AIPS Final Report – Air Quality

Grantee Information
Name: Gabriel Filippelli
U.S. Institution: Indiana University-Purdue University Indianapolis (IUPUI)
Research Field: Air Quality and Health

Summary
A greater awareness of the negative impacts of air pollution on public health has made this is a prime issue in many countries. Pakistan currently has almost no air quality monitoring capabilities, thus it is difficult to assess the true impacts of air quality on health and nearly impossible to determine and eradicate the sources of air pollution. In line with a continued USG policy of constructing air quality monitoring facilities on Embassies and Posts in vulnerable countries, the posts in Pakistan are bringing a number of testing facilities on line. Dr. Filippelli, an Air Quality Fellow for Embassy Islamabad and an expert in air quality and health, delivered a series of lectures, workshops, and demonstrations to raise awareness of these issues and to build dialogs among university researchers, students, governmental, and non-governmental entities on this issue.

Scholar Bios
Dr. Gabriel Filippelli is a Professor of Earth Sciences and Directs the Center for Urban Health at Indiana University. Filippelli is a biogeochemist with broad training in marine and terrestrial systems, as well as pollutant exposure and human health studies. Filippelli has published broadly, including publications in *Science, Nature* and *Geology* as well as in specialty journals and in popular press as a science blogger. He has personally directed over $5M of research funding over his career, and is currently a co-PI on a $55M award for Indiana University Prepared for Environmental Change Grand Challenge initiative. He has served as Associate Editor and Guest Editor of multiple journals, and is currently the Editor-in-Chief for the journal *GeoHealth*, published by the American Geophysical Union.

Filippelli is a Fellow of the International Association of Geochemistry, is an Air Quality Fellow for the Pakistan Embassy for the U.S. Department of State, and is a former National Academy of Sciences Jefferson Fellow, where he served as a Senior Science Advisor for the State Department, with a policy portfolio including Science Cooperation in the Arctic, Antarctic climate change, and Marine Debris and Plastics. The latter activity included being the State Department’s chief contact for the Interagency Working Group on this topic, as well as serving as a delegate to several Marine Debris Meetings of the United Nations Environment Program and conducting an Education and Outreach mission to U.S. Embassies in South Africa and Namibia.

Workshops
Please see appendix.

Lectures and Other Engagements
Please see appendix.
Deliverables and Outcomes

“Deliverables”

- Two videos were created that highlight air quality and health in Pakistan. These videos were produced and released by the US Consulate in Lahore and the US Embassy in Islamabad, and were released during Air Quality Awareness week (April 29-May 3).
- Three workshops on air quality measurement and analysis were conducted—one each in Karachi, Lahore, and Islamabad (all noted in appendix section).
- Lectures were given at six universities, the NIH, the Parliamentary Services Office, an NGO group, and the EPA (all noted in appendix section).
- Several meetings occurred with EPA staff, US Embassy staff, NIH Director, and NGO representatives (all noted in appendix section).
- AIPS collected a PowerPoint on “Air Quality and Public Health” for a materials repository.

“Key Outcomes”

- Dr. Filippelli developed a collaboration with Dr. Abida Farooqi of Quaid-i-Azam University in Islamabad to develop a research proposal on environmental health.
- Dr. Filippelli initiated a collaboration with Mr. Abid Omar of the Pakistan Air Quality Initiative to better measure and report air quality parameters in Pakistan.
- Dr. Filippelli shared approaches to building air quality networks with N.E.D. University and with Dadabhoy University.
- Diplomatic Impact below

Diplomatic Impact

By interacting continually with individuals from a number of different sectors, including universities, governmental, NGOs, and US Embassy staff, Dr. Filippelli was able to understand the common interests and to promote open dialog on the important issue of identifying and combatting air pollution. Dr. Filippelli provided a series of examples from the US and abroad about different approaches that have been used to build air quality awareness and science, all of which bridged multiple sectors. Some of the open discussions included participants with very different views of how successful, or not, Pakistan has been at understanding and controlling air pollution. But even these frank and sometimes contentious discussions were approached with civility and mutual respect, if not agreement. Many of these important conversations occurred only because the platform was available and suitable for conversations about air quality, and proceeded in such a way as to clarify a simple path forward. Now, with the US posts bringing live air quality data online and open to the people of Pakistan, we may be seeing a key first step to dealing with this issue in a constructive and positive way.
Appendix—schedule listing lectures and workshops

VISIT OF DR. GABRIEL FILIPPELLI
PROFESSOR, DIRECTOR FOR URBAN HEALTH
DEPARTMENT OF EARTH SCIENCES,
INDIANA UNIVERSITY-PURDUE UNIVERSITY
April 15-25, 2019

