

Bojan Radej

Sustainable Treatment of Economic Multifunctionality

The policies currently applied in Slovenia handle economic functions (i.e. resources and impacts) unilaterally, which makes versatility an endangered developmental element. This paper argues for a multifunctional approach. We first identify three unilateral models: the competitive model, the social model and the developmental model. We diagnose them as sustainably unilateral by making a distinction between the user (input) and the impact (output) aspects of economic choice (Rodenburg, Nijkamp, 2001). The input aspect is attributable to the multiusefulness of resources and their different renewal capabilities, according to which functions can be divided into accumulative functions (profitable, non-profitable), fixed functions and non-renewable functions. On the output side, we differentiate between production-related and external impacts (public, positive or negative external impacts; OECD, 2001). Using the three separate input and output economic functions, we design a matrix which in its nine crosssections defines nine pairs of functions that determine autonomous approaches to their management based on their sustainable characteristics. Such a management topography suggests ways of transforming the present unilateral economic policies into a sustainable policy.

The multifunctional perspective rejects the assumption of infinite capital accumulation as the ruling principle of social organisation (Wallerstein, 2000). Hence, it only limits economic unilaterality rather than the accumulation of production-related impacts as such. Greater economic plurality not only facilitates the accumulation of value added as a result of social and environmental 'friction loss', but also allows for the acquisition of hitherto untapped sources of prosperity to satisfy the hitherto unheeded needs. The trigger for the pluralisation of economic policies lies in the assessment of developmental trends with regard to the preservation of economic versatility, which remains a largely unexploited potential in Slovenia.

Key words: multifunctionality, competitiveness, fairness, sustainable development

Anton Komat

The Triplet Encoding the Modern World

Humans rearrange the biosphere of our planet according to our own conceptions and create our own enclave, technosphere, which we call our environment. In the process, we use our knowledge and many various technologies. The academic traditions of science have been buried; capital has entered the realm of knowledge and claimed it as its own, and thus technoscience has become market oriented. The global scene has become characterized by a concentration of capital which wields incredible power. The destructive activities of humankind's will is leading to a general erosion of the biosphere that is concurrent with the erosion of humankind's cultural diversity. The degree of risk inherent in new technologies, which are adopted without a social consensus, tends to strongly correlate with its level of profitability. The concentration of capital leads to the homogenization, standardization and unification of a new global culture, which in a reverted loop accelerates the process of moral exhaustion. This triplet of the modern world - erosion, new technologies and a concentration of power - builds on the ubiquitous destruction of diversity; this is unnatural and counter-evolutionary because nature incessantly attempts to build diversity that is then the basis for evolution's selection. Thus, humankind is narrowing its evolutionary prospects and threatening its capacity to survive.

Key words: concentration of power, diversity depletion, new technologies

Iztok Ostan

Knowledge and Class Structure as Factors of Sustainable Development in Slovenia

Empirical research indicates that in Slovenia and in developed countries, the dominant forms of economic management are those based on exploitative (etatist and managerial) models. To understand this question, we may use a three-tiered model of exploitation to illustrate that exploitation also decreases the demand for knowledge and technological progress. In a closed monopolistic economy such as Slovenia's prior to EU accession, influential economic agents have little interest to foster advancement in technological know-how; the interest of the majority of the population (the working class) in political activism is similarly small. Both factors worsen the conditions conducive to sustainable development (and will continue to do so in the foreseeable future). This article suggests three main ways to increase the likelihood that sustainable developmental policies will be implemented: increasing the importance of global ecological conditions in the minds of influential economic and political elites, increasing the influence of local communities on the outcomes of developmental questions, and coordinating the efforts of individuals and groups who advocate sustainable development based on their beliefs.

Key words: sustainable development, class structure, knowledge, globalization, political activism

Marjan Ravbar

Settlement Networks in Slovenia: Tendencies, Developmental Dilemmas and Possible Scenarios

The current structure of settlement networks in Slovenia is to a large degree a reflection of a almost four centuries old economic and social effort for coordinated regional development. It reflects a triple metamorphosis of regions in a social, physical-geographical and "culturological" sense.

Because of undesirable tendencies in the development of urban networks, Slovenia also faces several developmental possibilities which will in the future be determined by interior and exterior factors. Two conflicting scenarios are possible: on the one hand, there is the classical model of a centralized urban network which would come about from current trends, and a corresponding solidification of a hierarchically conceptualized system of centralized settlements; on the other hand, there is a model with a decentralized network of developmental nodes, each at various stages of development, which is based on the contemporary principles of a flat hierarchical network and scattered developmental regions centred around infrastructural nodes.

