# Yongjiu Dai

List of Publications by Year
in descending order

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The Common Land Model. Bulletin of the American Meteorological Society, 2003, 84, 1013-1024. | 3.3 | 1,058 |
| 2 | The Land Surface Climatology of the Community Land Model Coupled to the NCAR Community Climate Model*. Journal of Climate, 2002, 15, 3123-3149. | 3.2 | 583 |
| 3 | A global soil data set for earth system modeling. Journal of Advances in Modeling Earth Systems, 2014, 6, 249-263. | 3.8 | 436 |
| 4 | A Two-Big-Leaf Model for Canopy Temperature, Photosynthesis, and Stomatal Conductance. Journal of Climate, 2004, 17, 2281-2299. | 3.2 | 397 |
| 5 | A China data set of soil properties for land surface modeling. Journal of Advances in Modeling Earth Systems, 2013, 5, 212-224. | 3.8 | 375 |
| 6 | Water balance creates a threshold in soil pH at the global scale. Nature, 2016, 540, 567-569. | 27.8 | 358 |
| 7 | Reprocessing the MODIS Leaf Area Index products for land surface and climate modelling. Remote Sensing of Environment, 2011, 115, 1171-1187. | 11.0 | 312 |
| 8 | Cabauw Experimental Results from the Project for Intercomparison of Land-Surface Parameterization Schemes. Journal of Climate, 1997, 10, 1194-1215. | 3.2 | 296 |
| 9 | The Representation of Snow in Land Surface Schemes: Results from PILPS 2(d). Journal of Hydrometeorology, 2001, 2, 7-25. | 1.9 | 294 |
| 10 | The Project for Intercomparison of Land-surface Parameterization Schemes (PILPS) Phase 2(c) Redâ€"Arkansas River basin experiment:. Global and Planetary Change, 1998, 19, 115-135. | 3.5 | 265 |
| 11 | Description and basic evaluation of Beijing Normal University Earth System Model (BNU-ESM) version 1. Geoscientific Model Development, 2014, 7, 2039-2064. | 3.6 | 229 |
| 12 | Coupling of the Common Land Model to the NCAR Community Climate Model. Journal of Climate, 2002, 15, 1832-1854. | 3.2 | 224 |
| 13 | Validation of the energy budget of an alpine snowpack simulated by several snow models (Snow MIP) Tj ETQq1 1 0.784314 rgBT /Overl | 1.4 | 212 |
| 14 | Development of a China Dataset of Soil Hydraulic Parameters Using Pedotransfer Functions for Land Surface Modeling. Journal of Hydrometeorology, 2013, 14, 869-887. | 1.9 | 208 |
| 15 | Mapping the global depth to bedrock for land surface modeling. Journal of Advances in Modeling Earth Systems, 2017, 9, 65-88. | 3.8 | 201 |
| 16 | A land surface model (IAP94) for climate studies part I: Formulation and validation in off-line experiments. Advances in Atmospheric Sciences, 1997, 14, 433-460. | 4.3 | 169 |
| 17 | The Project for Intercomparison of Land-surface Parameterization Schemes (PILPS) phase 2(c) Redâ€"Arkansas River basin experiment:. Global and Planetary Change, 1998, 19, 161-179. | 3.5 | 154 |
| 18 | Impact of vegetation removal and soil aridation on diurnal temperature range in a semiarid region: Application to the Sahel. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 17937-17942. | 7.1 | 151 |

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|---|---|---|---|
| 19 | Effects of Frozen Soil on Soil Temperature, Spring Infiltration, and Runoff: Results from the PILPS 2(d) Experiment at Valdai, Russia. Journal of Hydrometeorology, 2003, 4, 334-351. | 1.9 | 150 |
| 20 | Human-induced greening of the northern extratropical land surface. Nature Climate Change, 2016, 6, 959-963. | 18.8 | 145 |
| 21 | A soil particle-size distribution dataset for regional land and climate modelling in China. Geoderma, 2012, 171-172, 85-91. | 5.1 | 140 |
| 22 | Spatial dependence of diurnal temperature range trends on precipitation from 1950 to 2004. Climate Dynamics, 2009, 32, 429-440. | 3.8 | 139 |
