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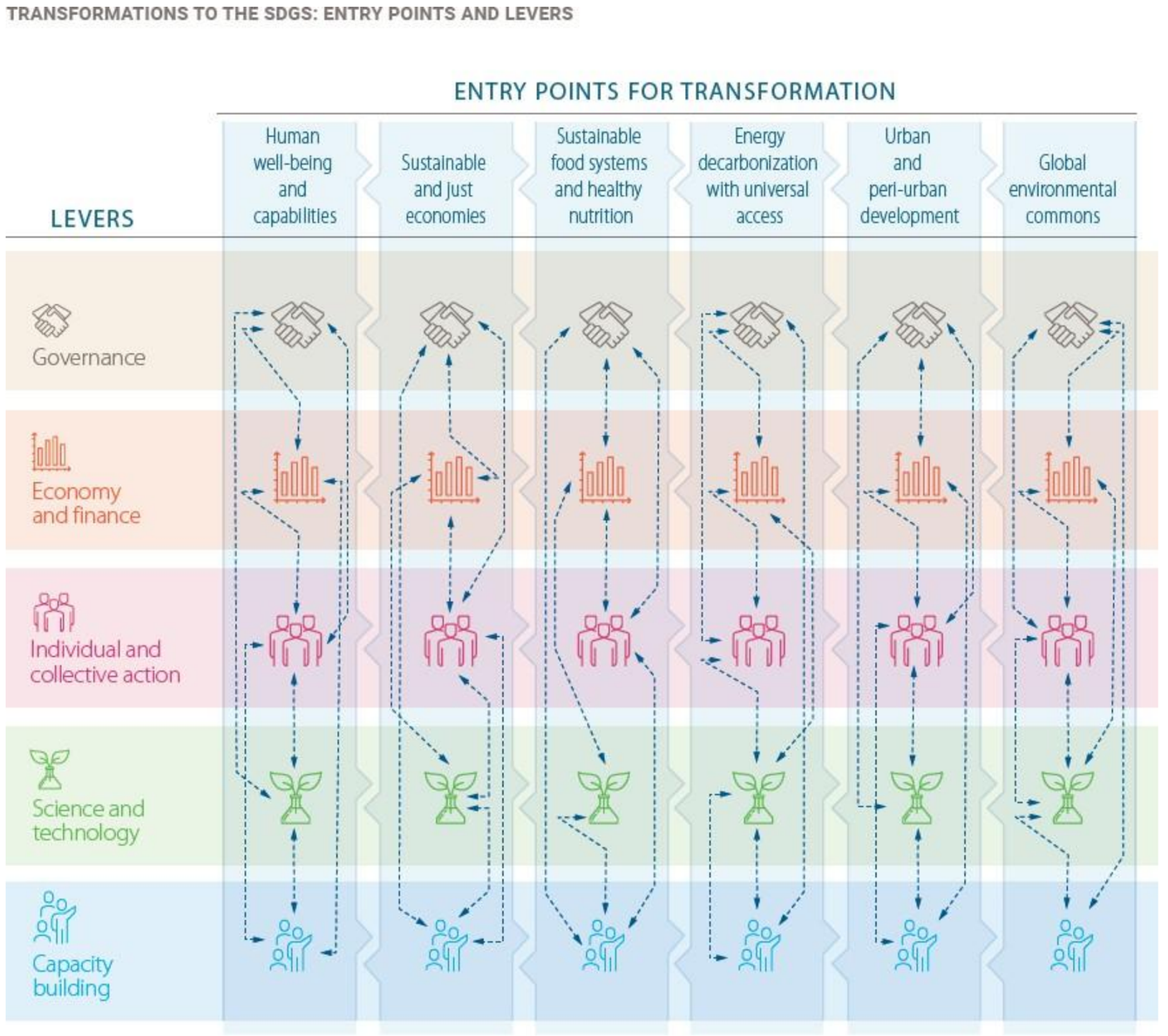
2023 Sustainable Development Transformation Forum
October 16, 2023
Incheon, Republic of Korea

