## Anczewski, Aleksander MR

From: Goodyer, Mike COL

Sent: Thursday, 21 November 2019 11:35 AM

To:

FW: Australian armed forces and climate change [SEC=UNCLASSIFIED] Subject:

### **UNCLASSIFIED**



I am writing to let you know that unfortunately I will not be able to do the interview with you on Friday morning.

I have been advised the questions you have asked will need to be referred in the first instance to: media@defence.gov

That area will then seek a response from the relevant agency in Defence (which may in part be my area).

My apologies for any confusion I may have caused.

Kind Regards, Mike

## Mike Goodyer



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# Covey, Nicholas MR 1

From:

Goodyer, Mike COL

Sent:

Monday, 18 November 2019 10:00 AM

To:

s47F

Cc:

Covey, Nicholas MR 1; Collins, Travis MR; @dingendael.org
Australian armed forces and climate change (SEC=UNCLASSIFIED)

Subject: Attachments:

Australian Senate References Committe Report\_Sep 18.pdf

Categories:

Red Category

#### UNCLASSIFIED

Good Morning 47F



Thankyou for your e-mail.

I have copied in my colleague at our strategic headquarters and in our environmental division in Defence. Between us, we should be able to provide input into your study, based on the questions you have provided.

The best time for us to conduct an interview would be Friday morning Canberra time.

Meanwhile I will send you a May 2018 Senate Committee Report on climate change and Defence, and also encourage you to have a close look at the Pacific Environmental Security Forum (PESF) website – pesf.org – we work closely with USINDOPACOM, NZ and other countries in the region on environmental security issues.

Kind Regards, Mike

### Mike Goodyer

COL

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From:

Sent: Friday, 15 November 2019 9:29 PM

To: Goodyer, Mike COL

Cc:

Subject: Australian armed forces and climate change

Dear Mike Goodyer,

At the Netherlands Institute of International Relations 'Clingendael', we are doing a study for the Netherlands Ministry of Defence on how a selection of other countries is taking climate change in account in defence strategies and operations. We will also use this material for the first World Climate and Security Report of the International Military Council on Climate and Security. We have included Australia in our selection and have drafted the attached overview. We still have a few outstanding questions and would greatly appreciate to pose these to you. In our report, we would not refer to you, but just mention that we had confidential interviews with representatives of the countries looked at.

- How does the Australian Ministry of Defence deal with the changing climate in international mission (for example the MENA region)? Does it experience any changes, i.e. equipment that does not work due to extreme heat, additional education for deployed personnel on the effects of climate change, etc.?
- Is there a specific amount of money allocated for national humanitarian assistance/disaster relief missions? (and has this been increased because of climate change hitting hard in the region?)
- Could you give more details on efforts to reduce the resource or carbon footprint of the armed forces?

Ideally we would like to ask these questions in a phone interview at a moment most suitable to you. In the past months we have approached other colleagues, and at this point in time Australia is the only country out of 11 from which we have not (yet) spoken to (former) representatives working for the military, so any response would be greatly appreciated.

Kind regards,





www.clingendael.org

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Please consider the environment before printing

	01-102/10/20

From: 647F < 47F @clingendael.org>

Sent: Tuesday, 26 November 2019 8:40 PM

To: Media < media@defence.gov.au >

Cc: \$47F @clingendael.org>

**Subject:** Clingendael Institute | Australian armed forces and climate change Dear Sir/Madam,

At the Netherlands Institute of International Relations 'Clingendael', we are doing a study for the Netherlands Ministry of Defence on how a selection of other countries is taking climate change in account in defence strategies and operations. We will also use this material for the first World Climate and Security Report of the International Military Council on Climate and Security. We have included Australia in our selection and have drafted the attached overview. We still have a few outstanding questions and would greatly appreciate to pose these to you. In our report, we would not refer to you, but just mention that we had confidential interviews with representatives of the countries looked at.

