

ENVIRONMENT - RISK FACTORS OF HUMAN HEALTH AND STABILITY – OUR FUTURE

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ABSTRACT

The Conference held in Rio de Janeiro (Brazil, 1992), as a culmination of international efforts of leading countries and governments, endorsed number of declarations, conventions and programs of Agenda 21 and in that way symbolically proclaimed more human entering into 21st Century through improvement of environmental care.

Making step forward in the endorsement of Agenda 21, WHO organized The Second European Conference on Environment and Health in 1994 in Helsinki (Finland), which initiates implementation of European Action Plan for Environment and Health (EHAPE) and provides recommendations for all European countries, which should make their own national plans based on EHAPE by the end of 1997 (Johannesburg Summit – Rio + 10). In Republic of Srpska NEHAP was established 2001.

Spirit of document policy, adapted to basic principles of Rio de Janeiro Declaration, underlined the relationship between environment and sustainable development as the centre of human wellbeing and necessary for more productive and healthier life in harmony with nature.

The goals of World conference for children are related to important factors from human area, which can influence to children's health: to modernize the water and canalizations networks, to take care of water quality. The program of healthy schools has given the practically results in the matter of improvement the children's health. The environment influence on human health in the percentage of 50%.

Analyse of some factors of human area on children's health shows that: the quality of nutrition shows that the proteins and fats do not response to the answers of recommendations of WHO. Account C.H., Ca & iron is insufficient. Among Children of age under 5 year we have under nutrition in 1,9%; slowly growing in 5,1% and acute under nutrition in 3,7%. Mortality of the children younger then 5 years from diarrhea disease is reduced in FRY and for the territory of Kosmet there are no data.

2000 the incidence of all forms of tuberculosis (TB) in the FRY was 36.3; 32.2 in Montenegro, 36.4 in Serbia (per 100.000 inhabitants). The occurrence of extrapulmonary forms of TB in 2000 and previous years confirms that BCG immunization against TB was not performed for in the Law. The coverage of newborns with BCG was 86,7 in 1989. and in 2000. it was 49.4% of liveborns; in 2000. DTP3: 94,9%; OPV3 98,0% and MMR 89,2%.

In YU there are 79,5% of dwellings with water supply (77,7 % in Montenegro, 79,6% in Serbia and in Vojvodina 91,5%). There are 68,2% of dwellings with bathroom (69,7% in Montenegro, 68,1% in Serbia, 76,6% in Vojvodina); and dwellings with central heating: 3,7% in Montenegro, 22,2% in Serbia and in Vojvodina 24,5%.

In FRY exist 169 central water supply systems: the physico-chemical analysis of drinking water-quality indicated that 20% samples of water from 74 water supply systems were contaminated, representing 43,8% of total number of controlled water supply systems. Microbiological hazards were identified in 57,4% of total number of analyzed water supply systems (higher counts of E. coli and Enterobacter).

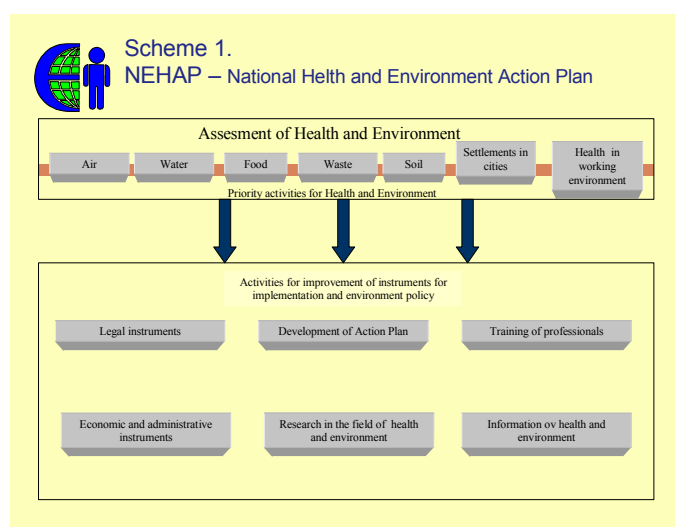
Disposal waste material on hygienic way is in 55-57% households. Inadequate waste is health risk: on wild deponies is 6,4% in the near of house 5,4% or it has been thrown into to river in 1,1% cases.

