

Mingay, Peter CAPT - RAN

Item 1 Serial 1

From: Cumming, Ian COL
Sent: Friday, 10 March 2017 11:38 AM
To: Griggs, Ray VADM; Sargeant, Brendan MR
Cc: Durrant, Cheryl MS; Noack, Michelle MRS; Hupfeld, Mel AVM; Quinn, Peter RADM 1
Subject: FW: Australian Legal Opinion on Director Liabilities for Climate Change Risks [SEC=UNOFFICIAL]
Attachments: Legal-Opinion-on-Climate-Change-and-Directors-Duties.pdf; 16_1221_TCFD_Report_Letter.pdf; TCFD-Report-Overview-Dec.-2016.pdf

UNOFFICIAL

VCDF

Chief Operating Officer

This morning at the Secretaries Group you requested I provide the Hutley advice, please find this attached as requested:

1. The current legal treatment of climate related risks by business, government and civil society is changing significantly due to climate science mainstreaming with policy and regulatory changes. Recent climate record maxima together with deepening and localising of impacts knowledge adds to the pressures societies face as they decide how, when and where to respond or not.
2. A number of global multilateral institutions including UN, EU, World Bank, IMF, WEF and the G20 Financial Stability Board have taken significant leadership actions in the lead up to the COP21 Paris Agreement and others subsequently as sovereign governments, states and cities begin to develop more mature and considered responses to limiting global temperature rise to below 2°C and dealing with the range of significant future impacts locked in under past and recent record emissions.
3. Ahead of the Financial Stability Board / Bank of England led (G20) Task Force for Climate related Financial Disclosure, legal opinion was sought regarding and provided by Noel Hutley SC (Sydney Barrister and currently President NSW Bar Council). Both the TCFD and the opinion are attached. Page 15 of the TCFD report highlights the anticipated adoption rates and scale.
4. Section 3 of the opinion is clear and directs as follows:
 - a. Directors' duties oblige directors to obtain knowledge about factors affecting their business, and accordingly directors should consider and take steps to inform themselves about climate-related risks to their business, including obtaining expert advice if appropriate;
 - b. In some cases the duty of care will likely require a director to go further than merely considering risks. Action may need to be taken in terms of strategy and planning; and
 - c. Directors who are proactive in turning their minds to climate change risks for their business, even if they decide on a properly informed and advised basis not to act, may have the protection of the business judgement rule against claims of breach of duty.
5. "It would be difficult for a director to escape liability for a foreseeable risk of harm to the company on the basis that he or she did not believe in the reality of climate change."
6. In Section 8 attention is drawn to "duty of care and diligence" and the duty defined as owed to the corporation. This creates issues for shareholders and employee claims.
7. Another key element is "foreseeability" extending to physical, legislative and other risks

and clarification that this is to be treated as separate from probability of risks. I feel this is important as significant probabilistic discounting by risk minded professionals of current and future risks has detracted from "foreseeability".

8. In a broad military context this raises significant questions not limited only to procurement, future planning, current and future equipment, tasking and operations, rotations and deployment cycles in known and unknown climate zones, base design, location and operation, soldier health and safety, recovery and wellbeing, naval operations, aviation operations and risks, localised climate variability issues, energy and fuel demands, enemy threats and opportunities, HADR, migration, social collapse, transition failure etc.

9. Noting this is not legal advice; Please let me know if you'd like more details or interpretation.

Ian Cumming
Colonel
Defence Climate & Security Advocate
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT
s47F

not just soldiers!

While there is not specific applicability to the public sector - yet. It is surely coming. This gives us added impetus to ensuring we look at the climate risk issue seriously.

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 13 March 2018 3:01 PM
To: Hupfeld, Mel AVM; Lennon, Richard AIRCDRE; Hetherington, Patrick MR 1
Cc: Hunter, James LTCOL 2; Durrant, Cheryl MS
Subject: FW: climate risk & the financial system [SEC=UNCLASSIFIED]
Attachments: SKM_C364e17032011240.pdf

Categories: UNCLASSIFIED

UNCLASSIFIED

Gentlemen,

Please see the email shown below:

I've also attached a previous email I sent to VCDF and COO, as requested of me, on Hutley advice on legal liabilities of Company Directors.

My advice to any leader within Defence is to change what is within their own remit to effect the best available and responsible environmental outcome; including both adaptation strategies and mitigation strategies. In my view it's Government / public entities like Defence that may be asked why we didn't seek to reduce our carbon foot print further in light of the knowledge about climate change and the government's position (Paris Accord and Agenda 2030).

The alteration of the CLC business processes to include climate intelligence that meets decision thresholds is a good response.

Ian Cumming

Colonel
Defence Climate & Security Adviser
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT
s47F

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

From: Holloway, Jane s47F
Sent: Monday, 5 March 2018 1:44 PM
To: Durrant, Cheryl MS; Cumming, Ian COL; Chris Barrie; Neil.Greet
Cc: Plant, Laurence MR
Subject: climate risk & the financial system [SEC=UNCLASSIFIED]

UNCLASSIFIED

Icymi

Last November, Geoff Summerhayes, an executive member of the Australian Prudential Regulation Authority (APRA), told businesses climate change posed a material risk to the entire financial system.

His message was that boards and directors had a fiduciary duty to their shareholders to take it into account. He cited legal opinion that found company directors who failed to consider and disclose climate risk could be in breach of the Corporations Act.

"Climate change and society's responses to it are starting to affect the global economy," he said.

"Institutions that fail to adequately plan for this transition put their own futures in jeopardy, with subsequent consequences for their account holders, members or policy holders."

That's a view that's now been backed by Reserve Bank governor Philip Lowe.

On February 16, he told a sitting of the Federal Parliament's economics committee that the Council of Financial Regulators - a body he chairs - had established a working group to look at issues about disclosure.

The RBA confirmed it believed investors needed to be given more information on climate risk.

It might seem a small move but it's seen as highly significant in the corporate world.

