



**QUEEN'S  
UNIVERSITY  
BELFAST**

## Environmental Accountability of NATO

Hwang, J. (2018, Nov 6). Environmental Accountability of NATO: Testimonies of Environmental Problems and Field Studies in Germany and Italy.

### **Document Version:**

Publisher's PDF, also known as Version of record

### **Queen's University Belfast - Research Portal:**

[Link to publication record in Queen's University Belfast Research Portal](#)

### **Publisher rights**

Copyright 2018 The Author.

### **General rights**

Copyright for the publications made accessible via the Queen's University Belfast Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

### **Take down policy**

The Research Portal is Queen's institutional repository that provides access to Queen's research output. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact [openaccess@qub.ac.uk](mailto:openaccess@qub.ac.uk).

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/337670255>

# Environmental Accountability of NATO: Testimonies of Environmental Problems and Field Studies in Germany and Italy

Article · November 2018

CITATIONS

0

READS

2

1 author:



**Juneseo Hwang**

Queen's University Belfast

3 PUBLICATIONS 0 CITATIONS

SEE PROFILE



# Briefing Paper No.66

6 November 2018

Contact: Dr. Ian Davis  
Email: [idavis@natowatch.org](mailto:idavis@natowatch.org)  
[www.natowatch.org](http://www.natowatch.org)

## **Environmental Accountability of NATO: Testimonies of Environmental Problems and Field Studies in Germany and Italy**

Juneseo Hwang (MA Peace Studies student, University of Bradford, UK)

**Acknowledgement:** This research was funded by the University of Bradford (Gerold Hodgett Bursary) and Green Korea United.

### **Introduction**

The military is often referred to as the single largest environmental polluter on our planet, but, in the name of national security, it is usually exempted from several regulations to protect the environment (Westing 1988; Coates et al. 2011). However, this does not always mean that the military has no motives and means to do so. NATO, the biggest military cooperation initiative on the globe, has developed its own environmental guidelines from the 1960s (NATO 2014), and many armed forces around the world have developed their own strategies to mitigate environmental problems caused by military activities and operations.

Then, the question is to what extent the military has contributed to environmental protection in reality and to what extent the military's environmental policy has been accountable for people and nature in the vicinity of military facilities and operational sites. This article focuses on NATO's environmental policy and practice and is written based on the academic literature, media reports, field studies and local people's testimonies<sup>1</sup> from some NATO/US bases in Germany and Italy. It first reviews environmental issues related to NATO and then illustrates some of the problems of NATO activities in the two countries studied (Germany and Italy). These findings provide the basis for assessing NATO's current environmental safeguards and a conclusion that raises a deeper question about the Western security organisation's environmental accountability, specifically in relation to transparency and responsiveness.

### **US/NATO's Environmental Footprints in Europe**

It is broadly recognised that military operations pose a serious and constant threat to the environment and human health in both wartime and peacetime (Reuveny et al. 2010; Harris 2015). Likewise, NATO's intervention in the Western Balkans in the 1990s left destructive environmental impacts. Several researchers discovered environmental changes, such as deforestation and ground water contamination, as a result of NATO's military operations in Kosovo and the former Yugoslavia. These

---

<sup>1</sup> To protect their privacy, all testifiers are anonymous.

severe environmental effects to the ecosystem and human health have not been repaired by any party as far as is known (UNEP 2001; Schwabach 2000; Clarke 2002; Neuhauser 2015). The United States and NATO also have bases for trainings and ordinary military activities which have caused alleged or confirmed environmental contamination incidents (see Table 1).

