

# **Ecosystem Based Adaptation and Mitigation in Botswana's Communal Rangelands**

Annex 2 - Feasibility Study

Section 3 – Carbon and Water Baseline

## **Appendix 3.2: Baseline Maps**

## 1. Vegetation Cover

### 1.1. Bobirwa

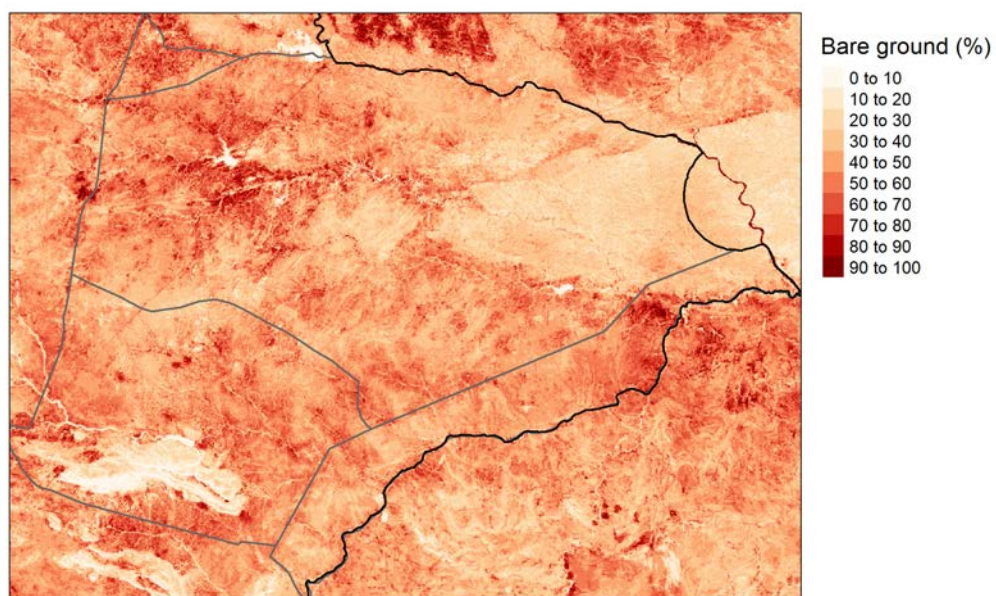


Figure 1. Predicted bare ground cover (%) for Bobirwa.

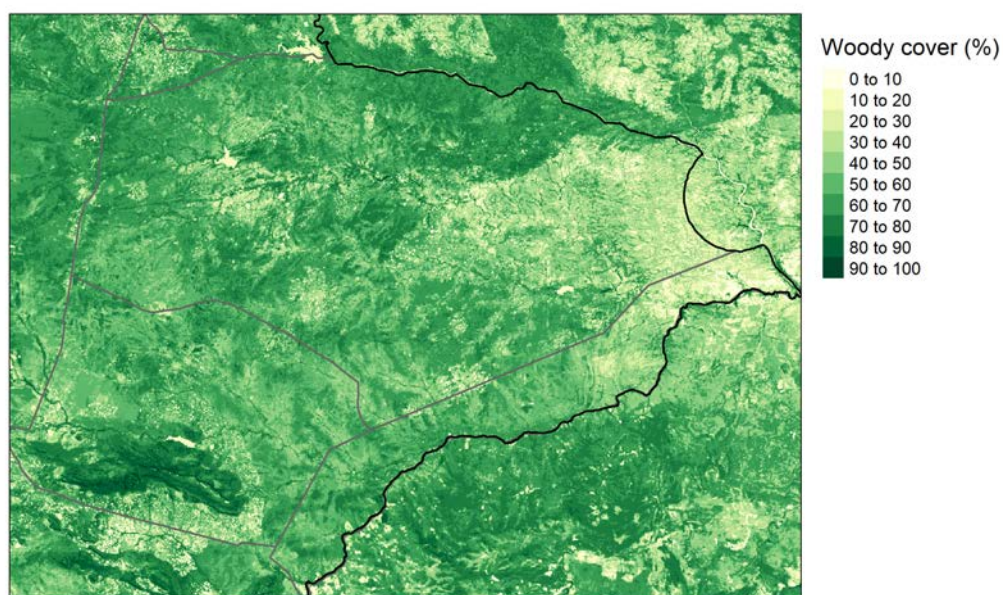
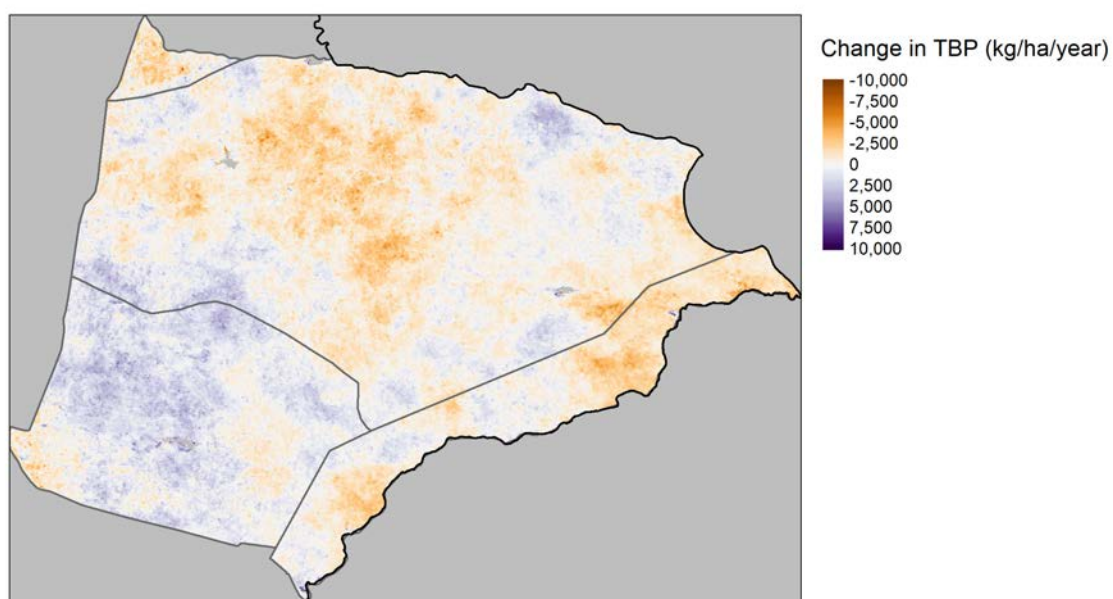


Figure 2. Predicted woody cover (%) for Bobirwa.



