


[Home](#) | [Journal Papers](#) | [About CNKI](#) | [User Service](#) | [FAQ](#) | [Contact Us](#) | [中文](#)

 Full-Text Search : [CNKI Search](#)
[《Systems Engineering-Theory & Practice》 2007-04](#)
[Add to Favorite](#) [Get Latest Update](#)

How to Determine the Payment Amount of Ecological Compensation: Based on the Theories and Methods of Ecological Economics

CHEN Yuan-quan, GAO Wang-sheng (Regional Agriculture R&D Center, College of Agronomy and Biotechnology, China Agriculture University, Beijing 100094, China)

Ecological compensation, as a monetary measure, has been a key effective way to address the disharmony between economic development and ecological conservation. At present, the biggest difficulty is hard to determine the payment amount of ecological compensation. Based on the frontier theories and methods of ecosystem services and eco-footprint, we put forward the determinants for ecological compensation, accounting model and techniques to determine the amount of ecological compensation in this article. Then, we take every province of China as case study, the results showed that: 1) the ranking of eco-deficit in China is: eastmidlandwest, and the ranking of ecosystem services contribution is: westmidland east. 2) the total payment amount of ecological compensation is 439.50 hundred million yuan/a and the average amount of every province is 73.25 hundred million yuan/a in eastern areas of China; the number of midland are 482.98 hundred million yuan/a and 40.25 hundred million yuan/a separately; and the western are 158.56 hundred million yuan/a and 12.20 hundred million yuan/a. On the ground of these, a suggestion was brought forward: it is need to build up a national organization of ecological compensation fund to address the inconsistency between ecosystem services and eco-footprint.

【Key Words】 : **ecological compensation ecosystem services ecological footprint ecological valuation**

【Fund】 : 国家自然科学基金项目“农业生态系统服务价值测度、市场转化与决策模式研究”(30471010)

【Category Index】 : F205;F224


[Download\(CAJ format\)](#)

[Download\(PDF format\)](#)

CAJViewer7.0 supports all the CNKI file formats; AdobeReader only supports the PDF format.

Similar Journals

- > [农业科学与技术\(英文版\)](#)
- > [Resources Science](#)
- > [Chinese Journal of Ecology](#)
- > [Scientific and Technological Management of Land and Resources](#)
- > [Journal of Natural Resources](#)
- > [Planners](#)
- > [Ecological Science](#)
- > [Land and Resources Information](#)
- > [Chinese Journal of Applied Ecology](#)
- > [Sichuan Environment](#)

【References】

Chinese Journal Full-text Database

6 Hits

- 1 MA Ai-hui, ZHANG An-lu (College of Land Management of Hua zhong Agricultural University, Wuhan 430070, China); [Cross-regional Land Eco-compensation of Two Types of Social Construction\[J\];Guangdong Land Science;2009-05](#)
- 2 LI De-zhi LI Qi-ming; [Framework of eco-compensation mechanisms of real estate development in China\[J\];Urban Problems;2010-04](#)
- 3 Dai Guangcui 1 Yan Chunli 2 Miao Fuangping 1 Yan Hongwei 3 Wang Li 1 (1 China National Forestry Economics and Development Research Center, Beijing 100714; 2 Department of Finance, Planning and Management, State Forestry Administration, Beijing 100714; 3 Department of Forest Resources Management, State Forestry Administration, Beijing 100714); [On improving forest ecological benefits compensation policy Suggestions\[J\];Forestry Economics;2008-12](#)
- 4 SHEN Gen-xiang 1, HUANG Li-hua 1, QIAN Xiao-yong 1, PAN Dan-dan 2, SHI Sheng-gao 3, M. L. Gullino 4 (1.Shanghai Academy of Environmental Sciences, Shanghai 200233, China; 2.College of Environmental and Resource Sciences, Zhejiang University, Hangzhou 310004, China; 3.SIIC Modern Agriculture Development Co.Ltd, Shanghai 202183, China; 4.AGROINNOVA, University of Torino, Grugliasco(TO)10095, Italy); [Ecological Compensation Criteria for Environmental-Friendly Agriculture Production——Case Study of Green Agriculture Demonstration Project in Dongtan,Chongming Island\[J\];Journal of Agro-Environment Science;2009-05](#)
- YANG Liyun 1, ZHEN Lin 2, WU Songtao 2 (1. Department of Ecological Science and Engineering, USTB, Beijing 100083 China; 2. Institute of Geographic Sciences and Natural Resources Research CAS, Beijing)