- How does the Australian Ministry of Defence deal with the changing climate in international mission (for example the MENA region)? Does it experience any changes, i.e. equipment that does not work due to extreme heat, additional education for deployed personnel on the effects of climate change, etc.?
- Is there a specific amount of money allocated for national humanitarian assistance/disaster relief missions? (and has this been increased because of climate change hitting hard in the region?)
- Could you give more details on efforts to reduce the resource or carbon footprint of the armed forces?

Ideally we would like to ask these questions in a phone interview at a moment most suitable to you. In the past months we have approached other colleagues, and at this point in time Australia is the only country out of 11 from which we have not (yet) spoken to (former) representatives working for the military, so any response would be greatly appreciated. Thank you in advance.

Kind regards, also on behalf of

# Australia - Climate change and its impact on the armed forces

# 1. Risk assessment: which climate changes are considered most important having an impact on the country's national security?

Climate change-related effects will significantly impact the Australian economy, national security, society and environment in the near future. The consequences will differ throughout Australia, as the Eastern and Southern Australia are populated areas with a vast amount of Australia's economic activity. The rangelands – also referred to as 'the outback' – only include a small number of large villages, no cities, but are home to many of Australia's indigenous people, mining land, tourist areas and agricultural production. The challenges encompass rising temperatures, sea-level rise, increased amount of extreme weather events – including cyclones and droughts<sup>3</sup>.

Rising temperature and sea-level rise, exacerbated by extreme weather events, have the most severe consequences for national security. Rising temperatures can cause disturbances in cities, such as power black-outs caused by the increased demand for air conditioning and increased transmission loss in electrical wires, increased risk of wildfires, and food and water shortages caused by poor harvests and increased numbers of exotic species ruining the harvest<sup>4</sup>. In January 2019, heat records were broken all over Australia, which illustrates the rising concerns about the impact of rising temperature on national security<sup>5</sup>. While the El Nino Southern Oscillation (ENSO) weather event had also a significant role in this, the Bureau of Meteorology also stated: 'the long-term increasing trend in global air and ocean's temperature' was a factor in the hotter-than-average summer<sup>6</sup>.

Simultaneously, the rising sea-level will increase coastal flooding, coastal retreat, erosion and beach losses, causing a severe risk for critical infrastructure and cities in the most populated areas of Australia. It also impacts – and worsens – food and water shortages, as seawater will contaminate freshwater aquifers and leads to increased salinization<sup>7</sup>.

In its close vicinity Australia's neighbours, with many of the Pacific Islands, are at direct threat of sea level rise. The may lead to (relatively) small migration influxes, but poses more fundamental ethical questions about post-disaster assistance and a regional responsibility for those hit hardest by the impacts of climate change. As Australia has an extremely strict refugee policy and incarcerates refugees in offshore detention centres, influx of refugees will put more pressure on national security and climate change will exacerbate the complexity and unpredictability of existing migration streams. 9

In terms of its general support for an ambitious climate policy, Australia, as a traditional coal state, is a strongly divided country with the Labour Party advocating for a strong climate policy and the Conservatives arguing against this <sup>10</sup>. In the past 20 years, we have seen several profound shifts of the country in either being a climate action frontrunner or a laggard (and even climate-denier). The 2019 elections have been labelled the climate change elections, with emission reduction, renewable energy and environmental protection central in national debates <sup>11</sup>.

<sup>&</sup>lt;sup>1</sup>Australian Climate Change Science Programme, 2016. Available online

<sup>&</sup>lt;sup>2</sup> Climate Change in Australia & The Commonwealth Scientific and Industrial Research Organisation, impacts & adaptation information for Australia's NRM Regions. June 2019.

<sup>&</sup>lt;sup>3</sup> Australian Government Department of Defense, Defense White Paper 2016, p. 56.

<sup>&</sup>lt;sup>4</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 11.

<sup>&</sup>lt;sup>5</sup> The guardian 'Australia breaks weather records with hottest ever summer' February 2019.

<sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 9.