Former treasury economist Sam Hurley is a specialist in corporate climate risk. He says the moves by the regulators send a powerful message.

"The RBA and APRA, they're big institutions. They don't take steps lightly. They're not talking about climate on a whim," he said.

"They've studied the evidence, they've looked at what their counterparts are doing internationally, and they've looked at the trends and risks in Australia, and they've decided that now's the time to raise the bar."

<http://www.abc.net.au/news/2018-03-05/farmers-and-businesses-take-action-on-climate-change/9502320>



Jane Holloway

Senior Systems Scientist,
Strategy and Joint Force
Joint & Operations Analysis Division
Defence Science & Technology Group
F2-01-008, 24 Scherger Dve, Canberra ACT 2609
Mail: PO Box 7931, Canberra BC ACT 2610
s47F

I acknowledge the traditional custodians of the lands where we live and work, and pay my respects to elders past, present and future

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 1 May 2018 1:01 PM
To: Mayer, Stuart RADM; Lennon, Richard AIRCDRE
Subject: FW: Have a read of this one. [SEC=UNOFFICIAL]
Attachments: SKM_C364e17032011240.pdf; Hansard from 20 Mar 18 - Climate and NAT Sec.pdf

UNOFFICIAL

HFD

Please see two documents that are consistent with the advice I discussed with you when we met last week.

Frist document: written by Ian Dunlop is within the link below;

<https://reneweconomy.com.au/climate-change-fiduciary-responsibility-politicians-bureaucrats-59891/>

The second document is attached;

This is VCDF's response to advice I provided to him last year.

Please note:

Today I have discussions with Contestability consistent with the view the HFD expressed to the Senate Committee on National Security and Climate change. That is; the business processes around Defence investment committee decision making will ensure that all major projects have a climate change frame of reference consistent with the investment.

AVM Hupfeld – saying to the committee in his opening remarks – *“Defence's force design process considers climate changes as a key element of the future operating environment. Currently, Defence is reviewing its investment business processes and our Smart Buyer framework to ensure that there is adequate consideration of climate change and assessment of risks in future capability and infrastructure decisions.”*

Ian Cumming

Colonel
Defence Climate & Security Adviser
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT
s47F

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

s22

s22

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 25 September 2018 10:23 AM
To: Lennon, Richard AIRCDRE; Durrant, Cheryl MS
Subject: FW: Professional obligations in an age of climate change - 24th September [SEC=UNOFFICIAL]

UNOFFICIAL

A/HFD, DG

I spoke (as a very late notice replacement for Sarah Barker – Special Counsel, Minter Ellison) for 10mins and was member of the panel in the discussions on “professional obligations in an age of climate change”. The event was run by Sydney Environment Institute in the Law School Foyer, Eastern Ave, University of Sydney, as a further event in a series on the same subject. The other two speakers were: David Ritter (Greenpeace), and Anna Krien (Journalist). The event was open to the public. The organisers asked that I sign a waiver to allow public distribution on internet as a pod cast as it was filmed / recorded. I have not signed that waiver.

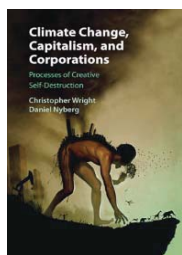
The discussions covered elements of professional responsibilities. I covered the nature of my role and the dialogue I am having within Defence consistent with the obligations of being both a public office holder and a professional adviser with specific responsibilities. I described my responsibilities being in a named role (one now acknowledged by the Senate), especially those responsibilities that are akin to fiduciary like duties, within an environment where inaction on foreseeable climate change is now regard as “directorial negligence”. I covered the Defence Policy advancement on Climate issues and reference the White Paper reference. I talked of the preparation of a Defence Force which acknowledges the climate is changing and noted our consideration of how and where we may have to act in support of the Defence of Australia and its national interests. I discussed Australian’s reliance on Defence (as insurer of last resort) and the need to have a greater level of preparation of society to be resilient and compassionate in the face of a climate changed environment. I described the actions being taken by Defence in integration of the SDGs into the Smart buyer platform and the nature of those goals as an ethical frame in which all industries (Commonwealth Government Departments, and business) can frame their own behaviour and indeed to test their supply chains. I described my dialogue with the Industry Associations and Commercial businesses in developing a response that Defence may seek in the future along need to acknowledge the SDGs in their own business behaviour – which is also consistent with Task Force on Climate-related Financial Disclosures, APRA and ASICs advice on Climate risks. I suggested that climate related behaviours need to move out of the bubble of environmentalist and activists and become “business as usual” (as past CDF Binskin described to senate). Defence is moving toward this type of behaviour. I also reflected on the great care that any member of a government must take, be they expert professionals or not, in addressing a contentious issue, like climate change in the current political environment.

Ian Cumming

Colonel
Defence Climate & Security Adviser
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT
s47F

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

s22



s22

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 11 September 2018 3:29 PM
To: Blain, Jason BRIG; Lennon, Richard AIRCDRE; Johnston, David VADM 1; Sawczak, Peter DR
Cc: Ellwood, Justin MAJGEN; Turnbull, Gavin AVM; Hammond, Mark RADM; Cunliffe, Mark MR; Mulhall, David MAJGEN; Box, Darren MR; Toms, Amanda MS; Hetherington, Patrick MR 1; Gu, Rebecca MS; Durrant, Cheryl MS
Subject: FW: UN Secretary General declares climate change an existential risk and calls for mobilisation [SEC=UNCLASSIFIED]

Categories: UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

Ladies and Gentlemen,

I advise that the UN Secretary General's position is completely supportable.

You are invited to read the talk – in the link below.

Should you require any evidence or supporting argument to the positions taken by UN Secretary General, please ask and we will seek the best available advice on the scientific position and consequences that are outlined in this talk.

I am of the view that Defence should be prepared to articulate "acceptance as significant advice" – if asked. I also note articulating any view on this will be very difficult given the current Government's position.

