



ECONOMIC MODEL OF RAISING SOUR CHERRY PLANTATIONS ON TECHNICALLY RECULTIVATED LAND AREA

Zorica Sredojević^{*a}, Boško Gajić^a, Nataša Kljajić^c, Nevena Čule^c

^aUniversity of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade, Serbia

^bInstitute of Agricultural Economics, Volgina 15, 11060 Belgrade, Serbia

^cInstitute of Forestry, Belgrade, Kneza Višeslava 3, 11030 Belgrade, Serbia

*Corresponding author: zokas@agrif.bg.ac.rs

Abstract

The Experiences so far in the world and in the Republic of Serbia show that it is possible to create new agricultural, forest, recreational, landscape, and other systems through reclamation. Biological measures include the application of agricultural and forest reclamation, which contribute to the stability and maintenance of reclaimed areas, but are much more important from the aspect of spatial revitalization and the establishment of natural biocenoses. The need for land reclamation in Serbia is especially pronounced in the surface exploitation of coal, primarily in the Kolubara and Kostolac coal lignite basin. Based on data from practice and technical-technological norms, in this paper an economic model of investing in raising and exploiting cherry orchards on a technically recultivated land area at the location of a former coal mine in the western part of Serbia was compiled. The aim of the research is to determine the amounts and reach a solution to some questions that are more important for the investor, such as: What is the upper limit of investing financial resources? With what degree of interest and within what period can the invested capital in the investment be returned, etc.? By determining the indicators of return value, net present value, internal interest rate and others, the economic justification of the investment was assessed. Input-output parameters and indicators of economic justification were made for one hectare of sour cherry orchard area, with a cultivation period of three years and an exploitation period of 15 years. Investments in the establishment and cultivation of sour cherry orchards are set at 7,800 €/ha. The average annual net profit from sour cherry production is 2,800 €/ha. With an interest rate of 8%, the net present value of sour cherry orchards is 16,168 €/ha, and the yield value is 23,968 €/ha. The accumulation rate is 36%. The capital invested in raising sour cherry orchards can be returned in the third year, which is a much shorter period compared to the period of exploitation of orchards. By applying appropriate criteria for making an assessment, based on established economic indicators, such a project is economically justified. Opportunities, weaknesses, threats and potential risks to the economic viability of the reclaimed area were considered. From the aspect of the wider environment and general interests, an analysis of the relationship between benefits and costs, as well as potential qualitative environmental, social and economic external effects.

Keywords: Reclamation, investment, sour cherries, sustainability