

I CARE FOR CLEAN AIR

2018

Proceedings of

CLEAN AIR FORUM II

“Open Data for Effective Policy Formulation, Decision Making and Citizen-Government Partnership”

June 14, 2018

Hotel Peninsula, Lalupate Marga, Pokhara

Clean Energy Nepal

June, 2018



1. Background

Air pollution is established as a major threat to human health. According to the State of Global Air 2018 report, 95 percent of the world's population is breathing unhealthy air. Air pollution has become the fourth-highest cause of death worldwide with the majority of deaths recorded in poorer nations. In 2016, long-term exposure to air pollution contributed to the deaths of 6.1 million people from stroke, heart attack, lung diseases and lung cancer. In Nepal, 215.6 in every 100,000 people die due to air pollution as of 2016. The global Environmental Performance Index (EPI) 2018 has also ranked the quality of air in Nepal among the lowest in the world.

These data present an undeniable fact that air pollution has high public health cost and is a serious environmental concern. In order to counteract the alarming statistic, it is very important to conduct a comprehensive air monitoring of where the pollution is most concentrated, how it occurs, what factors are involved and how we can neutralize it. While data in relation to air pollution is being generated from governmental and non-governmental organizations, research institutions and informal groups, data sharing is still not practiced widely.

In this regard, Clean Energy Nepal conducted Clean Air Forum II on 'Open data for policy formulation, decision making and citizen-government partnership' under I Care for Clean Air Campaign on June 14, 2018. The forum was conducted in collaboration with Pokhara-Lekhnath Metropolitan City and the US Embassy in Nepal to discuss on the importance of partnership and data based decisions when developing policies related to clean air.

2. Objective

The main objective of the program was to sensitize the multiple stakeholders including newly elected local government officials, local NGOs, media, academia and youths on air pollution and the importance of open data standards for the effective policy formulation and implementation

- Understand the plans and policies of local government to address air pollution issues
- Enhance knowledge on importance of open data and air quality management system

3. Program Participants

Around 40 participants from governmental bodies (Central, Provincial and local), civil society organizations, educational institutions, youths, media and other concerned stakeholders participated in the program.



Figure 1: Women Representative from various wards of PLMC participating in the workshop

4. Proceedings

The program commenced with chairing of the session by Mr. Manjeet Dhakal, General Secretary of Clean Energy Nepal. Opening and program overview was shared followed by four presentations and panel discussion. The presenters focused on the status of air pollution in Nepal, policy response and use of open data for air quality management. The panel discussion was focused on the need of air quality data and the importance of data to formulate effective policies for air quality management.

Opening Remarks

The program commenced with the opening remarks and program overview from Ms. Rashmi Maharjan, Program Officer, CEN. In a brief history of Clean Air Forum in Pokhara, she said the previous discussion had identified the need of monitoring stations in Pokhara which later materialized and currently there are 3 monitoring stations in Pokhara. 'Now, we face the challenge of utilizing the data from monitoring stations and effective policy making in air quality management'. She concluded her remarks with the positive hope that the workshop would be successful to generate a positive outcome.

Remarks from US Embassy

Ms. Sara Litke, Regional Environment Officer for South Asia from US Embassy in Nepal remarked that the United States has been doing several works in various nations including Nepal for air quality monitoring and is expanding to Open Data. She spoke on the need of investing in clean air and work in collaboration and information sharing for effective Air Quality Management.

Presentation 1: Policy Response for Air Quality Management in Nepal

During the presentation, Mr. Rajan Thapa, Program Manager, Clean Energy Nepal presented on the overview of policies in Nepal. During the presentation, he spoke on the trend of pollution level in Nepal and how data has been aiding in the analysis of air quality. He highlighted the national policies formulated in response to the degrading level of pollution. He said, "To achieve clean air, high priority should be given toward the development and compliance with environmental standards, as well as the strengthening of institutional capacity".

Presentation 2: Air Pollution Monitoring and Reporting in Nepal

Mr. Shankar Prasad Sharma, Senior Divisional Chemist, Department of Environment presented on the status of air pollution in Nepal. His presentation comprised of the history of air quality management in Nepal, initiatives from Government and the brief analysis of data from existing monitoring stations. He concluded that the level of air pollution in Pokhara is lower compared to Kathmandu and Lumbini but urgent attention is required for air quality management strategies in Pokhara to maintain the level within the national standards.

