




**SCIENCE DIPLOMACY IN THE ASIA-
PACIFIC: INTERNATIONAL
ENVIRONMENTAL CHEMISTRY**

Katie Purvis-Roberts
Claremont McKenna, Pitzer,
& Scripps Colleges



“Given the relevance of international exposures to the current trend in globalization and the limited exposure to international peers majoring in chemistry, chemistry degree programs should be structured to facilitate the development of international competencies in their students.”

– American Chemical Society, Committee of Professional Training

2016-2017 JEFFERSON SCIENCE FELLOWS WITH DEPUTY SECRETARY OF STATE ANTHONY BLINKEN



FOREIGN AFFAIRS OFFICER (ENERGY, SCIENCE, AND TECHNOLOGY)

Energy

Science & Technology

Science Envoys/Embassy Fellows

Women in STEM

Asia Pacific Economic Cooperation (APEC):

- Policy Partnership on Women & the Economy
- Energy Working Group
- Mining Task Force
- Policy Partnership on Science, Technology & Innovation
- Automotive Dialogue
- Chemical Dialogue



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Asia-Pacific Economic Cooperation

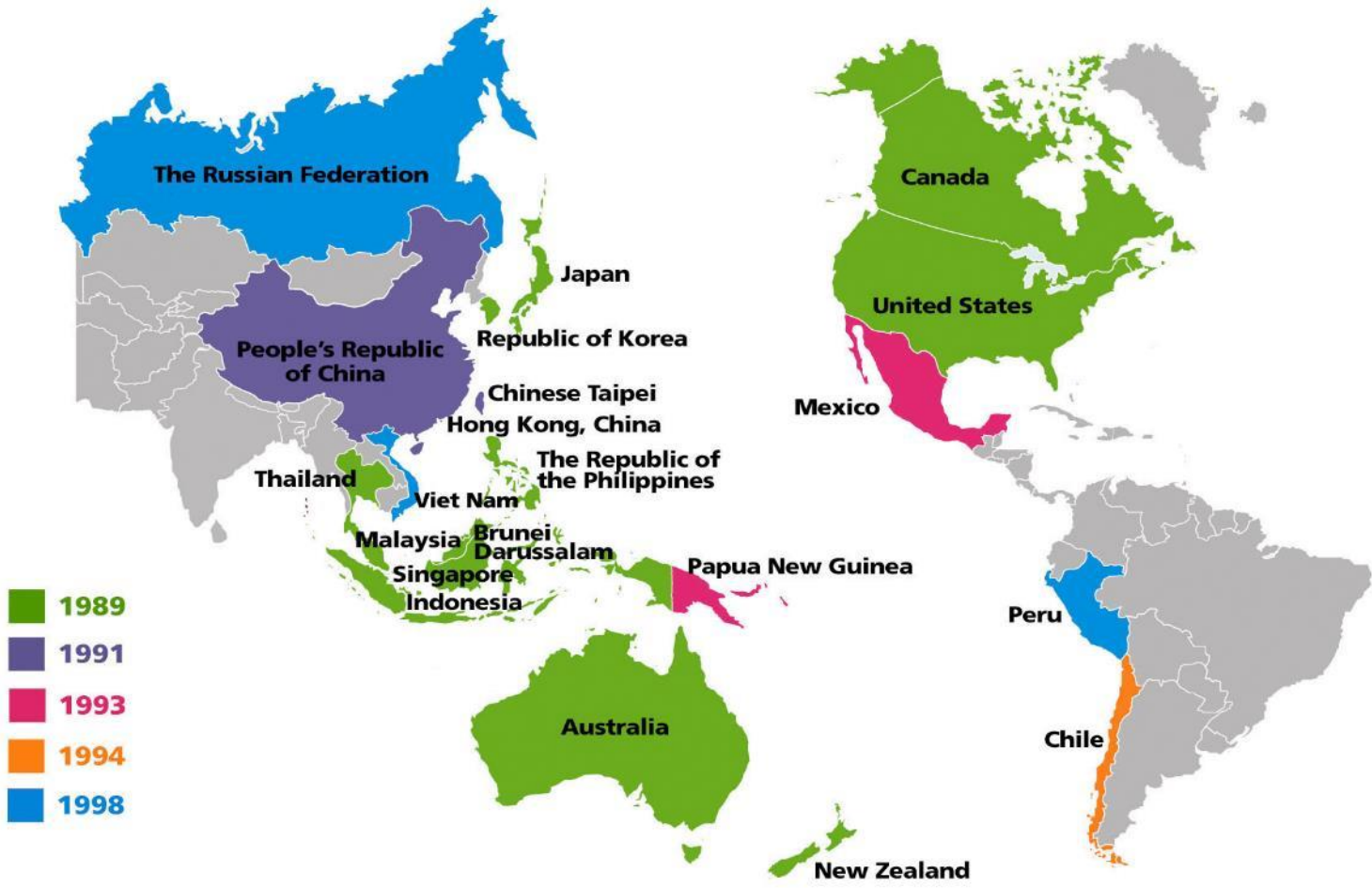




APEC MEMBER ECONOMIES



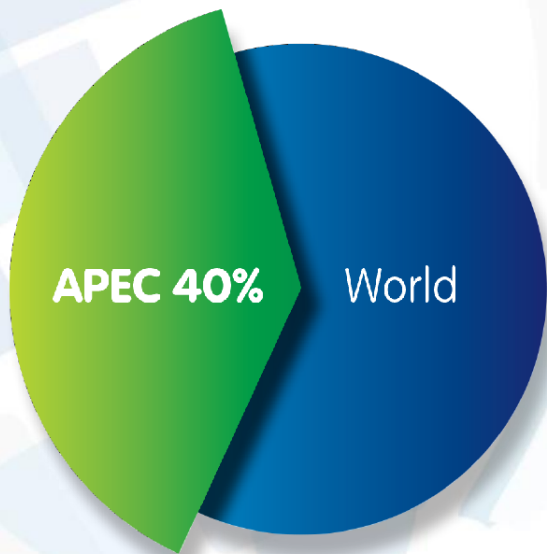
