Supplementary Table 1

Table 1: Examples of interventions to reduce environmental risks to NCDs

Area/ settings	Intervention	Examples and tools
Air pollution		
All areas and relevant sectors	Regulations; policies.	Policies to reduce air pollution, or policies with other objectives but with an effect of reducing air pollution;(1, 2) the Convention on Long-range Transboundary Air Pollution (LRTAP)(3);
Energy	Replacing traditional household polluting fuels (e.g. wood, coal, charcoal, dung, crop residues, kerosene) with clean technology and fuels; In the transition to 'clean' household energy, prioritize the low- emission stoves.	Ban on domestic coal burning in Dublin, Ireland; Residential wood burning regulations; (1) Normative guidance of the WHO guidelines for indoor air quality: Household fuel combustion;(4) ISO Standards for Cookstoves (5)
Transport	Shifting to clean fuel vehicles, cleaner heavy-duty diesel vehicles and low-emission vehicles and fuels, including fuels with reduced sulfur content; traffic charging schemes.	Substitution of diesel taxis with hybrid, natural gas and LPG alternatives in Madrid within the Air Quality Plan;(6) Stockholm Congestion Charging Trial;(1) Ban on sulphur-rich fuel in Hong Kong;(7)
Waste	Stopping the open burning of waste.	Stockholm Convention on Persistent Organic Pollutants; (8) Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs under Article 5 of the Stockholm Convention (9)
Workplaces		
Occupational risks	Promoting and creating safe and healthy working environments by implementing occupational health measures, including protecting workers from exposure to harmful dusts and fibres, smokes and fumes, carcinogens and allergens and health surveillance.	WHO Global Coordination Mechanism on the Prevention and Control of Noncommunicable Diseases (10) Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration (C148 from 1977) (11) Convention concerning Prevention and Control of Occupational Hazards caused by Carcinogenic Substances and Agents (C139 from 1976) (12)
Chemicals		
Asbestos	Regulatory and technical measures for elimination of asbestos-related diseases	(13, 14)

Lead	Eliminating lead paint; preventing lead emissions and exposures from recycling used lead-acid batteries.	International lead poisoning prevention week of action (15) Control measures to prevent lead emissions and exposures (16)
Mercury	Controlling mercury emissions and releases, for example from coal fired power plants; phasing out and phasing down of mercury mines and mercury use in products and processes to reduce human exposure.	The Minamata Convention on Mercury (17)
Radiation		
UV radiation	Increasing the provision of shade in public areas, and other measures to reduce ultraviolet (UV) exposure, developing dress codes that are sun-protective for students and workers, and promotion of sun-protective behaviour.	Sun protection policies (18)
Radon	Establishing building codes (e.g. installation of preventive measures in new homes), establishing national reference levels, ensuring professional competence in prevention and mitigation of radon exposure.	WHO Handbook on Indoor Radon: A Public Health Perspective (19)

Note: This table presents only an excerpt of the many examples to reduce environmental risks to NCDs; the role of agriculture and food systems has not been directly addressed in this table, although its contributions have been shown.(20)

Additionally, there are many interventions which have proven to significantly reduce air pollution, and this has implications for health. Globally, examples of monitored interventions and other events have produced, in a short and medium term, reductions of air pollutants ranging between 1% and 80%.(21) In China, after the adoption of the 2013-2018 national action plan on air pollution, reduced levels were observed in 74 key cities, with decreases in annual average concentrations of $PM_{2·5}$ by 33% , PM10 by 28% , sulphur dioxide by 54%, and carbon monoxide by 28% between 2013 and 2017.(22) Ban of coal burning, systematic inspection, maintenance programs for activities and vehicles, closure of heavily polluting industries, emission control plans, and road charge policies are just few examples of these interventions.

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