

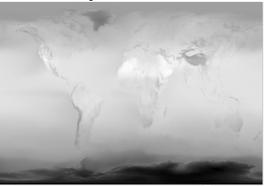


**ECMWF**  
EUROPEAN CENTRE FOR MEDIUM-SCALE WEATHER FORECASTS

ECMWF Reanalysis v5 (ERA5)  
**Inputs**



Sea Surface Temperature

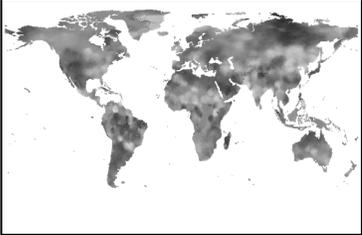


Temperature 2m above ground



Total Precipitation  
Stack of 36 images  
(3 variables \* 12 months)

**SPEI**  
Targets



Standardized Precipitation & Evapotranspiration Index  
Stack of N images  
(for the subsequent N=3 months, adjustable)

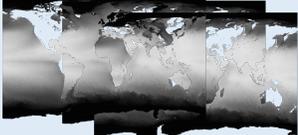
- *Models undergoing training and evaluation.*
- *Testing various configurations and hyperparameters.*
- *Early results show models capturing complex nonlinear and nonstationary relationship between variables.*
- *Planned feature importance analysis to evaluate variable impact on predictions.*

Output Image Generation



Output Images (3)

Input Images (36 channels)



Generate Patch Images