Asia-Pacific
Economic Cooperation



APEC's Significance

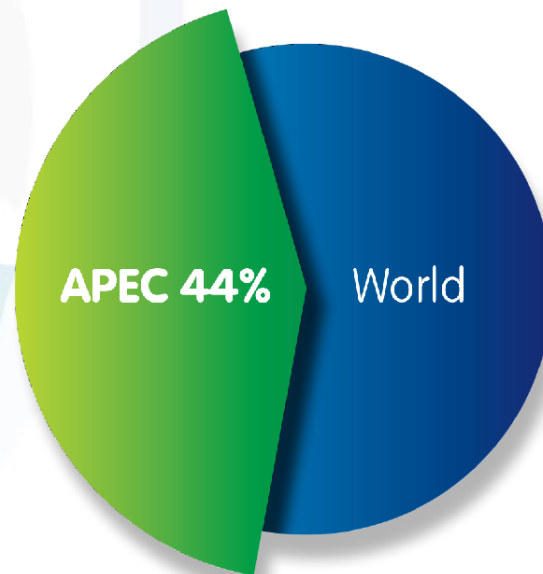


Asia-Pacific
Economic Cooperation



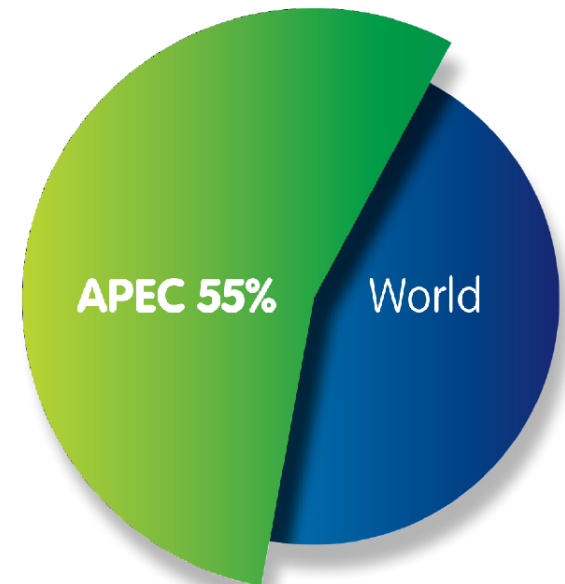
Population

World 6.8 billion
APEC 2.7 billion



Trade

World US\$38 trillion
APEC US\$17 trillion



GDP

World US\$58 trillion
APEC US\$32 trillion

ENERGY WORKING GROUP

Expert Group on Energy Efficiency

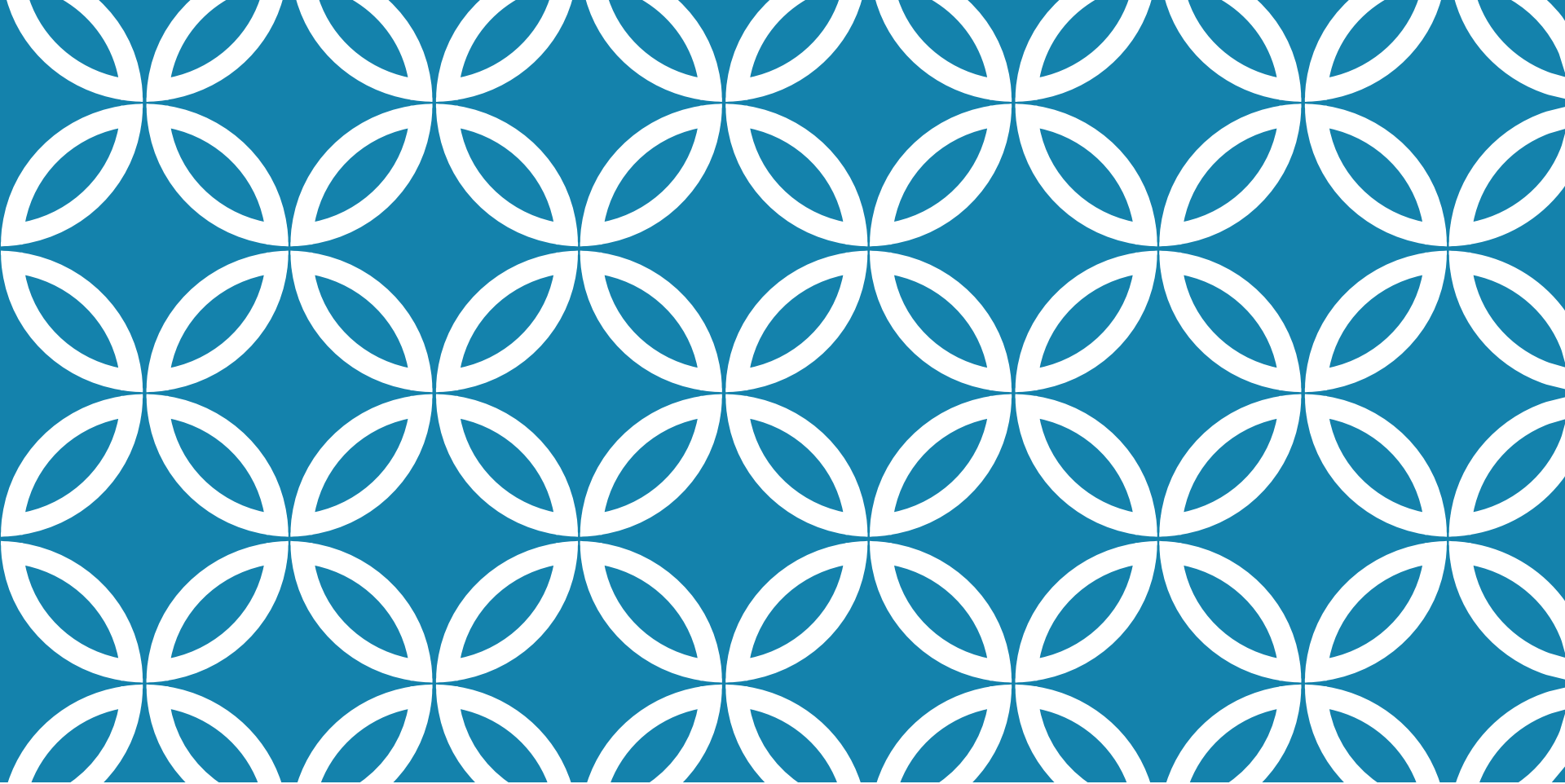
Expert Group on Renewable Energy

Energy Working Group



Life-cycle Cost Analysis of Clean Energy in Kuala Lumpur, Malaysia (October 2017)