**Figure 3. Change in the total biomass production (kg/ha/year) for Bobirwa between 2010 and 2018.**



## 1.2. Ngamiland

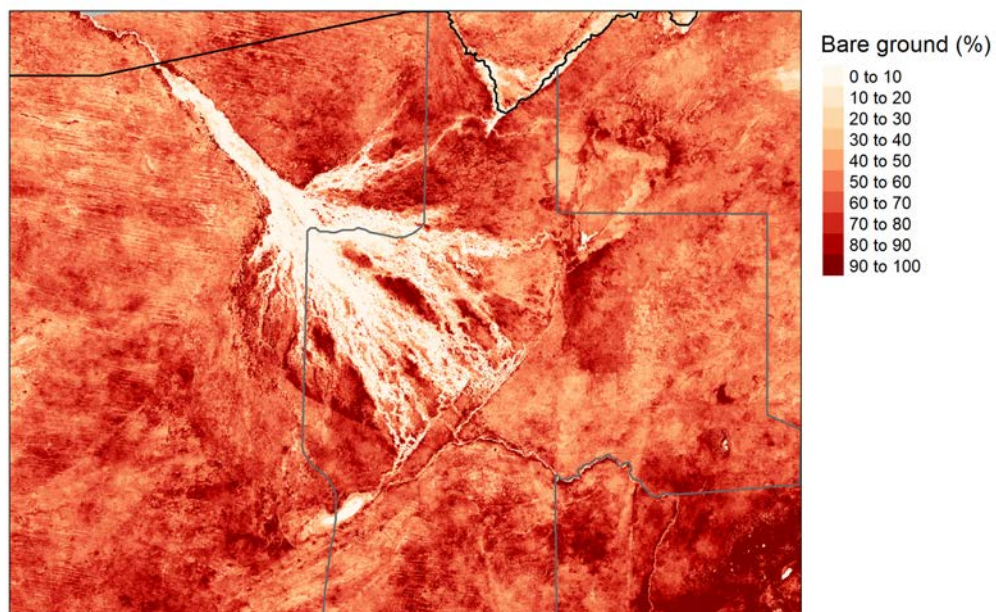


Figure 4. Predicted bare ground cover (%) for Ngamiland.

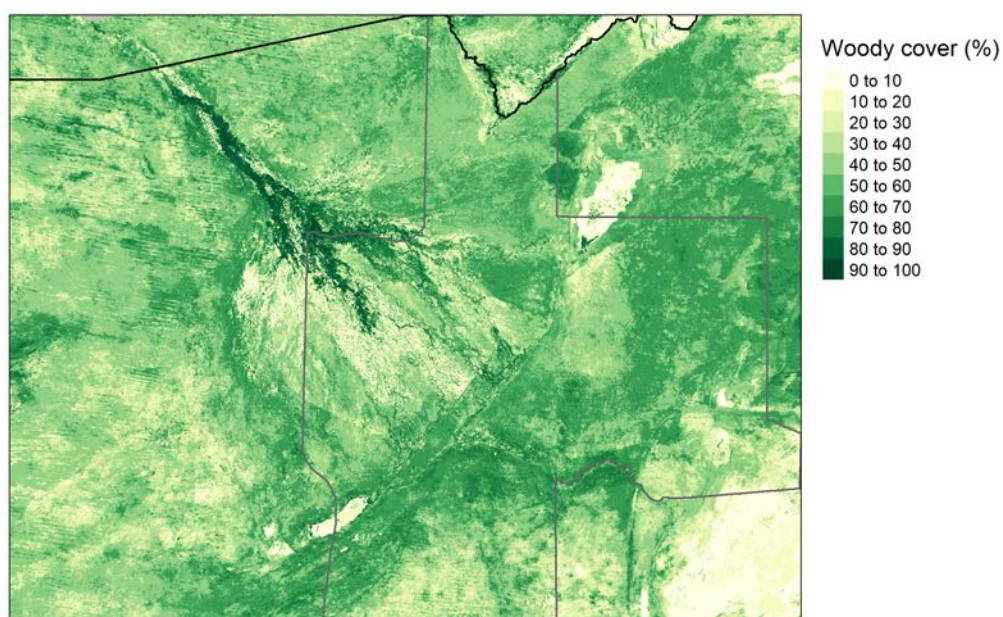
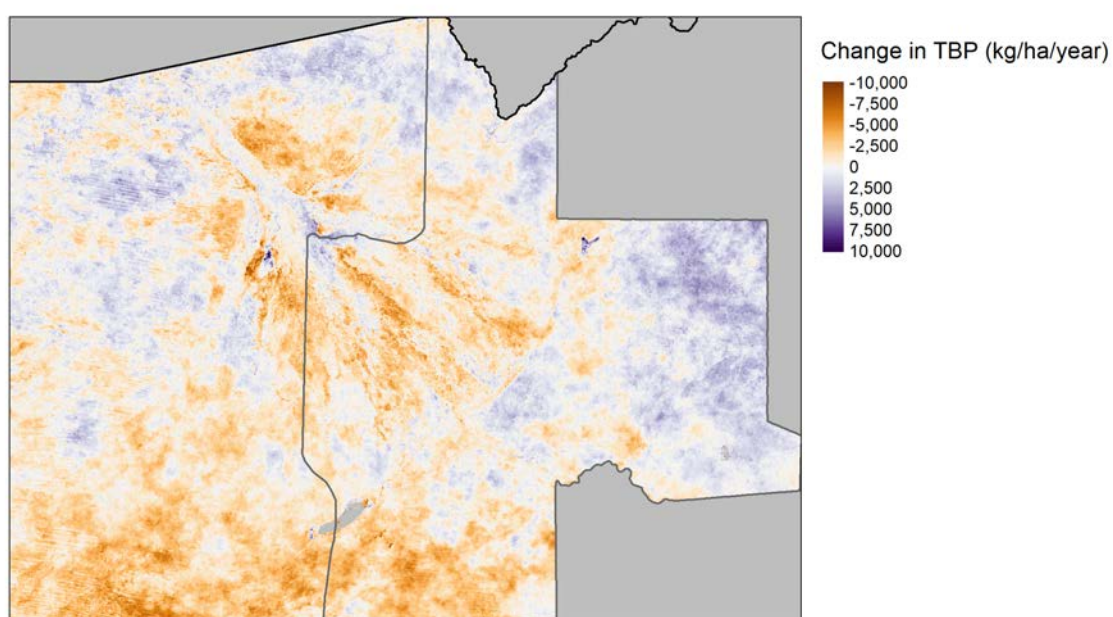


Figure 5. Predicted woody cover (%) for Ngamiland.



**Figure 6. Change in the total biomass production (kg/ha/year) for Ngamiland between 2010 and 2018.**



### 1.3. Kgalagadi

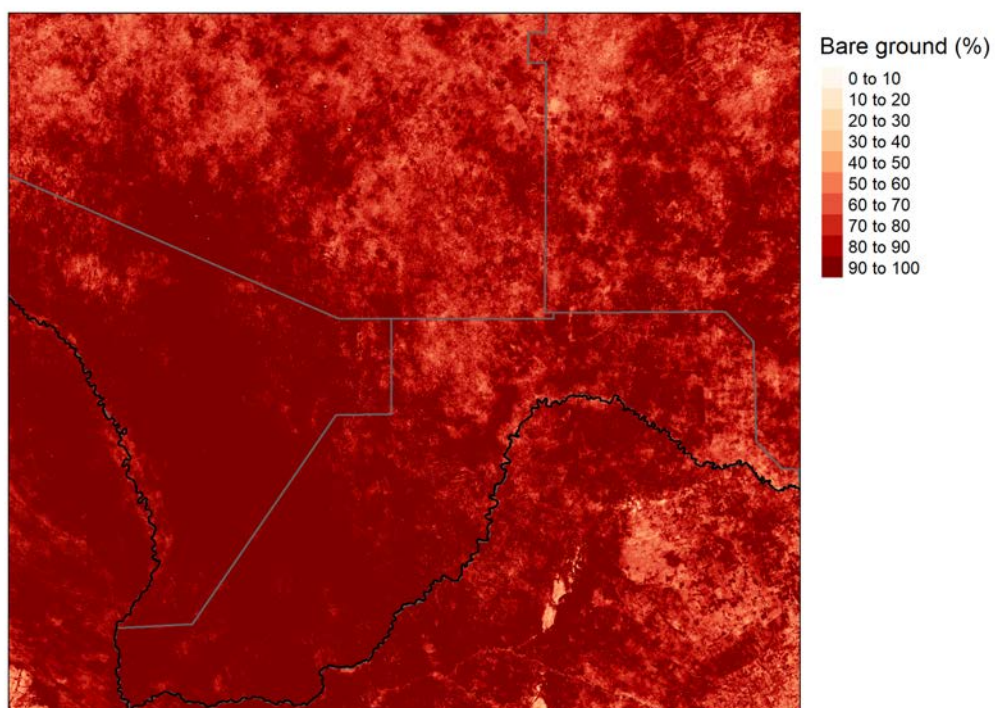


Figure 7. Predicted bare ground cover (%) for Kgalagadi.

