

# Rural and environmental concern – focus on the Czech Republic

PETR KMENT, LUCIE KOČMÁNKOVÁ

*Department of Humanities, Faculty of Economics and Management,  
Czech University of Life Sciences Prague, Prague, Czech Republic*

**Abstract:** An increasing number of works on the rural-environmental connection can be found at present. However, their overview and classification are needed – this is the guiding idea of this paper. We distinguish three approaches to the rural-environmental connection and label them scientific approach, environmentalist approach, and development approach. In the paper, theories of environmental concern (post-materialism, paradigm shift, and ecological modernisation) are discussed at first and then a classification of works is proposed.

**Key words:** environment, rural areas, Czech Republic, post-materialism, paradigm shift, ecological modernisation

## INTRODUCTION AND OBJECTIVES

Human society cannot exist without its natural environment. Social researchers are aware of this fact in connection with a less anthropocentric thinking about society and its culture. Although research of the interaction between the society and the environment has been more widespread since 1970s, its beginnings might be traced back as far as the theory of human ecology. In this paper, we particularly focus on the post-socialist Czech Republic. The post-socialist environment creates particular elements in the thinking about society. An example could be the higher level of materialism in the empirical testing of the theory of post-materialism. On the contrary, many phenomena and processes that influence human relationships towards the environment, such as the environmentally-friendly lifestyle, and the bio-regionalisation, can be found in the countries with a socialist past as well as in those without it. At the present time, as we show, an increasing number of works on the rural-environmental connection can be found. However, their overview and classification are needed, and this is the guiding idea of this paper. The objective of the paper is to create an overview on how the topics of “rural” and “environment” are being studied at present by the particular authors. In so doing, we have targeted the Czech Republic in

particular. The paper has a theoretical conception. We deal with the theories of environmental concern (post-materialism, paradigm shift, ecological modernisation) and then compose the overview and classification of works on rural and environmental issues.

## THEORIES OF ENVIRONMENTAL CONCERN

### Post-materialism

An American political scientist, Ronald Inglehart, has been documenting a significant inter-generational cultural shift in Western countries since the early 1970s. He calls this shift a turning away from “material” to “post-material” values. The pre-adult socialisation of an individual plays a major role when forming his/her values and, drawing on Abraham Maslow, the material values of an individual have to be primarily satisfied (Inglehart and Welzel 2005). Inglehart with his co-workers gathered evidence to support the claim that a shift to post-material values is under way in the USA and several countries of Western Europe. Inglehart and his followers have demonstrated a correlation between post-material values and support for environmentalism (Bell 2004)<sup>1</sup>. If a share of post-materialists in the country is higher, the country also takes more action to protect the environment.

<sup>1</sup>Further correlations among post-materialism and other variables were found as well. For example, fewer patriarchal opinions can be found, in certain respects, among post-materialists. Post-materialist aspirations of liberty are related to disagreeing that men make better political leaders (Inglehart and Welzel 2005).

Supported by the Ministry of Regional Development of the Czech Republic (Project No. WD-13-07-1 SOFARR).

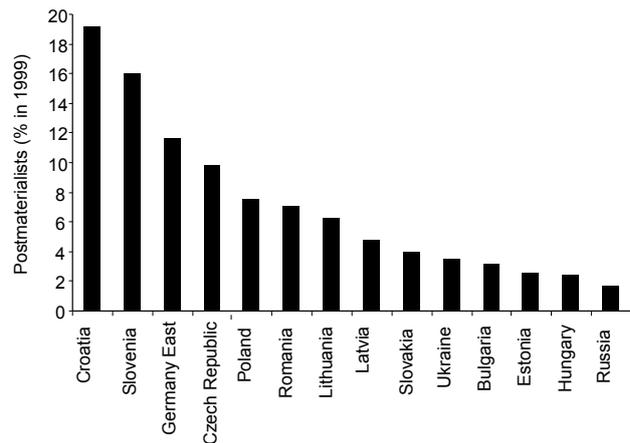
Despite criticism by many scholars of the correlation between post-materialism and environmentalism, Inglehart and his followers state, even in a relatively recent work, that *the rise of self-expression (post-material) values has changed the political agenda of post-industrial societies, challenging the emphasis on economic growth at any price by an increasing concern for environmental protection* (Inglehart and Welzel 2005).