<https://www.un.org/sg/en/content/sg/statement/2018-09-10/secretary-generals-remarks-climate-change-delivered>

Ian Cumming

Colonel
Defence Climate & Security Adviser
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT
s47F

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 25 September 2018 11:16 AM
To: Evans, Steve MR 2
Cc: Durrant, Cheryl MS; Lennon, Richard AIRCDRE; Blain, Jason BRIG
Subject: RE: AZ6008 Estate Base Plan - RAAF Base Townsville: Phase 1 Base Overview Submission of Draft Estate Base Plan Report [~~DLM-For Official Use Only~~]

Categories: No Security Classification Required

~~For Official Use Only~~

Steve

Thanks for the opportunity to provide advice.

I will also attend the planning meeting on the 3 Oct.

I am getting some current advice from a Commonwealth Government source for the best available science to inform these base plans.

I am seeking this information through DSTG and CSIRO and another very highly regarded professional authority on the matter.

I have some rudimentary "CoastAdapt" photo like images of likely effects of sea level rise on these two bases. And, I believe you have also been provided some advice by others as to where to source better material than that being quoted in the draft reports.

I note that decisions made in these base plans have implications well beyond the planning horizon that are stated for the base plan.

Planning for climate effects to the base plan consistent with investment considerations of the buildings in those plans should extend to 2120 at least, indeed better to 2150.

Explanation:

A planning document of this type gives the imprimatur to build permanent structures within the life of the plan, say the year 22-27 for a redevelopment for example. Building in 2027 has implications beyond the life of the plan itself. For example buildings of the redevelopment will last 60 to 100 years and potentially much longer when considering the "consequence period" of runways or wharfs. A redevelopment built within this plan will likely last out to 2120.

Advice on the nature of the climate at periods out to 2150 is therefore warranted for any base plan in consideration today where building is being considered within the next 25 years (2020 til 2045).

A decision maker[s] who approves a plan to invest public monies in bases where the effects of the changing climate will detrimentally effect the infrastructure out to 2150 is [are] in my opinion negligent.

A decision maker[s] who does not seek to be informed of the implications of climate change effects out to 2150, where this 'information source' or 'information' is known, is in my view, wilfully negligent.

A decision maker or investment committee making decisions, that are already climate aware, but which include considerations that are wider than climate change effects on infrastructure, must articulate that rationale.

Ian Cumming

Colonel
Defence Climate & Security Adviser
Preparedness Directorate
Joint Force Analysis Branch
Russell Offices
Canberra ACT

s47F

I acknowledge the custodians of the land and waters. I pay my respects to our elders past, present and future.

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

s22

s22, s47F





Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Wednesday, 29 August 2018 12:03 PM
To: Mayer, Stuart RADM
Cc: Lennon, Richard AIRCDRE; Hill, Damian COL; Durrant, Cheryl MS
Subject: Re: Climate Brief by external SME [SEC=UNCLASSIFIED]

Gentlemen

This event went very well. A small but select team; some noticeable by their absence.

I will attempt to collect the thoughts of the Roundtable soon for your information.

VCDF visited for about 10mins at the end. His presence was significant.

Mark Howden has offered to brief VCDF and CDF personally when they have time.

He is a world leader in this field, a Nobel laureate in this field and IPCC deputy chair. There are few better than him in the world.

Sent from my iPhone

s22, s47F

s22, s47F

Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Wednesday, 13 December 2017 9:54 AM
To: Connery, David DR 2; Hupfeld, Mel AIRMSHL
Cc: HFD.corro; Daniels, Aurora MISS; Durrant, Cheryl MS; Lennon, Richard AIRCDRE
Subject: RE: Climate Article - 12 Dec DNS [SEC=UNCLASSIFIED]

UNCLASSIFIED

Gentlemen

Our submission is clear – in the footnotes;

1. Climate Change is a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UN, UN 1992, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE).

I advise that Defence should NOT challenge this. We would be seen as continuing the worst of the climate denial behaviour and would ultimately be held to following 'the crowd's rhetoric' rather than clear and unambiguous science.

If there is a "gotcha moment" in here it is possibly that VCDF is asked if he believes in Climate Change: I advise that counter with this is **not a belief system**. Defence is seeking the best of available science from Australian Government bodies such as BOM and CSIRO and it engaged in Climate Science through many networks and scientific institutions – including ANU, Climate Action Roundtable, Climate Council, Investor Group on Climate Change, and others

The UN framework convention on Climate Change has described climate change; as per the footnote.

And eminent scientists have described what is known as the **Anthropocene**

1. relating to or denoting the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment.

I will look over the SEB.

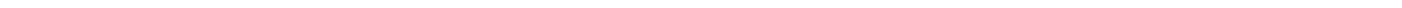
I'm happy to discuss further.

COL Ian Cumming M: s47F

IMPORTANT: This email remains the property of the Department of Defence and is subject to the jurisdiction of section 70 of the Crimes Act 1914. If you have received this email in error, you are requested to contact the sender and delete the email.

s22

s22,
s47F



Hledik, Stephen COL 2

From: Cumming, Ian COL
Sent: Tuesday, 19 February 2019 3:27 PM
To: Lennon, Richard AIRCDRE
Cc: Tyrrell, Chad MR; Buscombe, Wade MR; Poutsma, Adrianna MISS; Swann, Judy MS; Beauvais, Sophie MS; Durrant, Cheryl MS; Covey, Nicholas MR 1
Subject: FW:SDG report handed down; Defence is on track to enable the recommendations [SEC=UNOFFICIAL]
Attachments: 190214 Senate Committee report into SDGs.pdf