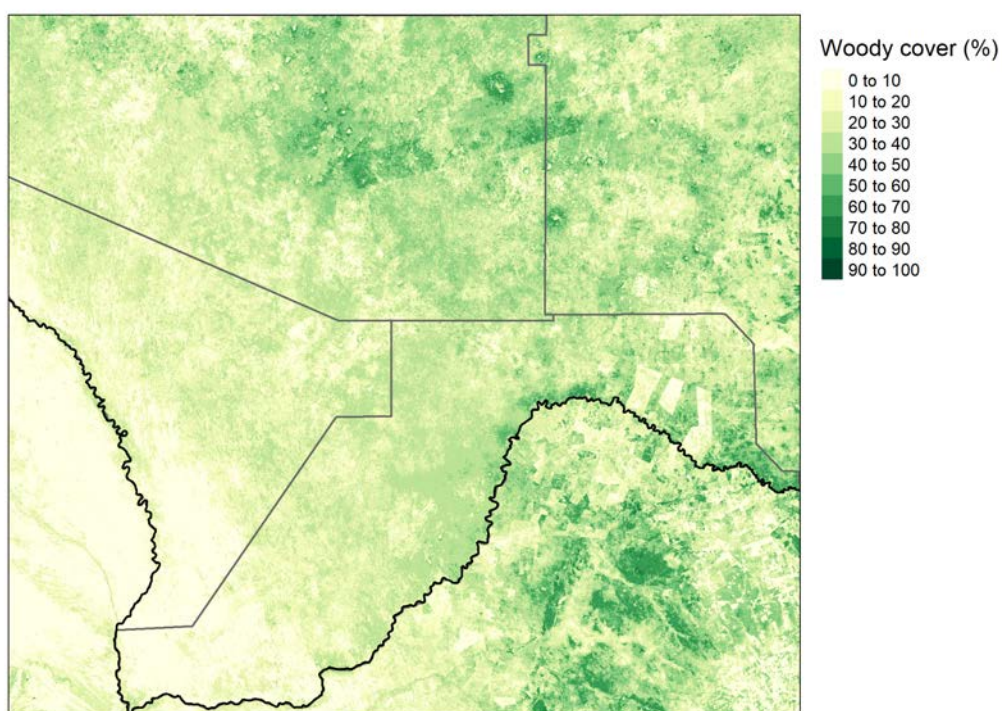
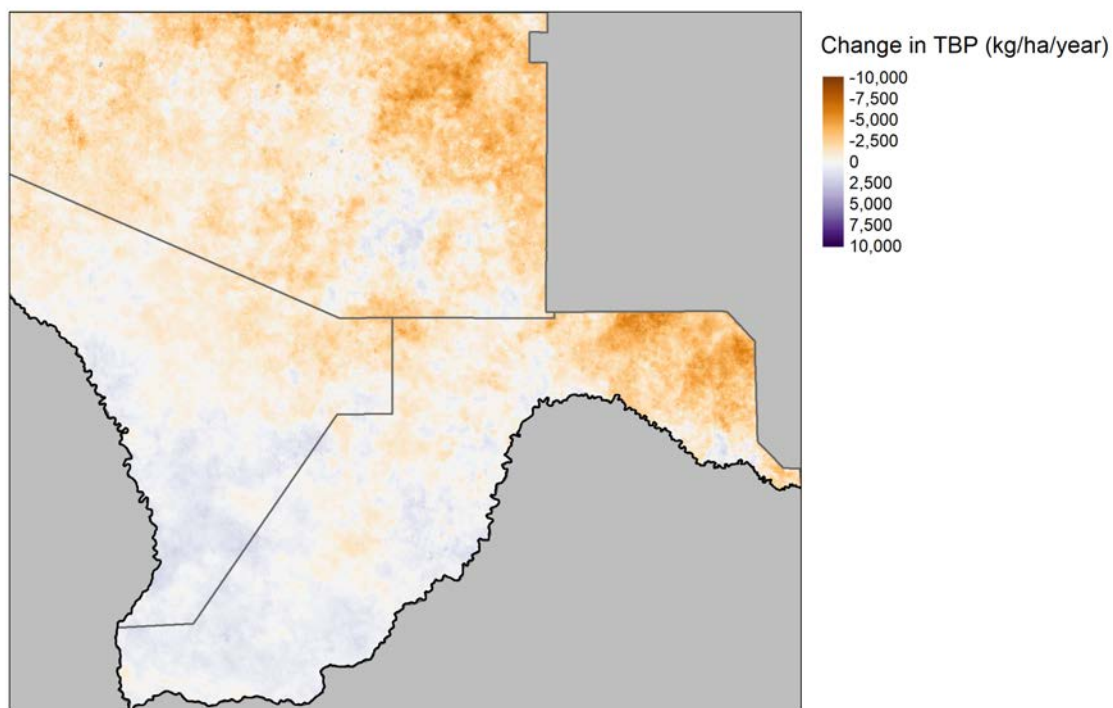


Figure 8. Predicted woody cover (%) for Kgalagadi.