| 23 | Comparison of seasonal and spatial variations of albedos from Moderate-Resolution Imaging Spectroradiometer (MODIS) and Common Land Model. Journal of Geophysical Research, 2003, 108, . | 3.3 | 120 |
| 24 | Disentangling climatic and anthropogenic controls on global terrestrial evapotranspiration trends. Environmental Research Letters, 2015, 10, 094008. | 5.2 | 119 |
| 25 | ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. Geoscientific Model Development, 2018, 11, 5027-5049. | 3.6 | 119 |
| 26 | Developed and developing world responsibilities for historical climate change and CO <sub>2</sub> mitigation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12911-12915. | 7.1 | 115 |
| 27 | Comparison of seasonal and spatial variations of leaf area index and fraction of absorbed photosynthetically active radiation from Moderate Resolution Imaging Spectroradiometer (MODIS) and Common Land Model. Journal of Geophysical Research, 2004, 109, . | 3.3 | 111 |
| 28 | Urban warming advances spring phenology but reduces the response of phenology to temperature in the conterminous United States. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4228-4233. | 7.1 | 109 |
| 29 | Geographical characteristics of Chinaâ€™s wetlands derived from remotely sensed data. Science in China Series D: Earth Sciences, 2009, 52, 723-738. | 0.9 | 102 |
| 30 | A review of the global soil property maps for Earth system models. Soil, 2019, 5, 137-158. | 4.9 | 94 |
| 31 | A Global Highâ€Resolution Data Set of Soil Hydraulic and Thermal Properties for Land Surface Modeling. Journal of Advances in Modeling Earth Systems, 2019, 11, 2996-3023. | 3.8 | 94 |
| 32 | The Project for Intercomparison of Land-surface Parameterization Schemes (PILPS) phase 2(c) Red-Arkansas River basin experiment:. Global and Planetary Change, 1998, 19, 137-159. | 3.5 | 82 |
| 33 | Development of land surface albedo parameterization based on Moderate Resolution Imaging Spectroradiometer (MODIS) data. Journal of Geophysical Research, 2005, 110, . | 3.3 | 81 |
| 34 | Monitoring dynamic changes of global land cover types: fluctuations of major lakes in China every 8Âdays during 2000â€“2010. Science Bulletin, 2014, 59, 171-189. | 1.7 | 78 |
| 35 | Limitations of nitrogen and phosphorous on the terrestrial carbon uptake in the 20th century. Geophysical Research Letters, 2011, 38, n/a-n/a. | 4.0 | 72 |
| 36 | Dependence of Land Surface Albedo on Solar Zenith Angle: Observations and Model Parameterization. Journal of Applied Meteorology and Climatology, 2008, 47, 2963-2982. | 1.5 | 70 |

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|---|---|---|---|
| 37 | Nitrogen and phosphorous limitations significantly reduce future allowable CO2emissions. Geophysical Research Letters, 2014, 41, 632-637. | 4.0 | 70 |
| 38 | The role of root distribution for climate simulation over land. Geophysical Research Letters, 1998, 25, 4533-4536. | 4.0 | 69 |
| 39 | Assessing parameter importance of the Common Land Model based on qualitative and quantitative sensitivity analysis. Hydrology and Earth System Sciences, 2013, 17, 3279-3293. | 4.9 | 69 |
| 40 | A hybrid deep learning algorithm and its application to streamflow prediction. Journal of Hydrology, 2021, 601, 126636. | 5.4 | 64 |
| 41 | RAMI4PILPS: An intercomparison of formulations for the partitioning of solar radiation in land surface models. Journal of Geophysical Research, 2011, 116, . | 3.3 | 63 |
| 42 | Multiobjective adaptive surrogate modelingâ€based optimization for parameter estimation of large, complex geophysical models. Water Resources Research, 2016, 52, 1984-2008. | 4.2 | 63 |