On the basis of very bad agricultural and safety situation in country and NATO bombing (1999) we can expect the further degradation of human environment and the appearance of some new factors of human life, what will have first negative indications in children's development.

Introduction

Health is a catalyst for peace and a cornerstone for social and economic development.

Second European Conference on Environment and Health in 1994 in Helsinki (Finland), which initiates implementation of European Action Plan for Environment and Health (EHAPE) and provides recommendations for all European countries, which should make their own national plans based on EHAPE by the end of 1997 (Johannesburg Summit – Rio + 10). NEHAP was established 2001. in Republic of Srpska – Scheme 1. (1).



Quality of life and wellbeing depend on quality of environment, which can have 4 levels: environment of survival-control of great epidemics; environment of basic safety-control of epidemics, accidents and malnutrition caused illnesses; environment of efficient output-adequate nutrition; environment stimulating for work-health living styles; comfortable environment-stimulating environment and aesthetic pleasure (1-8).

Aim

In this report the authors will present some environmental problems which exist in our countries.

Something about children', nutrition ...

Care of the children existent, protection and safety development) come to Yugoslavia by ratifying the convention about children's rights from 1990 and in the fundamental regulation, in the constitution of FRY. One of the basic forms is right on healthy and safety human environment, which in the period of growing and development has very important meaning.

The goals of World conference for children are related to important factors from human area, which can influence to children's health: to modernize the water and canalizations networks, to take care of water quality.

The program of healthy schools has given the practically results in the matter of improvement the children's health. The environment influence on human health in the percentage of 50% (2,3).

Analys of some factors of human area on children's health shows that: the quality of nutrition shows that the energy intake iz above recommended values (Table 1.).

Table 1. Energy intake in FRY (2)

Energy intake/year.	1990	1993	1996	1999	2000
kcal/day	3099	2434	2817	2638	2723

Proteins and fats do not response to the answers of recommendations of WHO. Account C.H., Ca & iron is insufficient (Table 2.). Healthy effects we could aspect in older ages.

Table 2. Some Nutrient – Daily intake in FRY (2)

Name	Unit	1990	1993	1996	1999	2000
Proteins	g	30.	29.5	29.8	29.6	30.5
Fats	g	37.3	33.3	35.4	34.1	35.8
CH	g	131.7	140.1	136.7	139.9	135.7
Dietary fiber	g	2.40	2.40	2.50	2.50	2.66
Ca	mg	190.7	168.0	189.6	188.8	184.0
Iron	mg	4.5	4.2	4.4	4.5	4.7
A vit.	IU	1705	1259	1558	1660	1967
Tiamin	mg	0.52	0.51	0.51	0.51	0.54
Riboflavin	ng	0.56	0.47	0.53	0.54	0.57
Niacin	mgEq	5.1	4.7	4.8	4.8	5.2
C vit.	mg	34.0	27.5	32.8	30.0	39.3

Among Children of age under 5 year we have under nutrition in 1,9%; slowly growing in 5,1% and acute under nutrition in 3,7%. Mortality of the children younger then 5 years from diarrhea disease is reduced in FRY and for the territory of Kosovo & Metohia there are no data.

The number of children without parents care is increasing during the war period on the area of FRY (From 1991 –1999). 97,5% of the children goes to school. The rest would be without good knowledge (1-4).

Water supply, ... Drinking -water quality... in FRY

In FRY there are 79,5% of dwellings with water supply (77,7 % in Montenegro, 79,6% in Serbia and in Vojvodina 91,5%). There are 68,2% of dwellings with bathroom (69,7% in Montenegro, 68,1% in Serbia, 76,6% in Vojvodina); and dwellings with central heating: 3,7% in Montenegro, 22,2% in Serbia and in Vojvodina 24,5%.

