

# Management patterns in forests restituted according to Law 18/1991: a methodological approach

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[Abstract]: Forest restitution in Romania has been a sensitive issue for politicians, forest practitioners, forest owners and communities (Lawrence and Szabo 2005). The report done by the National Auditing Court (2012) characterises the restitution process as “chaotic and without long-term vision”, generating conflicts (Mantescu and Vasile, 2009) and opening the room for rent-seeking activities (Nichiforel and Schanz, 2011). The poor capacity to enforce the forest legislation and to raise awareness on sustainable forest management resulted in significant environmental damages in private forests (Abrudan et. al, 2009). The forest restitution process induced a broad scale disturbance with effects in various types of forest ecosystems (Greenpeace 2012; Knorn et al., 2012).

Specific reports on the impact of restitution on the situation of the forest ecosystems are scarcely available. Most studies focused, using mainly statistical data and ministerial reports, on forest restitution facts (Abrudan et al, 2009, Nichiforel, 2007, Ioras and Abrudan, 2006). The effects of forest restitution on land use change become recently a focus for study (Griffiths et al, 2012; Kuemmerle et al, 2009)

In this context the paper proposes an integrated methodology to assess patterns of forest management in restituted forest based on satellite images, forest inventories, geographic information systems data and socio-economic data. The aim of the presented methodology is to enhance the understanding of ecologic, silvicultural and economic effects deriving from different patterns of management of forests restituted according to the law 18/1991. Its implementation refers to comparing, categorizing and quantifying, using remote sensing tools and field inventory, structural patterns of management in private forests.

The results are presented as case studies which delineate the directions in which the methodology could offer information at a broader scale: the evaluation of the current stand structure (Vama, Moldovita, Solca, Dolhasca), the evaluation of the possible management techniques needed for the reintegration of the stands in the responsible management system (Moldovita) and the identification of the economic rent resulting from past management patterns (Vama).