

## Lithuania

aFMM	Guidelines Deliverable D1.3 May 2020	Demonstrations sites Deliverable D1.4 July 2020
<p><b>Adaptive rotation ages</b></p>	<p>Final forest harvesting in Lithuania is regulated by the minimal final cutting ages which are based on stand technical maturity for a dominant tree species and not depending on soil productivity. The aFMM is aimed to maximize forest rent and present net value (both options considered), applying rotation ages depending on soil types. All other forestry principles remain unchanged, including the age class method to estimate the annual harvesting volumes. Human efforts to mitigate climate change are accounted by various levels of forest yield timber price changes.</p> <p>Forestry in Lithuania is strongly dependent on command &amp; control forest governance, need to follow numerous legal acts followed by strict control. Alternative rotation ages would mean automatically violation of numerous legal acts, thus, making any practical recommendations unrealistic to implement. More, the idea about changed rotation ages, even though it is considered as interesting, is rejected by majority of forestry stakeholders, usually explaining that it contradicts current legal forestry framework and has no chances to be accepted by unidentified “naturalists”. Therefore, as the guidelines we will consider the materials aimed to explain and scientifically substantiate the concept of adaptive rotation ages and demonstrate the impacts of aFMM on sustainability of forestry:</p> <ul style="list-style-type: none"> <li>• Publication, discussing the scientific problem behind the rotation ages and using modelling results from WP3 to describe the impacts of adaptive rotation ages on sustainability of delivered ecosystem services, together with the study of responses of various stakeholders on making rotation ages more adaptive;</li> <li>• Materials from a series of national conferences, workshops, lectures, introducing adaptive rotation ages and their role on sustainable forest management. E.g. one lecture on the potential of adaptive rotation ages and their</li> </ul>	<p>As adaptive rotation ages contradict current legal Lithuanian forestry requirements, it is today impossible to establish physical demonstration sites. Demonstration of forest compartments, harvested at different age, would be rather meaningless. Therefore, we use “virtual demonstration sites”. As such we assume compilation of all materials introduced in the guidelines section. Additionally, we created visualizations, illustrating the development of forests and delivered ecosystem services over time assuming management under adaptive rotation ages and contrasting with current forest management approaches. Visualizations include information on the trends of forest characteristics and ecosystem services delivered under current and alternative forest management models, together with animated maps, displaying the information under focus at specific time points or intervals, used fir simulations in WP3. Materials on “demonstration sites” are supposed to be exposed together with the guidelines.</p>

	<p>impacts delivery of various ecosystem services is included into the course of Forest management planning (course code MEMMB011) and Forest management planning in areas under protection and designated for recreation (course code MEMMM019) at Vytautas Magnus university;</p> <ul style="list-style-type: none"> <li>• Recommendations on adaptive rotation ages will be included in one phd dissertation and one master thesis, which are directly linked with the ALTERFOR;</li> <li>• Summaries of presentations and publications are made available on internet, e.g. at the portal of Lithuanian association of forest and land owners association forest.lt ( e.g. <a href="https://forest.lt/go.php/lit/lvertintas-kompleksiskas-klimato-ir-kitu-streso-veiksniu-poveikis-miskui.-Teikiamos-rekomendacijos/6240/1">https://forest.lt/go.php/lit/lvertintas-kompleksiskas-klimato-ir-kitu-streso-veiksniu-poveikis-miskui.-Teikiamos-rekomendacijos/6240/1</a>)</li> </ul>	
<p>Care for deciduous</p>	<p>Lithuanian forestry has long been focused on growing coniferous forests. However, current forest management models may have some negative impact on some ES (biodiversity, cultural) in a long run, mostly due to decreased species diversity, dropping the share of broadleaves and increasing the volumes of spruce. This alternative forest management model is assumed to follow of current forestry legal requirements, however, in the case there are several options for forest management decision available, to prioritize the one which is expected to increase the share of deciduous trees in the stand at rotation age. Such decisions may be done during the whole rotation period – reforestation, thinnings, final harvesting.</p> <p>The guidelines will be based on the contributions from professional foresters sharing their experiences on forestry aspects, aimed at increasing the share of deciduous trees in the forest. The experiences will be delivered as short stories, written by different authors and illustrated with the photos. The examples of such stories are “how to establish productive black alder stands”, “how to grow oak forest” or “how to prevent regeneration areas from flooding by beavers”. The plan is also to go beyond the scope of this alternative forest management model, but also to collect the stories about all good forestry practices. The stories will be published as leaflets by</p>	<p>The short stories about best forestry practices are associated to certain forests owner/manager, estate, forest stand in the country. I.e. they are geolocated on the map and can be found in the field. Also, the contacts of professional foresters who provided their stories, are given for anyone interested in further details. Thus, there will be a network of “demonstration sites” developed, covering a wide range of good forestry practices.</p>