However, the criticism of this correlation is strong indeed. The main arguments against this connection are summarised by American environmental sociologist, Michael Bell. Surveys, even in the USA, have shown that the wealthy in the USA, at least, show lower levels of environmental concern than do people with lower incomes. Post-materialism cannot also account for the environmentalism of the poor, especially in developing countries. According to Bell (2004), ecological threats are material threats, threats to human well-being<sup>2</sup>. According to Inglehart's theory, post-materialism correlates positively with environmental awareness. At the same time, it is known that there is acute environmental awareness in Russia and Eastern Europe and, as Kyvelidis (2001) shows, there is a very high level of materialism. This would also contradict Inglehart's findings.

The most intensive methodological discussion related to theories of environmental concern is still evoked by the theory of post-materialism. Batteries of statements, originally created by Inglehart in the 1970s, are discussed. The original battery contains four statements, two materialists and two post-materialist. The respondents arrange the statements according to their importance. The original four-item battery, as well as the later twelve-item battery, are used by various present-day authors. The methodological remarks on the batteries of post-materialism can be divided into two groups. Firstly, the validity of Inglehart's battery is generally discussed. Secondly, the applicability of the battery in the post-socialist environment is also discussed. The validity of the battery is discussed e.g. by Rabušić (2000). This author considers the question of the validity of Inglehart's indicators as being yet unanswered. Rabušić summarises an evolution of the discussion on validity from the beginning and concludes that it is necessary to bear in mind the basic dictum of empirical research based on questioning in the social sciences: the response to the reality does not have to be the reality itself. Kyvelidis (2001) dis-

Table 1. Postmaterialism in the Czech Republic (all available data) and other post-socialist European countries (most recent available data). Inglehart's four item battery, valid percent

Country	Year	Post-materialists	Mixed	Materialists
Czech Republic	1990	11.4	64.1	24.5
	1991	5.7	62.4	31.9
	1998	9.1	59.9	31.0
	1999	9.8	64.9	25.3
Albania	2002	4.1	49.6	46.3
Belarus	2000	6.0	44.5	49.5
Bulgaria	1999	3.2	48.1	48.7
Bosnia and Hercegovina	2001	4.6	64.1	31.4
Croatia	1999	19.2	65.5	15.4
Estonia	1999	2.6	56.2	41.2
Germany East	1999	11.6	55.1	33.2
Hungary	1999	2.4	47.1	50.5
Latvia	1999	4.8	60.3	34.9
Lithuania	1999	6.3	63.0	30.7
Macedonia	2001	4.8	58.9	36.2
Montenegro	2001	6.1	45.4	48.5
Poland	1999	7.6	55.5	36.9
Romania	1999	7.1	47.8	45.2
Russia	1999	1.7	46.3	52.1
Serbia	2001	6.1	45.1	48.8
Slovakia	1999	4.0	50.0	45.9
Slovenia	1999	16.0	67.2	16.8
Ukraine	1999	3.5	50.9	45.6



Source: World Values Survey

<sup>2</sup>Contradictory factors can be found in human relationships to the environment in poor developing countries. People do not pollute the environment there, because they produce almost no waste (everything is consumed). On the other hand, they significantly pollute the environment by satisfying their basic material needs (food). They have to use pesticides in agriculture for this need. The post-socialist countries of Central Asia are an example.

cusses the applicability of Inglehart's indicators in the post-socialist environment. The level of materialism in post-socialist countries can be artificially boosted by the fact that the original battery of questions is too sensitive to the post-socialist development during the 1990s<sup>3</sup>. In Kyvelidis' study, which deals with the measuring of post-materialism in post-socialist countries, the battery is too sensitive to the context and it demonstrates too much materialism. Thus, the problem is a methodological one: between the indicators and the context. We took secondary data from the World Values Survey (WVS) to demonstrate the development of material and post-material orientation in the Czech Republic and other European post-socialist countries. We are aware of the limitations of both above-mentioned groups when interpreting those data in the text.

Hassler (2006) advances another proposal of how to relate material and post-material values. General attitudes to environmental issues can reasonably be regarded as part of a general post-materialistic outlook. What is at issue here is not short-term personal survival, but the long-term well-being of man and nature in general. The more environmentally concerned the individual, the more likely he/she is to favour the consumption of post-materialistic goods above materialistic ones. Hassler expects material consumption to continue to increase along with the rise of individual and public concern for the environment. If income levels rise, materialistic consumption levels also increase, even if the consumption of post-materialistic goods increases even faster. The exact relationship between these two types of consumption is determined by their respective income elasticity (Hassler 2006).

