

CLIMATE SECURITY AND THE MILITARY

Concepts, Strategies and Partnerships

NL ARMS – 2023



Edited by

**GEORG FRERKS | RINZE GEERTSMA | JEROEN KLOMP |
TOM MIDDENDORP**

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Preface by the Dean of the Faculty, Prof. dr. Patrick Oonincx

Every year the Faculty of Military Sciences (FMS) of the Netherlands Defence Academy presents part of its research activities in a book related to an urgent theme. Climate change is one of such urgent themes that affects our society on a daily basis and the energy transition associated with it is another one. Of course, this is an area of interest that contains many aspects from a scientific point of view, and we would need a series of books to cover them all. In this volume, we focus on the military scientific perspective, which turns out to be an interesting topic on its own.

Climate change is shifting climate zones on our planet with various consequences, such as drought and floods and therefore failed harvests and food shortages, but it also creates changes in for example the accessibility to certain minerals. These changes irrevocably lead to local but also global tensions. These tensions will eventually affect the main tasks of the Defence organisation. A well-defined scientific interpretation of this evolving situation in the aforementioned areas is necessary, as it can provide Defence with the necessary insights into tomorrow's conflict backgrounds. Also, it becomes more and more important for the Ministry of Defence (MoD) to think along mitigating measures in this climate crisis.

For several years, we have been seeing river floods appear all over the World and particularly in Western Europe, where several major rivers come together in river deltas. The MoD's commitment to this as part of its third main task – to assist civilian authorities in case of emergency – will only increase, making it even more important that research has been carried out already for years by FMS both on methods for dike reinforcement and on Defence cooperation with civilian (emergency) services. Both topics have been addressed in this volume.

Research at the FMS that also has been carried out successfully for several years concerns future zero emission fuels. I consider it the MoD's duty to work closely together with civil knowledge institutes and industry, and participate in solutions to climate change. Shortages of current fossil fuels are forcing the MoD to think ahead, when acquiring new naval vessels, army vehicles or aircrafts. This equipment should be able to meet the challenges of tomorrow with the resources available at that time. In Den Helder, FMS is currently setting up a large military energy systems laboratory to be able to conduct research on this topic with (inter) national partners.

In this preface, I tried to highlight some of the research topics of our faculty. However, there is so much more to tell on ongoing research making this book well worth reading. My thanks go to all the authors for their contributions, not only from our institute, but also from our partner universities and knowledge institutes. A special word of thanks should go to the editors of this volume, who have managed to position the various perspectives throughout this book in an excellent manner.

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