| 43 | Stronger warming amplification over drier ecoregions observed since 1979. Environmental Research Letters, 2015, 10, 064012. | 5.2 | 60 |
| 44 | Multi-objective parameter optimization of common land model using adaptive surrogate modeling. Hydrology and Earth System Sciences, 2015, 19, 2409-2425. | 4.9 | 60 |
| 45 | Correlations among leaf traits provide a significant constraint on the estimate of global gross primary production. Geophysical Research Letters, 2012, 39, . | 4.0 | 54 |
| 46 | Numerical simulation of urban land surface effects on summer convective rainfall under different UHI intensity in Beijing. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7851-7868. | 3.3 | 52 |
| 47 | Evaluation of simulated climatological diurnal temperature range in CMIP5 models from the perspective of planetary boundary layer turbulent mixing. Climate Dynamics, 2017, 49, 1-22. | 3.8 | 52 |
| 48 | Representing permafrost properties in CoLM for the Qinghaiâ€"Xizang (Tibetan) Plateau. Cold Regions Science and Technology, 2013, 87, 68-77. | 3.5 | 51 |
| 49 | Surface Boundary Conditions for Mesoscale Regional Climate Models. Earth Interactions, 2005, 9, 1-28. | 1.5 | 50 |
| 50 | A 3D Canopy Radiative Transfer Model for Global Climate Modeling: Description, Validation, and Application. Journal of Climate, 2014, 27, 1168-1192. | 3.2 | 49 |
| 51 | Evaluating and Improving the Performance of Three 1â€D Lake Models in a Large Deep Lake of the Central Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2019, 124, 3143-3167. | 3.3 | 49 |
| 52 | Diurnal and seasonal variations of wind farm impacts on land surface temperature over western Texas. Climate Dynamics, 2013, 41, 307-326. | 3.8 | 48 |
| 53 | Ageâ€dependent forest carbon sink: Estimation via inverse modeling. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2473-2492. | 3.0 | 48 |
| 54 | Evaluation of Soil Thermal Conductivity Schemes for Use in Land Surface Modeling. Journal of Advances in Modeling Earth Systems, 2019, 11, 3454-3473. | 3.8 | 48 |

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|---|---|---|---|
| 55 | Preliminary estimation of the organic carbon pool in Chinaâ€™s wetlands. Science Bulletin, 2013, 58, 662-670. | 1.7 | 46 |
| 56 | Maximum likelihood estimation of inflation factors on error covariance matrices for ensemble Kalman filter assimilation. Quarterly Journal of the Royal Meteorological Society, 2012, 138, 263-273. | 2.7 | 45 |
| 57 | CWRF performance at downscaling China climate characteristics. Climate Dynamics, 2019, 52, 2159-2184. | 3.8 | 45 |
| 58 | Treatment of Undercanopy Turbulence in Land Models. Journal of Climate, 2005, 18, 5086-5094. | 3.2 | 44 |
| 59 | Mapping near-surface air temperature, pressure, relative humidity and wind speed over Mainland China with high spatiotemporal resolution. Advances in Atmospheric Sciences, 2014, 31, 1127-1135. | 4.3 | 42 |
| 60 | An efficient method for global parameter sensitivity analysis and its applications to the Australian community land surface model (CABLE). Agricultural and Forest Meteorology, 2013, 182-183, 292-303. | 4.8 | 41 |
| 61 | Mechanisms for stronger warming over drier ecoregions observed since 1979. Climate Dynamics, 2016, 47, 2955-2974. | 3.8 | 40 |
| 62 | Sensitivity of Latent Heat Flux from PILPS Land-Surface Schemes to Perturbations of Surface Air Temperature. Journals of the Atmospheric Sciences, 1998, 55, 1909-1927. | 1.7 | 38 |
| 63 | Scientific and Human Errors in a Snow Model Intercomparison. Bulletin of the American Meteorological Society, 2021, 102, E61-E79. | 3.3 | 38 |
| 64 | Sensitivity of ground heat flux to vegetation cover fraction and leaf area index. Journal of Geophysical Research, 1999, 104, 19505-19514. | 3.3 | 36 |
