

# Climate change and family violence in rural Samoa

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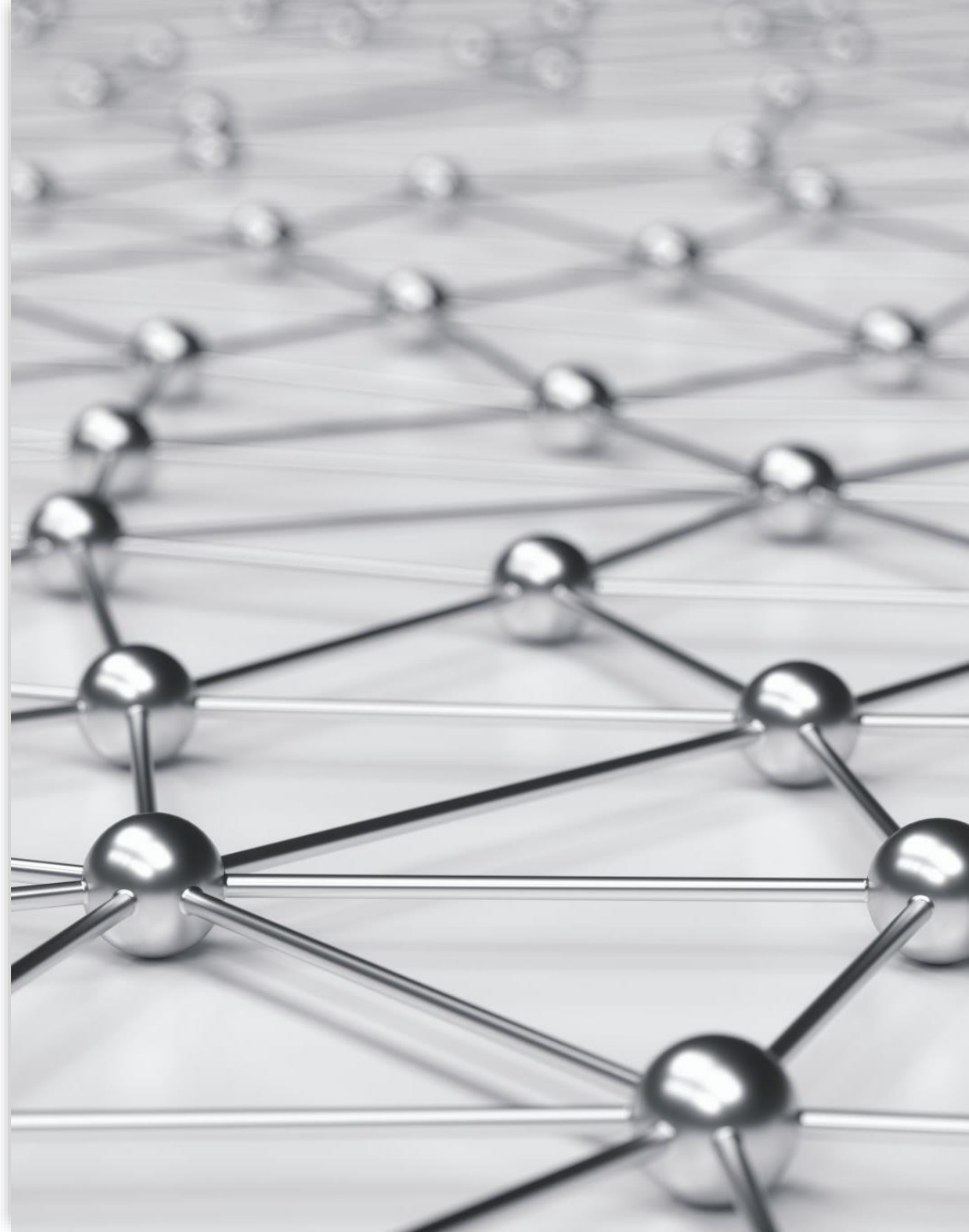


Supported by



# Collaborators

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Increasing sea levels  
Increased natural disasters  
Increasing ambient air temperature  
Increased infectious disease  
Increased invasive species  
Ocean acidification  
Biodiversity loss  
Land erosion