Outcome sharing of Youth Workshop

A youth workshop on Importance of Open Data for Air Quality Management was conducted on June 13, 2018 at Hotel Peninsula Pokhara. Youths from several educational institutions, youth networks, youth

councils and informal groups participated did a detail analysis of the major pollution causing sectors in Nepal (Transport, Industry, Agriculture and Solid Waste) from various perspective and drew a set of demands they sought from the government and the stakeholders. The demands was shared with the stakeholders where youths demanded that the data should be easily accessible from all sectors so that youths can be engaged in research and explore possible solutions to the problem. They also demanded youth involvement in policy dialogues to ensure for sustainable environmental management. Along with the demands, youths also asserted commitment to actively perform their roles and responsibility towards air quality management.



Figure 2: Youth Representatives sharing the youth demands to the stakeholders

Remarks from Special Guest

Mr. Man Bahadur GC, Mayor of Pokhara Lekhnath Metropolitan City remarked that the workshop was helpful in informing of the status of air pollution in Nepal and Pokhara. He appreciated the demands from the youth for Air Quality management and urged them to fulfill their individual responsibility while also seek actions from the stakeholders. 'Pollution in Pokhara is comparatively less than in the capital city and

to limit the level within the standard we must focus on research, data generation and awareness enhancement from grassroots levels’, GC said.



Figure 3: Special Guest Mr. Man Bahadur G.C, Mayor, PLMC giving his remarks

Presentation 3: Overview of Air Quality Management Program conducted in Pokhara

Mr. Nirmal Bhandari, Division Head, Environment Division in Pokhara Lekhnath Metropolitan City presented on the ongoing activities and the future work plans of the division. On a positive note, Mr. Bhandari committed that the division would initiate activities for Air Quality Management in the near future.

Presentation 4: Global Scenario of Open Data Standards and its use in Policy Making for Air Quality Management

The special speaker from United States, Christa Hasenkopf, Phd, CEO/Cofounder of OpenAQ presented on open air quality data and how to access information and also connect community and people to offer solutions. She introduced the concept of fully open data and how to use open data in air quality management from government perspective, policy perspective and community member’s perspective.

She presented many examples of work the global community was doing in open data and concluded with an open invitation to share any government or research grade data to the global community. 'We believe that the data generated has such a tremendous impact both locally and on an international community so that everyone can have better air quality', said Christa in her concluding remark.

Panel Discussion

The presentation was followed by a panel discussion which was facilitated by Mr. Manjeet Dhakal. The panelists were Shankar Prasad Sharma, Senior Divisional Chemist, Department of Environment, Pramod Pokhrel, Transport Management Office, Gandaki, Rajaram Prasad Dhakal, Office Chief, Regional Hydrometeorology Office and Ram Prasad Poudel, Campus Chief, Western Regional Campus. Mr. Pramod Pokhrel briefed on the number of vehicles registered in the transport management office, Gandaki. Mr. Ram Prasad Poudel shared that shift from fossil fuels and internal combustion engines to electric vehicles with zero emission, renewable energy and other technological advancements is happening now and until the shift is completed we are in a transitional stage; so we need to be smart with our choices and contribute towards air quality management. Mr. Shankar Prasad Sharma informed that the data are being generated every minute and public has access to real time data from the monitoring stations up to one week from the government website. Mr. Rajaram Prasad Dhakal gave an overview of the hydrological and meteorological data (open data) from the regional office, Pokhara and its effective use in research and forecasting.

The discussion brought forwards various queries, suggestion and recommendation from the panelist and the general participants;

- The increasing level of pollution and its correlation to the number of vehicles can only be possible through research which in turn requires access to data. Data on number of vehicles, types of vehicles, fuels and types and level of pollutants in air are required to bridge the gap and evidently say that vehicle is a major cause of air pollution and also identify possible solution.
- Hydrological and Meteorological Data has been of immense use and thus we could replicate and also devise new tools to similarly forecast air pollution and convey the information to general public.
- Government data should be in an open platform and since the government cannot give access to the internal server so there needs to be a technical collaboration to aid the ease of data accessibility.