<sup>8</sup> UN ESCAP, EU, ILO, UNDP. Climate Change and Migration Issues in the Pacific 2014.

<sup>&</sup>lt;sup>9</sup> Jeff Sparrow, Australia's Orwellian anti-refugee system hints at what's to come for climate refugees, The Guardian, July 2019.

<sup>&</sup>lt;sup>10</sup> Damien Cave, It was supposed to be Australia's climate change election. What happened?, The New York Times, May 2019.

<sup>&</sup>lt;sup>11</sup> Adam Mortom, the climate change election: where do the parties stand on the environment, The Guardian, May 2019.

# 2. Security and defence strategy and policies: is climate change taken into account by the Ministry of Defence?

The Australian Ministry of Defence is closely involved in Environmental policies and emphasizes the important role for the Australian Defence Force (ADF), not only in its activities but also in ensuring the long-term sustainability of the ADF capabilities. <sup>12</sup> The Australian government has framed natural disasters as a security challenge and emphasizes the importance of regional response, collaborative efforts to build resilience and facilitate adaptation. The Department of Foreign affairs and Trade is responsible for the ADF's coordination and participation in regional Humanitarian Assistance and Disaster Relief (HADR). <sup>13</sup>

Defence considers climate change as risk multiplier, as it exacerbates other security challenges.<sup>14</sup> Australia's 2017 Foreign Policy White Paper emphasizes the climate-change related security challenges for Australia and the Pacific region<sup>15</sup>. In this white paper, the need to upgrade Australia's humanitarian aid, health and urban search and rescue teams and the transportation of relief supplies when natural disasters strike.<sup>16</sup> The Australian government decided to increase HADR support to \$500 million a year to address crises and conflicts, whereof \$1.097,8 million is allocated for the Pacific region.<sup>17</sup>

In addition to this, the Australian Ministry of Defence published three documents solely emphasizing the need for action. The Defence Environmental policy outlines Australia's vision. Compliance, efficiency, trust and accountability are four pillars underpinning the vision and have a guiding role in the decision making-process in the next 20-years<sup>18</sup>. The Defence Environmental strategy describes five strategic aims representing Defence focus areas and its efforts to environmental management issues over a 20 year horizon.<sup>19</sup> Thirdly, the Defence Environmental Plan outlines a framework for implementation, communication, monitoring and reporting for a period of 5 years.<sup>20</sup>

# 3. National tasks (including overseas territories): what consequences has climate change for the armed forces in responding to the effects on national territory (including overseas)?

On a national level, climate-change related migration from the region and the need for (HADR) will be more common in the future and could threaten national security.<sup>21</sup> While this is being coordinated by the Department of Foreign affairs and Trade it is dependent on the Australian Defence Force (ADF) as they provide logistics, assist in the transportation of food, material and staff and (re)build required infrastructure.<sup>22</sup> Moreover, the armed forces also undertake Australian Government emergency assistance tasks to support the State and Territory jurisdictions, oftentimes referred to as Defence Assistance to the Civil Community (DACC). It is beneficial if the armed forces support the State, Territory and Commonwealth agencies as the ADF can deploy its personnel and equipment at short notice and the ADF can plan, coordinate and conduct ad-hoc emergency operations for, for example, bush fires and floods.<sup>23</sup> In addition to this, search and rescue actions will also be more frequently needed, including specialized fleets or air and sea patrols to monitor and protect maritime areas, as resource scarcity could lead to illegal border crossing, interstate disputes over fisheries, piracy and smuggling.<sup>24</sup> To illustrate this, the Royal Australian Navy can mobilize its amphibious vessels, the Australian Regular army has control over specialized command and control functions, and (medical)

<sup>&</sup>lt;sup>12</sup> Australian Government Department of Defense, Environmental Management. 2016.

<sup>&</sup>lt;sup>13</sup> François Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 36.

<sup>&</sup>lt;sup>14</sup> 2016 Defence White Paper/Strategic Guidance, p.2. Available online.