| 65 | Sensitivity of simulated terrestrial carbon assimilation and canopy transpiration to different stomatal conductance and carbon assimilation schemes. Climate Dynamics, 2011, 36, 1037-1054. | 3.8 | 33 |
| 66 | The impact of nitrogen and phosphorous limitation on the estimated terrestrial carbon balance and warming of land use change over the last 156 yr. Earth System Dynamics, 2013, 4, 333-345. | 7.1 | 32 |
| 67 | On using smoothing spline and residual correction to fuse rain gauge observations and remote sensing data. Journal of Hydrology, 2014, 508, 410-417. | 5.4 | 31 |
| 68 | Stepwise sensitivity analysis from qualitative to quantitative: Application to the terrestrial hydrological modeling of a Conjunctive Surfaceâ€Subsurface Process (CSSP) land surface model. Journal of Advances in Modeling Earth Systems, 2015, 7, 648-669. | 3.8 | 26 |
| 69 | Nitrogen and phosphorous limitation reduces the effects of land use change on land carbon uptake or emission. Environmental Research Letters, 2015, 10, 014001. | 5.2 | 25 |
| 70 | Incorporation of plant traits in a land surface model helps explain the global biogeographical distribution of major forest functional types. Global Ecology and Biogeography, 2017, 26, 304-317. | 5.8 | 25 |
| 71 | Causes of the northern highâ€latitude land surface winter climate change. Geophysical Research Letters, 2007, 34, . | 4.0 | 21 |
| 72 | Evaluation of the New Dynamic Global Vegetation Model in CAS-ESM. Advances in Atmospheric Sciences, 2018, 35, 659-670. | 4.3 | 21 |

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|---|---|---|---|
| 73 | A Causal Inference Model Based on Random Forests to Identify the Effect of Soil Moisture on Precipitation. Journal of Hydrometeorology, 2020, 21, 1115-1131. | 1.9 | 21 |
| 74 | Reexamination and further development of twoâ€stream canopy radiative transfer models for global land modeling. Journal of Advances in Modeling Earth Systems, 2017, 9, 113-129. | 3.8 | 20 |
| 75 | Simulation and evaluation of terrestrial ecosystem NPP with M-SDGVM over continental China. Advances in Atmospheric Sciences, 2010, 27, 427-442. | 4.3 | 19 |
| 76 | Effects of Topography on Assessing Wind Farm Impacts Using MODIS Data. Earth Interactions, 2013, 17, 1-18. | 1.5 | 19 |
| 77 | Impact of precipitationâ€induced sensible heat on the simulation of landâ€surface air temperature. Journal of Advances in Modeling Earth Systems, 2014, 6, 1311-1320. | 3.8 | 19 |
| 78 | Assessment of global meteorological, hydrological and agricultural drought under future warming based on CMIP6. Atmospheric and Oceanic Science Letters, 2022, 15, 100143. | 1.3 | 19 |
| 79 | Asymmetric response of maximum and minimum temperatures to soil emissivity change over the Northern African Sahel in a GCM. Geophysical Research Letters, 2008, 35, . | 4.0 | 18 |
| 80 | Assessment of surface air temperature over the Arctic Ocean in reanalysis and IPCC AR4 model simulations with IABP/POLES observations. Journal of Geophysical Research, 2008, 113, . | 3.3 | 18 |
| 81 | Using dataâ€driven methods to explore the predictability of surface soil moisture with FLUXNET site data. Hydrological Processes, 2019, 33, 2978-2996. | 2.6 | 18 |
| 82 | Comparing machine learning-derived global estimates of soil respiration and its components with those from terrestrial ecosystem models. Environmental Research Letters, 2021, 16, 054048. | 5.2 | 18 |
| 83 | Observational Evidence for Desert Amplification Using Multiple Satellite Datasets. Scientific Reports, 2017, 7, 2043. | 3.3 | 17 |
| 84 | Incorporating root hydraulic redistribution and compensatory water uptake in the Common Land Model: Effects on site level and global land modeling. Journal of Geophysical Research D: Atmospheres, 2017, 122, 7308-7322. | 3.3 | 16 |