The World Values Survey contains four- and twelve-item batteries of post-materialism measured in countries during individual waves. However, for the post-socialist countries (with the sole exception of Hungary, which was surveyed the first time in 1981), data have been available since 1989–1991. Moreover, the years since 1990 have been an atypical period for post-socialist societies, one shaped by the complete remodelling of their economic, social, and political systems and the breakup of the Soviet Union into fifteen successor states (Inglehart and Welzel 2005). Table 1 shows data on post-materialism in the Czech Republic and other post-socialist European countries (in order to compare them with the Czech Republic) from the WVS. The data for the Czech Republic are so far available from 1990 to 1999. The post-materialist dimension – if we accept Inglehart's way of measuring and his typology as valid – is present in the Czech population, it tends to increase and its bearers are mainly the youngest members of the Czech adult population (Rabušic 2000). The sudden fall in the percentage of post-materialists between 1990 and 1991 is explained as a consequence of disillusionment at the end of socialism and the beginning of the economic decline. The percentage of post-materialists in the Czech Republic has slowly been growing since then.

### Paradigm shift

The guiding idea of American environmental sociologist, Riley Dunlap (Dunlap 2002), is that the Western cultural tradition is strongly anthropocentric in viewing humans as separate from and above the rest of nature<sup>4</sup>. Changes in how and where people lived,

<sup>3</sup>One of Inglehart's materialist statements "fighting rising prices" is a painful subject, especially to citizens of the former USSR. Post-socialist inflation was a phenomenon in the former Soviet bloc and applies to virtually all post-socialist societies. Considering the second materialist indicator (order in the nation), rising crime and corruption, the collapse of the USSR, general instability and lawlessness in Russia, the post-Soviet Republics and Eastern Europe make the indicator far too sensitive (Kyvelidis 2001).

<sup>4</sup>Generally, anthropocentrism of the Christianity and environmental consequences of this connection have been a topic of social scientists since the beginning of 20th century. Bell (2004), drawing on Max Weber and his *Protestant Ethic and the Spirit of Capitalism*, shows that Protestant ideas form one of the great wellsprings of capitalist thought. Capitalism is, in a way, a secular version of Protestantism. Secularised ideas of work, denial, rationalisation, and accelerated production are understood in the present time as one of the main factors in the exhaustion of natural resources and damage to the environment. American historian, Lynn White, in his *Historical Roots of Our Ecologic Crisis*, also argues that environmental problems cannot be understood apart from the Western origins of modern science and technology, which in turn derive from "distinctive attitudes toward nature that are deeply grounded in Christian dogma" (White 1967). Christianity is the most anthropocentric religion the world has ever seen (White 1967). Two arguments can be constructed against an exploitative human relationship towards nature. Firstly, more pro-ecological passages can be found in the Bible as well. Secondly, readers of the Bible are not only Christians, but also Muslims and Jews, and neither White nor any other author found relationships between these religions and technological developments. Bell (2004) further argues that White's focus on Christianity (the environmental ideas he discusses – linear time, an inanimate world, the dichotomy between people and nature, anthropocentrism) may have been displaced. The ideas that support the domination and transformation of the environment can be described as an underlying philosophy of the West.

especially the massive shift towards industrialism and urbanism and away from agriculture, reinforced the notion that modern societies were becoming increasingly independent of their biophysical environments. Interactions between society and environment began to be more important for the empirical social research as late as the 1970s. Studies of societal-environmental interactions involved a rejection of the tradition of focusing only on social factors as explanations of social phenomena and at least tacit rejection of the assumption that modern, industrialised societies are exempt from ecological constraints. Dunlap and his followers challenged this exemptionalism (human exemptionalism paradigm in their works) with their New Environmental Paradigm (since 1978), but to emphasise the ecological foundation of human societies, they quickly relabelled it the New Ecological Paradigm. The paradigm shift to NEP has mainly an element against anthropocentrism (Dunlap 2002).

Bell (2004) also questions this theory. There is a problem of reducing such a complex matter of environmental ideology to only two categories (paradigms). Since there are likely as many environmentalisms as there are people, the question is: whose environmentalism is the standard?

The paradigm shift theory, as well as post-materialism, is only sporadically examined in post-socialist countries. In the Czech Republic, Soukup (2001) only used several statements of the empirical NEP scale in a framework of the International Social Survey Programme (ISSP). However, this survey was not aimed at rural areas.