<sup>&</sup>lt;sup>15</sup> Australian Government Department of Defense, *Defense White Paper 2017*, p. 33.

<sup>&</sup>lt;sup>16</sup> Australian Government Department of Defense, <u>Defense White Paper 2017</u>, p. 87.

Australian Government Department of Defense, <u>Defense White Paper 2017</u>, p. 90.

<sup>&</sup>lt;sup>18</sup> Australian Government Department of Defense, *Environmental policy*. June 2016.

<sup>&</sup>lt;sup>19</sup> Australian Government Department of Defence, Environmental Strategy, June 2016, p. 7.

<sup>&</sup>lt;sup>20</sup> Australian Government Department of Defence, Environmental Strategy, June 2016, p. 3.

<sup>&</sup>lt;sup>21</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 30.

<sup>&</sup>lt;sup>22</sup> Ibid. p. 31

<sup>&</sup>lt;sup>23</sup> Department of Defence, Emergency Defence Assistance to the Civil Community, Audit Report No. 24, 2013-14, p. 11.

<sup>&</sup>lt;sup>24</sup> Ibid., p. 43.

transportation, and the Royal Australian Air Force can transport personnel, equipment and aid, including the Australian Medical Assistance Team and Urban Search and Rescue teams.<sup>25</sup>

## 4. International operations: what consequences has climate change on international operations

Internationally, the Australian Ministry of Defence closely cooperates with the Ministries of Defence of Chile, Fiji, New Zealand, Papua New Guinea and Tonga under the coordination of France.<sup>26</sup> Having an adequate infrastructure for military assistance in the Pacific is of paramount importance to move goods, services and emergency relief.<sup>27</sup> All Ministries of Defence recognize the importance for regional army cooperation in HADR, especially since HADR will become more difficult in the future due to the decreased interval between disasters and the increased range of where a response is needed, in one place or at multiple places simultaneously.

In this respect, the FRANZ arrangement, between Australia, France and New-Zealand, coordinates the civil and military means engaged in HADR in the pacific. <sup>28</sup> Additionally, the Indo-Pacific Endeavour, the flotilla to enhance Australian partnerships with regional forces is ADF's most important annual activity. <sup>29</sup> Interestingly, it not only has a hard-power military-to-military and regional training aim. It also includes a soft power element, as the Indo-Pacific Endeavour serves as a floating public diplomacy tool to develop shared understanding, trust and effectively connect and share military data among each other <sup>30</sup>. Australia is also part of the Australia's Pacific Maritime Security Program, covering defence engagement in the South Pacific, for example on fisheries surveillance, <sup>31</sup> and the Pacific Quadrilateral Defence Coordination Group, signatory by Australia, New Zealand France and the US, which focuses on developing multilateral approaches to enhance security and coordinate maritime surveillance.

Internationally, approximately 3300 ADF personnel is deployed in 12 operations. In these operations, insecurities driven by climate-change play an increasing role, for example in Australia's contribution to the maritime security in the Middle East Area and countering piracy in the Gulf of Aden.<sup>32</sup>

## 5. Personnel and equipment: what impact has climate change on personnel and equipment?

With regard to personnel and equipment, Australia has to prepare for direct impact on its defence infrastructure and bases, as numerous key defence installations are located at or just above sea-level. Hence, sea-level rise, flooding, storm surges and coastal erosion will likely impact bases and training areas<sup>33</sup>. To be appropriately postured for the future, new bases, wharves, airfields and training and weapon testing ranges have to be developed in the short term. Urban development and capacity limitations should also be taken into consideration within existing infrastructure as this also affects ADF's ability to effectively execute missions.<sup>34</sup> The Australian parliament in 2018 called for an unclassified version of the work undertaken by Defence to identify climate risks to its estate, HADR and military missions and threats occurring to those vital military parts and activities at the same time.<sup>35</sup>

<sup>&</sup>lt;sup>25</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 38. & The Australian Air Force, *Recent History of Air Force Humanitarian Assistance*, 2016. <sup>26</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 6.