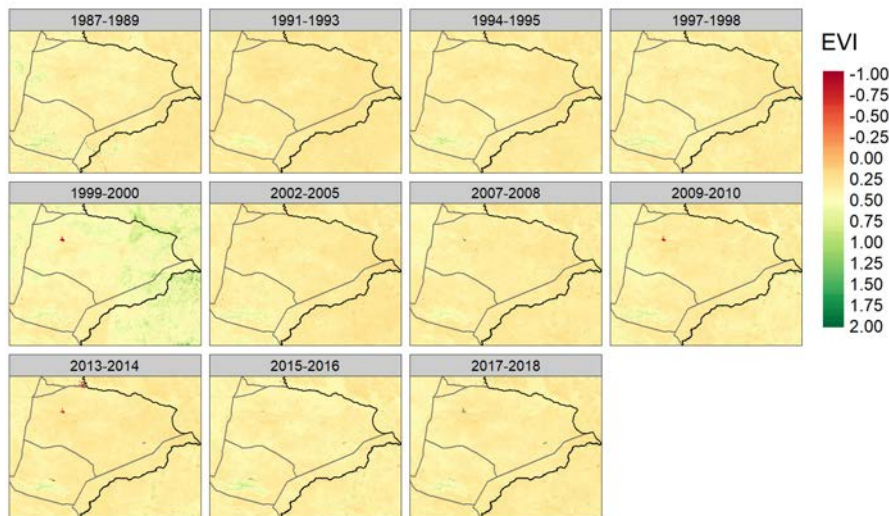


**Figure 9.** Change in the total biomass production (kg/ha/year) for Kgalagadi between 2010 and 2018.

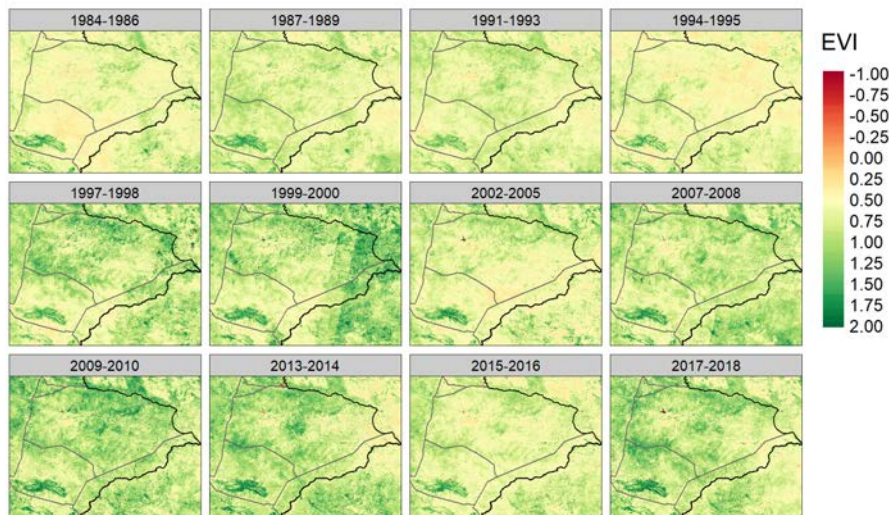


## 2. Enhanced Vegetation Index (EVI)

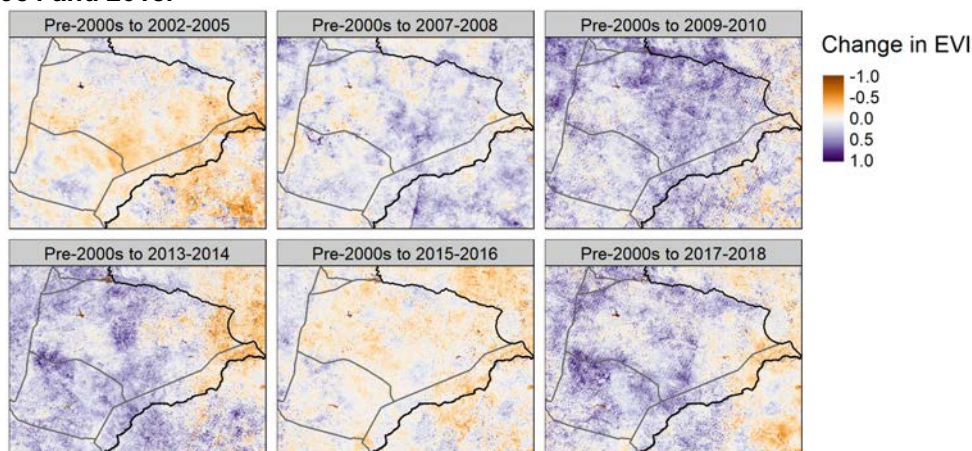
### 2.1. Bobirwa



**Figure 10. Average enhanced vegetation index (EVI) for Bobirwa in the dry months between 1987 and 2018.**



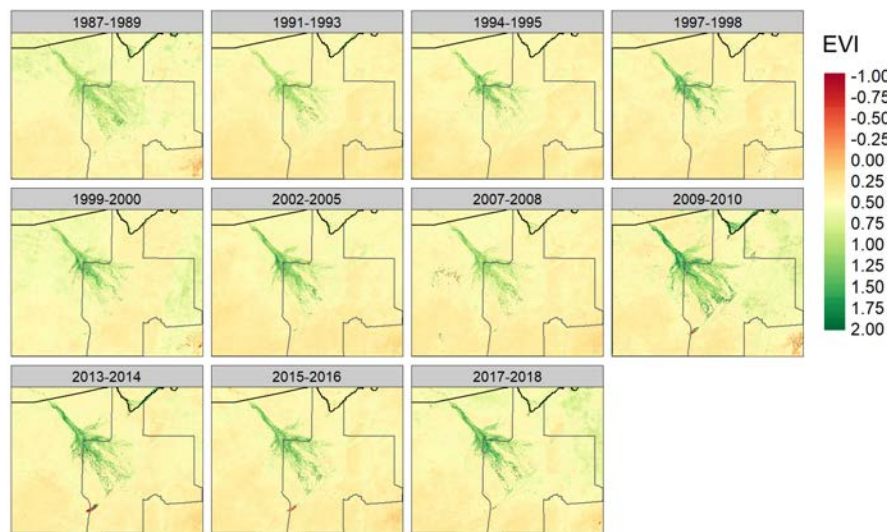
**Figure 11. Average enhanced vegetation index (EVI) for Bobirwa in the wet months between 1984 and 2018.**



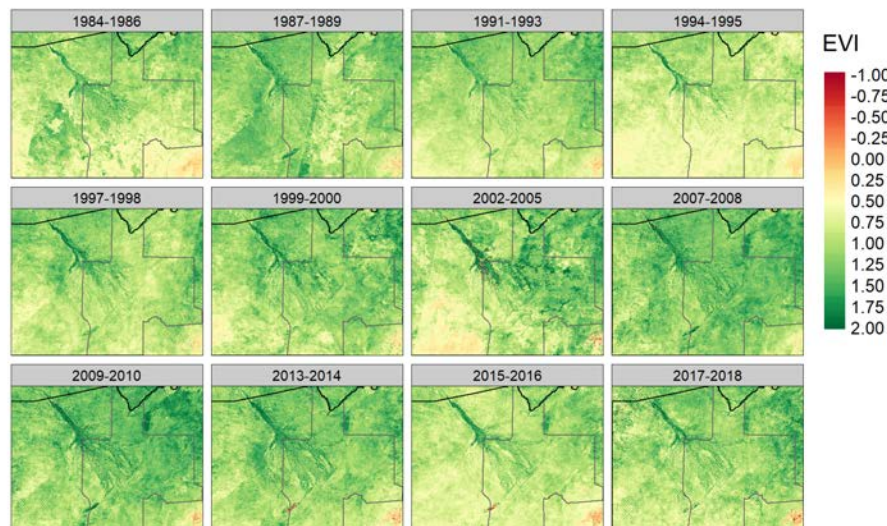
**Figure 12. Gradient of the enhanced vegetation index (EVI) for Bobirwa in the wet months between the average pre-2000s values to five epochs between 2002 and 2018.**