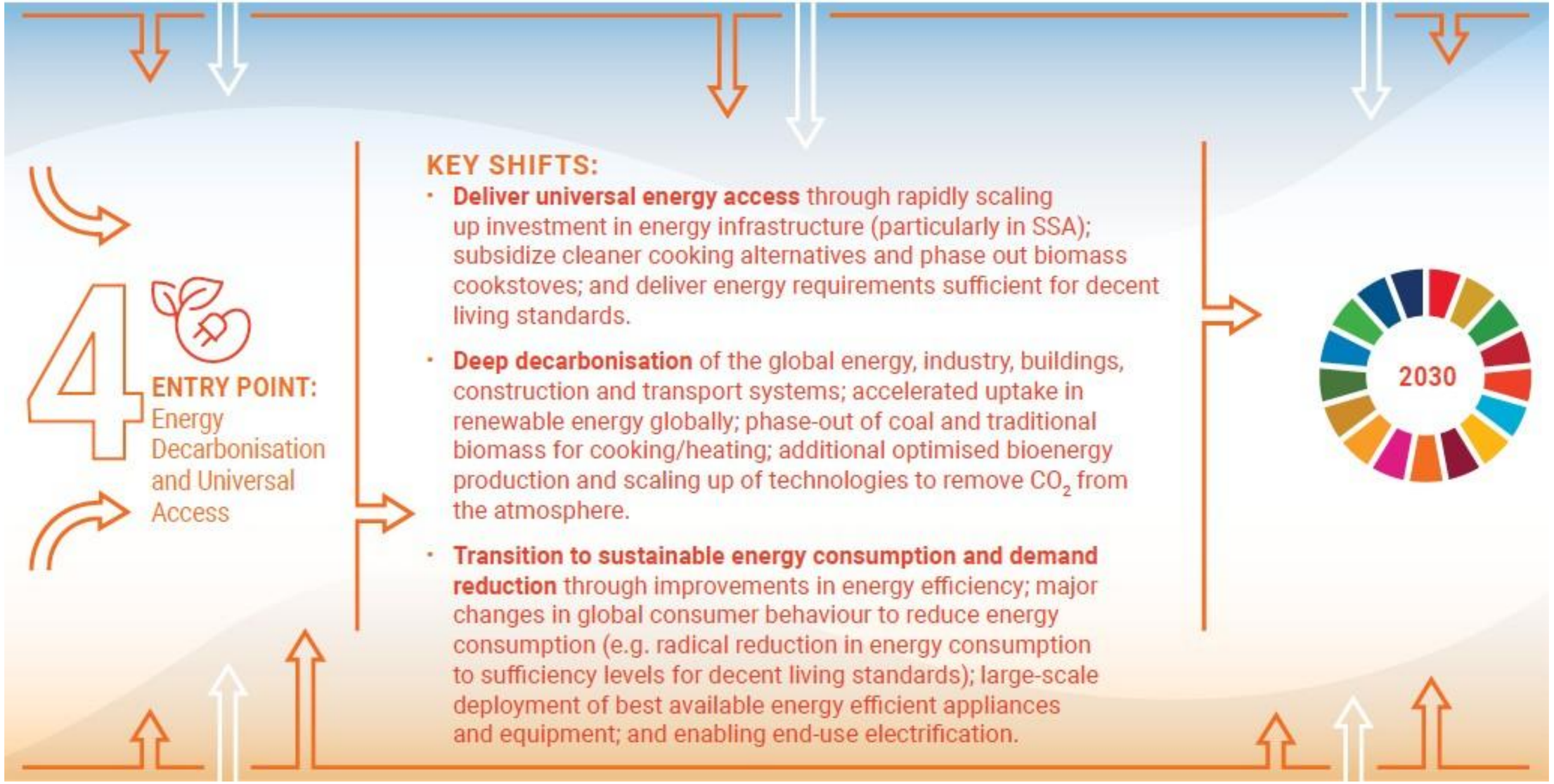
Working through entry points for transformation