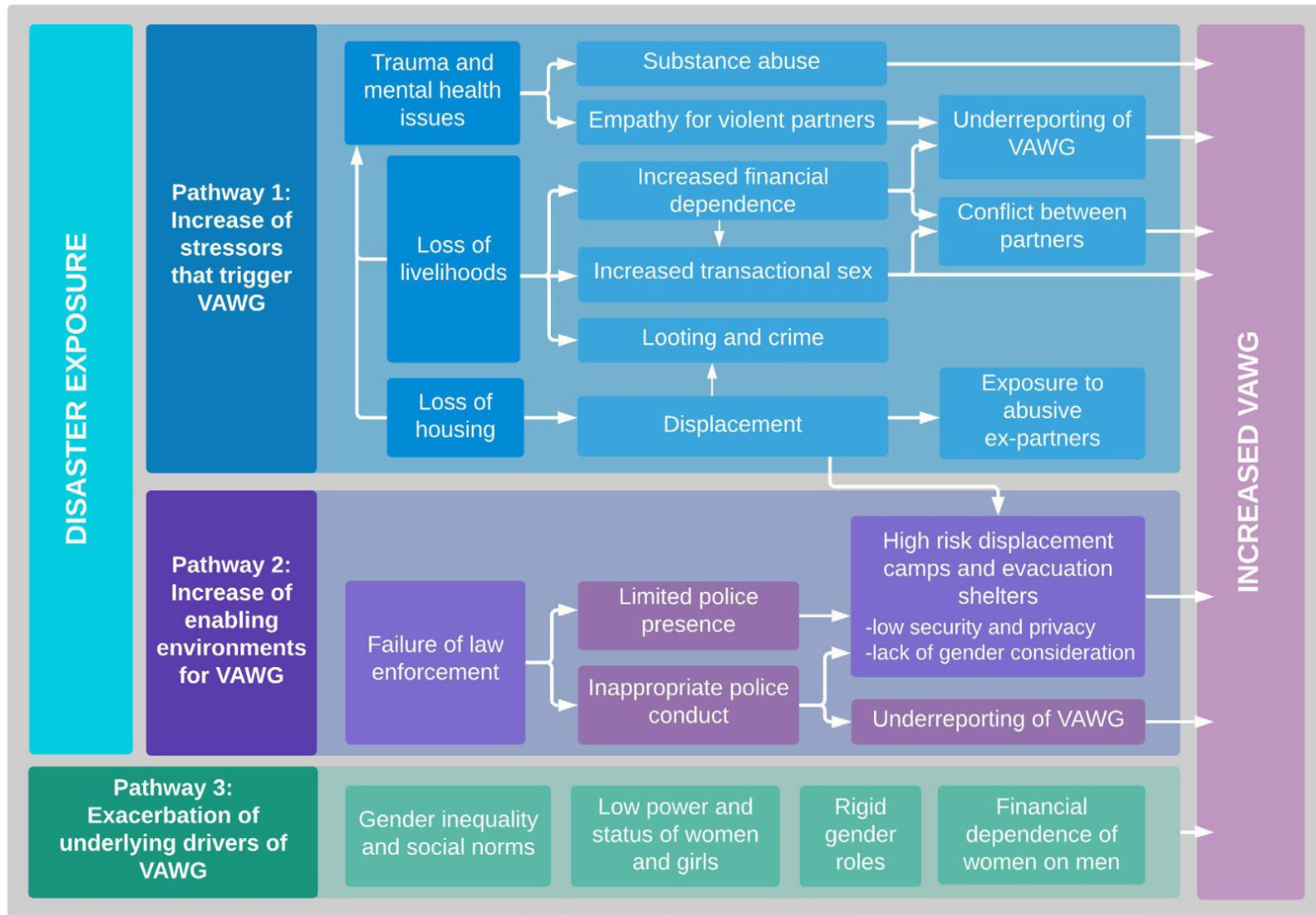
**Anthropogenic  
Climate  
Change**

**NEXUS**



**Gender-based  
violence against  
women (VAW)**

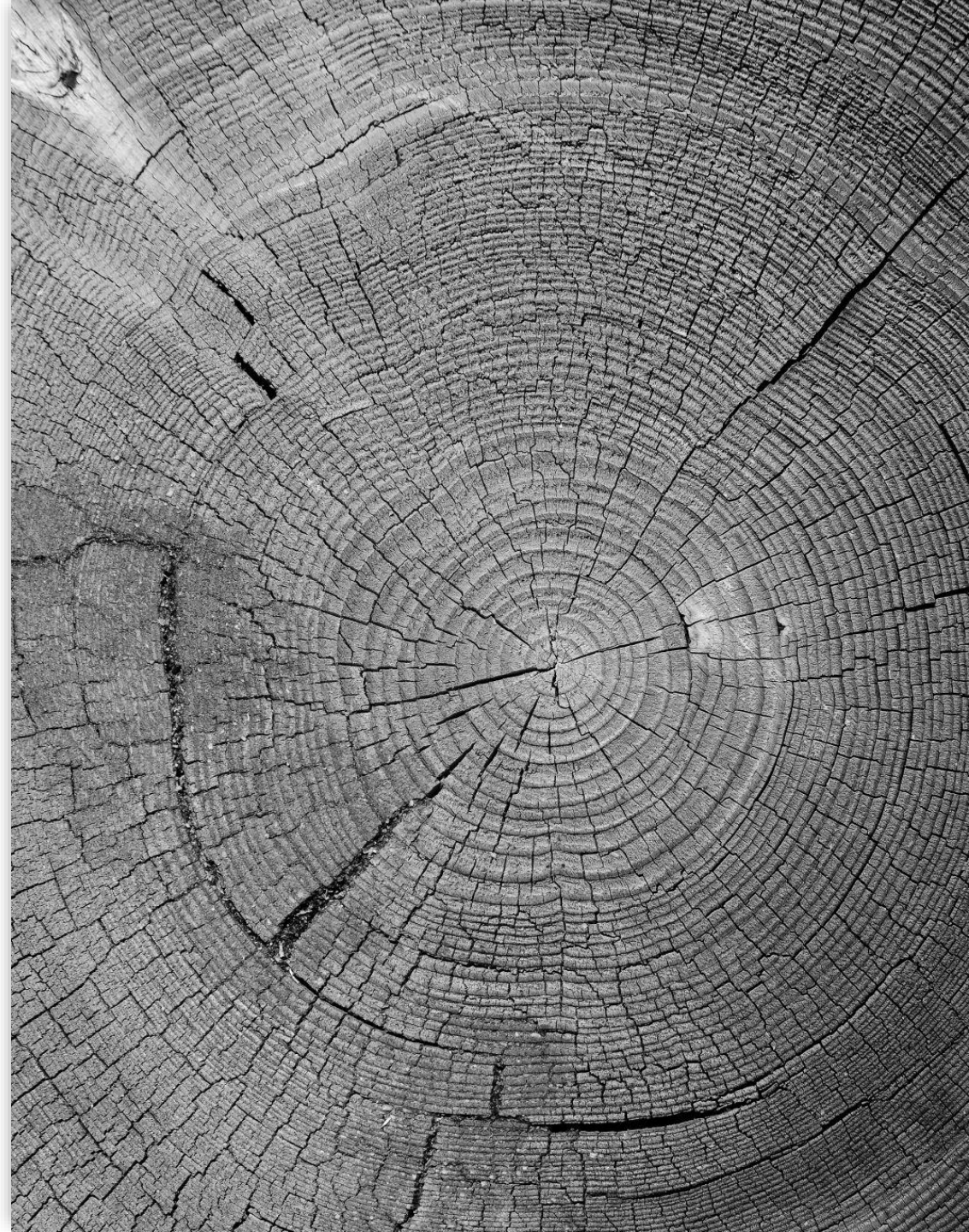
Physical injury  
Femicide  
Sexual abuse  
Emotional abuse  
Coercive control  
Marital rape  
Forced marriage  
Genital cutting  
Economic abuse  
Rape