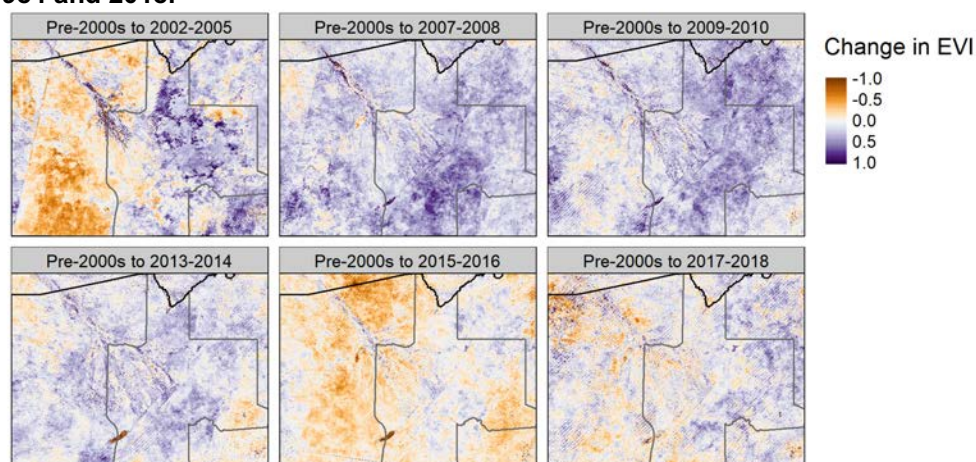
## 2.2. Ngamiland



**Figure 13. Average enhanced vegetation index (EVI) for Ngamiland in the dry months between 1987 and 2018.**

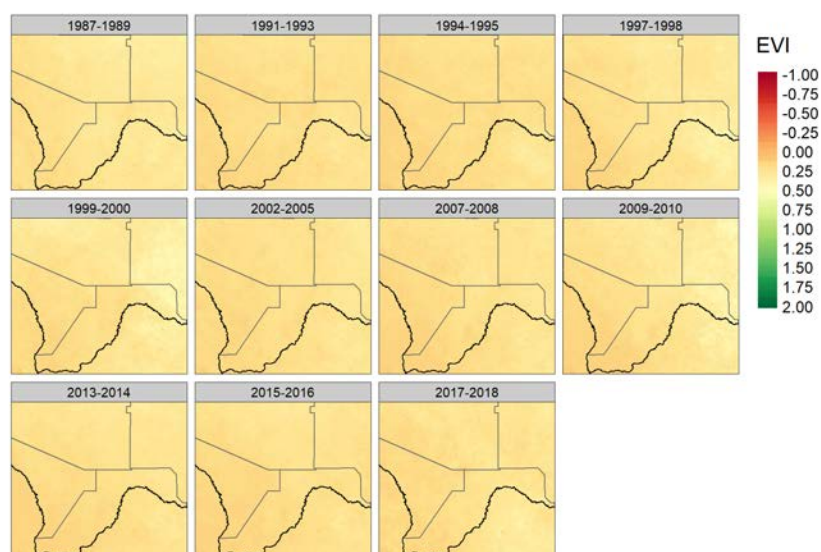


**Figure 14. Average enhanced vegetation index (EVI) for Ngamiland in the wet months between 1984 and 2018.**

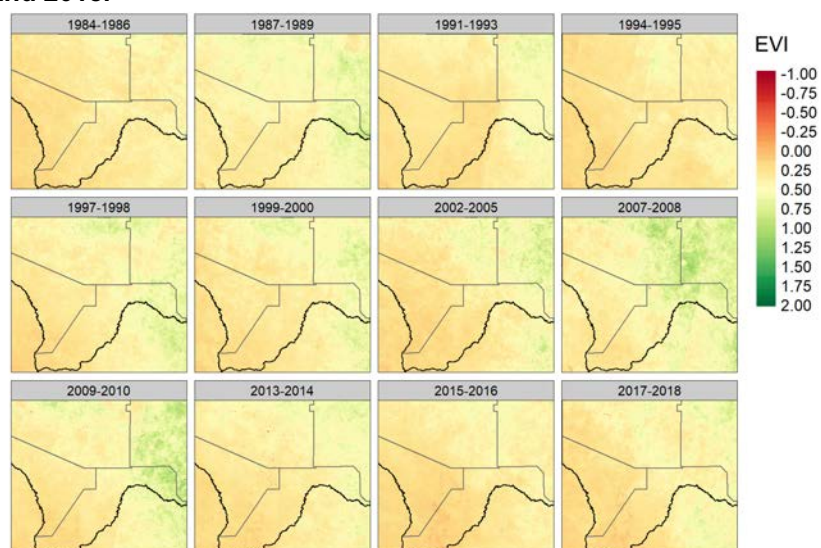


**Figure 15. Gradient of the enhanced vegetation index (EVI) for Ngamiland in the wet months between the average pre-2000s values to five epochs between 2002 and 2018.**

