Indigenous Health and Climate Change

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Overview

- Introduction
- Indigenous health and climate change
- Doctoral research
Nganyundi miimiga baabaga barrmarrany
NganyUNDI MIIMIGA BAABAGA BARMARRANY

Clear skies and good food ensured thousands flocked to the Taste of Byron.

Dancers reive the Dreamtime.

Mrs. LILY KINA
Native Missionary, Barambah.
- The life expectancy gap between Indigenous and non-Indigenous males is 8.6 years, for females it's 7.8 years.

- The rate of disease burden among Indigenous Australians is more than double that of non-Indigenous Australians, at 2.3.

- For Indigenous Australians, leading causes of avoidable deaths include:
  - coronary heart disease 21%
  - diabetes 12%
  - suicide and self-inflicted injuries 11%
  - chronic obstructive pulmonary disease 8.8%
  - cancer 8%

- The age-standardised death rate is consistently higher for Indigenous Australians than non-Indigenous Australians for:
  - coronary heart disease; 26% of the gap in avoidable mortality
  - diabetes; 18% of the gap
  - chronic obstructive pulmonary disease; 13% of the gap
- There are 250 Indigenous nations and languages, with 800 dialects.
- Aboriginal and Torres Strait Islander peoples represent 3.8% of the total population.
- Our Elders make up 5.4% of the total Indigenous population.
- The median age is 24.
- In 2016, the total area of land in the Indigenous estate was 57%, comprising of 4.38 million km².
- Indigenous peoples represent **6.2%** of the global population, at **476 million** people.

- Indigenous languages consist of **57%** of the world’s total languages.

- In 2021, the total area of land in the global Indigenous estate was **32%**, comprising of **43 million km²**.

- **81%** of these lands, or **35.4 million km²**, remain in good to moderate ecological condition, accounting for **39%** of the Earth’s most ecologically intact lands.

- Globally, Indigenous peoples protect and steward an estimated **80-95%** of the Earth’s remaining biodiversity.
Severe weather and floods
- Injuries and fatalities, loss of homes, indoor mold

Drought
- Water access, dust storms, bushfire risk

Extreme heat
- Heat-related illness and death, cardiovascular failure

Bushfires
- Injuries and fatalities, loss of homes, cardiovascular and respiratory issues

Air quality
- Asthma and allergies, cardiovascular and respiratory issues

Changes in vector ecology
- Ross River virus, Japanese encephalitis virus, Dengue fever, tuberculosis, melioidosis

Food safety and security
- Malnutrition, food insecurity, higher food prices, foodborne illnesses

Sustainable Sovereignty:
Looking at relationship between the health of
wajaarr (Country) and waarru-biin (people),
and its contribution towards environmental,
climate, and health solutions.
Purpose of the study

- Reposition Country as health
- Building an evidence-base for my Countries & communities
- Advocating for First Nations Knowledges within the environmental, climate, and health spaces
Mid-North Coast of New South Wales
  - Gumbaynggirr
  - Dunghutti
  - Bundjalung

Southeast-Queensland
  - Wakka Wakka
  - Kabi Kabi
  - Jinibara
Knowledge Holder walking through Gumbaynggirr wajaarr to make cultural tools

Elder sitting on Dunghutti Country

Ranger holding a Bunya nut on Wakka Wakka Country
Phase 1: Conceptual Framework
What is the relationship between the health of Country and community?

Phase 2: Measurement Approach
What are the indicators of the health of Country and community?

