

**Kamila KLINGOROVÁ, Tomáš HAVLÍČEK**

**RELIGION AND GENDER INEQUALITY: THE STATUS OF WOMEN IN THE SOCIETIES OF WORLD RELIGIONS**

The status of women in society is very diverse worldwide. Among many important traits associated with the differentiation of gender inequality is religion, which itself must be regarded as a fluid concept with interpretations and practices 'embedded' and thus varying with respect to cultural, historical and patriarchal relations. Admitting the complexity of the issues, some religious norms and traditions can contribute to the formation of gender inequalities and to subordinate the role of women in society. Using an exploratory quantitative analysis, the influence of religiosity on gender inequality in social, economic and political spheres is examined. Three categories of states have emerged from the analysis: (a) states where the majority of inhabitants are without religious affiliation, which display the lowest levels of gender inequality; (b) Christian and Buddhist societies, with average levels of gender inequality; and (c) states with the highest levels of gender inequality across the observed variables, whose inhabitants adhere to Islam and Hinduism.

**Martin ŠVEDA, Michala MADAJOVÁ**

**MERGING DIARIES AND GPS RECORDS: THE METHOD OF DATA COLLECTION FOR SPATIO-TEMPORAL RESEARCH**

The results of a 'proof-of-concept' study that examined a new opportunity for using GPS technology in activity surveys are presented in this article. The aim is to demonstrate the method of collection and processing of individual time-space data via the dual records of a time-space diary and the GPS locator. The GPS technology here is not treated as a substitute for the traditional method of diaries; rather, the paper concentrates on the potential existing in a combination of these two techniques. The time-geographical approach and the corresponding methodology are used in order to assess the complexities of an individual's everyday life, and to capture the spectrum of human activities in a data frame applicable to different analyses in behavioural, social and transportation research. This method not only improves the quality and robustness of spatio-temporal data, but also reduces under-reporting and the burdens on the respondents.

**Lucia MÁLIKOVÁ, Michal KLOBUČNÍK, Vladimír BAČÍK, Peter SPIŠIAK**  
**SOCIO-ECONOMIC CHANGES IN THE BORDERLANDS OF THE VISEGRAD GROUP (V4) COUNTRIES**

Under the influence of globalization and state integration processes, the importance of a border as a barrier is gradually decreasing. Borderlands are still perceived as specific phenomena, however, not only in terms of historical development but especially in the context of their changing impact on the daily lives of their inhabitants. Along with EU enlargement, the de-bordering process has also become significant in many countries where the borderland played an important role in the past. These include the V4 countries, whose borderlands are the object of this research. In this article we analyse these areas on the basis of selected socio-economic indicators, with a focus on change in the period 2001–2011. As indicated by the analysis of variance, the results show the significantly differentiated development of the borderlands, in terms of the individual values of indicators both within the borderland of the EU member states, as well as along the external border of the EU.

**Ivo MACHAR, Karel KIRCHNER, Vilém PECHANEC, Jan BRUS, Helena KILIÁNOVÁ, Lubomír ŠÁLEK, Antonín BUČEK**

**POTENTIAL GEO-ECOLOGICAL IMPACTS OF THE PROPOSED DANUBE–ODER–ELBE CANAL ON ALLUVIAL LANDSCAPES IN THE CZECH REPUBLIC**

The project of a canal connecting the three major Central European Rivers: the Danube, Oder and Elbe, is incorporated into a planned trans-European transport network system. Geographically, the course of the planned canal stretches into the territory of four Central European countries, predominantly that of the Czech Republic. The environmental impacts of the potential construction and operation of the Danube–Oder–Elbe (DOE) Canal is currently widely discussed by experts from various fields. This paper aims to assess some potential impacts of the canal on the alluvial

landscapes in the Czech Republic. The method of geo-ecological assessment presented here applies GIS analyses at the larger landscape scale. The results of the geo-ecological assessment of potential impacts of the DOE Canal on the land-use of river floodplains, the fluvial dynamics of streams and the extent of their alluvial plains, and the quantified DOE Canal impact on protected areas and groundwater sources, are presented. The hydrological impact of the DOE Canal will affect a total of 1,975.4 km<sup>2</sup> of river basins in the Czech Republic. The DOE Canal will affect 157 sites significant from the perspective of landscape and nature conservation, 7 nature parks and 113 existing water points which are used as groundwater sources. The results show that the most significant disruption of fluvial dynamics of the stream sediment regime would occur in the Protected Landscape Area of Litovelské Pomoraví. In general, the geo-ecological impact of the DOE Canal on the landscape will be very important.

**Martina SLÁMOVÁ, Bruno JAKUBEC, Juraj HREŠKO, Boris BELÁČEK, Igor GALLAY**

**MODIFICATION OF THE POTENTIAL PRODUCTION CAPABILITIES OF AGRICULTURAL TERRACE SOILS DUE TO HISTORICAL CULTIVATION IN THE BUDINA CADASTRAL AREA, SLOVAKIA**

The soil production attributes of historical agrarian terraced fields were examined in the Budina cadastral area of the Ostrozky Mountains. This landscape represents a unique sub-mountainous Carpathian landscape with farms that use a historically preserved triple-field agricultural system. We determined the geo-spatial parameters of different types of land cover and terraces using geographic information systems. The soil depth was measured in the field, and the skeleton content was determined in the laboratory. We compared data regarding the potential production capabilities of the soil with data from the national classification of agricultural soils. Our results indicated that the soil productivity attributes improved because the naturally less fertile cambisols were positively affected by terracing and long-term cultivation. We recommend the preservation of traditional agricultural activities in historical terraced fields because these terraces represent valuable features that improve the quality of the landscape.

**Hana STŘEDOVÁ, Bronislava SPÁČILOVÁ, Jana PODHRÁZSKÁ, Filip CHUCHMA**

**A UNIVERSAL METEOROLOGICAL METHOD TO IDENTIFY POTENTIAL RISK OF WIND EROSION ON HEAVY-TEXTURED SOILS**

The climate of Central Europe, mainly winter seasons with no snow cover at lower altitudes and a spring drought as well, might cause erosion events on heavy-textured soils. The aim of this paper is to define a universal method to identify the potential risk of wind erosion on heavy-textured soils. The categorization of potential wind erosion risk due to meteorological conditions is based on: (i) an evaluation of the number of freeze-thaw episodes forming bare soil surfaces during the cold period of year; and (ii), an evaluation of the number of days with wet soil surfaces during the cold period of year. In the period 2001–2012 (from November to March), episodes with temperature changes from positive to negative and vice versa (thaw-freeze and freeze-thaw cycles) and the effects of wet soil surfaces in connection with aggregate disintegration, are identified. The data are spatially interpolated by GIS tools for areas in the Czech Republic with heavy-textured soils. Blending critical categories is used to locate potential risks. The level of risk is divided into six classes. Those areas identified as potentially most vulnerable are the same localities where the highest number of erosive episodes on heavy-textured soils was documented.