

# Translation from Croatian to English

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UNIVERSITY OF RIJEKA  
FACULTY OF HUMANITIES AND SOCIAL SCIENCES  
DEPARTMENT OF ENGLISH

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**TRANSLATION FROM CROATIAN INTO ENGLISH**

Submitted in partial fulfillment of the requirements for the B.A. in English Language and  
Literature and Pedagogy at the University of Rijeka

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## **ABSTRACT**

The thesis includes introduction of the texts which are to be translated and the translator's analysis and comments on the problems arising during the translation. The central part of the thesis encloses three articles of different genres and their translations. Each translation is followed by the commentary and analysis consisting of 11 points of analysis taken from the Genre Analysis, a method from the postgraduates studies of Specialized English Translation and Interpreting at the Budapest University of Technology and Economy. The analysis consists of: genre, source, audience, purpose of writing, authenticity, level of formality, text style, cohesion, sentence patterns, layout and terminology. Appointed problems will be elaborated and possible solutions for each will be provided. The final analysis and commentary are followed by the conclusion, i.e. the summary of the process of translation and the bibliography, i.e. the dictionaries and the sources used during the whole process.

Key words: analysis, translation, genre, commentary

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## **1. INTRODUCTION**

This thesis demonstrates the process of translation of three texts of different topics and levels of formality. The first text elaborates on the topic of the forced migrations and the status of the forced migrants, the second one on the adult education and the lifelong learning and the third on the environment pollution. Each text was translated, analysed and the problems which have occurred during the translation were allocated and the approach to the final solution was elaborated on. The Genre Analysis method was a crucial guide in the translation process and made the translation from Croatian (source language) into English (target language) consistent. Because the translation process is complex and each translator's approach to the problems arising during the translation unique, this thesis points out the problems I've encountered during the translation of the scientific articles and demonstrates my approach towards their resolution.

## 2. SOURCE TEXT I.

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### PRISILNE MIGRACIJE USLIJED KLIMATSKIH PROMJENA

#### Sažetak

Posljedice klimatskih promjena postaju sve izraženije uzrokujući različite okolišne, ali i društvene promjene. Jedna od glavnih i globalno najuočljivijih promjena je intenzifikacija prisilnih migracija izazvanih klimatskim promjenama. Takvi prisilni migranti, zbog međunarodne legislative koja nema ugrađene kriterije za reguliranje statusa izbjeglica nastalih uslijed okolišnih razloga, uključujući i klimatske promjene, ne mogu ostvariti navedeni status i predstavljaju problem čitave međunarodne zajednice dovodeći do značajnih socijalnih, ekonomskih, političkih i kulturnih promjena u globalnom okviru.

**Ključne riječi:** klimatske promjene, klimatske izbjeglice, prisilne migracije

#### 1. Uvod

U suvremeno doba klimatske promjene postaju jedan od ključnih faktora svjetskih migracija. Brojne zemlje, posebice one slabije razvijene, zbog posljedica klimatskih promjena doživjet će prisilno iseljavanje dijela ili čitavog stanovništva. Ti će iseljenici biti tzv. klimatske izbjeglice i postat će globalni problem, a njegovo rješavanje globalna odgovornost (Shamsuddoha i Chowdhury, 2009). Izraelski geograf Nurit Kliot (2004) tvrdi da su masovne migracije uzrokovane klimatskim promjenama već postale važna tema međunarodne

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zajednice, a oksfordski profesor Norman Myers (2005) tvrdi da bi do 2050. godine na svijetu moglo biti 200 milijuna klimatskih izbjeglica.

## **2. Klimatske promjene kao uzrok prisilne migracije**

Osnovni su potencijalni uzroci klimatski uvjetovanih migracija prema Međuvladinom odboru za klimatske promjene (Intergovernmental Panel on Climate Change, 2007b):

- porast učestalosti i intenziteta vremenskih nepogoda poput tropskih ciklona, obilnih padalina i poplava;
- porast učestalosti suša i nestašica vode, te
- porast morske razine.

Osim šteta na imovini koje mogu uzrokovati učestalije i intenzivnije vremenske nepogode, one se kroz smanjenje plodnosti tla i dostupnosti pitke vode odražavaju i na poljoprivrednu proizvodnju kao glavni izvor hrane u većini pogođenih zemalja (Drabo i Mbaye, 2011; Shamsuddoha i Chowdhury, 2009). Osim toga, nestašica pitke vode mogla bi do 2050-ih pogoditi više od milijardu ljudi (Intergovernmental Panel on Climate Change, 2007a). Porast morske razine smanjit će površinu mnogih država s niskim obalnim zonama, a mnoge otočne zemlje potpuno će nestati s karte svijeta što znači neminovno preseljavanje njihovih stanovnika. Drugi težak problem je intruzija morske vode u kopnene vodonosnike što će smanjiti dostupnost pitke vode i mogućnosti poljoprivredne obrade zemlje (Biondić i dr., 2000; Shamsuddoha i Chowdhury, 2009). S obzirom na to da je porast morske razine dugoročan proces on ostavlja veće mogućnosti za prilagodbu koja će ponajprije ovisiti o socioekonomskom stupnju razvoja stanovništva pogođenih područja (McLeman, 2008).

Zbog geografskih uvjeta, slabih financijskih mogućnosti i gospodarske ovisnosti o poljoprivredi koja je izrazito osjetljiva na klimatske promjene, najviše će trpjeti slabije razvijene zemlje i najsiromašniji građani (Shamsuddoha i Chowdhury, 2009). Države s velikim obalnim nizinama i niske otočne države (s nadmorskom visinom manjom od 10 metara) najosjetljivije su na porast morske razine, a mnoge od njih su upravo slabije razvijene zemlje sa stalno rastućom populacijom i demografskim pritiskom u priobalnim zonama. Naime, iako ti dijelovi kopna obuhvaćaju samo 2,2 % svjetskog kopna, na njima trenutno živi 10,5 % svjetske populacije, većina u Aziji, a gotovo polovica u najslabije razvijenim zemljama (Kolmannskog, 2008; McLeman, 2008). Do kraja ovog stoljeća more će preplaviti desetke tisuća otoka nižih od jednog metra (poput Maldiva, Tuvalua i Kiribatija) na kojima

živi ukupno 146 milijuna ljudi koji će ostati bez vlastite države i biti prisiljeni migrirati (Piguet, 2008). Slabije razvijene zemlje naći će se tako pod istodobnim pritiskom: rapidnog demografskog rasta, potencijalne ugroženosti proizvodnje hrane, materijalnih gubitaka izazvanih sve češćim vremenskim nepogodama, ionako slabih financijskih mogućnosti, te smanjenja teritorija, prvenstveno onih dijelova koji su najgušće naseljeni (Drabo i Mbaye, 2011), što će potaknuti brojne iseljenike na migracije u potrazi za opstankom.

### **3. Karakterizacija klimatski uvjetovanih migracija**

Migracije potaknute posljedicama klimatskih promjena mogu se diferencirati na unutarnje i vanjske ili prekogranične (Anwer, 2012). Unutarnje migracije obuhvaćaju preseljenja iz pogođenih u manje pogođene dijelove države, i najčešće su posljedica pomoći izbjeglicama od strane rodbine i prijatelja koji žive u manje pogođenim dijelovima države. Često su takve unutarnje migracije usmjerene prema gradovima (McLeman, 2008) koji su također pogođeni posljedicama klimatskih promjena što često samo produljuje agoniju i na kraju dovodi do prekograničnih migracija. Kad su svi dijelovi teritorija pogođeni posljedicama klimatskih promjena (npr. male otočne države), ili su uvjeti opstanka nepodnošljivi, izbjeglice migriraju izvan vlastite države.

Međunarodne klimatske izbjeglice najvećim će dijelom potjecati iz slabo razvijenih zemalja svijeta koje se zbog socioekonomskih uvjeta nisu mogle adekvatno prilagoditi klimatskim promjenama i ublažiti njihove posljedice (McLeman, 2008). Takve migracije iz primarno financijskih, a potom i kulturoloških, razloga većinom će biti usmjerene prema razvijenijim zemljama u kojima će izbjeglice očekivati uvjete za opstanak, a najviše će izbjeglica pritijecati u razvijenije zemlje pogođenih regija (McLeman, 2008): iz Oceanije i južne Azije prema Australiji i Novom Zelandu, iz Supsaharske Afrike prema Mediteranu i Europi, te s Kariba i Srednje Amerike prema Angloamerici. Te zemlje morat će se pripremiti prihvatiti i osigurati smještaj i životne uvjete za desetke tisuća klimatskih izbjeglica, međutim veliko pitanje ostaje jesu li razvijene zemlje spremne prihvatiti i udomiti te izbjeglice.



#### 4. Pravna nepriznatost klimatskih izbjeglica

Veliki problem predstavlja još uvijek nepostojanje međunarodnog priznanja izbjeglica koje migriraju zbog klimatskih promjena. Prema pravnom okviru Visokog povjerenika Ujedinjenih naroda za izbjeglice (UNHCR)<sup>1</sup> i Međunarodne organizacije za migracije (IOM)<sup>2</sup> pojmovi klimatskih ili okolišnih izbjeglica nemaju pravni temelj. Naime, izbjeglice su prema Ženevskoj konvenciji o statusu izbjeglica iz 1951. godine definirane kao osobe (1) izvan svoje nacionalne zemlje ili mjesta stanovanja koje (2) su izvrgnute progonu zbog rasnih, religijskih, političkih ili etničkih razloga, pripadnosti određenoj društvenoj skupini ili političkom stavu, i koje (3) ne mogu očekivati zaštitu od vlastite države zbog maltretiranja i strahova ili se ne mogu u nju vratiti zbog straha od progona (Docherty i Giannini, 2009; Shamsuddoha i Chowdhury, 2009). Klimatske izbjeglice ne zadovoljavaju te kriterije da bi se mogle smatrati izbjeglicama iz dva osnovna razloga: prvo, jer klimatske izbjeglice većinom migriraju unutar državnih granica zbog čega ne zadovoljavaju prvi kriterij (prekogranični bijeg), i drugo, čak i one koje migriraju preko državnih granica, ne zadovoljavaju drugi kriterij (progon) (McLeman, 2008).

Migranti koji su prisiljeni napustiti mjesto stanovanja zbog različitih okolišnih razloga, koji uključuju i klimatske promjene, u međunarodnom pravu su definirani kao raseljene osobe unutar države (engl. internally displaced persons) jer po definiciji ostaju unutar vlastite države. Stoga se očekuje da ih zaštiti njihova vlastita država (Shamsuddoha i Chowdhury, 2009). Dakle, u međunarodnom pravu ne postoji kategorija osoba koje su prisiljene zbog različitih okolišnih (pa stoga i klimatskih) razloga napustiti državu u kojoj stanuju. Prema tome, stanovnike malih otočnih država koje će more do kraja stoljeća preplaviti, iako su prisiljeni migrirati iz vlastite države iz razloga preživljavanja, Ujedinjeni narodi ne smatraju izbjeglicama i stoga ne mogu pružiti životne uvjete koje ostvaruju imigranti koji zadovoljavaju kriterije za izbjeglice.

Docherty i Giannini (2009) predlažu definiciju klimatskih izbjeglica kao osoba prisiljenih migrirati izvan granica vlastite države zbog klimatskih promjena i njihovih posljedica. Shamsuddoha i Chowdhury (2009) pak traže da se uvede pravna kategorija klimatskih (i okolišnih) izbjeglica te da se one moraju tretirati kao trajni imigranti u državi koja ih prihvati. Do danas to pitanje, međutim, nije riješeno.

