

PART 1

Understanding the climate-security nexus

Climate, Security and the Military – A Call to Action

Interview with General (ret.) Tom Middendorp

Georg Frerks

Abstract

Dutch Former Chief of Defense Staff (CDS) Tom Middendorp raised considerable political, media and public interest with his repeated calls to take climate change into account as a serious security risk. His analysis and call to action were disseminated through several well-received speeches ranging from Halifax, Munich to the Peace Palace in the Hague, and culminated in a book 'The Climate General – Stepping up the Fight.' After his retirement Middendorp became the Chair of the International Military Council on Climate and Security (IMCCS). In this interview Middendorp describes how and why he reached his convictions about climate security and highlights the main interfaces between climate change, security and the military. He outlines both the wider geopolitical and local security impacts of climate change, among which is the issue of climate migration, and elaborates on the tasks and roles of the military in reducing their own footprint.

Keywords: climate security, military, climate change, security, geopolitics.



Figure 1.1. Dutch Former Chief of Defense Staff (CDS) Tom Middendorp calls for action on climate, security, and the military.

Interview

Georg Frerks (GF): *In a speech in 2017 – when you were the Dutch Chief of Defense Staff – you asked urgent attention for the link between climate change and security. Can you describe how in your trajectory from the beginning of your career till the moment of fulfilling the highest military post in the Netherlands you got convinced that this problem needed such a prominent place in politics, policy and media?*

Tom Middendorp (TM): For a long time, I was unaware of the climate-security nexus. A growing awareness emerged from the experiences I had in the many missions I was part of. This was of course the case in Afghanistan where I was the commander of the Uruzgan mission, but also in the about twenty other operations I was involved in as a Director of Operations and later as the Chief of Defense of The Netherlands.

Environmental conditions have always played a key role in the planning of any military mission. Every military operational planning starts with an analysis of weather and terrain: how can we use the terrain to our advantage and where does it limit our operations? What is the impact of weather conditions on our equipment and our ability to operate? This was, however, limited to the effects of current environmental conditions on our operations. But gradually my view became much broader. In the different missions I experienced how climate acts as a risk multiplier and sometimes even as a root cause of conflict. In Afghanistan, I saw how the increasing droughts created water shortages, resulting in tensions among the population in Afghanistan and how the Taliban used those tensions to gain leverage over the local population. In Iraq, IS used water as an instrument of power. They occupied the Mosul Dam and by controlling the distribution of water they forced the population to cooperate with them. In Somalia the droughts and the warming of coastal waters turned desperate farmers and fishermen into pirates to sustain their families. In Northern Mali, I saw how the Tuareg population struggled with the increasing droughts and felt neglected by the Malian government which made them susceptible to the influence of extremists, who married into their families and used the prevailing frustration amongst the population to recruit fighters, resulting in the current conflict.

In most of these crisis areas, we are reacting to situations that grow out of control, and we often end up dealing with the symptoms of a problem without understanding and addressing the root causes. It is like putting a bandage on an infected wound, we cover the wound, but we don't heal the infection. I realised that climate-related conditions are among those root causes and can push fragile countries over the edge of internal conflicts. It was later when I became Chief of Defense that I connected these experiences with the long-term trend of climate

change. As Chief of Defense, I was also responsible for the long-term design of our future armed forces. In this process you make an analysis of drivers-of-change and what they imply. Here climate change emerged not only as a source of instability, but also as a risk multiplier and a potential root cause of conflicts, which makes climate change also a matter of national security. So, I can say that beginning from a fairly modest understanding in purely operational terms my view broadened when I connected my own mission experiences with a strategic analysis of the different drivers-of-change.

This was a new and for many also uncomfortable insight. In all NATO and EU Military Council meetings of Chiefs of Defense I have attended during my 5 ½ years in office, climate or climate change was never even mentioned. I first addressed this publicly during a panel-discussion at the Halifax Security Conference in Canada in 2016. This attracted much attention because it was election-time in the U.S. where president-elect Trump dominated the discussion with his controversial ideas on climate.

GF: Was there a special event or experience that was determinant or most important in reaching this point?

TM: My growing awareness turned into a firm belief that climate change might well be the biggest challenge of this century, resulting in geopolitical friction, regional conflicts and increasing migration flows. End of 2016 our Minister of Foreign Affairs, Bert Koenders, invited me to address this topic at the Planetary Security Conference. This was a high-profile conference at the Peace Palace in The Hague. Here I explained how climate change could be a root cause of conflict, create breeding grounds for extremism and trigger migration flows. I concluded there could be no security without climate security. This went viral on the national and social media and also triggered a parliamentary debate.