The most important factor in successfully reorganizing a policentrically conceptualized settlement system is the strategy adopted to form the mixed use of areas in order to ensure the coexistence of two, interactive directions for urban-planning: 1.) intensifying the urbanization activities in city centres by retaining and accelerating highly specialized jobs, initiating and strengthening economic cooperation between towns and surrounding rural areas, which is mutually beneficial because they complement each other's functions; and 2.) densifying scattered and suburbanized built-up areas and production facilities with the aid of simultaneous infrastructure link-ages. Mixed use areas ensure better adjustment and faster changes in functional use, which fosters regional diversity. Such areas also decrease the number of daily trips, thus conserving energy and reducing the environmental burden through lower emissions.

Key words: central settlements network, urbanisation, suburbanisation, development scenarios, mixed land use

Branka Hlad, Renata Slabe Erker

Economic Development and Preservation of Biotic Diversity

Slovenia is a country extremely rich in biodiversity, which is under-pinned by a diversity of geology and landscape as well as so far existing land use practices. Biodiversity gives it a unique identity. The social value of biodiversity depends on the context in which various factors interact: economic

development and land use, social function and pressures from the inhabitants of nature conservation significant areas and their surroundings. In today's rapidly changing society, significant changes in behaviour and values are commonplace. Linking biodiversity with economic development can play an important macroeconomic role in all aspects of development discourse, except in those focused on the short- and medium- run (which are dominant today). In this article, we attempt to identify the nature conservation infrastructure necessary for increasing its returns to welfare.

Key words: developmental infrastructure, nature conservation, green infrastructure, grey infrastructure, institutional capacities, integrative mechanisms

Art Kovačič

Challenges to Slovenian Sustainable Competitiveness after EU Accession

Since the mid 1980s, a growing number of business people, policy makers and researchers have recognized the importance of international competitiveness for fostering economic growth and improving living standards. Rapid technological change, increasing mobility of productive resources and the growing structural problems of industrialized economies have called into question the validity of traditional economic theories. The economic prosperity of countries hinges on their ability to generate or attract economic activities which increase the population's living standards. Slovenia's ability to catch-up with the EU countries in terms of welfare and economic growth is associated with the application of new technology and knowledge and with the creation of a sustainable economy.

Key words: national competitiveness, competition, sustainable competitiveness, speed of change

Miroslav Verbič

Revealed Preference Approach to the Economic Valuation of Spatial Values and Natural and Cultural Heritage: Analysis of Assumptions and Use of Econometric Techniques

The article presents an analysis of the assumptions and econometric techniques used in a revealed preference approach to the economic valuation of spatial values. The key methods of the approach are the travel-cost method and the hedonic price method, each of which has its own strengths and weaknesses. The key advantage of the travel-cost method, which is a useful tool for assessing the benefits of recreational goods, is its ability to evaluate the observed behaviour and not only the expressed preferences. The key characteristics of the hedonic price method, which is an established tool for estimating disaggregated utilities of goods' characteristics, such as the structural characteristics of houses or the environmental characteristics of its environment, is its ability to estimate the ex post utility of implemented spatial changes, which is why this method is especially valuable for evaluating the implementation of different policies.

Key words: consumer surplus, econometrics, environment, hedonic price method, revealed preference approach, travel-cost method, economic valuation.

Matej Matija Grobelšek

The Private Sector is Not a Panacea for the Restructuring of Water Provision Services

The private sector is playing an increasingly visible role in services relating to the provision of water. This increased prominence has been prompted by the widespread belief that public ownership and control inherently leads to operational inefficiencies and an inability to secure adequate investment funding. However, empirical studies comparing the efficiency of public and private contractors indicate that the private sector in itself does not guarantee increased economic efficiency, but rather maximum revenues for the private contractors. Also, it does not necessarily guarantee higher quality services and better water management. These considerations should be included in the public

sector's goals regarding the entry of the private sector into water provision activities and its restructuring.

Key words: infrastructural activities, water provision services, public-private partnerships, concessions, BOT, restructuring services

Tjaša Bole

Sustainable Development and Genuine Savings

Theoretic models have proven that sustainable development paths are attainable under certain conditions. In this article, I first present an overview of the sustainable consumption model (Solow), followed by the Hartwick Rule of reinvesting rents generated by non-renewable resources and finally Hamilton's addendum to the Hartwick Rule concerning the elasticity of substitution between produced (renewable) and natural (non-renewable) forms of capital. Despite some deficiencies, these models are an important basis for the concept of genuine savings (GS), which is used as a measure of weak sustainability. Genuine savings can be obtained by taking net savings, subtracting environmental damages, and adding human capital investments. Although the existing methodology for calculating GS has significant deficiencies which tend to bias its estimates upward, GS is nevertheless interesting from a macroeconomic viewpoint as a monetary indicator of sustainability. Analyzing the levels of GS leads to some interesting conclusions, e.g. that GS levels are relatively low for the richest countries compared to lower-income countries, that countries which have become wealthy from fossil fuels have consistently low levels of GS (which also exposes an important methodological deficiency of this indicator). An analysis of GS in Slovenia - which, despite being the most developed new EU member amongst transition economies, does not exhibit higher levels of GS - leads to developmental policy recommendations, including areas with the most room for improvement.