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<sup>1</sup> *The Office of the United Nations High Commissioner for Refugees*

<sup>2</sup> *International Organization for Migration*

## **5. Međunarodna nastojanja ublažavanja uzroka klimatski induciranih migracija**

Međunarodna zajednica ima dvije mogućnosti: otvoriti imigracijske kanale kroz pravno prepoznavanje okolišnih, pa tako i klimatskih, izbjeglica, ili pomoći ranjivijim državama u ublažavanju posljedica klimatskih promjena i njihovom prilagođavanju (Piguet, 2008). Klimatske izbjeglice često ne predstavljaju poželjne imigrante zbog svojih kulturoloških, obrazovnih i ekonomskih karakteristika, stoga je prihvatnim državama u cilju pomoći ranjivim državama u ublažavanju i prilagođavanju klimatskim promjenama jer će to u budućnosti doprinijeti smanjenju potrebe za prisilnom emigracijom. Izuzev sprječavanja izbjegličkih kriza, razlog je također i stabilnost tržišta budući da slabije razvijene zemlje izvoze sirovine i poljoprivredne proizvode važne razvijenim zemljama (McLeman, 2008). Prema Sternu (2007) financijski troškovi razvijenih zemalja za prevenciju klimatske katastrofe u slabije razvijenim zemljama, koja bi sigurno uzrokovala prisilne migracijske tokove prema razvijenim zemljama, prihvatljivi su i umjereni u odnosu na rizik nedjelovanja.

Prema Kolmannskog (2008) prilagodba najizloženijih i najranjivijih država na klimatske promjene i njihove posljedice mora biti međunarodni zadatak, a kao glavni razlog navodi veću odgovornost razvijenih zemalja za takve promjene. Anwer (2012) izlaže primjer kako Bangladeš, iako izrazito malo pridonosi emisiji ugljika, plaća vrlo visoku cijenu za posljedice globalne emisije ugljika. Naime, uslijed povećanja učestalosti tajfuna, poplava, intruzije morske vode u vodonosnik te erozije riječnih terasa milijuni ljudi izloženi su materijalnim i financijskim gubicima. Āurková i dr. (2012) pak za primjer daje Tuvalu koji se smatra jednom od najslabije razvijenih zemalja svijeta s minimalnim udjelom u globalnoj emisiji ugljika, a prema pojedinim hidroklimatskim modelima stanovnici Tuvalua će, najprije zbog nedostatka pitke vode, a potom i poplavlivanja morem, do 2050. godine ostati bez vlastite zemlje i biti prisiljeni emigrirati.

## **6. Zaključak**

Emigranti za čije su napuštanje vlastitog doma krive posljedice klimatskih promjena prema postojećim međunarodnim regulacijama ne zadovoljavaju kriterije za status izbjeglica zbog čega ne mogu ostvariti imigracijska prava unatoč činjenici da se njihova migracija realno može kategorizirati kao prisilna. Budući da će broj klimatskih izbjeglica u skoroj budućnosti rasti, Ujedinjeni narodi morat će uložiti napore u rješavanje pitanja njihovih migracija koje će imati utjecaja na socijalne, ekonomske, političke i kulturne promjene u čitavom svijetu, a

prvenstveno u pogođenim regijama gdje će razvijenije zemlje biti temeljna meta prisilnih imigracijskih tokova uzrokovanih posljedicama klimatskih promjena.

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## **2.1. TRANSLATION OF THE SOURCE TEXT I.**

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### **FORCED MIGRATIONS CAUSED BY CLIMATE CHANGES**

#### **Abstract**

The consequences of the climate changes are becoming more noticeable by causing different environmental and social changes. One of the main and globally most noticeable shifts is the intensification of the forced migrations caused by the climate changes. The forced migrants cannot achieve the status of environmental or climate refugees because there is no integrated criteria for the regulation of such status in the international legislation. On that account, they impose a problem to the international community and could cause significant social, economic, political and cultural changes on the global scale.

**Key words:** climate changes, climate refugees, forced migrations

#### **1. Introduction**

In the modern time, the climate changes are becoming one of the crucial factors of international migrations. Many countries, especially less developed ones, will experience forced migration of one part or entire population because of the consequence of the climate changes. Shamsuddoha and Chowdhury (2009) claim these migrants will be classified as climate refugees and will become both, a global issue and a responsibility of the whole community. Israeli geographer Nurit Kliot (2004) claims that the mass migrations caused by the climate changes have already become important topic among the international community,

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while Oxford's professor Norman Myers (2005) claims there might be 200 million of climate refugees in the world by 2050.

## **2. Climate changes as a cause of the forced migration**

According to the Intergovernmental Panel on Climate Change, 2007b, fundamentally potential causes of climate-induced migrations are:

- the increase of frequency and intensity of natural disasters such as tropical cyclones, profuse rainfalls and flooding,
- the increase of droughts and water shortages and
- the sea level rise.

Drabo and Mbaye (2011) and Shamsuddoga and Chowdhury (2009) claim not only can more frequent and intensive natural disasters cause asset damage, but they also reflect themselves through reduction of soil fertility and aggravated accessibility to drinking water on the agricultural production which is the main food source in the most of the affected countries. Besides that, a shortage of drinking water might affect more than billion people by the 2050s (Intergovernmental Panel on Climate Change, 2007a). The rise of the sea water level will decrease the surface of many countries with low coastal areas, while many island countries will disappear from the world map entirely. That will lead to the inevitable migration of their inhabitants. The next difficult problem is an intrusion of sea water into inland aquifers which will aggravate accessibility to drinking water and a possibility of agricultural cultivation (Biondić and others, 2000; Shamsuddoha and Chowdhury, 2009). McLeman (2008) claims the rise of the sea level is a long-term process which leaves larger possibilities for the adaptation, which will primarily depend upon the socio-economical level of the development of the populations in the affected areas (McLeman, 2008).

Shamsuddoha and Chowdhury (2009) claim the ones who will suffer the most are less developed countries and the poorest citizens because of the geographical conditions, poor financial power and the economy dependence on the agriculture which is extremely sensitive to climate changes. In the threat of the sea level rise are the countries with large coastal lowlands and low island countries (with altitude lower than 10 meters) and many of them are, precisely, less developed countries with permanently growing population and the demographic pressure in the coastal areas. In other words, despite the fact these parts of the land enclose only 2,2% of the world land, they are currently populated with 10,5 % of the

world population. The majority of that percentage are inhabiting Asia and almost half live in the least developed countries (Kolmannskog, 2008; McLeman, 2008). Until the end of this century, the sea will flood tens of thousands of islands lower than one meter (like Maldives, Tuvalu and Kiribati) where live the total of 146 millions of people who will lose home and be forced to migrate (Piguet, 2008). The less developed countries will find themselves under the concurrent pressure: rapid demographic increase, potential endangerment of food production and material losses caused by more frequent natural disasters. Drabo and Mbaye (2011) claim the poor financial possibilities of those countries and a territory reduction of, primarily, the most densely populated areas will prompt numerous migrants to migrate in search for survival.

### **3. The characterization of the climate- induced migrations**

Anwer (2012) divides the migrations caused by the consequences of the climate changes on internal and outer or cross-border migrations. Internal migrations enclose relocations from affected to less affected areas of a country and occur, most frequently, as the consequence of help provided to those migrants by relatives and friends who live in less affected areas of a country. McLeman (2008) declares such internal migrations are frequently directed towards cities which are affected by the consequences of the climate changes as well, which only prolongs the agony and ultimately leads to cross-border migrations. When all areas of the territory are affected by the consequences of the climate changes (for example, small island countries) or the conditions of subsistence are unbearable, the refugees abandon such countries.

International climate refugees will mostly come from the less developed countries which were not able to adequately adapt to the consequences of the climate changes because of their socio-economical circumstances. Those migrations, occurring primarily out of financial and cultural reasons, will be mostly directed towards more developed countries, from which the refugees will expect conditions for the subsistence. McLeman (2008) claims most refugees will migrate in more developed countries of the affected regions: from Oceania and South Asia towards Australia and New Zealand, from Sub-Saharan Africa towards Mediterranean and Europe and from the Caribbean and South America towards Anglo-America. These countries will have to prepare to accept tens of thousands of climate refugees and provide them with accommodation and life conditions. However, the question remains: are the developed countries ready to accept and neuter those refugees?

#### **4. The legal nonrecognition of climate refugees**

The problem is the still non-existent international recognition of refugees who migrate because of the climate changes. According to the legal framework of the United Nations High Commissioner for Refugees (UNHCR)<sup>3</sup> and the International Organization for Migration (IOM)<sup>4</sup> the concepts of climate or environmental refugees have no legal basis in the law. According to the 1951 Refugee convention held at Geneva, refugees are defined as people (1) outside of their country of nationality or habitual residence who are (2) exposed to state-led persecution based on race, religion, political or ethnic reasons, affiliation to certain social group or political attitude and who (3) cannot rely on protection from their own country because of the mistreatment and fears or cannot return in fear of persecution (Docherty and Giannini, 2009; Shamsuddoha and Chowdhury, 2009). McLeman (2008) explains the climate refugees do not satisfy the refugee criteria out of two main reasons: first, the climate refugees mostly migrate within state borders and by doing so, violate the first criterion (over-border escape) and the second, even those who migrate outside of state borders do not satisfy the second criterion (persecution).

In international law, the migrants who are forced to abandon the place of their inhabitation because of the different environmental reasons, which include climate changes, are defined as internally displaced persons because, according to the definition, they reside in their country and it is expected they will be protected (Shamsuddoha and Chowdhury, 2009). In the international law, the category for people forced to leave their country because of the different environmental (and climate) circumstances does not exist. The United Nations do not consider the inhabitants of the small island countries refugees, despite the fact their countries will be flooded by the end of the century and they will be forced to leave in order to survive. Therefore, the United Nations cannot provide with the life conditions enjoyed by the migrants who satisfy the refugees criteria.

Docherty and Giannini (2009) suggest the climate refugees are defined as people forced to migrate out of the borders of their countries because of the climate changes and their consequences. Shamsuddoha and Chowdhury (2009) require the introduction of the legal category for the climate (and environmental) refugees and claim they should be treated as

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<sup>3</sup> *The Office of the United Nations High Commissioner for Refugees*

<sup>4</sup> *International Organization for Migration*



permanent migrants in the country which accepts them. However, that question remains unresolved to this day.

### **5. International endeavor in reduction of the consequences of the climate induced migrations**

Pigué (2008) claims the international community has two possibilities: to open migration channels by legally recognizing environmental and climate refugees or to help more vulnerable countries in reduction of the climate change consequences and to help them adapt. Frequently, the climate refugees do not present desirable migrants because of their cultural, educational and economical characteristics. The goal of the countries which accept these migrants is to help more vulnerable countries alleviate the climate changes and help them adapt. McLeman (2008) considers this will not only to reduce a necessity for forced migrations, but also, prevent refugee crises and maintain the market stability, given that the less developed countries export raw materials and agricultural products important to the developed countries. According to Stern (2007), the climate catastrophes in less developed countries, which would cause the forced migration flows towards the developed countries, could be prevented by the funding from the developed countries. Such financial expenses would be acceptable and moderate in contrast to what would happen in the case the developed countries do nothing.

According to Kolmannskog (2008), the developed countries hold larger responsibility for the climate changes and their consequences, so it should be the international endeavor to help the most exposed and most vulnerable countries adapt. Anwer (2012) appoints Bangladesh as an example of the country which contributes very little to the CO<sub>2</sub> emission, but is paying a price for the consequences of the global emission of the CO<sub>2</sub>. Because of the increase of frequency of typhoons, floods, sea water intrusions in aquifer and erosion of river terraces, millions of people are exposed to material and financial losses. Durkova and others (2012) appoint Tuvalu, which is considered as one of the least developed countries with minimal share in the global CO<sub>2</sub> emission. According to some hydro-climatic models, the inhabitants of Tuvalu will lose their own land and be forced to migrate by 2050 because of the drinking water shortages and sea floods.

