

Ecosystem services and disaster resilience: The Eden story



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Natural Capital Symposium

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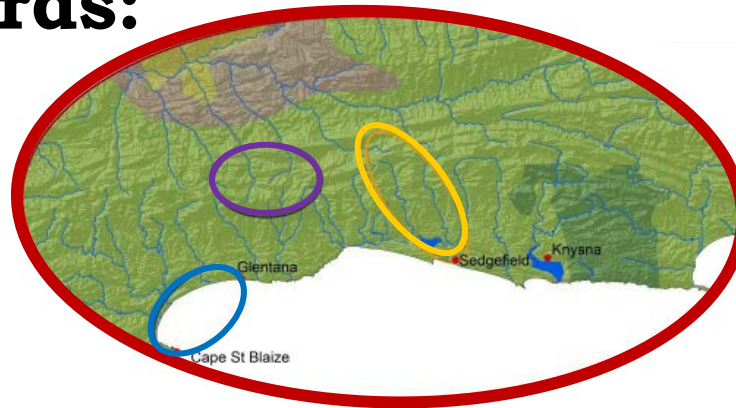




The Eden journey begins

Natural hazards:

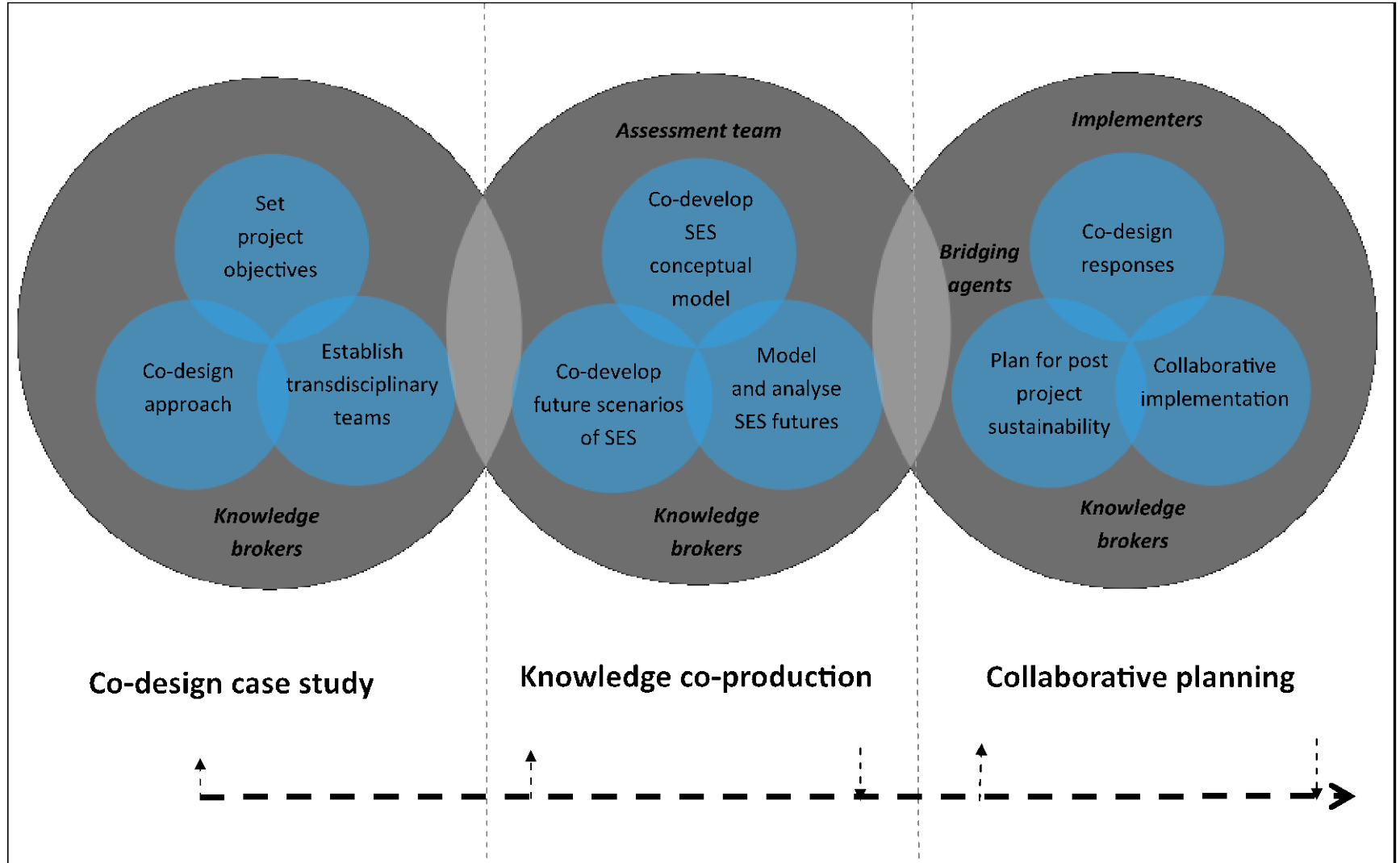
- **Flood**
- **Drought**
- **Wildfire**
- **Storm-wave**



