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## **A socio-ecological approach to investigating the environment in Yugoslavia**

"The first victim of war is the truth." On our examination of this more than true assertion of diplomats, politicians, and peace activists we should re-define the conditions of social and Political ecology to: "The first victims of war are humans and their environment."

Conditions of environment in Yugoslavia before the NATO attack of 1999 were quantitatively and qualitatively quite different from those of today, a year after the attack. Up to 1999, the environment in Yugoslavia was relatively better preserved and less threatened than in the other countries of Western, Central, and Eastern Europe<sup>1</sup>. Such conclusions were reached by scientists, biologists, and social ecologists, as well as from investigations by the European Environmental Agency in 1977 and 1978. Meanwhile, those relatively ideal conditions were shattered by the NATO attack on Yugoslavia in 1999. Even before the bombs fell, this militarist adventure had already succeeded in concealing or minimizing the effect of its destructive action and the damage done to the environment by means of its political and economic policies.

In this context, one political crisis provoked an environmental disaster, which then led to yet a second political crisis, the crisis of truth.

It is beyond doubt that the consequences of the bombardment for the environment are showing up not only on the local level in individual regions of Serbia, but even on the global level - on the Balkan peninsula as a whole and in the rest of Europe. The consequences of this environmental and human tragedy have appeared in the form of direct material damage - the destruction of industrial structures, but it is not necessary to worry about so-called "delayed" effects of this ecological catastrophe that will continue to haunt the life and the development of the Balkan peoples in the near future.

Analysis of the environment in Yugoslavia after the bombing needs to be viewed in several regards, or in a view that is, in a word, multidisciplinary. We can discuss not only the degree and quantity of air, water, and land pollution, and the conclusions of radiologists, medical doctors, biologists, physicists, but also many other aspects of the contamination of the environment. Naturally, this does not mean that we should exclude or overlook what these specialists present to the public. Only in the cooperation of these disciplines and sociology, especially social and political ecology, is it possible to find solutions and to effect a clean-up of the environment in its present condition, especially the condition of our environmental conscience and consciousness.

The conditions and problems of the environment can be analysed from the viewpoints of:

1. Politics.

2. Technology and environment<sup>2</sup>
3. The Law
4. Economics
5. Medicine

## **Political Aspect**

NATO's war on Yugoslavia was waged with all available means. The most advanced military technology was employed without any slightest concern for the consequences for the environment and for human existence. Faceless politicians were pushing the buttons. In vain scientists warned that such political willingness to use tools of mass destruction such as DU could bring tragic consequences.

The secret of the condition of the environment of Yugoslavia was carefully concealed for over a year by Western politicians. All warnings of physicists, chemists, and biologists found a deaf ear, which shows that individual Western politicians considered as a subversive activity any engagement for discovery of the truth. One can ask why "The West" so feared the truth. That truth came out when NATO soldiers who had fallen ill could no longer hide their illness from public scrutiny. Only then was the classic policy of ignoring or denial given up: politicians could no longer hide their untruths about the "Gulf Syndrome", the "Balkan Syndrome", and finally the "NATO syndrome". Everything was now clear. This was the illness of an age, the illness of civilization that had resolved to wipe out the basis of its own existence.

The German Minister of Defence Rudolph Scharping even went so far to accuse the media of panic mongering. Other politicians saw the reason for "DU-mania" activism and disinformation by peace movements and the Serbs with the aim of getting KFOR troops stationed in the Serb region of Kosovo to Withdraw and go home. At the same time, the discovery of the increasing numbers of ill soldiers virtually knocked the wind out of the malicious declarations of the politicians. It had become crystal clear that the politicians had no intention of acknowledging their guilt but offered instead the alibi that the real intent of using these weapons was to minimize deaths and to enhance the value of nuclear weaponry and munitions.

The use of DU munitions and the ecological catastrophe thus became a political question unifying politicians, peace activists and scientists of various kinds.

In the context of investigating the ecological catastrophe on Balkan it is possible to confirm several connections between politics and politicians, on the other hand, the use of DU munitions. DU ammunition is exceptionally cheap and therefore extremely profitable. This may confirm the connections between politics and the industrial military complex. Politicians encourage production of radioactive weapons, pointing out the economic values of its production. On the other hand, this possible connection for which evidence is still being collected, points in the direction of political guilt and responsibility. Precisely the question of guilt and responsibility is one which by its nature is especially rooted in the domain of ethics and the ethical. Can humanity call to ethical accounting and responsibility those who did lack sufficient conscience and consciousness when they prepared, ordered and organized the systematic devastation of the environment? Another question is what in fact happened in world political structures to place military and imperial goals highly valued above preservation of the environment? The world does not have enough time to wait until least pang of the "bite of conscience" appears, because it will never happen.

Besides these negative eco-political matters, it is also possible to confirm positive political results in these questions. Those are manifested above all in political pressure by the scientific

community towards state and military structures, which would bring about the ultimate prohibition and destruction of nuclear weapons and DU munitions. As utopian as this seems, it is worth the effort.

Political action is necessary. We must bring pressure to bear through parliamentary and extra-parliamentary struggle, through non-governmental organizations, environmental and peace movements.

Politicians in Yugoslavia must stake out the required measures in concert with all relevant sciences, organizational, legislative, administrative. These are required for preventing further of the environment.

## **Legal Aspect**

The enormous damage stemming from the NATO bombing resulted from the violation of international legal norms and conventions, and above all, violation of the human right to a safe and healthy environment. The protocols of the Geneva Convention expressly forbid "wide-spread, long-term serious damage to the natural environment, destruction of structures necessary to satisfying elementary need of the civil population (agricultural regions, water supply systems ... )."

NATO also violated the RIO Declaration on environment and development, as well as principles contained in "Agenda 21"

### **- Principle 24**

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

### **-Principle 25**

Peace, development and environmental protection are interdependent and indivisible.

Most international agreements regulating defence of the environment and also contain the principle "pollution has no borders". By causing an ecological catastrophe and by bombing Yugoslavia, NATO violated numerous international agreements in regard to protection of the environment, the ozone layer, water supply, biodiversity, not to speak of global climate change, industrial accidents etc.

An especial legal problem is the use and legitimacy of DU munitions. While the US Department of defence explicitly contends that its use of this ammunition is legitimate from the standpoint of international law, international experts firmly hold the opposite view. Thus, Dr Piotr Bein is right to say that "military pronouncements about the use of DU bear the characteristics of information warfare and that they should not to be taken without a grain of salt."<sup>3</sup> The same holds also for the military conception of international conventions on protecting the environment and demonstrates that the legal logic of militarism is exceptionally misguided.

Equally interesting is the presentation of Karen Parker J.D. at the "international conference campaign against Depleted Uranium", Manchester UK 4-5 November 2000. She says: "The laws and customs of war (humanitarian law) includes all treaties governing military operations, weapons and protection of victims of war as well as all customary international law on these subjects"<sup>4</sup>. In other words, in evaluating whether a particular weapon is legal or illegal when there is not a specific treaty, the whole of humanitarian law must be consulted<sup>5</sup>.

There are four rules derived from the whole of humanitarian law regarding weapons:

- 1 - Weapons may only be used in the legal field of battle, defined as legal military targets of the enemy in the war. Weapons may not have an adverse effect off the legal field of battle. (The "territorial" test).
2. - Weapons can only be used for the duration of an armed conflict. A weapon that is used or continues to act after the war is over violates this criteria. (The "temporal" test).
- 3 - Weapons may not be unduly inhumane. (The "humaneness" test).
- 4 - Weapons may not have an unduly negative effect on the natural environment. (The "environmental" test).

DU weaponry fails all four tests. (1) It cannot be "contained" to legal fields of battle and thus fails the territorial test. (2) It continues to act after hostilities are over and thus fails the temporal test. (3) It is inhumane and thus fails the humaneness test. DU is inhumane because of how it can kill -- by cancer, kidney disease, etc. long after the hostilities are over. DU is inhumane because it causes birth (genetic) defects thus effecting children (who may never be a military target) and who are born after the war is over. The use of DU weapons may be characterized as genocidal by burdening gene pools of future generations. (4) DU cannot be used without unduly damaging the natural environment and thus fails the environment test<sup>6,7</sup>.

Depleted Uranium is an illegal weapon. NATO data show that in the territory of FR Yugoslavia about 31.000 rounds were fired. Yugoslav Army records put the number fired at about 50.000 rounds. In Bosnia, from 1994. to 1995. about 10.000 DU rounds were fired. In Iraq and Kuwait about 944.000 rounds were fired during the Gulf War. This shows how much international conventions regulating the use of nuclear and radioactive weaponry are and will be respected in future.

