Applying Downscaled Climate Models for Adaptation Planning

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Background

- Malawi has not been spared from the impacts of climate change
- Most notable in the last few decades the country has experienced dry spells, floods and urban flooding
- The country has prioritized adaptation interventions to build resilience
- Created an Enabling Policy framework to support adaptation needs

Climate modelling

- DCCMS is responsible for climate modeling (historical data)
- DCCMS mandate is provision of climate services for the country
- EAD is the coordinating entity for the NAP Process
- Global Climate modelling is applied in Malawi through DCCMS to provide climate data and information and projections
- DCCMS has managed to downscale climate models to EPA level at a better and useful resolution

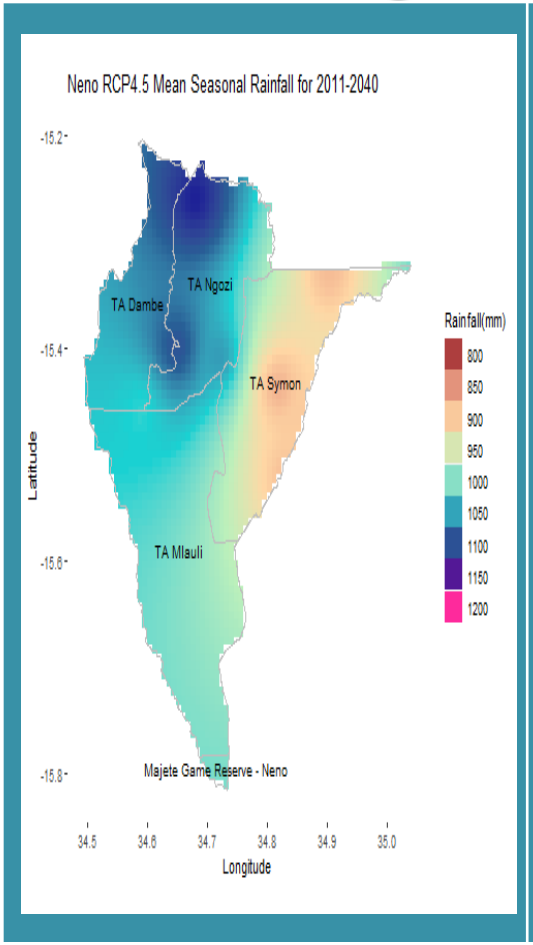
Why downscaling?

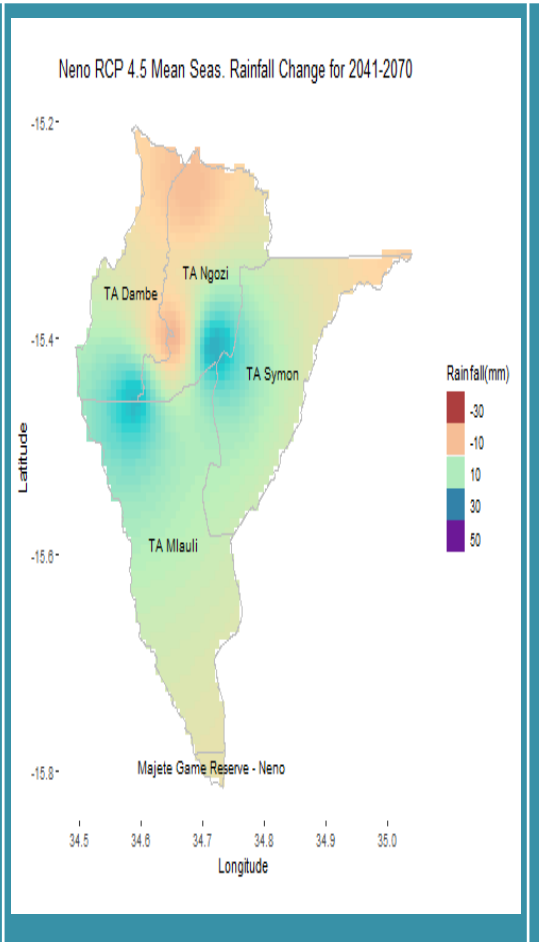
- Crucial in decision making for medium to long term adaptation planning- Climate trends and projections
- Data will inform the NAP process for Malawi
- Results used for National Communications
- Contribute towards resilience building and disaster risk management