## 6. Conclusion

According to the existing international regulations, the migrants, who had to leave their home due to the consequences of the climate changes, cannot achieve the migration rights despite the fact their migration can be categorized as a forced one. Given that the number of the climate refugees in the near future will grow, the United Nations will have to invest efforts in the resolution of the questions of their migration. This will have an impact on social, economical, political and cultural changes in the entire world and primarily, in affected regions where more developed countries will be the main target of the forced migration flows caused by the consequences of the climate change.

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## 2.2. COMMENTARY AND ANALYSIS

### Text I: Forced migrations caused by climate changes

1. **Genre:** scientific, environmental

2. **Source:**

Hrčak, Portal znanstvenih časopisa Republike Hrvatske

Author: Neven Tandarić

[http://hrcak.srce.hr/index.php?show=clanak&id\\_clanak\\_jezik=182821](http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=182821)

3. **Audience:** The target audience are ecologists, demographers, scientific community and anyone interested in the environment circumstances, the predictions and the migration flows which are happening and will continue to happen as a result of the human behaviour.

4. **Purpose of writing:** The purpose of this article is to give an overview of the climate changes happening because of the human activities and to give the predictions how will the climate changes affect people and their abiding place. It also introduces the term "climate refugees" and elaborates on the difficulties the climate refugees endure because the legal nonrecognition.

5. **Authenticity:** This article written by Neven Tandarić and was published in the journal: *Holon* (2014) 4 (1), 89-96.

6. **Level of formality:** semi-formal

7. **Text style:** informative

8. **Cohesion:** Lexical cohesion was achieved by the repetition of the key words: climate refugees, environmental refugees, climate changes, forced migrations, developed countries, undeveloped countries.

**9. Sentence patterns:** The text is written in the present and future tense as the author describes the present environmental circumstances and provides the predictions what will be the consequences of the climate changes.

**10. Layout:** The text starts with the name of the author and the title of the article in bold letters. After the title, the author provides the abstract and key words from the article and proceeds with 6 paragraphs, each with a heading in bold letters. At the end of the article, the author presents us with the literature, i.e. the sources he used.

**11. terminology of the subject:** the specialist terms in the text are: forced migrations, climate refugees, environmental refugees, climate induced migrations etc.

The problems I have encountered in this text were mostly of morphological and syntactic nature. The first problematic term was *klimatske izbjeglice*. After reading the article by Shamsuddoha and Chowdhury "*Climate Change Induced Forced Migrants: In Need of Dignified Recognition Under a New Protocol*", the official term occurring in the text is *climate refugees*. Another term "*okolišne izbjeglice*" was introduced later in the text. *Okolišne izbjeglice* is not a synonym of *klimatskih izbjeglica* as my first assumption was, but it carries a different meaning. I have decided to explore both terms and the definition of *okolišne izbjeglice* or *environmental refugees* according to The International Organization for Migration is: "Environmental migrants are persons or groups of persons who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad.". The term *climate refugees* is a sub-category of *environmental refugees* which is an umbrella term enclosing a number of different types of refugees. By visiting the web pages of the Office of

the United Nations High Commissioner for Refugees and International Organization for Migration, the term which occurs in the documents for *okolišne izbjeglice* is *environmental refugees*.

The next issue was how to translate *klimatski uvjetovane migracije* from the text under the sub-title "Karakterizacija klimatski uvjetovanih migracija". My first intention was to translate it as *migrations caused by climate* or *climate-caused migrations*, but both options, despite the fact they carry the intended meaning, did not seem appropriate for the level of the formality of the text. In the end, I opted for the direct translation from Croatian to English which I tend to avoid. The final translation *climate induced migrations* seemed as appropriate solution in accordance with the rest of the text.

Another difficulty was how to translate *prihvatnim državama* from the sentence: "...stoga je prihvatnim državama u cilju pomoći ranjivim državama u ublažavanju i prilagođavanju klimatskim promjenama jer će to u budućnosti doprinijeti smanjenju potrebe za prisilnom emigracijom." The term refers to those countries which accept migrants and because it is frequently used term, I have decided to look it up in official documents related to the topic of refugees but all I could find is *countries accepting migrants*. Bujas (2011) lists one of the possible translation for the verb "prihvatiti" the words welcome and I had considered translating *prihvatne države welcoming countries*, but such translation would require further elaboration so I have decided to keep it simple and translate the sentence as following: "*The goal of the countries which accept migrants is to help more vulnerable countries in the alleviation of climate changes and their adaptation.*"

The title of the article was somehow problematic. At first, I thought of the literal translation of *Prisilne migracije uslijed klimatskih promjena* as *Forced migrations in the middle of climate change*, but the meaning taken from the article is that not only the forced migrations are happening in the time of the climate changes, but are also caused by them. Therefore, the final solution is: *Forced migrations caused by climate changes.*" This problem points out a frequent occurrence during the translation and demonstrates that the translator has to analyze the whole text and focus, primarily, on the meaning.

The occurring problem in the whole text were the parts related to the legal system, i.e. the text under the sub-title "Pravna nepriznatost klimatskih izbjeglica." Legal terms cannot be translated by the usage of sheer logic but have to be in accordance to the international legal system. *Pravni okvir Visokog povjerenika Ujedinjenih naroda za izbjeglice* was the first problematic expression. The fact the term is very formal, I translated it with the help of the official page of the United Nations High Commissioner for Refugees as *the legal framework of the United Nations High Commissioner for Refugees*. Following the translation of the legal terms, another issue was *legalna nepriznatost*. The exact definition of *nepriznatost* is "the act or an instance of refusing to acknowledge formally a government or the independence of a country" (freedictionary.com) and belong to the government, politics and diplomacy area. Bujas (2011) lists terms such as: nonrecognition, nonacknowledgement, nonadmission. I opted for the translation *legal nonrecognition*.

The exact definition of refugees as "*osobe (1) izvan svoje nacionalne zemlje ili mjesta stanovanja koje (2) su izvrgnute progonu zbog rasnih, religijskih, političkih ili etničkih razloga, pripadnosti određenoj društvenoj skupini ili političkom stavu, i koje (3) ne mogu očekivati zaštitu od vlastite države zbog maltretiranja i strahova ili se ne mogu u nju vratiti*

*zbog straha od progona*", I had to search the Geneva Refugee convention and the exact translation is *"people (1) outside of their country of nationality or habitual residence who are (2) exposed to state-led persecution based on race, religion, political or ethnic reasons, affiliation to certain social group or political attitude and who (3) cannot rely on protection from their own country because of the mistreatment and fears or cannot return in fear of persecution."*

The introductory sequence *U suvremeno doba...* does not seem problematic at first, but I was still challenged when opting for the right translation. I thought of translating it *Today...*, because I understood *suvremeno doba* refers to the present time as now, but it occurred to me it refers to the present time accompanied with the modern lifestyle and the kind of life we lead so *today* does not convey the meaning *suvremeno doba* carries. Final solution is *In the modern time*, because it refers to both the ongoing time and the circumstances we face today, i.e. our lifestyle.

The sentence: *"Ti će iseljenici biti tzv. klimatske izbjeglice i postat će globalni problem, a njegovo rješavanje globalna odgovornost"* was quite a challenging sentence. Some of the possibilities were: *"These migrants will be so-called climate refugees and will become a global issue and the resolution of that issue will be a global responsibility"* and *" These migrants will be so-called climate refugees and will become a problem for the whole community who will be faced with the responsibility of solving it."* Both options seemed too complicated, so I have decided for the following solution: *"These migrants will be classified as climate refugees and will become both, a global issue and a responsibility of the whole international community."*



Another problematic sequence was the translation of "*...i stoga ne mogu pružiti životne uvjete koje ostvaruju imigranti koji zadovoljavaju kriterije za izbjeglice.*" The literal translation would be "... and therefore cannot offer life conditions achieved by migrants who satisfy the refugees criteria", but I opted for a different approach. My solution is: "*Therefore, the United Nations cannot provide with the life conditions enjoyed by the migrants who satisfy the refugees criteria.*"

The rest of the issues were mostly connected with the sentence order and length. Some of the examples are: "*Osim šteta na imovini koje mogu uzrokovati učestalije i intenzivnije vremenske nepogode, one se kroz smanjenje plodnosti tla i dostupnosti pitke vode odražavaju i na poljoprivrednu proizvodnju kao glavni izvor hrane u većini pogođenih zemalja*", which I modified and translated: "*Drabo and Mbaye (2011) and Shamsuddoga and Chowdhury (2009) claim not only can more frequent and intensive natural disasters cause asset damage, but they also reflect themselves through reduction of soil fertility and aggravated accessibility to drinking water on the agricultural production which is the main food source in the most of the affected countries.*"

Another similar example is the sentence: "*Emigranti za čije su napuštanje vlastitog doma krive posljedice klimatskih promjena prema postojećim međunarodnim regulacijama ne zadovoljavaju kriterije za status izbjeglica zbog čega ne mogu ostvariti imigracijska prava unatoč činjenici da se njihova migracija realno može kategorizirati kao prisilna.*" The literal translation was not an option because English language requires different structure of the sentence, so I have decided to modify the sentence and translate it as following: "*According to the existing international regulations, the migrants, who had to leave their home due to the*

*consequences of the climate changes, cannot achieve the migration rights despite the fact their migration can be categorized as a forced one."*

Another example of the problematic sentence was: *"Prema Kolmannskog (2008) prilagodba najizloženijih i najranjivijih država na klimatske promjene i njihove posljedice mora biti međunarodni zadatak, a kao glavni razlog navodi veću odgovornost razvijenih zemalja za takve promjene."* Finally, I tried to change the word order which made the translation easier, so gradually, I came up with the following translation: *"According to Kolmannskog (2008), the developed countries hold larger responsibility for the climate changes and their consequences, so it should be the international endeavor to help the most exposed and most vulnerable countries adapt."*

The intended meaning of the sentence: *"Slabije razvijene zemlje naći će se tako pod istodobnim pritiskom: rapidnog demografskog rasta, potencijalne ugroženosti proizvodnje hrane, materijalnih gubitaka izazvanih sve češćim vremenskim nepogodama, ionako slabih financijskih mogućnosti, te smanjenja teritorija, prvenstveno onih dijelova koji su najgušće naseljeni (Drabo i Mbaye, 2011), što će potaknuti brojne iseljenike na migracije u potrazi za opstankom"* was impossible to achieve by translating it in its original form. I have decided to separate the unit and make both, the form and the meaning easier to comprehend. The final translation is: *"The less developed countries will find themselves under the concurrent pressure: rapid demographic increase, potential endangerment of food production and material losses caused by more frequent natural disasters. Drabo and Mbaye (2011) claim the poor financial possibilities of those countries and a territory reduction of, primarily, the most densely populated areas will prompt numerous migrants to migrate in search for survival."*

**OBRAZOVANJE ODRASLIH U KONTEKSTU  
CJELOŽIVOTNOG UČENJA**

**UČENJE ZA SVE**

**Vera ŠUTALO – Zagreb\***

*Sažetak. Konceptija cjeloživotnog učenja za sve ustalila se kao nova društvena, politička i filozofska percepcija cjelovitog pristupa obrazovanju koje se više ne poistovjećuje sa školom. Prihvatanje konceptije cjeloživotnog učenja, uslijedilo je kao odgovor obrazovnog sustava na stalne promjene koje se sve većom brzinom događaju u svim područjima.*

*Ključne riječi: cjeloživotno učenje, obrazovanje, e-učenje.*

U društvu u kojem će se svaki pojedinac tijekom radnog vijeka morati baviti s više poslova cjeloživotno učenje postaje neophodno. Naglašavajući da su ljudi "najveće bogatstvo Europe i da bi stoga trebali biti u središtu politike", sustavi obrazovanja i učenja moraju se prilagoditi novoj stvarnosti 21. stoljeća te je "cjeloživotno učenje glavno oruđe za razvoj građanstva, društvene povezanosti i zapošljivosti" (zaključci zasjedanja predsjedništva Europskog vijeća u Lisabonu i Santa Marii de Feira, 2000. godine).

