2. Nature of the Challenge and the Response
3. Perceptions, Worldviews and Mindsets
4. Widening of the Security Concept
5. Non-military Security Challenges (2050)
6. Non-military Global Security Challenges
   ➢ Survival Hexagon
   ➢ Conflict Pentagon
7. Mediterranean Region in the 21st Century
8. Impact of Climate Change for Egypt
9. Integrated Climate Change Impact Study
10. Early Recognition and Conflict Avoidance
    ➢ First Priority: Conflict Resolution in Middle East
    ➢ Second Priority: Intensified Political, cultural, scientific dialogue with Muslim/MENA Countries
    ➢ Third priority: Cooperative conflict avoidance
    ➢ Fourth priority From a Euro-Mediterranean Stability Charter to a Mutual Survival Pact
- Peace researcher working on security issues;
- Focus: Weapons of mass destruction, environment; energy and climate policy;
- Conceptual interest: future non-military challenges;
- Political motivation: What can and should we do today to avoid these projections from becoming reality?
- I will not interfere nor take sites in your internal debates on the different national reactions to 11.9.2001!

1.1 Why has the West reacted to 11.9.2001 as in the war against terror in Afghanistan?
- Thesis: Politicians and their civilian and military advisers perceive the world through certain dominant worldviews and mindsets, thus ignore many factors!
- Mindsets and worldviews: influence the selection of policy options: military response to military challenges!

1.2 Thesis: Security challenges of 21st century are increasingly of a non-military nature.
- Major challenges: 1990s: intrastate wars, ethnic, religious, clashes resulting from environmental stress
- Old unresolved conflicts: security dilemma: e.g. ME
- Future Challenges: increasing N/S gap, poverty, HEXAGON: climate change, water, soil/desertification, population, agriculture and food, urbanization

1.3 Need a Policy of Conflict Avoidance
- Non-military causes require non-military responses!
- Tools: environment & development policies
2. Nature of the Challenge and the Response

2.1 What is new? a) actor, b) victims, c) territory
- **Actors:** First major suicide attack by terrorist non-state actors in the 21\textsuperscript{st} century (using planes as weapons; against 2 symbols of U.S. economic and military power)
- **Victims:** About 4,000 civilians of 64 nationalities
- **Territory:** first attack on U.S. territory since 1941 (Pearl Harbour) and on the U.S. capital since 1829;
- **Impact:** Sense of subjective insecurity, uncertainty

2.2 Vulnerability of complex technical societies
- **Ulrich Beck:** highly vulnerable national/global “risk societies”
- **Non-state Actors:** suicidal terrorists with religiously motivated hatred who disregard international law, values and achievements of other cultures and human civilization (outlaws)
- **Fundamental challenge to humanity & all civilizations**

2.3 Military Responses: War – Fight Against Terror
- **Antiterrorist alliance:** including all nuclear powers (5 SC, India, Pakistan, Israel), legitimised by UN SC Res. 1368/1373
- **War against Taliban (outcast/outlaw):** destruction of cultural heritage, oppression of women, minorities (Shiites, Hazaras), brutality, disregard for international law, standards
- **Legitimisation:** Art. 51 (unanimous SC resolution)
- **War and constraints of international law** (AP to Geneva Conv. of 1977, Prot. to Inh. Weapons Conv. Landmine Treaty
- **International customary law:** military necessity, discrimination (civilians), proportionality

2.3 Domestic: Tightening of Domestic Security
- **Economic:** airline crisis, layoffs, contrib. to recession
- **Price:** Internal security tightened, civil liberties loosened

2.4 No Clash but Cooperation among Cultures
- **No war yet:** of the West and Muslim world
- **But:** no longer-term strategy to address socio-econ. Causes!
- **Relations:** West and Muslim world, temperate & arid zones
3. Perceptions, Worldviews and Mindsets
Thesis: Our perceptions and reactions are determined by different worldviews and mindsets.

3.1 Different Worldviews and Perceptions
- Why do scientists & DMs perceive the worlds so differently?
- What shapes perceptions of scientists and DMs and why do Americans & Europeans perceive challenges differently?
- Do they act so differently because of perceptions?

