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UNEP CLIMATE & CLEAN AIR COALITION TO REDUCE SHORT-LIVED CLIMATE POLLUTANTS

Assessment of Atmospheric Pollution in the Asia-Pacific: Science-based Solutions

Key findings

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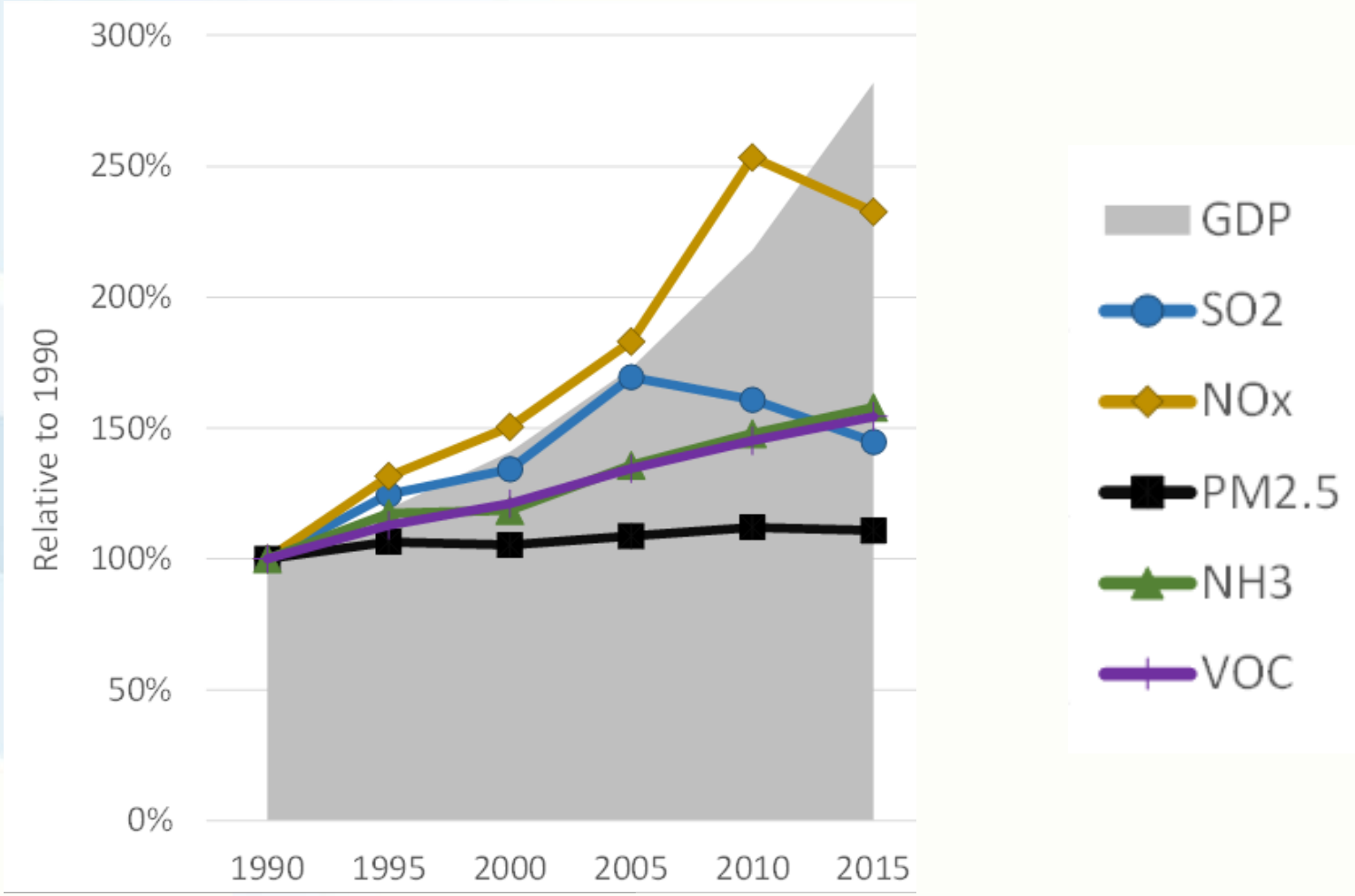
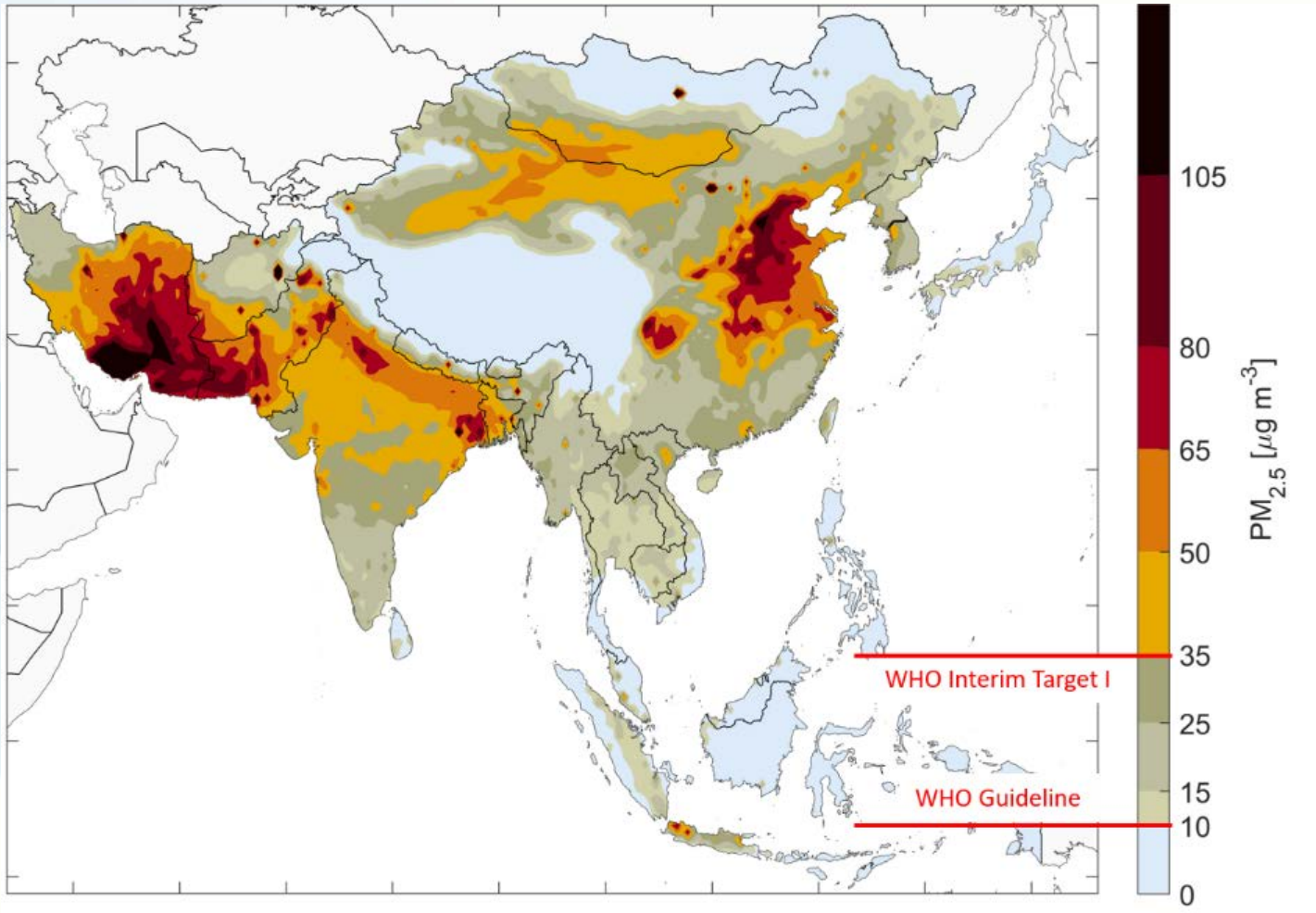
POLICY INTERVENTIONS HELPED TO BREAK THE HISTORIC LINKAGE BETWEEN ECONOMIC GROWTH AND EMISSIONS IN ASIA



