DUCA, Gheorghe; NEDEALCOV, Maria; GLADCHI, Viorica; TRAVIN, Serghei. Climatic changes and surface water quality on Republic of Moldovas territory. In: *IFMBE Proceedings*. Ediția a 4-a, 18-21 septembrie 2019, Chișinău. Switzerland: Springer Nature Switzerland AG, 2020, pp. 325-334. ISBN 978-303031865-9.

The current state of global warming requires the expansion of the overall knowledge as well as regional particularities of climate change. The study finds that the Republic of Moldova is facing an accelerated pace of climate change that contributes to a more intense aridisation process and heat waves, with long periods of manifestation in the last years and argues that adaptation to the effects of climate change must be an important element for national policies and actions. Also, the authors establish that for Moldova climate change is a new challenge for water quality that requires great attention and a distinct scientific approach, which implies the participation of various domains of science. In this context, the study proposes an integrated knowledge based approach towards adapting to climate change effects in a broad context of natural and social systems, which incorporate scientific, legal, economic and ecological measures. The authors propose the development of plans and actions based on knowledge transfer and new technologies in order to achieve a better protection and adequate management of water resources in vulnerable areas.