While post-materialism has been continuously measured during individual waves of the World Values Survey since the 1970s, paradigm shift researchers have on only a couple of occasions been able to resurvey the same population at a later date (Bell, 2004). In addition, the shifts to NEP they found are not too distinct. The fifteen-item (statements) scale of the New Ecological Paradigm (Dunlap et al. 2000) is used to empirically test the paradigm shift theory at present. This NEP scale is further modified for purpose of various researches, and, therefore, results are often hardly comparable. Bell (2004) adds to such an empirical indication that, without some simplifying assumptions, the question of ideological change probably could not be researched, particularly with the kind of large-scale public opinion polls that paradigm shift and post-materialism researchers have emphasised.

### **Ecological modernisation**

Ecological modernisation is a theory connected with the authors, Arthur Mol and Gert Spargaaren (e.g.

Spargaaren 2000). Although the theory of ecological modernisation presents a complex understanding of post-industrial society (Fisher and Freudenburg 2001), the lynchpin of the argument involves technological innovation. One of the key characteristics of the theory is that industrial development offers the best option for escape from the ecological crises of the developed world. Spargaaren and Mol argue that environmental problems can best be solved through further advancement of technology and industrialisation (Fisher and Freudenburg 2001).

One of the few works to deal with the empirical testing of this theory in rural areas is proposed by Huttunen (2009). This author tested the functioning of the ecological modernisation theory in an empirical study of discourses on rural bio-energy production in Finland. However, he concludes that ecological modernisation has not penetrated on a large scale to the way of understanding non-wood energy production in rural areas. Ecological considerations could aid rural development, and bio-energy production could be one way of linking ecology more closely to farmers' awareness.

Huttunen (2009) also states that, during the observed time-frame (1980–2005), ecological modernisation appeared less crucial from the rural perspective. Another question is whether the ecological modernisation theory really is suitable in analysing rural questions. The so-called strong variant of ecological modernisation also acknowledges social issues. However, in the case of rural areas, it seems that more sustainable social and economic development is firstly needed to achieve the ecological modernisation. Nevertheless, a conclusion for ecological modernisation – rural development connection can be made, that ecological modernisation is an interesting concept in assessing rural development and it should be developed further (Marsden 2004; Huttunen 2009).

The main argument against ecological modernisation can be found in the word “modernisation” itself – that is the value of science, technology, industry, capitalism, modern forms of government, and modern value systems (Bell 2004). It seems that the the words “ecological” and “modernisation” do not match together. The ecological modernisation theory, say critics, is at best accommodationist and at worst a rhetorical ruse to allow the current power structures in society to have their way, perhaps with a few minor reforms (Bell 2004). The followers of ecological modernisation admit this reformism, however, the reforms should be fundamental according to them. Further critics of this theory say it is applied only in several countries of Western Europe (most especially the Protestant countries of

Germany, the Netherlands and Scandinavian countries) (Bell 2004). If we aim at the Czech Republic, we cannot find works on this theory in this country at present indeed.

In comparison with theories of post-materialism and paradigm shift, the theory of ecological modernisation has not been operationalised for empirical testing. There is still a need for theoretical development to be carried out in conjunction with empirical testing (Fisher and Freudenburg 2001).

## ENVIRONMENTAL FEATURES OF RURAL SOCIETY

Based on searching the Web of Science (databases related to Social Sciences and the Humanities) with the searched strings *environment\** and *rural\** as the topic, we discovered an increasing number of papers (results) in the last decade: 2000 (177 results), 2001 (194), 2002 (241), 2003 (268), 2004 (225), 2005 (281), 2006 (379), 2007 (363), 2008 (514), 2009 (617), and 2010 (663). However, if we add a third string *Czech* into the topic to be searched, there are only 14 results altogether from 1994 to 2009, out of which five

papers were published in the journal *Agricultural Economics – Czech*.

The basic features of three approaches to the rural-environmental connection appear in an increasing number of works on these topics. The main works are summarised in Table 2. It is worth noting that all the following three approaches use social science methods, albeit that the boundary between social sciences and science (especially ecology) is very close.