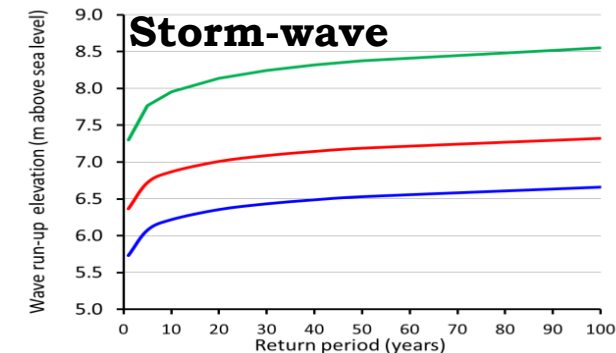
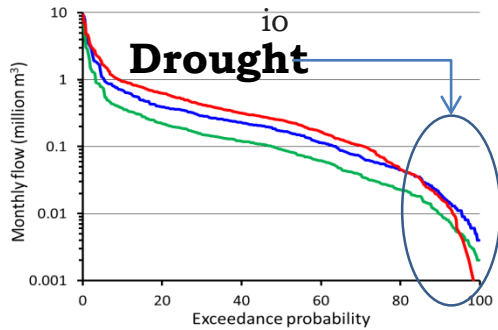
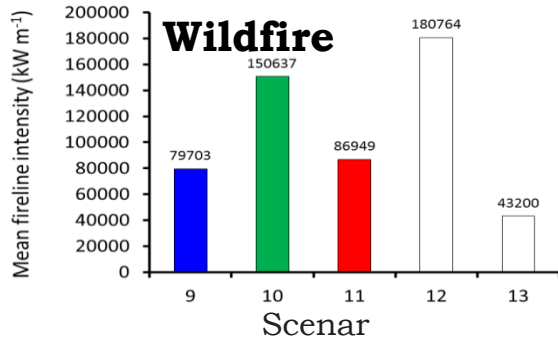
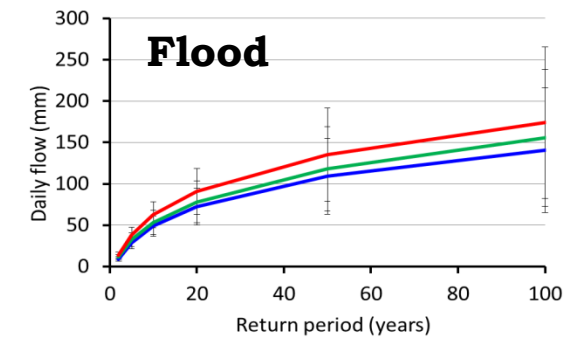
Stakeholders:

- Insurance industry
- Beverage and timber industry
(executives, managers and farmers)
- Local and provincial authorities
- Poverty alleviation programmes
- Conservation agencies
- Research organisations