Phase 3: Policy Application
How can environmental, climate, and health solutions preface this relationship, and Indigenous peoples’ rights?
Ways of relating

- Country = Country
- People = Country
- Country = People
- People = People

Principles

- Relationship to Country
- Looking after Country
- Ancestors and Old People
- Passing on Knowledge

Practices

- Language
- Fire

Indicators

- Infinite

Policy Application

- Environment
- Climate
- Health

Indigenous ways of relating = ontology
Indigenous ways of thinking = epistemology
Indigenous ways of doing = axiology
Paradigm

Phase 1: Conceptual Framework
### Climate crises

<table>
<thead>
<tr>
<th>Impact on People</th>
<th>Air quality: bushfires</th>
<th>Extreme heat</th>
<th>Food insecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>Cardiovascular failure</td>
<td>Diabetes</td>
<td></td>
</tr>
<tr>
<td>Scorched Country</td>
<td>Dry, diminished waterways</td>
<td>Unbalanced ecosystem</td>
<td></td>
</tr>
</tbody>
</table>

### Indigenous cultural practices

<table>
<thead>
<tr>
<th>Indigenous cultural practices</th>
<th>Cultural burning</th>
<th>Restoring the identity of Country: planting the right trees</th>
<th>Restoring and reshaping food economies</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECH impact</td>
<td>Reduced air pollution</td>
<td>Shade and cooling</td>
<td>Increased and equitable access to nutritious foods</td>
</tr>
<tr>
<td>Broader ECH impact</td>
<td>Reduced emissions, increased carbon sequestration, increased biodiversity</td>
<td>Increased carbon sequestration, increased biodiversity</td>
<td>Reduced emissions, increased biodiversity</td>
</tr>
</tbody>
</table>

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**Country, Climate, and First Nations Health | 12.02.2024**

**Phase 3:** Policy Application
There is a rapidly narrowing window of opportunity to enable climate resilient development

Multiple interacting choices and actions can shift development pathways towards sustainability

Conditions that enable individual and collective actions
- Inclusive governance
- Diverse knowledge and values
- Finance and innovation
- Integration across sectors and time scales
- Ecosystem stewardship
- Synergies between climate and development actions
- Behavioural change supported by policy, infrastructure and socio-cultural factors

Conditions that constrain individual and collective actions
- Poverty, inequity and injustice
- Economic, institutional, social and capacity barriers
- Sliced responses
- Lack of finance, and barriers to finance and technology
- Tradeoffs with SDGs

Outcomes characterising development pathways
- Low emissions
- System transitions
- Transformation
- Low climate risk
- Equity and justice
- SDG achievement

High emissions
- Entrenched systems
- Adaptation limits
- Maladaptation
- Increasing climate risk
- Reduced options for development
- Ecosystem degradation

Illustrative 'shock' that disrupts development
Key take aways for the broader health community:

- The climate crisis is a health crisis, but fundamentally it's a human and land rights crisis

- Preface Indigenous human and land rights as solutions to the climate crises

- Advocate for our rights

- Work with us – hear our stories and help reshape the future that recenters our relationship to Country
Darrundang

Thank you


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Reference list


- Australian Institute of Aboriginal and Torres Strait Islander Studies. (2023). Languages alive. https://aiatis.gov.au/explore/languages-alive#:~:text=Mary%20languages-In%20Australia%20there%20are%20more%20than%20250%20languages%20including%20of%20those%20languages%20are%20spoken


CLIMATE CHANGE & INDIGENOUS YOUTH HEALTH

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• I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.
• Permission was granted for use of all photographs.
First, a little about me!

HUNKPATI DAKOTA
AND YAQUI NATIONS
LANDS OF THE YAQUI & DAKOTA NATIONS
• In 2019, the ILO estimated that there 476.6 million Indigenous persons in the world, 6.2% of the total global population.

• The United Nations also estimates that 80% of the world’s remaining biological diversity is on the lands of Indigenous Peoples.
Ensuring the Climate Resiliency of Indigenous Peoples’ Food Systems: Global Survey Results

Disseminated and compiled by the International Indian Treaty Council

Total Surveys Received: 118
28 Countries from 7 Regions
Languages: Russian, English, Spanish, French, Portuguese
Indigenous Peoples/Nations represented: 134
Indigenous Individuals reported to be represented: 3,648,663
Surveys by Region

- Africa
- Pacific
- Arctic
- Central and Eastern Europe, …
- Asia
- North America
- Latin America and the…

Bar graph showing the number of surveys by region.
What is the traditional means of subsistence for your community/tribe/nation/nation/peoples?