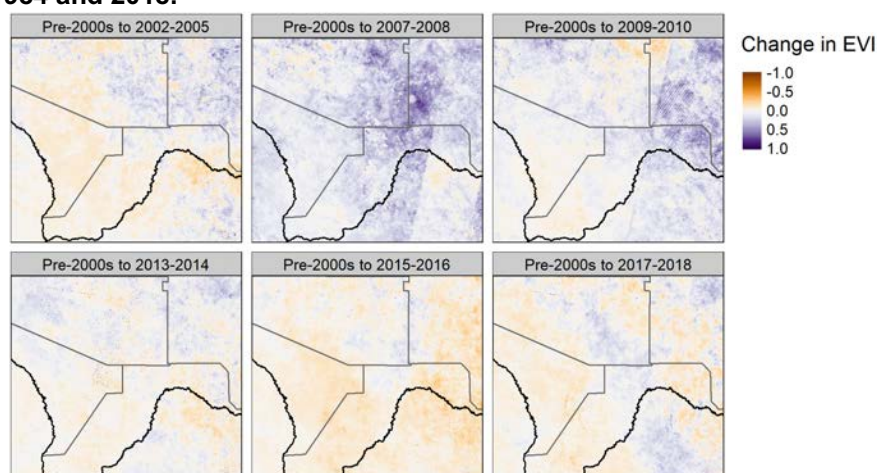
## 2.3. Kgalagadi



**Figure 16. Average enhanced vegetation index (EVI) for Kgalagadi in the dry months between 1987 and 2018.**



**Figure 17. Average enhanced vegetation index (EVI) for Kgalagadi in the wet months between 1984 and 2018.**

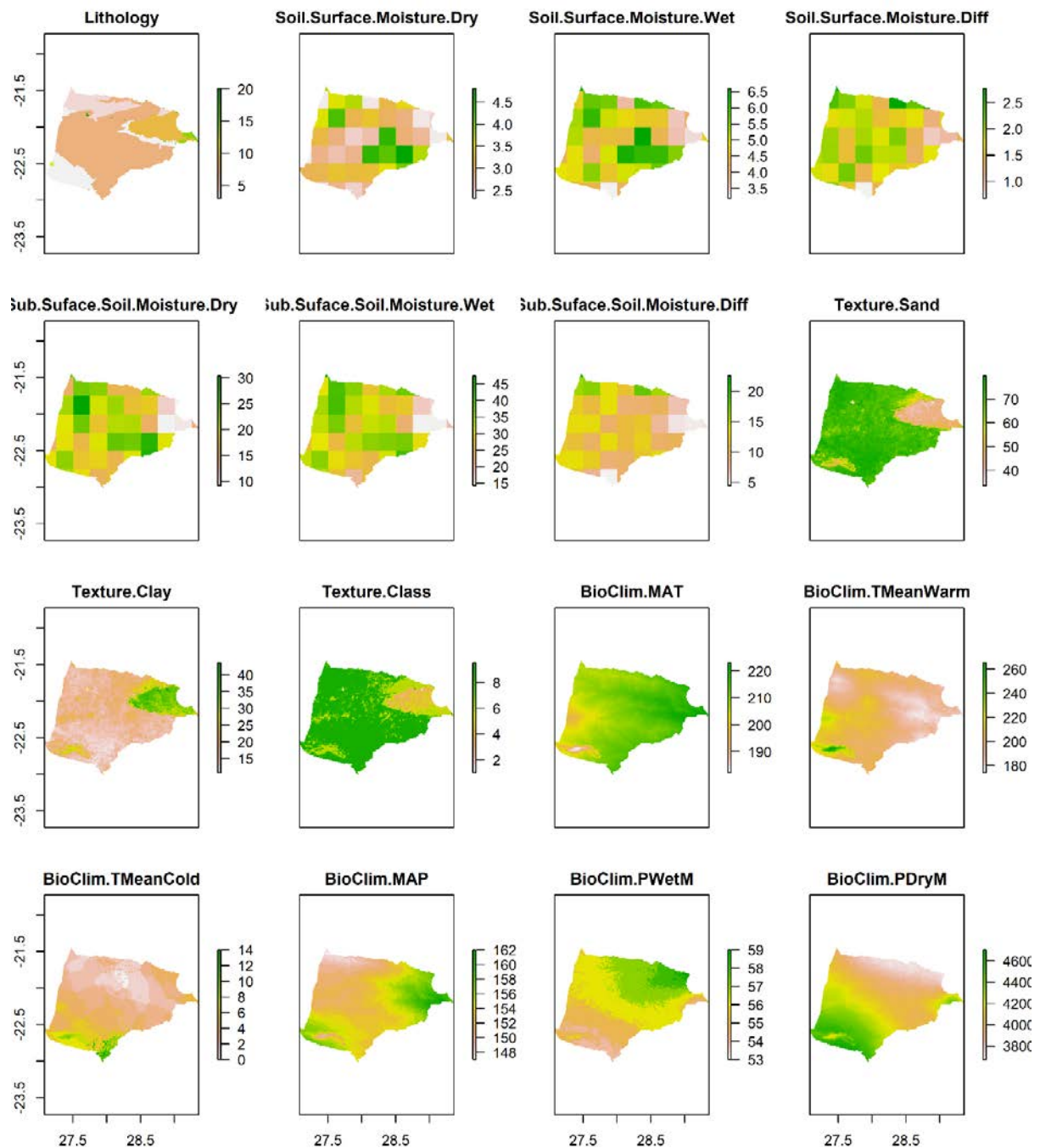


