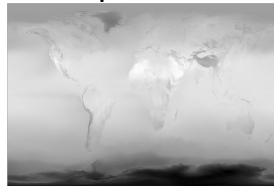




**ECMWF**  
ECMWF Reanalysis v5 (ERA5)  
**Inputs**



Sea Surface  
Temperature

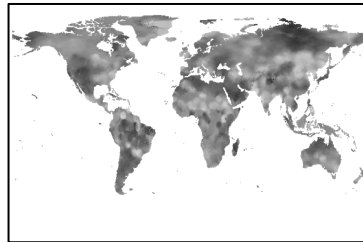


Temperature 2m  
above ground



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)

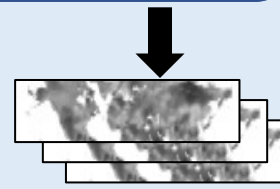
•Models undergoing training and  
evaluation.

•Testing various configurations  
and hyperparameters.

•Early results show models  
capturing complex nonlinear and  
nonstationary relationship  
between variables.

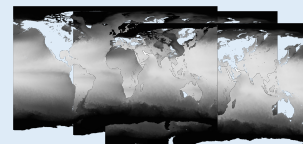
•Planned feature importance  
analysis to evaluate variable  
impact on predictions.

**Output  
Image  
Generation**



Output Images (3)

Input Images  
(36 channels)



**Generate  
Patch Images**