<sup>&</sup>lt;sup>27</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 19.

<sup>&</sup>lt;sup>28</sup> Colonel Rupert Hoskin, France and Australia: realizing our potential as like-minded strategic partners, Australian Defence College & Centre for Defence and Strategic Studies, November 2016.

<sup>&</sup>lt;sup>29</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 37.

<sup>&</sup>lt;sup>30</sup> The Interpreter, <u>A Sea ride with Australia's Indo-Pacific Endeavour</u>, June 2019.

<sup>31</sup> Linda McCann, The Future of Australia's Pacific Patrol Boat Program: the Pacific Maritime Security Program, Centre for Defence and Strategic Studies & Australian Defence College, August 2013.

<sup>32</sup> Australian Government Department of Defense, current operations. 2019.

<sup>&</sup>lt;sup>33</sup> Australian Government Department of Defense, *Defense White Paper 2017*. p. 102.

<sup>34</sup> Ibid.

<sup>&</sup>lt;sup>35</sup> Parliament of Australia, Senate Standing Committees on Foreign Affairs, Defence and Trade, *Implications of climate change for Australia's national security*. May 2018.

Moreover, the ADF needs to actively prepare itself to act in more challenging circumstances caused by rising temperatures and prolonged heatwave periods. These circumstances could impact short- and long term mental and physical health of personnel.<sup>36</sup> Additionally, as (temporary) migration caused by climate change and national disasters will become more common, the military is in need of more personnel to act as cultural advisors specifically trained in refugee experiences and resettlement.<sup>37</sup> To prepare for climate-change related effects, the parliament of Australia recommends to create a climate security leadership position in the Home Affairs Portfolio to assist in the risk reduction, infrastructure planning, community health and well-being and emergency management, and a senior leadership position to facilitate domestic and international HADR.<sup>38</sup>

## 6. Greenification

The Australian Ministry of Defence has the aim to become a leader in sustainable environmental management. To reach this goal, it includes programs to build energy resilience, improve energy efficiency, and reduce energy costs and greenhouse gas emissions. This is challenging, as around 80 per cent of Australia's Defence's total energy consumption consists of fuel, and the other 20 per cent is used for electricity and gas in offices and estate facilities<sup>39</sup>. Programmes to reduce energy consumption are implemented, such as the installation of solar panels across three Defence sites in the Northern Territory and Queensland in 2016.<sup>40</sup> The Australian Navy already authorised the use of alternative fuels on Navy ships. The Ministry of Defence also undertakes environmental management activities, and actively tries to protect environmental values especially when defence properties contain native vegetation, threatened species and cultural heritage sites. Lastly, Defence aims to factor the United Nations Sustainable Development Goals (UNSDG) and climate risk in decision making, to ensure equipment is fit for purpose in more challenging weather conditions<sup>41</sup>. There are, however, no specific greenhouse gas reduction targets for the Australian armed forces. The Australian Government does have the aim to reduce greenhouse gas emission to 26-28 per cent below 2005 levels by 2030<sup>42</sup>.

In 2018 the Defence Strategic Policy Committee approved a Strategic Policy Statement on climate change, thereby making climate risk assessments a factor in enterprise risk reporting and Defence is developing a One Defence Energy Strategy which will measure Defence energy use and resilience to climate change, among other threats. Moreover, Defence has outlined its support of a climate adaptation partnership with the Department of Environment and Energy in a Memorandum of Understanding<sup>43</sup>.

The Defence Environmental Strategy outlines the five strategic aims of the Australian defence, which are detailed in the Environmental plan with actions, accountabilities and timeframes for the coming five years. All strategic aims have the goal to reduce the footprint of the military in the coming 20 years. The first strategic aim consists of delivering sustainable estate across Defence maritime, land and aerospace areas, activities and operations. The second aim is understanding and managing defence its environmental impact, by maintaining proactive relationships with environmental regulators and other stakeholders, and improve the environmental impact assessment process. The third aim includes pollution prevention, contamination management and site remediation to minimise future pollution risks and manage existing contamination risks. The fourth aim covers improving efficiency of Defence's resource consumption and strengthen resource security by, among other things, minimising operational costs (using less water/energy), transit towards cleaner energy and integrated water management, improve monitoring of energy and water use. The last strategic aim is heritage management by recognising the Defence estate heritage values.