- 5 (Institute of Geographic Sciences and Natural Resources Research,Chinese Academy of Sciences,Beijing 100101,China);**An Analysis of Identification of Provider and Receiver for Eco-compensation and Methods of Compensation Standard Calculation in China**[J];Ecological Economy;2010-01
ZHEN Lin 1 ,LIU Xuelin 1 ,LI Fen 1 ,WEI Yunjie 1,2 ,Hannes Koenig 3 (1.Institute of Geographic Sciences and Natural Resources Research,Chinese Academy of Sciences,Beijing 100101,China;2 .Graduate University of Chinese Academy of Sciences,Beijing 100049,China;3 ·Leibniz-Centre for Agricultural Landscape Research,ZALF,Muncheberg,Germany);**Consumption of Ecosystem Services and Eco-Compensation Mechanism in Ecological Sensitive Regions: Progress and Challenges**[J];Resources Science;2010-05

China Proceedings of conference Full-text Database

2 Hits

- 1 Chen Chunfeng~1 Wang Hongyan~1 Xiao Duning~2 Wang Daqing~1 (1.North East Agriculture University Resources and Environment College,Harbin 150030; 2.Institute of Applied Ecology,Chinese Academy of Science,Shenyang 110016);**Ecological compensation mechanism based on ecosystem services and ecological footprint——A case study of arable land resources in Heilongjiang Province**[A];[C];2008
2 MA Ai-hui ZHANG An-lu (College of Land Management, Hua zhong Agricultural University ,Wuhan 430070,China);**Cross-regional land eco-compensation of two types of social construction**[A];[C];2009

【Citations】

Chinese Journal Full-text Database

2 Hits

- 1 LEI Ming (Peking University,Beijing 100871, Kyoto University);**Trial Estimate of 1995'CSEEA and Chinese Green GDP**[J];Systems Engineering-theory & Practice;2000-11
2 MAO Xian qiang ZHONG Yu ZHANG Sheng (Institute of Environmental Sciences, Beijing Normal University, Beijing 100875,China);**CONCEPTION,THEORY AND MECHANISM OF ECO-COMPENSATION**[J];China Population, Resources and Environment;2002-04

