

# The role of geospatial information in assessing environmental livelihood security in the South Pacific

## PACE-Net Plus Seed Project



**Dr Eleanor Bruce (Uni of Sydney)**

Dr Floris van Ogtrop (Uni of Sydney)  
Prof Andreas Neef (Uni of Auckland)  
Dr Nathan Wales (Uni of South Pacific)  
Dr Eberhard Weber (Uni of South Pacific)  
Dr Eloise Biggs (Uni of Western Australia)  
Dr Bryan Boruff (Uni of Western Australia)  
Dr Heather Sterling (Uni of Sterling)



THE UNIVERSITY OF  
**SYDNEY**



THE UNIVERSITY OF AUCKLAND  
NEW ZEALAND

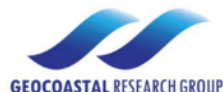


THE UNIVERSITY OF  
WESTERN AUSTRALIA  
*Achieving International Excellence*

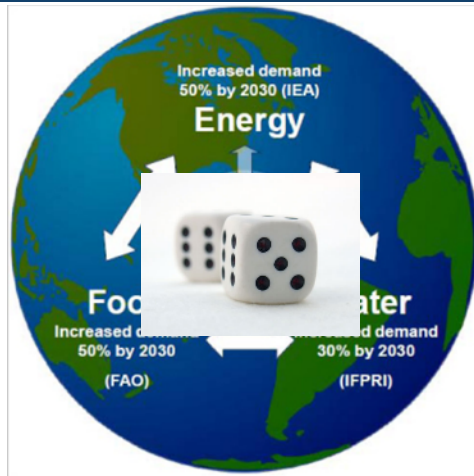


UNIVERSITY OF  
**Southampton**

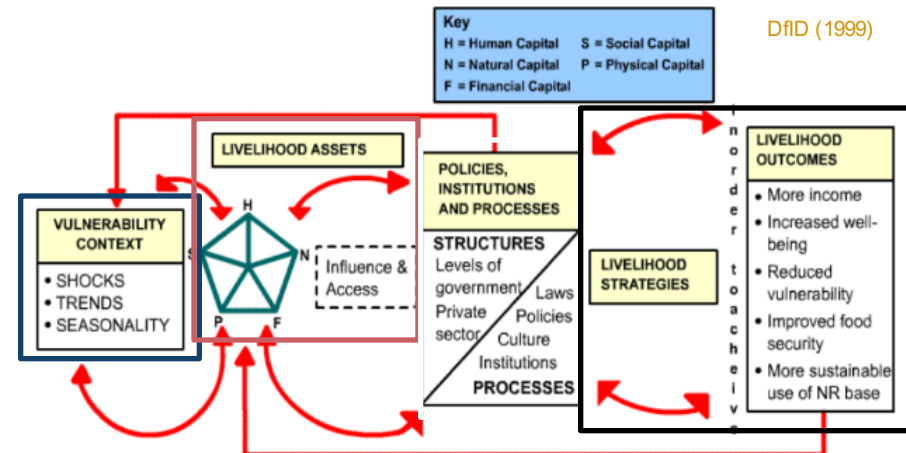
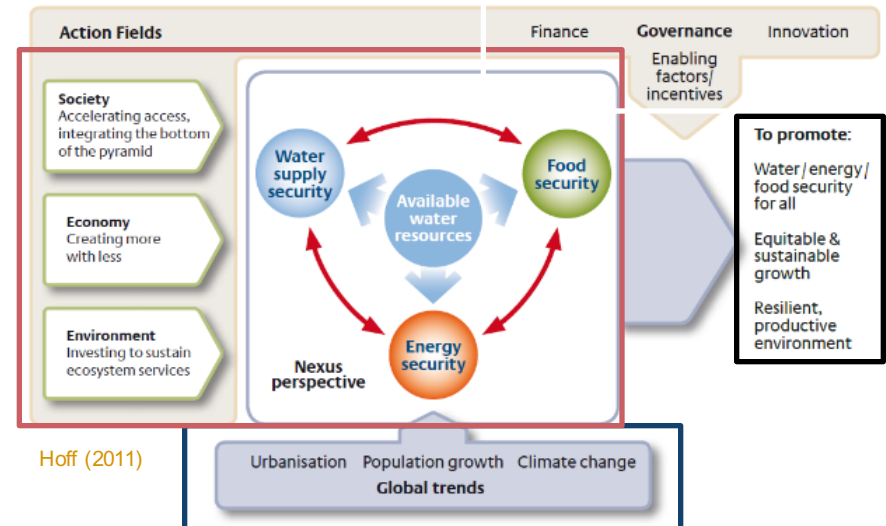
UNIVERSITY of  
**STIRLING**



