Pathways to Clean Cooking – 2050

Leaving no-one behind

Background

Well into the 21st century, 2.8 billion people still rely on solid fuels (wood, dung, crop wastes, charcoal, coal, etc.) and traditional fires or simple stoves for cooking and heating, and 1.2 billion light their homes with simple kerosene lamps and candles, causing high levels of household air pollution,[1] disproportionately affecting women and children,[2] predominantly in low-income counties.[3]

In addition to adverse health impacts, emissions from biomass fuels contribute to 2-8% of anthropogenic climate impacts, including 20-30% of black carbon emissions, and in many population-dense settings use of fuelwood is a major driver of deforestation and forest degradation.[4,5]

Sustainable Development Goal 7 (SDG7) calls for ensuring "access to affordable, reliable, sustainable and modern energy for all" and includes a target for universal access to clean cooking by 2030.[6]

The WHO guidelines (2014) provided emission rate targets for household air quality, which have led to much focus on 'clean fuels', but with only slightly more than a decade until 2030 (i) some of the 'clean' fuels are fossil-based[7] and cannot be sustained in the long term, (ii) the adoption of modern 'clean' fuels is usually partial, whereby a large fraction of people continue to rely on traditional biomass use combined with 'clean' fuels, particularly in rural areas and small towns and (iii) there is a significant segment of the population, without access to 'clean' fuels, particularly those living in rural areas -estimated at 2 billion people in 2017- [8] that are in danger of being left behind.

The International Energy Agency predicts that 2.3 billion will still be without access to clean cooking facilities in 2030[8] while the absolute number of solid fuel users is predicted to increase until 2050 in sub-Saharan Africa, South and Southeast Asia.[9] Poor households and households in rural areas are most vulnerable to energy poverty having limited or no access to modern energy services.[10]

Creating a 2050 Pathways Platform

Following our inaugural meeting in Morelia, Michoacán, Mexico in 2017,[11] we would like to extend the discussion, broaden the participation and audience, and bring together an ambitious multi-disciplinary group[12] of actors in 2019.

The objective of meeting is to develop pathways for cleaner cooking, focusing specifically on hundreds of millions of people likely to rely on fuelwood and other sources of bio-energy to meet their basic needs for decades to come.

In a further advance of the Leaving No One Behind approach to the SDG7 and the 2030 agenda, Pathways II will focus attention on reaching the furthest behind first.

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[1] World Health Organization guidelines for indoor air quality: household fuel combustion. 2014
[2] Fullerton DG, Bruce N, and Gordon SB. Indoor air pollution from biomass fuel smoke is a major health concern in the developing world. Trans R Soc Trop Hyg 102: 843-851. 2008.
[3] Smith K.R. Fuel combustion, air pollution exposure, and health: the situation in developing countries Annu. Rev. Energy Environ., 18 (1993), pp. 529-566
[4] Masera OR, Bailis R, Drigo R, Ghilardi A, and Ruiz-Mercado I. Environmental Burden of Traditional Bioenergy Use. Annual Review of Environment and Resources. 22.9: 15.1-15.30. 2015.
[5] Bailis R, Drigo R, Ghilardi A, and Masera O. The Carbon Footprint of Traditional Woodfuels. Nature Climate Change. 5: 266-272. 2015.
[6] http://www.un.org/sustainabledevelopment/energy/
[7] Fossil free cooking is a long-term goal that will allow, some time in the future, a portfolio of cooking options based on renewables such as solar, biomass, etc. As part of the transition, in the interim, there will be hybrid solutions including liquid petroleum gas.
[8] https://www.iea.org/access2017/
[9] Bonjour S, Adair-Rohani H, Wolf J, Bruce NG, Mehta S, et al. Solid Fuel Use for Household Cooking: Country and Regional Estimates for 1980-2010. Environmental Health Perspectives. 121.7: 784-790. 2013.
[10] Gonzalez-Eguino M. Energy Poverty: An Overview. Renewable and Sustainable Energy Reviews. 47: 377-385. 2015.
[11] The Pathways Conference in 2017 was hosted by the Research Institute in Ecosystems and Sustainability (IIES) of the National Autonomous University of Mexico (UNAM), in the historical city of Morelia, a UN world heritage site.
[12] The initiative is partially inspired by the "Under 2 MoU" and the "High Ambition Coalition"

Proposed themes

A call is being made for abstracts, including case studies and research, related to:

- Households and settings - focus on the users & sustainable development impacts
- Evaluating pathways to modern, sustainable cooking energy systems
- Impact Based Finance for cleaner cooking - climate adaptation & mitigation finance, health finance etc.
- Modern, clean, sustainable bio-energy in a low-income country context
- Policy options for a just transition to modern, sustainable cooking energy systems
- Transitional and hybrid multiple fuel-device cooking systems

Methodology

The conference will involve:

- Presentations, seminars & plenaries, including a roundtable discussion on funding opportunities for future case studies (capacity 35-100)
- Public round table with keynote speech (capacity 172)
- Musical & cultural concert and video launch (capacity 855), and
- Photographic exhibition.

Prior to the conference, there will be a number of articles in local newspapers and public seminars in Wexford to induce local interest in pathways to cleaner cooking. Activities are coordinated by an organising committee.

Participants

The general public will be invited to the roundtable and concert while technical discussions will involve 30-50 participants with a strong interest and commitment form various regions and sectors including academic researchers, field implementers, international agencies, policy makers.

The Venue

Wexford Library, the Wexford Arts Centre & the National Opera House in Wexford, Ireland.

Confirmed dates

30th and 31st of May 2019.

Cost

€80 per person for all events including concert (students €30 including concert).

We want to burst through the poverty of ambition in the development movement …. shifting the mindset away from the incumbent attitude to the energy system that is centralised and carbonised

Rachel Kyte, Chief Executive Officer of Sustainable Energy for All (SE4All)