

This report examines the broad development of our global security environment up to 2030. It reaches the following conclusions.

### 1. CRITICAL AREAS We depend on three vital life systems for our security:

- **Ecological:** A sustainable ecological base providing two critical services: **raw materials** to exploit and a **liveable habitat**. This is the domain of natural megasystems beyond our control but within our destructive range. It is the precondition for our existence and the foundation on which the other two life systems rest.
- **Social:** Harmonious social relations offering both **safety** and **vitality**, or freedom from fear and the pursuit of happiness. The domain of politics, as the quest for psychological influence. Shaped by 'High Politics' (horizontal peer politics between elite power brokers) and 'Low Politics' (governance, or vertical politics between power brokers and their social base).
- **Functional:** Manipulating our ecological base to **satisfy our material needs**, or freedom from want. The domain of engineering, as the quest to manipulate the natural world. Shaped by science, technology and economics, or understanding, tools and productivity.

### 2. DEEP TRENDS

- Overall: **Deep transformation of the planetary and human condition** driven by Toffler's Third Wave of technological revolutions. This has four broad consequences:
  - **Massive increase of human functional power**, ie science, technology and economy.
  - **Rapidly shrinking planet**, ecologically, physically and socially.
  - **Accelerating tempo of change and intensity of interactions.**
  - **Gradual power shift** from state to transnational networks. Power is becoming less state-centric. In addition a fourth wave of technological revolutions is emerging, driven by nanotechnology, pervasive sensor grids and bioengineering. This will multiply the rate of change and human power. It will also raise increasingly difficult and urgent moral and philosophical dilemmas.
- Ecological: **Sustained ecological decline** across the board, with two deep consequences:
  - **Increasing resource scarcity.**
  - **Increasing habitat turbulence.**Both impact deeply on the social and functional dimensions.
- Social: **Rising political fragmentation and instability** in three areas:
  - **Increasing peer diversity** as a greater variety of lead actors with more diverse agendas emerge. Includes new states and significant non-state actors.
  - **Increasing domestic and regional turbulence** as all strata of global society transform.
  - **Increasing rich-poor gap** both globally and locally, with misery outpacing our ability to improve conditions in the poorest parts of the world.
- Functional: **Thriving but fragile functional base:**
  - **Vigorous science, technology and economy** provide strong resources to address our ecological and social problems, joint vital interests among the elite actors and a rising global middle class.
  - **Vulnerable economic and technological base.** Inherent systemic weaknesses plus rising ecological and social stresses make future economic depressions likely and sudden collapse possible. Either would severely increase the problems in the ecological and social dimensions.

## 3. NET IMPACT

- Overall: The above is generating an **increasingly volatile and unpredictable** environment with:
  - **Greatly diversified threats** with existential crises erupting in all three dimensions and from a greater variety of sources. This calls for an holistic perspective.
  - **Intensified interaction** as events impact on each other increasingly rapidly and intimately. This calls for synergistic analysis.This has two deep consequences for our security analysis and practical security management:
  - Traditional security analysis (seeking a degree of certainty through reductionism and simple causality) will have to be subordinated to **consilient analysis** with a broad perspective of dynamic interactions. The result is a fuzzier but far more realistic picture of our environment.
  - Planning based security strategies will have to be complemented with strategies for **agility** and **resilience**. (See section 6 below.)
- Ecological: **Increasing scarcity and turbulence** will generate severe and growing stress on both the social and functional dimensions:
  - In the social dimension **rising domestic ecological hardship** from scarcity and turbulence will affect all global socio-economic strata. This will increase pressures **for forceful protection or exploitation** of the environment and **competition for scarce resources**.
  - In the functional dimension scarcity and turbulence will **strain the global economy** (rising prices and costs) and **disrupt the global technological infrastructure** (rising damage). This will hamper our functional performance, weaken our social base and increase pressures for zero sum political tensions.
- Social: **Increasing pressures towards zero-sum tensions** in both elite politics and global rich-poor relations:
  - Peer diversity is leading to **greater multipolarity** with a strong likelihood of **increasingly hard power politics** under the pressure of diverging agendas, rising domestic instability and ecological scarcity and turbulence.
  - Intensifying rich-poor tensions will **increase global transnational pressures** from global organised crime, global revolutionary movements, uncontrolled refugee and migration flows, pandemics and liquid societies.
- Functional: Under these conditions the **functional dimension becomes our crucial security political centre of gravity**:
  - First, because it prevents the decline or collapse of the world's leading actors and their societies.
  - Second, because it is the principal glue that bonds the leading actors to non-zero sum cooperation.
  - Third, because it provides the scientific, technological and economic tools to address the global ecocrisis and rich-poor tensions.
  - Fourth, because it reduces structural tensions within the elite societies, thereby reinforcing the prospects for non-zero sum politics.The extent to which we can keep the global economy, and technological infrastructure on which it rests, running will be a major factor determining how violent our politics will become and how severely the impact and development of the ecological crisis will be.