Konceptija cjeloživotnog učenja za sve ustalila se kao nova društvena, politička i filozofska percepcija cjelovitog pristupa obrazovanju koje se više ne poistovjećuje sa školom (Bide 2006).

Kako bi savladali te izazove i nadoknadili slab napredak tijekom 90-tih godina 20.stoljeća, međunarodna zajednica se okupila na Svjetskom forumu za obrazovanje u Dakru (26. – 28. travnja 2000. godine) i odredila šest glavnih ciljeva koji bi se trebali postići do 2015. godine.

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\* Mr.sc. Vera Šutalo, Ministarstvo znanosti, obrazovanja i športa, Trg hrvatskih velikana 6, 10000 Zagreb

UNESCO je postao odgovoran za praćenje i koordinaciju s drugim institucijama, agencijama koje su uključene u taj projekt (UNESCO 1998).

Ciljevi koji vode prema obrazovanju za sve, u okviru cjeloživotnog učenja su sljedeći:

1. Širenje i unapređenje sveobuhvatnog odgoja i obrazovanja u ranom djetinjstvu, osobito za najranjiviju i najsiromašnju djecu
2. Do 2015. godine sva djeca, a osobito djevojčice, djeca koja žive u teškim okolnostima ili su pripadnici manjinskih skupina trebaju dobiti pristup i dovršiti kvalitetno osnovnoškolsko obrazovanje
3. Obrazovne potrebe svih mladih ljudi i odraslih osoba trebaju biti ispunjene kroz pravedan pristup odgovarajućem znanju i programima za prekvalifikaciju
4. Smanjiti nepismenost odraslih, osobito žena, za 50% do 2015. godine te postizanje pravednog pristupa osnovnom (basic education) i trajnom obrazovanju za sve odrasle osobe
5. Ukloniti rodnu neravnopravnost u osnovnoškolskom i srednjoškolskom obrazovanju do 2005. godine i postizanje rodne ravnopravnosti u obrazovanju do 2015., pri čemu se treba fokusirati da se djevojčicama osigura potpun i jednak pristup i postizanje uspjeha u kvalitetnom osnovnom obrazovanju
6. Unaprijediti sve aspekte kvalitete obrazovanja i omogućiti svima postizanje stručnosti kako bi svi postigli reorganizirane i mjerljive rezultate učenja, osobito kad je riječ o pismenosti, korištenju brojeva i osnovnim životnim vještinama.\*

Pravo na obrazovanje jedno je od ljudskih prava zajamčenih Općom deklaracijom o ljudskim pravima iz 1948. godine.

Obrazovanje mora biti besplatno, barem osnovno ili temeljno obrazovanje.

“Postizanje univerzalnog osnovnoškolskog obrazovanja je najvažniji cilj u Milenijskim razvojnim ciljevima” (Millennium Development Goals).

“Obrazovanje mora biti usmjereno na potpuni razvoj ličnosti te poticanje poštovanja ljudskih prava i temeljnih sloboda. Ono će poticati razumijevanje, toleranciju i prijateljstvo među nacijama, rasnim ili vjerskim skupinama te će unaprjeđivati aktivnosti Ujedinjenih naroda usmjerene na održavanje mira” (Opća deklaracija o ljudskim pravima, članci 26/1 i 16/2).

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\* Binde, Jerome: Prema društvima znanja  
UNESCO-ovo svjetsko izvješće, Zagreb, Educa, 2006.

Godine 2002. nepismeno je bilo oko 800 milijuna odraslih osoba, što je oko 18% odrasle svjetske populacije. Oko 70 % njih je živjelo u devet zemalja, među kojima se ističu: Indija, (33%), Kina (11%), Bangladeš (7%) i Pakistan (6%).

Godine 2005. nepismeno je bilo 785 milijuna odraslih osoba ili 17% odrasle svjetske populacije, od čega najviše djevojaka i žena. U Europi na jednog nepismenog muškarca dolaze dvije nepismene žene. Napredak je postignut i postotak nepismenih u svijetu opada, stopa pismenosti mladih ljudi porasla je što je svakako ohrabrujuće.

U mnogim zemljama u razvoju razni običaji otežavaju ženama pristup obrazovanju ili zaposlenju.

Iako je rodna ravnopravnost u različitim stupnjevima prisutna u gotovo svim društvima, njezin oblik ovisi o stupnju razvijenosti pojedine zemlje.

Da bi žene imale jednaku mogućnost izbora u pogledu znanja, žene trebaju imati i jednak pristup općem obrazovanju koje je usklađeno s novim tehnologijama (Leinert Novosel 1999).

Rodna ravnopravnost jedan je od cjelovitih izazova u nastanku društva znanja, koja ne mogu biti istinska društva raspodjele znanja ukoliko se isključuje polovica svjetske populacije žena.

Četvrta svjetska konferencija o ženama u organizaciji UN-a (Peking, 1995.) imala je presudnu ulogu u podizanju svijesti o ulozi znanja i participaciji žena u svjetskoj ekonomiji znanja.

Koncepcija cjeloživotnog učenja pruža ženama priliku za poboljšavanjem vlastite situacije. U današnjem društvu znanja Internet, neformalni oblici učenja, virtualna nastava učinkovitije će dovoditi znanje na sva mjesta gdje ljudi žive.

Časopis The Economist ističe kako se čini da danas u mnogim zemljama “djevojčice već prije škole i do završetka srednje škole nadmašuju dječake”.

Od 22 milijuna, ističe se u časopisu, novootvorenih radnih mjesta, osamdesetih godina u Americi, dvije trećine su zauzele žene.

Nema sumnje da žene često pružaju drugačiji pogled na stvari i dvostruko bržim tempom stvaraju nove tvrtke nego što to čine muškarci.

UNESCO-ove statistike pokazuju da se postotak pismenih žena povećava u gotovo svim zemljama za koje su podaci dostupni.

U Hrvatskoj podaci o nezaposlenim, a obrazovanim osobama iz 2005. godine ukazuju da s višom ili visokom školom ima 8.474 osobe nezaposlene, od toga 5.383 su žene (Državni zavod za zaštitu obitelji, materinstva i mladeži 2000).\*

Sustavom financiranja obrazovanja odraslih u kontekstu cjeloživotnog učenja pružit će se jednake mogućnosti i ženama, starijima i mlađima za dodatno obrazovanje i usavršavanje.

Nasuprot tome, Hrvatska je također suočena s niskom i neodgovarajućom obrazovnom razinom i strukturom odraslog stanovništva, što je vidljivo iz popisa stanovništva iz 2001. godine.

Podatak o 2,86% odraslih bez ikakve škole ne zabrinjava, ali da je 15,76% odraslih bez završene osnovne škole, podatak je nad kojim se treba zamisliti.

U jednom životnom vijeku prepoznajemo nekoliko obrazovnih razdoblja u okviru cjeloživotnog učenja.

*Prvo obrazovanje (pre-primary education)*, odnosno obrazovanje u ranom djetinjstvu tradicionalno se prepušta obitelji. I danas je obrazovanje za djecu mlađu od tri godine vezano uz neformalno okruženje. Posljednjih godina javlja se veće zanimanje uz ovu dobnu skupinu. Predškolsko obrazovanje ima sve veće značenje i predstavlja sastavni dio šireg skupa društvenih pitanja, uključujući obiteljske politike i odnos prema ženama. Odgoj i obrazovanje u ranom djetinjstvu važni su za daljnji djetetov razvoj. U mnogim zemljama predškolsko obrazovanje urbana je pojava i vezana je uglavnom za oba zaposlena roditelja. Neke zemlje imaju visoke stope upisa u odgojno-obrazovne programe za rano djetinjstvo od 25%-75%.

#### *Osnovno obrazovanje (basic education)*

U većini obrazovnih sustava osnovno obrazovanje djeca dobivaju uglavnom tijekom obveznog obrazovanja. Osnovne škole će sigurno i u budućnosti biti jedan od glavnih nositelja osnovnog obrazovanja jer je sigurno da osnovna škola treba biti i odgovorna za tu temeljnu misiju pismenosti.

Završena osnovna škola je neizostavni formalni uvjet za uključivanje u srednje obrazovanje, stoga je Ministarstvo znanosti, obrazovanja i športa prihvatilo inicijativu UN-ove Rezolucije 54. Glavne skupštine “Desetljeće pismenosti 2003.-2012.” projektom “Za Hrvatsku pismenost – put do poželjne budućnosti” kojim se iz državnog proračuna osiguravaju troškovi za

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\* Hrvatski zavod za zapošljavanje

osnovno obrazovanje odraslih (Ministarstvo znanosti, obrazovanja i športa 2005). U prve dvije godine provedbe 1209 osoba se uključilo u osnovno obrazovanje.

Prihvatanje koncepcije cjeloživotnog učenja uslijedilo je kao odgovor obrazovnog sektora na stalne promjene koje se većom brzinom događaju u svim područjima: znanosti, tehnologije, kulturi i komunikaciji.

Obrazovni sustavi nisu skloni radikalnim promjenama tako da je sektor javnog obrazovanja i dalje najzastupljeniji u osnovnoškolskom i srednjoškolskom obrazovanju.

Učilišta i druge ustanove imaju veću ulogu u obrazovanju odraslih i postaju kulturna sjedišta lokalnih zajednica.

Dio privatnog sektora u osnovnoškolskom obrazovanju još je uvijek nedovoljan, nešto je veći u srednjem obrazovanju, a još je veći u visokom obrazovanju i obrazovanju odraslih.

*Ideja povratnog obrazovanja (recurrent education)* pojavila se nakon obrazovanja odraslih i onoga što se svojedobno nazivalo “narodnim” obrazovanjem.

Početkom 70-tih godina 20. stoljeća *cjeloživotno obrazovanje (lifelong education)* se percipira kao dio šire vizije u obrazovanju svakog pojedinca.

Cjeloživotno učenje je postalo jednim od nositelja samoizgradnje, jedan od preduvjeta razvoja koji se shvaća kao sposobnost prilagodbe i autonomije te kao sredstvo za osiguranje daljnjeg širenja i protoka znanja diljem svijeta.

Cjeloživotno obrazovanje se ne odnosi samo na vrijeme provedeno na poslu, već zahvaća i doba prije, tijekom i poslije radnog vijeka svakog pojedinca koji brine o svom razvoju, koji se manifestira u tri razine kao:

- osobni i kulturni razvoj – značenje koje osoba pridaje svom životu
- društveni razvoj – mjesto koje osoba ima u svojoj zajednici, zajednički život u društvu
- profesionalni razvoj – zadovoljstvo s poslom i materijalna sigurnost.

Naše društvo prepoznaje potrebu trajnog obrazovanja, jer to je jedan od bitnih aspekata cjeloživotnog obrazovanja u kojem se obuhvaćaju sva mjesta i oblici učenja, uključujući i samoobrazovanje.

