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# Image Processing for Earth Observation

## Project Report

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Glacier retreat in the Himalayas and implications for local populations

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# 1 Context and challenges

Our project concerns the rapid glacier retreat in the Himalayas and the implications on local populations. More specifically, we will be studying the south-eastern Tibetan Plateau region, located in China, and the growth of glacier-fed lakes in this basin. In fact, glacier-fed lakes are often dammed by unstable moraines which can collapse and lead devastating glacial lake outbursts floods (GLOFs). These lakes have been increasing in size and quantity due to global warming and are becoming an increasing threat to the local populations. Our project will therefore study the increasing amount and size of these lakes in this basin, but also the corresponding glacier retreat and try to establish a correlation between both of these. The exact hydrological basin has not been chosen yet, but will either be in Upper Mekong, Salween, Qaidam, Hexi Corridor, Yellow or Yangtze basin, as defined by [1].

## 2 Methods

### 3 Results

## 4 Discussion

## Conclusion

## References

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