
PREFACE TO THE THIRD EDITION

With notification that the second edition of *Forest Ecosystems* was out of print, we considered whether a complete revision of the text was warranted. We recognize that the modeling of forest ecosystem responses has increased significantly in the last decade to include biodiversity and climatic limitations, but the underlying principles presented in the second edition appear to remain sound. At the same time, the network of sites that continuously monitor seasonal and interannual variation in CO₂ and water vapor exchange has grown. By combining data from many sites, new generalities have emerged that should be shared. Also, we wished to illustrate that forest disturbance and recovery can be more accurately documented than was previously possible. Finally, with the publication of the 2007 reports by the Intergovernmental Panel on Climate Change, we recognize the pressing need to provide background material to policy makers charged with designing policies that reduce carbon emissions and perpetuate healthy forests in an unstable climate with new mixtures of species.

In our decision to publish a third edition of the textbook, we have corrected errors in the previous edition, updated color plates, and added Chapter 10 that focuses on new information. Specifically, we document in the added chapter how climatic change has already affected forests, offer insights gained from an expanded network of eddy-flux sites, and provide evidence of improvements in remote sensing technology. To keep up with the expanded role that remote sensing and modeling will play in predicting and monitoring the effects of future policies, we provide a web site reference to replace the compact disc available with the previous edition.

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