Međutim, ovaj opći trend učenja otvoren je i kritikama, neki stručnjaci smatraju da postoji opasnost da bi ljudi neposredno mogli biti oblikovani prema gospodarskim zahtjevima i očekivanjima poslodavaca. To može imati neželjeni učinak i potaknuti na sve veći gubitak granica između radnog mjesta i mjesta učenja, između odnosa i rada.

Da bismo izbjegli te zamke, građani moraju imati mogućnost izražavanja svojih težnji i želja vezanih uz obrazovanje.

"Ljudski razvoj mora biti popraćen slobodom izražavanja, a obrazovanja trebaju pomoći pojedincu u postizanju te slobode izražavanja", ističe Delors.

Kako bi svima zajamčili pravo na cjeloživotno obrazovanje, Jacques Delors je predložio uvođenje "prava na vrijeme za učenje" (study-time entitlement), obrazovnog vaučera na temelju kojeg svaka osoba dobiva "kapital" od određenog broja godina za obrazovanje. Koristiti bi ga mogli ovisno o vlastitom izboru, karijeri i školskom iskustvu.

Osobe koje formalni sustav napuštaju od 15 do 18 godine tako bi dobile novu priliku.

Čak i u najbogatijim zemljama četvrtina populacije nema vještine i sposobnosti potrebne za potpuno sudjelovanje u društvu i poslu. To se obično pripisuje inertnosti obrazovnih sustava, a s druge strane imamo napredak u komunikacijskim i informacijskim tehnologijama, što dodatno naglašava relativnu spornost obrazovnih ustanova u prihvaćanju stvarnog svijeta.

Školske ustanove bi mogle izgubiti svoje prednosti ukoliko se ne suoče s diskrepancijom između svojih načelnih ciljeva i društvene stvarnosti u kojoj se nalaze.

Nove tehnologije mijenjaju lice obrazovanja preko razvoja e-učenja (e-learning). Taj pojam pokriva cijeli niz primjena tehnologija, od korištenja računala u nastavi do pojave online obrazovnih programa na daljinu.

*Virtualna* nastava omogućava osobno praćenje i fleksibilnost u organizaciji učenja te veću autonomiju u usvajanju znanja.

*Internet* postaje najistaknutiji medij samoobrazovanja. On nudi alate za neformalno učenje i omogućava stvaranje virtualnih razreda.

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**Literatura:**

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### 3.1. TRANSLATION OF SOURCE TEXT II.

UDC: 374.7:004.85.087

Professional paper

**Adult education in the context of lifelong learning**

**Learning for all**

**Vera ŠUTALO- Zagreb\***

*Abstract. The concept of the lifelong learning for all has been established as the new social, political and philosophical perception of the comprehensive approach to the education which is no longer being associated with school. The acceptance of the concept of the lifelong learning followed as an answer of the education system on the constant changes happening in all areas at growing speed.*

*Key words: lifelong learning, education, e-learning.*

In the society, in which every individual will have to change a number of jobs during work life, the lifelong learning is becoming essential. The emphasis that people are the biggest treasure of Europe, and therefore, should be the center of the politics, the education and learning systems have to adapt to the new reality of the 21st century. The lifelong learning is the main tool for the development of the citizenship, social connectivity and employability (the presidency conclusions of Lisbon and Santa Maria de Feira European council, 2000).

The conception of the lifelong learning for all has established itself as the new social, political and philosophical perception of the comprehensive approach to the education which is no longer associated with school (Bide, 2006).

In order to overcome these challenges and to make up for the weak progress during the 90s of the 20th century, the international community had gathered on the National's forum for education in Dakar (26 - 28th April 2000) and set six main goals which should be achieved by 2015.

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\* Mr.sc. Vera Šutalo, the Ministry of Science, Education and Sports.

UNESCO has become responsible for the tracking and the coordination with other institutions and agencies engaged in that project. (UNESCO 1998)

The goals which lead towards the education for all in the frame of the lifelong learning are:

1. The dissemination and improvement of all-encompassing upbringing and education in early childhood, especially for the most vulnerable and poorest children
2. All children, especially girls, the children who live in difficult circumstances or are members of the minority groups should get an access to quality primary education until 2015 and be given the opportunity to finish it.
3. The educational needs of young people and adults should be met by fair approach to their corresponding knowledge and by the retraining programs
4. Reduce the illiteracy for 50% among adults, especially women, until 2015 and to achieve a fair approach to basic and permanent education for all adults.
5. To erradicate the gender inequality in primary and secondary education until 2005 and to attain the gender equality in education until 2015, where one should focus to insure a complete and equal approach to quality basic education and give everyone a possibility to succeed.
6. To advance all quality aspects of the education and provide everyone with a possibility to acquire competences, which would ensure everyone are able to achieve reorganized and measurable learning outcomes, especially literacy acquisition, calculation and basic life skills.\*

The right on the education is one of the human rights guaranteed by the Universal Declaration of the Human Rights in 1948.

At least primary or basic education has to be free of charge.

The attainment of the universal primary education is the most important goal in the Millennium Development Goals. (Millennium Development Goals)

The education has to be directed towards the full development of the personality and should encourage the respect of human rights and basic freedoms. It will encourage the understanding, tolerance and friendship between nations, racial and religious groups and will

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\* Binde, Jerome: Towards knowledge societies  
UNESCO world report, Zagreb, Educa, 2006.

advance the United Nations activities directed towards the peace maintenance. (The Universal Declaration of Human Rights, articles 26/1 and 16/2).

In 2002, there were about 800 millions illiterate adults which makes up for 18% of global adult populations. Around 70% of them lived in nine countries, the most prominent being: India (33%), China (11%), Bangladesh (7%) and Pakistan (6%).

In 2005, there were 785 millions of illiterate adults or 17% of global adult population, most of them, girls and women. In Europe, one illiterate man equates two illiterate women. The progress is made: the percentage of illiterate people in the world is decreasing while the literacy rate among young people has increased, which is encouraging.

In many developing countries, different traditions are aggravating women an access to the education or employment.

Despite the fact the gender equality present in almost all the societies at different levels, its shape depends upon the development level of particular country.

For women to have an equal possibility of choice regarding knowledge, they should have an equal approach to basic education which is coordinated with new technologies (Leinert Novosel, 1999).

Gender equality is one of the comprehensive challenges which appears during the emergence of the societies of knowledge. These societies of knowledge cannot be truthful societies of knowledge distribution if there is an exclusion of the half of the women population.

The United Nations' fourth global conference on women in Peking in 1995, had a crucial role in raising the awareness of the role of knowledge and the participation of women in the global economy of knowledge.

The conception of the lifelong learning is providing women with the opportunity to improve their situation. In today's societies of knowledge, the Internet, the informal forms of learning and virtual classrooms will be more efficient in bringing knowledge to all inhabited places.

The magazine The Economist points out that in many countries today "girls seem to exceed boys even before attending school and that phenomena continues until the end of the high school."

The magazine points out that out of the 22 million newly-open work places in 80s in America, two thirds were taken by women.

There is no doubt that women often give different points of view and create new companies twice as fast as men.

UNESCO's statistics show that the percentage of literate women is increasing in almost all the countries, for which the data is available.

In Croatia, the data of unemployed, but educated people from 2005, point out that there are 8474 unemployed people with vocational or higher education, out of which 5383 are women (State Institute for the Protection of Motherhood, the Family and Youth, 2000).\*

The financing system of the adult education in the context of the lifelong learning will provide women, the older and the youth with equal possibilities for the additional education and training.

In contrast, the census from 2001 shows that Croatia is faced with low and inadequate level of the educational attainment and the structure of the adult population.

The data about 2,86% of adults without any schooling at all is not concerning but the data about 15,76% of adults without completed primary education is the one we should be concerned about.

In the frame of the lifelong learning we can recognize few educational periods in one lifetime.

*Pre-primary education*, i.e. education in early childhood is traditionally conceded to a family. Even today, the education for children younger than three is linked to the informal environment. Over the last few years, there has been a growing interests for this age group. *Pre-primary education* is becoming important and presents the integral part of the wider assemblage of the social questions, which include family politics and the relationship towards women. The upbringing and the education in early childhood are important for the further progress of a child. In many countries, the pre-primary education is an urban emersion and is usually linked to both employed parents. Some countries have high rates of the enrollment in the educational programs for early childhood, the percentage varying from 25% to 75%.

### *Basic education*

In the majority of the education systems, children usually get the primary education during the compulsory schooling. The primary schools will surely be one of the main carriers of the

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\* Croatian Employment Service

primary education in the future, because it is certain that the primary school is and should be responsible for this crucial mission of literacy.

Completed primary school is a compulsory formal condition for the inclusion in the secondary education and that is why the Ministry of Science, Education and Sports of the Republic of Croatia has accepted the initiative of the 54 General Assembly of the United Nations "UN Literacy Decade- 2003-2012". The project "Croatia of Literacy- The Way to a Desirable Future" ensures the expenses from the state budget for the primary education of adults (the Ministry of Science, Education and Sports, 2005). In the first two years of the project implementation, 1209 people were included in the primary education.

The acceptance of the lifelong learning conception has followed as an answer of the education sector on the permanent changes occurring in all areas: sciences, technologies, culture and communications.

The education systems do not undergo the radical changes frequently and that is why the sector of the public education is still the most prominent in the primary and secondary education.

Colleges and other institutions have a crucial role in the education of adults and are becoming the cultural centers of the local communities.

The private sector is still insufficiently present in the primary education, semi-formal in the secondary education and is the most represented in the higher education and the adult education.

The idea of *the recurrent education* has appeared after the education of adults and, what once was called the "public" education.

With the beginning of the 70s in the 20th century *the lifelong education* was perceived as a part of the wider vision in the education of each individual.

The lifelong learning has become one of the carriers of self-construction, one of the pre-conditions of the development, which is understood as the ability of adaptation and autonomy and a tool which is used to ensure a wider spread and flow of the knowledge across the world.

The concept of the lifelong education is not only applied to the time spent on work, but it encloses time before, during and after working life of every individual who is concerned with his development. That development is manifested through these three levels:

- personal and cultural development- a meaning each person gives to his life

- social development- a place this person has in his community and a cohabitation
- professional development- a satisfaction with a job and material safety.

Our society acknowledges a need for the permanent education, because that is one of the important aspects of the lifelong education, which encloses all places and forms of studying, including self-education.

However, this general learning trend is open to criticism. Some experts consider there is a danger people could be directly molded by the economic demands and employees' expectations. This can have an undesired effect and stimulate an increasing loss of border between work place and learning place and between interrelationships and work.

To avoid falling into these traps, the citizens have to have an opportunity to express their own aspirations and wishes related to the education.

Delors asserts that the human development has to be followed by the freedom of expression and educations should help an individual to achieve that freedom.

In order to ensure the right on the lifelong education for all, Jacques Delors has suggested the introduction of "the study-time entitlement", the educational voucher which allows each person to receive a "financing" of certain number of years for the education. Its usage would depend upon personal choice, career and school experience.

That way, people aged 15 to 18 years, who leave the formal education system, would be given a new chance. One fourth of the population in the richest countries has no skills and abilities required for the full participation in the society and work. That is usually attributed to the inertness of the education systems. On the other hand, we have a progress in communicational and information technologies, which emphasizes the slowness by which educational institutions accept the real world.

Educational institutions could lose their advantages, if they do not face with discrepancy between their principal goals and the social reality they are finding themselves in.

New technologies are changing the face of the education with the development of e-learning. That term covers a series of technology usages, from the usage of computers in the class to the appearance of the online educational programs.

*Online* classes provide the possibility for personal tracking, flexibility during the organization of studying and more autonomy while learning.