Monday, April 15 - KARACHI

0220      Arrive in Karachi at 2:20am on Qatar Airways flight QR 604 from Doha. Overnight in Avari Hotel (Airport Pick Up by AVARI SHUTTLE)

1400-1600 Meetings at Karachi Consulate
Status: Confirmed
Participants: Jean Foster, Jason Green, local staff (c/o Ali, Umair)
Venue: U.S. Consulate

Rest Overnight at Avari Hotel, Karachi

Tuesday, April 16 - KARACHI

1000-1200 Talk on “Air Quality in Pakistan: Interpreting Data and Improving Public Health Communication”
Status: confirmed
Participants: 50-70 Students from relative departments
Venue: Dadabhoy Institute of Higher Education
DIHE Contact: Capt. (Rtd.) Ahmed Zaheer

1215-1345 Lunch with Faculty and Administration and campus visit
Status: confirmed
Participants: Selected faculty and researchers of institute (10-15)
Venue: Dadabhoy Institute of Higher Education

1400-1600 Workshop on “Air Quality Monitoring”, hands-on session in a mobile lab
Status: Confirmed
Participants: 15-20 Selected academics and practitioners from around Sindh
Venue: Dadabhoy Institute of Higher Education in association with EPA
1900-2100 **Dinner and Reception**  
*Status: confirmed*  
*Participants: 50 guests (including workshop participants/local officials)*  
*And embassy colleagues: Jean Foster, Jason Green, Saif Jiskani local staff*  
*Venue: Gymkhana (Main Dining Hall)*  
*Reception Contact: Capt. (Rtd.) Ahmed Zaheer*

**Wednesday, April 17 – KARACHI AND LAHORE**

1000-1100 **Talk on “Air Quality in Pakistan” Title: “Air Quality in Pakistan: Interpreting Data and Improving Public Health Communication”**  
*Status: Confirmed*  
*Participants: 200 civil and environmental engineering students*  
*Venue: N.E.D. University*  
*Coordinator: Ali Chauhan, / Umar, U.S. Consulate, Karachi*  
*NED Contact: Engr. Danish ur Rehman Khan*

1200 **Possible Lunch meeting -- Open**

1900 **Evening travel to Lahore** (Departing 7 pm via Serene Air Flight ER 524)  
AIPS Colleague ‘Shahzad Iqbal will accompany on the flight to Lahore

**Rest overnight at AIPS—Lahore Guest House in DHA**

**Thursday, April 18 – LAHORE**

1100-1230 **Key Note Address by Dr. Gabriel Filippelli on “Air Quality and its Impact on Urban Health”** along with other panelist Ms. Romina Khursheed Alam (Member National Assembly & member SDGs task Force) at Student Convention hosted by Pakistan Inter-University Consortium.  
*Status: Confirmed*  
*Participants: 300 + students, faculty and researchers from across Pakistan*  
*Venue: Royal Palm Club, Canal Road*  
*Convention Coordinator Contact: Mr. Murtaza*  
*Consulate Participant: Political Specialist Sadaf Saad*

1230-1330 **Lunch with hosts**

1400-1600 **Meetings with U.S. Consulate Officials**  
1400-1430 Meeting with Consul General Colleen Crenwelge and Political-Economic Chief Ann Mason  
1430-1500 Air quality video shoot with Public Affairs Section  
1500-1600 Air quality discussion with American staff

1900-2100 **Dinner and Reception**  
*Status: Confirmed*  
*Participants: 50 Guests (VCs, Deans & officials including Consulate Officials)*
Venue: Gymkhana (Banquet Hall):  
Jymkhana Coordination:  
Consulate Participant: Political-Economic Chief Ann Mason

Friday, April 19 – LAHORE

0930-1030  Meeting with Air Quality Asia Representatives  
Status: Confirmed  
Participants: Political-Economic Chief Ann Mason and Consulate staff  
Venue: US Consulate-General Residence  
Consulate Coordinator: Political-Economic Chief Ann Mason

1100-1230 Workshop on “Air Quality Monitoring”, with portable equipment on hand  
Status: Confirmed  
Participants: 15-20 Selected academics and practitioners from around Punjab  
Venue: Comsats Univ, Lahore campus, Raiwind Road, Lahore  
Comsat-Lahore-- Dr. Robina Farooq, Professor, Head ORIC / Head, Chemistry  
Area of Interest: Waste Remediation Technologies  
Consulate Participant: Facility Manager Naeem Ibrahim