- Fishing
- Hunting
- Marine mammals
- Farming
- Gathering
- Herding/...
- Other

HAS YOUR COMMUNITY/TRIBE/NATION/PEOPLES EXPERIENCED ONE OR MORE CLIMATE CRISIS SITUATIONS THAT HAVE IMPACTED YOUR FOOD SYSTEMS AND TRADITIONAL LIVELIHOODS (PRODUCTION, DISTRIBUTION, MARKETING/TRADE, PREPARATION?)

Hurricane Maria, Boriken (Puerto Rico) September, 2017

**Pie Chart**: Yes - 94%, No - 3%, Don't Know - 3%
HAVE YOUR FOOD SYSTEMS AND FOOD RELATED PRACTICES BEEN IMPACTED BY HUMAN RIGHTS VIOLATIONS THAT YOUR COMMUNITY/TRIBE/NATION/PEOPLES HAVE EXPERIENCED?

- Yes: 78%
- No: 12%
- Don’t Know: 10%

Aqueduct from Oviachi dam diverting Rio Yaqui fresh water from Yaqui farmers and communities to large-scale growers in Ciudad Obregon, Sonora Mexico
A Cycle of Harm

- Indigenous rights violations
- Weakening of Indigenous Child Health
- Worsening Climate Change
- Expansion of Fossil Fuel Energy & Development Projects on Indigenous Lands
Example of the Cycle: Oceti Sakowin
FORT LARAMIE TREATY, APRIL 29, 1868

ARTICLE 16. The United States hereby agrees and stipulates that the country north of the North Platte River and east of the summits of the Big Horn Mountains shall be held and considered to be unceded Indian territory, and also stipulates and agrees that no white person or persons shall be permitted to settle upon or occupy any portion of the same; or **without the consent of the Indians first had and obtained**, to pass through the same;

Violation of Treaty Rights: Loss of Land
Development on our Land: The Homestake Gold Mine operated in the Black Hills from 1886 – 2002, the largest and deepest gold mine in North America

Homestake Gold Mine, 1889
Continued environmental desecration of Treaty Lands via energy and resource development
“Law enforcement officials, private security firms and the North Dakota National Guard have used unjustified force to deal with opponents of the Dakota Access pipeline”

-- Maina Kiai, UN Special Rapporteur on the rights to freedom of peaceful assembly and association, UN Press Release December 15, 2016
Eleven women and girls who were raped, gang-raped or violently molested in the Papua New Guinea Highlands have reached an out-of-court settlement with [Canadian mining company Barrick Gold], having refused to accept the "insulting" compensation paid to 120 fellow victims...The Porgera community says security guards and mobile police at the mine have raped more than 200 women and girls over the past two decades...” - Sydney Morning Herald, April 4, 2015
Mexico: Changing weather patterns including dramatic decreases in summer rainfall are directly impacting the growing capacity of traditionally important crops such as corn in many regions.
Violation of our Rights: U.S. Policy of Buffalo Extermination

- “Let them kill, skin, and sell, until the buffalo is exterminated. It is the only way to bring a lasting peace and allow civilization to advance.” – U.S. General Phil Sheridan, 1875

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Bison</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1800</td>
<td>60 million</td>
</tr>
<tr>
<td>1830</td>
<td>40 million</td>
</tr>
<tr>
<td>1840</td>
<td>35,650,000</td>
</tr>
<tr>
<td>1870</td>
<td>5,500,000</td>
</tr>
<tr>
<td>1880</td>
<td>395,000</td>
</tr>
<tr>
<td>1889</td>
<td>541</td>
</tr>
<tr>
<td>1900</td>
<td>300</td>
</tr>
<tr>
<td>1944-47</td>
<td>5,000</td>
</tr>
<tr>
<td>2016</td>
<td>400,000</td>
</tr>
</tbody>
</table>
Buffalo Role in Preventing, Mitigating & Adapting to Climate Change

- Buffalo support Native grasses which prevent soil erosion
- Lower “carbon footprint” than cows
- Envisioned basis for Tribal Nations’ food sovereignty, health, & cultural survival

In October 2015, 100,000 cattle died in an early blizzard in South Dakota.

