Joint international efforts and challenges for enhancing fire management capabilities in the Chernobyl Exclusion Zone, Ukraine

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Abstract

Three major wildfires in Chernobyl Exclusion Zone (CEZ) (2015) burnt 25,000 ha of contaminated lands, contributed to doses of firefighters, regional pollution outside the CEZ by releasing ^{137}Cs, ^{90}Sr, ^{238}Pu, $^{239\text{-}240}Pu$ and ^{241}Am. For preventing future catastrophic fires in CEZ two projects were implemented by U.S. Forest Service (USFS) and the Organization for Security on Cooperation in Europe (OSCE).

Within the USFS project (2016-2018), five fire detection cameras installed that increased monitored area from 136,000 to 190,000 ha. Chernobyl firefighters were equipped with fire clothing and breathing-protection means. Improved inter-agency communication were achieved by convening five National Coordination Meetings. Within 12 trainings with USFS instructors firefighters trained with knowledge on fires, safety and incident management. A risk assessed to help manage the long-term effect of re-suspended radionuclides from wildfires. For development of fire management plan spatial dataset was created (fuel loads, contamination, suppression) to develop a cohesive fire management strategy and fire management goals.

Within the OSCE project, attention was paid to preparedness of Belorussian and Ukrainian fire services for management of trans-border fires (TBF). Guideline for fire suppression and Belarussian-Ukrainian-English fire terminology were developed for improving coordinated response to TBF, as well as software for predicting doses to firefighters and analysis of legislation of two countries. A table-top exercise for fire command staff was organized by the OSCE, the Global Fire Monitoring Center (GFMC) and the Ukraine-based Regional Eastern Europe Fire Monitoring Center (REEFMC) aimed at strengths of interoperability in addressing radioactive fires.

Presentation language

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