3.2 Context Change and Unchanged Worldviews
- 3 Intellectual Traditions of Internat. Relat., Ideal types
  a) Machiavelli/Hobbes (pessimist, power, military means)
  b) Kant (optimist, international law, human rights, peace research focus and traditional Green goals)
  c) Grotius (pragmatist, cooperation, both),
- Worldviews (ideol., exper., interests) determine perceptions
- Mindsets (K. Booth): persistent despite of context change

3.3 Response Depends on Dominant Mindset
Reaction to 11 September: clash of worldviews/mindsets:
- **Hobbesian**: attack, aggression against the U.S. on its territory (military challenges) by non-military actors with non-military means, requires a major military response against those who committed the crime against humanity and offered them shelter: response: Sword: punishment, deterrence
- **Kantian**: rule of law (international law, respect for humanitarian law of war, trial before Intern. Criminal Court, Rome)
- **Grotian**: both approaches may be necessary not sufficient: **Kantian approach** would hardly have influenced crimes of Taliban and El Kaida; **Hobessian approach**: toppled the Taliban and destroyed most of the infrastructure of El Kaida but will be unable to perceive long-term non-military challenges (root causes of terrorism) and to counter them by cooperative means. **Grotian approach**: focus and recognise the new “environmental” challenges: West & Muslim world.
3.4 Hobbesian Perception & Assessments
- **RAND**: studies and advice for US DoD, USAF, Army,
  **Studies**: on Mediterranean challenges (threat: from Arab countries), tasks for dialogue and co-operation
- **Threat**: weapons of mass destruction (Iran, Iraq, Syria, Libya, mention: Egypt, Algeria not Israel)
- **Solution**: military mission (US counterproliferation, counterterrorism, missile defence system)
- Non-military environm. challenges do not exist !!

3.5 Kantian Perception & Assessment
- focus on human rights, EU democracy programme
- **Criticism**: EU’s pragmatism, opportunism, stability
- Non-military environm. challenges do not exist !!

3.6 Grotian Approach to EMP in South Europe
- **Thesis**: From Security Dil. to Survival Dilemma
  - **Survival Hexagon**: 6 non-military challenges
    - same: climate change, soil erosion, water scarcity
    - difference: population growth, urbanisation, food
  - **Conflict Pentagon**: 5 constellations

3.7 CIA: Global Trends 2015: Key Drivers
- Demographics
- Natural resources and environment
- Science and technology
- Global economy and globalisation
- Future conflict and role of the U.S.
  - **Future Conflict**: dominance of internal conflicts (49),
    - **Asymmetric threats**: transnational terrorism (50)
    - Strategic WMD threats: **terrorists with WMD**
  - **Regional milit. threats**: major hot spots: MENA, Centr. Asia
4. Widening of the Security Concept

Security and peace concepts: complex and controversial depending on worldview and mindset of observer/analyst.

- **Hobbesian**: military security, actor: armed forces
- **Kantian**: human security, means: law, economic aid etc.
- **Grotian**: wide security concept

4.1 Subjective and Objective Security

- **Subjective security**: perception of people to feel secure (differ according to region, country, social class, mindset); 11 September has increased subjective insecurity in the North: impact on tourism, airline companies etc.
- **Objective security**: hard military factors: capabilities, intentions etc. (impact of 11 September: invisible enemy, tightening of internal security laws, limiting civil liberties).

4.2 Horizontal and Vertical Widening

- **2 different approaches: scientific and political**
  - **Scientific**: proposals by peace researchers (since 1980s); liberal security specialists in US (Ullmann, Mathews, Westing, Myers, Buzan, Copenhagen school et al.)
  - **Political**: by NATO (Washington Summit, April 1999)
- **Horizontal**: 5 dimensions: from military to ecological security
- **Vertical**: 5 levels: from global to human security

Figure 4.1: Horizontal and Vertical Security Dimensions

<table>
<thead>
<tr>
<th>horizontal ▶ vertical security</th>
<th>military</th>
<th>political</th>
<th>economic</th>
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<td>▼▼▼▼▼▼</td>
<td>Europe (EU) MENA &amp; Central Asia</td>
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<tr>
<td>Global sec.</td>
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4.3 Environmental Security: A New Dimension

