AIRNow Realtime Air Quality Data and Public Health -- November 21, 2007 - DRAFT Outcome Structure – For Discussion Purposes Only

Activities	Outputs	Level 1 Outcomes Uptake and application of GEOSS standards and other products	Level 2 Outcomes Changes in the availability and interoperability of EO info	Level 3 Outcomes Changes to decision support outputs	Level 4 Outcomes Changes in behaviour in response to new decision support outputs	Level 5 Outcomes High level Impact Statement
		Existing real-time systems in other countries are formally evaluated in a scoping study Agreements to develop and pilot AIRNow-International (AIRNow-I) in several countries that do not currently have realtime capabilities Data sharing agreements, complete with data standards, are developed between agencies that operate existing systems and new agencies using AIRNow-I. Satellite data resources are examined to determine how ground-based monitoring can complement or supplement both coverage and accuracy of remote satellite observations Air quality experts regularly coordinate standards and approaches for modelling, forecasting, monitoring, and reporting systems, domestically and internationally	Real time reporting and increased data availability causes agencies to more closely evaluate monitoring networks for density, placement, continuous measurement capability, and gaps that can be filled with satellite data. AIRNow-I increases interoperability between international realtime data networks by using international data standards Greater availability of standardized and interoperable data contributes to international transport modeling, as well as forecasting Real time air quality data is used as input to forecast models New air quality data, especially from realtime portable monitors and satellite observations, used for emergency monitoring scenarios, e.g. forest fires	More accurate air quality forecasts, including prediction of hazardous episodes Realtime data used to protect public health during emergency events, such as fires Realtime data and forecasts can give rise to action day programs, whereby air quality conditions prompt agencies to alert the public to avoid exposure and request that industry voluntarily reduce emissions More complete understanding of global air quality in realtime, leading to more accurate assessments of global transport	Local governments make more efficient use of public transit to reduce vehicle emissions, i.e. free public transit on air quality action days Personal exposure reduction through readily available public information and greater knowledge of current and predicted air quality Emergency response agencies gain more timely health protection information that can be easily shared with the public, e.g. realtime particulate levels during a fire event can supplement emergency action plans, help track smoke plumes, and alert the public. More actionable information provided in a timely manner for sensitive populations, e.g. during high ozone days, asthmatics can limit exposure.	Exposure avoidance leads to reduced medical intervention, e.g. asthma Government/Industry partnerships result in voluntarily emissions reductions on air quality action days Reduced health impacts from poor air quality on society – fewer sick days, greater productivity, less ecological damage Exposure reduction decreases severity of heart and lung disease on poor air quality days, reducing mortality Improved air quality, fewer days in Unhealthy range of Air Quality Index (AQI) leads to greater liveability in cities with air quality issues

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