

## **ODRŽIVI RAZVOJ ŠUMARSTVA I IZGRADNJA MHE U BOSNI I HERCEGOVINI**

**Vesna Rajčević 1\* , Čedomir Crnogorac 1\*\***

1 Univerzitet u Banjoj Luci, Prirodno-matematički fakultet, Mladena Stojanovića 2,  
78000 Banja Luka, BiH

\* e-mail: [vrajcevic@gmail.com](mailto:vrajcevic@gmail.com)

\*\*e-mail: [hydrologyc@gmail.com](mailto:hydrologyc@gmail.com)

*Suština ideje o održivom (usklađenom) razvoju jasno definiše činjenicu da je rast humane populacije jedna od determinanti razvoja ljudske civilizacije i razvoja društvenog sistema na našoj planeti. Cijena toga rasta je, istovremeno, sve veća eksploatacija jednog drugog sistema – prirodnog, pa se stoga očekuje da će uzurpacija (trošenje) prirodne sredine (prostora i resursa) biti sve prisutnija u budućnosti. Činjenica je da se ne može se osporiti humanoj populaciji pravo na razvoj, ali se može dovesti u pitanje obim i način eksploatacije postojećih resursa.*

*Da je riječ o prekomjernom trošenju vidi se i iz činjenice da se sve više narušava prirodna ravnoteža, a jedan od sve aktuelnijih problema je nestanak šuma u geografskom omotaču. Stoga je problem zaštite šumskih kompleksa i šumskih ekosistema u Bosni i Hercegovini višestruko kompleksan. Bitnu komponentu ugrožavanja šuma predstavlja i izgradnja MHE.*

*Metode istraživanja su bazirane na terenskim istraživanjima autora na brojnim vodotokovima u Bosni i Hercegovini, kao i detaljnoj analizi meteoroloških, hidroloških i biogeografskih podataka u slivovima rijeka Vrbanje i Velike Usore. Evidentna je ugroženost šumskog fonda, povećani rizik od erozije i pojave velikih kao i malih voda, zbog narušavanja uravnoteženog specifičnog oticaja u slivovima.*

***Ključne riječi: održivi razvoj, šume, male hidroelektrane, riječni režim, erozija***

## **SUSTAINABLE DEVELOPMENT OF FORESTRY AND CONSTRUCTION OF SMALL HYDRO-POWER PLANTS IN BOSNIA AND HERZEGOVINA**

**Vesna Rajčević 1\* , Čedomir Crnogorac 1\*\***

1 Faculty of Sciences, University of Banja Luka, Mladena Stojanovića 2,  
78000 Banja Luka, Bosnia and Herzegovina

\* e-mail: [vrajcevic@gmail.com](mailto:vrajcevic@gmail.com)

\*\*e-mail: [hydrologyc@gmail.com](mailto:hydrologyc@gmail.com)

*The idea of sustainable development is clearly reflected in the fact that the growth of human population is one of determinants of the development of human civilisation and social system on our planet. On the other hand, this development comes at a cost of exploitation of another system – natural (space and resources), which is yet to become an issue in the future. It remains a fact that the human population cannot be denied of this right, but the range and manners of this exploitation should and must be challenged.*

*The fact that this process is an excessive one is evident from the fact that the natural balance is being more and more endangered, with one of the most topical issues being deforestation in the geographic layer. With regard to this, the issue of protection of forest*

*complexes and forest ecosystems is a multi-layered one, where the construction of small hydro-power plants (SHPP) is one of major challenges.*

*The research is based upon the fieldwork of authors at the sites of numerous watercourses in Bosnia and Herzegovina, as well as on a detailed analysis of meteorological, hydrological, and bio-geographic data concerning the basins of rivers of Vrbanja and Velika Usora respectively. Due to the disturbance of the balanced specific flow in the basins, there are records of forests' vulnerability, increased risk of erosion and occurrence of high and low waters.*

***Key words: viable development, forests, small hydro-power plants (SHP), river regime, erosion.***