University Consortium to work on Energy Efficiency and Renewable Energy



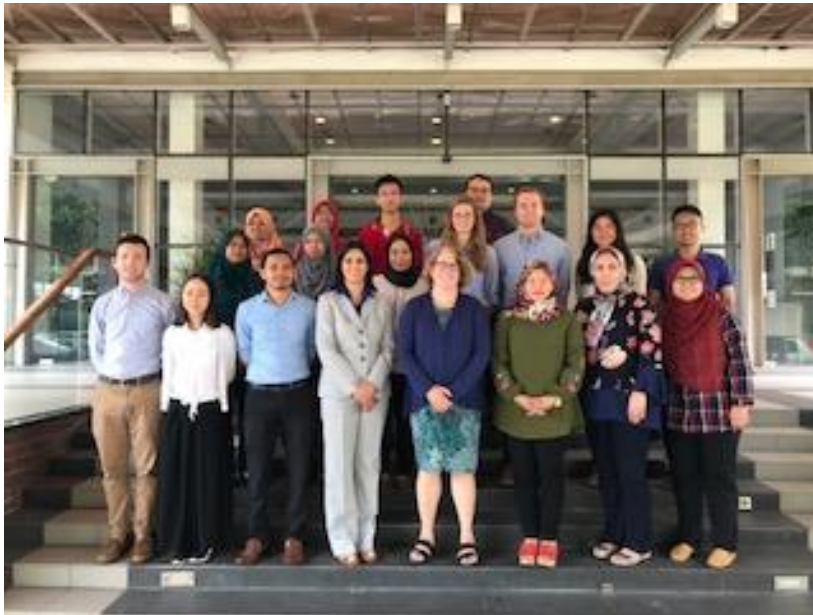
COLLABORATION |

COLLABORATION BETWEEN UNIVERSITI KEBANGSAAN MALAYSIA AND THE CLAREMONT COLLEGES



- Philosophy, Policy, and Issues in Energy (UKM)
- Environmental Chemistry (Claremont)
- Students work collaboratively on clean energy projects comparing Malaysia and the U.S.
 - Smart Cities
 - Renewable Energy
 - Ethanol Blending in Gasoline
 - Energy, Environment, & Economics for Industry 4.0
 - Climate Change & Development
- Communication
 - Skype, e-mail, Google docs
 - Challenging

SYMPOSIUM AT UNIVERSITI KEBANGSAAN MALAYSIA: MAY 15-18, 2018

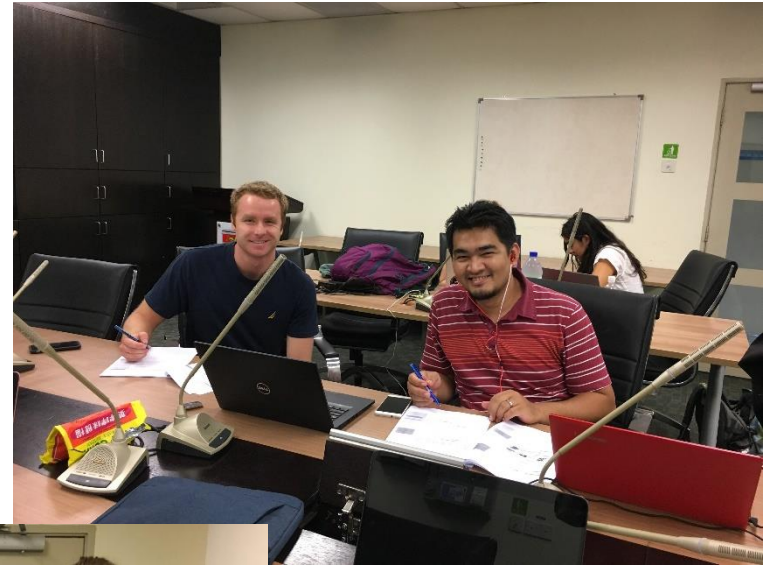


CLAREMONT STUDENT TALKS AT SYMPOSIUM

- Environmental Impact from Renewable Energy Technologies Systems
- Environmental benefits for blending ethanol into gasoline for Kuala Lumpur and Los Angeles
- Energy, Environment, and Economic Forecast Towards Industry 4.0