- What kind of data are being generated from local level? What kind of data are needed to aid in policy formulation? There are lots of actions that can be initiated from local level in terms of air quality management but the knowledge and technical manpower is lacking in the local level.
- The respective division and sector are generating data related to air pollution but the lack of inter coordination has amplified the problem and the utility of the generated data for air quality management has not been ensured.
- There is a need of expert analysis of the data to understand the problem and identify possible solution and also identify what types of data are need to be generated in the future to achieve the solution. Feasibility and sustainability should also be considered before introducing any kind of solution
- Local level solutions such as catalysts in chimneys, tailpipes and exhaust valves are undoubtedly possible to reduce the emission need to consider transboundary pollution as well.
- Standards should be devised on the basis of which import, manufacturing, desired solutions, control measures can be based upon.
- Implementation of action plans and policies major role
- Local endorsement of 'Nepal Swachha Batawaran Mahaabhiyan' and its effective implementation from local level.

At the end of the discussion, Ms. Santu Subedi, Ward Representative from Pokhara Lekhnath Metropolitan City-24 expressed that firstly, we need to be aware of the existence of the problem and then move towards the solution. She stated that data are the evidence of the problem of air pollution and positive changes from individual level and fulfillment of self-responsibility is the only possible solution to address the issue. Special speaker Christa expressed that it was encouraging to see the desire for data and we now should explore the ways to link up the data for air quality management.

In the closing remarks, Rajan Thapa remarked that data was being generated in Pokhara not only on the field of air pollution but in other fields as well. He expressed that the discussion had helped identify the loopholes and now there is a need of synchronization of the data to create a proper database. The derived benefits from research and data analysis will in turn help enhance public knowledge and awareness level.

5. Conclusion and Way forward

Clean Air Forum II, Pokhara generated a consensus that data are being generated from various sectors but the data are not fully open and the reliability of the data is not ensured. A commitment from

Department of Environment was made that the data would be available to general public openly in the near future. Local government have also set aside the budget for environment management but they need more knowledge on the issue of Air Pollution and air quality data so that they can formulate data based plan and policies. Role of youths in research and awareness enhancement

Enhancing knowledge about air pollution from grassroots level initiated from local government and youth could be effective in Air Quality Management. The practice data sharing from various sectors and inter coordination among the sectors and stakeholders could be the way forward for effective policy formulation and air quality management.

Annex 1: Program Agenda

S.N.	Program	Time
1.	Registration/ Tea and Coffee	8:00-9:00
2.	Opening Session	
	Opening Remarks and Program Overview - Clean Energy Nepal	9:00 - 9:10
	Guest Remarks	9:10 - 09:20
	Special Remarks - Representative from US Embassy in Nepal	9:20 - 9:30
	Special Remarks - Pokhara - Lekhnath Metropolitan City	9:30 - 9:40
3.	Technical Session	
	Policy Response for Air Quality Management in Nepal - Mr. Rajan Thapa, CEN	9:40 - 10:00
	Air Pollution Monitoring and Reporting in Nepal - Mr. Shankar Paudel, Department of Environment (DoE)	10:00 - 10:20
	Overview of Air Quality Management Program conducted in Pokhara - Mr. Nirmal Bhandari, P-LMC	10:20 – 10:40
	Global Scenario of open data standards and its use in policy making for air quality management - Christa Hasenkopf, PhD, CEO/Co-founder, OpenAQ	10:40 - 11:10
	Outcomes sharing of Youth Workshop - Youth Representative	11:10 - 11:20

	<p>Panel Discussion Open data sourcing scenario in Nepal and data driven policy</p> <p>Guiding Questions</p> <ul style="list-style-type: none"> • What kind of data are being generated form governmental and non-governmental sector? • Are these data readily accessible? If yes, what are the criteria? • How these data are being incorporated in policy and decision making? • Is there a need for open data standard? <p>Tentative Panelist DoE, P-LMC, Regional Hydrometeorology Office, District Public Health Office, TM0, Gandaki</p>	11:20 – 12:30
5.	Closing	12:30 – 13:00
6.	Lunch	13:00

Annex 2: Presentations

Please find the presentations in the link below:

<https://drive.google.com/open?id=1TjRs5xT2Mj80fakjOEYxNxxwZiEtRQNR>

Annex 3: List of Participants

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