**Table 1. (Alleged) Environmental Problems in Major NATO/US Bases in Six European Countries**

Country	Name of Base	In Use	Major Environmental Problems
UK	RAF Greenham Common	1941 – 1991	Allegation of Depleted Uranium contamination
	RAF Fylingdales	1953 – Present	Electromagnetic waves
	RAF Lakenheath	1941 – Present	Aircraft noise
Germany	Ramstein Air Base	1952 – Present	Aircraft noise
	USAG Ansbach	1991 – Present	Aircraft noise, land and groundwater contaminated by chemicals
	Spangdahlem Air Base	1952 – Present	Oil Spill
	Bad Kreuznach Air Base	1945 – 2001	Residual contamination after return
	NATO Air Base Geilenkirchen	1982 (NATO) – Present	Aircraft noise (also in the Netherlands)
	Bitburg Air Base	1952 – 1994	Chemical contamination
	Rhein-Main Air Base	1945 – 2005	Oil spill
	USAG Mannheim	1945 – 2011	Groundwater contamination by chemicals, such as TCE
	U.S. Army Depot Germersheim	1951 – Present	Land and groundwater contamination by oil spill
	USAG Bavaria	1947 – Present	Unexploded munitions, land and groundwater contamination
U.S. Army Depot Mainz	1945 – 1989	Groundwater contamination by chemicals	
Italy	Salto di Quirra	1956 – Present	High rate of rare diseases, land and groundwater contaminated by Depleted Uranium and Dioxin
	Decimomannu Air Base	1954 – Present	Oil spill, water contamination, etc.
	NSA La Maddalena	1972 – 2008	Radioactivity exposure, groundwater contamination etc.
	Naval Radio Transmitter Facility Niscemi	1991 – Present	Exposure to harmful electromagnetic waves, destruction of the Niscemi Nature Reserve
	Camp Ederle & Dal Molin	1951 – Present	Groundwater contamination and environmental degradation
Greenland (Denmark)	Camp Century	1959 – 1967	Radioactivity exposure, chemical contamination, abandoned bases
Spain	Rota Naval Base	1953 – Present	Oil spill, threats to protected species
Portugal	Lajes Air Base	1934 – Present	High rate of diseases, radioactivity exposure, chemical contamination

However, under a special legal mechanism called NATO Status of Forces Agreement (SOFA), or Visiting Forces Agreement in the UK, most of these environmental problems are addressed in favour of the United States or NATO, which usually limits their responsibility in clean-up process. Moreover, as Hamblin (2010) finds, NATO's environmental policy originated from the Nixon administration's expansionism, and it is plausible to assume strong US influence on the alliance's environmental policy despite its consensus-based decision-making procedure. Thus, the SOFA system can reduce US Forces legal responsibility in environmental matters, despite the host nations' environmental laws (Wegman and Bailey 1994). Furthermore, according to Bremberg (2018), NATO's policy decisions related to the environment may not reflect advice from its epistemic committees<sup>2</sup> and environmental issues are located in the periphery of NATO's policy priority. As a consequence, NATO's efforts to reduce the ecological burden of its military operations and activities have been criticised by civil initiatives in terms of inadequate responsiveness to environmental problems and a lack of transparency.

This led to the rise of civil initiatives and campaigns to hold NATO accountable for environmental degradation (Access Info Europe 2009; War Resisters' International 2013; Weir 2014). The major claim of such campaigns is that the legal vacuum, lack of political willingness and military secrecy disrupt the introduction of appropriate remedies for contaminated sites and the rightful enjoyment of environmental rights, such as the right to access to information and the right to a healthy environment guaranteed by the Aarhus Convention<sup>3</sup> and other international environmental treaties that European NATO Member States have signed.

## Germany

When the author visited Ansbach, a small city in southern Germany, the sky was clear enough for US Apache (AH-64) and Chinook (CH-47) helicopters to operate their routine training exercises. Local residents testified about the noise pollution from living near a military base. Military aircraft fly over residential areas, sometimes very close to the rooftops. One resident told me she could see a pilot's face in a helicopter as it flew close to her house. According to the residents, these problems continued at night, sometimes suffering from noise until 2 am. The residents claimed that these night training flights operated against the local council's resolution that urged the US military to halt night-flights between 10 pm and 6 am.

Furthermore, citizens in Ansbach raised concerns about possible water contamination. One day a small stream was filled with chemical smells, which lasted for a few days. Then, US soldiers stopped fishing in a lake close to their base and connected to the stream. Although there was no official statement from either the local council or the US military that explained the cause of the smell, local residents said they were also recommended not to fish in the area. A local civil initiative Etz Langt's gathered 9,000 signatures for a petition against problems at the Ansbach base, but the US military rejected the appeal. Additionally, neither the Bavaria state nor the German federal government was

---

<sup>2</sup> Bremberg's article illustrates the limited acceptance by NATO officials of policy recommendations established by its research committees – Science and Technology Committee and Economics and Security Committee – for NATO's responses to climate security.