- Business-as-usual strategies will not deliver the SDGs by 2030 or even 2050 but working through **six key entry points** to **leverage interlinkages** could unleash rapid progress.
- Locally relevant, synergistic and integrated implementation processes will be needed that break down the silos of public service and policymaking.
- Levers need to work together in a cohesive manner to overcome impediments
- Capacity building is a lever added in the 2023 GSDR and crucial for enabling transformation



IMPEDIMENTS

Weak institutions and markets and poor infrastructure, capital costs and financing gaps, sunk investments and vested interests, trade-offs between goals, consumptive behaviours.



INTERVENTIONS BY LEVER

GOVERNANCE

Access: subsidies to stimulate the adoption of cleaner cooking fuels/technologies (e.g. 50% subsidy on the retail price) or regulations to near-complete phase out biomass cookstoves by 2030.

Decarbonisation: carbon pricing of fossil fuel CO_2 emissions and subsidies for renewables. Energy system policies for faster phase out of coal (at least 90% capacity retired by 2030 in higher income countries) and near-complete phase out of traditional biomass by 2040, restrictions on nuclear capacity additions and bioenergy potential, and faster phase out of fossil energy subsidies by 2030. Mandatory targets to increase share of renewables in electricity generation (e.g. 1.4% point increase per year) and ban new installations of coal power plants by 2025 (HICs) or 2030 (LMICs).

Demand: introduction of a progressive carbon tax affecting energy demand; regulations to improve energy efficiency; incentives to improve dwelling energy performance and change behaviour to reduce energy consumption; designing and enforcing national standards and labelling for household appliances and efficient equipment; subsidies, appliance rebates and access to credit for lower income households to benefit from modern energy technologies.

BUSINESS AND FINANCE

Access: increase public and private investment in electricity infrastructure in Africa from 1% to 3% GDP per annum to 2030. The cost of providing universal clean cooking access in SSA by 2030 is estimated at USD1.6 to 2.4 billion per year. Total investment for SSA to achieve SDG7 targets for universal access, higher energy efficiency and increased renewables by 2030 is estimated at USD14-28 billion per annum on average.

Decarbonisation: divestment from fossil fuel activities reaching more than 170 Billion USD per year by 2030 and used to partially fund USD910 billion per year on efficiency and low-carbon resources. Recycling of carbon revenues whereby developed countries devote part of their revenues to an international fund that supports clean energy and R&D in developing countries (USD50 billion per annum).

SCIENCE AND TECHNOLOGY

Decarbonisation: public and private investment in innovation in renewable energy technologies; spatially optimised bioenergy with carbon capture and storage.

Demand: promote digital technologies for energy use, transmission and monitoring and innovation in high quality housing with highly efficient facilities for cooking, storing food and washing; low-energy lighting.

INDIVIDUAL AND COLLECTIVE ACTION

Demand: incentivize behaviour change to reduce energy consumption.

CAPACITY BUILDING

Build capacities to implement each lever and overcome impediments including for designing and implementing market conditions, incentives and regulatory settings for investment in sustainable energy infrastructure and improving revenue collection, navigating political resistance from sunk investments in capital stocks, managing trade-offs and competition between socioeconomic and environmental goals, building coalitions and public support in favour of decarbonisation, and shifting towards sustainable consumption behaviours.

GLOBAL SUSTAINABLE DEVELOPMENT REPORT

Thank you!