<sup>&</sup>lt;sup>36</sup> Francois Gemenne, Bastien Alex and Alice Baillat, Implications of Climate Change on Defence and Security in the South Pacific by 2030, May 2019, p. 31.

<sup>37</sup> ibid

<sup>38</sup> Parliament of Australia, Implications of climate change for Australia's national security, May 2018.

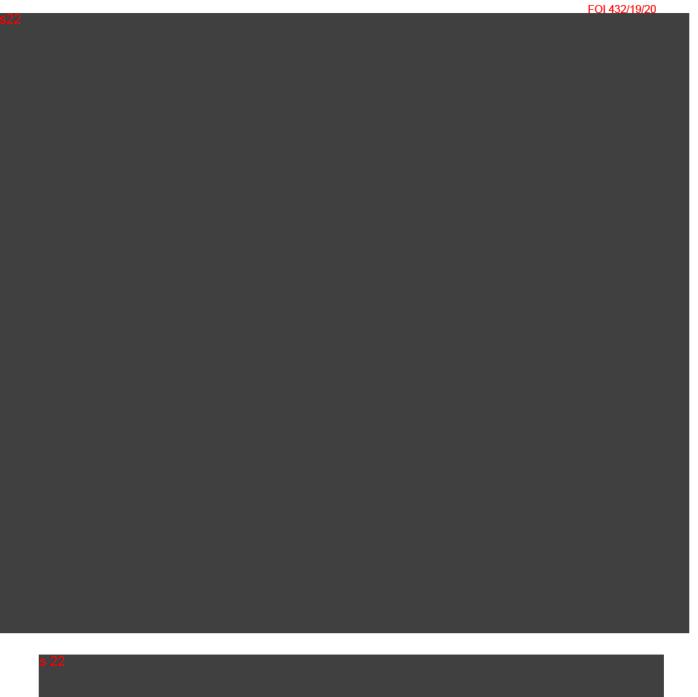
<sup>&</sup>lt;sup>39</sup> Australian Government Department of Defense, Defence environmental management, 2016-17.

<sup>40</sup> Ibid.

<sup>&</sup>lt;sup>41</sup>2016 Defence White Paper/Strategic Guidance, p.10. Available online.

