Institute of Remote Sensing and Digital Earth
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Mapping forest changes from Landsat Time Series Stacks in the Three-North Shelterbelt regions, China

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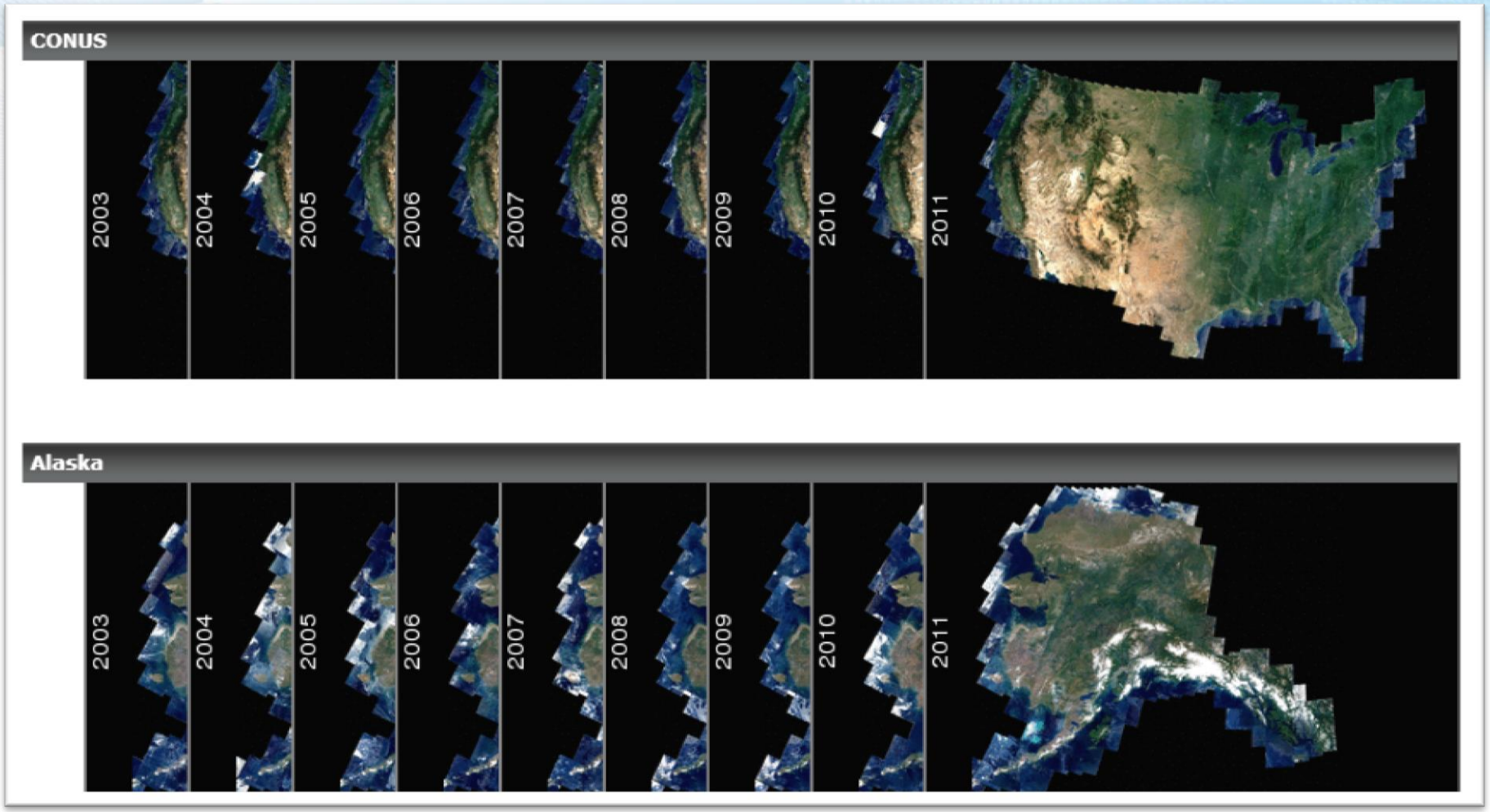
Long time series chance for RS Landat stacks provide new appliciation



Time series Landsat + Radiometric correction + Time series analysis = Reconstruct forest disturbance and biomass History

Contents

Why 3North Shelterbelt Region?