## **Economic Aspect**

In assessing the ecological catastrophe in Yugoslavia we must keep in mind the following economic facts:

1. NATO bombing of the economic industrial system caused huge economic damage. NATO partially damaged or totally destroyed:

- 78 factory complexes;
- 43 energy installations, including refineries, fuel depots, and chemical complexes, none of which had any military purpose;
- 19 agricultural production facilities;
- 5 water distribution systems;
- 17 travel and tourist buildings (hotels, rest camps), involving
- 18 national parks and areas set aside for national parks, and nature reserves.

2. Special economic losses include:

2.1. Economic costs of locating, investigating, cleaning up and demolition of sites and buildings. The damage inflicted by the bombing cannot be measured in purely monetary terms, since the targets struck were features of the natural environment.

- 2.2. Cost of clearing, disposing and storing refuse material after clean-up of destroyed industrial buildings: Particular attention must be paid to financing the clean-up of nuclear waste stemming from DU munitions, plutonium and other nuclear waste "cocktails".
- 2.3. Projected costs to be incurred in the near future from the use of depleted uranium, namely leukaemia and other cancers, as well as respiratory illnesses. Also, costs of treating of those illnesses and investment, costs of studying and treating these illnesses.
- 2.4. The problem of food exports, especially of livestock and agricultural products. One can well imagine that food exports from Yugoslavia will be diminished, especially because of doubts about the biological safety of these foodstuffs. Therefore, damage from lessened cash flow will result in a decrease of agricultural investment.
- 2.5. Decrease in the quality and economic value of natural resources resulting from contamination.
- 2.6. Diminished development potential in many such other branches of the economy as fishing, because contamination of streams, as well as loss of opportunities in tourism, sport and recreation.
- 2.7. Economic costs and damage from unemployment of workers whose factories have been damaged or destroyed.

The environmental damage to the Balkan region and Yugoslavia is immeasurable and cannot be expressed solely in terms of money and other material value. Incalculable loss has been caused alone by the destruction of forest systems, pollution of streams, the threat to and destruction of biodiversity, doubts about individual personal health, and the number of people killed and made sick.

Nature will take long to recover. And even when recovered, its quality and quantity will not be the same as before the NATO bombing. Human aid is again necessary.

The basic principle of modern environmental policy is "polluter pays the costs", and on this basis one can demand, and demand from the polluter compensation, and compensation in full, for all environmental damage caused. Meanwhile, we must also especially keep in mind the import of political and economic reality, and note that those forces which deliberately perpetrated ecocide have no such intention for now, despite the pressure of the world public opinion.

## **The Medical Aspect**

On the level of sociological consideration, it is necessary to keep in mind the human victims as well as the very considerable material damage from DU munitions. Physicists, chemists, and medical specialists are united in one thing, that DU munitions have delayed results. In addition, they are in agreement that we can expect consequences for human health in the near future.

Meanwhile, that does not mean that there are and were no immediate effects. The victims were both soldiers and civilians. Soldiers who participated in the Gulf War were the first victims of DU. Symptoms of their illnesses begin with rapid onset of a weakening of the immune system, leukaemia, and various cancers.

Here is as yet no agreement of medical science and among doctors on whether or not DU munitions cause these illnesses. The causes of such an undefined and extremely rigid position are dictated above all by political motives and are far from the field of medicine.

It is an extremely unproductive thesis that it is better to take our time with the truth or to cover it up. When medicine delays producing the truth, panic increases. The majority of the Serb population of Kosovo and southern Serbia already has that sense of panic. It is created by the recognition of the illness of NATO soldiers and also by discovery of what happened to the civilian

population in Bosnia. In the past five years, about 500 inhabitants of the Bosnian city of Hadzici have died suddenly and unexpectedly.

Hadzici, a Sarajevo suburb, was the location of a military repair centre. In the period from 23 August until 14 September 1995, this city was hit every day by American "Warthogs" [A-10As], firing DU munitions, in which only civilian inhabitants of Hadzici worked. It has been pointed out by Dr Slavica Jankovic, Director of the hospital in Bratunac, where the people of Hadzici had fled after the Dayton Agreement was signed, that the causes of death of the victims were diagnosed as cancer, leukaemia and heart attack. Most of the dead were the civilian workers at the military repair facility, as well as their families, women and children.

Identically, Dr Zoran Stankovic, Chief of Forensic Pathology at the Military Medical Academy in Belgrade, adduced the case of a nine year old girl "who had most probably inhaled uranium particles: her nails fell out, she suffered severe problems of the skin, lungs, and kidneys, and finally epileptic attacks..."

Inasmuch as DU is known to have delayed effects and that it is necessary to wait two or three years until these produce consequences for human health. Therefore, it is necessary to keep in mind the following estimates by medical doctors that there will be a 30% increase in the next ten years of people sickened by cancer, leukaemia, kidney and respiratory disorders (from contaminated regions).

It is impossible to over-emphasize the warning from geneticists of the danger of changes in the genetic code and of consequences for the next generation from DU.

Meanwhile, pollution of the environment in Yugoslavia is being caused not only by DU, but also by destruction of petro-chemical complexes. The consequence of this is increased air pollution immediately after the end of the war. Every medical doctor at Belgrade University Children's Hospital will tell you that between 1999 and 2000 the number of children suffering from respiratory illnesses, pulmonitis, asthma, chronic bronchitis and various allergies has increased by about 100%. According to a senior medical source at Belgrade's military academy hospital, Yugoslavia checked 1,100 of the more than 100,000 soldiers who served in Kosovo, and apparently found no problems. A Yugoslav army doctor who was not part of the team which checked the men asked a question similar to one asked by Gulf War veterans since 1991: "But the question is, what kind of examination did they perform and what specialized equipment did they use<sup>8?</sup>".

Medical science must offer clear conclusions about these problems, which are in direct connection with human health, and must give an answer to the question whether or not a real causal connection exists between the use of DU munitions and destruction of human health. Only by furnishing clear and true answers can medicine escape the danger, imposed by politics, of concealing the truth.

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Victims of DU munitions and of the destruction of the environmental balance in Yugoslavia are found on both sides.

NATO soldiers are victims of lies and fabrications, tossed away after honourable discharge", and filled with suspicion of the governments that sent them to Iraq, Kuwait, Bosnia and Serbia.

Future victims are the yet unborn children who could not know about the reasons for an irrational war. Their hunting questions will become part of our consciousness and our conscience. Science has been abused and has become a slave to the military policy. Therefore a Serb scientist and politician, Dr Dragoljub Jovanovic, was right, thirty years ago, when he warned: *"Let science investigate and make discoveries but social organs should approve of what is to be produced*

*and introduced into use, public opinion should help governments by informing and warning them, experts "councillors for the future" should protect the present from too abrupt changes. Democracy puts governments under control, sociology should hinder science and technique and should inspire politics<sup>9</sup>."*

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<sup>1</sup> FR YUGOSLAVIA REPORT - *Environmental consequences of the NATO Bombing of the Federal Republic of Yugoslavia*, Federal Ministry for development, science and environment, Belgrade, 2000. p.73

<sup>2</sup> Under 'technical-environmental aspect' we understand the results of all measures and qualities of the environment that were created by agencies of the Yugoslav and Serbian states and the independent expert team of the United Nations. For concrete data see the above-noted brochure *Environmental consequences of the NATO Bombing of the Federal Republic of Yugoslavia*.

<sup>3</sup> Dr Piotr Bein, *NATO (Mis)information to the public: Why we must not trust NATO on DU*, "SMISAO", Belgrade, 11-12/2000. p. 124

<sup>4</sup> Customary international law, which includes The Hague law (governing military operations) and Geneva law (governing protected parties in time of war) is binding on all countries. The United States Supreme Court has consistently upheld the binding nature of customary law, including customary humanitarian law. All of international law, including the UN Charter and Statute of the International Court of Justice, reflects the binding nature of customary law.

<sup>5</sup> In 1996 the International Court of Justice, in the Nuclear case, finds that all weapons must be evaluated under the criteria of humanitarian law but does not set out what that criteria is. I wrote my Memorandum to describe that criteria.

<sup>6</sup> In my view this is the key point of divergence from the other presenter on the topic of DU and the law at the CADU conference. I view that the "science" of DU, as presented by, inter alia, Dr. Horst Gunther and Dr. Rosalie Bertel, is sufficient to show the "illegality" of DU under existing norms. The other presenter does not.

<sup>7</sup> *Statement of Karen Parker, J.D.*, International Conference Campaign Against Depleted Uranium, Manchester, UK, 4-5 November 2000.

<sup>8</sup> Dr Piotr Bein, *DU. From The Other Europe*, <http://www.stopnato.org.uk/duwatch/bein/othereurope.html>

<sup>9</sup> Dr Dragojjub Jovanovic, *Vedrina (Rad i stvaranje, verovanje i znanje)*, Izdanje piscevo, Beograd, 1971. p.6