| 85 | The lake scheme of the Common Land Model and its performance evaluation. Chinese Science Bulletin, 2018, 63, 3002-3021. | 0.7 | 15 |
| 86 | Particle-Size Distribution Models for the Conversion of Chinese Data to FAO/USDA System. Scientific World Journal, The, 2014, 2014, 1-11. | 2.1 | 13 |
| 87 | Different representations of canopy structureâ€"A large source of uncertainty in global land surface modeling. Agricultural and Forest Meteorology, 2019, 269-270, 119-135. | 4.8 | 13 |
| 88 | Numerical simulation of an unsaturated flow equation. Science in China Series D: Earth Sciences, 1998, 41, 429-436. | 0.9 | 12 |
| 89 | Predicting climate anomalies: A real challenge. Atmospheric and Oceanic Science Letters, 2022, 15, 100115. | 1.3 | 12 |
| 90 | Sensitivity of the carbon storage of potential vegetation to historical climate variability and CO2 in continental China. Advances in Atmospheric Sciences, 2009, 26, 87-100. | 4.3 | 11 |

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|---|---|---|---|
| 91 | Soil Diversity as Affected by Land Use in China: Consequences for Soil Protection. Scientific World Journal, The, 2014, 2014, 1-12. | 2.1 | 11 |
| 92 | Evaluating common land model energy fluxes using FLUXNET data. Advances in Atmospheric Sciences, 2017, 34, 1035-1046. | 4.3 | 11 |
| 93 | Unexpected response of nitrogen deposition to nitrogen oxide controls and implications for land carbon sink. Nature Communications, 2022, 13, . | 12.8 | 10 |
| 94 | Improvements of a dynamic global vegetation model and simulations of carbon and water at an upland-oak forest. Advances in Atmospheric Sciences, 2007, 24, 311-322. | 4.3 | 9 |
| 95 | A steady-state approximation approach to simulate seasonal leaf dynamics of deciduous broadleaf forests via climate variables. Agricultural and Forest Meteorology, 2018, 249, 44-56. | 4.8 | 9 |
| 96 | Development of observation-based global multilayer soil moisture products for 1970 to 2016. Earth System Science Data, 2021, 13, 4385-4405. | 9.9 | 9 |
| 97 | Influences of 3D Subâ€Grid Terrain Radiative Effect on the Performance of CoLM Over Heihe River Basin, Tibetan Plateau. Journal of Advances in Modeling Earth Systems, 2022, 14, . | 3.8 | 9 |
| 98 | A land surface model (IAP94) for climate studies Part II: Implementation and preliminary results of coupled model with IAP GCM. Advances in Atmospheric Sciences, 1998, 15, 47-62. | 4.3 | 8 |
| 99 | An unsaturated soil water flow problem and its numerical simulation. Advances in Atmospheric Sciences, 1999, 16, 183-196. | 4.3 | 8 |
| 100 | Using analysis state to construct a forecast error covariance matrix in ensemble Kalman filter assimilation. Advances in Atmospheric Sciences, 2013, 30, 1303-1312. | 4.3 | 8 |
| 101 | Changes in Global Vegetation Distribution and Carbon Fluxes in Response to Global Warming: Simulated Results from IAP-DGVM in CAS-ESM2. Advances in Atmospheric Sciences, 2022, 39, 1285-1298. | 4.3 | 8 |
| 102 | Multiple time scale evaluation of the energy balance during the maize growing season, and a new reason for energy imbalance. Science in China Series D: Earth Sciences, 2009, 52, 108-117. | 0.9 | 7 |
| 103 | The Simulation of East Asian Summer Monsoon Precipitation With a Regional Oceanâ€Atmosphere Coupled Model. Journal of Geophysical Research D: Atmospheres, 2018, 123, 11,362. | 3.3 | 7 |
| 104 | Further Improvement of Surface Flux Estimation in the Unstable Surface Layer Based on Largeâ€Eddy Simulation Data. Journal of Geophysical Research D: Atmospheres, 2019, 124, 9839-9854. | 3.3 | 7 |
