

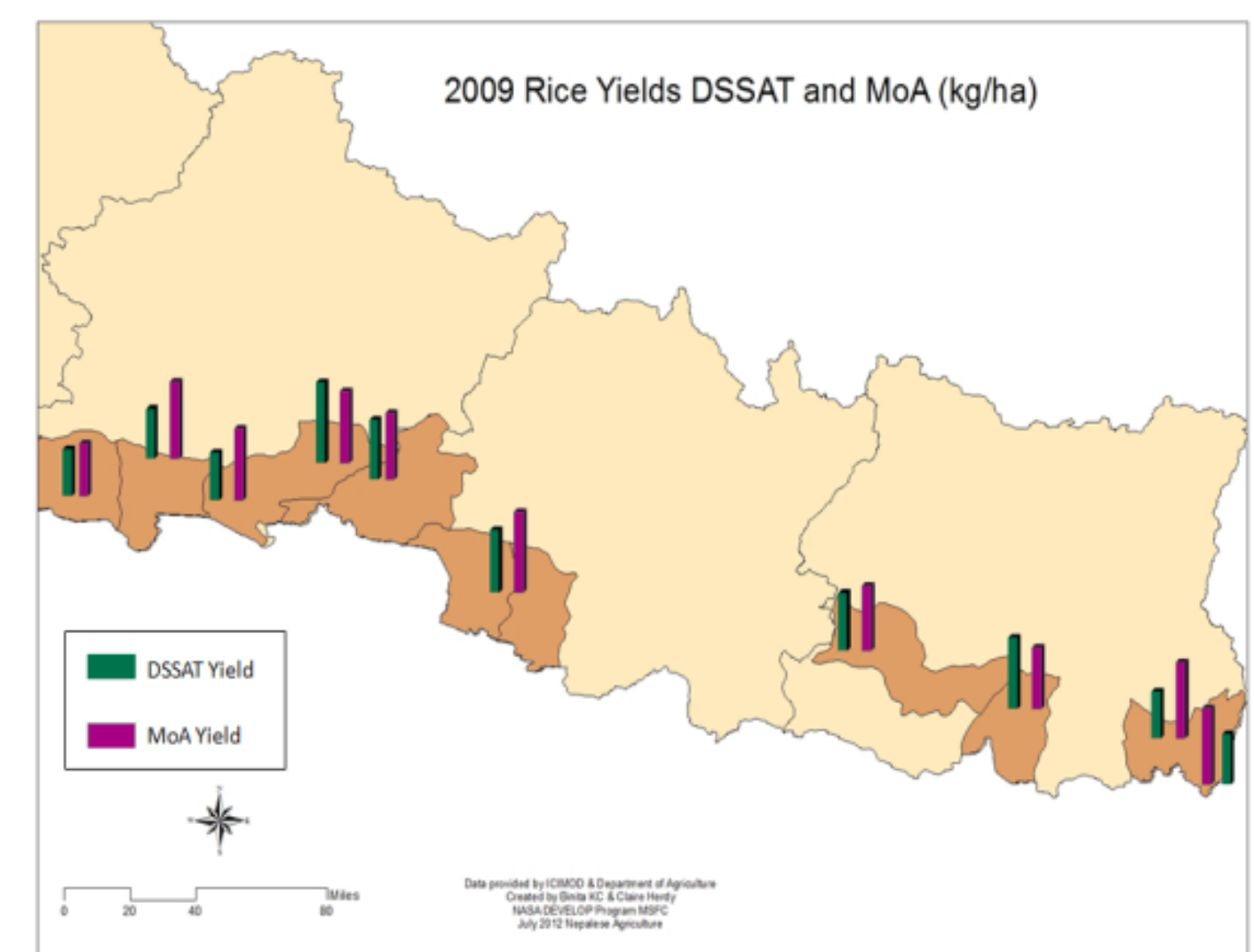
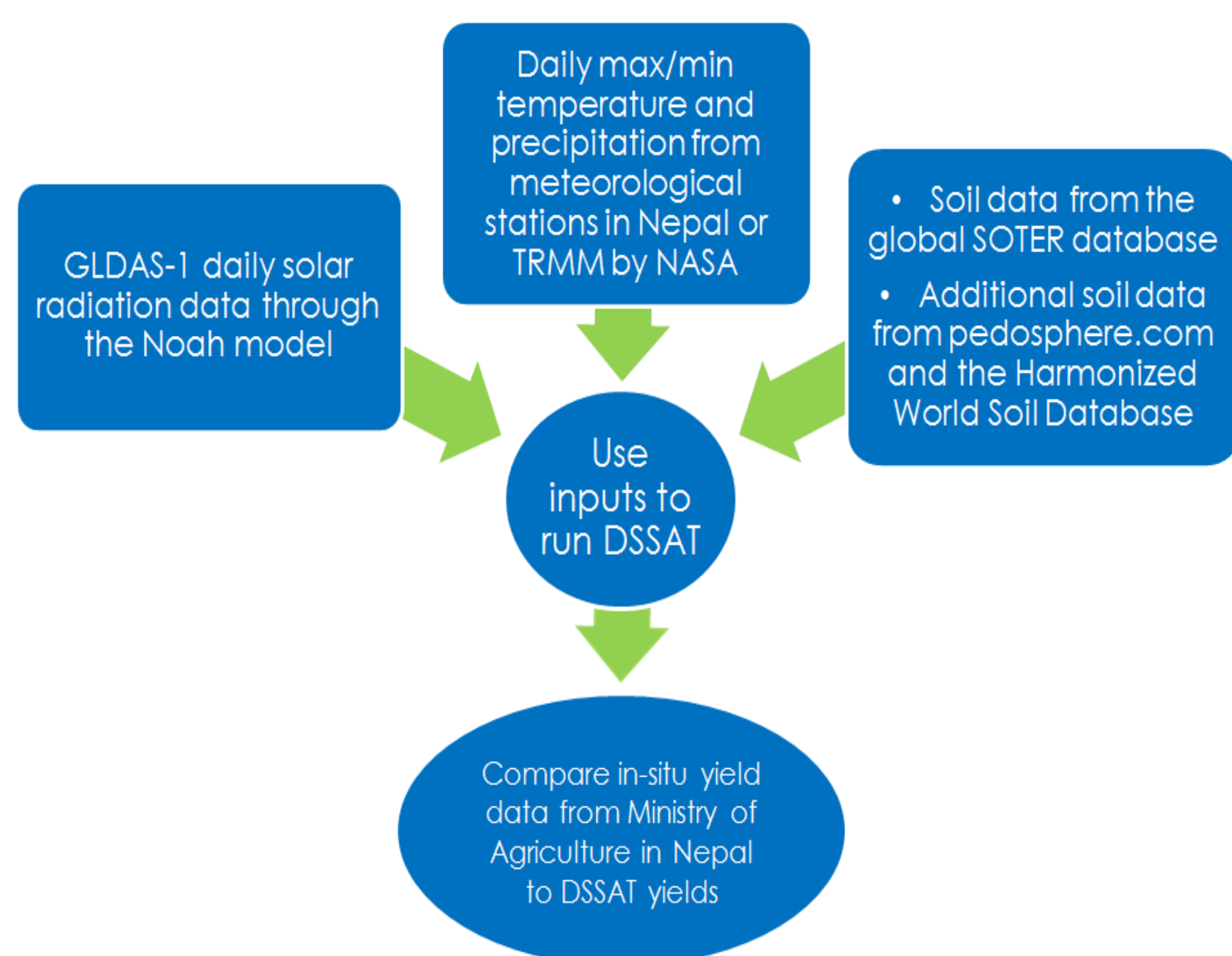
# Hindu Kush Himalayan Food Security: Using NASA Data in DSSAT