GF: In your book you describe you used your own discretion and authority to get this message out without consulting your staff or political boss at that time, minister of defense Jeanine Hennis-Plasschaert. Was this a conscious decision to take them off guard and create a more momentous effect or were you afraid that they would otherwise object to your initiative?

TM: This was not a conscious tactic to bypass anyone. I had a very good relationship with our minister, I gave dozens of public speeches all the time and all the key players knew my public speech agenda. After Halifax, my views on climate change were also well known and even led to the invitation of Minister Koenders for this speech in the Peace Palace. It was election time and therefore the press jumped at

it and turned it into big headlines. They were triggered by the fact that a military leader stressed the importance of an issue like climate change, which at that time was seen as a left-wing topic.

GF: What were the main responses and how did you look at them that time and in retrospect?

TM: Many people were surprised that the Chief of Defense raised such an issue. Politically, defense and security is a more right-wing topic and climate change more left-wing. As a result, my speech fueled the political debate on this topic in the run-up to the elections. Some commentators insinuated I was securitising climate to raise more budget for defense. Others were pleasantly surprised that a general made this connection and thought that this might help bridge the political gap and put the issue higher on the agenda. Within the military, it hardly attracted attention, probably because they understood the logic of the reasoning and had similar experiences in their own deployments.

All in all, I got the nickname the 'green general'. This in fact encouraged me to do more and I adopted 'climate general' as a title of honour and used it also as the title for my book. When I retired at the end of 2017, I decided to continue and devote my time and energy to this issue. I started to work with Clingendael and the Hague Centre for Strategic Studies (HCSS) on this topic and became chair of the IMCCS.

GF: Can you briefly describe the aims and activities of this Council and who are its members? To what degree is the council successful or effective? Can you give some examples?

TM: The IMCCS was officially launched during a Planetary Security Conference in The Hague on February 19th, 2019. It is run by a consortium of four research institutes: Clingendael and HCSS in The Netherlands, IRIS in Paris and The Center for Climate and Security (CSS) in Washington DC. The aim is to create a global and non-political network of senior military leaders, security experts, and security institutions across the globe dedicated to anticipating, analysing, and addressing the security risks of the changing climate. Next to this expert group, the Consortium is made up by an Executive Committee and a Secretariat who govern all the activities of the IMCCS. Former US Deputy Undersecretary of Defense Sherri Goodman is serving as IMCCS's Secretary General, and I became the chairman. In a few years the IMCCS has grown considerably and now has about 25 institutional partners and a council comprising more than fifty experts from over forty countries.

Apart from the institutional build-up, we have also been successful in our mission. At first, it felt like fighting an up-hill battle. In my 5 ½ years as Chief of

Defense, the word climate hadn't been mentioned once during all the international meetings I participated in. We had a long way to go. To start raising that awareness, our first publication was the World Climate and Security Report 2020. We launched that report at the Munich Security Conference triggering a lot of attention in the security communities around the world. From that moment on the ball started rolling and now, three years later, the climate-security nexus is widely recognised, allowing us to shift our attention from raising awareness towards helping find solutions. NATO, for example, is developing mitigation and adaptation policies and has announced its goal to be a net-zero organisation by 2050.

GF: Now, let us dive a bit deeper in the substance. There are many interfaces between climate, climate change, security, and the military, as you also extensively describe in your book. What in your mind is the main or most important link between climate change and security?

TM: Well, in fact there are links at three levels. The first is at the global, geopolitical level. In that context, we need to look at climate change in the context of three other main drivers of change: resource scarcity, population growth and geopolitical fragmentation. According to the UN, our world population is almost doubling in size during this century, resulting in a more than doubling demand for water, food, and materials. At the same time, the required resources are becoming increasingly scarce. As a result, we can expect a growing global gap between demand and supply that can trigger all kinds of global competition and frictions.

Climate change affects and limits the livable and arable space on our planet, making it harder to bridge that gap. Our geopolitical environment also makes it harder to come to solutions. The Ukraine crisis shows us how our world is becoming more fragmented with regions wanting to secure their autonomy. This fragmentation affects the ability of multilateral institutions to come to global solutions since they can only function on a certain level of international consensus and interaction.