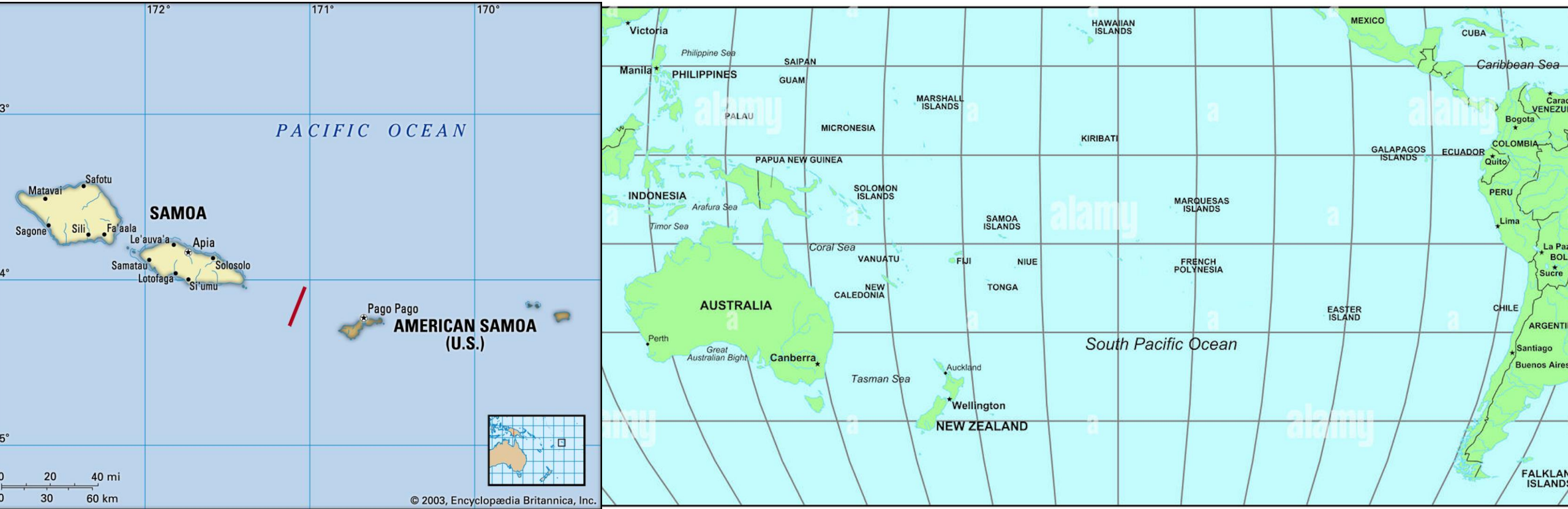
Thurston AM, Stöckl H, Ranganathan M. Natural hazards, disasters and violence against women and girls: a global mixed-methods systematic review. *BMJ Global Health* 2021;6:e004377. doi:10.1136/bmjgh-2020-004377

# Research from Oceania

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- Women, U.N. Disasters, Crises and Violence against Women: Evidence from Big Data Analysis (Lessons from Kiribati, Samoa, Solomon Islands and Tonga). <https://www.toksavepacificgender.net/research-paper/disasters-crises-and-violence-against-women-evidence-from-big-data-analysis-lessons-from-kiribati-samoa-solomon-islands-and-tonga/>
- Alston, M., Fuller, S., and Kwarney, N. (2023). Women and climate change in Vanuatu, Pacific Islands Region. *Gend. Place Cult.* 0, 1–22. 10.1080/0966369X.2023.2229530.
- Ayeb-Karlsson, S., Chandra, A. and McNamara, K.E., 2023. Stories of loss and healing: connecting non-economic loss and damage, gender-based violence and wellbeing erosion in the Asia–Pacific region. *Climatic Change*, 176(11), p.157.
- Charlson, F.J., Diminic, S., and Whiteford, H.A. (2015). The rising tide of mental disorders in the Pacific region: forecasts of disease burden and service requirements from 2010 to 2050. *Asia Pac. Policy Stud.* 2, 280–292.
- **Gaps:** SIDS in Oceania are among the most affected, but under-researched countries when it comes to quantifying associations between climate and violence.



# Climate change in Samoa



# Eve Project



(1) Peer-to-peer interviews conducted by SVSG's village representatives



(2) Co-developing a theory of change for how villages can prevent violence



(3) Conducting a survey in 9 participating villages on violence against women and risk/ protective factors with 1,200 people.



