Open NAP Master

Authors

- **Paul V. Desanker**
  [XXXX-XXXX-XXXX-XXXX](#) · [desanker](#) · [XX](#)

- **Jane Roe**
  [XXXX-XXXX-XXXX-XXXX](#) · [janeroe](#)
  Department of Something, University of Whatever; Department of Whatever, University of Something

Abstract

The Open NAP master is a general NAP deveoped based on best available IPCC science and other high quality science products covering sectors and systems typically encountered in development countries when developing National Adaptation Plans. One thing that is obvious from the extensive IPCC 5AR is the immense knowledge of how climate change impacts different systems and sectors, and how similar thoe impacts are between countries. It is unlikely we will discover new impacts or improve our basic understanding of climate change in order to develop improved adaptation plans. It is also clear that doing more and more generic impact or vulnerability assessments will have limited value - we can now take is as known and accepted that things like droughts, floods etc will have negative impacts, and will get worse as climaet continues to change, and that any given system will be impacted by multiple hazards, climate-related and others.

The next frontier seems to be how to use the knowledge we have to design effective adaptation responses. In this exercise, we build on the collective knowledge that exiists now, to design a general NAP that can be applied as an antry point for any country.

List of Papers

1. The NAP-SDG iFrame

2. Collection of systems for adaptation

3. General Open NAP

4. Case study: Country x

5. Adaptation Solutions Database

##Introduction {.page_break_before}

The IPCC assessment reorts are a good synthesis of studies that have documented the advserse impacts of climate change. The IPCC 5AR has further developed the concept of Resasons for Concern into five categories, within which key risks can be aggregated into graphic measures of risk in teh form of amber diagrams.

The IPCC reasons for concern are the relations between global mean temperature increase and:

1. Unique and threatened systems: Some unique and threatened systems, including ecosystems and cultures, are already at risk from climate change (high confidence). The number of such systems at risk of severe consequences is higher with additional warming of around 1°C. Many species and systems with limited adaptive capacity are subject to very high risks with additional warming of 2°C, particularly Arctic sea-ice and coral-reef systems.

2. Extreme weather events: Climate-change-related risks from extreme events, such as heat waves, extreme precipitation, and coastal flooding, are already moderate (high confidence) and high with 1°C additional warming (medium confidence). Risks associated with some types of extreme events (e.g., extreme heat) increase further at higher temperatures (high confidence).

3. Distribution of impacts: Risks are unevenly distributed and are generally greater for disadvantaged people and communities in countries at all levels of development. Risks are already moderate because of regionally differentiated climate-change impacts on crop production in

particular (medium to high confidence). Based on projected decreases in regional crop yields and water availability, risks of unevenly distributed impacts are high for additional warming above 2°C (medium confidence).

4. Global aggregate impacts: Risks of global aggregate impacts are moderate for additional warming between 1-2°C, reflecting impacts to both Earth's biodiversity and the overall global economy (medium confidence). Extensive biodiversity loss with associated loss of ecosystem goods and services results in high risks around 3°C additional warming (high confidence). Aggregate economic damages accelerate with increasing temperature (limited evidence, high agreement), but few quantitative estimates have been completed for additional warming around 3°C or above.

5. Large-scale singular events: With increasing warming, some physical systems or ecosystems may be at risk of abrupt and irreversible changes. Risks associated with such tipping points become moderate between 0-1°C additional warming, due to early warning signs that both warm-water coral reef and Arctic ecosystems are already experiencing irreversible regime shifts (medium confidence). Risks increase disproportionately as temperature increases between 1-2°C additional warming and become high above 3°C, due to the potential for a large and irreversible sea level rise from ice sheet loss. For sustained warming greater than some threshold, near-complete loss of the Greenland ice sheet would occur over a millennium or more, contributing up to 7 m of global mean sea level rise.

Eight overarching key risks

i. Risk of death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands due to storm surges, coastal flooding, and sea-level rise

ii. Risk of severe ill-health and disrupted livelihoods for large urban populations due to inland flooding in some regions

iii. Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health and emergency services

iv. Risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations and those working outdoors in urban or rural areas

v. Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings

vi. Risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions

vii. Risk of loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities in the tropics and the Arctic

viii. Risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods

This manuscript is a template (aka "rootstock") for [Manubot](#), a tool for writing scholarly manuscripts. Use this template as a starting point for your manuscript.

The rest of this document is a full list of formatting elements/features supported by Manubot. Compare the input (`.md` files in the `/content` directory) to the output you see below.

Basic formatting

Bold text

Semi-bold text

<div align="center">Centered text</div>

<div align="right">Right-aligned text</div>

Italic text

Combined *italics and **bold***

~~Strikethrough~~

1. Ordered list item
2. Ordered list item
   a. Sub-item
   b. Sub-item
      i. Sub-sub-item
3. Ordered list item
   a. Sub-item

- List item
- List item
- List item

subscript: H_2O is a liquid

superscript: 2^{10} is 1024.

[unicode superscripts](#)^{0123456789}

[unicode subscripts](#)$_{0123456789}$

A long paragraph of text. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Putting each sentence on its own line has numerous benefits with regard to [editing](#) and [version control](#).

Line break without starting a new paragraph by putting
two spaces at end of line.

