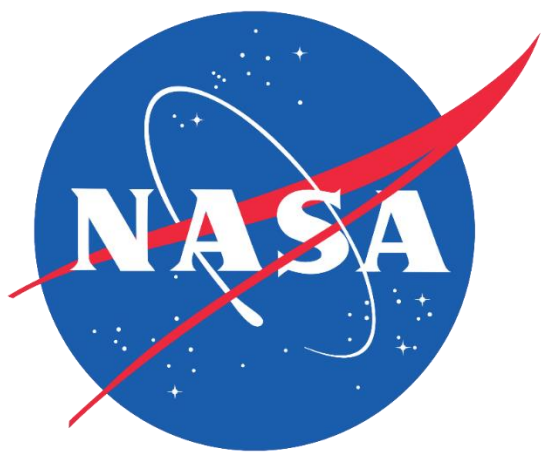
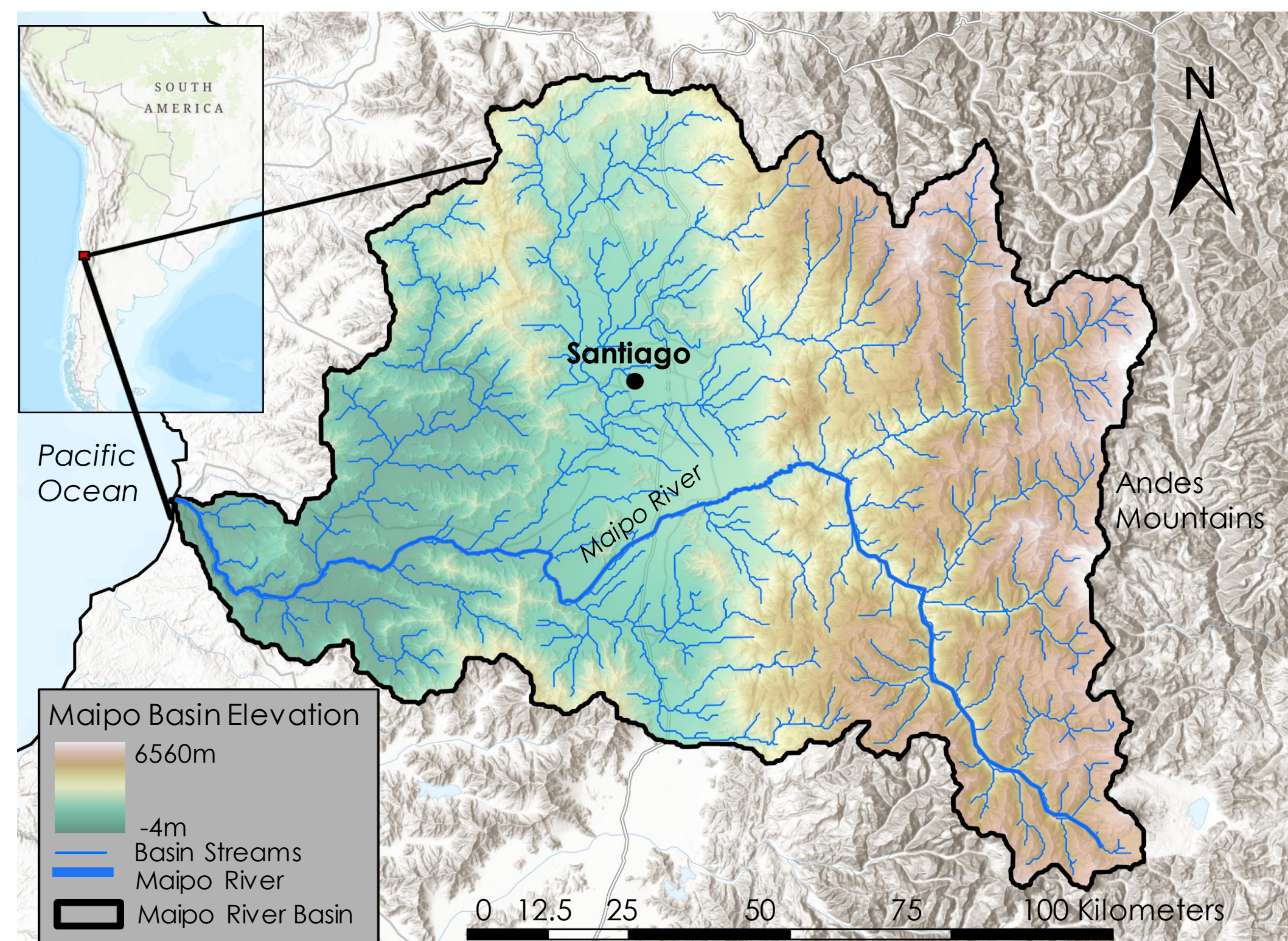