UNOFFICIAL

VCDF, through HFD and DGFE,

Ladies and Gentlemen

1. The Foreign Affairs, Defence and Trade Committee Inquiry report into the Sustainable Development Goals (SDGs) is attached. The recommendations are also copied below.
2. Defence is well able to say, if asked, that we are pursuing the spirit and intent of the recommendations of this report, but we are not there yet.
3. This report fundamentally affirms our (Defence) desired outcomes (although limited at this stage) of SDG integration across our actions and behaviors (policy), as exemplified by our integration of the SDGs into the SMART Buyer program.
4. I do however continue to recommend that, Defence develop a greater cultural understanding of the SDGs across the portfolio.
5. The recommendations of the report supports the view, that has been put to DFAT both publicly and privately. It also supports the view put to the departmental team responsible for Defence Industry engagement.
6. DFAT have produced talking points on the report as the 'lead department'. However, it should be noted that report recommendations suggest a whole of government all agencies approach to SDGs.
 - DFAT welcomes the report of the Senate Foreign Affairs Defence and Trade References Committee on the United Nations Sustainable Development Goals, released on 14 February 2019.
 - In line with the Committee's recommendations, DFAT is integrating the Goals throughout the Australian aid program and prioritising the commitment to leave no one behind.
 - DFAT is integrating the Goals into our strategies and policies and supporting civil society engagement with the SDGs
 - most recently through a roundtable on the Sustainable Development Goals with Indigenous, business, civil society, academic and Government representatives.
 - The 2017 Foreign Policy White Paper recognises the importance of the Sustainable Development Goals, which are aligned with Australia's foreign, security, development and trade interests.
 - The Australian aid program makes a significant contribution to the Goals, in line with our partner countries' priorities.

The recommendations of the report are:

Recommendation 1

7.12 The committee recommends that the Australian Government, through the interdepartmental committee, publish a national Sustainable Development Goals implementation plan that includes national priorities and regular reports of Australia's performance against the goals.

Recommendation 2

7.16 The committee recommends that the Australian Government provide an indicator-based assessment to parliament at least every two years that tracks Australia's performance against the Sustainable Development Goals.

Recommendation 3

7.19 The committee recommends that the Australian Government, through the interdepartmental committee, establish an approach to preparing future voluntary national review/s that ensures data on Australia's performance against the goals is included.

Recommendation 4

7.22 The committee recommends that the Australian Government establish a national Sustainable Development Goals secretariat to provide ongoing support to the interdepartmental committee, develop a national implementation plan and provide effective coordination of Australia's actions to implement and report on the SDG agenda. The location of the secretariat should be determined by government to ensure the best use of resources.

Recommendation 5

7.25 The committee recommends that Australian Government agencies integrate the Sustainable Development Goals across all internal and external websites, strategies and policies as they are updated.

Recommendation 6

7.27 The committee recommends that the Australian Government, through the interdepartmental committee and Department of Finance, develop a framework to ensure that agencies include the Sustainable Development Goals in their annual reporting by 2020–21.

Recommendation 7

7.30 The committee recommends that the Australian Government, through the interdepartmental committee, regularly share resources on international best practice across government to improve Australia's performance against the Sustainable Development Goals.

Recommendation 8

7.34 The committee recommends that the Australian Government, through the interdepartmental committee, undertakes a literature review relating to the Sustainable Development Goals and updates the links to the information resources on the Australian website at least annually. Where gaps are identified, the committee recommends that the interdepartmental committee partners with stakeholders to develop and disseminate Australian information resources.

Recommendation 9

7.37 The committee recommends that the interdepartmental committee develop a Sustainable Development Goals communication strategy for the Australian Government after assessing the merits of a national awareness campaign compared to targeted communication campaigns for specific stakeholder groups.

Recommendation 10

7.40 The committee recommends that the Australian Government work with state and territory governments to add the Sustainable Development Goals to Council of Australian Governments council agendas for regular discussion.

Recommendation 11

7.42 The committee recommends that the Australian Government seek, through the Council of Australian Governments process, to assess opportunities to include data from state, territory and local government levels on its reporting platform on the Sustainable Development Goal indicators.

Recommendation 12

7.44 The committee recommends that the Australian Government provide information resources alongside the national implementation plan to support state, territory and local governments to create their own plans supporting the implementation of the SDGs in their jurisdictions.

Recommendation 13

7.48 The committee recommends that the Australian Government establish a representative, multi-sectoral reference group to advise the interdepartmental committee on the implementation of the Sustainable Development Goals until 2030.

Recommendation 14

7.50 The committee recommends that the Australian Government continue to support civil society engagement with the Sustainable Development Goals, including by supporting events, summits and the development and dissemination of information resources.

Recommendation 15

7.54 The committee recommends that the Australian Government partners with private and tertiary sector stakeholders to develop and disseminate Australian guidance on reporting against the Sustainable Development Goals in order to ensure consistent and transparent reporting and minimise the reporting burden for businesses.

Recommendation 16

7.56 The committee recommends that the Australian Government, through the interdepartmental committee, identify opportunities to assist small and medium enterprises to build capacity to access sustainable procurement and reporting systems.

Recommendation 17

7.58 The committee recommends that the Australian Government, through the interdepartmental committee, assesses opportunities to encourage sustainable public procurement, impact investment and business practices that support the Sustainable Development Goals.

Recommendation 18

7.61 The committee recommends that the Australian Government continue to integrate the Sustainable Development Goals throughout the international development program and prioritise the commitment to leave no one behind.

~~For Official Use Only (FOUO)~~
SENATE ESTIMATES BRIEF

Whole of Defence Issues: 06
Secretary's and CDF's pack

WHOLE OF DEFENCE ISSUES 06: CLIMATE CHANGE IN DEFENCE

Key Facts

<ul style="list-style-type: none">• The 2016 Defence White Paper addresses the implications of climate change for Australia's security.• A Defence Climate and Security Adviser has been established within the Vice Chief of Defence Force Executive.• Climate Change is considered in the 2016 Defence Environment Policy.• Climate change related risks have been reviewed as part of Defence's development of the Chief of Defence Force Preparedness Directive for 2017-2018.• Defence has established an Environmental Planning and Advisory Cell within Headquarters Joint Operations Command.	<ul style="list-style-type: none">• The Estate and Infrastructure Group are implementing a renewable energy program.• Defence has completed preliminary investigations on the impact of sea level rise, flooding, storm surge and coastal erosion at selected Defence bases and training areas• In Aug 2017 Defence provided a response to the SSCFADT Inquiry into the National Security Implications of Climate Change.• Defence is working with international partners such as the United States and France to assess the security impacts of a changing climate in the South Pacific
---	---

Key Issues

- The Department of the Environment and Energy is the Government lead on climate change policy.
- The 2016 Defence White Paper comprehensively addresses Australia's future strategic environment, including the full range of security challenges and their causes, which Australia is likely to face to 2035. Climate change is included in this context.