No buffalo deaths were reported!
A Story: Indigenous Rights, Food Systems, CC & Health Disparities

Traditional foods & systems protect against developing T2DM in AI communities.

Colonization attacked traditional food systems & replaced them with commodity foods -> nutrition food deserts & higher GDM + T2DM

Climate change has gone hand in hand with colonization (e.g. mass killing of buffalo, mining + drilling on Indigenous lands) and exacerbates the food insecurity & health impacts like T2DM via draughts, pollution, soil degradation.


Leading Causes of Death, 1999-2009

Regardless of sex, AI/ANs were more likely to die of diabetes, chronic liver disease, accidents, and suicide than whites.

<table>
<thead>
<tr>
<th></th>
<th>AI/AN Male</th>
<th>White Male</th>
<th>AI/AN Female</th>
<th>White Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heart disease</td>
<td>1</td>
<td>Cancer</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Cancer</td>
<td>2</td>
<td>Heart disease</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Accidents</td>
<td>4</td>
<td>Accidents</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Diabetes mellitus</td>
<td>6</td>
<td>Diabetes mellitus</td>
<td>8</td>
</tr>
</tbody>
</table>

Life Expectancy at Birth

The non-Hispanic AI/AN population in CHSDA counties, 2007-2009, had the lowest life expectancy compared with other US racial/ethnic groups, 2008.

Life expectancy at birth

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI/AN</td>
<td>68.0 y</td>
<td>Non-Hispanic AI/AN</td>
</tr>
<tr>
<td></td>
<td>70.5 y</td>
<td>Non-Hispanic black</td>
</tr>
<tr>
<td></td>
<td>76.0 y</td>
<td>Non-Hispanic white</td>
</tr>
<tr>
<td></td>
<td>78.0 y</td>
<td>Hispanic</td>
</tr>
</tbody>
</table>
“Among them: Native Americans have some of the highest rates of health conditions, such as obesity and diabetes, that make a person much more likely to die from Covid.” – NYT
The United Nations General Assembly Adopts the UN Declaration on the Rights of Indigenous Peoples September 13th, 2007

“The rights recognized herein constitute the minimum standards for the survival, dignity and well-being of the Indigenous Peoples of the world.” — Article 43
UN Bodies, Agencies and States SHALL promote, respect and fully apply the UN Declaration

“The United Nations, its bodies, including the Permanent Forum on Indigenous Issues, and specialized agencies, including at the country level, and States shall promote respect for and full application of the provisions of this Declaration and follow up the effectiveness of this Declaration.” -- Article 42
The Declaration is the “Minimum Standard”

- “The rights recognized herein constitute the minimum standards for the survival, dignity and well-being of the Indigenous Peoples of the world.”
--Article 43
Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources...

-- Article 29, para. 1, UN Declaration on the Rights of Indigenous Peoples
Right to Health and to Traditional Health-Related Practices

“Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals...” --- *UNDRIP Article 24*
UNDRIP Article 30

1. **Military activities shall not** take place in the lands or territories of indigenous peoples, unless justified by a relevant public interest **or** otherwise freely agreed with or requested by the indigenous peoples concerned.

2. States shall undertake effective consultations with the indigenous peoples concerned, through appropriate procedures and **in particular through their representative institutions**, prior to using their lands or territories for military activities.
“States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources...”
2. States shall take measures, in conjunction with indigenous peoples, to ensure that indigenous women and children enjoy the full protection and guarantees against all forms of violence and discrimination.
Rights of Indigenous Peoples were recognized in the Paris Agreement

“Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations...”

-- Preamble, the Paris Agreement, adopted by consensus December 12, 2015 to go into force in 2020
Additional References:


