



## CENTRIFUGAL AND CENTRIPETAL FORCE IN THE SUSTAINABLE DEVELOPMENT OF MONTE NEGRO

M.A. Milenko S. STOJNIĆ

Secondary schools students dormitory, Sremska Mitrovica, R. Serbia

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### SYNOPSIS

The paper deals with the possible impact of centripetal and centrifugal forces on the ecologically sustainable development of Monte Negro. Special emphasis is placed on the state's attitude (authorities, centripetal forces) and the influence of the world's ecological challenges on the ecological development of Monte Negro. The occurring controversies are not specifically "Montenegrin" but merely open issues of modern societies faced with ecological challenges. However, Monte Negro is caught in that whirlpool so it cannot stay indifferent towards ecological planning and action.

### INTRODUCTION

Traditionally physics and natural sciences are concerned with force, and sociology and social sciences are concerned with reason. The human being realized its unity most easily within philosophy and religion although they did not study the "walking" man but the being of reason and faith. If plants and animals, separated in our observations from their own "intellectual" processes, physically (alive) objects, that judgment must not be separated from human body either. A human body is a live object that follows natural laws that are the subject of physics, biology etc. A human society is, among other things, a part of the live nature mass that actively participate in physical and biological processes, movements and changes. Finally, if we use the economic terminology, we can qualify human intellect as fictive capital, i.e. hidden force in bodies that interchangeably acts as a material force and as latent capital.

What determines the quality of development is the relationship between centripetal and centrifugal forces. The first attract, draw in and homogenize material particles and objects into various compounds, while the second work on throwing out, breaking the unity and atomizing wholes. Within their acting by laws, the forces of attraction and those of abduction do not affect equally all the atoms or their already built links and relations, which in turn leads to creating poles. The bipolar world is the simplest because only two poles are formed that are orientated towards one another. The multi-polar world is more complex. Not only are there more poles but the relations

of centripetal forces are more complex, dynamic, controversial and more difficult to predict. That is exactly where the differentiation of nature and society begins. The nature is organized on bipolar bases with the existence of certain exceptions. Human society is multi-polar, and tendentially multi-polar. We were able to make sure of it by analyzing the example of social development.

Eventually, Montenegrins did not vote separation from Federal Republic of Yugoslavia by plebiscite because they are not Serbs, but because Belgrade is not a strong centripetal force any more, or, expressed it symbolically, because Serbs are not SERBS any more. The continuation of the destruction of centripetal forces would create space for strengthening centrifugal forces, which would lead to further atomization of the Republic of Serbia, to digression first of those regions that find a new centripetal force more easily, and then of those that are able to function on the principle state-polis. Sustainable development cannot be realized in the conditions of unbalance of centripetal and centrifugal forces as this unavoidably causes “cocooned small towns” or empires. Qualitatively different forces that are not discussed here are formed in such conditions.

### **CENTRIFUGAL AND CENTRIPETAL FORCES VALUES**

Centripetal forces shape the *power* of attraction and shaping bigger wholes. The structure of that power is made of economy, politics and army. Attraction is realized with organization and management in these areas. On the other hand, centrifugal forces are the expression of *impotence* of attraction because they use their power on throwing the wholes out of their centers. They are made up of natural potentials, culture (whose most important factors are tradition, moral, spirituality, customs, and artificial creations) and population with its habits, needs and expectations.

To have power means to voluntarily give up many comforts that worldly life offers. It exists in the manner of accumulated not-spent things, i.e. accumulation of will, wealth, knowledge about organizing and managing forces. “Centripetal staff” really possesses “divine characteristics” because they are unavailable to ordinary people, they do not share their views of the world, and they do not live their life unless nature makes them to. They are not “divine emissaries” but gods themselves. If God said “Good morning” he would become a man. On the other hand, less important links of global development, resources, or at least access to these stipulated the impotence of periphery. What kinds of links are they? They are:

**a)** distinctly noticed but developmentally less important (*natural links*) – marital, cousinly, racial;

**b)** secondary social links (*cultural links*) – territorial, friendly, national, religious, ideological;

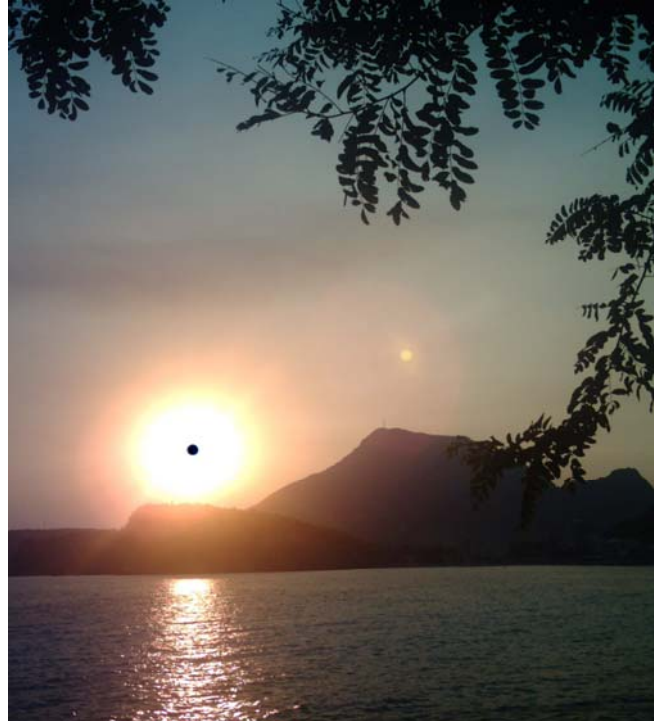
**v)** short-term links calculated to realize one or a small number of goals (*pragmatic links*);

**g)** a complex of unclear links that were created spontaneously in certain condition and which will disappear with its change (*spontaneous links*).

Nature fascinates us with the power of centripetal force. In a *cognitive* sense our observations, research and cognition rely on studies or on imitating of natural forces of attraction. Even the division to natural and social sciences has not freed us from the centripetal forces of nature. We always compare the achievements in social sciences with the nature of showing our discoveries. Simply put, social development is unimaginable outside natural development. The concept of sustainable development as a development harmonized with nature confirms that. We get the impression that social sciences appeared at the periphery of natural sciences where natural sciences were not able to automatically explain social processes. It is not accidental that a sudden increase of interest in social sciences coincides with the industrial development of society. In fact, it coincides with the formation of a new "centripetal core" half opposed to the general natural movement. A new centripetal force (social pole) attracts man's views, but now, in the center, he sees human society and an image of social development instead of totems, Greek gods and an only Christian God. Therefore, our cognition is necessarily initiated by the force of attracting and drawing in of human intellect into the center of showing this power. Analogously, all social development based on rational foundation is realized as an imitation of nature. That is why Hayek emphasizes that human society does not adapt in order to develop but develops in order to adapt. The same author points out: "Intellect is not a guide but the result of cultural evolution and is based more on imitation and less on wisdom and providence."<sup>1</sup> Intellect functions on the principle of a centripetal force.

Centripetal and centrifugal forces shape our taste *emotionally* as well. Thanks to the first, our feelings get into natural (and social) phenomena shaping aesthetics and ethics, while centrifugal forces enable us to understand chaos, non-aesthetics and non-moral. If you look at the two pictures offered one beside another below taken at a distance of only a few kilometers in Sutomore (2007), you can notice the following: **a)** first, the impact of centripetal forces on tourists' attention – *perceptive effect*; although the photographs have different messages, these phenomena attracted the attention of the photo reporter with the power of a centripetal force; so, they were inspirational, they aroused emotions more than other phenomena that were left unrecorded; **b)** second, the impact of centrifugal forces – motives of the pictures – eject various emotions – *emotional effect* - from the center of our psychological balance (indifference); the first photograph arouses feelings of chaos, desire to go away, running away from the phenomenon; the second photograph arouses feelings of admiration because it has centripetal impact on the observer and concentrates on the phenomenon.

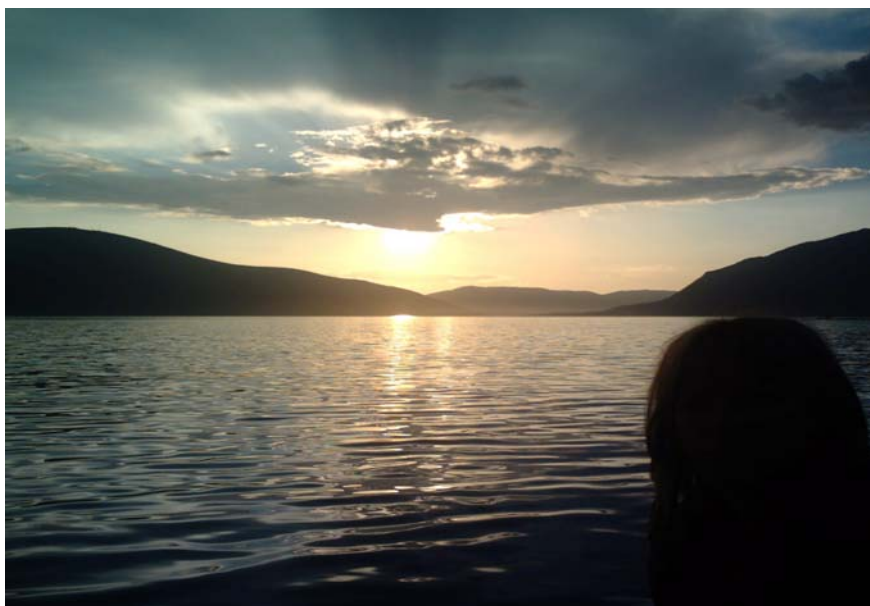
**Pictures 1-2. Horses on a Sutomore beach and sunset near Sutomore**



### **CENTRIPETAL AND CENTRIFUGAL FORCES IN MONTE NEGRO'S CONTEMPORARY DEVELOPMENT**

The relationship between centripetal and centrifugal forces of gravitation in contemporary Monte Negro should be looked for in the relationship between the authorities and the resources. The state Montenegrin politics that is here viewed as a centripetal force – has founded its vision of sustainable development primarily on ecological tourism. The starting point for a sustainable development programmed in such a manner has been found in two supports, in natural-geographic preconditions of a region-state and in the already built tourist infrastructure of this area. *The natural basis* of “ecological tourism” is really rich. On a relatively small area you can see contrasted mountainous-lake and coast ambient decorated with plain oases. Beautiful scenery, warm sea, lakes, mountains. From summer to winter tourism, from Tivat, Budva and Herceg Novi to Zabljak the time span is only several months. However, the tourist offers for fall and spring are not less rich with natural challenges of Montenegrin relief and climate. The lovers of lake holidays can find fun on Skadar during the whole year.

**Picture 3. Sunset near Tivat**



The other complex, *built tourist infrastructure* is a solid foundation for tourist offers. The basic road, telecommunication and electricity nets do not lag behind developed countries much, especially if we wish to speak about ecological tourism. They are developed optimally and the “untouched nature” is not endangered.

### **THE INFLUENCE OF WORLD ECOLOGICAL CHALLENGES ON THE ECOLOGICAL DEVELOPMENT OF MONTENEGRO**

The advocates of the sustainable development concept emphasize that the Planet is a collective house of all its inhabitants. Therefore people do not need to isolate into rigid state or sub state borders or communities. Kapra warns that states and nations are too big to successfully solve the problems of local population, and too small and weak to solve the problems of international dependence. Sustainable development goes beyond the borders of individual and specific needs and it imposes itself as a common need of entire humanity, so not one basin, region, block or state, including super powers, is able to solve this issue alone and separately. The natural potentials of the central part of Srem find themselves in the firm embrace of the planetary ecologically sustainable development. That is why it is very important to monitor global ecological movements.

Ecological challenges have grown so significantly that they demand not only man's new spatial approach to the global and local community, but also disciplinary, content and philosophically new approaches. We do not intend to state here all the ecological issues which are transmitted on the condition of the Montenegrin natural resources, but merely to specify some challenges that have to be counted on, and that

are daily presented by electronic and other media, discussed in world's centers and the consequences of which are suffered by the citizens of the Montenegrin natural resources, but merely to specify some challenges that have to be counted on, and that are daily presented by electronic and other media, discussed in world's centers and the consequences of which are suffered by the citizens of this Planet.

### **DESTRUCTION OF THE PLANETARY NATURE**

"Since 1970 to 1998 we have destroyed 30% of the nature on the planet. At the same time, food and water consumption has doubled, and 50% of running water is permanently destroyed. Carbon dioxide emission into atmosphere has increased 2,5 times... Destruction doubles with each new generation of people. The greatest number of hurricanes and typhoons ever in the planet's history was recorded in 2005 (26) and it is thought that their number and force will grow in future... The reserves of natural drinking water on the planet are estimated to last until 2011." <sup>2</sup> *By playing on only one card – tourism – the sustainable development of Montenegro could soon experience fiasco.* Nature is being destroyed by building roads, and occupying every mountain rock and sea beach. Tourists are not inhabitants but passers-by. An intervention must be made urgently in the rocky areas. They should be planted so as to enable wildlife there, even if the intervention has to be made in the relief. This is a long and painstaking work with much investment.

#### **Water economizing**

"Ahmed Menkush, the advisor of the Libyan President during a conversation with Rasim Ljajic (Minister of national and ethnic communities), pointed out that Libya would be willing to import daily 300.000 m<sup>3</sup> water from Yugoslavia and that it would be a long-term project."<sup>3</sup> At the time, "Политика" warned about the non-economical handling of water resources in Serbia. According to the Agency of the Republic of Serbia SIEPA, 300 of the biggest springs in Serbia have been sold to foreign corporations for life even though they are strategically necessary. It is practice everywhere to sell water as national treasure for use by means of concessions (usually for a period of 20 years), while current ministers sold the springs as permanent property. The price corporations pay in our country (e.g. Coca Cola) for 1 liter of spring water is around 0,60 dinars per liter, but not for scooped but sold liters of water, which leaves room for malversation. Economizing water in Montenegro is an even more dramatic issue. There are preconditions on Zabljak for creating reserves of drinking water. The construction of adequate reservoirs would supply the population of Montenegro with drinking water for at least a certain period of time. However, intensive tourism that is being developed at present requires much more water and more economizing. A short-term solution could be providing technical water for bathing and other needs in hotels and households, and prospectively work on building

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<sup>2</sup> Center for the development of ecological awareness "Извор", [www.well.org.yu](http://www.well.org.yu), 2002.

factories for transforming sea water into drinking water. Unfortunately, drinking water has to be tapped in limited amounts and be under strict control.

### **(Euro) diesel**

“quickly loses the image of slow and dirty fuel suitable only for trucks”, as said by Stewart Padder, analyst of the consulting firm DRI-WEF. “Diesel becoming increasingly more popular is confirmed by the fact that light vehicles using this kind of fuel participated with 40% in the total sale of vehicles in West Europe in the first trimester of this year, compared to 39% last year and less than 10% at the beginning of the nineties of the XX century. The transition to diesel is led by the car industry, counting on the buyers’ economy, at the time when diesel is becoming ecologically acceptable because the legislators of the EU forced the refineries to produce diesel with a lesser content of sulfur. Germany, the biggest market of engine fuel in Europe, a few years ago used diesel with 500 millionth parts of sulfur, and the next year with only 10 millionth parts of sulfur.” New great speed diesel engines use 30% less fuel than those using gasoline and they are cheaper. As regards taxes, diesel is now in advantage 20% compared with gasoline, which is especially significant in the periods of economic crisis, and any governments’ attempt to equalize the taxes for these two kinds of fuel would probably lead to a conflict with the powerful lobby of road transport. The number of cars using diesel in EU has almost doubled since 1990, and as motor poll generally changes every 12 years, the analysts are certain that reorientation from gasoline to diesel will be a great structural change in the following decade... Nevertheless, diesel will be facing respective problems for years on, such as the emission of tiny, possibly carcinogenic particles”.<sup>4</sup> Montenegro does not have oil but the consumption of oil derivatives is realized by means of spatial capacities. The Montenegrin coastline is especially endangered by the emission of vehicle fumes. A relatively narrow belt of land contains traffic arteries and tourists who are on holiday. In near future, the government will have to work on organizing traffic on ecological principles or they must calculate ecological expenditures into their amortization. By means of “pay tolls” they should offer tourists the option to use city transportation or compensate for expensive pay tolls. Thus they would also avoid unnecessary traffic jams that take away the tourists’ time for holiday rest. The situation is similar with coastal traffic. Ecological costs must be calculated into the fares for tourist sailing. The docking destinations must be determined more precisely.

**Picture 4. Sutomore Controversy**



### **Pollution**

According to the experts' findings (USEPA), one liter of spilled waste motor oil pollutes one million liters of water. Each year in Serbia, 106 000 tons of used motor oil from more than 1 500 000 vehicles is replaced. As there is no system for appropriate taking care of and handling waste motor oil in Serbia, almost all the amount is poured into the environment. In developed countries it is recycled because from 4.5 l of waste oil it is possible to get the same amount of new oil as from 190 l raw oil.<sup>5</sup> "In order for Serbia to become a cleaner and greener country, according to the proposition of the National Program for environment protection, in 2010 the investment should reach 1.2% of the gross national product, and in 2015 as much as 2.4%. In his statement to "Novosti" Gjorgje Jovanovic, assistant Minister of ecology, confirms this and at the same time says that it is difficult to make an estimate of the sum needed to solve the problems of environment protection in Serbia. But, as the gross national income grows, the possibility of providing financial funds for this purpose will increase. In 2004 and 2005 0.3% of gross national product of the budget of Serbia was spent on environment protection, and the projection for the period 2006-2009 is 0.4%.<sup>6</sup> The situation in Serbia can be applied to Montenegrin economic conditions; it is even more visible in Montenegro. Mixed with the habits from the period of undeveloped tourism they give the impression of ecologically polluted area. Beside motor oil, food waste, plastic wrapping material and other pollutants will represent a problem, and the companies or the owners of tourist facilities will not be able to solve this by

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<sup>6</sup> Adelita Sherer: "Deeper treasury for Serbia", "Vecernje novosti", 7 July 2007

themselves. The government of the Republic Montenegro will have to take some significant measures.

*Recycling* waste materials has become increasingly current in the world. So, on the Internet we can read information such as this about recycling rubber waste. "By building factories for recycling rubber waste, used up tires and absorbents of oil and oil derivatives "Sorboil" in Serbia, a new industrial branch would appear with a tendency to become a leading branch on the Balkans. The publicly owned company "Ritam" from Panchevo in association with the Russian partner provided the sale of ready products made in Russia even before the realization of the investment, while the disposal of domestic goods in full scope could start immediately after putting the line into production. The demand on foreign markets is greater than the supply so a sale of at least 6 200 tons per year is expected. Such an agreement could be made with a domestic company in Montenegro, possibly with a public services company. Recycling would have economic effects, the tourist postcard would be more beautiful, and local people would be employed.

"*Food*, we use it but there are so many things about it that we never even dreamed of" – says the Center for developing ecological awareness "Izvor" on its website.<sup>7</sup> *Poison in food* – this heading can be often read in newspapers. Newspapers from Sarajevo and Belgrade wrote articles about this issue. Here is what they say: The presence of a carcinogenic substance for weeds extermination nitrofine in the ecologically produced food in Germany is obviously connected with criminal activities – this is the opinion of German officials. The Prime Minister of the province Lower Saska, Sigmar Gabriel (SPD) states that the causes of poisons presence in poultry and eggs and, according to the latest findings in beef and milk, should be looked for in "the criminal milieu..." The Minister of agriculture and consumers Renate Kenast (Greens) stated that, despite initial doubts, nitrofene was not found in regular, "non-ecological" food." About the same case: "As all these products are much more expensive, as the experts say, the readiness to make great profit by means of fraud has also increased. In Germany there are 12 800 eco-agricultural properties. About 8 000 grow food by German directives for bio-agriculture, and the rest by EU directives that are much less strict than the German ones." Or, "Nitrofene allowed in Serbia": "Trying to find out the origin of nitrofene, the experts rejected the possibility that this substance came from Eastern European countries. The association of cereal growers emphasized that in these countries this substance for weeds extermination is prohibited, especially in those that are waiting to be accepted into EU. According to German statements, dangerous nitrofene, however, is still allowed in Serbia from which Germany, to be sure, does not import cereals. But the situation in Bulgaria, Macedonia, Albania and Bosnia is unclear."<sup>8</sup>

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<sup>7</sup> www.well.org.yu, 2002

<sup>8</sup> "Dnevni avaz", p. 22. "Saboteurs put in toxic pesticide in chicken?", AVAZ, Sarajevo, 1 June 2002 and "Nacional", p. 15, "Weeds pesticide in eggs and chickens, baby food also suspicious" NIP Info orfej, Belgrade, 1 June 2002.

### **Genetically modified food**

"No other plant can grow for 12 years on the soil where GM is grown because GM poisons the soil. When natural food is planted there, it mutates into GM under the influence of the toxic components in the soil. Corporations offer GM food – plants that have seeds for two years but in the third year the GM seeds are sterile and you have to buy new plants exactly from the same firm because they patented that food as intellectual property! In a few years cheaper GM food can lead to the disappearance of natural food because of the laws of the market (it is cheaper). That is when the phenomenon "who has water and food resources – rules the world occurs, and those are corporations..." The above mentioned remarks have a poly-dimensional meaning in Montenegro. Hotel management and food are two inseparable components, and advertising and tourism rely on these. As Montenegro does not have much space for agriculture, the importance of opportunities for independent food production is all the more important. In perspective we can even expect the revolution in food production to provide Montenegro with greater possibilities for using its natural space. The experiences of Istra and north Mediterranean are especially valuable. There are thin layers of soil on rocky plateaus where plants are grown.

### **Ecological management.**

"The world has gone a long way in ecological economy. Many mayors boast with financial funds they invest into economy development, and especially into environment protection and employment. For example, Mrs. Kosina, Minister in the city government of Vienna, has recently stated that the city of Vienna alone will invest into economy in 2002 the sum of 1.45 billion euros, and that they have another 175 million euros available for promoting economy and *providing jobs and job conditions*"<sup>9</sup> Although this news would be considered out of date and useless in journalism, a state that wants to represent itself as ecological must bear in mind that man is an important factor of ecologically sustainable development. From the outside it seems that the state has entered the transition of state ownership and liberalization of ownership relations. Even if well distributed, the benefits of selling are not well shifted into new employment possibilities for domestic population. The money arrived but not everyone is capable of making it permanently fruitful. Time could show that the strong dependence of domestic population employment on economy market conditions could have negative consequences on population and, consequently, on ecologically sustainable development. Jobs and job conditions are not at all different from what we in nature call bio-residence. It is dangerous to break the chain of survival in nature because thus we endanger the ecological balance. Maybe because of this we should look at other countries' experiences. Let us present the example of Hiberod, a small town in Denmark. Nobody is unemployed there. The Economy Council founded an Incubator Center offering 200-300 potential economic programs. After selection 50 were chosen that employed all the labor. The authorities in Hiberod play the role of a "setting hen" that gathers and leads its citizens. It monitors them and induces them by means of various measures. The development of these new entrepreneurs is helped

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9 Svetlana Beara: "Every raw material scientifically examined", Politika, 31. May 2002, p. 18.

with favorable loans from 3 to 5 years, and legal, financial and personnel services of the Incubator Center give free advice and services.<sup>10</sup> As in life everything is arranged in accordance with the popular saying "the happy one is never late", possible transitional omissions could be repaired by means of state reforms. "In most of OECD member states a radical reform of their tax systems was realized during the last two decades, and, among other things, in the direction of introducing new tax forms that are ecologically oriented (for example, in Denmark, Finland, Norway, Sweden, Holland). The introduction of new ecological taxes is followed by the reduction of other taxes in the system (taxes of work factors) so as to keep the total tax load constant (demand of fiscal neutrality). Special ecological commissions were formed in these countries made up of independent experts, members of the government and representatives of various groups of interest whose basic task was to examine the possibilities of expanding tax reforms onto ecological taxes. Nordic countries excel in the group of OECD member states – in number as well as in variety - in ecological taxes and compensations (e.g. Denmark /29/, Finland and Norway /22/, Sweden /21/ etc.). There are, though, countries that still lag behind in the application of tax instruments in leading an active ecological policy (for example Spain, Great Britain, Canada, Turkey, Greece, etc.).<sup>11</sup> The health of the nature and state are conditioned by the health of man. More than 70% of the EU inhabitants today seriously suffer depression and that is an indicator of our happiness.<sup>12</sup> Medicine warns us that about 300 harmful chemicals can be found in the body of a "healthy" European!? The greatest danger threatens us from synthetic and poisoned food, irregular nutrition and our own habits (using medicines, acquiring real estates, buying technological toys, insurance and loans) to work life away, not enjoy it.

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<sup>10</sup> Andjelka Chubrilo Kosovac *"Danish incubator for Serbian firms – Employment by creating small firms"*, "Politika", p.13, dated 2. June 2002.

<sup>11</sup> Gordana Ilic-Popov: *"Ecological strategy for sustainable development of local communities in Serbia in 2001"*, Law School, University of Belgrade, Workshop - Belgrade, 18.12.2000., European movement I Serbia

<sup>12</sup> [www.well.org.yu](http://www.well.org.yu), 2002

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