3.082 Air pollution in rural ecosystem: The issue being neglected so far.

Presenting Author:

Ohnmar May Tin Hlaing, Environmental Quality Management Co., Ltd, Yangon, Myanmar, ohnmarmay@gmail.com

Co-Authors:

Thiha Htut, Environmental Quality Management Co., Ltd, Yangon, Myanmar
Ye Naung Tun, Environmental Quality Management Co., Ltd, Yangon, Myanmar
Aung Zin Min, Environmental Quality Management Co., Ltd, Yangon, Myanmar
Kyaw Ko Ko, Environmental Quality Management Co., Ltd, Yangon, Myanmar
Soe Thu Aung , Environmental Quality Management Co., Ltd, Yangon, Myanmar

Abstract:

Currently, policy decision and actions on air quality mainly consider on mobile emissions resulting in urban air pollution. In Myanmar, the developing country, rural air quality becomes a challenge since several rural areas have exceeded the national air quality standard for one or more air pollutants. Rural ecosystem where a large percentage (70%) of the population depends on is being affected by air pollution in a number of ways. The objective is to raise understanding of policy makers, administrative personnel, developers and local community on the potential sources of the exceeding air quality standards. The perimeter air monitoring station has been 24hr continuously monitoring particulates and gases in the rural areas across states and regions of the country. These surveys were cross sectional studies being conducted as the scope of works for the Environmental Impact Assessment. Major findings were summarized that PM_{10}, $PM_{2.5}$ and SO_2 levels were higher than air quality standard while three transportation-related pollutants including carbon monoxide, ozone and NO_2 were below the standards. The five years data (2013-2018) provides the insight of rural air status and the notable findings were in the Mon State (2013), PM_{10} 123 (114-130) ±5, TSPM 212(145-256)±34, in the Magwe region (2015) and (2016), SO_2 59 µg/m3 (28-104) ± 8, Methane 6 ppm (5-7)±0.2, Ammonia 0.5 ppm (0-1) ±0.1 and PM_{10} 124 $\mu g/m^3$ (96-207) ±11, $PM_{2.5}$ 45 $\mu g/m^3$ (13-72)±6 , SO_2 29 µg/m3 (5-97) ± 9, Methane 8 ppm (8-9) ±0.1, Ammonia 0.6 ppm (0-2) ±0.2 respectively. Survey identified that major sources namely rice straw, crops residues open burning and forest fire are primarily responsible issues. A predominant view supported that particulates and SO_2 levels in rural areas become significant and furthermore, transportation-related strategies only did not help these areas to attain the national air quality standard.