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Forest DRAGON-3: Decadal trends of Northeastern Forests in China from Earth Observation Synergy

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ABSTRACT:

The overall goal of the Forest DRAGON 3 project is the synergy of Earth Observation products to derive information on decadal trends of forest in Northeast China. At the end of the project, 20 years of spaceborne, airborne and in situ data will be available for an unprecedented analysis of forest ecosystems in a region that experienced substantial changes in terms of forest cover since 1990. Previous and new forest GSV products will be investigated to derive information on trends in vegetation cover and carbon storage of forests in Northeast China. Linkage to other DRAGON projects, as well as exploitation of other EO products (e.g. land cover) maps, is fundamental for improving the quality of the radar-based GSV products. The launch of the Sentinel satellites will allow in addition the development of new forest mapping algorithms based on synergy of radar and optical measurements. The Chinese partner institutions will focus on algorithms adaptation to Eastern Russia and Continental Southeast Asia, and do comparative studies on forest changes with their neighbored China forests. For this purpose, new algorithms for forest mapping in tropical forests and change detection in comparative sites will be developed.