*The Internet* is becoming the most prominent medium of self-education and it offers the tools for the informal learning and allows the formation of online classes.

...

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### 3.2. COMMENTARY AND ANALYSIS

1. **Genre:** scientific, educational

2. **Source:**

Hrčak, Portal znanstvenih časopisa Republike Hrvatske

Author: Vera Šutalo

[http://hrcak.srce.hr/index.php?show=clanak&id\\_clanak\\_jezik=5146](http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=5146)

3. **Audience:** The target audience are andragogists, professors, educational experts, politicians, students and people interested in the lifelong learning, i.e. the continuation of the education in the adulthood.

4. **Purpose of writing:** The purpose of this article is to give the definitions of the adult education and the lifelong learning, present the goals which should be achieved in education sector and compare the present situation in the education in Croatia and on the global scale.

5. **Authenticity:** This article was written by Vera Šutalo and was published in the journal: *Geodetski list* (2006) 60 (83), 51-57.

6. **Level of formality:** very formal

7. **Text style:** informative, education jargon

8. **Cohesion:** Lexical cohesion is achieved by the repetition of the key words: lifelong learning, adult education, remote education, basic, education, development, literacy, online class, andragogists.

9. **Sentence patterns:** The active sentences in the present tense because the author describes current situation in the education system.

10. **Layout:** The article starts with the title and author's name in bold letters and continues with a short abstract and key words. The main text consists of the paragraphs of

different lengths and contains only one additional heading (basic education). At the end, the author provided the list of the sources he had used.

**11. terminology of the subject:** the specialist terms in the text are: andragogists, lifelong learning, adult education, literacy.

The very first problem was the collocation *radni vijek* which is a common phrase in Croatian, but I was not aware if there was an English equivalent. Bujas (2001) offered no solution and neither did the web pages (Glosbe, Oxforddictionaries.com). I thought of translating it as *career* but its connotation is completely different from *radni vijek*. In the end, I opted for the literal translation, which I tend to avoid. I translated it *work life*.

The identical situation emerged with the collocation *društvo znanja* which is a widely used word in Croatian language, but I did not know whether English has an corresponding expression. The term that I found in the United Nations' documents is *societies of knowledge*" and I used that expression.

Another similar example was *svjetska ekonomija znanja* and once again, I found the used term in the document "Defining the knowledge economy" and translated it *global economy of knowledge*.

The particular doubt, whether there is an official term in use or it is on me to translate a particular word/collocation with the help of the dictionary was the most frequent during the translation of this article. Other examples were *neformalno okruženje*, which I translated as *informal environment*, *samoizgradnja*, which I translated *self-construction*. Bujas (2011)

One of the most problematic sequences was *...morati baviti s više poslova*. It is a very Croatian phrase that has no equivalent in English language and it was quite problematic to think of an adequate translation. I opted for the translation *...will have to change a number of jobs*.

There are a number of the sentences in the source text that were problematic, i.e. the translation of the source text was ambiguous and it was impossible to understand what the author meant. The example of such sentence is: *"Do 2015. godine sva djeca, a osobito djevojčice, djeca koja žive u teškim okolnostima ili su pripadnici manjinskih skupina trebaju dobiti pristup i dovršiti kvalitetno osnovnoškolsko obrazovanje."* At first, I had translated the sentence without changing any part, but after thorough reading I realized it sounds ridiculous. My first attempt at translating it was: "Until 2015, all children, especially girls, children who live in hard circumstances or are members of minority groups should get an access to quality primary education and finish it." It literally means all children should get an access to quality primary education and finish their education by 2015. The intended meaning is primary education to be accessible to every child until 2015 and they all can (by working and learning hard) finish it. To achieve this particular meaning, I have translated the sentence like this: *"Until 2015, , all children, especially girls, the children who live in hard circumstances or are members of the minority groups should get an access to quality primary education until 2015 and be given the opportunity to finish it."*

The sentence: *"U Europi na jednog nepismenog muškarca dolaze dvije nepismene žene."* is a common structure in Croatian language, but cannot remain alike in English language. It was extremely complex task to think of the sentence which would carry identical meaning and be

modified as a common structure in English language. Finally, I opted for this version: *"In Europe, one illiterate man equates two illiterate women."*

The next few examples were extremely hard to translate because of the form of the source text. *"Da bi žene imale jednaku mogućnost izbora u pogledu znanja, žene trebaju imati i jednak pristup općem obrazovanju koje je usklađeno s novim tehnologijama."* is a sentence in which *u pogledu znanja* is the most problematic sequence. Obviously, it cannot be translated literally but the right translation should express the connection with the knowledge. The final translation is: *"For women to have an equal possibility of choice regarding knowledge, they should have an equal approach to basic education, which is coordinated with new technologies."*

In order to keep the meaning from the Croatian sequence *...djevojčice već prije škole i do završetka srednje škole nadmašuju dječake...*, certain modification had to be done and the final solution is *...girls seem to exceed boys even before attending school and that phenomena continues until the end of the high school.*

Finally, in the sentence *"Osobe koje formalni sustav napuštaju od 15 do 18 godine..."* it is clear the intended meaning is people who are 15, 16, 17 and 18 years old leave the formal system of education but it is quite clumsy expressed so I restructured the English translation: *"...people aged 15 to 18 years, who leave the formal education system, would be given a new chance..".*

## Edukacija i zaštita okoliša

Akademik Božo Udovičić

### Sažetak

Nastanak Zemlje i života na njoj, te održanja razvoja flore i faune do današnjih dana uvjetovano je korištenjem energije i postojanjem atmosfere. Čovjek svojim aktivnostima i opstojnošću zagađuje okoliš (tlo, vodu, zrak, buku itd.). Svakim danom sve je više stanovnika na Zemlji, samim tim i sve većom potrošnjom energije sve se više zagađuje okoliš. Zbog toga se postavljaju pitanja: održivog razvoja, rizika zagađenja okoliša i njegova očuvanja, troškova i kontrole onečišćenja, te neophodno potrebne edukacije? U članku se pokušava odgovoriti na ta pitanja.

**Ključne riječi:** edukacija, okoliš, zagađenje, ekologija, zaštita, rizik, kriza, obrazovanost, održivost

Ekologija se obično definira kao znanost o odnosima između organizama i okoliša, pri čemu je okoliš kombinacija vanjskih uvjeta koji utječu na rast i razvitak organizama. Čovjek kao organizam najvišeg stupnja razvitka samim svojim postojanjem djeluje i mijenja okoliš. Za razliku od drugih organizama čovjek stvara i povezuje kulturna, sociološka, ekonomska i politička zbivanja pa tako može postaviti vremenske i prostorne veze između pojedinih zbivanja.

Zabrinutost čovjeka za propadanje i zagađenje okoliša nije se pojavilo prvi put tek šezdesetih godina prošlog stoljeća, već su zagađenje zraka, vode, kvarenje živežnih namirnica i drugi problemi okoliša odavno poznati. Naime, od davnih vremena predodžbe o bolestima, uvjetovane okolišem, bile su daleko prihvaćenije nego danas. Svi ti problemi ponovo su izbili na površinu s industrijskom revolucijom tj. vremenom koje je obilježeno naglim rastom tvornica, nicanjem velikog broja gradova, a što je imalo za posljedicu zauzimanja velikih

površina zemlje, zagađenjem vode i zraka, stvaranja otpadaka i buke te mijenjanje izgleda okoliša.

Što običan čovjek podrazumijeva pod zagađenjem: prljavštinu, smeće, dim iz tvornica, kemikalije u hrani, bolest, materijalno ili duhovno siromaštvo...? Zagađenje ustvari obuhvaća sve u rasponu od onoga što smeta do onoga što ubija čovjeka. Da bi se navedeno potvrdilo, za liječenje ili za zaštitu) mogu biti u jednoj situaciji spasitelji života, a u drugoj mogu ubiti čovjeka.

Zagađenje okoliša nastaje zagađenjem zraka, zemlje, vode, zatim stvaranjem i gomilanjem čvrstih otpadaka, stvaranjem buke i mijenjanjem izgleda okoline. S obzirom na uvjete okoliša i vrstu zagađivača mogu se javiti i određene specifičnosti vezane uz te uvjete i vrste. Sva zagađenja okoliša imaju utjecaja na floru i faunu, a posredno i neposredno na čovjeka.

Kad se govori o ekološkim problemima, nikada se ne smije zaboraviti da je to vrlo široko područje koje zadire praktički u sve pore ljudske djelatnosti. Prekomjerna zagađenost zraka, vode i tla različitim industrijskim otpacima koji sadrže toksične tvari, toplinsku energiju, radioaktivne elemente, odnosno u okoliš emitiraju buku i vibracije najrazličitijih valnih dužina, svim mogućim sredstvima treba svesti u dopuštene granice.

Današnje rasprave o zaštiti okoliša pokazuju da se u mnogim javnim istupima i raspravama o današnjoj ekološkoj krizi jasno izražava shvaćanje da se promijenila sama priroda problema, da je propadanje okoliša izravno povezano s propadanjem društva ili bolje kazano njegove postojeće socijalne strukture. Iz toga slijedi, da propadanje okoliša i ekološka katastrofa ne mogu biti otklonjeni propisima koji se odnose na izvore zagađenja i nadzorom tih izvora (mogu biti djelomice riješeni), već prijedlozi rješenja moraju za sobom povlačiti dalekosežne promjene u društvu, odnosno u odnosu čovjeka prema čovjeku, a samim tim i čovjeka prema prirodi.

U ekološkoj krizi s kojom se društvo danas suočava, na kocki je sama sposobnost Zemlje da održi razvijene oblike života. Kriza se oblikuje sve brojnijim oblicima zagađenja zraka i vode, sve većom akumulacijom otpadaka koji se ne rastvaraju, olovnog taloga, pesticidnih ostataka i otrovnih dodataka u hrani, uništavanje poljoprivrednog zemljišta (razgradnjom i ekspanzijom gradova u široke urbane pojaseve) povećanim brojem stresova zbog prenapučenosti, buke i življenja u masi, neodgovornim trošenjem prirodnih dobara, sječom šuma i drugim pojavama. Iz navedenoga slijedi da suvremeno društvo uništava sve što se stoljećima stvaralo organskom revolucijom. Ako se taj proces ne zaustavi, Zemlja može

biti reducirana na razinu biološko-tehničke jednostavnosti na kojoj se čovječanstvo (koji ovisi o hrani na tlu i u vodi) neće više moći dugo održati kao vrsta sposobna za život.

Život se na Zemlji svake godine mijenja, kako po broju stanovnika (oko 70 do 80 milijuna stanovnika je godišnji prirast) tako i po ostalim za život interesantnim segmentima. Tako je npr. svake godine manje oko 3,5 milijuna hektara obradive zemlje, oko 11 milijuna hektara šuma, a oko 6 milijuna hektara pustinja više, oko 5 milijardi tona otrovnih kemikalija se godišnje ispušta u životnu sredinu te oko 30 milijardi tona ugljičnog dioksida (CO<sub>2</sub>).

Pri izgaranju goriva dolazi do emisije različitih oksida (među kojima su najpoznatiji dušični, sumporni i ugljični oksidi), produkata nepotpunog izgaranja i pepela. Sumporni i ugljični dioksid te dim, predstavljaju najrasprostranjenije zagađivače atmosfere, upravo zato jer je korištenje energije vezano uz svaku ljudsku aktivnost.

Dosadašnji razvitak energetike bio je u prevladavajućoj mjeri usmjeren da se osiguraju potrebne količine energije, a nedovoljno usmjeren na čuvanje čistoće okoliša zbog potrebnih velikih financijskih sredstava.