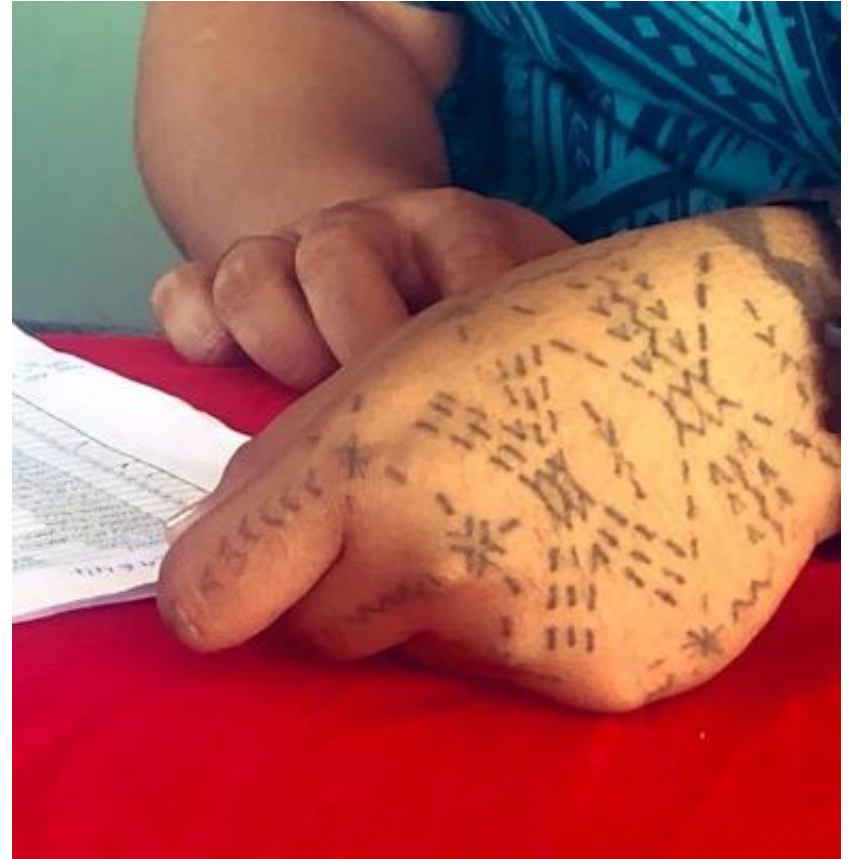
(4) Piloting an intervention that engages villages in developing their own strategies based on global evidence with 300 people.



# Survey of rural villages

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- Data were collected between December 2022 and February 2023
- Randomisation: We used National Census Data (2021) provided by the Samoa Bureau of Statistics to randomly select participating households, and then randomly select individuals from each household
- Survey was administered using RedCap on tablets by trained enumerators
- No questions were mandatory and all participants were compensated \$30 tala (~£10) for their time regardless of whether they complete the survey in full
- Ethical approval from the National University of Samoa and UCL; followed the WHO's ethical and safety recommendations for research on violence (i.e. response protocol, trained counsellors available on the day, follow up questions in the survey)
- A total of 1,169 people completed the survey (450 men and 707 women)





# Demographics

*Demographic and other baseline characteristics, associations with disaster experience*