So, the big question is 'How are we going to sustain 11 billion people in the foreseeable future?' Doubling our production to meet that demand simply means that we will deplete our global resources more rapidly. The only way to achieve this is by making our production more resource independent by designing products and production processes in such a way that we can use materials that are less scarce and that we can re-use materials and components. At this moment, we use about 100 billion tons of new raw materials per year, of which we re-use only 8%. This is a dead-end street resulting in more global competition if we don't make a rapid transition towards more circularity.

GF: *What are the dynamics at regional level?*

TM: At the regional level climate change acts as a risk multiplier, especially in fragile and conflict-affected countries across the central belt around the earth. These are often vulnerable places with poor governmental institutions and economies, and facing a high level of population growth, where people are already struggling to survive and often rely on what they can grow on their lands. Here climate change hits hardest and creates the largest disruption. Take the Arab Spring as an example. A disruption in the food security was one of the main causal factors here. These regions are the proverbial '*canaries in the coal mine*', warning indicators for other regions of what to expect. In the Sahel region for instance, the increasing droughts and desertification directly affect food security, a basic requirement for survival. It drives local populations to despair. Looking for ways to support their families, there aren't many choices, so they increasingly decide to move away and migrate, resulting in all kinds of internal frictions and conflicts between herders and farmers. Others become susceptible to the influence of extremist- or criminal organisations. In my book, I quote farmers in the US who state: 'Whiskey is for drinking and water is for fighting over'. This shows the importance but also the conflict potential of water- and food scarcity.

Many regions face longer periods of drought and shorter periods of very erratic rainfall or – in contrast – heavier rains leading to soil degradation. Even in the Netherlands with a moderate climate, we need to change our water management to make it future proof. In many developing countries, governments are unable to deal with such changes, resulting in breeding grounds for extremism and instability that force people to resort to organised crime. In Afghanistan, we see farmers growing opium, in Somalia, they turned to piracy, and in many other countries, people support the trafficking of humans, drugs or weapons.

The third level is the local one where the direct impact of climate change is noticeable in the form of severe weather conditions, such as heat waves, droughts, hurricanes, wildfires etc. I experienced the devastating and disrupting impact of severe weather events in Sint Maarten, where nearly the complete infrastructure was wiped away by Hurricane Irma in 2017. Other examples are the wildfires in Australia, the US and southern Europe, or the floodings in Pakistan covering 12% of the whole country, or in 2023 the heat waves all over the world with temperatures between 40 and 50 degrees Celsius.

GF: *How can climate change affect the strategic balance of power in the world, say between NATO and other countries, if you will Russia, China etc.?*

TM: Next to the above-mentioned geopolitical competition around access to resources, there is also the direct effect of a melting Arctic area. Experts expect the ice in the Arctic to melt to such a degree that within the next five years shipping lanes over the north of Russia will be accessible throughout the year. This offers Russia the opportunity to shift its Naval fleet – and much of its nuclear power – to the North, allowing it to access both the Atlantic and Pacific oceans much quicker than now through the Black Sea. Also, for China this is an opportunity to gain a more direct access to natural resources in the Arctic area and open a new ‘Silk Route’ through the North.

GF: Climate change and lack of livelihoods and resulting violence may lead people to seek refuge elsewhere and could lead to massive migration movements. Can you explain more about these risks? Do you see them happening already?

TM: Climate change brings droughts and extreme temperatures, turning large parts of countries into deserts and making them unlivable. It forces parts of populations to move away from their homelands to other areas where they are often not welcome. The World Bank expects migration flows up to hundreds of millions within 20–30 years. We must recognise migration as something that will not go away any time soon. We need more long-term strategies to deal with it, but we often seem to fight symptoms rather than solving the underlying problems. It becomes increasingly important to also invest in longer-term adaptation programs that help developing and fragile countries to become more resilient against the effects of climate change.

GF: It seems that the present migration crisis just leads to the use of more defensive approaches (such as push-backs, walls etc.) rather than addressing the root causes. What is your opinion on that? What should we do?

TM: Border protection can be part of a future solution but doesn’t solve the problem. As I stated, we need to do more than just fight the symptoms. Within the EU we probably need to mainstream climate resilience into our foreign policy and development programs.