Document organization

Document section headings:

Heading 1

Heading 2

Heading 3

Heading 4

A heading centered on its own printed page

Horizontal rule:

`Heading 1`'s are recommended to be reserved for the title of the manuscript.

`Heading 2`'s are recommended for broad sections such as *Abstract*, *Methods*, *Conclusion*, etc.

`Heading 3`'s and `Heading 4`'s are recommended for sub-sections.

Links

Bare URL link: https://manubot.org

[Long link with lots of words and stuff and junk and bleep and blah and stuff and other stuff and more stuff yeah](#)

[Link with text](#)

[Link with hover text](#)

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Citations

Citation by DOI [[1](#)].

Citation by PubMed Central ID [[2](#)].

Citation by PubMed ID [[3](#)].

Citation by Wikidata ID [[4](#)].

Citation by ISBN [[5](#)].

Citation by URL [[6](#)].

Citation by tag [[7](#)].

Multiple citations can be put inside the same set of brackets [[1](#),[5](#),[7](#)]. Manubot plugins provide easier, more convenient visualization of and navigation between citations [[2](#),[3](#),[7](#),[8](#)].

Citation tags (i.e. aliases) can be defined in their own paragraphs using Markdown's reference link syntax:

Referencing figures, tables, equations

Figure [1](#)

Figure [2](#)

Quotes and code

> Quoted text

> Quoted block of text
>
> Two roads diverged in a wood, and I—
> I took the one less traveled by,
> And that has made all the difference.

Code `in the middle` of normal text, aka `inline code`.

Code block with Python syntax highlighting:

```python
from manubot.cite.doi import expand_short_doi


def test_expand_short_doi():
    doi = expand_short_doi("10/c3bp")
    # a string too long to fit within page:
    assert doi == "10.25313/2524-2695-2018-3-vliyanie-enhansera-copia-i-
        insulyatora-gypsy-na-sintez-ernk-modifikatsii-hromatina-i-
        svyazyvanie-insulyatornyh-belkov-vtransfetsirovannyh-geneticheskih-
        konstruktsiyah"
```

Code block with no syntax highlighting:

```
Exporting HTML manuscript
Exporting DOCX manuscript
Exporting PDF manuscript
```

Figures

Figure 1: A square image at actual size and with a bottom caption. Loaded from the latest version of image on GitHub.

Figure 2: An image too wide to fit within page at full size. Loaded from a specific (hashed) version of the image on GitHub.

Figure 3: A tall image with a specified height. Loaded from a specific (hashed) version of the image on GitHub.

Figure 4: A vector `.svg` image loaded from GitHub. The parameter `sanitize=true` is necessary to properly load SVGs hosted via GitHub URLs. White background specified to serve as a backdrop for transparent sections of the image.

Tables

Table 1: A table with a top caption and specified relative column widths.

Bowling Scores	Jane	John	Alice	Bob
Game 1	150	187	210	105
Game 2	98	202	197	102
Game 3	123	180	238	134

Table 2: A table too wide to fit within page.

	Digits 1-33	Digits 34-66	Digits 67-99	Ref.
pi	3.14159265358979323 846264338327950	28841971693993751 0582097494459230	78164062862089986 2803482534211706	`piday.org`
e	2.71828182845904523 536028747135266	24977572470936999 5957496696762772	40766303535475945 7138217852516642	`nasa.gov`

Table 3: A table with merged cells using the `attributes` plugin.

Colors		
Size	**Text Color**	**Background Color**
big	blue	orange
small	black	white

Equations

A LaTeX equation:

$$\int_0^\infty e^{-x^2}\,dx = \frac{\sqrt{\pi}}{2} \tag{1}$$

An equation too long to fit within page:

$$\begin{aligned} x = a + b + c + d + e + f + g + h + i + j + k + l + m + n + o + p + q + r + s + t \\ + u + v + w + x + y + z + 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 \end{aligned} \tag{2}$$

Special

⚠ **WARNING** *The following features are only supported and intended for* `.html` *and* `.pdf` *exports. Journals are not likely to support them, and they may not display correctly when converted to other formats such as* `.docx` *.*

[LINK STYLED AS A BUTTON]

Adding arbitrary HTML attributes to an element using Pandoc's attribute syntax:

> Manubot Manubot Manubot Manubot Manubot. Manubot Manubot Manubot Manubot. Manubot Manubot Manubot. Manubot Manubot. Manubot.

Adding arbitrary HTML attributes to an element with the Manubot `attributes` plugin (more flexible than Pandoc's method in terms of which elements you can add attributes to):

> Manubot Manubot Manubot Manubot Manubot. Manubot Manubot Manubot Manubot. Manubot Manubot Manubot. Manubot Manubot. Manubot.

Available background colors for text, images, code, banners, etc:

white `lightgrey` `grey` `darkgrey` `black` `lightred` `lightyellow` `lightgreen` `lightblue` `lightpurple` `red` `orange` `yellow` `green` `blue` `purple`

Using the [Font Awesome](#) icon set:

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📜 Light Grey Banner
useful for *general information* - manubot.org

ℹ️ Blue Banner
useful for *important information* - manubot.org

🚫 Light Red Banner
useful for *warnings* - manubot.org

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