~~For Official Use Only (FOUO)~~

PDR: MS17-001184

- In particular, the 2016 White Paper notes that climate change will be a major challenge for countries in the South Pacific.
- Higher temperatures and rising sea-levels will increase the frequency and intensity of extreme weather events, exacerbating the challenges of population growth and environmental degradation, and contributing to food shortages and undermining economic development.
 - Australia will have enhanced capability and greater capacity to continue to play a leading role in providing humanitarian assistance and security assistance in our immediate region or further afield when our help is needed.
 - This includes amphibious, air and sea lift, and maritime surveillance and response capabilities.
 - Climate change related risks are being reviewed as part of Defence's routine preparedness planning.
- Defence will continue to consider potential climate change impacts when assessing future infrastructure requirements for Defence bases in Australia to support the future force.
- Climate change is included in Defence's environmental policy and is a consideration in Defence's Smart Infrastructure Manual.
- The 2016 Defence environmental policy considers climate change. It supports the continued installation of renewable and efficient energy projects, and the assessment of potential climate change impacts on Defence bases, training areas and infrastructure in which Australia which support the current and future force.
- Defence analyses and assesses climate change impacts on current and future infrastructure requirements at Defence bases and training areas.
- In Aug 2017 Defence prepared a comprehensive response to the SSCFADT Inquiry into the national security implications of climate change. The Defence response was coordinated with lead climate change agency the Department of the Environment and Energy, in addition to other key national security partners the Department of Foreign Affairs and Trade, Attorney General's Department, the Office of National Assessments and the Australian Federal Police. Defence also consulted key climate scientific agencies, the Bureau of Meteorology and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

Defence Actions

~~For Official Use Only (FOUO)~~

PDR: MS17-001184

- Defence now considers climate change in its policy settings, planning, operations, preparedness, capability life-cycle management and estate and environmental management.
- Climate change related risks are being reviewed as part of Defence's routine preparedness planning by:
 - The introduction of new joint amphibious, air and sea lift, and maritime surveillance and response capabilities have substantially enhanced Defence's humanitarian assistance and disaster relief capacity.
 - Reviewing humanitarian assistance and disaster risk missions for impacts on concurrency and sustainability of Defence response options. Planning assumptions have been revised in accordance with the development of the Chief of Defence Force's Preparedness Directive for 2017-2018.
- The collaboration with allies and other Government agencies on climate change risks is expanding.
 - Joint Operations Command is leading Defence's operational-level engagement with the United States Pacific Command through the annual Pacific Environmental Security Forum. Discussions will focus on mutual interests and address environmental security strategies, water security, waste management, climate change, bio-security, disaster response and environmental sustainability.
 - Defence is working with the French Ministry of Defence's Observatory on Defence and Climate on a study they are leading into the security impacts of climate change in the South Pacific by 2030. The study will be prepared for the next meeting of the South Pacific Defence Minister's Meeting (SPDMM) in Fiji in 2019.
 - During the second half of 2017 Defence has provided input and collaborated with Emergency Management Australia on the development of an Australian Vulnerability Profile. This work will continue in 2018.
- Chief of Joint Operations released a revised Environmental Statement in December 2016 to align with the new Defence Environmental Strategy. This Statement recognises the threat climate change represents and seeks to work collaboratively with international partners and Australian agencies to build resilience to climate change challenges.
- Defence also continues to invest in climate change, energy literacy and resilience education and skilling.

~~For Official Use Only (FOUO)~~

PDR: MS17-001184

- In 2017 two Energy Literacy courses and one Climate Change and Security course were delivered by the Australian National University.
- A new risk and resilience course was delivered by the Australian Strategic Policy Institute (ASPI) in 2016 and in 2017.
- Under the Defence Estate Energy Policy, Defence is implementing a renewable energy program that aims to reduce energy cost, increase energy security and mitigate greenhouse gas emissions. Some of the key projects under this project include:
 - an extensive energy sub metering program to understand consumption and identify opportunities;
 - lighting retrofit projects, including;
 - consideration and installation of alternative renewable sources, with a current focus on remote sites;
 - investigation of large scale solar photovoltaic (PV) arrays for several sites in the Northern Territory; and
 - pursuing measures that include infrastructure projects with energy efficient designs, fittings and equipment, and the installation of solar (PV) systems on Defence bases, where appropriate.
- Further detail on the Renewable Energy Projects can be provided by DEPSEC E&IG and in the Senate Estimates Brief ‘Defence’s Resource Efficiency and Environmental Initiatives’.
- Navy, Army and Air Force in conjunction with Defence Science and Technology Group continue to investigate the use of alternative fuels. Moreover, the RAN, with the assistance of Fuel Services Branch and Defence Science and Technology Group, has authorised the use of alternative fuels on RAN ships. Alternative fuel, derived from bio-mass feedstock, was provided by the US Navy to RAN ships participating in the Rim of the Pacific (RIMPAC) exercise conducted in June 2016. Fuel Services Branch has amended the Australian Defence Standard for Navy Fuels to include alternative fuels manufactured via the US Navy approved pathways. The Australian Defence Standard for Navy Fuels will be released following discussion with suppliers. This will enable supply of these fuels in competition with the broader market.