Source: IIASA, GAINS

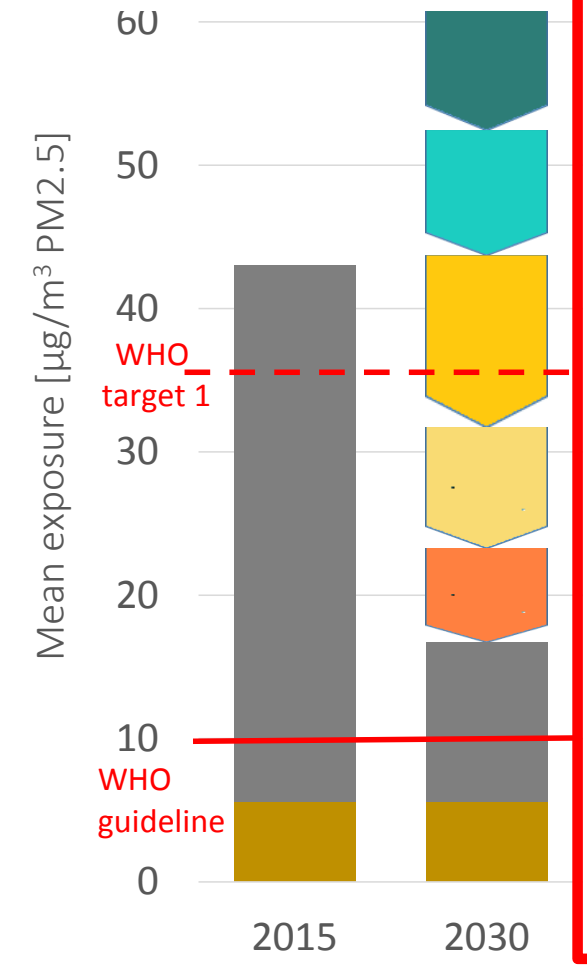
In 2015, air quality standards were exceeded over large areas in Asia

Ambient PM2.5 in 2015



Source: IIASA, GAINS

FURTHER AIR QUALITY IMPROVEMENTS IN ASIA REQUIRE A RE-ORIENTATION OF CURRENT POLICIES



Measures already in place in 2015
- Vehicle emission standards
- TSP(+SO_2+NO_x) controls at large plants

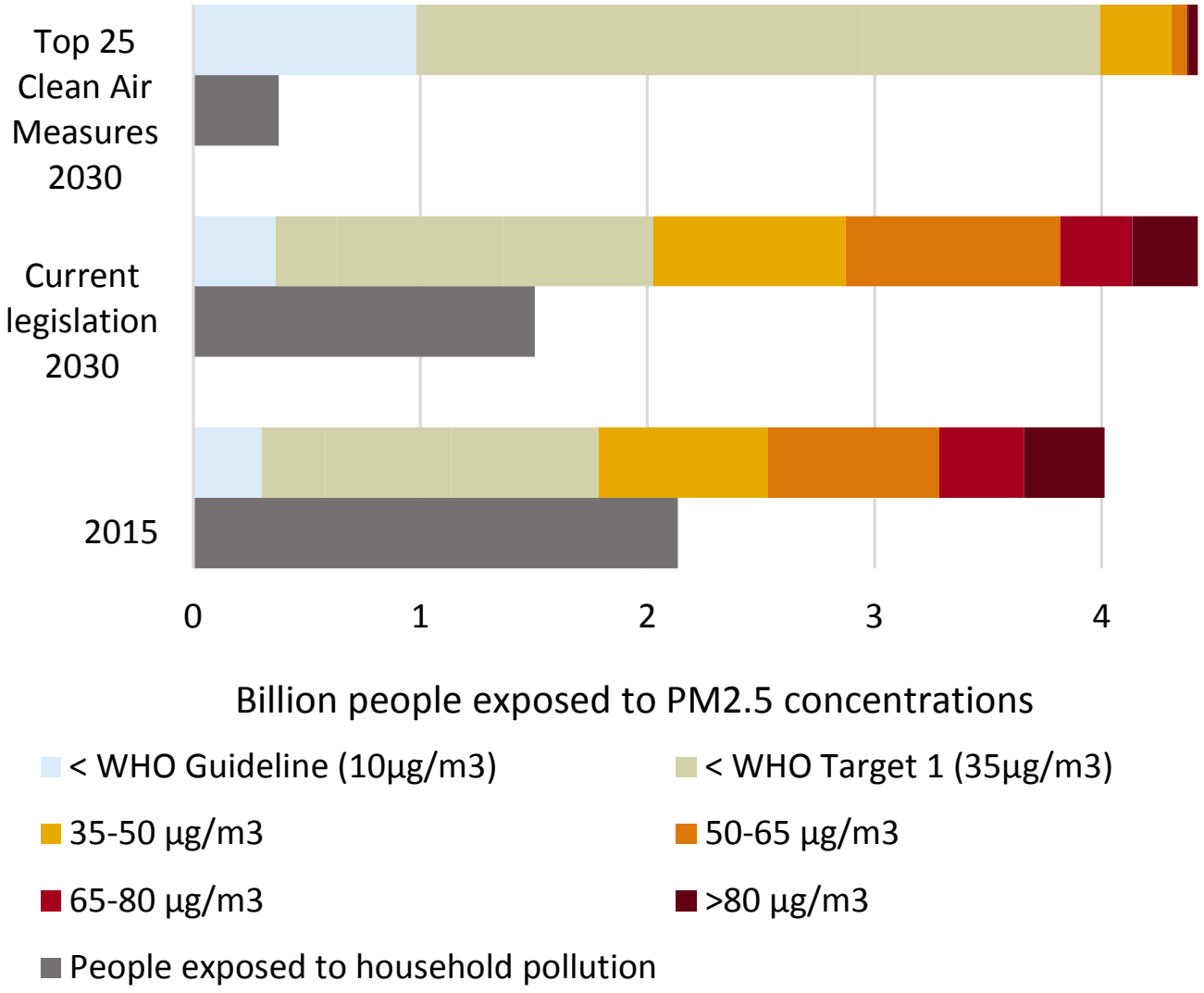
Post-2015 legislation
- SO_2+NO_x controls at stationary sources