Dva su ključna faktora za uništavanje poljoprivrednog zemljišta i to: razgradnja i zauzimanje obradivog tla.

Zemlja se razgrađuje uz pomoć erozije, alkalizacije, salinizacije i kemijske degradacije.

Ako se zemlja uništava stalno u polukišnim podnebljima, širenje pustinja će biti sve veće i veće.

Ako se gledaju prilike na tri kontinenta s najvećim brojem nerazvijenih i zemalja u razvoju (Afrika, Azija i Latinska Amerika), tada se može konstatirati da je erozija tla daleko najveća u Aziji, salinacija i alkonizacija se doima kao najveći problem u Latinskoj Americi. Širenje pustinja je pak problem svih regija.

Drugi važni utjecaj na uništavanje poljoprivrednih površina ima velika ekspanzija ljudskih naselja i visok stupanj infrastrukture.

Kao dodatni faktor bržem uništenju zemljišta je brzo (nekontrolirano) nestajanje šuma. Šume nestaju zbog nekontrolirane sječe, zbog bolesti šuma i zbog veoma čestih požara. Nestanak šuma pridonosi većoj eroziji tla, većim poplavama itd.

Nestajanje i uništenje šuma najbolje primjećujemo po golim padinama Himalaja i Anda. To uništenje uzrokuje eroziju tla, poplave te nanose velike količine mulja. Odumiranje šuma, također uzrokuje suše, a one su najzastupljenije u Sudansko- saharskom području gdje ubrzavaju stvaranje pustinja, uzrokuju žeđ i glad u tim područjima.

Sve veća upotreba genetski modificirane hrane te upotreba pesticida za uništavanje insekata omogućila je industrija pesticida i mnoge farmere učinila ovisnima. Međutim, s vremenom su insekti postali otporni, dok ljudi nisu. Industrija antibiotika i pesticida doživljava procvat, a antibiotici se ubrizgavaju životinjama ili im se stavljaju u hranu. Doda li se navedenom uzimanje lijekova sa ili bez recepata, hrane ulaze u život s nepredvidivim posljedicama.

Uz navedena zagađenja degradirani su vodni sistemi u morima i rijekama. Štetne kemikalije nalaze se u nedopuštenim količinama pitkih i stajaćih voda, pa je njihov utjecaj štetan na floru i faunu, a samim tim i na čovjeka. Mnogi izvori pitke vode već su neupotrebljivi ili presušili.

Do prije nekoliko godina na zagađenje okoliša gledalo se uglavnom s lokalnog stajališta, znači, gledalo se samo neposredno zagađenje okoliša (zraka, vode, zemlje itd.) dok su se globalni aspekti uglavnom zanemarivali. Međutim, u posljednje vrijeme se počinje sve više pažnje posvećivati globalnim problemima zagađenja okoliša. Naime, pokazalo se, da se na vrlo velikim rastojanjima od izvora koji zagađuju okoliš javljaju globalni nepovoljni efekti od kojih su najpoznatiji: propadanje vegetacije zbog "kiselih kiša", promjena klime, zagađenja mora i razaranja ionosfere.

Čovjek sa svojom aktivnošću odlučujući je činitelj u mijenjanju okoliša. Ta je aktivnost, doduše, povezana sa zadovoljenjem potreba, ali i s vladanjem ljudi kao potrošača. Struktura gospodarstva prilagođuje se postavljenim gospodarskim ciljevima, koji su u prvom redu uvjetovani potražnjom. Zadovoljenje tih potreba uz određeni način života opterećuje prostor na Zemljinoj površini. Radi toga može se kazati da je opći napredak, u uvjetima tehnološke revolucije, postigao vrlo visoku razinu industrijskih aktivnosti te vrlo visok životni standard za dio stanovništva što je sve zajedno imalo veliki utjecaj na okoliš.

Povijesno gledano, čovjek je bio zauzet i ponesen tehnološkim uspjesima te povećanjem osobnog i društvenog standarda, tako da je kroz jedan vremenski period zaboravio, ili bolje rečeno, zanemario utjecaj na okoliš. Tako je došlo do znatnog zagađenja zraka i atmosfere (posebno u urbanim sredinama), do smanjenja područja pod šumama, do toplinskog zagađenja vode i zraka (zagrijanih različitim industrijskim otopinama) itd. Iz navedenoga bi se moglo zaključiti da je civilizacijski napredak donio korist za čovječanstvo s jedne strane, dok bi se s druge strane moglo zaključiti da bi taj napredak kroz zagađenje okoliša mogao uništiti samu civilizaciju. Međutim, visoka razina kulturnog, znanstvenog i tehnološkog razvitka mora poslužiti kao temelj za razuman i harmoničan odnos između čovjeka i okoliša.



To će u mnogome ovisiti o spremnosti čovjeka da u planovima razvoja predvidi radikalnije mjere očuvanja okoliša. Jedan dobar dio moći će se riješiti novim tehnologijama, dok se drugi dio mora riješiti promjenama u čovjekovu shvaćanju i poimanju mogućnosti i potrebe življenja svih ljudi na Zemlji. Ta nova tehnologija mora biti prilagođena ekološkim zahtjevima i mora biti stavljena u službu smišljenih ljudskih potreba, da proizvodi neophodno potrebna dobra i da u dobrom dijelu koristi, reciklira otpad u okolišu.

Temeljem kazanoga, neophodno je dakle, prije određivanja ekoloških kriterija, napraviti iscrpnu analizu mogućnosti društvene zajednice da plati određenu cijenu za smanjenje štetnih poremećaja u okolišu. Ta cijena ne smije biti tako visoka da postane kočnicom daljeg gospodarskog rasta, ali niti preniska tako da ekološki poremećaji postanu kočnicom rasta. Pritom je nužno ispravno usmjeriti raspoloživa sredstva u ona područja gdje će se postići najveći pozitivni učinci. To treba biti temeljni putokaz za planiranje razvoja gospodarstva u cjelini. Kod takvog se pristupa glavni problemi svode na izbor kriterija koje treba primijeniti u alokaciji raspoloživih sredstava za zaštitu i unapređenje čovjekove sredine kao i metoda koje pritom treba uporabiti. Problemi zaštite okoliša vrlo su složeni, međusobno povezani i uvjetovani.

Za njihovo sagledavanje i rješavanje neophodni su značajni znanstveno-istraživački naponi i brojna izvorna tehnološka rješenja. Tijekom protekla tri desetljeća u svijetu je sakupljeno veliko praktično i tehničko iskustvo i dobiven niz podataka i informacija u svim područjima ljudske djelatnosti, pa tako i u području zaštite okoliša, što ulijeva izvjestan optimizam.

Zbog sve veće industrijalizacije, zbog sve većeg broja stanovnika i sve višeg njihova standarda, prostor postaje sve više ograničavajući faktor. Do kada će se moći zauzimati prostor? Prostor će se moći zauzimati sve do granica tjelesne i duševne podnošljivosti stanovništva. Prema dosadašnjim iskustvima duševna granica podnošljivosti postiže se znatno prije od fizičke granice podnošljivosti. Sve dok se ne postignu te granice podnošljivosti, industrijska se postrojenja smatraju blagodatima (zbog mogućnosti rada i većih zarada), a nakon toga prestaju biti činioci blagostanja.

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## Education and environment protection

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### Abstract

To this day is the emergence of Earth, the beginning of life, the persistence and development of the flora and fauna conditioned by the energy usage and the existence of the atmosphere. Human existence and activities, alongside the growing number of the inhabitants on Earth and the increased energy usage continue to pollute the environment (soil, water, air, noise, etc.). All this brings up the questions about the sustainable development, the risk the environment pollution represents, the environment protection, the costs and the control of the pollution and the required education about the pollution. The answers to these questions should be found in this article.

**Key words:** education, environment, pollution, ecology, protection, risk, crisis, schooling, sustainability

Ecology is usually defined as the science about the relations between the organisms and the environment, the environment being a combination of outer conditions which affect the growth and development of the organisms. The existence of humans alone, who are the most developed organisms, affects and changes the environment. Unlike other organisms, humans create and connect cultural, sociological, economical and political happenings and, therefore, can set time and spatial connections between individual occurrences.

Humans worry for the destruction and the environment pollution did not occur in 60s of the last century for the first time, but air and water pollution, spoilage of consumable stores and other environmental problems have been familiar for a long time. For a long time, the conceptions about environment-conditioned illnesses were more accepted than they are today. All these problems surfaced again alongside the industrial revolution, i.e. the time characterized by the fast growth of the factories and the development of the large number of

the cities, which in return meant the occupation of large areas of the land, water and air pollution, wastage and noise creation and the environment change.

What do humans imply under the term pollution? Dirt, trash, factory smoke, chemicals in food, illness, material or spiritual poverty? In reality, the pollution includes everything, ranging from what bothers to what kills humans. To confirm this statement, it can be said that some substances (the means for the treatment or the protection) can be life savers in one situation and kill humans in other.

The environment pollution emerges by air, earth and water pollution, the creation and piling up of firm waste, noise creation and the change of the landscape. Specific environment conditions and types of pollutants can cause specific qualities to arise. All environment pollutions have an effect on the flora and fauna and both, directly and indirectly, affect humans.

Ecological problems are wide area which enters all strata of human activities. Excessive air, water and soil pollution with different industrial waste, containing toxic matters, thermal energy, radioactive elements, i.e. emit noise and the vibrations of different wavelengths should be reduced to permitted levels by all means.

Today's discussions about environment protection show that many public appearances and discussions about the present ecological crisis clearly express the understanding that the nature of the problem changed. The environment destruction is clearly connected with the destruction of the society, i.e. its existing social structure. It can be concluded that the environment destruction and the ecological catastrophe can only be partially solved the regulations and the supervision of the sources of the pollution, but cannot be eliminated by them. Possible solutions have to withdraw far-reaching changes in the society, i.e. interrelationships between humans and nature.

In the ecological crisis the society is facing today, Earth's ability to preserve the developed forms of life is on gamble. The crisis is shaped by the increasing forms of air and water pollution, growing accumulation of decomposing waste, lead's residue, the pesticide remains and poisonous additives in food, the destruction of the agricultural land (the degradation and the expansion of the cities in the wide urban areas), increased stress caused by overcrowding, noise and life in multitude, irresponsible use of natural goods, the deforestation and other occurrences. It seems that the contemporary society is destroying everything that was being created by the organic revolution for centuries. If that process continues, Earth could be reduced to the level of biological and technical simplicity. Mankind,

which depends upon the food on the soil and in the water, will not be able to preserve itself as species capable for life.

The life on Earth is changing each year, both in the number of the inhabitants (yearly increase is around 70 to 80 million) and other life-related segments. There is a shortage of 3,5 million of hectares of the farmlands and around 11 million hectares of the forests each year, while the deserts are spreading for around 6 million hectares a year. Around 5 billion tons of toxic chemicals and around 30 billion tons of CO<sub>2</sub> is being released in the environment each year.

During the fuel combustion there is an emission of different oxides (the most known among them are nitric and sulphuric oxide and CO<sub>2</sub>), the products of the partial combustion and ash emerges. Sulphuric dioxide, carbon dioxide and smoke present the most widespread pollutants of the atmosphere, precisely because the energy usage is connected to every human activity.

To this day, the energetics was being developed with the purpose required amount of energy is obtained, but insufficiently directed on keeping the environment clean, precisely because it would require large financial means.

Two key factors in the destruction of the agricultural land are degradation and the occupation of the farmland.

The land is being degraded by erosion, alkalization, salinization and chemical gradation. If the land is continually destroyed in semi rainy areas, the expansion of the deserts will continue.