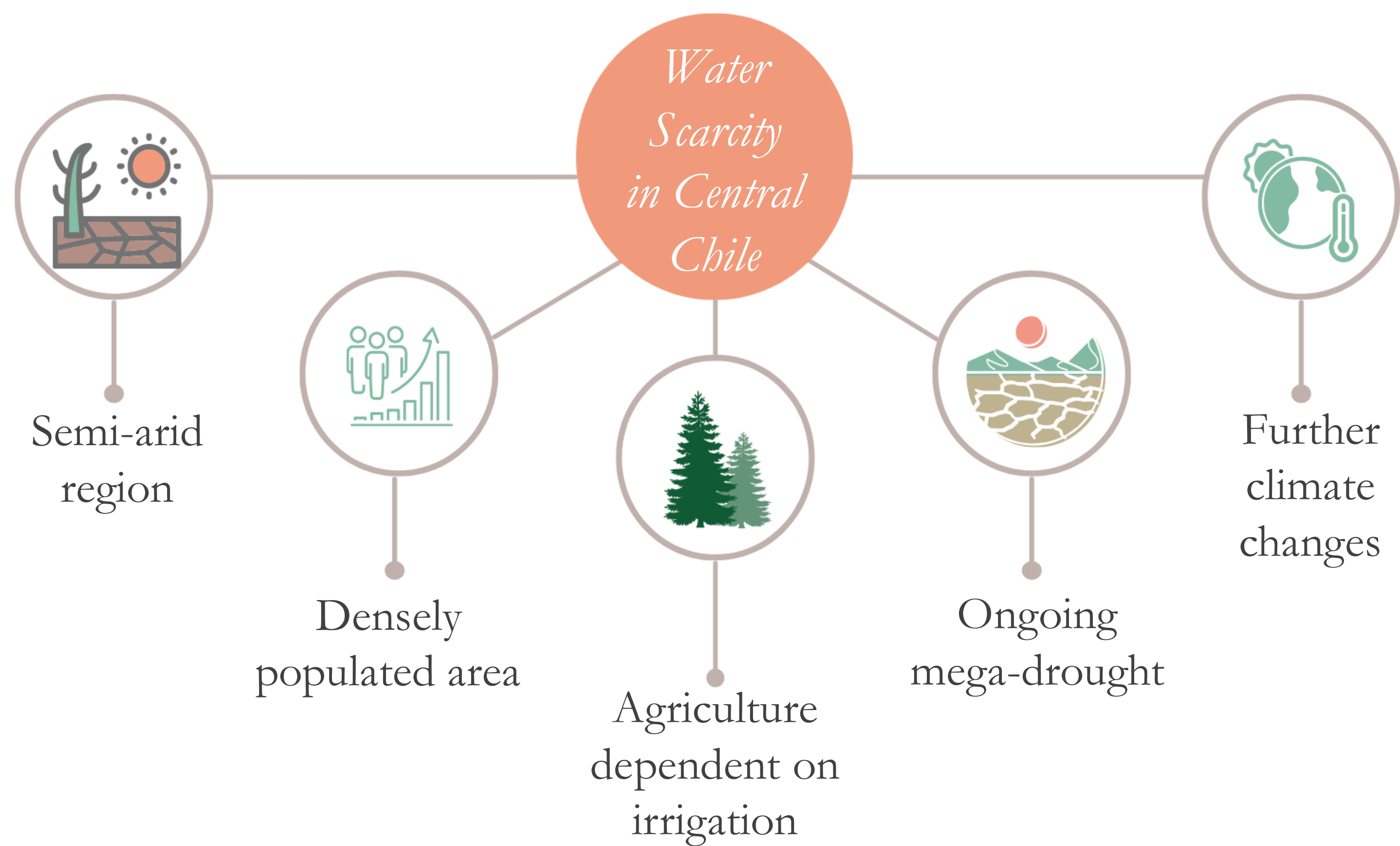