# The Environment and Livelihoods

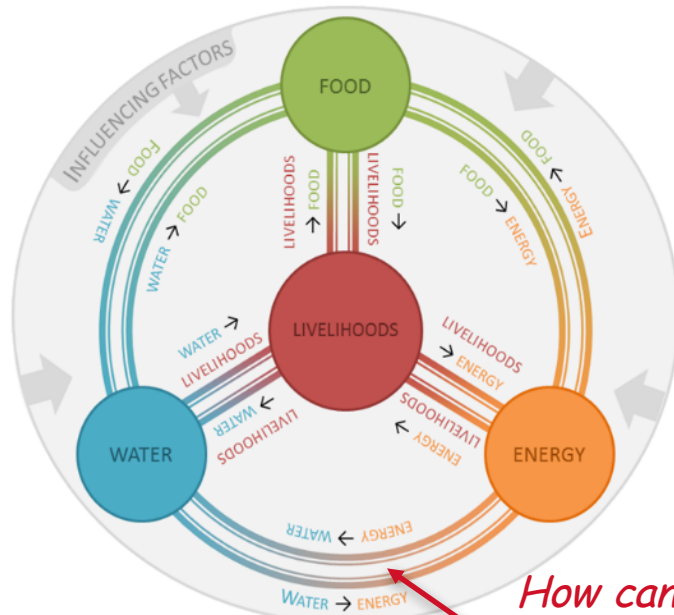


- The WEF **Nexus** has influential role in attaining human security
- Limited research linking nexus to **[sustainable] livelihoods**
- Synergies between approaches
  - Vulnerability / pressures
  - Natural supply & human demand
  - Policy / governance
  - Outcomes to promote sustainable livelihoods /development





# Environmental Livelihood Security Framework

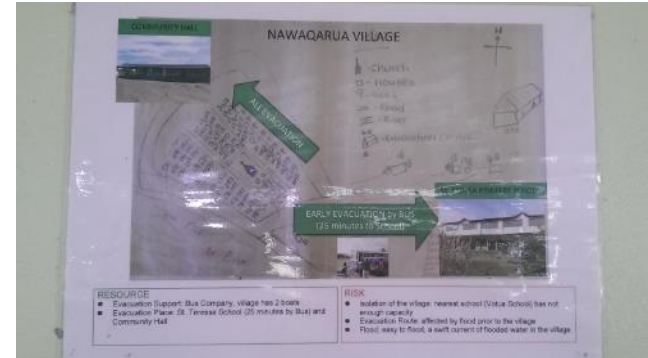


*How can these inter-related factors be monitored using geospatial information?*



Ba catchment, Viti Levu, Fiji

Reproduced from: Brown et al. Available at [http://www.landcareresearch.co.nz/\\_data/assets/pdf\\_file/0004/77341/Fiji\\_disaster\\_risk\\_reduction.pdf](http://www.landcareresearch.co.nz/_data/assets/pdf_file/0004/77341/Fiji_disaster_risk_reduction.pdf)



*Can the ELS framework be used to identify methods for monitoring water-food-energy linkages using geospatial information?*

*What are the key considerations in developing reliable indicators derived from remotely sensed imagery and aggregated geographic data?*





THE UNIVERSITY OF  
SYDNEY

# “geospatial data is indispensable for advancing the global development agenda, particularly the 17 SDGs” UN Committee of Experts August 2015

## Workshop seminars



## Discussion forums



## Fieldwork



Household  
Expenditure  
Survey,  
Census,  
source task  
matrix

Land cover mapping,  
vegetation indices



<http://www.climatechangeplus.net/>  
<http://www.iwmi.cgiar.org/publications/other-publication-types/environmental-livelihood-security-south-east-asia-oceania/>  
<http://sydney.edu.au/research/spacenet/>

Examples of internal (livelihoods-water-energy-food) and external (influencing) factors which need consideration for attaining ELS