**Figure 18. Average enhanced vegetation index (EVI) for Kgalagadi in the wet months between 1984 and 2018.**



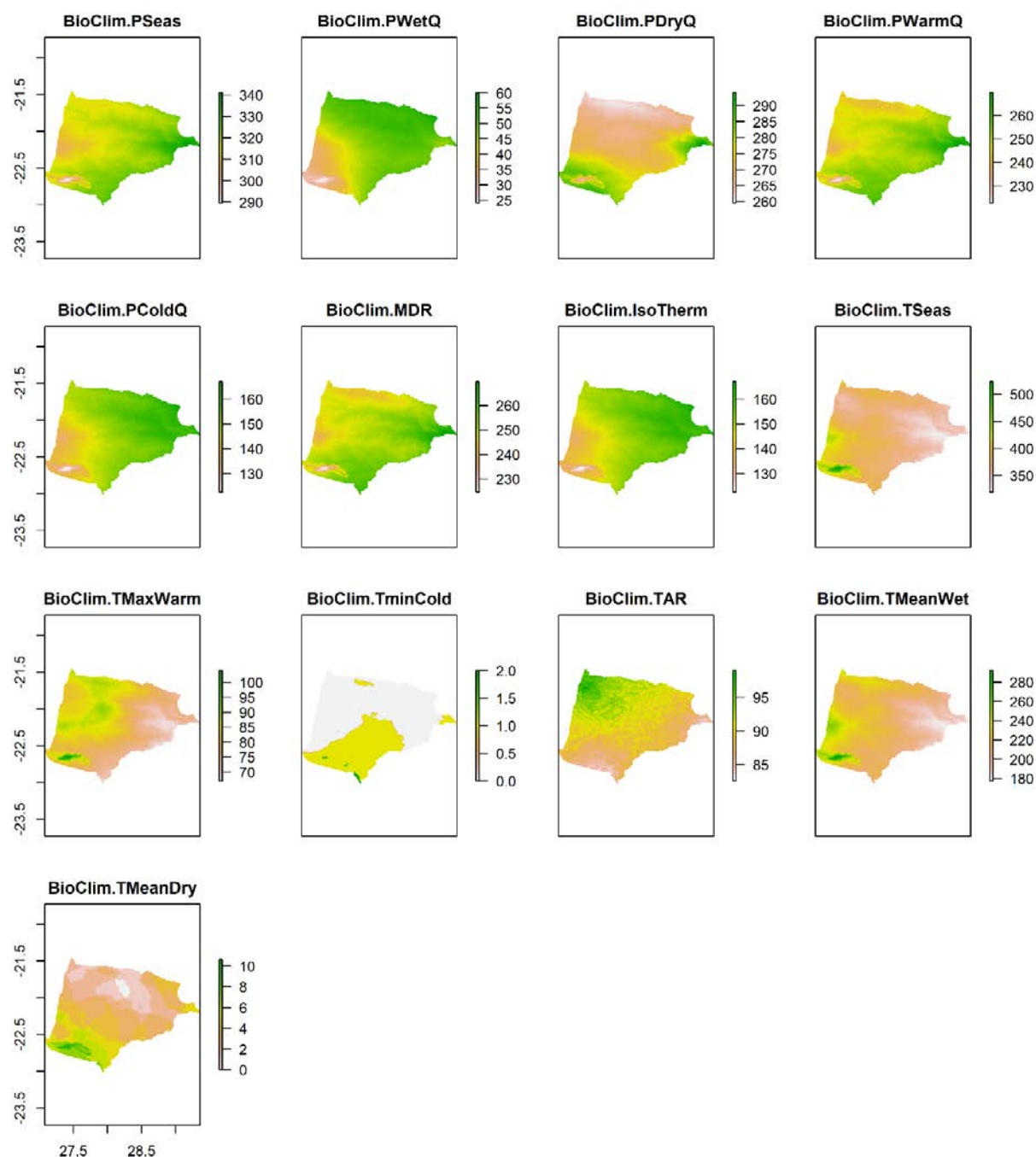
### 3. Abiotic covariates

#### 3.1. Bobirwa



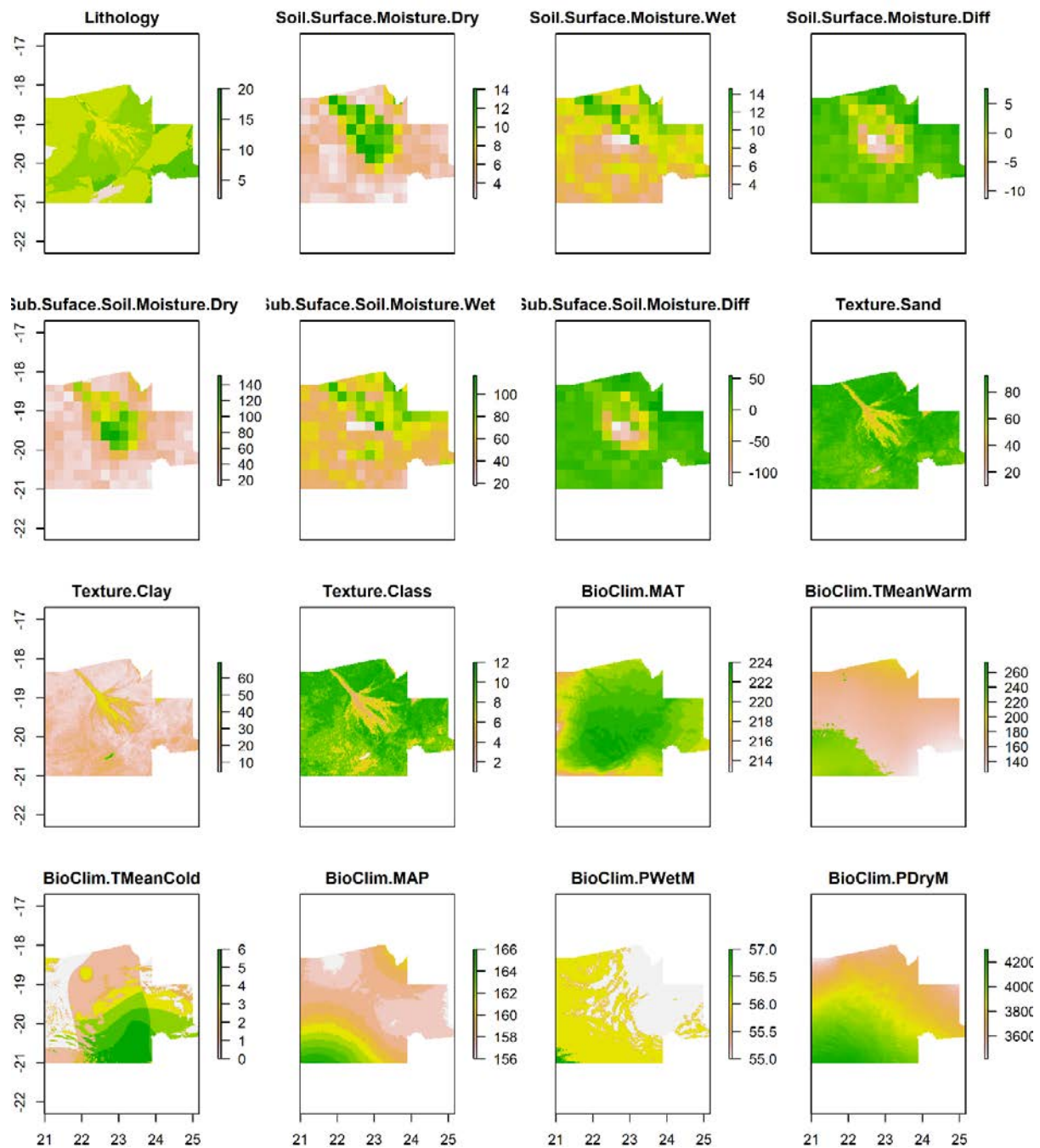
**Figure 19. Abiotic covariates for Bobirwa used to train the soil carbon prediction maps.**