| 105 | A deepâ€learningâ€based experiment for benchmarking the performance of global terrestrial vegetation phenology models. Global Ecology and Biogeography, 2021, 30, 2178-2199. | 5.8 | 7 |
| 106 | A Semiprognostic Phenology Model for Simulating Multidecadal Dynamics of Global Vegetation Leaf Area Index. Journal of Advances in Modeling Earth Systems, 2020, 12, e2019MS001935. | 3.8 | 7 |
| 107 | Coupling the Common Land Model to ECHAM5 Atmospheric General Circulation Model. Journal of Meteorological Research, 2019, 33, 251-263. | 2.4 | 6 |
| 108 | A simple time-stepping scheme to simulate leaf area index, phenology, and gross primary production across deciduous broadleaf forests in the eastern United States. Biogeosciences, 2019, 16, 467-484. | 3.3 | 6 |

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|---|---|---|---|
| 109 | Coupling a terrestrial biogeochemical model to the common land model. Advances in Atmospheric Sciences, 2011, 28, 1129-1142. | 4.3 | 4 |
| 110 | Modeling Variably Saturated Flow in Stratified Soils With Explicit Tracking of Wetting Front and Water Table Locations. Water Resources Research, 2019, 55, 7939-7963. | 4.2 | 4 |
| 111 | A 3D Nonhydrostatic Compressible Atmospheric Dynamic Core by Multi-moment Constrained Finite Volume Method. Advances in Atmospheric Sciences, 2019, 36, 1129-1142. | 4.3 | 3 |
| 112 | New Representation of Plant Hydraulics Improves the Estimates of Transpiration in Land Surface Model. Forests, 2021, 12, 722. | 2.1 | 3 |
| 113 | Multistep Forecasting of Soil Moisture Using Spatiotemporal Deep Encoderâ€"Decoder Networks. Journal of Hydrometeorology, 2022, , . | 1.9 | 3 |
| 114 | A Catchmentâ€Based Hierarchical Spatial Tessellation Approach to a Better Representation of Land Heterogeneity for Hyperâ€Resolution Land Surface Modeling. Water Resources Research, 2022, 58, . | 4.2 | 3 |
| 115 | Fourth-Order Conservative Transport on Overset Grids Using Multi-Moment Constrained Finite Volume Scheme for Oceanic Modeling. Journal of Ocean University of China, 2020, 19, 747-760. | 1.2 | 2 |
| 116 | Evaluation of the Effect of Low Soil Temperature Stress on the Land Surface Energy Fluxes Simulation in the Site and Global Offline Experiments. Journal of Advances in Modeling Earth Systems, 2021, 13, e2020MS002403. | 3.8 | 2 |
| 117 | Effects of Incorporating Measured Leaf Optical Properties in Land Surface Models. Frontiers in Earth Science, 2021, 9, . | 1.8 | 2 |
| 118 | Causality-Structured Deep Learning for Soil Moisture Predictions. Journal of Hydrometeorology, 2022, 23, 1315-1331. | 1.9 | 2 |
| 119 | Validation of IAP94 land surface model over the Huaihe River basin with HUBEX field experiment data. Advances in Atmospheric Sciences, 2001, 18, 139-154. | 4.3 | 1 |
| 120 | New land surface albedo parameterization based on MODIS data: preliminary result. , 2004, 5544, 55. | | 1 |
| 121 | Implementation and Evaluation of an Improved Lake Scheme in Beijing Climate Center Atmosphereâ€Vegetation Interaction Model. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031272. | 3.3 | 1 |
| 122 | Plant drought tolerance trait is the key parameter in improving the modeling of terrestrial transpiration in arid and semi-arid regions. Atmospheric and Oceanic Science Letters, 2022, 15, 100139. | 1.3 | 1 |
| 123 | Landcover change of yutian oasis using remote sensing. , 0, , . | | 0 |
| 124 | A study project about variational assimilation method. , 0, , . | | 0 |
| 125 | An improved algorithm of simulation on air-sea turbulent heat fluxes in China seas. Chinese Journal of Oceanology and Limnology, 2007, 25, 292-299. | 0.7 | 0 |
| 126 | WHY WAS THE AUGUST 2010 ZHOUQU LANDSLIDE SO POWERFUL?. Geography, Environment, Sustainability, 2013, 6, 67-79. | 1.3 | 0 |