The first group consists of works of environmental sociology that touch on the rural topic (and rural sociology that also deals with environmental issues). This approach might be called a *scientific approach*. The main goal of this approach is sociological knowledge. The works in this category deal with the rural-environmental connection rather theoretically, however, the empirical testing of the theory of post-materialism and the new ecological paradigm of the paradigm shift theory (if they are aimed at rural areas) could be classified here. Some works that touch the rural-environmental connection have been presented above, in the sections on post-materialism, and paradigm shift and they can be included in this group. If one deals with ecological modernisation theoretically, this work belongs to this group as well. It is necessary here

Table 2. Topics of authors that deal with environment – rural connection

Author	Nationality	Reference	Main idea	Second idea
<b>Scientific approach</b>				
A Michael Bell	American	Bell (2004)	sociology	environment
B Kris van Koppen	Dutch	van Koppen (2000)	nature	sociology
<b>Environmentalist approach</b>				
C Miloslav Lapka, Eva Cudlínová	Czech	Lapka and Cudlínová (2007)	post-classical approach	agriculture
D Hana Librová	Czech	Librová (2010)	individualism	environment
E Hana Librová	Czech	Librová (2008)	environment	simplicity
F Hana Librová	Czech	Librová (1996)	decentralisation	environment
G Lukáš Zagata	Czech	Zagata (2010)	Q methodology	organic farming
<b>Development approach</b>				
H Terry Marsden	British	Marsden (2004)	ecological modernization theory	rural
I Suvi Huttunen	Finnish	Huttunen (2009)	ecological modernization	rural

A = Integrated overview of the environmental sociology, without aim at the countryside

B = Conceptualization of the nature in environmental sociology

C = Determination of the effect of new agri-approaches on possible future land-use changes (with a case study from the Czech Republic)

D = Connections between individualization and environmental problems

E = Questioning simplicity or complicity of environmentally friendly lifestyle

F = Decentralisation in the Czech Republic from ecological perspective

G = Using of the Q methodology in organic farmers views' study in rural areas of the Czech Republic

H = Discussing innovative character of rural sociology from viewpoint of the theory of ecological modernization

I = The possibility of widening the bioenergy production related to the theory of ecological modernization

to mention the works of two main authors of this approach – Michael Bell and C.S.A. (Kris) van Koppen.

Although rural issues are not the guiding ones in Bell's overview of environmental sociology, they appear there on many occasions, and they confirm an interconnection between rural and environmental sociology. For example, Michael Bell carried out a study in the late 1980s on the experience of nature in an English village to support an idea that dualism of patriarchal reasoning affects the way in which men and women experience the environment. Village men described their natural experiences by using significantly more aggressive, militaristic, and violent imagery. Village women emphasised a more domestic environmental vision, based on their experience of nurturing in nature. The point here is to highlight the environmental consequences for both men and women in patriarchal social structures and patterns of thinking, which both men and women create (Bell 2004).

Van Koppen found an interconnection of rural and environmental issues when conceptualising nature in what is called the "Arcadia" concept (van Koppen 2000). This author defined three concepts of nature in environmental sociology: (1) nature as a resource, (2) nature as "Arcadia", and (3) nature as a social construction.

The first concept, the resource, appeared as early as in the theory of human ecology and then in further theories that are significantly distinct from other viewpoints (e.g. Ulrich Beck's Risk society, ecological modernisation, and other theories). Nature is a means of production, a good for consumption, and a pre-condition for human health for resourcists. In other words, it is the sustenance base (van Koppen 2000). The second concept, the Arcadia, emphasises the intrinsic values of nature. These values consist of emotional, moral, aesthetic, and scientific dimensions. This concept regards nature mainly as living beings and landscapes. The third concept, nature as a social construction, stresses the significance of human culture and symbols when regarding nature.

The Arcadian concept connects environmental issues with rural issues. Two ideal-types of nature here are "rural idyll" and "wilderness". They are symbolic constructs, rather than reflections of a concrete experience. However, concrete experience plays a role as well, and this experience stems mainly from sensitivity towards nature (birds, flowers, landscapes etc.) (van Koppen 2000).

The second group consists of works that deal with ecology, land use, condition of the environment, environmental pollution, and environmentally-friendly agriculture (organic farming). This approach might

be called the *environmentalist approach*. The main goal of this approach is the quality of the environment. This approach, in particular, is very close to ecology as a natural science, and it uses the most interdisciplinary study methods. Lapka and Cudlínová theoretically discuss the so-called post-classical approach in agriculture (where agriculture serves as an ecological tool for the absorption of carbon dioxide), and then they draw possible conclusions (with a small case study from the Czech Republic) for subsequent land-use types (Lapka and Cudlínová 2007).