GF: This also brings the link between the climate-security nexus and development and good governance to the fore. This reminds us of the 3-D approach or integrated approach where instruments of defense, diplomacy and development were used in combination to bring about desirable change. The War on Terror (WoT) and now the war in the Ukraine seem to have pushed this type of thinking to the back burner. What are your experiences with the 3-D approach in dealing with the climate-security

nexus? Can you give examples? Is there a need to re-incentivise its use? How can this be done?

TM: Climate change is not a military problem *per se*, and we shouldn't securitise it. However, it does have huge potential security consequences and can act as an accelerator of frictions leading to conflicts. This makes climate change also a matter of (inter)national security and makes it imperative that the security sector becomes part of the wider whole-of-government efforts to address it. From a security perspective, dealing with climate change is also a matter of conflict prevention. We need a paradigm shift away from the functional and often stove-piped departmental approaches. Building resilience against severe weather events, extremism, migration, or local level conflicts, requires a comprehensive effort, integrating the strengths of several departments into a joint approach. It is promising to see this recognised in the Netherlands. The latest National Security Strategy includes climate as a main driver of change and calls for a comprehensive approach.

However, we still have a long way to go. Not all countries recognise this need and for most militaries climate change still feels very unfamiliar and abstract. They rather focus on the current security concerns and on their conventional tasks like defending the national territory and helping stabilise conflict areas. It is however equally important to help prevent and be prepared for future conflicts. Many military leaders don't realise that climate change will most likely bring more insecurity and conflicts and will shape their future security environment. But times are changing. We have an unprecedented foresight of the likely (security) implications of our changing climate, which gives us a responsibility to be prepared and to help prevent. It was Eisenhower who famously called the tension between the urgent and the important. As the urgent is about today's crises, it usually wins from the important, which is about tomorrow's crises. In other words, the daily issues often draw the attention away from what is important in the longer term, which keeps us in a reactive mode. To govern is to look ahead. The Dutch province of Zeeland, after the flooding disaster of 1953, is a good example. The government back then did not decide to simply repair the dikes, to fix the problem of the day, but decided to put extra money in a future-proof Delta-works system for which we as a younger generation are still grateful.

The Ukraine war is of course a wake-up call to invest more in defense. But if we rebuild or strengthen our defense force it should be done in a future-proof way. Not just preparing for the last war, but use the lessons learned to prepare for the future and climate change is part of that as it increasingly becomes a driver or a root-cause of future conflicts.

GF: In this connection, it seems that the EU has taken a protagonist role in the European continent by issuing all types of laws and guidelines. For some this is a beacon of light to be followed, while others deplore it as supranational meddling that undermines our national sovereignty. How do you look at this?

TM: The EU Green Deal was urgently needed. Without it we would never have moved to the required energy transition. The Ukraine war of course drove the issue home that we needed to be self-sufficient and reduce our external dependency. We are still in the phase of windmills and solar panels, but we have to move further in the direction of circularity as that really changes our supply chains and reduces our dependency fundamentally. The EU needs to become a more global player than earlier when it was mainly concerned with the internal market. To secure its internal economic interests, the EU needs to mature its external role as a global player and become part of the solution in dealing with the increasing geopolitical competition. In that regard, it is important to consolidate the fragmented European industrial base in such a way that we can use our enormous innovative strength to become more resource-independent and lead the way towards reducing our ecological footprints. Innovating on circularity can help Europe become more resource-independent and make the economies of its member states future-proof.

GF: Is sovereignty still an issue in the climate-security debate or perhaps of little value or irrelevant in connection with the cross-border nature of the issue?

TM: In the short term, reducing our international dependencies requires us to secure our access to sufficient natural resources. But we do need to realise that this will lead to more geopolitical competition and is a dead-end street because at some moment we will run out of these resources. This means we have to work on the longer-term solution of becoming more resource independent and changing our industrial-age way of producing and consuming into a more circular and sustainable way of living. It is obvious that this is a global matter which cannot be resolved in isolation and requires much international cooperation and joint action.

GF: In your book you argue that about climate change a broad coalition is needed with the defense sector as an indispensable partner. Can you explain why this is so?