Conventional PM controls

'Next stage' air quality measures
- Fertilizer use, manure management
- Open burning of waste and biomass
- Forest fires, I&M of vehicles

Development measures
- Clean cooking fuels, renewable energy
- Energy efficiency, waste management
- Public transport and electric vehicles

THESE MEASURES CAN PROVIDE CLEAN AIR TO ONE BILLION PEOPLE

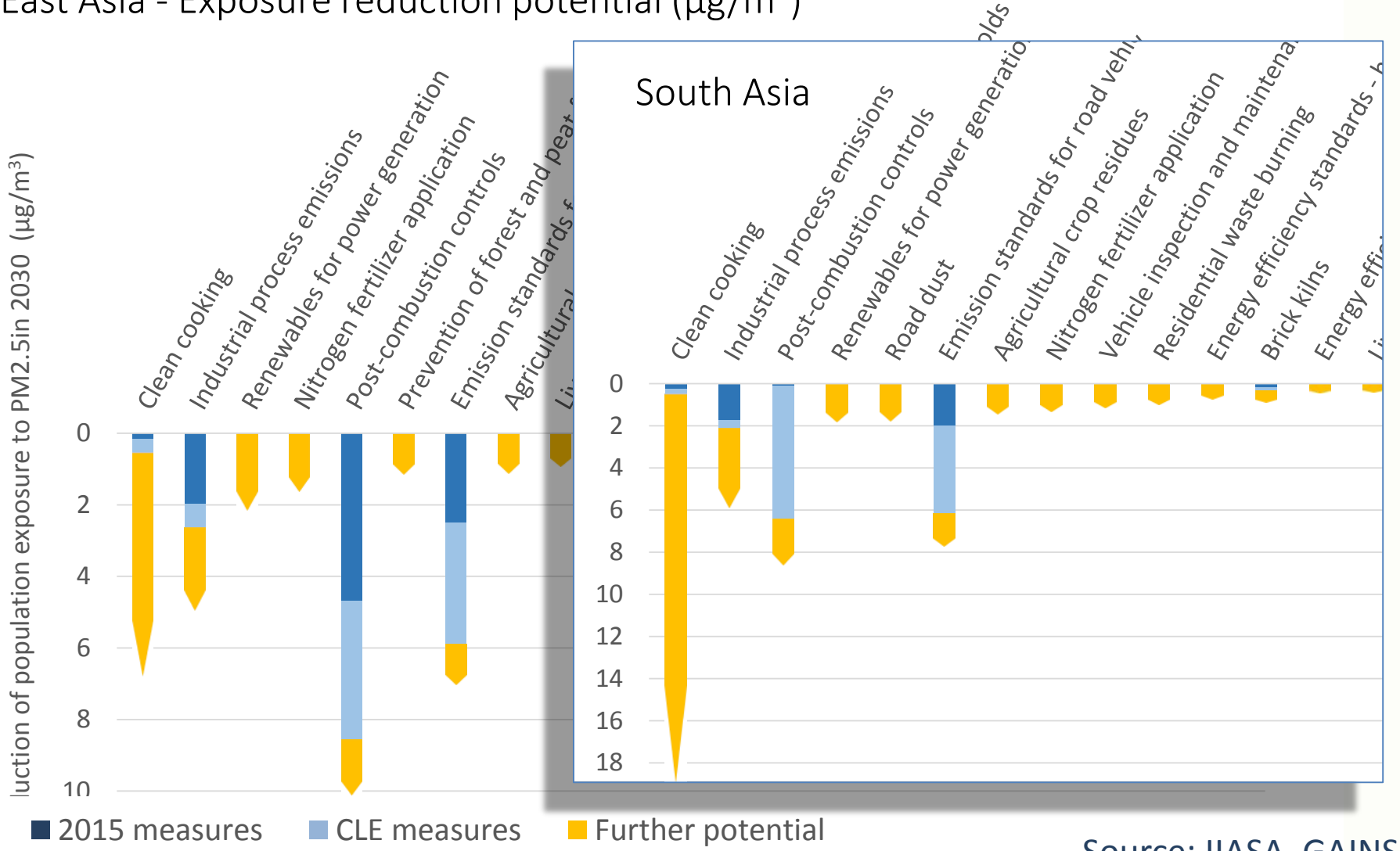


Source: IIASA, GAINS

THE PRIORITY MEASURES DIFFER ACROSS REGIONS,

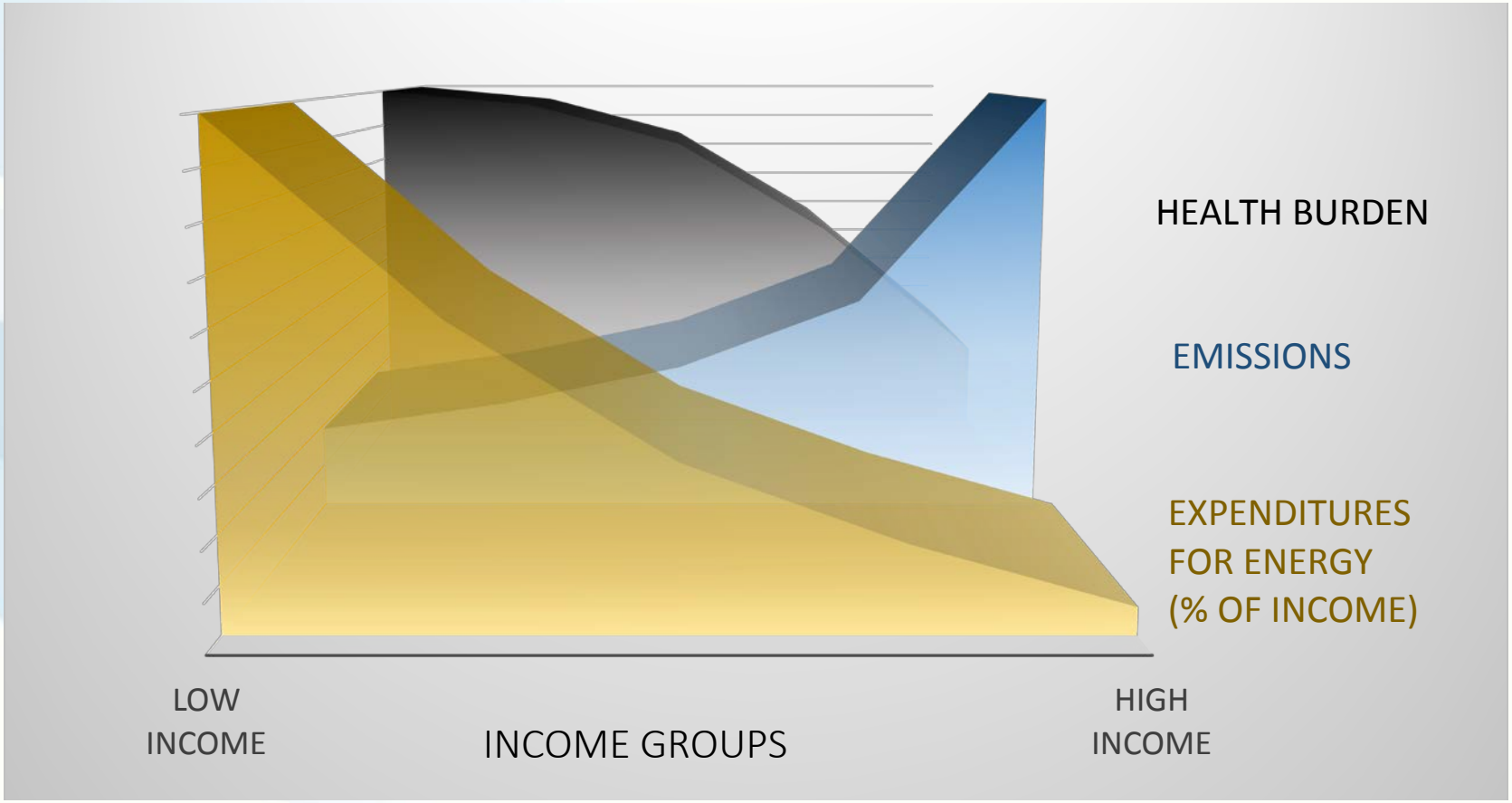
DUE TO DIFFERENCES IN ECONOMIC STRUCTURES AND GEO-PHYSICAL CONDITIONS

East Asia - Exposure reduction potential (µg/m³)