1230-1315 Campus Visit / Refreshments

1400-1600 Meeting / Discussion with CEO, Lahore Waste Management Company & Lahore Smog Cell Officials  
Status: Confirmed  
Participants: Mr. Khalid Nazeer Wattoo (CEO) and Smog Cell officials  
Venue: Lahore Waste Management Company (Shimla Pahari), Lahore  
Contact person: Mr. Khalid Pervaiz  
Consulate Participant: Political Specialist Sadaf Saad

Saturday, April 20 – Rest in LAHORE

Sunday, April 21 – Travel to ISLAMABAD via AIPS car with accompanying staff  
(Shahzad Iqbal + M Sabir)

1400 Depart Lahore

1800 Arrival in Islamabad

Rest overnight at Ramada Hotel, Islamabad

Monday, April 22 – ISLAMABAD

0930-1200 Round Table Discussion on Air Quality & Air Pollution  
Status: Confirmed  
Participants: 20-25 young researchers and junior faculty with Federal Secretary
Climate Change (Mr. Hassan Nasir Jami) also attending

Venue: COMSATS Headquarters, G-5
COMSATS (HQ) Contact: Mr. Nisar Ahmad

1200 – 1300 Lunch at venue

1400-1530 Earth Day Seminar on “Air Quality in Pakistan: Interpreting data and improving public health communication”
Status: Confirmed
Participants: 150 Students, faculty and officials from across Islamabad
Venue: Center for Climate Change, Research, and Development, Comsats University
Comsats CCRD Contact: Mr. Saghir Ahmad

1630-1715 Meet-Up with Michael Sullivan, ECON Counselor
Status: Confirmed
Participants: Michael Sullivan, Matt Williger
Venue: Islamabad Club, Main Hall

1730-1900 Earth Day Reception
Status: Confirmed (AIPS to send invites)
Participants: 50 guests (AIPS 20, Embassy 30 Guests)
Venue: Islamabad Club (Saddle Lounge – Outside Area)

Tuesday, April 23 – ISLAMABAD

1015-1200 “PUAN Talks” Panel Discussion as arranged by U.S. Embassy
Status: Confirmed
Participants: Panelists include Government of Pakistan representative, U.S. government representative, Pakistan academic or civil society representative, Dr. Gabe Filippelli. Participants include 20-30 professionals, alumni, and EPA staff.
Venue: EPA
Embassy Coordinator: Yoon

1230-1330 Brownbag Lunch with Larger Embassy Community Concerned about Air Quality Issues (Consulates via DVC)
Status: Confirmed
Participants: Approximately 20 Embassy staff and Consulates will join via DVC
Venue: U.S. Embassy American Center
Embassy Coordinator: Monica

1330-1400 Lunch in Embassy Cafeteria
Status: Confirmed
Participants: Monica, Matt, others
Venue: U.S. Embassy
Embassy Coordinator: Monica
1400-1500  “Tea Time” Radio Interview Recording and Studio Recording for the Embassy’s Social Media Platforms  
**Status:** Confirmed  
**Participants:** Monica, Matt, Will, Courtney  
**Venue:** U.S. Embassy  
**Embassy Coordinator:** Monica

1500-1600  **Meeting with Embassy Staff, including Air Quality Working Group Members, Facilities**  
**Status:** Not Confirmed  
**Participants:** Monica, Matt, other members of the Embassy  
**Venue:** U.S. Embassy Conference Room 1210 (booked)  
**Embassy Coordinator:** Monica

**Wednesday, April 24 – ISLAMABAD**

0900-1030  **Lecture at the National Institute of Health as coordinated by CDC**  
**Status:** Confirmed  
**Participants:** 30-40 NIH Staff  
**Venue:** NIH  
**NIH Contact person:** Mr. Jamil Ansari, Senior Scientific Officer, National Institute of Health

1130-1300  **Roundtable Session on “Air Quality and Air Pollution in Pakistan”**  
**Status:** Confirmed  
**Participants:** 20-25 Parliamentarians, senators serving on Climate Change and Health committees along with PIS researchers and analysts  
**Venue:** Pakistan Institute of Parliamentary Services (F-5, Islamabad)  
**PIPS Contact:** Mr. Muhammad Rizwan Manzoor

1300-1400  **Lunch at Venue (PIPS)**

1430-1600  **Interactive Meeting with NGOs representatives**  
**Status:** Confirmed  
**Participants:** 20-25 Representatives of HRDN, IRM, AHKRC, NRSPs  
**Venue:** HRDN (IRM Building, Park Road, Islamabad)  
**HRDN/IRM Contact:** Ms. Maria Qibtia, HRDN/IRM

**Thursday, April 25 – ISLAMABAD**

0305  Depart from Islamabad at 3:05am on Qatar Airways flight QR 633 to Doha, then onwards to Chicago and Indianapolis