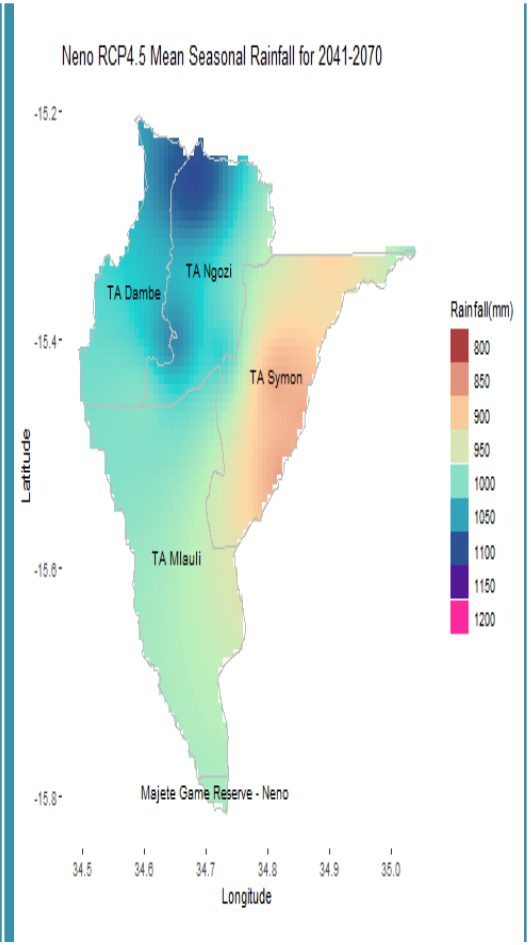
Stakeholders

- DCCMS (historical data)
- Ministry responsible for agriculture
- Ministry responsible for Water resources
- NSO
- MVAC
- DoDMA
- Academia
- Research institutions

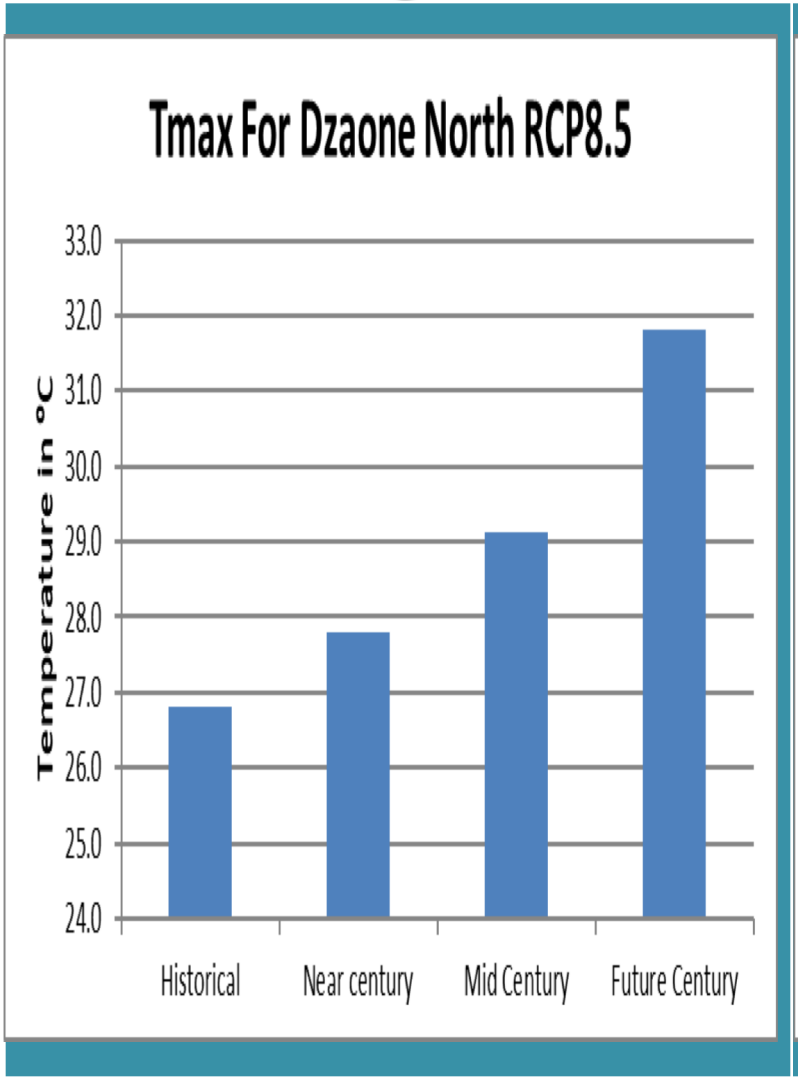
Rainfall example (Neno District)