Time-series images radiometric correction

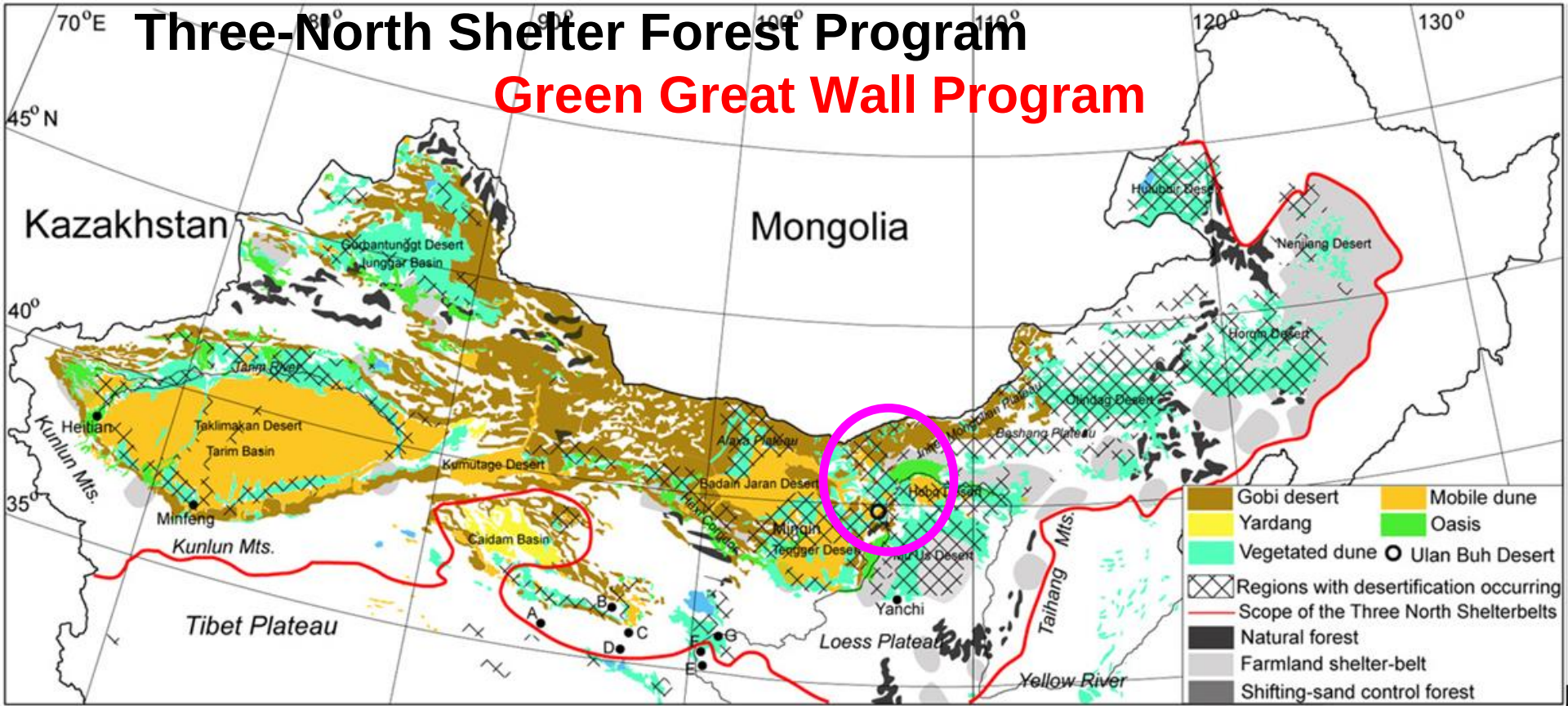
Forest changes mapping by VCT

Linking Carbon sink to forest changes mapping

1. Why 3N shelterbelt region

Three-North Shelter Forest Program

Green Great Wall Program



Remote sensing can assist estimation of both Land change and emission. This work aims to map forest changes and carbon stocks by large-scale afforestation in the 3N Shelterbelt region using RS and fullCAM.

The key goal of this program in the following decades was to improve forest coverage in arid and semiarid China from 5% to 15% by using this program as the primary method to combat desertification and to control dust storms. Wang et al (2010)

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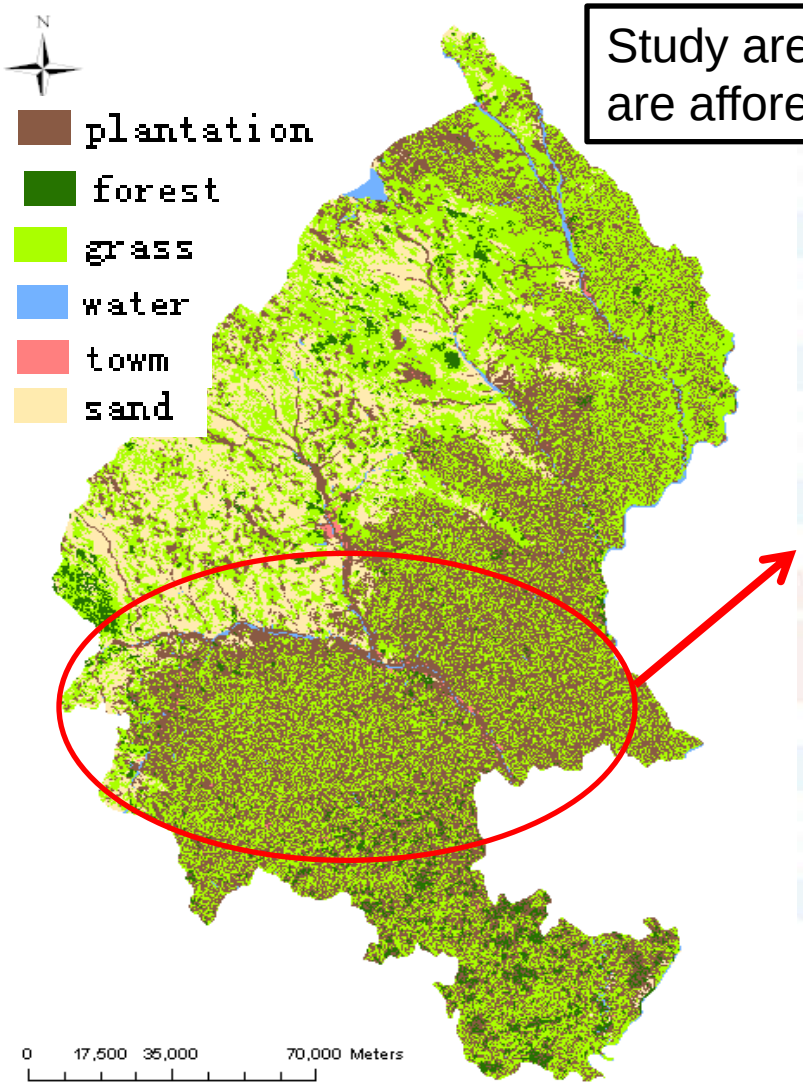
1. Why 3N shelterbelt region

Carbon Accounting, in Yulin, Shanxi Province



Study area partly covered by forest, and most of them are afforestation