Defence submission to the Senate inquiry

~~For Official Use Only (FOUO)~~

PDR: MS17-001184

- Defence, like a number of other agencies, has made a submission to the SSCFADT Inquiry into the National Security Implications of Climate Change.
- That submission notes Australia's national security includes state and human security and is inherently linked to the security of health, water, energy, food and economic systems.
- Referenced in the submission is a definition of climate change as being "attributed directly or indirectly to human activity". This is an internationally accepted definition that was drawn from the 1992 UN Framework Convention on Climate Change.
- Defence views climate change as a threat multiplier, having both direct and indirect impacts on Defence's business and increasing the demand for the ADF to conduct humanitarian operations both domestically and internationally.
- Climate change is one of several factors increasing the complexity of Australia's future strategic environment, and climate change-related risks are being reviewed as part of Defence's routine and longer-term planning.
- This is not about taking an ideological position, it is simply about ensuring Defence is able to adapt to assist the Australian government lead agencies in responding to climate related events such as natural disasters.

SSCFADT Questions on Notice Supplementary Budget Estimates Hearing 19 October 2016

- In **QON 2412 Senator the Hon. Penny Wong**: asked the Minister for Defence on 27 May 2015: With reference to climate change: (1) What impact will climate change have in the Minister's area of portfolio responsibilities. Response lodged **16 June 2015**
- In **QON 2424 Senator Penny Wong** asked the Minister for Defence on 27 May 2015: (*transferred from the Minister representing the Assistant Minister for Defence on 18 June 2015*) With reference to climate change: What impact will climate change have in the Minister's area of portfolio responsibilities. Response lodged **18 June 2015**
- In **QON 1915 Senator Scott Ludlam** asked the Minister for Defence on 16 March 2015: With reference to the impact of climate change on the Australian Defence Force (ADF) Response lodged **2 April 2015**.
- **In QON 16-000465 Senator Stephen Conroy asked:**
 - (1) Is the Department preparing a climate change adaption strategy?
 - (2) Is the Department participating in any inter-departmental or inter-agency climate change working groups? If so please provide details.
 - (3) Has the Department undertaken any analysis of climate change impacts on military base locations, and base capacity (force posture)?
 - (4) With respect to the White Paper process, can Defence please advise: How has climate change been incorporated and mainstreamed into national strategic and military planning?
Has there been any analysis of climate change impacts in our primary operational environment (POE) such as key neighbours like Indonesia, PNG, Philippines, and Pacific Island Countries?
Has there been any analysis on how climate change impacts will impact on force structure because of increasing requirements for stabilisation operations and disaster relief?
as there been any analysis or inclusion of climate change in military doctrine (e.g. Disaster relief doctrine or aid to the civil community)?
 - (5) Are there any mandated renewable energy targets for military bases?
 - (6) Has the Department conducted any risk assessment of sea-level rises on military bases? If so, what were the findings and which bases are most at risk?
 - (7) Has the Department conducted any risk assessment of extreme weather on military bases? If so, what were the findings and which bases are most at risk?
 - (8) Are there any mandated fuel and energy efficiency goals in the purchase of major military hardware and platforms – e.g. the use of bio-fuels?

- (9) Has the Department undertaken any analysis of climate change risks to critical civilian infrastructure and civilian workforce and the resultant impacts on military operations and training? If so, what were the findings?
- (10) What sustainable procurement practices has the Department implemented – e.g. energy efficient civilian vehicle fleets, energy efficient lighting, heating, waste reduction strategies, etc.?
Response lodged **14 September 2016**.

CERTIFIED AND AUTHORISED BY: I certify that this brief is accurate, current, unclassified and relevant.

Air Vice Marshal MEG Hupfeld
Head Force Design

Date: 12 Dec 2017

CONTACT OFFICER:

CONTACT OFFICER:

COL Ian Cumming
Defence Climate and Security Adviser

CONSULTED WITH:

CONSULTED WITH:

Dr Peter Sawczak, Assistant Secretary Strategic Policy, Strategic Policy and Intelligence Group
BRIG Craig Dobson, Director General Support, Headquarters Joint Operations Command
AIRCDRE Steve Winterton, Director General Fuel Services, Joint Logistics Command
COL Mike Goodyer, J45, Headquarters Joint Operations Command
Ms Kate Tropman, Acting Director Energy Efficiency Environmental Resource Management and Sustainability; Estate and Infrastructure Group
Ms Julie Groenendijk, Director Estate Environment and Energy Service Delivery' Estate and Infrastructure Group


~~For Official Use Only (FOUO)~~

PDR: MS17-001184

BACKGROUND

- On 12 Dec 2017 Paul Maley, (*The Australian*) wrote “Defence says brace for climate-induced conflict”. The article refers to Defence’s submission to the SSCFADT Inquiry into the National Security Implications of Climate Change. Note that Defence’s Inquiry response quotes the 1992 United Nations Framework Convention on Climate Change in its definition of ‘climate change’, which defines climate change in terms of direct or indirect human activity. The article goes on to list the impacts on national security from a changing climate that Defence detailed in its SSCFADT Inquiry response.
- On 28 Sep 2017, Senior ANU and ASPI analyst Dr Anthony Bergin wrote that the unfolding natural disasters of a warming world are a stark reminder that climate change comes with significant security implications. The article focused on the cost of the 2017 disaster season in the Gulf of Mexico and that the hurricane Harvey recovery effort could cost \$225 billion. The article also discusses the effects on the broader Central American region.
- On 20 Mar 2017 the ABC program, *Four Corners*, broadcast *The Age of Consequences*, a documentary program produced by PBS in the United States. It presents the views of former members of the US military and senior policy makers who warn that climate change is a threat to global security. The program is not focused on Australia but highlights the effect of climate change in general as a threat multiplier for instability, citing broad examples from the Middle East Region and Syria.
- On 3 December 2015 the Minister for the Environment released the National Climate Resilience and Adaptation Strategy. Two Defence initiatives were included as best practice examples in the National Climate Resilience and Adaptation Strategy: The Carnegie Wave Energy Project and the Base Climate Adaptation Study.
- On 1 December 2015 the *Daily Telegraph* criticised Defence for spending \$1.7 Million on climate change studies and courses.
- On 22 September 2015, the Climate Council in collaboration with former CDF Admiral Chris Barrie (Retired) released their report *Be Prepared: Climate Change, Security and Australia’s Defence Force*. This report concludes that climate change is a security threat and called for strong military action in response. The Australia military response was compared unfavourably to the work done in the United Kingdom Ministry of Defence and in the United States Department of Defense. The Climate Council Report was picked up on multiple traditional media sites including: the Australian; the Courier Mail; the WA Mercury; the Guardian Australia; ABC News; Sky News; SBS News; and the BBC reaching an estimated audience of 3 million.
- On 7 June 2015 the Centre for Policy Development released their report *The Longest Conflict: Australia’s Climate Security Challenge*. This report also compared Australia’s military response to those of other nations, calling for more action and leadership. The Report’s central idea was re-transmitted in the ASPI Strategist on 22 June 2015.
- Australian Strategic Policy Institute have previously called for more Australian military action on climate change in the Australian Strategic Policy Institute Strategist (10 Feb 2015) and in their *Special Report no 49 Heavy Weather: Climate and the ADF* (25 March 2013) and in *Special Report No 24 Hardening Australia: Climate Change and National Disaster Resilience* (10 August 2009).