If we examine the circumstances on the three continents with the biggest number of undeveloped and developing countries (Africa, Asia and Latin America) we can conclude that soil erosion is the most prominent in Asia and the salinization and alkonization seem to be the issue in Latin America. The spread of deserts is the issue of all these regions.

Large expansion of the human settlements and the high level of the infrastructure is the second important cause of the destruction of the agricultural land.

A contributing factor to the faster destruction of the farmland is a fast (uncontrolled) disappearance of the forests. The forests disappear because of the uncontrolled felling, the forest diseases and frequent fires and all this contributes to soil erosion, floods etc.

The disappearance and the destruction of the forests are most prominent on the bare slopes of the Himalayas and the Andes. This destruction causes soil erosion, floods and drifts of the large amounts of mud. The forests extinction also causes draughts, present in Sub-Saharan area where they accelerate the creation of the deserts and cause thirst and hunger.

The pesticide industry has enabled a wider usage of genetically modified food and the usage of pesticides for the extermination of insects. It also made many farmers depend upon their products. However, with time, insects have become resilient to pesticides, while humans did not. The industry of the antibiotics and pesticides is experiencing the bloom and the antibiotics are injected into animals or put into their food. Together with drug usage with or without prescriptions, food is being consumed with the unpredictable consequences.

Besides the mentioned pollutions, the aquatic eco-systems of the seas and the rivers are also degraded. The unpermitted amounts of poisonous chemicals are present in the drinking and stagnant waters and their influence is damaging to both flora and fauna and also, humans. Many sources of drinking water are already unusable or have dried out.

Few years ago, the environment pollution has been mostly perceived from the local point of view, i.e. we only observed the direct consequences of the environment pollution (air, water, soil etc.) while the global aspects were mostly ignored. However, lately we devote more attention to the global issues of the environment pollution. It seems the global effects appeared on the large reaches of the sources which pollute the environment. The most prominent effects are: the destruction of the vegetation caused by acid rain, the climate change, the pollution of the seas and the destruction of the ionosphere.

Human activities are a decisive factor in the change of the environment. That activity is connected with the satisfaction of the needs, but also the behavior of humans as consumers. The structure of the economy is adapting to the established economy goals, which are primarily conditioned by demand. The satisfaction of those needs and the kind of lifestyle we lead today is limiting the space on Earth's surface. Hence, it is possible to say that the general progress has, in the conditions of the technological revolution, reached a high level of the industrial activity and a very high life standard for the part of the population, which, all-together, had a huge impact on the environment.

Historically, humans were carried away with the technological success and the increase of personal and social standard, which resulted in the forgetfulness or ignorance of the impact on the environment during certain period of time. That led to the substantial air and atmosphere pollution (especially in the urban areas), the decrease of the forests, the thermal pollution of water and air, which were heated by the different industrial solutions, etc. We can conclude that the civilization progress had brought the benefit for the humanity on one side, while on the other it led to the environment pollution which could destroy the civilization. However, the high level of cultural, health and technological development has to serve as a

foundation for the reasonable and harmonious relationship between humans and the environment.

That will largely depend on the willingness of humans to include more radical measures for the environment into their development plans. One substantial part can be solved with new technologies, while the other part has to be solved by the changes in human understanding and the perception all people could live and should live on Earth. This new technology has to be adapted to the ecological terms and has to be put in the service of the premeditated human needs. It has to produce necessary required goods and, in substantial part, use and recycle waste in the environment.

Before defining the ecological criteria, it is crucial to do a comprehensive analysis of the possibility that the social community pays certain price in order to reduce the harmful disarrangements in the environment. That price should not be so high to become an obstruction to the further economy growth, but also, not so low the ecological disarrangements become an obstruction. At the same time, it is necessary to properly direct the available means to those areas where the positive impact might be achieved. That should be the fundamental guideline for the planning of the overall economy development. The main problem of such approach is the choice of the criteria, which should be applied in the allocation of the available means for the protection and the improvement of the human environment and the methods which should be used.

The environment protection problems are very complicated, interconnected and mutually conditioned and can be perceived and solved only by significant scientific efforts and numerous authentic technological solutions. The large practical and technical experience and array of the data and information in all the areas of human activity and the area of the environment protection we have gained over the last three decades inculcate certain amount of optimism.

Because of the industrialization, growing number of the inhabitants and increasing life standard, the space is becoming a restrictive factor. How long will we be able to occupy the space? We will be able to occupy the space until the boundaries of physical and mental tolerability of the inhabitants. According to the former experiences, the mental boundary of tolerability is reached considerably earlier than that of the physical boundary of tolerability. The industrial facilities are considered the blessings (because of the work places and higher earnings), but when the mentioned boundaries of tolerability are reached, they won't be the causes of the prosperity anymore.

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## 4.2. COMMENTARY AND ANALYSIS

1. **Genre:** scientific, environmental

2. **Source:**

Hrčak, Portal znanstvenih časopisa Republike Hrvatske

Author: Božo Udovčić

[http://hrcak.srce.hr/index.php?show=clanak&id\\_clanak\\_jezik=138958](http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=138958)

3. **Audience:** The target audience are ecologists, demographers, scientists, politicians and anyone interested in the environment pollution and the possibilities how to save the planet and reduce the negative effects of the environment pollution.

4. **Purpose of writing:** The purpose of this article is to emphasize the environmental problems humans face today and to provide the possibilities what should be done to reduce the effects of the environment pollution.

5. **Authenticity:** This article was written by Božo Udovčić, Croatian scientist and academic and published in the journal: *Tehničke znanosti* (2012), 15, 65-70.

6. **Level of formality:** semi-formal

7. **Text style:** informative

8. **Cohesion:** The lexical cohesion is achieved by the repetition of these words: environment pollution, air pollution, water pollution, soil pollution, environment protection, waste, industrialization, crisis, forest destruction.

9. **Sentence patterns:** The text is mostly written in the present and past tense; present when the author describes the present state of the environment and in the past tense when the author describes the human activities and behaviour in the past. Given the fact it is the scientific article, the text is impersonal.

- 10. Layout:** The article starts with the title in bold capital letters and is followed by the author's name and his title (akademik) in bold letters and the abstract and key words written in italic. The text is split into a number of smaller paragraphs. The whole article is 11 pages long but for the translation purposes first 5 pages were taken and translated. At the end, the author has listed the list of the sources used in the text.
- 11. terminology of the subject:** the specialist terms in the text are: environment pollution, pollutants, erosion, salinization etc.

Most of the problems during the translation occurred because of the structure of the sentences in the source text. An example of such sentence is: *"S obzirom na uvjete okoliša i vrstu zagađivača mogu se javiti i određene specifičnosti vezane uz te uvjete i vrste."* There is no need for the repetition of the sequence *uvjeti okoliša i vrsta zagađivača* which only confuses readers. I modified the structure of the sentence, but with an attempt to retain the intended meaning. The final translation is: *"Specific environment conditions and types of pollutants can cause certain specific qualities to arise."*

The following sentence is a syntactic structure common in Croatian, but not possible in English language: *"Čovjek kao organizam najvišeg stupnja razvitka samim svojim postojanjem djeluje i mijenja okoliš."* I decided to focus on the meaning, not the syntactic structure and came up with the following solution: *"The existence of humans alone, who are the most developed organisms, affects and changes the environment."*

The longer sentences require more effort and are more difficult to translate into the same form they retain in the source text. Croatian language frequently contains long sentences, but English does not. My approach to very long sentences was to separate them into two units or

more units and achieve a consistent piece of text with identical meaning. The sentence: *"Današnje rasprave o zaštiti okoliša pokazuju da se u mnogim javnim istupima i raspravama o današnjoj ekološkoj krizi jasno izražava shvaćanje da se promijenila sama priroda problema, da je propadanje okoliša izravno povezano s propadanjem društva ili bolje kazano njegove postojeće socijalne strukture."* I have decided to disjoint into two units and the final translation is: *"Today's discussions about environment protection show that many public appearances and discussions about the present ecological crisis clearly express the understanding that the nature of the problem changed. The environment destruction is clearly connected with the destruction of the society, i.e. its existing social structure."*

The structure of the next sentence was extremely problematic *...tako i po ostalim za život interesantnim segmentima*. It was quite a problem to think of adequate translation for such sentence, so I focused on keeping it semantically identical, but opted for the change of the form. The final translation is *...and other life-related segments*, because the intended meaning is that the segments are related to/connected with life, therefore, it is not crucial to retain the word "interesantni".

The listing in the next sentence required certain arrangement. The sentence can be easily divided into two parts and it would be a better solution to do the same with the source version. The first part is about the hectares of land, the forests and deserts while the other suddenly switches to the chemicals and CO<sub>2</sub>, which makes the parting of the sentences a better solution, even semantically. *"Tako je npr. svake godine manje oko 3,5 milijuna hektara obradive zemlje, oko 11 milijuna hektara šuma, a oko 6 milijuna hektara pustinja više, oko 5 milijardi tona otrovnih kemikalija se godišnje ispušta u životnu sredinu te oko 30 milijardi tona ugljičnog dioksida (CO<sub>2</sub>)."* The separation of the sentence made the translation easier and the

final solution more understandable: *"There is a shortage of 3,5 million of hectares of farmlands and around 11 million hectares of the forests each year, while the deserts are spreading around 6 million hectares a year. Around 5 billion tons of toxic chemicals and around 30 billion tons of CO<sub>2</sub> is being released in the environment each year."*

The next sentence is quite disconnected and it seems like the end of a sentence ... *upravo zato jer je korištenje energije vezano uz svaku ljudsku aktivnost...*, does not belong to the beginning. *"Sumporni i ugljični dioksid te dim, predstavljaju najrasprostranjenije zagađivače atmosfere, upravo zato jer je korištenje energije vezano uz svaku ljudsku aktivnost."* Because I could not think of modifying it any other way, without losing the intended meaning, I translated it: *"Sulphuric dioxide, carbon dioxide and smoke present the most widespread pollutants of the atmosphere, precisely because the energy usage is connected to every human activity."*

The next sentence contains quite an ambiguous expression *"...hrane ulaze u život s nepredvidivim posljedicama."* The syntagm *ulaze u život* is an odd construction and I decided to modify this sequence, because it sounded unnatural and quite confusing, even in the source text. The solution I opted for is *...food is being consumed with unpredictable consequences.*

The following example is similar to the previous one *Štetne kemikalije nalaze se u nedopuštenim količinama pitkih i stajaćih voda...* Does *nedopuštene količine* refers to *štetne kemikalije* or *pitke i stajaće vode*? It is logical it refers to *štetne kemikalije*, but in this particular sentence it seems that is not the case. So I've decided to modify the sentence and the final translation is: *"The unpermitted amounts of poisonous chemicals are present in the drinking and stagnant waters..."*

## 5. CONCLUSION

It is not questionable the translation process is an incredibly complex task. Not only does it require the knowledge of both languages (source and target language), but it also requires the translator to become an expert in the field the text is from and the topic it deal with. A successful translation can occur only when the translator fully observes the culture of the target language. That demonstrates that the translational science does not revolve only around the language, in fact, it revolves more around culture and people using that particular language.

Despite the fact that translator's main occupation is a target text, there are a number of instances when the source text is problematic and ambiguous. Translator's role is to focus on both texts and provide not only structurally accurate text, but to focus on the most important tenet in the translation process: a meaning. The main purpose is to provide a meaningful text and an accurate translation will largely depend upon the clarity of a source text. Taking into account a frequent occurrence when the source text is not clear, it is on a translator to modify the target text so it is clear, but not stray away from the meaning of the source text.

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