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# Reclamation of coppice forests in order to increase the potential of woody biomass in Serbia

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Biomass makes 63% of the total renewable energy potential of Serbia. Here, the biomass from forests together with wood processing industry waste represent the second most important renewable source for energy production. The Action Plan for Biomass of Serbia (2010) shows that the technically exploitable biomass in the Republic of Serbia amounts annually 2.7 Mtoe. Here, the woody biomass (fuelwood, forest residue, wood processing industry residue, wood from trees outside the forest) accounts for 1.0 Mtoe while the rest originates from agricultural sources. According to the national forest inventory (2008), forest cover in Serbia accounts for 29% of the country area, having standing volume of 362.5 mil. $m^3$ and annual increment of 9.1 mil. $m^3$. More than half is state-owned and the rest 47% is in the private ownership. Coppice forests dominate in the forest stock (65%). According to Glavonjić (2010), northeastern and southwestern Serbia are the regions with greatest spatial forest distribution. The general forest condition is characterised by insufficient production volume, unsatisfactory stock density and forest cover, high percentage of degraded forests, unfavorable age structure, unfavorable health condition and weeded areas. Herewith, the basic measures for the improvement of forest fund (Forestry Development Strategy for Serbia, 2006) represent conversion of coppice forests, increase of forest cover and productivity of forest ecosystems by the ecologically, economically and socially acceptable methods. The actions include reclamation of degraded forests, re- and afforestation activities on abandoned agricultural, degraded and other treeless lands. The average standing volume of high forests is 254 $m^3 \cdot ha^{-1}$ with an annual increment of 5.5 $m^3 \cdot ha^{-1}$. On the contrary, coppice forests dispose 124 $m^3 \cdot ha^{-1}$ of standing volume, having an annual increment of 3.1 $m^3 \cdot ha^{-1}$. Here, estimated losses from coppice forests amount up to 3.5 mil. $m^3$ wood annually. These data indicate the importance of reclamation as silvicultural measures in order to increase the quality and quantity of the biomass production. On the other hand, as the coppice forests are mainly used as fuelwood, conversion actions will affect the biomass production for energy purposes. Assessment of the effects of silvicultural measures on biomass production for energy purposes will be presented based on the possibility of utilization of biomass and the forest development strategy.