

Use of Meteorological Information From INPE's Brazilian Wildfire in Firefighting Planning

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ABSTRACT – The INPE wildfire monitoring program, www.inpe.br/queimadas, produces daily, monthly and annual reports of meteorological conditions and of fire vegetation risk estimates and forecasts for the country. The information is used by regional and national environmental agencies, such as ICMBio, IBAMA/Prevfogo and the CIMAN (the integrated multi-agency fire operational system) to plan the geographic allocation of financial and technical resources and to support decision strategies in forest fire prevention and fighting. This paper describes the seven regular publications generated from different sources of datasets by a multidisciplinary team of INPE's wildfire Program: 1) "Meteorological Briefings" are produced daily and describe the current and predicted meteorological conditions in the fire combat areas, to support decision strategies by fire managers; 2) "Fire Risk Bulletins" provide predictions of daily winds, air temperature, smoke, precipitation rates and fire risk index, for fire brigades in the field. 3) "Meteorological Reports" are meteorological warnings, generated daily to report the weather conditions recorded in the field of interesting, which have not been predicted and/or disclosed in the briefings from special situation; 4) "Special Meteorological Consultation" is a specific study case prepared on demand to support any specific decision, such as demobilizing brigades or fire operations; 5) "Infoqueima Bulletin" is generated monthly to analyze the pattern of fires that occurred and the past/predicted meteorological conditions; 6) "Fire Risk Yearbook" is an atlas of daily Fire vegetation Risk maps produced for Latin America. In addition, the 7) "InfoClima Bulletin" provides the monthly climate information with an assessment of the burn scenario in the country. 30 "Briefings", 45 "Bulletins", 24 "Reports", 15 "Special Consultations" and 4 "InfoClimas" were released during the 2018 fire season, from August to October. This shows the variety of freely available information from the daily to the annual scales in the INPE's Wildfire Program portal, which have been used in the decision making by coordinators of fire operations and fire managers.

Keywords: Meteorological warnings; wildfire; fire monitoring; climate vigilance