

Conservation contracts for forest biodiversity.

Theory and experience from Finland

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Conservation contracting by competitive bidding is becoming popular in agriculture, but programs for forest conservation have been lacking. This paper examines theoretically and empirically a new forest biodiversity conservation program implemented in Finland called Trading in Natural Values (TNV), which is based on competitive bidding. We develop a forest biodiversity auction model and examine the actual outcomes of TNV. We find, first, that the share of the most valuable old stands for biodiversity in the key ecological forest habitats was higher in the actual TNV program than in a simulated biodiversity auction. Second, the actual bids in the TNV program were on average 400-1200 euros lower per hectare than the bids generated by the biodiversity auction model. These two features very likely indicate the presence of strong conservation motives among the Finnish landowners. Competitive bidding in forestry differs from that in agriculture in one important aspect. The number of stands with high biodiversity values is very limited in areas where commercial forestry has been practiced. This scarcity of valuable stands impacts conservation contracting in many ways. Among other things, conservation costs are high for valuable stands and increasing the size of the conservation budget enrolls more stands in the program but with lower biodiversity values.

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