Table 3. present water supply data, according multiple indicator cluster survey, 2000. in percentage (5.).

Table 3: Water supply data, according MICS, 2000. (in %)

Territory	Main water supply system								Total	Total better going water supply system	No of persons
	House water supply system	Yard water supply system	Public well	Norton pump well	Protected well	Unprotected well	Other	Do not known			
FRY without K & M	83.8	2.8	0.6	4.4	6.8	0.7	0.5	0.3	100	98.4	18791
Rep. of M. Negro	85.1	6.0	1.0	1.1	3.0	0.4	2.2	1,2	100	96.1	1227
Rep . of. Serbia without K&M	83.7	2.6	0.6	4.6	7.0	0.8	0.4	0.3	100	98.6	17564
Centr. Serbia	81.3	2.6	0.6	4.4	9.6	1.0	0.3	0.2	100	98.5	12892
Voivodina	90.4	2.5	0.7	5.2	0.1	0.0	0.7	0.5	100	98.8	4671
Urban area	97.5	1.0	0.1	0.4	0.4	0.0	0.3	0.3	100	99.4	10077
Rural area	68.0	4.8	1.3	9.1	14.1	1.6	0.8	0.3	100	97.2	8714

In FRY exist 169 central water supply systems: the physico-chemical analysis of drinking water-quality indicated that 20% samples of water from 74 water supply systems were contaminated, representing 43,8% of total number of controlled water supply systems.

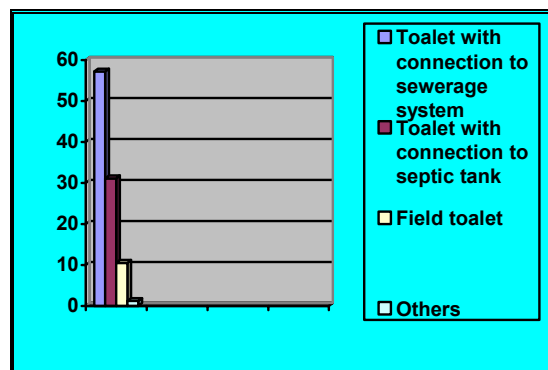
Microbiological hazards were identified in 57,4% of total number of analyzed water supply systems (higher counts of E. coli and Enterobacter).

Disposal waste materials

In 1991. 65,8% of people in Yugoslavia (without Kosovo and Metohia) had on hygienic way solved the disposition of waste materials. In 1996. there were 77% and in 2000 88,3% of them, who were connected to a sewerage system and 31,1% to a septic tank. The percentage of the people in Kosovo and Metohia who have access to sanitary supplies in 1996 was 41,3% (2) (graph.3).

Inadequate waste is health risk: on wild deponies is 6,4% in the near of house 5,4% or it has been thrown into to river in 1,1% cases.

Graphicon 3: Waste Materials Disposal in FRY, without Kosovo & Metohija, 2000.



The efforts in the future must be directed on small groups of people using hygienic way of waste materials disposal. It has been confirmed that many of septic tanks have been properly or improperly located, what makes special problems, if household are using the drinking water from well (higher risk of drinking water pollution).

In many municipalities the postpone of waste material is one very significant problem. In research of MICS 2000. it has been found that in 54,7% of households waste materials is being postponed by some public service, 25,3% of households are postponing their own waste materials on public deponie, 6,4% is laying it down on wild deponies, while the rest of them is burning it (6,3%), or burying (0,3%), postponing near the house (5,4%) or through it in the river (1,1%) (5) (Table 4.). In table No. 4. it has been shaven the percentage of households on their own way of waste materials postponing.

Table 4. The percentage of households on their own way of waste materials postponing, MICS 2000.

