Towards an operational air-quality forecasting system at urban scale at ECCC

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Urban environments are particularly sensitive to weather, air quality (AQ) and climatic conditions. Despite the efforts made in reducing airborne concentrations of primary pollutants in urban areas, air quality continues to be a concern, especially during short-term episodes which could lead to exceedances of short-term air quality standards. Furthermore, urban air pollution has long been associated with significant adverse health effects. In Canada, a large percentage of the population (~ 81%, according to the Canada's 2011 census) living in urban areas is exposed to air pollution. Thus, in order to improve the services offered to the Canadian community, Environment and Climate Change Canada (ECCC) has been undertaking an initiative to develop a high resolution air quality prediction capacity for urban areas in Canada.

This presentation will describe the scope and limitations in the development of the current high resolution air quality forecasting system from an operational perspective. Short and long-terms planning for urban AQ forecasting will also be presented.

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