Source: IIASA, GAINS

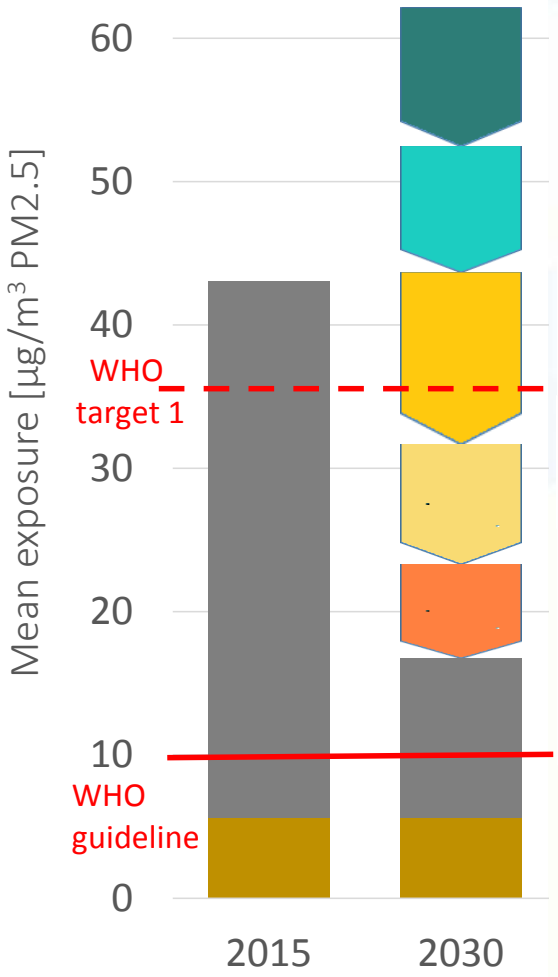
INEQUALITIES OF POLLUTION
INDIA - 2010



Source: Kiesewetter et al., 2018

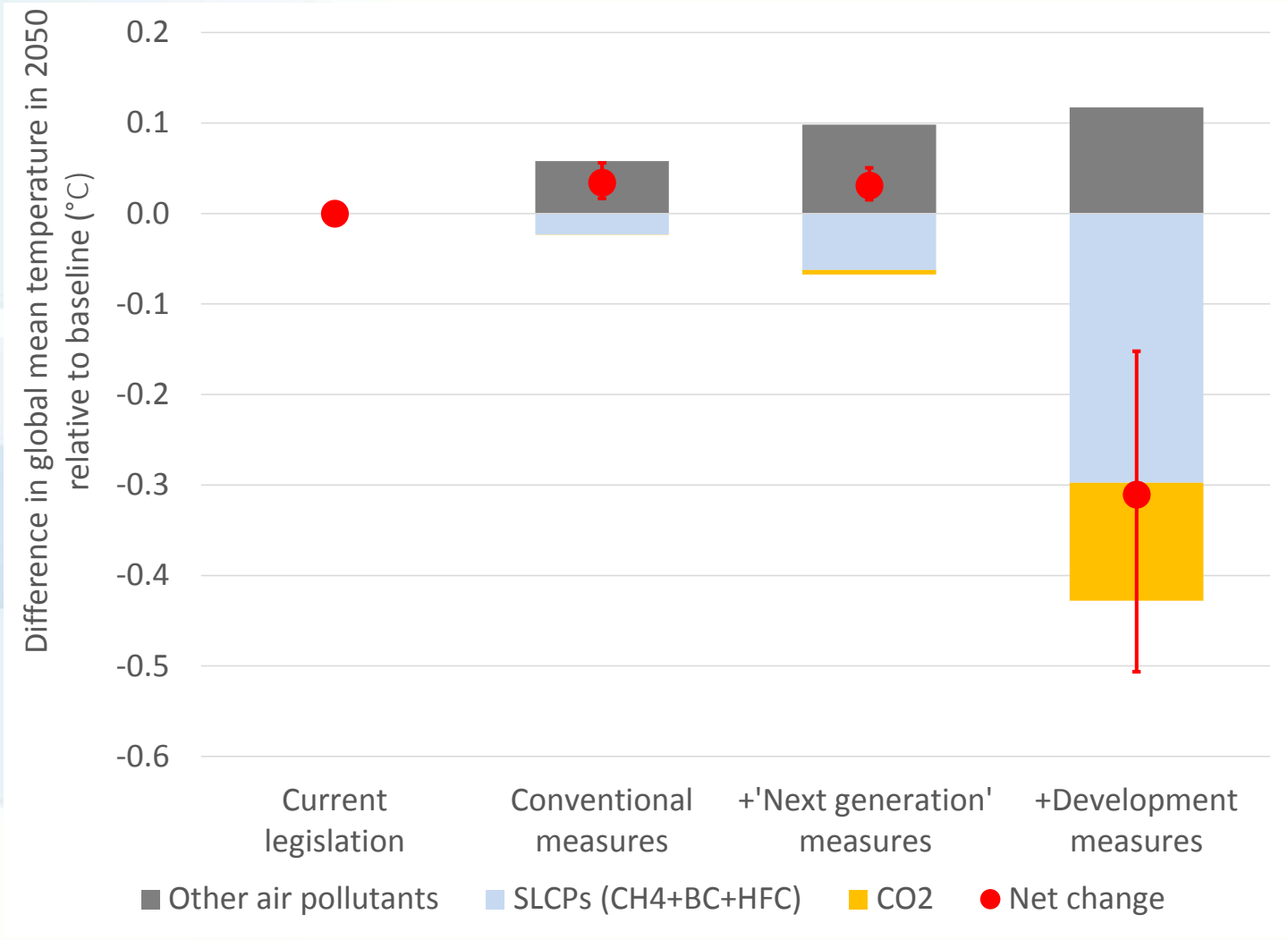
THE TOP 25 CLEAN AIR MEASURES ALSO AFFECT CLIMATE FORCERS

Mean population exposure to PM2.5

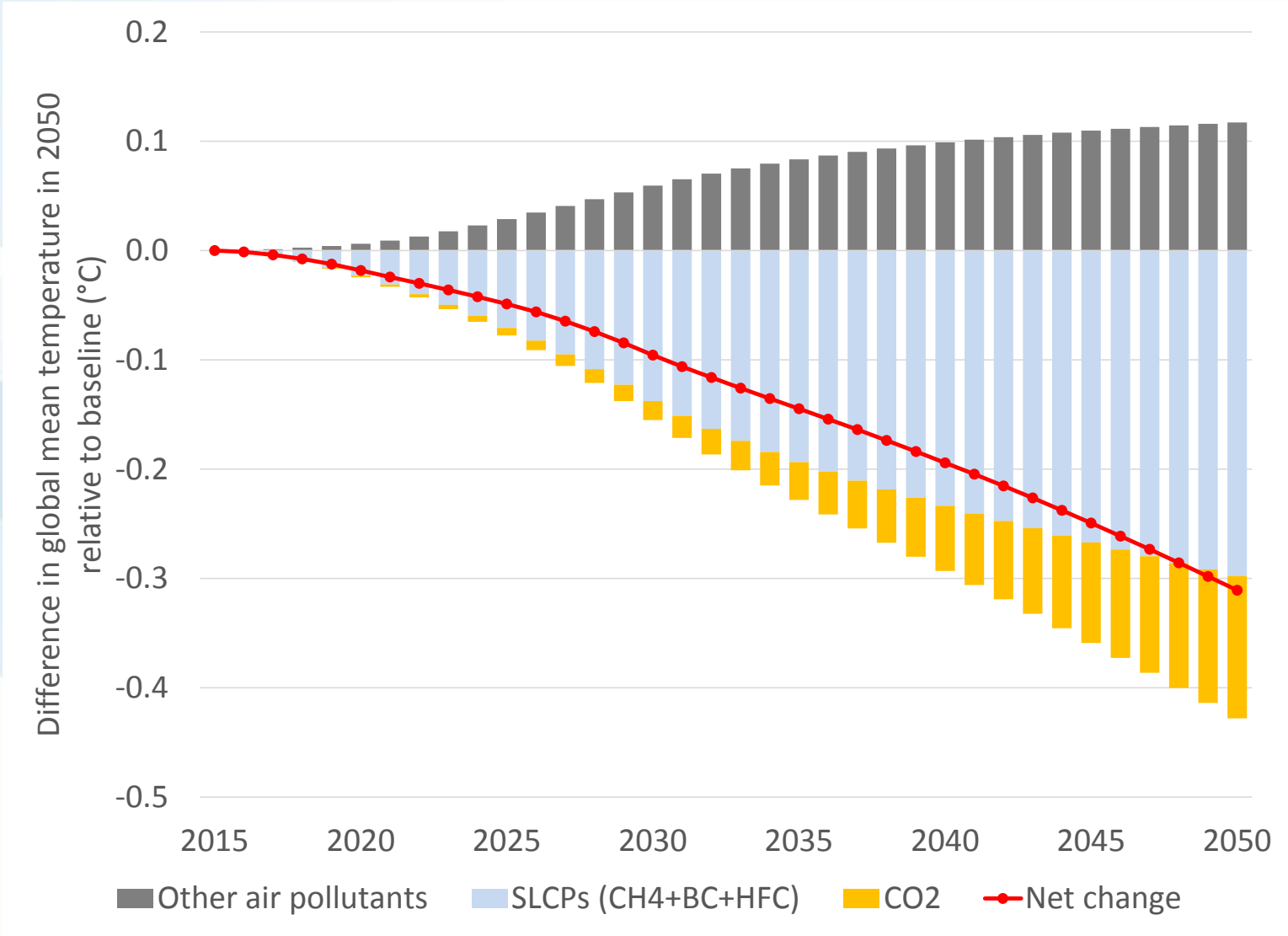


	Climate forcers		
	CO_2	CH_4	BC
Current legislation relative to 2015*)	*+16%*	*+17%*	*-24%*
Conventional controls relative to 2030 baseline	0%	0%	-8%
'Next stage' measures relative to 2030 baseline	0%	-29%	-56%