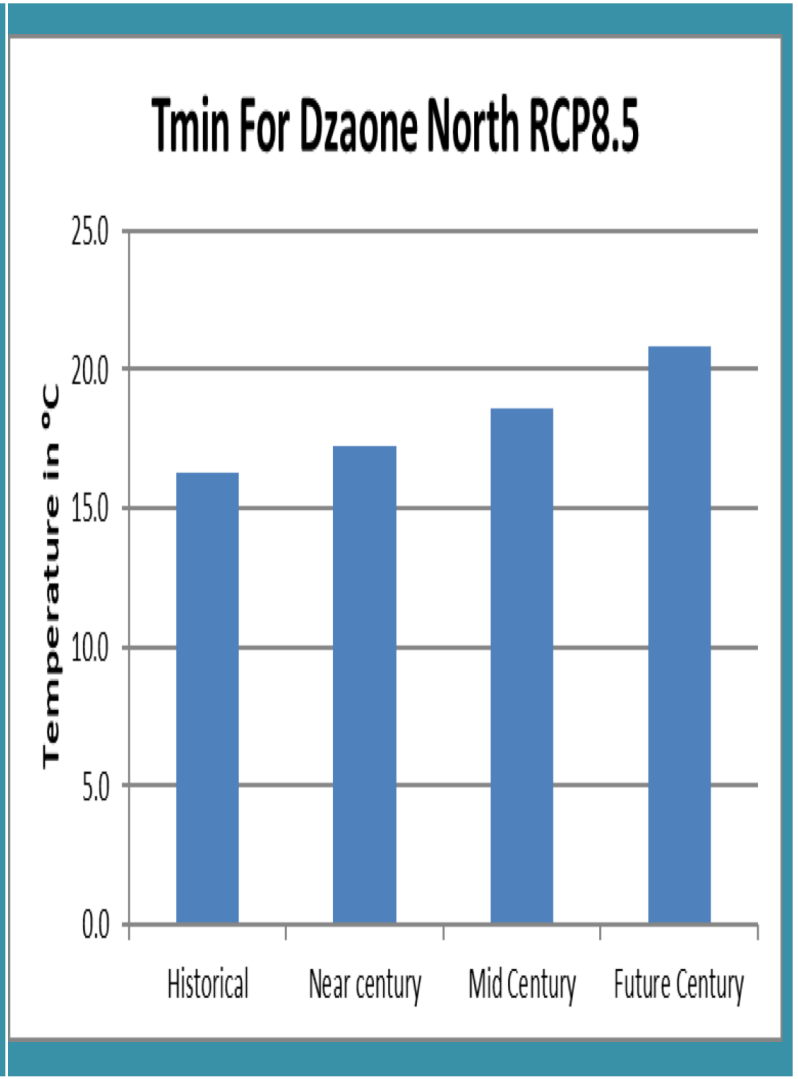




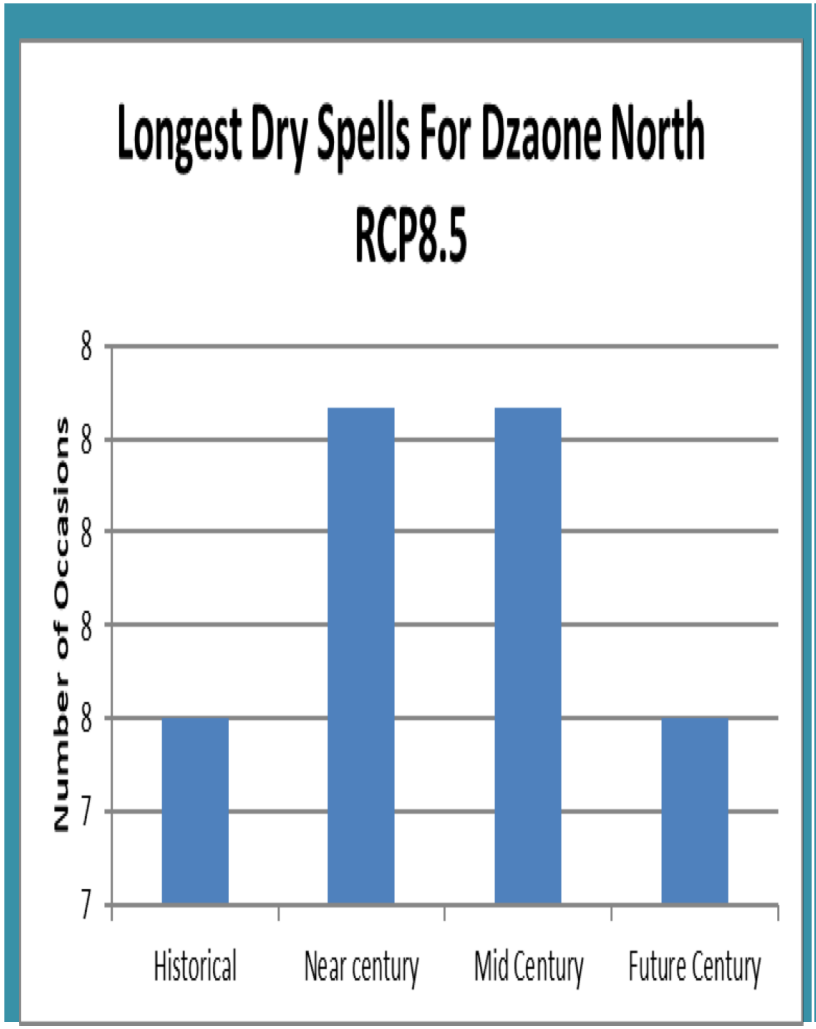


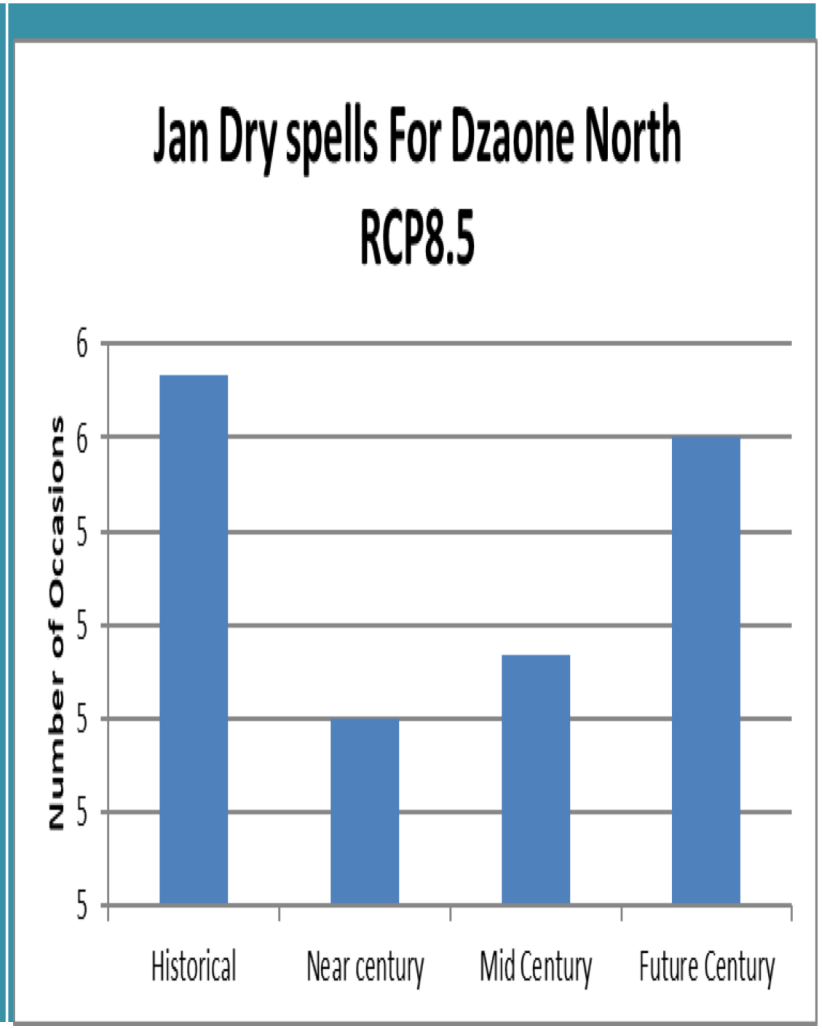
Temperatures (Zomba, Dzaone)





Dry spells (Zomba, Dzaone)





Capacity required

- Build more skills among to staff in institutions doing climate modelling
- Expand to other institutions
- Improved IT equipment with fast processors
- Coordination and collaboration among sectors involved in climate services

Enabling conditions

- Robust CC policy framework (NCCMP, MET Policy etc)
- Coordination structure
- Decentralization (brings demand for climate services needed in a specific location)
- Availability of climate information centers
- National framework for climate services (in development)- brings coordination among users of climate information and institutions producing data -enhances accessibility

Policy makers engagement

- Linking with National Development Agenda (MGDS)
- Mainstreaming in sectoral policies- there is no sectoral specific information
- Need for forum at policy level for climate services that includes all relevant sectors

Challenges and Next steps

Challenge experienced:

- Limited skills and capacity in climate modelling
- Inadequate coordination and collaboration among sectors involved in climate services

Next steps:

- National framework for climate services (in development)- brings coordination among users of climate information and institutions producing data -enhances accessibility

ZIKOMO