	N (%)	Missing	Disaster N	Disaster % (95% CI)	P value ( $\chi^2$ test)
TOTAL	1,169		312	26.9 (24.3–29.4)	
<b>Gender</b>		12			0.053
Men	450 (38.9)		144	32.3 (25.9–39.33)	
Women	707 (61.1)		166	23.6 (18.4–29.8)	
<b>Age</b>		0			<b>0.004</b>
15-19	157 (13.4)		36	23.8 (16.7–32.6)	
20-29	257 (21.9)		47	19.7 (13.5–28.0)	
30-39	232 (19.9)		63	29.3 (22.6–36.9)	
40-49	204 (17.5)		57	28.3 (21.6–36.1)	
50-59	185 (15.8)		69	38.7 (29.6–48.7)	
60+	134 (11.5)		40	31.0 (23.7–39.5)	
<b>Education</b>		37			<b>0.027</b>
Up to primary	124 (11.0)		48	40.8 (30.2–52.3)	
Secondary	823 (73.0)		213	26.7 (22.1–31.9)	
Higher education	180 (16.0)		41	25.1 (16.7–35.9)	
<b>Food insecurity</b>		0			<b>&lt;0.001</b>
None	843 (72.1)		201	25.1 (21.1–29.6)	
Mild	243 (20.8)		79	33.6 (25.9–42.1)	
Moderate to Severe	83 (7.1)		32	40.8 (28.4–53.9)	
<b>Disability</b>		0			<b>0.006</b>
Any	378 (32.3)		127	34.2 (28.3–40.7)	
None	791 (67.7)		185	24.0 (20.1–30.7)	

# Climate-disasters and mental health

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- If someone had experienced a disasters, they are 63% more likely to have symptoms of depression
- If they had experienced many disasters (4+), they were almost 200% or twice as likely to have symptoms of depression



# Climate-disasters and IPV (women)



Experienced a disaster once in their lifetime  
= More than 2 times as likely to experience IPV  
(OR 2.35; CI 1.54-3.56)



Experienced a disaster 2-3 times in their lifetime  
= More than 2 times as likely to experience IPV  
(OR 2.63; CI 1.86-3.74)



Experienced a disaster more than 4 times in their lifetime  
= More than 5 times as likely to experience IPV  
(OR 5.68; CI 2.19-14.75)

*Percentages and odds ratios for women's experiences of IPV in the past 12 months by exposure to disaster events*

Adjusted for age, education, food insecurity, disability, experience of child abuse. Boldface indicates statistical significance (\*p<0.05; \*\*p<0.01; \*\*\*p<0.001).

# The role of mental health in IPV



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Adjusting for women's mental health  
= More than 2 times as likely to experience IPV



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Adjusting for women's mental health  
= More than 2 times as likely to experience IPV



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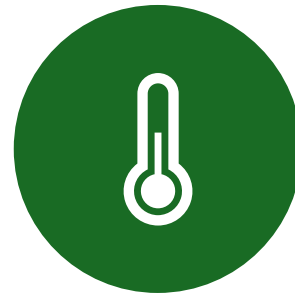


Adjusting for women's mental health  
= More than 6 times as likely to experience IPV

# Interpretation



Climate-related disasters have an impact on men's mental health (depression and anxiety) and women's experience of intimate partner violence (IPV)