Find the GSDR 2023 and latest news here:

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https://sdgs.un.org/gsdr/gsdr2023

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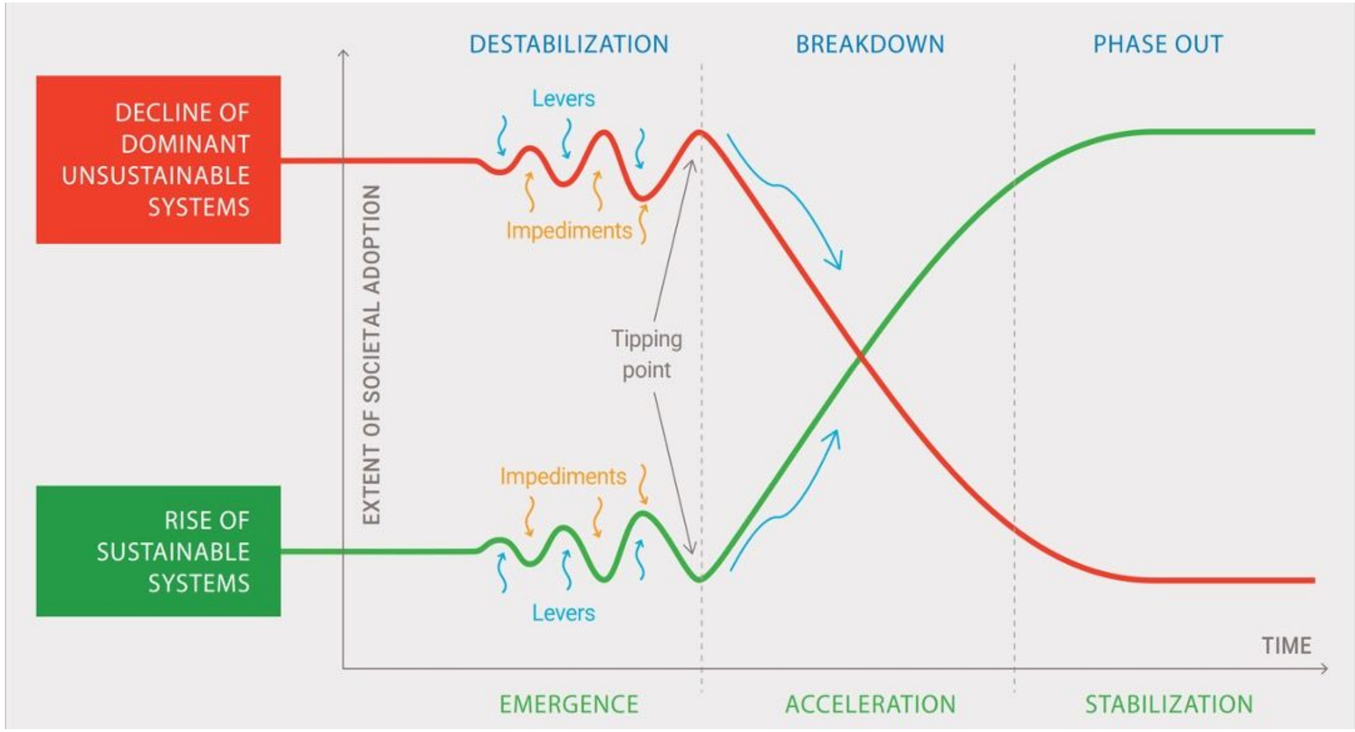
Driving Transformation through its phases on an S-curve