Development measures relative to 2030 baseline	-19%	-44%	-72%

THE DEVELOPMENT MEASURES COULD REDUCE GLOBAL TEMPERATURE INCREASE BY ONE THIRD DEGREE

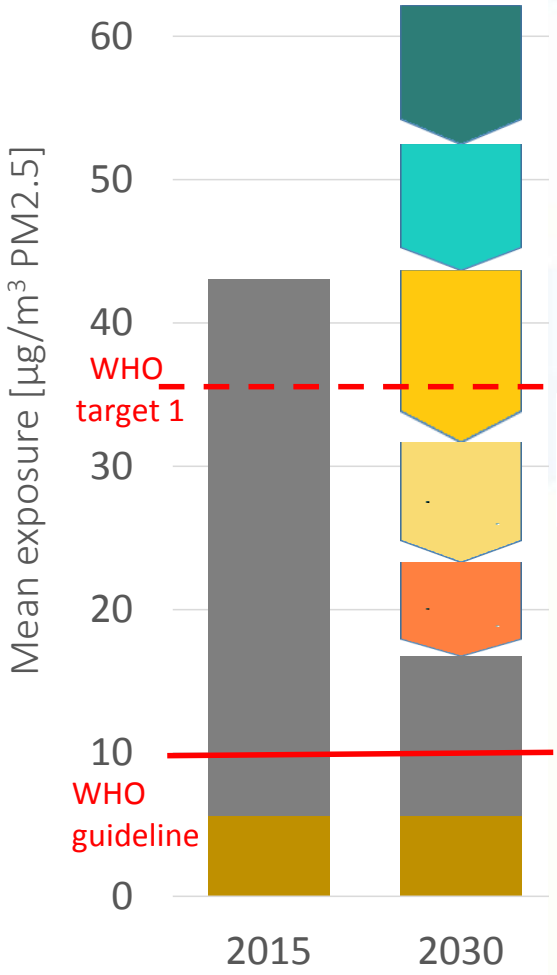


THE TOP 25 MEASURES COULD SLOW DOWN GLOBAL TEMPERATURE INCREASE IN THE NEAR-TERM



THE NEW POLICY MEASURES WOULD HAVE IMPORTANT CO-BENEFITS ON SDGS

Mean population exposure to PM2.5



	Climate forcers CO_2	CH_4	BC	SDG benefits
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Key messages

- While current policies limit a further increase of emissions in Asia, they will not be sufficient to significantly improve air quality.
- To move towards the Air Quality Standards, measures that involve other sectors (agriculture, energy, waste management, etc.) will be indispensable.
- The Top 25 Clean Air Measures will deliver a wide range of health- and other development benefits and reduce pollutants that influence temperature increase and climate.
- Integrated multi-approaches (such as in the LRTAP Convention) could embed air quality measures in the development agendas, and offer powerful incentives for measures that serve the global goods.