Organic farming (environmentally-friendly agriculture) is generally a great topic for this approach. Wynen (1996) even argues that a change of paradigms (in terms of Thomas S. Kuhn) from conventional to organic farming is under way in agriculture. Czech sociologist and biologist, Hana Librová, discusses the modern farmer's association to nature. It is obvious that a closer co-existence with nature influences human behaviour. A city-dweller is often not at all aware of his/her dependence on nature. Nevertheless, this is valid also for a modern cultivator to a certain extent – his specialisation often means that he is far from being self-sufficient. Hence, he/she loses a feeling of belonging to the natural cycles (Librová 1996).

In the past, peasant families relied on cooperation with neighbours and others in the village. Households exchanged many products. Today, such practices are almost impossible in villages, mainly because few people farm. Social conditions also thwart efforts at farming. Farming attempts by alternative lifestyle immigrants are usually seen as a foreign element in villages and lack support from neighbours (Librová 2008). However, the cultural stereotype still depicts agriculture as easy and joyful, a view further strengthened by environmental ideology. Food self-sufficiency is ecologically the optimal mode of food economy, but it is practically unattainable for the solitary farmer and remains just an ideal. The contemporary professional organic farmer is a part of the monetary system and he specialises in certain agricultural products (Librová 2008).

Zagata offers an insight into how organic farmers in the Czech Republic view their practice, interpret its symbolic value, and construct its content (Zagata 2010). He distinguishes three perspectives of these organic farmers in an empirical study based on the Q-methodology: organic farming is perceived in the contemporary Czech Republic as a way of life, as an occupation, and as the alternative production of food. At the same time, Zagata admits that his findings do not ensure that the aforementioned three perspectives are exclusive within the organic sector in the Czech Republic. An idea that "idealistic" organic farmers

have to act pragmatically in some cases to survive in the conditions of the market economy appears in this work as well.

In addition to organic farming, there are other factors in the environmentally-friendly lifestyle. Simplicity is generally considered an important characteristic of an environmentally-friendly lifestyle. However, such a lifestyle may be very complicated and difficult in the 21<sup>st</sup> century. The most noticeable characteristic of simplicity in contemporary ecological ideology is its connection to naturalness, to the principle that it is close to nature. However, humans that attempt to reduce diversity and attain simplicity are not mimicking nature, but rather acting in contradiction to natural processes. Nature tends towards diversity (Librová 2008). The rejection of power is another aspect of the environmentally-friendly lifestyle. Members of the environmental movements<sup>5</sup> in the Czech Republic promote simple, direct democracy. Many respondents of Librová's (2008) previous researches are members of local government, and some of them had been elected as Mayors of their villages. Environmental movements already existed in the former Czechoslovakia (Gorlach et al. 2008) and they therefore have a long tradition.

The environmentally-friendly variants of the lifestyle may also originate as so-called qualitative individualisation<sup>6</sup>. This kind of individualisation places emphasis on self-management, self-development and the claim to privacy. These individuals often tend to create numerous and strong interpersonal relationships, and they often are active in public life in municipalities. This happens despite some classic works, e.g. by E. Durkheim and T. Parsons, who wrote about the risks of the anomie brought about by this kind of individualisation (Librová 2010). The lifestyle of the aforementioned individuals is characterised by a reintegration. The socio-demographic characteristics of these individualists tending to collectivism correspond remarkably to Tönnies's prediction (Librová 2010): people with the "organic will" are predominantly young, rather women than men, people of middle educational levels. A further example of tendencies to reintegration are collective

forms of the environmentally-friendly lifestyle, e.g. locally based, and socially and ecologically oriented economies. However, they are significantly different from traditional communities: their members have independently decided to live such a lifestyle and they make an effort at self-fulfilment (Librová 2010), indicating a post-material value.

Nature may also serve as a pattern for the organisation of human society, particularly decentralisation. The thinking on the ecological positives of decentralisation is based on bio-regionalism (Librová 1996). According to this concept, it is necessary for human society to organise its living space differently in the future – living space should be adjusted to geographic and biological givenness (Librová 1996). Many ecologists argue for decentralisation as a pattern of a prospective human society (according to the organisation of biological systems). A spatial decentralisation would bring about a weakening, from a radical viewpoint, an elimination, of the governing centre. According to various authors, the function of this centre would be replaced by a spontaneous, ungoverned cooperation among independent social units in a way that corresponds to the perfect natural functional principles of nature. These principles do not construct their existence on centralisation, but rather on territoriality (Librová 1996).

