

UBC Forestry and Its International Engagement: Adaptation of Asia-Pacific Forests to Climate Change

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ABSTRACT:

Climate change is an immense threat to the stability and productivity of forest ecosystems in the Asia-Pacific region. Potential changes to or loss of forests will have drastic environmental impacts on biodiversity, ecosystem function and resilience, as well as immense socio-economic impacts on people and economies dependent on forest resources and ecosystem services. Despite their importance, there is a lack of information and tools focused on Asia-Pacific ecosystems and economies, which are necessary to understand the potential effects of climate change and develop regionally-specific adaptation and mitigation strategies. To address the lack of knowledge and tools and to increase the adaptive capacity of Asia-Pacific forest ecosystems, UBC Faculty of Forestry has developed: 1) a high-resolution climate model (ClimateAP), applicable to any location in the region; 2) ecological models to project how climate change will affect suitable climatic conditions, regeneration, and productivity of forest tree species; 3) tools to assess the most effective local management strategy based on management objectives and projected impacts of climate change. The research has been partnering with six key universities, four government agencies and a dozen of local pilot sites in AP region over the last seven years, published more than 20 peer-reviewed articles.