<sup>3</sup> Adopted in 1998, the official name of the Aarhus Convention is the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. This Convention regards access to information, public participation in environmental decision-making process, and access to justice as crucial components to realise environmental rights.

responsive to the people's voice in the small city. Air pollution caused by the military helicopters is another problem left unaddressed.

A similar situation was happening in Kaiserslautern, a city in southwestern Germany, which is located next to the Ramstein Air Base, the largest NATO base in the world. This base is well known for its key role in NATO's operations as it accommodates both the United States Air Forces in Europe – Air Forces Africa (USAFE-AFAPRICA) and NATO Allied Air Command (AIRCOM). Residents live under the flight paths of fighter aircraft, which take-off and land almost every 10 minutes. Given the size of the base, there are several squadrons of combat aircraft and military transport aircraft.

Whereas local civil groups were struggling to access information on environmental problems caused by military flight trainings and activities, the local council was inactive. In contrast to Ansbach, the local residents earned a victory in a court with an injunction against night-flights between 10 pm and 2 am. Other problems, however, are still ongoing. For example, groundwater contamination, disposal of anthrax (and biological experiments) in the base, and fuel dumping (fuel jettison) in the forest around the base. One testimony indicated that the local council, the state (Rhineland-Palatine) and the federal government were failing to respond to environmental matters which concern public health issues. For them, economic incentives accompanied by the military presence and political consideration to be a trustful member of NATO are more important concerns than local residents who oppose the militarised use of their land. According to local people, the impact on local wildlife is also an increasing concern. As the Ramstein Air Base itself is located in a nature reserve, it obstructs the free mobility of wild flora and fauna. Moreover, recently, 50 hectares of forest near the military site was cut down for a new military hospital, posing a serious threat to the areas wildlife habitats.

## **Sardinia, Italy**

Next to Germany, Italy is the NATO European member state with the second largest concentration of NATO/US bases. However, most of those facilities are concentrated in Sardinia, an island famous for its attractive natural environment.<sup>4</sup> In recent years, several environmental contamination problems in Sardinia have been reported, and the severity of some of those cases is alarming.

A particularly well-known, problematic site are the facilities around Quirra village in the south-eastern part of the island. This small village has been publicly reported for "Quirra Syndrome", which is a set of rare diseases only occurring in this area. Major cases are eye cancer, ear cancer, Leukaemia, Hodgkin's lymphoma, non-Hodgkin's lymphoma, and child malformation (both human and animals). While the causes have still to be confirmed, it is alleged by local people that Depleted Uranium-related and/or other military activities and experiments are the sources of this phenomenon, as well as the reported deaths of soldiers serving in a base near Quirra (Zucchetti 2006; Cristaldi 2013; Gatti et al. 2013). In the Quirra Training Range near the coast, artillery bombing exercises operated every day and new weapons were tested in the inland military site around the village. Moreover, old munitions were 'disposed' of by being exploded underground, with the risk of contaminating soil and groundwater.

The author's field study found the major problem on this issue is the lack of governmental efforts to address the Quirra Syndrome. Whereas civil organisations endeavour to discover causes of and remedies for the lethal diseases, neither the Sardinian or the national government listened to local residents or undertook to investigate the problems. According to an independent scientist who investigated the Quirra Syndrome, artificial environmental changes caused by thermal impacts of

---

<sup>4</sup> One interviewee commented that out of 40,000 hectares used for military exercises in the whole of Italy, 24,000 hectares are on Sardinian soil.

military experiments and bombing exercises could generate nanoparticles that could provoke hazardous results when they infiltrate the human body. However, despite these scientific findings, there was no evidence of any governmental or NATO support for this research or to explore other lines of research or to assist bereaved families and victims of the Quirra Syndrome.

The Sardinian protests have been directed at the regional government, the national government and NATO. For example, since 2007, protestors against the Quirra military facilities have been organising a two-hour monthly public meeting in front of the national government's office on the island, given the lack of an adequate response from the Sardinian government. According to the protesters, although the Italian Constitution states Italy voluntarily bans the preparation for war, Sardinia has been a place for foreign, even non-NATO, countries' military training. For instance, several sources confirmed that the Israeli military also participated in NATO training exercises on the island in 2011 (Israel Defence Forces 2011; Reynolds 2015). However, Sardinians campaigning against what they see as a military occupation of the island have no faith in the Italian environmental laws protecting them from threats posed by those military activities.<sup>5</sup> In the case of the former US base at La Maddalena in northern Sardinia, which closed in 2008, the Italian government acknowledged the existence of environmental contamination and its responsibility to restore the environment. Yet US troops left without taking any remedial action and sources of the environmental degradation were not disclosed (Popham 2003).