TM: The military can play several roles when it comes to dealing with climate change. In the first place, there is the topic of climate intelligence, forecasting, and early warning. This should include the security effects of climate change. Look for example at fragile regions. If you realise that climate change is a risk multiplier, you can integrate climate change into your risk models, meanwhile helping other

departments to build a more comprehensive picture for the planning of mitigation and adaptation programs. A second role concerns building of resilience by adapting militaries to operate under increasingly extreme conditions, such as with temperatures of over 50 degrees without the availability of water. Our infrastructure needs to be suitable for such circumstances. But there is also the need to build external resilience, such as of African regions to prevent them turning into conflict areas. I do see a role here for the military in partnering with countries and their armies to help them operate effectively. International military cooperation should include climate change just as climate programs should include security. This is already happening as evident from the work of the Global Centre on Adaptation supported by Bill Gates. They carry out large-scale adaptation programs in fragile regions in collaboration with the World Bank, the African Bank and the UN and recognise the link between climate change and security. These programs can truly be seen as stabilisation programs. A third role is military assistance in the field of disaster relief and humanitarian assistance. As the risks of severe weather events will increase, it becomes more important to further professionalise our response mechanisms. For instance, developing a standing regional cooperation mechanism in the Caribbean ensures a more rapid and coordinated multi-agency response.

GF: Defense is one of the largest polluters among all government agencies. What can defense do to change or at least reduce this? You state that within defense, sustainability was for long a non-issue of low priority. Is this changing now and do you feel there are serious plans in place to tackle this. What are for example several good initiatives you see happening nowadays?

TM: In most countries Defense is one of the biggest polluters and it is promising to see many countries looking at ways to make their military more self-sufficient without negatively affecting its operational readiness. An electric tank that has a limited range wouldn't be very effective. Countries like the UK, US, France, and Denmark are putting mitigation efforts in place. It is important to explore the military potential of new 'green' technologies. Logistics are the largest cost-driver and the largest vulnerability to any military mission. So, innovating on self-sufficiency regarding energy, water, food, spare parts, etc. can help reduce that logistical footprint and help military units to become more self-supporting, which would have a huge operational benefit.

GF: What more can be done by defense in terms of energy transition?

TM: I am currently involved in the development of a smart energy hub in an industrial area in the Netherlands that wants to become energy neutral. These same

technologies can be used in the defense real estate. The same is the case when we talk about the electrification of vehicles where the whole automotive sector is in full transition. These are areas where Defense can follow civil standards and innovations.

A harder nut to crack is the heavy military capabilities that use high power energy sources. These are the combat tanks, the naval vessels and (ultimately) the air fighters. For these areas, alternative energy sources are not available yet, but they are becoming a focus area of innovation around the world. Here, the defense sector can act as a platform for innovation in cooperation with the civil sector and the defense industries. For instance, the sector can join forces with industries, research centers, civil developers and start-ups on the development of a next generation naval vessel that is fully self-sustaining. The propulsion- and power supply system of such a vessel would consist of dual-use technologies that can also be used more widely in the civil sector.

GF: The current budget increase seems to be a good opportunity to invest in an environmentally smart way. Do you see this happening in a sufficient manner?

TM: Certainly, with money flowing again, more is possible. On the other hand, this thinking is still quite new for the defense sector, and I see also some reluctance or fear that it will absorb funds that will then not be available for other operational deficiencies. It is important to integrate requirements regarding self-sufficiency and emission reduction into the research, development, and procurement of new military capabilities. The civil sector is moving rapidly towards alternative energy sources, and we can't have a military that is the only one that is still running on diesel and kerosene. The defense sector has always been at the forefront of developing, testing, and adopting new technologies that always cost more money, but at the same time boast operational effectiveness.

GF: Many people nowadays seem dissatisfied with the progress made so far in dealing with climate change. Activists, civil groups, NGOs, and academics have joined groups like Extinction Rebellion to push the message home that more needs to be done by using peaceful but at the same time more radical demonstrations. In your book, you also express some impatience at the slow speed of change and accuse people of being blind while seeing. How do you look at such movements like Extinction Rebellion?

TM: Any movements who promote similar goals to deal with climate change are useful. They see the same urgency as I do. However, for me actions should always be within the limits of the law to be acceptable. You want to convince others that change is needed, you don't want to alienate them.

GF: Finally, if you had to give a message to your readers, what would be the thing you would like to say to them?

TM: For many people climate change is very big, very complex and way above their heads. At the same time, there is a growing recognition that climate change will affect not just our ecology, but also our security, our economy, and our social stability. My message would be to *“Think big, act small, start somewhere!”*. We can all contribute and there is an old Chinese saying: *“many drops also make a river”*. It starts by becoming aware of our own footprint. If I buy one shirt less, it saves hundreds of litres of water in the production process. We are still children of the industrial revolution, but we need to become children of the circular economy!