	<p>State Forest Enterprise (non-academic ALTERFOR partner) and distributed through the company network, however, they will also be made available on the web. Initial idea was to publish them at the websites of State Forest Enterprise and the Faculty of Forest and Ecology (ALTERFOR partners), however, recently the request was received from leading forestry portal in Lithuania forest. It on potential rubric on sharing best/alternative forestry practices.</p>	
<p><b>No management at potential habitats of European importance</b></p>	<p>This alternative forest management model was suggested by forestry stakeholders during the WP4 workshops. It assumes no management in potential habitats of European importance, which have been suggested recently by one research project basically in commercial forests without involving forestry stakeholders. The lists of potential habitats are available at <a href="http://www.geoportal.lt">www.geoportal.lt</a>. The management regime in such forests was set to correspond the ALTERFOR's "No management" current FMM, no matter the characteristics of the stand nor current forestry practices.</p> <p>The guidelines for management at habitats of European importance are currently under development within the frames LIFE project Optimization of NATURA 2000 network management in Lithuania, LIFE-IP-PAF-NATURALIT, LIFE16 IPE/LT/016. Here, we concentrated on the evaluation of (most likely) no management on delivery of ecosystem services at the landscape level. The guidelines are first aimed to initiate discussion on the consequences of no management decision on commercial forests, allocated to this category without considering all sustainable forestry aspects and avoiding participation of all relevant stakeholders. Thus, the focus in the guidelines is on:</p> <ul style="list-style-type: none"> <li>• Publication, discussing the impacts on additional no management restrictions of sustainability of forestry, emphasizing benefits to biodiversity enrichment, at the landscape level in a long run;</li> <li>• Materials from a series of national conferences, workshops, lectures, discussing the merits and demerits of additional segregative forest management restrictions;</li> </ul>	<p>The short stories about role and success of "no management" forestry will be communicated similarly as for "care for deciduous" case. More emphasis will be given to availability of such "demonstration sites" virtually, as current no management areas are usually associated with limited access.</p>

	<ul style="list-style-type: none"> <li>• Recommendations on no management in forests will be included in one phd dissertation, which is directly linked with the ALTERFOR;</li> <li>• Summaries of presentations and publications are made available on internet;</li> <li>• Our findings will be shared with the mentioned above LIFE project, to improve the management guidelines to be developed;</li> <li>• Best examples of no management forestry, leading to case specific sustainable forestry objectives, will be elaborated similarly as for “care for deciduous”.</li> </ul>	
<b>General</b>	<p>The information will be available on the web, as text and as pdf files for download. Printed versions of short stories on best forestry practices will be also prepared and distributed. The homepage will be hosted by either Faculty of forests and Ecology of Vytautas Magnus university or State forest enterprise. There is preliminary agreement to publish the guidelines at <a href="http://forest.lt">forest.lt</a>.</p>	<p>Maps, descriptions, results etc. will be at Faculty of forests and Ecology of Vytautas Magnus university or State forest enterprise</p>