## **Holding NATO Accountable**

It might appear that the defence sector has less impact on global environmental changes compared with the larger private commercial sector. Obviously, businesses and industries have caused environmental problems (often as externalised costs) and have significantly contributed to worsening climate change. However, even if the military may have a lower negative environmental impact compared to the private sector, it still remains accountable for activities that damage human health and the environment. This also applies to NATO military activities. And not only in Germany and Italy, but in other NATO Member States, such as Spain and Greenland, Denmark, where environmental issues left by NATO operations are problematic, as the previous table shows.

This discussion leads to several questions: What is NATO's environmental policy for? Which negative impacts does it try to mitigate? Is the policy coherent and compatible with its member states' environmental mechanisms? What institutions can assist local people around military bases? As officers in those US/NATO bases did not respond to the questionnaire sent by the author, answers to those questions have not yet been addressed by the military themselves. More detailed research on this topic might provide some of the answers, although without the active cooperation of the military this will be difficult. However, it is clear that in contrast to NATO's claim that its environmental policy has almost 60 years of history, civil protests and historical records raise a question on the effectiveness of NATO's actual role in the protection of the environment and public health.

---

<sup>5</sup> Unfortunately, EU environmental legislation also could not assist people in Sardinia, as stated by a representative from the European Commission who said the Environmental Liability Directive "does not apply to activities the main purpose of which is to serve national defence or international security". See Potocnik (2014).

## Conclusions

In addition to previous academic research on NATO's environmental footprints, the interviews with concerned citizens carried out for this study and the review of secondary sources such as media reports, strongly suggests the existence of an environmental legal vacuum created and sustained by a combination of the SOFAs, governmental willingness to preserve the status quo, and military secrecy against public access to information. These conditions contribute to NATO's lack of transparency and responsiveness. In both Germany and Italy, NATO was effectively immunised from environmental responsibility for its activities and in most cases, local, regional, and national governments were aligning with NATO, instead of local residents, who were simply seeking a normal and decent life. It may be further argued that this situation is a breach of their human rights – the pursuit of happiness.

Obstacles to realise fundamental environmental and human rights in relation to military bases are often justified in the name of national security, but then a question emerges – where is the human in the context of national security? Interviewees during this field study were not permanent activists, but ordinary people who suffered from physical and mental ill-health and diseases caused by aviation noise, soil and groundwater contamination, and rare diseases of unknown origins. Their predicament was exacerbated not only by NATO, but also by their own government's ignorance, wilful neglect or collusion, and to some extent, the socio-political marginalisation and exclusion of such local base communities.

These observations suggest NATO's environmental protection policy has limitations, especially in terms of public trust. First of all, confidentiality of NATO operations prohibits citizens' access to military information so that the origins of environmental problems often cannot be identified. This secrecy manifests in two ways – either by rejecting to offer any informative sources or by refusing to acknowledge any given circumstances. This attitude incites public resentment around military bases. Second, NATO has insufficient measures or mechanisms for justifying or explaining to local people the rationale for military training exercises and base operations that might perhaps at least attempt to justify or legitimise the sacrifices of local residents and nature—and allow suitable remedial or compensatory activities to be undertaken. However, as a consequence of the failings, NATO's environmental footprints are increasing while the organization is yet to be held accountability for those damaging trails.

## References

- Access Info Europe (2009) *Five Principles for an Open and Accountable NATO*. Access Info Europe. [https://www.access-info.org/wp-content/uploads/NATO\\_Openness\\_Principles.pdf](https://www.access-info.org/wp-content/uploads/NATO_Openness_Principles.pdf) Accessed 5 October 2018.
- Bremberg, N. (2018) *European Regional Organizations and Climate-Related Security Risks: EU, OSCE and NATO*. SIPRI Insights on Peace and Security No.2018/1.
- Clarke, R. (2002) Yugoslavia. In: Carter, F.W. and Turnock, D. (editors) *Environmental Problems in East Central Europe*. 2nd edition. London: Routledge. 396-416.
- Coates, P., Cole, T., Dudley, M. and Pearson, C. (2011) Defending Nation, Defending Nature? Militarized Landscapes and Military Environmentalism in Britain, France, and the United States. *Environmental History* 16, 456-491.