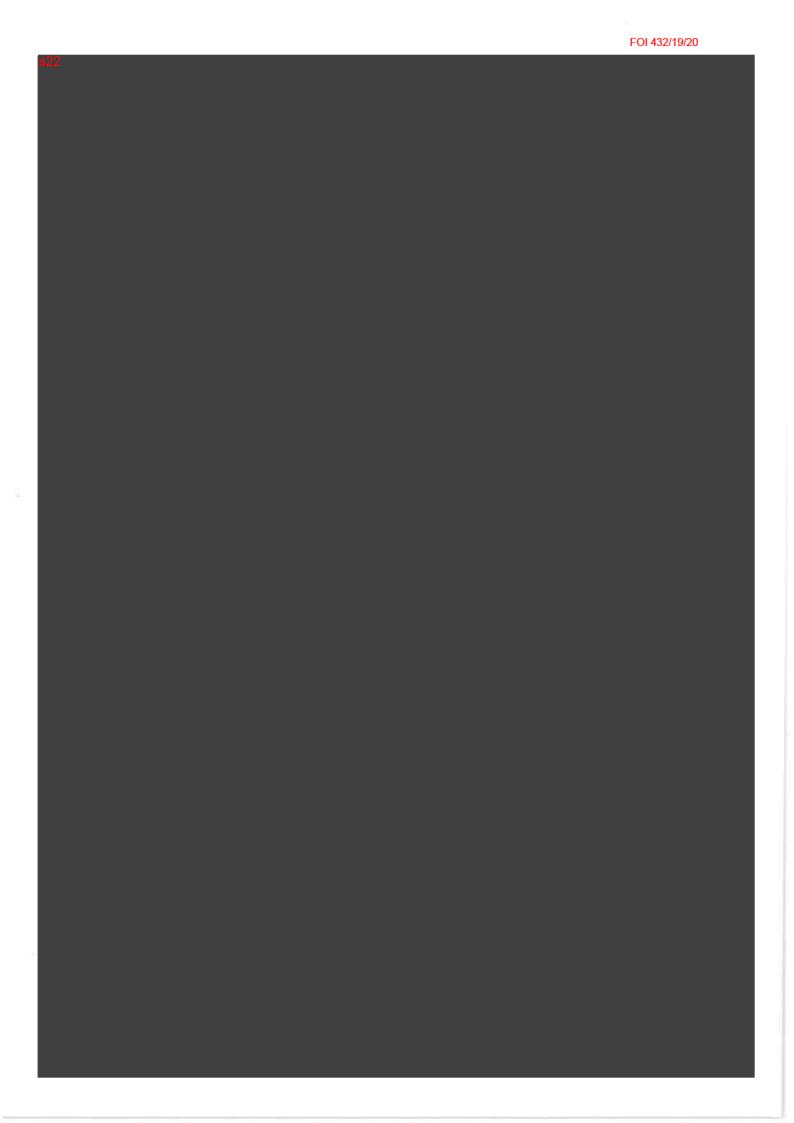
<sup>&</sup>lt;sup>42</sup> Australian Government, Australia's 2030 Emission Reudction Target, 2015.

<sup>&</sup>lt;sup>43</sup> 2016 Defence White Paper/Strategic Guidance, p.2. Available online.











# Covey, Nicholas MR 1

From:

Covey, Nicholas MR 1

Sent:

Wednesday, 11 December 2019 1:04 PM

To:

Sawczak, Natalie MRS

Cc:

Sammut, Kate MISS; Harvey, Lyn MS

Subject:

Clingendael media enquiry [SEC=UNCLASSIFIED]-

**Attachments:** 

20191211 Clingendael Institute media enquiry response.docx

Categories:

UNCLASSIFIED

### **UNCLASSIFIED**

Hello Natalie,

Please see the FASSP cleared response to the media enquiry.

Please call me if you have any queries.

Regards

Nick Covey

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## **MEDIA ENQUIRY - CM19-001811**

Title: Australian armed forces and climate cl	hange	
Representative: 47F	Organisation: Clingendael Institute	
Enquiry Received: 26 November, 20:40	Due to MECC: 11 December 2019	
Responsible Minister: MINDEF		

#### Questions:

- Is climate change recognised as a security issue or threat in your country's national security and defence strategy and/or policy?
- Which aspects of climate change are considered most important having an impact on your country's national security?
- Which aspects of climate change are considered in your country's international security assessments?
- What are the consequences of climate change for your country's armed forces?
- · Are your country's armed forces contributing to addressing climate change issues?
- Does climate change impact your country's military operations?

## Response:

## Climate Change as a Security Issue / Threat to National Security

The Department of Defence considers climate change a complex and increasing challenge that poses a range of risks nationally, regionally and globally. The 2016 Defence White Paper identifies climate change as one of the causes of state fragility, a key driver of our security environment to 2035. Further consideration of the national security aspects of climate change are discussed in the May 2018 Senate Inquiry on Implications of climate change for Australia's national security.

Aspects of Climate Change which have the biggest impact on national security
The forecast increased frequency of extreme weather events and the changes in sea level
expected under climate change will increase security challenges in our region. These
impacts will compound existing security challenges, such as state fragility and natural
disasters and may require increased Defence resources in response.