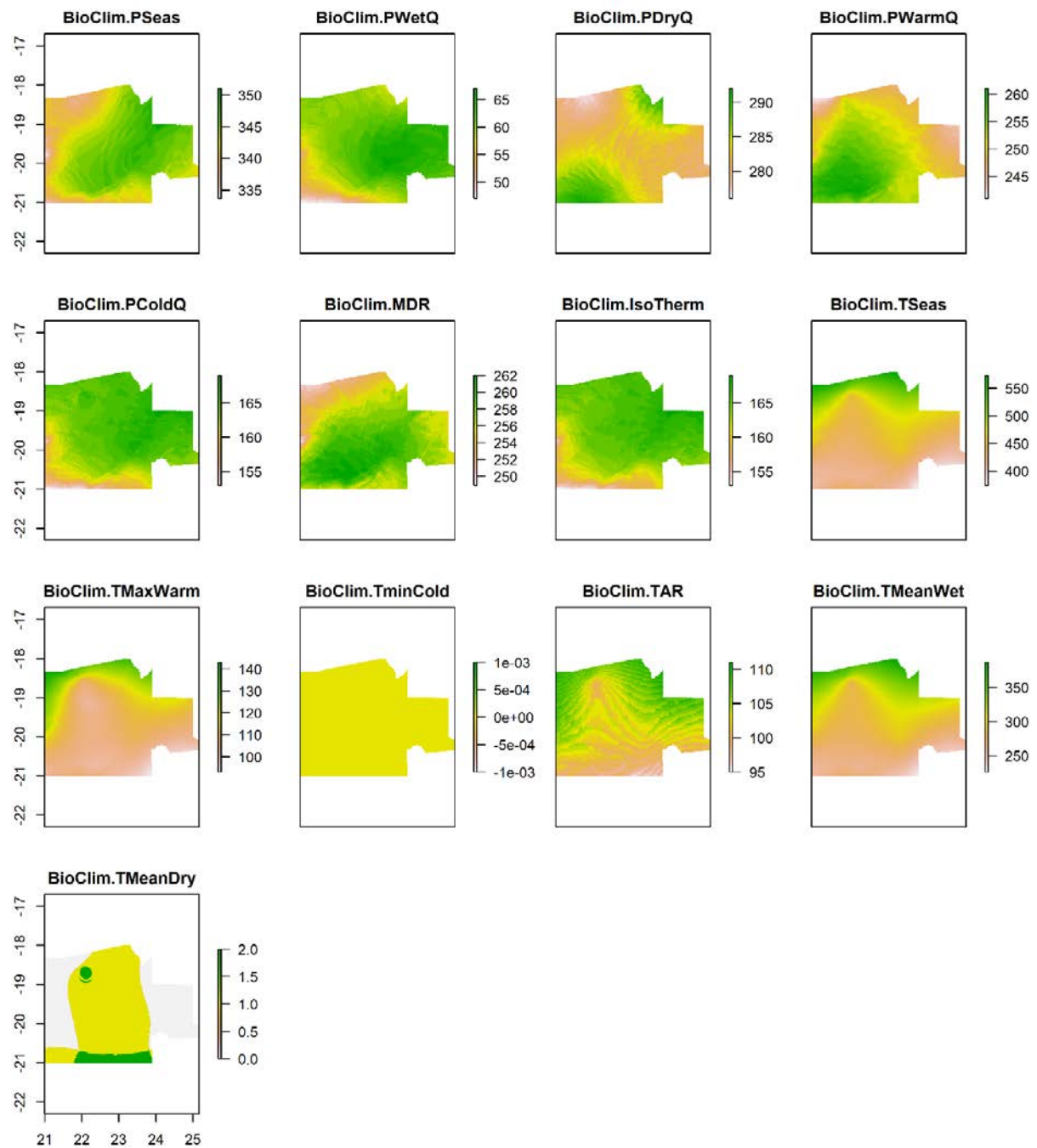


**Figure 20. Abiotic covariates for Bobirwa used to train the soil carbon prediction maps (continued).**

## 3.2. Ngamiland

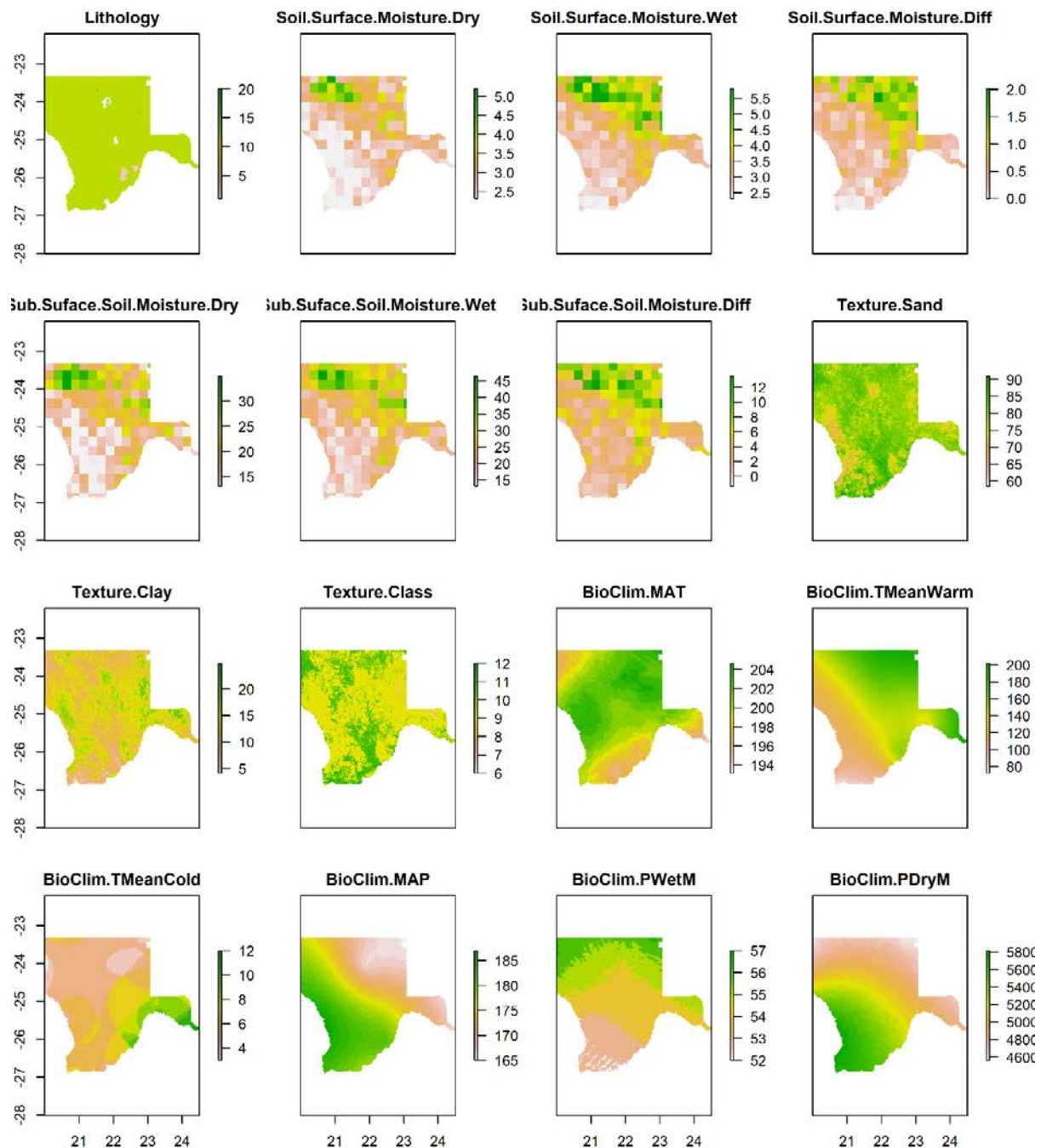


**Figure 21. Abiotic covariates for Ngamiland used to train the soil carbon prediction maps.**

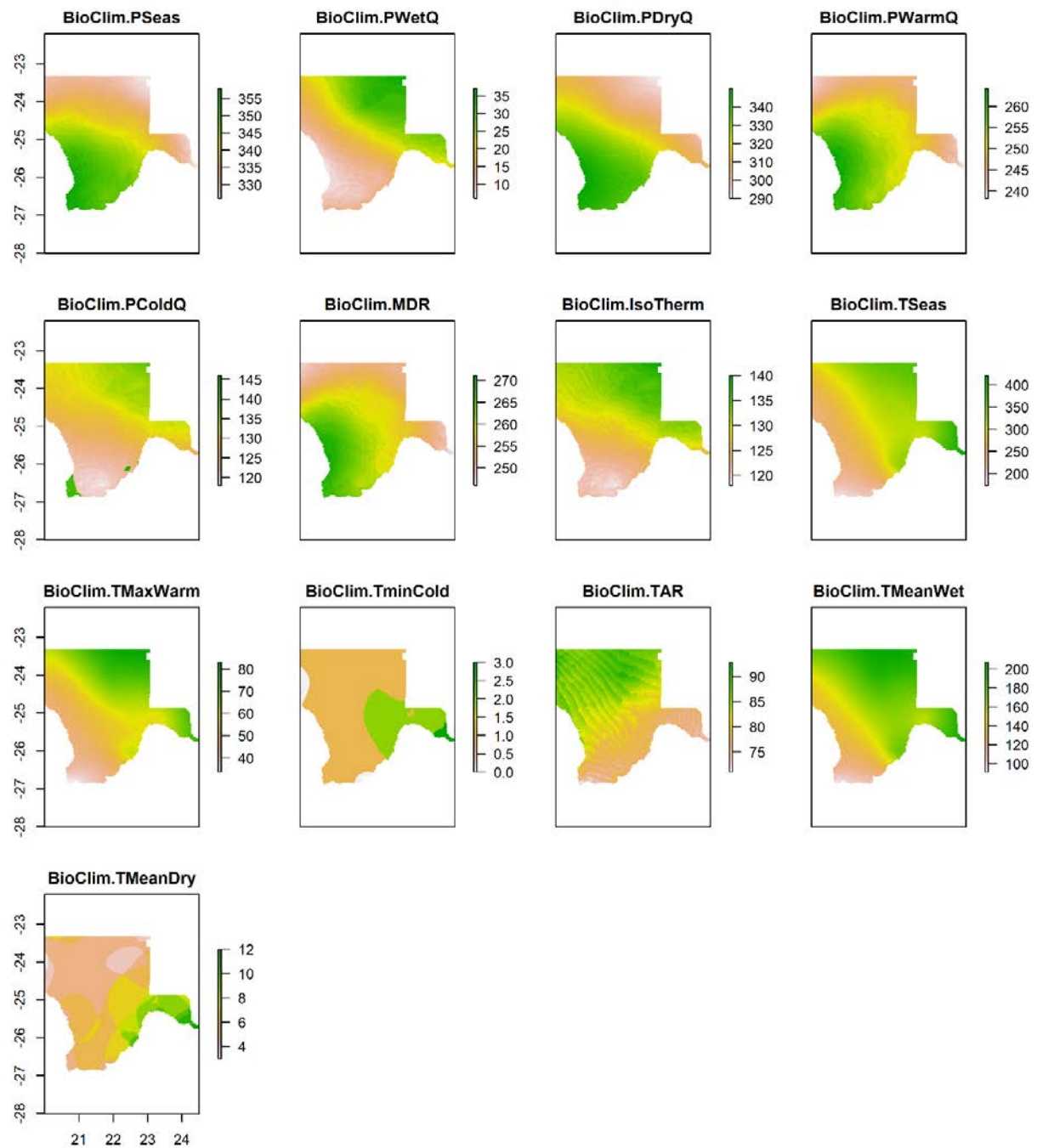


**Figure 22. Abiotic covariates for Ngamiland used to train the soil carbon prediction maps (continued).**



3.3. *Kgalagadi*

**Figure 23. Abiotic covariates for Kgalagadi used to train the soil carbon prediction maps.**



**Figure 24. Abiotic covariates for Kgalagadi used to train the soil carbon prediction maps (continued).**