Territory	Postponed by public service	Postponed on public depony	Laying it down on wild deponies	Burning	Burying	Postponing near the house	Through it in the river	Others	Household (No)
FRY without K & M	54.7	25.3	6.4	6.3	0.3	5.4	1.1	0.5	5730
Rep. of M. Negro	41.7	38.1	6.2	4.9	0.1	0.9	5.9	2.2	350
Rep. of Serbia without K&M	55.6	24.4	6.4	6.4	0.3	5.7	0.8	0.4	5380
Centr. Serbia	49.7	25.4	8.2	8.2	0.3	6.8	1.1	0.3	3849
Voivodina	70.4	22.1	1.9	1.9	0.2	3.0	0.1	0.4	1531
Urban area	79.6	18.3	0.5	0.3	0.0	0.9	0.1	0.3	3270
Rural area	21.9	34.4	14.2	14.3	0.6	11.3	2.5	0.7	2460

Air quality

According to the sources from, Institute of Public Health from the Novi Sad, Belgrade, and Banja Luka air pollution – concentration of different matter (soot, SO₂, NO₂, summer type smog) is much lower nowadays than before 1990.(1,4,6,7).

Tuberculosis, immunization,

Nowadays, tuberculosis is the great health problem all around the world. 2000 the incidence of all forms of tuberculosis (TB) in the FRY was 36.3; 32.2 in Montenegro, 36.4 in Serbia (per 100.000 inhabitants)

The coverage of newborns with BCG was 86,7 in 1989. and in 2000. it was 49.4% of liveborns; in 2000. (table 5, 6); DTP3: 94,9%; OPV3 98,0% and MMR 89,2%(2-3) (tables 7-9, Graph. 2.).

Table 5. BCG vaccination of newborns-number and percentage of vaccinated related to the number of live-borns

Success of vaccination % per live borns, FRY													
1969	1979	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
61.8	78.3	86.7	78.6	81.8	76.7	67.9	70.8	71.0	83.9	64.1	68.3	54.2	49.4

Table 6. The coverage of newborns with BCG in some parts of FRY

Territory/year	1990	1991	1992	1993	1994	1995	1996	1997
Republic of Monte	100	98.3	92.0	90.0	96.2	94.9	93.5	90.9
Republic of Serbia	77.2	79.8	75.6	66.4	69.1		83.2	62.2
Central Serbia	93.4	89.3	93.3	82.1	89.7		112.7	91.4
Voivodina	83.1	88.1	56.8	62.6	71.7		60.7	59.1
Kosovo & Metohia	54.9	64.7	59.7	45.1	36.6		51.9	25.1

Successful of newborns BCG in FRY (%) is present on graphicon 2.

Graph. 2. BCG Successful of Newborns in FRY (%), 2000.

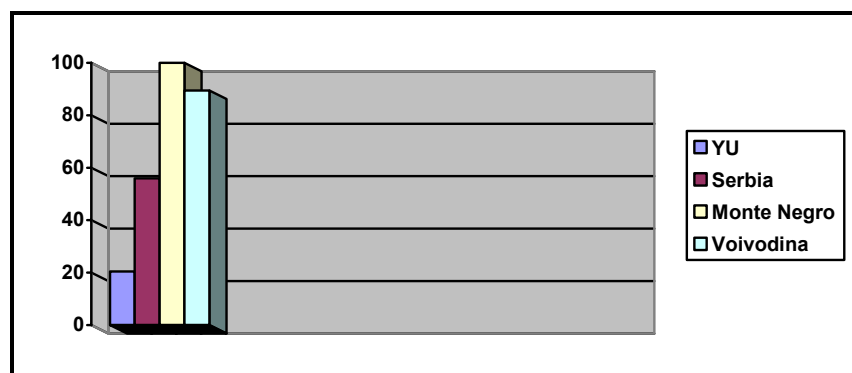


Table 7. The coverage of newborns with DPT3

Territory/year	1990	1991	1992	1993	1994	1995	1996	1997
FRY	78.6	81.8	76.7	67.9	70.8	70.9	83.9	64.1
Republic of Monte	100	98.3	92.0	90.0	96.2	94.9	93.5	90.9
Republic of Serbia	77.2	79.8	75.6	66.4	69.1		83.2	62.2
Central Serbia	93.4	89.3	93.3	82.1	89.7		112.7	91.4
Voivodina	83.1	88.1	56.8	62.6	71.7		60.7	59.1
Kosovo & Metohia	54.9	64.7	59.7	45.1	36.6		51.9	25.1