More exposure to climate related-disasters increases this risk

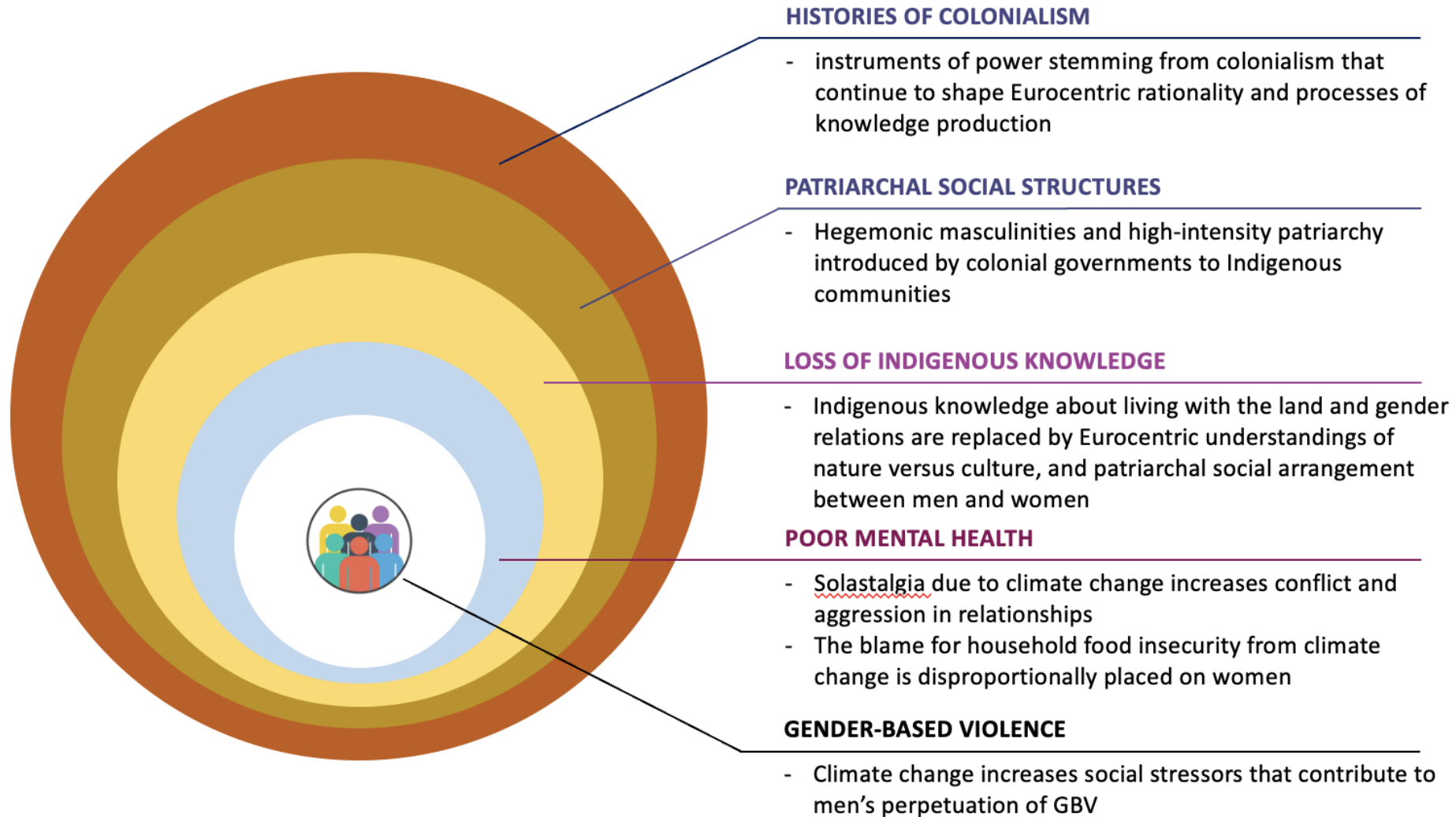


We need better understandings of the incremental impacts of reoccurring and persistent climate change events in the Oceanic region on families



We need Indigenous frameworks of mental health, climate change and IPV

# Interpretation



# Recommendations

1. Community led risk assessments: Engage Indigenous women and community leaders in participatory assessments to understand the specific vulnerabilities and risks related to climate change and GBV within their communities.
2. Incorporate GBV prevention and response measures into national climate action plans and disaster risk reduction strategies, co-designed with Indigenous communities.
3. Advocate for the integration of Indigenous customary laws and practices that protect women and girls from GBV into formal legal frameworks.
4. Invest in research to better understand the links between climate change and GBV for Indigenous communities, and to develop effective community-led interventions.

# Survey Questions

- Climate change: *‘I lo’u olaga, na ou molimauina pe na ou lavea i faalavelave faalenatura e pei o mafuie, afā, asiosio poo lologa.’* In my life I witnessed or experienced natural events, for example, earthquake, cyclone, tornado or flood.’
- Mental health: 10-item Centre for Epidemiological Studies Depression Scale (CES-D) scale; Generalised Anxiety Disorder Assessment (GAD-7); Alcohol Use Disorders Identification Test (AUDIT)
- IPV in past 12 months (DHS-MICS)
  - 7 acts of physical IPV: being pushed, shaken or having something thrown at them; slapped; arm twisted or hair pulled; punched; kicked, dragged or beaten up; choked or burned; threatened or attacked with a knife.
  - 3 acts of sexual IPV: physically forced sex; physically forced sexual acts; forced with threats to perform sexual acts
  - 3 acts of emotional IPV: humiliated; threatened with harm; insulted or made to feel bad.
  - 5 acts of economic violence: being prohibited from getting a job or earning money; taking earnings against their will; refused money for household expenses; excluded from financial decisions; debt built up under their name.