Determining Crop Coefficients Using Remote Sensing for the Maipo River Valley Basin in Chile

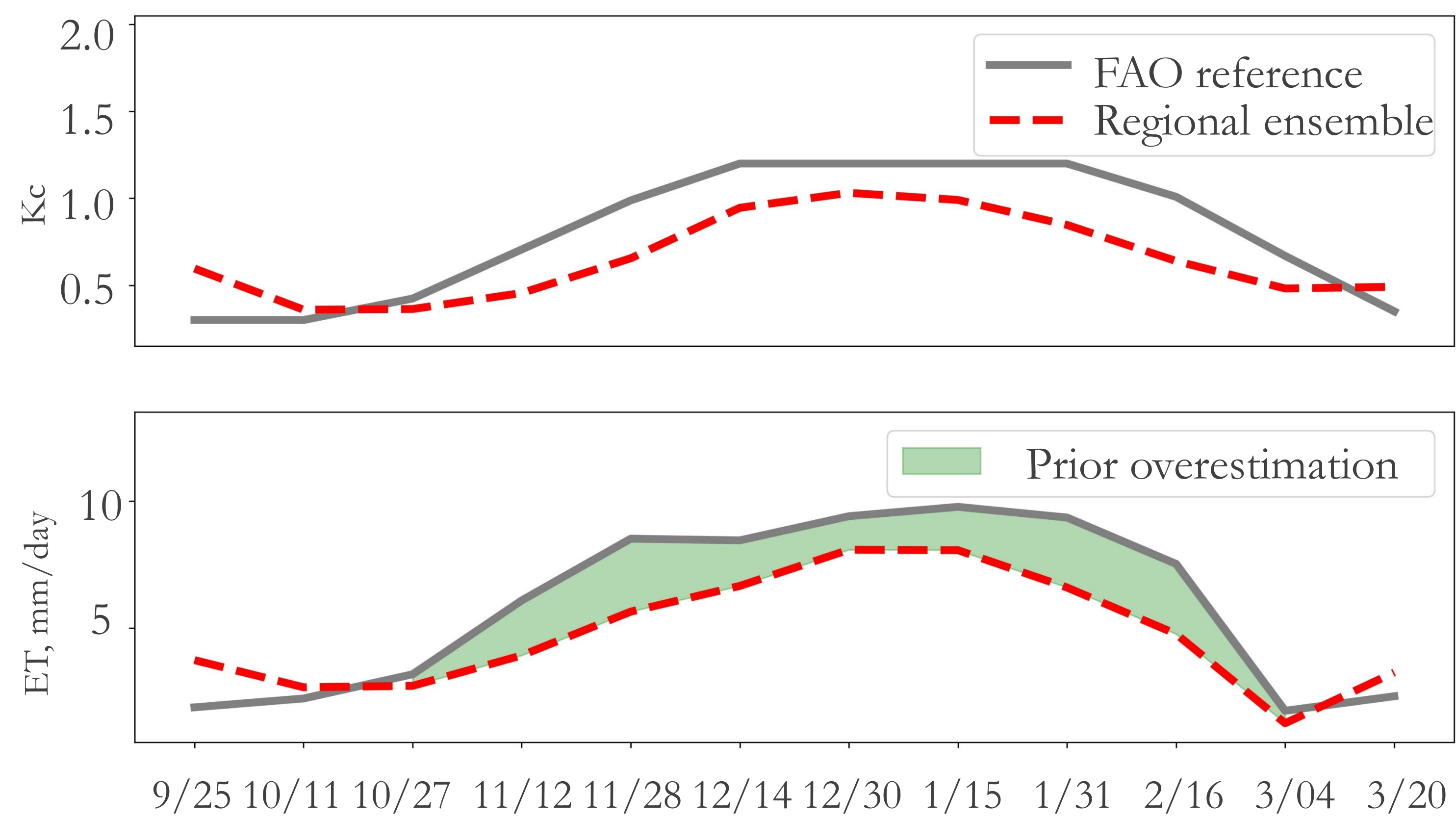


What environmental issues are farmers & water users facing in Central Chile?