The third approach consists of works that deal with rural development in the economic and social spheres. However, many of these authors touch on the environmental dimension of development, albeit that this is not their main topic. The interconnection and inseparability of three dimensions of development – economic, social, and environmental – are obvious in works of this approach. Primary attempts to test the theory of ecological modernisation in an empirical study (Huttunen 2009) could be classified here as well. This approach might be called a *development approach*. The main goal of this approach is the countryside and its future. This approach is widespread in developed countries. In the concrete, it is widespread in the EU-15 countries.

The role of knowledge in the sustainability of rural development is described by Bruckmeier and Tovey

---

<sup>5</sup>Many NGOs, with the main idea of environmentalism, function within the Czech Republic at present. The legal form of these NGOs is mostly the civil association (Children of the Earth, Movement DUHA, Arnika, Ecological law service and others).

<sup>6</sup>Individualisation in the environmental perspective is Librová's latest work (Librová 2010). She defines four reference frames of individualisation: Firstly, qualitative individualisation (an individual endangered by social control, manipulation and further criticised elements of modernity) and quantitative individualisation (an individual dangerous by his/her selfish, "savage" individualism). Secondly, *Lebensführung* (drawing on Weber – management of a life led on the basis of deliberation) and *Lebenskunst* (*savoir-vivre*). Thirdly, breaches in individualisation and a process of reintegration. Fourthly, semantic dimensions of individualisation.

(2008). This stems from the results of the CORASON project. These authors i.a. state that knowledge can help to reconnect social and natural systems, especially when understood within socio-ecological frameworks such as social metabolism (generally studied by the material and energy flow accounting – MEFA). The importance of Embadomonas for the development of rural areas is the theoretical as well as empirical subject (a case study of a Norwegian municipality) of Fløysand and Sjøholt (2007).

However, the number of works (papers) on this approach is high indeed. If one aims only at the Czech Republic, one discovers that rural development in the Czech Republic is a topic that is being studied from various viewpoints by authors whose professional specialisation is rural/regional development. The studies of the development approach include mainly the social capital, social networks, actors, and the institutionalised form of endogenous rural development – the LEADER approach. The tourism is also a great topic in the rural/regional development. However, its impact on the environment and nature is often discussed.

## CONCLUSION

The main present-day theories of environmental concern – post-materialism, paradigm shift, and ecological modernisation are theoretically elaborated. However, their empirical testing is (with the sole exception of post-materialism) only in the beginning stages. Methodological discussions are still being evoked by both Inglehart's indicators and measuring of the new ecological paradigm (NEP). We found an increasing number of works from the last decade on both environmental and rural topics together in the Web of Science. However, only very few results are found when we search for those topics related to the Czech Republic. The basic features of the three approaches to the rural-environmental connection appear in an increasing number of works dealing with the environmental-rural connection. We label these categories: scientific approach, environmentalist approach, and development approach. Their main goals are sociological knowledge (scientific approach), quality of the environment (environmentalist approach), and the countryside and its future (development approach). While both environmentalist (organic farming, simplicity, and the rejection of power as environmentally-friendly lifestyles, bio-regionalism, etc.) and development (the LEADER approach, tourism's impact on the environment, etc.) approaches are promisingly progressive in the Czech Republic,

theoretical knowledge of the scientific approach still awaits Czech authors.

## Acknowledgements

This work has been supported by the Ministry of Regional Development of the Czech Republic (Project No. WD-13-07-1 SOFARR). The authors are grateful to one anonymous reviewer and all their colleagues for their assistance, comments and discussion.