Table 8. The coverage of newborns with OPV3

Territory/year	1990	1991	1992	1993	1994	1995	1996	1997
FRY	84.0	78.9	84.2	84.6	85.0	89.0	91.2	94.0
Republic of Monte	82.9	79.5	78.9	79.9	87.1	91.2	91.2	94.5
Republic of Serbia	84.1	78.9	84.6	84.9	84.9	95.8	91.2	94.0
Central Serbia	97.0	96.7	95.8	96.0	96.7	97.1	97.8	97.5
Voivodina	94.6	94.7	95.2	95.9	94.3	94.8	95.9	96.2
Kosovo & Metohia	64.8	55.7	70.1	71.5	79.3	78.0	81.7	89.3

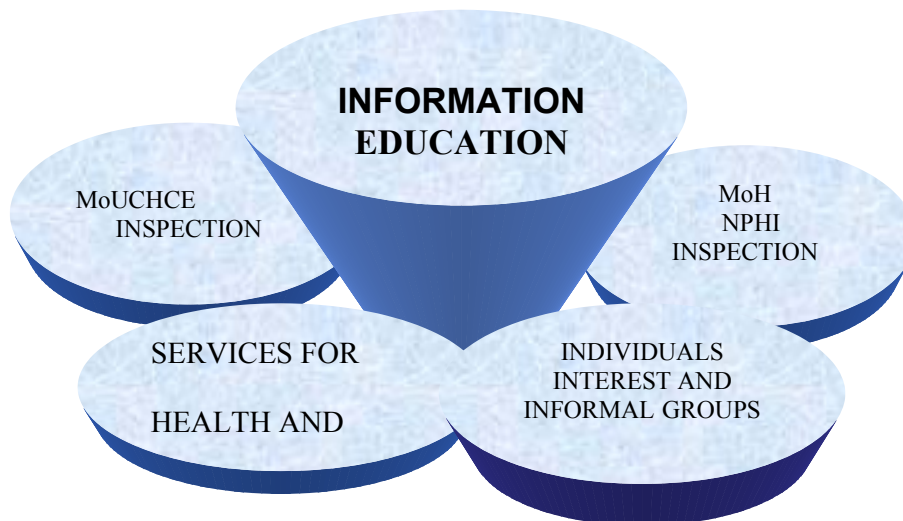
Table 9. The coverage of newborns with MMR

Territory/year	1990	1991	1992	1993	1994	1995	1996	1997
FRY	80.7	80.5	84.4	82.5	84.4	89.5	91.1	94.0
Republic of Monte	82.1	81.2	79.0	78.8	85.6	89.6	97.0	95.6
Republic of Serbia	80.6	80.5	84.8	82.8	84.3	89.5	90.5	93.9
Central Serbia	97.0	97.4	94.0	95.5	95.3	97.3	97.9	97.3
Voivodina	94.2	95.5	95.3	95.6	94.7	95.6	95.9	96.4
Kosovo & Metohia	58.7	58.5	72.8	69.6	79.0	79.8	80.6	89.3

Education, knowledge, information ...

If we take into account that there is multisectoral responsibility for health of each individual and that information on environment conditions and its impact on health, has an important place, than we can see the logic in the Scheme 2 (1).

Scheme 2. Functional links and responsibilities related to the provision of information and health education of the public (1)



Priorities:

Mobilization of the existing core of professional and scientific experts for application of feasible development, with rapid education methods we will reeducate the personnel, organize professional meetings, scientific symposia and introduce, by education system reform, new subjects and disciplines, etc(1).

CONCLUSION

Quality of life and wellbeing depend on quality of environment. Environment is the most significant factor directly or indirectly influencing health status. This element affects health with about 50% while all the others participate with 15-20%.

On the basis of very bad economic, agricultural and safety situation in countrys ^awars and NATO bombing (1999)^o we can expect the further degradation of human environment and the appearance of some new factors of human life, what will have first negative indications in children’s development and later in others.

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