STUDENTS WORK ON PAPERS TOGETHER



ENVIRONMENTAL FIELD TRIPS



CULTURAL LEARNING



FALL 2018

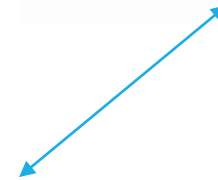
- Classes taught at the same time
 - Tuesday at 7 pm in Claremont
 - Wednesday at 10 am in Selangor and Quezon City
- Lecture for each other's courses
- Students collaborate on research projects together



UNIVERSITY OF THE PHILIPPINES
Department of Industrial Engineering
& Operations Research

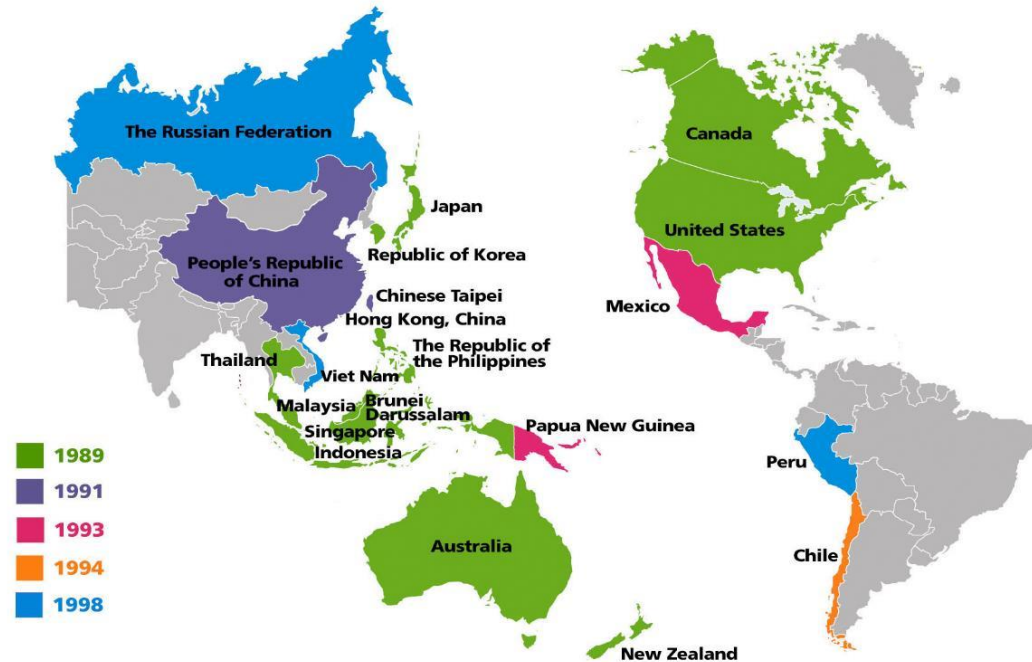


W.M. Keck Science Department
Claremont McKenna College • Pitzer College • Scripps College



FUTURE PLANS

- In future hope to work on projects needed by the APEC Energy Working Group
- Develop a network of Universities in APEC economies who collaborate on courses



ACKNOWLEDGMENTS



Universiti Kebangsaan Malaysia

Dr. Norashikin Ahmed Ludin

Students in STSF 6033: Philosophy,
Policy, & Issues in Energy

Claremont Colleges

Students in CHEM139: Environmental
Chemistry

University of the Philippines

Professor Mili-Ann Tamayao

Future students in IE 298: Introduction
to Life-Cycle Analysis

Funding

The National Academies of Sciences, Medicine, & Engineering

U.S. Department of State

Claremont EnviroLab Asia Program funded through the Henry Luce Foundation

LIASE Program

Dean of Faculty Offices from Claremont McKenna, Pitzer, and Scripps Colleges