- USA: wide security concept: Ullman, Matthews, Myers
- A major issue: Nordic governments, peace researchers
- Focus of environmental security studies/policies:
  - Environm. impacts of wars: e.g. UNEP Balkans task force
  - Environmental impacts of military activities in peace time
  - Environmental stress as a cause of conflicts
- Impact of 11 September and War in Afghanistan
  - Environmental Impact of attack on World Trade centre: obviously very severe: e.g. burning of asbestos etc.
  - Environmental and human impact of fight against terror: longer-term impact of unexploded ordinance and of special distribution bombs that act as landmines

4.4 Human Security: A New Level of Basic Needs

- Depending on mindset: for Hobbesian HS is non-existing
- Background: UNDP study of 1994
- Object: individual human beings and their basic human needs for survival (in many developing countries)
- Means: development assistance, role of NGOs active in humanitarian aid and conflict resolution

4.5 Linking Environmental and Human Security: An Agenda for forward-looking conflict avoidance

- Requires a non-Hobbesian mindset, worldview
- Focus at non-military challenges for security and survival: e.g. security impact of climate change at the human level
- What are the major non-military challenges? Global climate change, desertification, water scarcity but also population growth, rapid urbanization and need for food (agricultural production and imports): survival hexagon
- Which are the most sensitive areas? Third or developing countries, especially those in the arid and semi-arid regions, e.g. in the MENA region, Central Asia, Bangladesh, Mexico,
- How will they impact on the global, regional, national, societal/ethnic/tribal and human level?
- Non-military challenges require non-military responses!!
5. Non-military Security Challenges (2050)

5.1 From the Security Dil. to a Survival Dilemma

- **Security Dilemma** by John Herz (1950, 1959): a realist paradigm to explain why nations feel threatened and arm in the nuclear age, e.g. to explain arms competition, arms races
- **Survival Dilemma**: non-military challenges require multilateral cooperative replies

5.2 The Survival Hexagon and Conflict Pentagon

- **From a Grotian Perspective**: non-military challenges for the 21st Century
- **Method**: *Fernand Braudel’s*: 3 times: We can project structures (hexagon), we can foresee conflict constellations (e.g. business cycles, pentagon), but we cannot predict events
- **Survival Hexagon**: 6 non-military challenges
  - same: climate change, soil erosion, water scarcity
  - difference: population growth, urbanisation, food
- **Conflict Pentagon**: 5 constellations
  - BMU-Study on Climate Protection and Security Policy, e.g. impacts of climate change in ecologically extremely sensitive regions: distress migration

5.3 Focus: Regional Hotspots & Arid Regions: Sahel, MENA and Central Asia, Delta areas

- **Environmental stress and catastrophes/conflicts/wars**: Sahel zone: severe drought, internal distress migration, internal conflicts, interstate conflicts, small clashes between nomads and farmers
- **Most seriously affected countries**: ecologically: arid and semi-arid regions (Sahel, MENA, Central Asia, Mexico, Peru) subtropical regions (Central America), monsoon regions (India, Bangladesh, Southeast Asia)
- **Domestic Consequences**: poverty and severe human insecurity of victims of globalisation: combination of environmental causes and socio-economic conditions, and fundamentalist radicalisation.

6.1. Causes & Consequences of Climate Change

Figure 4: Variations of Earth’s surface temperature

  - WG I: Scientific Basis (Jan. 2001, Shanghai)
  - WG II: Impacts, Adaptation, Variability (February, Geneva)
  - WG III: Mitigation (March 2001, Accra)
  - Special Reports: on Regional Impacts: Vulnerability Ass.