## How we consider Climate Change in our Security Assessments

Defence considers climate change risks in Defence policy guidance, operations, preparedness, capability life-cycle and estate and environmental management. Defence factors climate change considerations into key parts of defence policy, such as the Defence Planning Guidance and the Chief of Defence Force Preparedness Directive.

Impact of Climate Change on the Australian Defence Force and Military Operations Climate change may directly impact Defence operations, capabilities, estate, personnel, and equipment. As stated in the 2016 Defence White Paper, Australia's strategic weight, proximity and resources place high expectations on us to respond to instability or natural disasters. Climate change means we will be called on to do so more often. An increase in requests for humanitarian assistance and disaster relief operations, both domestically and internationally, is already evident.



Climate change will also place pressure on the Defence estate. Defence is focused on the risks associated with of sea-level rise, storm surge, coastal erosion and estuarine flooding. Sea level rise will have implications for coastal infrastructure and more extreme weather events could put facilities at higher risk of damage.

Defence is also concerned about the risk of extreme heat to its members during training activities. Climate change will also affect the spread of conditions such as malaria, infectious diseases, respiratory issues and food-borne infections, all of which can affect the health of Defence personnel.

## What Defence is doing about Climate Change

Defence contributes to whole-of-government efforts to address climate change risks.

Defence has established internal policy to coordinate efforts across the department. One key line of effort has been factoring climate change considerations into our strategic planning.

Defence has integrated climate risk management into Defence's existing estate and infrastructure risk management and business processes, including undertaking studies to assess the risk of climate change to the Defence estate. In 2018, Defence entered into a Memorandum of Understanding with the Department of Environment and Energy, CSIRO and the National Climate Change Adaptation Research Facility to develop guidance material for climate adaption on the Defence estate. The guidance will support investment decisions for short and long term sustainment of the Defence estate and training areas.

Defence has also implemented a renewable energy program that aims to minimise energy costs, increase energy security and reduce greenhouse gas emissions. These efforts have formed part of the <u>Defence Estate Energy Policy</u>. Defence monitors its energy use each year and reports energy consumption in accordance with the <u>Energy Efficiency in Government Operations Policy (2006)</u>. Defence's total net carbon emissions from energy decreased by 8% from 2017-18 to 2018-19.

Defence is pursuing renewable energy and energy security initiatives and has conducted feasibility assessments of low-emission technologies, including wind and wave power. Defence has already commissioned alternative energy (solar) systems at a number of Defence sites.

Defence is also researching alternative fuels for Defence platforms; fuel use reduction measures; and improving the efficiency of alternative power sources, such as batteries. As part of a whole-of-government approach, Defence will continue to investigate opportunities to incorporate alternative and renewable energy sources into our estate, systems and platforms thereby improving resilience and reducing carbon emissions.



# Background (not for public release):

#### Media Team:

<u>Clingendael Institute</u> is the Netherlands **Institute** of International Relations. It is an independent think tank and academy on international affairs. Through its analyses, training and public debate it aims to inspire and equip governments, businesses, and civil society in order to contribute to a secure, sustainable and just world.

**Groups/Services**: It is the responsibility of the business area to provide a brief background into the media topic/issue using the questions as a guide.

This is a new request from the Clingendael Institute. The institute is doing a study for the Netherlands Ministry of Defence on how a selection of other countries is taking climate change into account in defence strategies and operations. The material provided will also be used for the first World Climate and Security Report of the International Military Council on Climate and Security. The above response has been sourced from extant briefs for Senate Estimates. SP consulted with VCDF Group and E&IG (Environment and Engineering) in the preparation of the brief.

#### Clearances:

Group/Service	Name	Appointment/ Role	Contact Number	Date and Time
Drafted by: Contact Officer	Nicholas Covey	s47	<b>447F</b>	12:00 10 Dec 19
Group/Service 1 Star or above	Celia Perkins	FASSP	02 6265 1883	10:30 11 Dec 19
Strategic Comms Advisor		v		00:00 XX XXX 18
MECC				00:00 XX XXX 18
OSEC/OCDF				00:00 XX XXX 18