ageing population

- Global population growth
- Large regional disparities (e.g. EU vs Africa)
- Ageing of the population in rich countries of the global North

In 2050, 27% of the European population is projected to age 65 and over.



Disease burden & pandemics

- Large increase of non-communicable diseases (e.g. cancers and diabetes)
- Growth of health inequalities, particularly between urban and rural areas in developing countries

Environmental degradation & pollution

- Great ecosystems degradation with loss of global biodiversity
- Increase of air pollution and release of pollutants to aquatic systems
- Overfishing, nutrient pollution, coral bleaching, etc.
- Alien plant species colonization



HEALTH AND WELL-BEING – B

- ❖ **Within a context of growing and ageing population, globalization may render the elderly more vulnerable, exacerbated by a continued decrease of solidarity**
- ❖ **Information on social changes (growing population, disease burden, pandemics, etc.) is of utmost importance and should be embedded within any future-oriented vulnerability assessments, particularly when focused on human health and well-being**
- ❖ **Environmental degradation and cascading effects (e.g. environmental pressures affect food supply which in turn affects population displacement and potentially conflicts) will pose considerable threats to human health/well-being**
- ❖ **Pandemics will threaten public health and will greatly challenge health emergency services and international cooperation**



SAFE AND SECURE – A

Diffusion of power

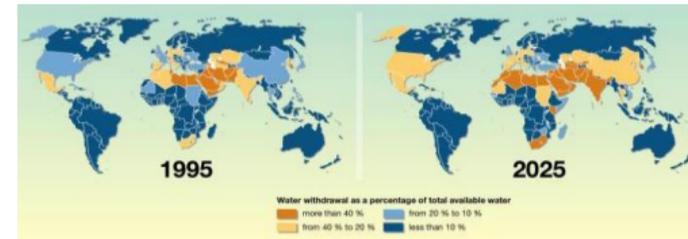
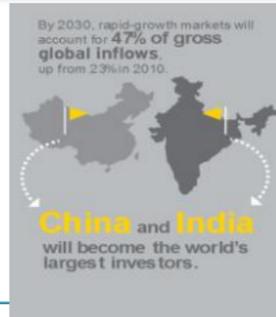
- Dramatic changes and shift of power based upon GDP, pop size, military spending, and technological investment
- Asia will surpass North America and Europe combined
- Fundamental shift in the nature of power enabled by communications technologies

Migration

- Increase of global migration flows, particularly within developing regions
- Environmental- and climate-based migration also greatly increase

Global competition for resources

- Global growth of resource consumption
- Efficiency of resources use increases, but insufficiently
- Prices and competition are rising



- ❖ **Migration is thought to be the megatrend that impacts the most climate-related vulnerability and risks, e.g., in comparison to other trends like changing diffusion of power between regions and actors and competition for resources**
- ❖ **Poor governance will undoubtedly lead to considerable migratory flows, which greatly increase existing vulnerabilities of poor populations**
- ❖ **Lack of cooperation at transnational level – including links to the European Union and various DGs – poses a major threat to exposure of displaced populations**
- ❖ **Solutions might include to improve understanding of patterns and flows and migration and underlying reasons of migrations, often closely related to other megatrends, including climate change**

Megatrends describe « conventional wisdom » development pathways derived from currently observed trends, but surprises events can occur → Wildcards

- ❖ Numerous wildcards for each megatrends were identified, and discussed, e.g.:
 - Cascading effects
 - Terrorism and terrorist attacks
 - New types of wars and weapons, e.g., making use of digital vulnerabilities
 - Rapid political changes and policies
 - Economic crises
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- ❖ Structuring discussion around wildcards and their potential impacts on future vulnerability and risks greatly enhances our capability to integrate possible events (not plausible) when designing climate adaptation and disaster risk reduction strategies

- ❖ **Foresight methods – through the use of megatrends and wildcards – have the potential to play a useful role for addressing CCA and DRR jointly**
- ❖ **Can help exploring influence of socio-economic development on future climate-related vulnerabilities and risks beyond factors included in models**
- ❖ **Can help identifying potential surprise events that should be accounted for when designing CCA and DRR strategies**
- ❖ **Foster strategic and creative thinking as well as collaborative efforts, hence outputs of Foresight workshops often provide novel and innovative – out of the box – insights that might help reducing future vulnerabilities and risks**
- ❖ **Qualitative foresight approaches through megatrends and wildcards can greatly complement traditional IPCC-style quantitative scenarios approach**

THANK YOU



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