



OPŠTE O KLIMATSKIM PROMENAMA UZ POSEBAN OSVRT NA UTICAJ NA REŽIM PROTOKA U REKAMA U SRBIJI GENERAL ON CLIMATE CHANGE WITH A SPECIAL REVIEW OF THE EFFECTS OF FLOW REGIME IN RIVERS IN SERBIA

APSTRACT

Poslednjih godina dosta se govori o klimatskim promenama i njihovom uticaju na vodne resurse. Veliki broj globalnih i regionalnih klimatsko – hidroloških modela za buduće vreme je napravljeno da bi se dala procena razvoja rasta temperature, režima padavina i promena u rečnom protoku za različite IPCC scenarije. Verovatno najveći napor i iskorak je napravljen od strane Međuvladinog panela za promenu klime (Intergovernmental Panel on Climate Change - IPCC) sa rezultatima objavljenim 2007. godine. Čini se da je sve manji broj onih koji osporavaju postojanje klimatskih promena, ali se nekoliko osnovnih pitanja i dalje, vrlo aktuelno, postavlja: **DEO A.** U čemu se ogledaju i koliko su izražene dosadašnje klimatske i hidrološke promene u svetu? Kolike su u regionu kome pripada i Srbija?

DEO B. Da li se klimatske promene mogu objasniti prirodnim pojavama ili se mora uključiti antropogeni faktor? Koji od ova dva činioca je dominantniji?

DEO C. Šta se može očekivati za budućnost prema analiziranim pokazateljima? Kakve i kolike neizvesnosti prate ove prognoze? Šta bi bilo dobro činiti?

Nakon Uvoda, koji daje osnovne definicije i pojmove vezane za klimatski sistem i klimatske promene, autori ovog rada daju svoje viđenje odgovora na ova pitanja.

Ključne reči: klimatske promene, uticaj na režim protoka u Srbiji, klimatske promene u svetu, hidrološke promene na rekama u Srbiji

ABSTRACT

In recent years, the impact of climate change on water resources is in the focus of world public. A large number of global and regional climate - hydrological models for the future time is made in order to give estimation of development of temperature growth, rainfall regimes and changes in river flow for the various IPCC scenarios. Probably the biggest effort and a step forward were made by the Intergovernmental Panel on Climate Change - IPCC with results that were published in 2007. It seems that the number of those who deny the existence of climate change is decreasing, but a few basic questions are still set:

PART A. How are reflected and expressed current climate and hydrological changes in the world? What are their proportions in the region of Serbia?

PART B. Whether climate change can be explained by natural phenomena or anthropogenic factor must be included? Which of these two factors is dominant?

After the Introduction, which gives basic definitions and concepts related to climate system and climate change, the authors of this paper give their answers to these questions.

PART C. What can be expected for the future according to the analyzed indicators? What and how much uncertainty is accompanying the forecasts? What would be good to do?

Key words: climate change, flow regime in rivers in Serbia, climate change in the World, Hydrological changes in rivers in Serbia

(Nastavak iz broja 5/2010)

(Continued from 5/2010)

DEO C. ŠTA SE MOŽE OČEKIVATI U BUDUĆNOSTI

Ovaj – Deo C je sastavljen od sledećih celina :

C1. Prognoze date od strane Međuvladinog panela za promenu klime (IPCC),

PART C. WHAT CAN BE EXPECTED IN THE FUTURE

This - Part C is composed of the following units:

c1. Forecasts made by the Intergovernmental Panel on Climate Change (IPCC),

Dejan DIMKIĆ, dipl.inž.građ.¹, Prof. Jovan DESPOTOVIĆ, dipl.inž.građ.²

¹ Institut za vodoprivredu "Jaroslav Černi", 11226 Pinosava–Beograd, Srbija, e-mail: dejan.dimkic@jcerni.co.rs

² Građevinski Fakultet Univerziteta u Beogradu, 11000 Beograd, Srbija, e-mail: edespoto@hikom.grf.bg.ac.rs