~~For Official Use Only (FOUO)~~

	<p>DOT POINT BRIEF FOR VCDF</p> <p>Climate and Security Advice.</p>	
<p>FDD: FAB</p>	<p>Reference:</p>	
<p>Timing: Routine</p>	<p>Action required by:</p>	
<p>Copies: HFD, HFI, DGFA,</p>		

It is recommended that you, **Note the climate change and security advice provided within this brief at the request of VCDF staff for a leadership meeting,**

NOTED / PLEASE DISCUSS

Defence Climate Change related activities

1. Defence has been actively addressing Climate Change since 2009. A separate brief will be provided to your office providing a background on Defence climate adaptation actions.

Climate and Security Adviser

2. The position of “Defence Climate and Security Adviser” was established in Apr of 2016. This role has been and remains a part time standby reserve Army Colonel position established with VCDF Group, hosted by the Directorate of Preparedness and Mobilisation.

3. The role of the Climate and Security adviser is to;

- a. engage widely across the Defence Department to facilitate inclusion of climate change adaptation into business as usual, and
- b. engage widely across Government, industry and academia to facilitate access to best practice climate risk awareness and adaptation information.

4. The actions of the Adviser have been broadly but cautiously supported by the previous VCDF and HFD.

Defence Business Activities

5. The Climate and Security Adviser currently supports the following initiatives:

- a. Development of a SP&I led Strategic Policy Statement, initiated shortly after the recent *Senate Committees report into the National Security Implications for Climate Change* was handed down..

- b. FOAP guidance to ensure future force narratives are adjusted to include a disrupted and changed climate in which ADF will operate.
 - c. Regional climate risk analyses led by DFAT (in conjunction with IP Div , Preparedness and Mobilisation, DIO and ACMC)
 - d. Business rule development within Investment Committee guidance to consider all major investments with a climate reference. While not yet advanced this adjustment has future purchase action taking account of a disrupted climate through the life of the investment as informed to the Senate in Mar 2018.
 - e. CASG consideration of climate risk in new acquisitions, through advice to consultants on appropriate climate understanding at gates 0 and 1.
 - f. The Sustainable Development Goals (a bipartisan supported government agreement to Agenda 2030), is being integrated into the Smart Buyer program. A new adjusted and publishable Smart buyer is planned for Oct 19.
6. There are direct implications for the Department and the Adviser in holding a 'named' position. The Adviser becomes legally and duty bound to provide the best advice available at the time his duties are conducted ethically, on the basis of this principle.

External Engagement Activities

7. Interdepartmental advisory and collaboration has been significant. The Defence Climate and Security Adviser has been invited to engage with DFAT, DoEE, PMC, DHA, and agencies such as BOM and CSIRO, and does so in close coordination with other Defence stakeholders.
8. Engagement with business and corporations on risks associated with a changing climate, often showing a need for an ADF prepared to be compassionate and custodial in behaviour in an environment where humans will be more stressed than currently. This has enabled Defence to access risk information not normally available through other Defence channels.
9. The Adviser has been afforded extraordinary access to leaders in climate change science and policy, law and risk, and thought and actions, at the local, state, national and international level. Through the work of the adviser and other Defence leader, Defence is now regarded as a thought leader and is widely praised for its proactive stance.

Public Engagement

10. The Adviser speaks publically on both the internal and external discourse at Defence. His topics have covered the current Defence actions and responsibilities for preparation for the future in a changed climate consistent with our mission to defend Australia and its national interests.

Way Forward

11. The role of the Climate adviser is relevant to the entire Department and is focused on coordinating the required climate adaptation measures to ensure the generation of military options for Government. Within the construct of the ADHQ his remit cuts across Force Design, Integration, Preparedness and Employment.

12. Accordingly the position may be best placed reporting directly to your office or to the COS ADHQ.

13. In addition to his current duties the Climate adviser might then assist you, in your role as JCA and chair of the IC, with the adoption of a similar framework to the US Department of Defence FY 2014 Climate Change Adaptation Roadmap, which established three broad adaptation goals:

- a. Goal 1: Identify and assess the effects of climate change on the Department.
- b. Goal 2: Integrate climate change considerations across the Department and manage associated risks.
- c. Goal 3: Collaborate with internal and external stakeholders on climate change challenges

14. This would further assist the ADF prepare its forces and its business for a disrupted climate; that is one that humans have not yet experienced. All of Defence needs to understand the risks associated with a changing climate and prepare accordingly.

15. Specifically the ADF needs to adapt its behaviour and its actions to meet the changing climate, including actions on the estate and equipment and must also practice ethical and sustainable [purchasing] behaviour.