Key words: genuine savings, weak sustainability

Aleksandra Murks

Emissions Trading and Implementing the Kyoto Protocol

Emissions trading is a relatively new tool in environmental economics - it enables policymakers to improve the quality of the environment while simultaneously lowering (abatement) implementation costs. Its distinguishing characteristic is its flexibility to allow for different systems and technologies to be used in the process, based on target emissions levels and market forces. The basic difference between conventional emissions taxes and emissions trading is that in the former, the price of emissions is fixed in advance and the equilibrium quantity is determined by the market, while in the latter, the quantity of emissions is capped and it is the equilibrium price that is determined by the market. Trading is based on emissions coupons and credits, with the latter earned when actual emissions are below the quantity allotted by the coupons. This paper discusses several aspects of emissions trading: its historical development, its basic characteristics, various schemes, efficiency considerations, and its applications in practice. Policy recommendations for its implementation in Slovenia, including the conditions under which it is to be traded, are also considered.

Key words: emissions trading, emissions coupons, Kyoto protocol, flexible mechanisms, national allocation plans

Renata Slabe Erker, Bojan Radej

Experimental Identification of Environmental Implementational Deficit in Slovenia with the World Economic Forum's Environmental Sustainability Index

The poor implementation of the rule of law is one of the key barriers to Slovenia's faster development. The accumulated implementational deficit has reached macroeconomic proportions and is particularly acute in newly relevant policy areas, where the necessary adjustments in transition are even greater than in established spheres of governmental intervention. In this article, we propose the formulation of a precisely defined and measurable concept of spatial implementational deficit (SID), thus contributing to the literature by framing further discussion about SID into one based on technical theories and analyses of policy lessons.

The proposed method is based on a database of indicators evaluated by the World Economic Forum. We estimate that Slovenia's SID is high relative to that of other EU members; it is highest in terms of transparency and efficiency (2002) and relatively low in terms of "democraticness." We conclude by generalizing our conclusions and recommending that governmental units with high ID be limited in their ability to increase their budget until they post a significant decrease in ID in areas under their jurisdiction.

Key words: spatial duration index, implementational deficit, democraticness, efficiency, transparency

Janez Filiplič

Environmental Regulation and National Competitiveness

Competition can be examined at the level of enterprises, industries or countries. At the country level, national productivity that depends on the competitiveness of domestic enterprises is the only reasonable concept of competitiveness. The role of the government, which is today determined by the nature of competition, lies in its power to influence the competitive advantages achieved by enterprises. Innovation is the main driving force behind the competitive advantages of enterprises, and the government can stimulate innovative processes in enterprises by helping to shape economic conditions.

The paper examines the government's impact on national competitiveness in the field of environmental regulation. We test a two-part hypothesis: (I) stricter environmental regulations will not induce lower national competitiveness in the short and medium term; and (II) with the effective application of appropriate environmental regulations and further development of environmental and economic policies aimed towards internalising external environmental expenses, national competitiveness will rise thanks to tighter environmental regulations. Having analysed theoretical hypotheses and empirical studies, we find that stricter environmental regulations do not have a negative impact on national competitiveness in the short and medium term. To prove the positive impact of environmental regulations on national competitiveness conclusively, however, additional empirical evidence is needed.

We further test the preparation and implementation of environmental regulations in Slovenia from the viewpoint of our hypothesis. A review of the Slovenian environmental regulations shows that they are relatively suitable at the normative level from the viewpoint of their impact on national competitiveness, mainly thanks to the adoption of the EU's environmental regulations. In practice, however, the analysis of the level of environmental regulation (measured by the WEF environmental regulation index) reveals a gap between adopted and implemented regulations in Slovenia in comparison with old and new EU member states. Slovenia's main problem seems to be the implementation of environmental regulations in such a way as to improve the environment and at the same time stimulate the competitiveness of enterprises. For this reason, the paper concludes with some general recommendations that might help Slovenia make better use of the new economic logic grounded in the close interrelatedness of a country's environmental policy, productivity of its sources, innovation and competitiveness.

Key words: national competitiveness, environmental regulations, Poter's hypothesis, environmental regulations index, normative indicator of strictness, indicators of implementation efficiency