A NEW DEEP LEARNING METHOD FOR MAPPING SLUMS IN DEVELOPING COUNTRIES, USING SENTINEL-2 IMAGERY #278

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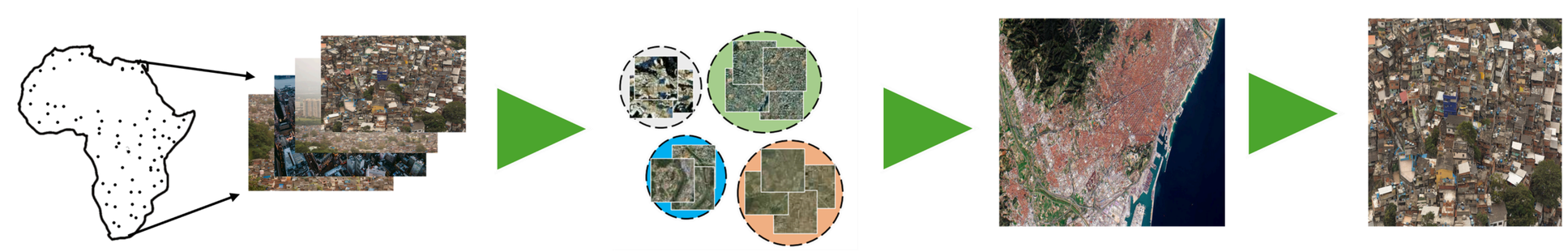
MOTIVATION

The past few decades have witnessed unprecedented growth in urban populations, leading to a corresponding increase in slums within urban areas. Projections suggest that the slum population could reach 2 billion within the next 30 years. While the United Nations provides annual statistical reports on the global slum population, the definition of slums therein tends to lean towards informal settlements or bad housing. The broader objective of this research is to precisely define slums and to track the emergence and evolution of slums in developing countries, mainly African countries. By using multispectral high-resolution and medium-resolution Sentinel-2 images, this research aims to build a deep learning method to identify slums in urban areas. Additionally, the paper intends to analyse factors contributing to the surge in slums by combining econometric analysis with remote sensing techniques.

METHOD



CONCLUSION:

Given the importance of reshaping urban areas and developing sustainable solutions to overcome the problems of informal settlements, and in particular slums, this research aims to provide a fresh perspective on developing context-specific policies by simplifying the process of mapping slums.

NB: We are still working on algorithms and the results will soon be published.

Feel free to give us some hints