【Co-references】

Chinese Journal Full-text Database

10 Hits

- 1 LIU Wei et al(College of Applied Meteorology,Nanjing University of Information Science & Technology,Nanjing,Jiangsu 210044);**Analysis of Ecological Footprint of Nanjing in 2005**[J];Journal of Anhui Agricultural Sciences;2008-29
2 YU Guang-ming,WEI Ya-li,LU Di,TAO Wen-xing,ZHANG Min,WANG Li-guo(School of Urban and Environmental Sciences,Central China Normal University,Wuhan 430079,China);**Impact of regional land consolidation on the ecosystem and its compensation**[J];Journal of Safety and Environment;2006-04
3 ZHANG Zhi qiang 1,2 ,XU Zhong min 1 ,WANG Jian 1 ,CHENG Guo dong 1 (1.State Key Laboratory of Frozen Soil Engineering, CAREERI,CAS, Lanzhou Gansu730000, China; 2.ScientificInformation Center for Resources and Environment, CAS);**Value of the Ecosystem Services in the Heihe River Basin**[J];Journal of Glaciology and Geocryology;2001-04
4 LU Ai-gang~1, HE Yuan-qing~1,2 ,ZHANG Zhong-lin~1, PANG Hong-xi~1, GU Juan~1(1.Cold and Arid Regions Environmental and Engineering Research Institute,Chinese Academy of Sciences,Lanzhou Gansu 730000,China;2.Institute of Tibetan Plateau Research,Chinese Academy of Sciences,Beijing 100029,China);**Regional Sensitivities of the Response to the Global Warming across China in the 20th Century**[J];Journal of Glaciology and Geocryology;2005-06
5 Wang Xiao1,Zhang Zhengmin2,Yao Guirong1,Chen Nianlai1(1.College of Resources and Environmental Sciences,Gansu Agricultural University,Lanzhou 730070,China; 2.Gansu Environmental Protection Bureau,Lanzhou 730030,China);**An Analysis on the Concept of the Ecological Compensation**[J];Environmental Science and Management;2008-08
6 Wang Ruofan(College of oceanography and environmental science,Xiamen University,Xiamen 361005,China);**Dynamic Analysis of Ecological Footprint in Xiamen**[J];Environmental Science and Management;2008-09
7 PENG Jian~1),2) WANG Yanglin~1),2) CHEN Yanfei~1),2) LI Weifeng~1),2) JIANG Yiyi~1),2)(~1)College of Environmental Sciences, Peking University, Beijing, 100871; ~2)Center for Digital City and Urban Landscape, Shenzhen Graduate School, Peking University , Shenzhen, 518057);**Economic Value of Urban Ecosystem Services:A Case Study in Shenzhen**[J];Acta Scientiarum Naturalium Universitatis Pekinesis;2005-04
8 Yang Xudong 1,Li Min 2,Yang Xiaoqin~3,Office of Leading Group for Western Region Development of the State Council,100714, P.R.China; 2.CVSCIPNS Research Co.,Ltd.,100859,P.R.China; 3.Saihanba Forestry Farm,Hebei 068450,P.R.China;**An Analysis of the Economics Foundation of the “Grain for Green” Program**[J];Journal of Beijing Forestry University (Social Sciences);2002-04
9 Liu FanSchool of Economics and Management,Beijing Forestry University,100083,P.R.China;**Economic Analysis of De-farming and Reforestation Actions**[J];Journal of Beijing Forestry University (Social Sciences);2003-04
10 Wu Dongliang; Liu Pengju; Tang Xiaoming; Zhu Qingke; Zhu Jinzhao.College of Resources and Environment, Beijing For.Univ.,100083,P.R.China.;**Simulating flow direction over raster-based hill-slopes and computing topographic parameters(LS) on GIS.**[J];Journal of Beijing Forestry University;2001-05

【Secondary References】

Chinese Journal Full-text Database

3 Hits

- 1 Dai Guangui^{1,2} (1College of Economics and Management, Beijing Forestry University, Beijing 100083; 2 China National Forestry Economics and Development Research Center, Beijing 100714);[Study on Development of Forest Environmental Service Sector](#)[J];Forestry Economics;2009-11
- 2 WANG Jin-shui~1, BAO Jing-ling~1, CHANG Wen-tao¹, YUAN Xue-zhu~(2,1) (1. School of Management, Hebei University of Technology, Tianjin 300130, China, 2. Tianjin Academy of Environmental Sciences, Tianjin 300191, China);[Research on Hengshui Lake Wetland Ecological Compensation Mechanism and Estimate](#)[J];Journal of Hebei University of Technology;2009-06
- 3 HUANG Jiajian¹) WANG Lingling²) WENG Shaojie¹(1 College of Horticulture and Landscape Engineering,Hainan University,Danzhou 571737;2 College of Mechanical and Electrical Engineering,Hainan University,Danzhou 571737);[Discussion on Development Mode of Featured and Recreational Agriculture in Hainan](#)[J];Chinese Journal of Tropical Agriculture;2010-01

【Secondary Citations】

Chinese Journal Full-text Database

3 Hits

- 1 XU Zhong min 1, ZHANG Zhi qiang 1,2 , CHENG Guo dong 1 (1 State Key Laboratory of Frozen Soil Engineering, CAREERI, CAS, Lanzhou 730000, China; 2 Scientific Information Center for Resources and Environment, CAS, Lanzhou 730000, China);[The Calculation and Analysis of Ecological Footprints of Gansu Province](#)[J];ACTA GEOGRAPHICA SINICA;2000-05
- 2 Zhuang Guotai;Gao Peng ; and Wang Xuejun(Department of Nature Conservation, NEPA,Beijing 100035)(Dept.of Urban & Environmental Science, Peking University, Beijing 100871);[Theory and practice of the levy on ecological environmental compensation in China](#)[J];China Environmental Science;1995-06
- 3 Ye Wenhua , Wei Bin,Tong Chuan (Center for Environmental Sciences, Peking University, Beijing 100871). :[Measurement and application of urban ecological compensation](#) .[J];CHINA ENVIRONMENTAL SCIENCE;1998-04

