EVALUATING EXISTING STRATEGIES IN ENVIRONMENTAL CRISIS OF ZAGROS FORESTS OF IRAN 1

Article in Applied Ecology and Environmental Research · January 2017
DOI: 10.15666/aeer/1503_621632

3 authors:
Mehdi Zandebasiri
Bebhahan Khatam Alanbia University of Tech…
16 PUBLICATIONS 13 CITATIONS

Javad Soosani
Lorestan University
37 PUBLICATIONS 16 CITATIONS

Mehdi Pourhashemi
Research Institute of Forests and Rangelands
37 PUBLICATIONS 120 CITATIONS

Some of the authors of this publication are also working on these related projects:

Acorn crops estimation of Iran´s native oaks using different visual surveys and acorn traps View project

Hi. Now Im working on point cloud data and photogrametry. View project

All content following this page was uploaded by Mehdi Zandebasiri on 26 March 2017.
The user has requested enhancement of the downloaded file. All in-text references underlined in blue are added to the original document and are linked to publications on ResearchGate, letting you access and read them immediately.
EVALUATING EXISTING STRATEGIES IN ENVIRONMENTAL CRISIS OF ZAGROS FORESTS OF IRAN

ZANDEBASIRI, M.1* – SOOSANI, J.2 – POURHASHemi, M.3

1Department of Forestry, Behbahan Khatam Alanbia University of Technology (BKAUT), Behbahan, Iran
2Department of Forestry, Lorestan University, Khorramabad, Iran
3Department of Forest Research, Institute of Forests and Rangelands, Agricultural Research Education and Extension Organization (AREEO), Tehran, Iran

*Corresponding author
e-mail: zandebasiri@bkatu.ac.ir

(Received 20th Oct 2016; accepted 7th Mar 2017)

Abstract. Zagros vegetation region is located in the west and southwest of the country of Iran. Nowadays, these forests are in severe quantitative and qualitative environmental dangers due to various climatic reasons, uncontrolled exploitation, overgrazing of livestock and lack of knowledge about management requirements and have become seriously affected. In the last 6 years, there have been numerous reports about the decline of oak trees in the central and southern Zagros forests. In this research was evaluated existing policies in decline crisis of Zagros forest of Iran with game theory. The research process has been conducted in several sections. In the first section of the research, key players of the decline crisis game in Zagros forests were examined, in order to evaluate strategies for crisis. In the second section of the research, the main strategies of the key players in decline crisis management were determined. Thereafter, the benefits of different strategies for key players were quantitatively evaluated with game theory. The result shows that it is clear from the diagram of the evaluation result of players in crisis game in Zagros forests that mode of results is in the executive management and local people of Zagros forests. Executive management has been having protection of forest resources and rainfall saving strategies. In reaction, local people has been having corporation and lack of corporation strategies. It can be extracted from the game theory model in this research that the game has 2 Nash Equilibriums (NE) in combination of protection of forest resources with lack of corporation of the people and combination of saving rainfall with corporation of the people. Based on the results there is no useful role for rainfall saving in Zagros forest of Iran. The way out of this impasse is to design appropriate policies in Zagros forests for the balance of rainfall saving and protection of forest resources, in a way that it follows the local community cooperation.

Keywords: game theory, decision making, local resident, participatory management, nature conservation

Introduction

Zagros vegetation region is located in the West and Southwest of the country of Iran. Nowadays, these forests are in severe quantitative and qualitative danger due to the following: climatic reasons, uncontrolled exploitation, overgrazing of livestock, and lack of knowledge about management requirements (Samari et al., 2012; Pourhashemi et al., 2013). The people living in these forests have complex and difficult lives when compared to those living in other parts of the country (Imani Rastabi et al., 2015).

This article was extracted from Ph.D. thesis of Dr. Zandebasiri in Lorestan University, Iran with title: Evaluating and analysis of forest decline crisis system in Zagros forests.