6.2. Global Consequences: Temperature & Seas

WG 1: Global Average Temperature: 20. Century + 0.6°C;

- 1990s warmest years; 1998: warmest year since 1861
- Sea level rose in 20th Cent. by 0.1 - 0.2 m;
- Precipitation increased by 0.5-1% per decade,

Figure 5: The global climate of the 21st century

- Temperature increase: 1990-2100: +1.4 – 5.8°C
- Sea Level Rise: 1990-2100: + 0.09 - 0,88 m

6.3. Regional Impact: Desertification, Precipitation

- Increase in drought; length, Intensity in parts of Africa, Asia


Thesis: European vicinity: CC Impact will be most severe in the Mediterranean, Central Asia, or in Muslim Countries

Fig. 6: Mediterranean: MENA-Region: arid and semi-arid Zone: lack of water, partly progressing deserts due to human activity

- Europe: dryer and less precipitation in the South during Summer,
- Middle East: Temperature stable, increasing water needs

- Canterbury Workshop: Sep. 2001: on 20th Century

7.1 Population Growth

**Figure 7**: UN Population Division, Assessment 2000

- Gap: North: Decline, South: Increase

7.2 Climate Change

- Source: IPCC-Reports, National Communications
- Egypt, Jordan: National Communications, Turkey no party
- Support: of DoE (USA), none of the EU

7.3 Desertification

**Figure 8**: Deserts of the World: Sahara to Gobi

- Sources: UNEP/MAP: Blue Plan (1989) to 2025, Mainguet

7.4 Water

**Figure 9**: for Maghreb: Jelalli, Jeballi to 2025

- Sources: for Middle East: Tony Allen (SAOS, UK) to 2080

7.5 Food and Agriculture

**Figure 10**: Source: FAO, Alexandratos to 2010, 2030

7.6 Urbanisation: Governability of Cities


**Figure 11**: Comparison: South Europe – North Africa: 1950-2030

- Impact: Survival, Domestic Security, Governability of cities
8. Egypt: Nat. Communication on Climate Change

Figure 12: Map of Nile Valley, Delta

„Given Egypt’s growing population, its limited fertile land, and its large area of desert, and the concentration of its economic activities in the coastal zones, the potential social and economic impact of climate change could be devastating for the country’s future.“ Egypt, Initial National Comm. on CC, June 1999, p. 18

8.1. Impact of Climate Change

Vulnerable: Mediterranean Coast and Nile Delta

- Increasing Water Needs: 95% from Nile
- No self sufficiency on food products: Need for Imports
- Migration of 2 Mio. from Nil delta due to Sea Level Rise:
- Direct Health Implications: Skin Cancer, Heat Strokes,
- Indirect Implications: demographic Resettlements and socio-economic disruptions
- Detailed assessments and correlations are missing

8.2. National Climate Policy and Countermeasures


- Energy efficiency, clean, renewable energy sources (W,S)

8.3. Future Climate Change Impacts

- Agricultural Output until 2050: Decline for wheat (-18%), Mais (-19%), Barley(-18%), Rice (-11%), Soya (-28%) Cotton (+17%), Increase of food imports
- Countermeasures: Plants, Water- + Land management
- Cities: Alexandria (30% of territory, 2 Mio.), Rosetta (1/3 of Population if sea level rises by 50 cm), Port Said, Coral
- Lakes in Delta/Coast: 65% of fish production

Climate Change will have significant impacts on security and survival of Egypt and for all MENA Countries. Conflict constellations can be foreseen but concrete conflict events (11.9.2001) cannot be predicted.
9. Integrate Climate Impact Study for Egypt

**Abb. 13**: Integrated assessment framework, sectoral linkages


9.1 Modelling Integrated Climate Change Effects

- **Scenario** for 2060: based on data for 1990, 4 GCM (General Circulation Models) different scenarios were used
- **Future without climate change**: pess. vs. optimist variant
- **Future with climate change**: +4°C for Cairo, +3.1°-4.7°C
- **Extreme Vulnerability of Nile Delta
- **Water/Capita**: 1990: 1005 m³, 2060: 452 m³ (Welt Bank proj.)
- **Agricultural Production**: Increasing Agricultural imports, The Self-sufficiency Rate with food will decline from 60% in 1990 to 10% by 2060; declining returns, increasing water needs, decline in agricultural land, Reduction of Nile Water

9.2 Security Consequences: Water of the Nile

**Figure 14**: Map of Nile River Countries

- Increase in Population and water demand until 2050
- **Distribution of Water** as a Cause of Conflict?