*Claire Herdy, Earth System Science*  
*Lee Ellenburg, Environmental Engineering*

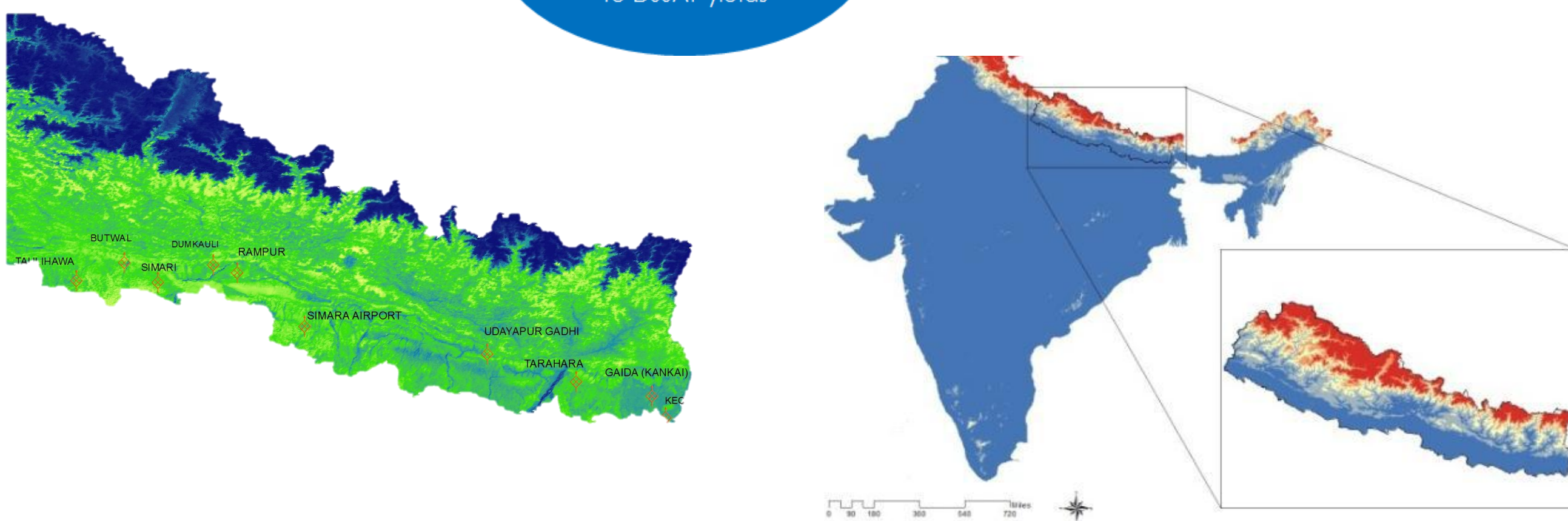
## Overview

The goal of this research is to improve environmental management and climate change preparedness by strengthening the relationship between scientists, governments, and international aid organizations using geospatial technologies.

## Key Findings



Place Name	District	DSSAT yield	% Difference
Butwal	Rupandehi	2496	<30%
Dumkauli	Nawalparasi	4042	<30%
Taulihawa	Kapilbastu	2374	<5%
Simari	Nawalparasi	2374	<25%
Rampur	Chitawan	2983	<5%
Simara	Bara	3128	<15%
Udayapur Gadhi	Udayapur	2886	<5%
Tarahara	Sunsari	3574	<30%
Gaida (Kankai)	Jhapa	2325	<30%
Kechana	Jhapa	2511	<25%

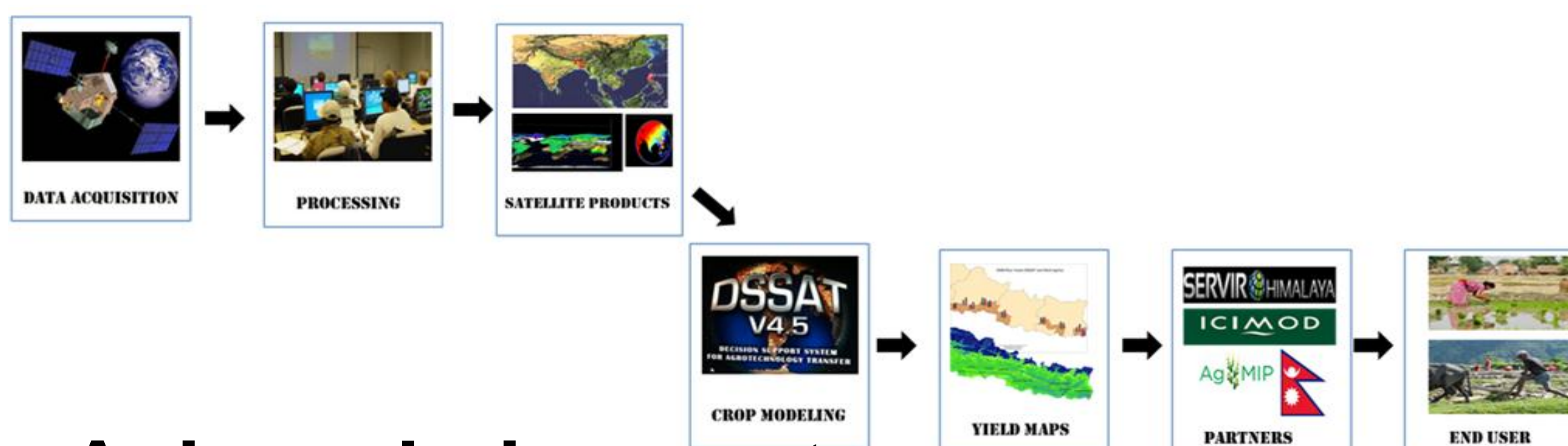


## Impact

- Improved environmental management and climate change preparedness in Nepal
- Strengthen the relationship between Nepalese scientists and governments using geospatial technologies in order to improve food security
- Use NASA's remotely sensed data to run DSSAT, making famine prediction more efficient and effective, and relief efforts more targeted.

## Explanation

- Geospatial data from NASA is crucial for running DSSAT and remotely studying agriculture in Nepal.
- The results of this research will benefit the local farmers in Nepal as well as the government and NGOs tasked with aid distribution.
- NASA's remotely sensed data can be used to run DSSAT, making famine prediction and response more efficient and effective.



## Acknowledgements