- Cristaldi, M., Foschi, C., Szpunar, G., Brini, C., Marinelli, F. and Triolo, L. (2013) Toxic Emissions from a Military Test Site in the Territory of Sardinia, Italy. *International Journal of Environmental Research and Public Health* 10, 1631-1646.
- Gatti, A.M., Montanari, S. and Capitani, F. (2013) The Quirra Syndrome: Matter of Translational Medicine. In: Vaseashta, A. and Khudaverdyan, S. (editors) *NATO Advanced Sensors for Safety and Security*. Springer. 55-64.
- Harris, P. (2015) Militarism in Environmental Disguise: The Greenwashing of an Overseas Military Base. *International Political Sociology* 9, 19-36.
- Israel Defense Forces (2011) *The Israeli and Italian Airforces Train Together in Joint Exercise in Sardinia*. <https://www.idf.il/en/minisites/military-cooperation/the-israeli-and-italian-airforces-train-together-in-joint-exercise-in-sardinia/> Accessed 2 November 2018.
- NATO (2014) *Environment – NATO’s stake*. [https://www.nato.int/cps/en/natohq/topics\\_91048.htm](https://www.nato.int/cps/en/natohq/topics_91048.htm) Accessed 5 October 2018.
- Neuhauser, J.A. (2015) U.S. Military Responsibility for Environmental Cleanup in Contingency Environments. *Environmental Law* 45 (1), 129-179.
- Popham, P. (2003) ‘Cover-up’ fury after US nuclear sub is grounded. *The Independent*. <https://www.independent.co.uk/news/world/europe/cover-up-fury-after-us-nuclear-sub-is-grounded-78110.html> Accessed 15 October 2018.
- Potocnik, J. (2014) *Answer given by Mr Potocnik on behalf of the Commission (31.10.2014)*. European Parliament. [http://www.europarl.europa.eu/doceo/document/E-8-2014-006724-ASW\\_EN.html](http://www.europarl.europa.eu/doceo/document/E-8-2014-006724-ASW_EN.html) Accessed 2 November 2018.
- Reuveny, R., Mihalache-O’Keef, A.S. and Li, Q. (2010) The effect of warfare on the environment. *Journal of Peace Research* 47 (6), 749-761.
- Reynolds, E. (2015) Dark truth behind Sardinia’s holiday oasis. *News.com.au*. <https://www.news.com.au/finance/business/other-industries/dark-truth-behind-sardinias-holiday-oasis/news-story/8a372818be6d3d0d2c969ab24914df05> <https://www.news.com.au/more-information> Accessed 5 2 October November 2018.
- Schwabach, A. (2000) Environmental damage resulting from NATO military action against Yugoslavia. *Columbia Journal of Environmental Law* 25 (1), 117-140.
- United Nations Environment Programme (UNEP) (2001) *Depleted Uranium in Kosovo: Post-Conflict Environmental Assessment*. UNEP.
- War Resisters’ International (2013) *Sicily Against War: Resisting the Niscemi US Military Base*. <https://www.wri-irg.org/en/story/2013/sicily-against-war-resisting-niscemi-us-military-base> Accessed 5 October 2018.
- Wegman Jr., R.A. and Baily, H.G. (1994) The Challenge of Cleaning Up Military Wastes When U.S. Bases Are Closed. *Ecology Law Quarterly* 21 (4), 866-945.
- Weir, D. (2014) *ISAF’s environmental legacy in Afghanistan requires greater scrutiny*. Toxic Remnants of War. <http://www.toxicremnantsofwar.info/isafs-environmental-legacy-in-afghanistan-requires-scrutiny/> Accessed 5 October 2018.
- Westing, A.H. (1988) The Military Sector vis-à-vis the Environment. *Journal of Peace Research* 25 (3), 257-264.
- Zucchetti, M. (2006) Environmental Pollution and Health Effects in the Quirra Area, Sardinia Island (Italy) and the Depleted Uranium Case. *Journal of Environmental Protection and Ecology* 7 (1), 82-92.