16. Additional more detailed actions are provided at Annex A.

Conclusion

The Adviser has changed a number of business as usual behaviours in Defence and in other departments and agencies, and continues to seek to engage across the Department to achieve necessary change and preparation. There is still much to be done.



Ian Cumming

Colonel

Climate and Security Adviser

s47F

7 Aug 2018

Authorities consulted:

nil

Annex:

Suggested Climate Actions to be taken by Defence

ANNEX A

SUGGESTED CLIMATE ACTIONS TO BE TAKEN BY DEFENCE

Infrastructure and Facilities;

- a. Commence planning for significant sea-level rise. Defence should consider planning for an orderly, dignified and deliberate retreat from Defence infrastructure at or close to the sea level, including the cessation of further investment in bases, and there potential disposal, that will be affected by sea level rise within the period of the useful life of new or refurbished buildings.
 - (1) An enterprise risk clearly exist here as government will have to act on multitudes of infrastructure problems associated with sea level rise and may draw money planned for Defence to ‘deal with popular’ needs.
- b. Reduce the use of fossil fuels through increased and sophisticated simulation. Investment in infrastructure to support this reduction of GHG emission, through investments in “ship zero”, flight simulation and land based manoeuvre elements that are linked and synchronised. Many of these initiatives have been discussed and actioned for many years.
- c. Make deliberate plans for the operational resilience of bases to support the Australian people in times of significant emergencies and natural disasters; such that the base becomes the communities ‘resilient node’. Bases should be mostly self-sufficient within a community of supporting services; water, power and sewerage. Defence will be relied upon in times of crisis and must not be part of the crisis. It must be prepared to be able to deliver protection and compassion to its community.
- d. All future infrastructure should aim beyond ‘smart infrastructure’ approaches, including emissions reduction rationales for investment, reduced greenhouse gas effects and reduce threat from the surrounding environment.
- e. Redefine environmental impacts on buildings and infrastructure, where both the effect on the environment by a building and the effect of the environment on the building are considered in planning. (we currently do this for bush fire and flood considerations)

Preparedness and operations;

- f. Make every effort to reduce Defence sailing, flying and driving hours in order to reduce GHG emissions. Support simulation as the primary exercise opportunity. (It is acknowledged that there is substantial commitment to this already – but more can be done).
- g. Use low energy transport methods as primary means as it is operationally and economically advantageous. Travel less for meetings using the Defence VTC systems as an alternative.

- h. Encourage individual GHG emissions reduction behaviour through incentives, for example travel to work methods. Australians remain the greediest people on earth in CO2 emissions.
- i. Seek all opportunities to prepare for the operating environment (climate) described by IPCC, including acidified, fresher and warmer oceans, hotter and more changeable operating climates, and for reduced availability of fuels. This also includes fishing ground changes.
- j. Prepare for significantly more disaster support operations and potentially operations involving support to the civil power such as policing of population under exaggerated stresses such as food and water shortages. This should include mobilisation discussions.

Health

- k. Prepare for significantly different operating environments of our future forces, including vector migration into Australia, heat loadings reaching extreme for human activity; where decision making is impacted, and
- l. Prepare for a significant lack of community health capacity to meet population demands in stress periods such as heat waves.

Intelligence, Business Intelligence and Risk Management

- m. Prepare to provide intelligence support to internal operations associated with stressed communities,
- n. Prepare for intelligence operations to support evidence based decision making within investment timeframes.
- o. Provide risk and time frame analysis based on worst and best case undertakings of climate change. Climate Change is an existential threat and defence is vulnerable to climate changes. Seeking the best available and most current advice from CSIRO is prudent; we do not yet have a policy to support this behaviour.
- p. Disclose the Department's risks to carbon / climate change in accordance with G20 Financial Stability Board recommendations, as this would be consistent with business voluntary behaviour. It is expected that this will become normal behaviour across business and government.

Purchasing and investment

- q. Use the UN Sustainable Development Goals as additional guidance to the Commonwealth Procurement Rules (CPR), where Defence behaviour must be primarily part of a wider community consistent with National Government agreed behaviour and the maintenance of rules based global order. This action has commenced.

Strategic Policy

- r. Develop strategic policy based on a changing environment. The context being a high likelihood for significant mass migrations from Asia, while food and water becomes less available to the Australian population, in cities where health care is reducing, heat is increasing and sea level is likely to see a number of low lying cities inundated (over a very protracted period).
- s. Develop policy that is consistent with worst case climate effects of governmental failure to act being seen as trust reduction and the failure of government to support the people. Law and order are likely consequent reductions. The breakdown of accepted financial normal; where consumerism and growth are likely to be usurped as the primary drivers of economy.

International Policy

- t. Support the sovereignty of nation states that are uninhabitable or have no land, and potentially retained EEZs. This will support nations of peoples' retention of culture and financial support, while supporting Australia's national interests. This might be an Australian lead internationally. This is openly discussed within DFAT of which Defence has been a participant in working groups.
- u. Support Australia's place in the international community as good citizens in immediate reduction of GHGs.

Long term force design and preparation

- v. Seek all opportunities to design forces for the operating environment (climate) described by IPCC, including acidified, fresher and warmer oceans, hotter and more changeable operating climates, and for reduced availability of fossil fuels.
- w. Embed climate change considerations in CLC processes. Use all available best and current science to inform on climate risks in all (project) decision making in Defence; relying on scientific expertise BOM and CSIRO.
- x. Leadership in climate understanding is often the touch stone for international action. In Defence the freedom provided by guided VCDF support for the climate adviser has been key. Further cultural change must be led from the centre, and the CDF / VCDF are the best placed to achieve this. The climate adviser can sit anywhere in Defence as long as the role is supported and guided by VCDF as a whole of Defence cultural outcome. The adviser suggests a secretariat style role as the need for guided cultural change continues. This may occur as "secretariat of VCDF's Working Group on Climate and Security", with appropriate support personnel, acting directly to VCDF and supporting VCDF's committee behaviours and roles.