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<tr>
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<td>21.834</td>
<td>62.096</td>
<td>115.480</td>
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<td>27.150</td>
<td>66.054</td>
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<td>7.886</td>
<td>30.026</td>
<td>88.963</td>
<td>81.077</td>
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<td>14.817</td>
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<td>6.064</td>
<td>16.937</td>
<td>14.481</td>
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<td>Total</td>
<td>72.947</td>
<td>233.320</td>
<td>643.355</td>
<td>570.408</td>
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</table>

12
10. Early Recognition and Conflict Avoidance

From several conflict surveys we know that since 1989-2000 most conflicts were intrastate conflicts and have occurred in Asia and Africa and to a lesser degree in the Middle East. So far **environmental stress was no major cause of conflict.** In Afghanistan both foreign occupation and internal tribal competition were crucial. The impact of the intrastate war and of severe droughts intensified the food and human insecurity. In the coming decades: environmental challenges in the arid regions will intensify and fundamentalist movements may grow due to domestic crises and to unresolved conflicts.

What may be the consequences of the 11 September terrorist attack on the US and of the War in Afghanistan for the relationship between the West and the Muslim World? What should be Western priorities for the relation between Europe and MENA?

10.1 Potential Impact of War in Afghanistan?
- No crusade and no war against Islam and Muslim world;
- The fight against terror is in the interest of many Muslim countries that are confronted with fundamentalist challenges: Algeria, Egypt, Tunisia etc.;
- But only armed forces from Muslim countries should contribute to peacekeeping forces in Afghanistan while forces and NGOs from Western countries may contribute to humanitarian aid and to the reconstruction.

10.2 Euro-Mediterranean. Barcelona Process & Goals
The Barcelona Declaration (1995) pursues three goals:
- **Basket 1:** Establishing A common Area of Peace and Security
  To be assisted by a Charter on Peace and Stability
- **Basket 2:** Creating an Area of Shared Prosperity with the goal of achieving a Euro-Mediterranean free trade zone
- **Basket 3:** Developing Human Resources, Promoting Understanding Between Cultures and Exchanges Between Civil Societ.

The financial means for 12 countries over 4 years have been limited to less than 4 bn. € and from 2000-06: to 6 € not all of it has been spent. While US policy is energy driven, the EU lacks a longer-term political and economic perspective for the MENA.
10.3 First Priority: Conflict Resolution in Middle East
- Conflict resolution in the Middle East between Israel and the Palestinians but also with Lebanon and Syria must become priorities of coordinated European and American diplomacy.
- EU countries spent manifold on the wars & military presence in the Balkans, the second Intifada and the war against terror than they have made available in the first and second MEDA programme. The EU has a common policy but no longer-term perspective and strategy for cooperation with the MENA reg.
- Political, economic & cultural cooperation between EU and MENA must become a EU priority besides enlargement.

10.4. Second: Political, cultural, scientific dialogue
- A major lesson of 11 September and of the fight against terror must be that a longer-term policy and strategy of political, cultural and scientific dialogue must be developed between EU and EMP as well as Central and South Asian countries.

10.5 Third priority: Cooperative conflict avoidance
- A major short-term policy goal should become to recognise the environmental conflict potential that is evolving in the arid and semi-arid regions adjacent to Europe.
- The long-term political goal should be to avoid environmental stress as additional causes of conflict by addressing the challenges posed by the six factors of the survival hexagon.

10.6 From a Euro-Mediterranean Stability Charter to a Mutual Survival Pact
- The MENA region will have sufficient drinking water but not for irrigation for agricultural production. Food imports represent a transfer of “virtual water”. Food imports require additional trade income. Food dependence and concern about food as a weapon are a constraint to food interdependence.
- The MENA region has the best conditions for large-scale renewable energy production (virtual sun”) to replace both nuclear and fossil energy resources in Europe as well.
- A Euro-Mediterranean survival pact should link the mutual dependence on food and energy in a “survival pact”.