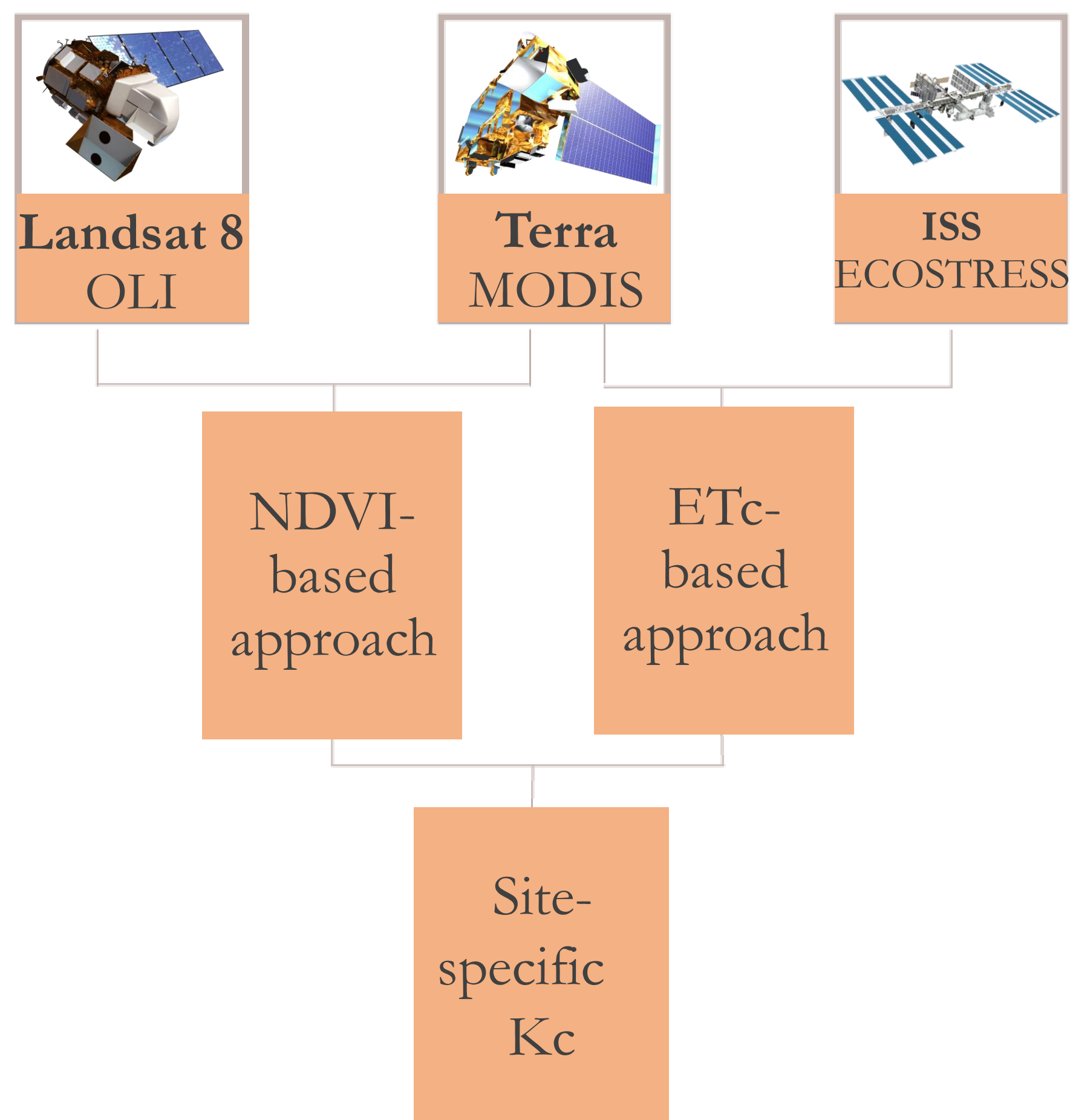


Study Area Elevation & River Flow

How can NASA DEVELOP build on Earth Science to provide a practical solution?



The calculated crop coefficients (K_c) captures unique site response based on vegetation reflectance. For the site and season shown herein, our regional ensemble produces K_c values lower than those of the FAO reference (top). Our method also yields lower evapotranspiration (ET) estimates, which indicates a prior overestimation of irrigation needs per the FAO reference alone (bottom).



What are the significance and broader impact of our findings?

- Leveraged **NASA observations** from space
- Obtained **site-specific** crop coefficients
- Estimated **actual crop** water requirements
- Will inform **irrigation management** practices
- Will alleviate **water scarcity** on the ground

Acknowledgements

Partners: Centro de Información Recursos Naturales
Embassy of Chile, Agricultural Office

Advisors: Dr. Venkat Lakshmi (University of Virginia)
Dr. Kenton Ross (NASA LaRC)

Fellows: Caroline Williams

Image Credits: NASA, Canva Pro, Pixabay **Basemap:** Esri, FAO, NOAA, USGS, HERE, Garmin, Foursquare, METI/NASA, CGIAR

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Summer 2022 | Pop-Up Project

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This material is based upon work supported by NASA through contract NNL16AA00C. Any mention of a commercial product, service, or activity in this material does not constitute NASA endorsement. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration and partner organizations.