### 4. AGENDA IMPLICATIONS

- **Flow Security:** Protecting and promoting our economic and technological base will rise to the top of the Stakeholders security agenda as our most immediate existential interest. This involves a broad range of measures, from science and technology (design and exploitation) to diplomacy (multilateral regulation) to military (enforcement). It also requires very close cooperation between these diverse components of the flows. This will generate deep joint interests and efforts among the Stakeholders.
- **Ecosecurity:** Protecting our ecological base from the global to the local level will rise to the top of the Stakeholders security agenda as our deepest long-term existential interest. This also involves a broad range of measures, including science (understanding the challenges and solutions), technology and business (developing green technology), diplomacy (regulation) and the military (enforcement). This challenge can either lead to deeper cooperation or violent competition between the elite. In the latter case generating deep tensions between the principles of sovereignty versus global ecological needs.
- **Political Security** will undergo two deep shifts:
  - 'High Politics' among first and second-tier elite actors will shift from today's soft multilateralism towards **increasingly hard power politics**. The key uncertainty is how hard and how violent. The key moderating force will be the extent to which the elite actors perceive a need to safeguard functional flows jointly.
  - 'Low Politics' between rich and poor societies and on transnational threats will **shift from healing the poor to barriers against the poor**, as our efforts to solve the problem at source are eroded by persistent and intensifying misery in the poor world.

### 5. MILITARY MISSIONS 2030

The net outcome is that our military will be tasked with supporting six strategic priorities. They are (in rough order of importance):

- **Flow Security** - protecting and supporting our critical global economic and technological flows.
- **Ecological Protection or Exploitation** - policing, enforcing ecoprotection or securing exploitation on an increasingly global scale.
- **Hard Power Politics** - as part of the High Politics of the first and second-tier peer elite.
- **Barrier Operations** - against rising transnational pressures from global rich-poor gap.
- **Global Social Engineering** - to reduce the global poverty problem at source.
- **Societal Support** - assisting society to recover from various functional breakdowns.

Each of these presents specific and often quite divergent challenges to the military. The close interaction with other key actors (eg cyberdefence) will blur the distinction between military and non-military.

### 6. GRAND STRATEGY IMPLICATIONS

- **Decline of traditional planning-based security policy** based on threats that we can foresee. The increasingly unpredictable environment reduces the applicability of traditional threat analysis based on severity-likelihood estimates. This reduces our ability to set priorities, allocate resources and develop proactive strategies and tools for dealing with identified challenges. While a host of challenges remain that we can identify and must plan for, we will need to address the rising number of 'unknown unknowns' with two complementary strategic approaches:
  - **Agility** - dodging threats detected in the last minute. The private sector is already acquiring this skill but states, with their democratic decision-making, bureaucratic organisations and embedded societies, will have great difficulty doing so.
  - **Resilience** - withstanding and recovering from threats that were not detected and that have struck home. Developing systemic resilience and recovery is something that both the state and private sectors have a high potential to achieve successfully.