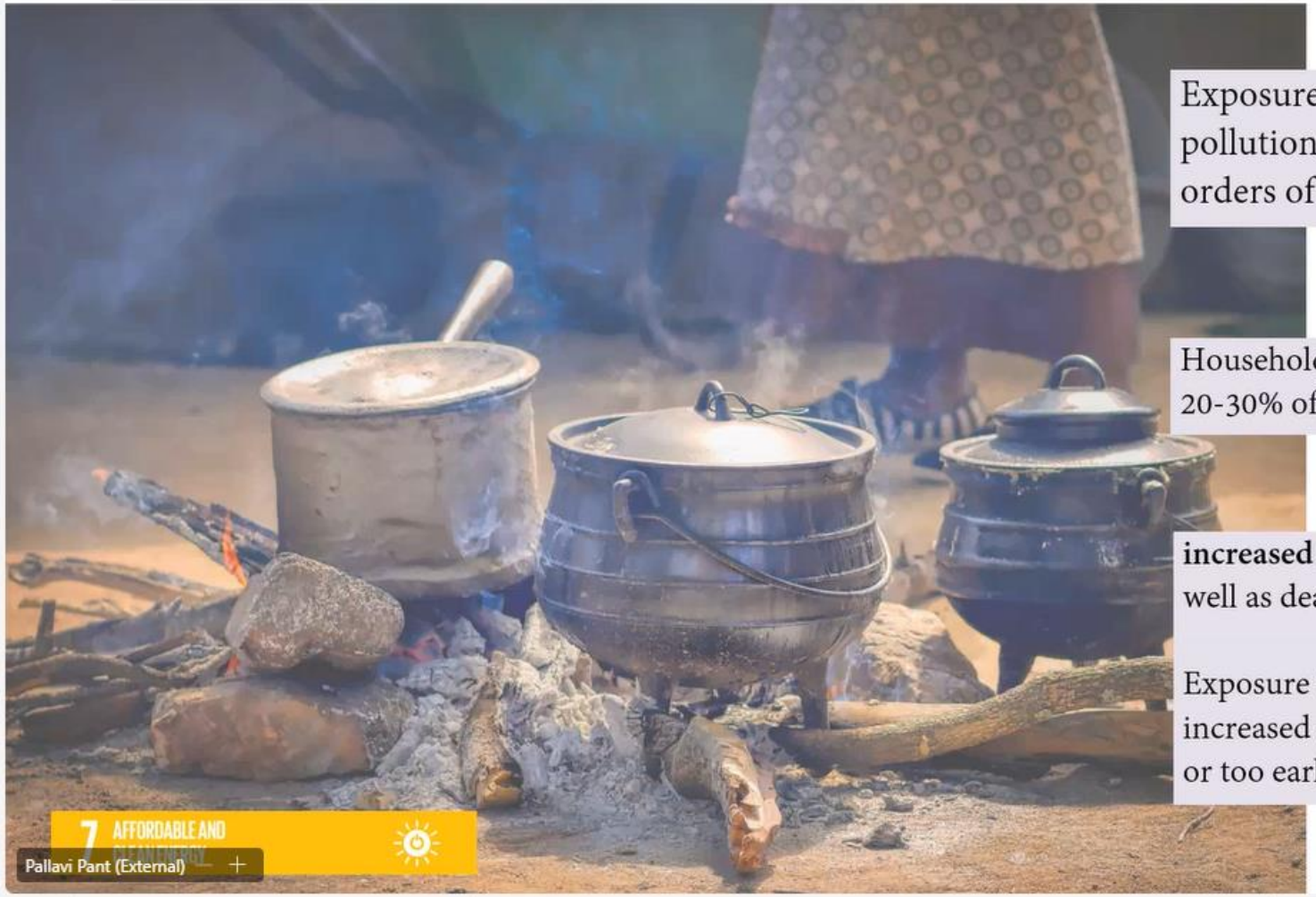
Household air pollution and health



Exposures to $PM_{2.5}$ from household air pollution often exceed levels in outdoor air by orders of magnitude.

Household solid fuel use can contribute as much as 20-30% of ambient $PM_{2.5}$ levels.

increased risk of non-communicable diseases as well as death.

Exposure to air pollution in mothers can result in increased risk of their infants being born too small or too early.

7 AFFORDABLE AND

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Air Pollution and Health: Building the evidence base in India

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Health-centric narrative: AQI to AQHI

AQI Category	AQI	Concentration Range*							
		PM_{10}	$PM_{2.5}$	NO_2	O_3	CO	SO_2	NH_3	Pb
Good	0-50	0-50	0-30	0–40	0-50	0-1.0	0-40	0-200	0-0.5
Satisfactory	51 - 100	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5-1.0
Moderately Polluted	101-200	101-250	61-90	81-180	101-168	2.1-10	81-380	401-800	1.1-2.0
Poor	201-300	251-350	91-120	181-280	169-208	10-17	381-800	801-1200	2.1-3.0
Very Poor	301–400	351-430	121-250	281-400	209-748*	17-34	801-1600	1200-1800	3.1-3.5
Severe	401-500	430+	250+	400+	748+*	34+	1600+	1800+	3.5+

* CO in mg/m^3 and other pollutants in $\mu g/m^3$; 24-hourly average values for PM_{10}, $PM_{2.5}$, NO_2, SO_2, NH_3, and Pb, and 8-hourly values for CO and O_3.

A framework for city-specific air quality health index: a comparative assessment of Delhi and Varanasi, India

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PM2.5	O3	NO2	Delhi AQI	Varanasi AQI
120	35	65	**300**	**300**
AQHI	**Category**	**Excess mortality**	**Delhi AQHI**	**Varanasi AQHI**
0-16	Good	-		
17-33	Satisfactory	-		
34-50	Moderate	2%	**46** ***Moderate***	
51-67	Poor	6%		**64** ***Poor***
68-84	Very Poor	9%		
>84	Severe	16%		

Impact on health is not uniform for the same level of air quality - City-specific health data will be pivotal