## REFERENCES

- Beck U. (1992): Risk Society. Towards a New Modernity. Sage Publications, London.
- Bell M.M. (2004): An Invitation to Environmental Sociology. 2<sup>nd</sup> ed. Pine Forge Press, Thousand Oaks.
- Bruckmeier K., Tovey H. (2008): Knowledge in sustainable rural development: from forms of knowledge to knowledge processes. *Sociologia Ruralis*, 48: 313–329.
- Dunlap R. (2002): Paradigms, theories and environmental sociology. In: Dunlap R., Buttell F., Dickens P., Gijswijt A. (eds.): *Sociological Theory and the Environment*. Rowman and Littlefield Publishers, Lanham, Maryland.
- Dunlap R.E., Van Liere K.D., Mertig A.G., Jones R.E. (2000): Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56: 425–442.
- Fisher D.R., Freudenburg W.R. (2001): Ecological modernization and its critics: Assessing the past and looking toward the future. *Society and Natural Resources*, 14: 701–709.
- Fløysand A., Sjøholt P. (2007): Rural development and embeddedness: The importance of human relations for industrial restructuring in rural areas. *Sociologia Ruralis*, 47: 205–227.
- Gorlach K., Lošťák M., Mooney P. H. (2008): Agriculture, communities, and new social movements: East European ruralities in the process of restructuring. *Journal of Rural Studies*, 24: 161–171.
- Hassler B. (2006): Postmaterialistic environmental attitudes: From attitudinal change to behavioural implications. Södertörns högskola Working Paper 2006:2. Available at: [sh.diva-portal.org/smash/get/diva2:16585/FULLTEXT01](http://sh.diva-portal.org/smash/get/diva2:16585/FULLTEXT01) (accessed September 20, 2010).
- Huttunen S. (2009): Ecological modernisation and discourses on rural non-wood bioenergy production in Finland from 1980 to 2005. *Journal of Rural Studies*, 25: 239–247.
- Inglehart R., Welzel Ch. (2005): *Modernization, Cultural Change, and Democracy. The Human Development Sequence*. Cambridge University Press, New York.

- Kyvelidis I. (2001): Measuring Post-materialism in Post-Socialist Societies. *European Integration online Papers*, Vol. 5. Available at [eiop.or.at/eiop/texte/2001-002a.htm](http://eiop.or.at/eiop/texte/2001-002a.htm) (accessed September 20, 2010).
- Lapka M., Cudlínová E. (2007): The emerging role of post-classical approaches in agriculture and their possible application: Case from Nové Hradky, Czech Republic. *Agriculture, Ecosystems and Environment*, 119: 373–382.
- Librová H. (1996): Decentralizace osídlení – vize a realita. Část první: vize, postoje k venkovu a potenciální migrace v ČR. (The decentralisation of settlements – vision and reality part one: Visions, attitudes to the countryside and potential migration in the Czech Republic). *Sociologický časopis – Czech Sociological Review*, 32: 285–296.
- Librová H. (2008): The environmentally friendly lifestyle: Simple or complicated? *Sociologický časopis – Czech Sociological Review*, 44: 1111–1128.
- Librová H. (2010): Individualizace v environmentální perspektivě: sociologické rámování mění pohled a plodí otázky. (Individualisation from an environmental perspective: how sociological framing alters outlooks and generates questions). *Sociologický časopis – Czech Sociological Review*, 46: 125–152.
- Marsden T. (2004): The quest for ecological modernisation: re-spacing rural development and agri-food studies. *Sociologia Ruralis*, 44: 129–146.
- Rabušic L. (2000): Je česká společnost 'postmaterialistická'? (Is Czech society 'post-materialist?') *Sociologický časopis – Czech Sociological Review*, 36: 3–22.
- Soukup P. (2001): ISSP Životní prostředí (Sociologické texty). (Environment Sociological Papers.) Institute of Sociology of the Academy Sciences of the Czech Republic, Prague.
- Spaargaren G. (2000). Ecological modernization theory and the changing discourse on environment and modernity. In: Spaargaren G., Mol A.P.J., Buttel F.H. (eds.): *Environment and Global Modernity*. Sage Publications, London, pp. 41–72.
- van Koppen C.S.A. (2000): Resource, Arcadia, Lifeworld. Nature concepts in environmental sociology. *Sociologia Ruralis*, 40: 300–318.
- White L. (1967): The historical roots of our ecological crisis. *Science*, 166: 1203–1207.
- World Values Survey. Available at [www.worldvaluessurvey.org](http://www.worldvaluessurvey.org) (accessed September 17, 2010).
- Wynen E. (1996): Research implications of a paradigm shift in agriculture: the case of organic farming. Available at [http://orgprints.org/3053/1/TABLE\\_OF\\_CONTENTS.htm](http://orgprints.org/3053/1/TABLE_OF_CONTENTS.htm) (accessed August 2, 2010).
- Zagata L. (2010): How organic farmers view their own practice: results from the Czech Republic. *Agriculture and Human Values*, 27: 277–290.

Arrived on 7<sup>th</sup> April 2010

---

*Contact address:*

Petr Kment, Lucie Kocmánková, Czech University of Life Sciences Prague, Kamycka 129, 165 21 Prague 6, Czech Republic  
 e-mail: [kment@pef.czu.cz](mailto:kment@pef.czu.cz), [kocmankova@pef.czu.cz](mailto:kocmankova@pef.czu.cz)

---