Scenario based models



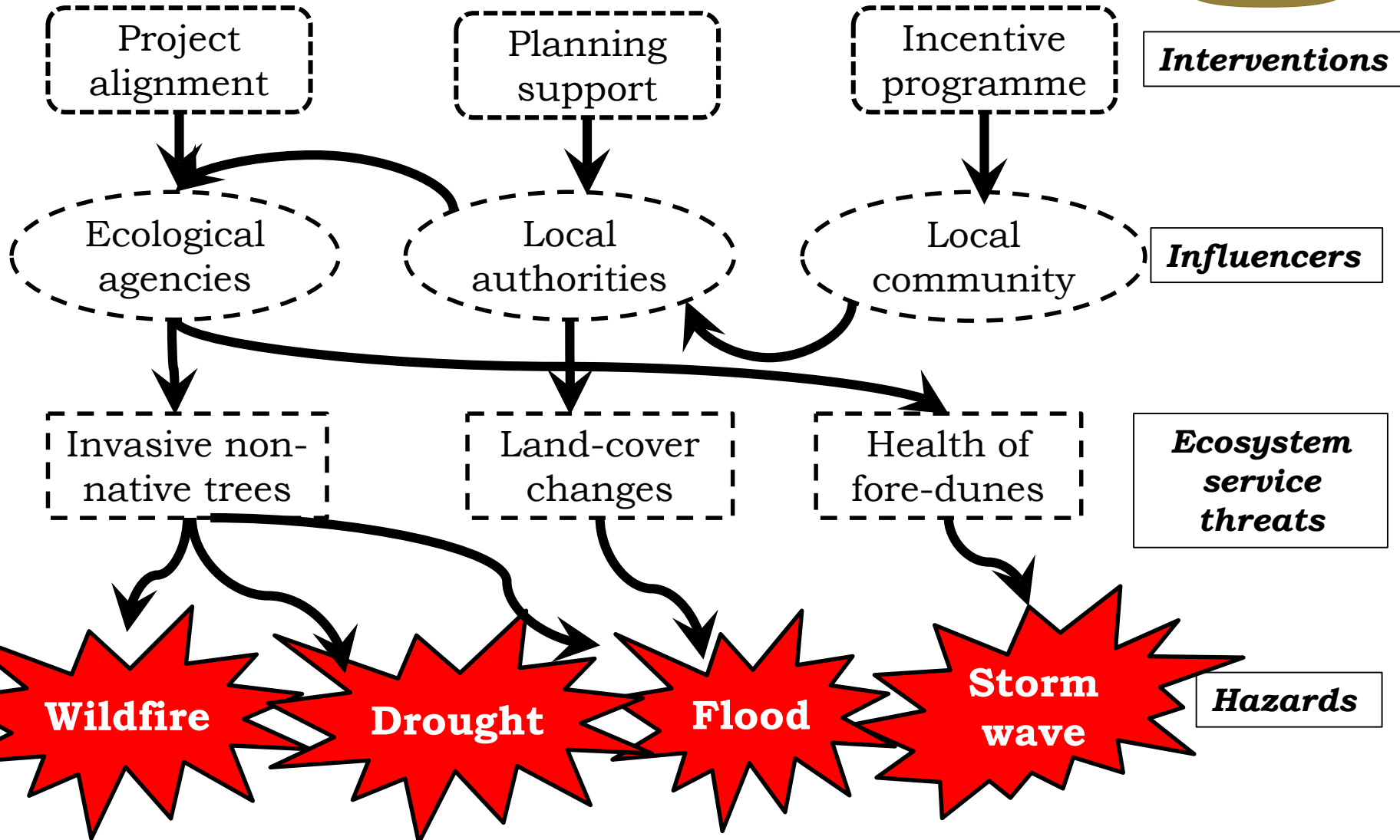
- Climate change will increase natural hazards
- Ecosystem change is as important as climate change
- Clearing invasive non-native trees
 - Halves wildfire and drought hazard
 - Lowers flood hazard by 20%
- Restoring coastal foredunes drastically lowers storm wave hazard

An empowering process & message

- Process of identifying drivers of ecosystem change helped stakeholders understand the linkages
- Models helped to quantify the effects and offer an empowering message
- Led to co-designed response strategies



Co-designed responses



Evidence of Impact

Investments in ecosystem services

- Investment of US\$ 4-million by the beverage sector, farmers, and government funding for job creation clearing alien trees from upper catchments of hops farms (amounting to 27000 person days over 3 years)
- Public sector and home-owner investment in foredune restoration projects in vulnerable coastal areas
- National parks authority investment in clearing alien trees in and around the urban-embedded national park



Restoring wetlands



Clearing invasive non-native trees:



Restoring foredunes

Evidence of Impact

Institutional change

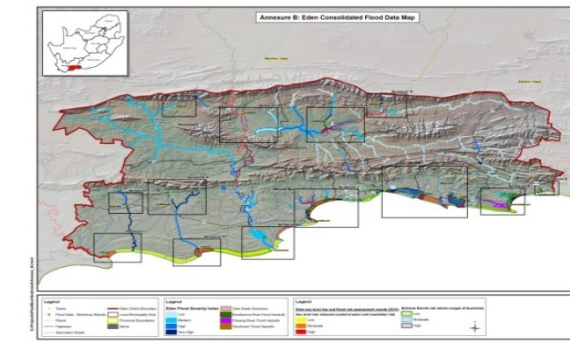
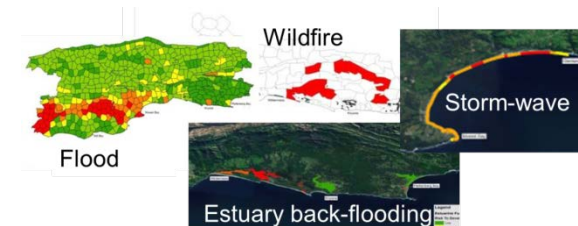
- National Disaster Management Amendment Bill
 - Inputs into revisions to budgeting of disaster management to include proactive budgeting of ecosystem-based interventions
- The appointment by the beverage industry of a catchment coordinator to represent industry and hops farmers in integrated water resource planning processes
- Insurance company decentralising staff into the regions to build partnerships with local authority planners, disaster management and other stakeholders affecting extreme event impacts
- Inclusion of new private sector partners in Southern Cape Fire Protection Agency in developing fire belt and fuel reduction strategies



Evidence of Impact

Learning networks

- Eden Disaster Resilience Learning Network
- Business Adopt a Municipality
- Climate Adaptation Working Group



Main lessons

- Language of risk as a powerful engager
 - “*risk is just such a powerful motivator*”
 - “*risk is everyone’s business*”
- Importance of cross-scale linkages
 - National policy unlocks local opportunities
 - Local cases provide compelling examples for national policy change
- Deeply collaborative & iterative knowledge co-production & exchange
 - Credible knowledge
 - Legitimate engagement
 - Salient products
- Crucial role of knowledge brokers





Thank you

