

AIR POLLUTION STATUS OF NEPAL

Bishwo Babu Pudasaini
Chemist
MoEST

Air pollution

- Air quality monitoring system
- Establish in the Kathmandu valley
- Other part of country

AIR QUALITY WORKS TILL 2001?

- Many scattered Studies, 1980- 2001
- During that time, Lack of
 - Air Quality Monitoring Policy
 - Air Quality Information System
 - Ambient Air Quality Standard

Organization responsible for Air Quality Monitoring

We have not been able to address the air quality issues properly and adequately.

Air Pollution Studies, we have now

- **Air Quality Monitoring Policy**
- We must continue to monitor it continuously and it is the backbone of our efforts to provide fresh and clean air to the residents of the Kathmandu Valley (**Unstated Policy**)
- **Ambient Air Quality Standard**
- www.most.gov.np.
- **Public Private Partnership in Air Quality Monitoring Program**
- **Laboratories (NESS, Soil Test and ENPHO) and MOEST**

Air Pollution Studies, we have now

- **Organized effort with 6 stations in the Kathmandu Valley. The stations are**
 - **Putalisadak & Patan (Urban Traffic Roadside station)**
 - **Thamel (Residential station)**
 - **Bhaktapur & Kirtipur (Urban Background)**
 - **Matsyagaon (Valley Background)**
- **Measured Parameters like PM10, PM2.5, TSP, NO2, Lead and Benzene**

Air Pollution Studies, we have now

- **Internet communication to General Public- Daily concentration of Particulate matter at Urban station**
- **You can log on to www.most.gov.np for information on parameter like TSP and PM10 values daily.**
- **Public Communication- New road-Daily concentration of Particulate matter at Urban station, Now not working**

Air Pollution Studies, we have now

- **Quality data-**

“The present monitoring program concludes that the problem of air quality is only due to Particulate matter.”

- **Other Measured Parameters, Within WHO Guideline**

- **Status of Air Quality in Kathmandu Valley**

Key Intervention, To Improve Air Quality

- Vehicle Emission Standard For In-use Vehicles introduced in 1995**
- Phase out of Diesel 3-wheelers, 1999**
- Introduction of Nepal Vehicle Mass Emission Standard 2000 (Euro I)**
- Ban on import of 2-stroke engine vehicles and second hand vehicles**
- Hydro Carbon added in in-use vehicle emission standard**

Key Intervention, To Improve Air Quality(contd.)

- Phase out of 2-stroke petrol three wheelers, and old taxies**
- Start of on-road monitoring of polluting vehicles & Green Sticker System**
- Promotion of ZEVs, Custom subsidy on Electrical Vehicle parts**
- Trainings to auto-mechanics to reduce emissions**

Key Intervention, To Improve Air Quality(contd.)

- Start of Air Quality Monitoring System in Valley and awareness campaigns**
- Ban on new registration of moving Bull Trench Kiln in Kathmandu Valley**
- Ban on running of moving Bull Trench Kiln in Kathmandu Valley**

The Achievements

- **Legislative Framework**
- **Infrastructure**
- **Organizational Framework for Air Quality Management including Steering Committee**
- **Physical & Measurement Infrastructure**
- **Competent Human Resources**
- **A Strategic Action Plans**

Legislative Framework

- ❖ **Interim Constitution, Part 3, Every citizen will have a right to live in a clean environment**
- ❖ **Environmental Protection Act and Regulation, 1997**
- ❖ **Nepal Vehicle Mass Emission, EURO I Basis, 2000**
- ❖ **National Ambient Air Quality Standard, 2003**
- ❖ **Stack Emission Standard, Brick Kiln, 2008**

Infrastructure in the Generation of Quality Data

- **Compliance/No compliance to Ambient Air Quality Standard**
- **Assured Quality Data**
- **Accreditation of the testing and Measurements Program**
- **Participation in Proficiency Programs**
- **Increased Calibration Efforts**
- **Improvement in Competency in Tests and Measurements**
- **Introduction of External and Internal Quality Audit**

Infrastructure in the Generation of Quality Data

- Competency in Operation, Measurement Maintenance and Management of 6- Stations
- Smooth Operation of Contract Management

Future Action

- Integrated Environmental Policy
- Institutional Development
- Review of AQMS Of Ktm valley
- Establishment of AQMS, Other Cities of Country
- Competency on
 - Dispersion Modelling
 - Meteorological Data
 - Source Apportionment

THANK YOU FOR YOUR ATTENTION