

## **Study of vehicular emissions with references to Pak-NEQS: A case study of District Swat**

Muhammad Nafees<sup>1</sup>, Shahid Zaman khan<sup>2</sup>, Sifatullah Sifatullah<sup>1</sup>, Rowaid Ulla<sup>1</sup> and Bushra Khan<sup>1</sup>

<sup>1</sup> *Department of environmental sciences university of Peshawar, Pakistan*

<sup>2</sup> *Partner in Development, Hayatabad, Peshawar*

Email: [sifat\\_mukhtar@yahoo.com](mailto:sifat_mukhtar@yahoo.com) or [sifatmukhtar@gmail.com](mailto:sifatmukhtar@gmail.com)

This study was conducted during 2011-12 in Swat Valley, North of Pakistan with the objective to assess the ambient air quality in the surrounding of newly constructed road in relation to Pakistan Environmental Quality Standard (Pak-NEQS). The area was monitored twice, before and during the construction for the levels of Sulfur Dioxide, Nitrous Oxide, Carbon Monoxide and PM10 (particulate matter). A significant increase in the above mentioned gaseous pollutants was observed, but did not exceed the present level set by Pak-NEQS. If a further increase of 100% occurs, still it will be below the Pak-NEQS. The value of PM10 was found high in the road's Right of Way (RoW) and near the asphalt and stone crushing plants especially during the day time working hours. Some of the readings also exceeded Pak-NEQS. The implication for ambient air quality is that it must be stringent in order to avoid the morbidity and for the abatement of the pollution level of the area. The promulgation of NEQS should be in accordance with the new scientific evidences.