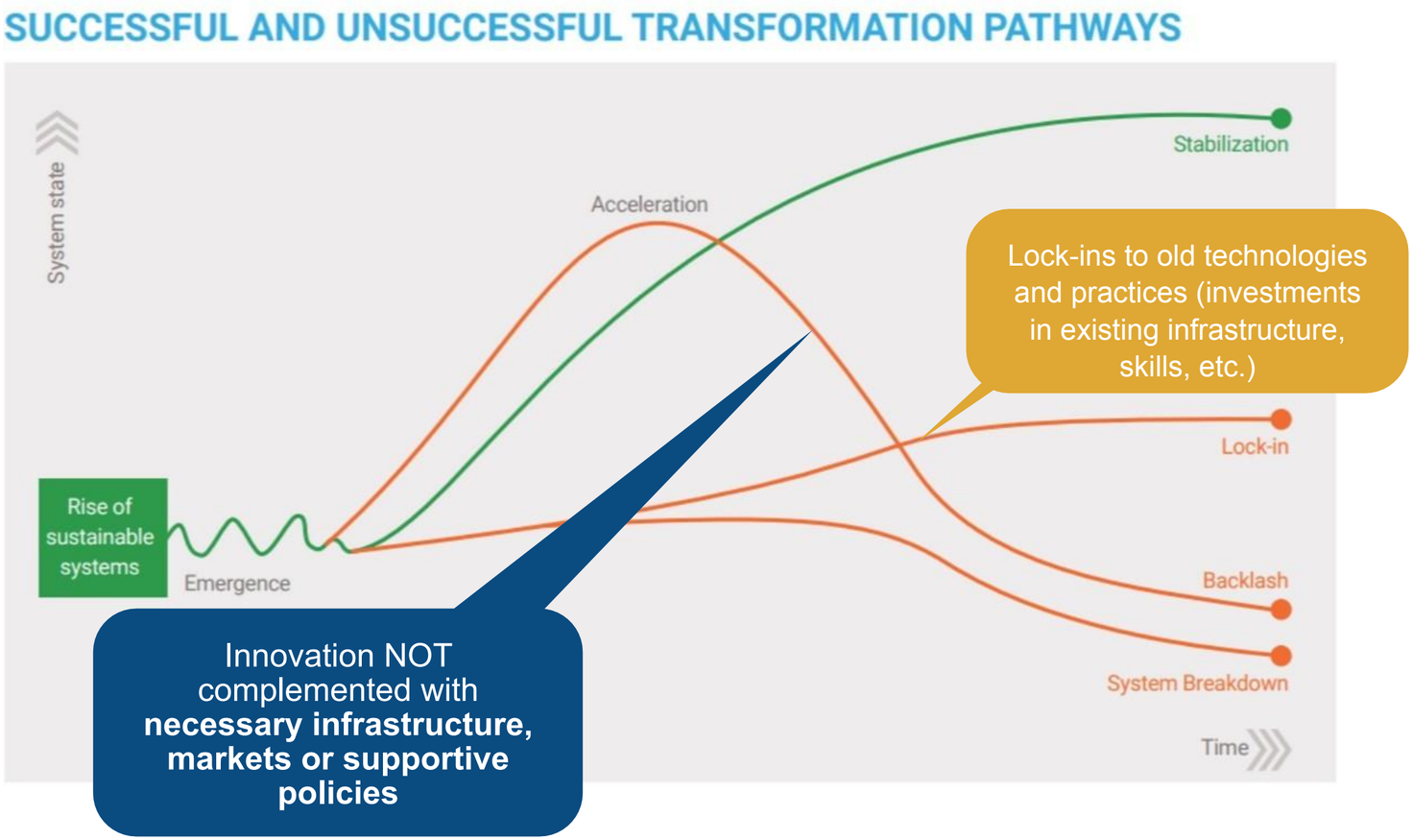


- Strategies for the SDGs must minimize impediments and support promising solutions specific to different phases of transformation:
  - ***Emergence***
  - ***Acceleration***
  - ***Stabilization***

- Tipping points examples:
  - Major societal shifts in perspectives (single-use plastics)
  - Innovations suddenly become easier to use or more socially desirable (smart phone)

- **Strategic combinations of levers enable SDG solutions to move from emergence, to acceleration, to stabilization**

Overcoming impediments for dynamic transformations



- **Acceleration** is Key
- Nurture **innovation**
- Give **strategic direction**
- Goals Matter
- **Foresight** capacity
  - Use scenarios and models
- Standardization and quality assurance
- Innovation (COVID-19 and virtual meetings)
- Powerful actors support new ways of thinking, doing and acting (electric car)

1

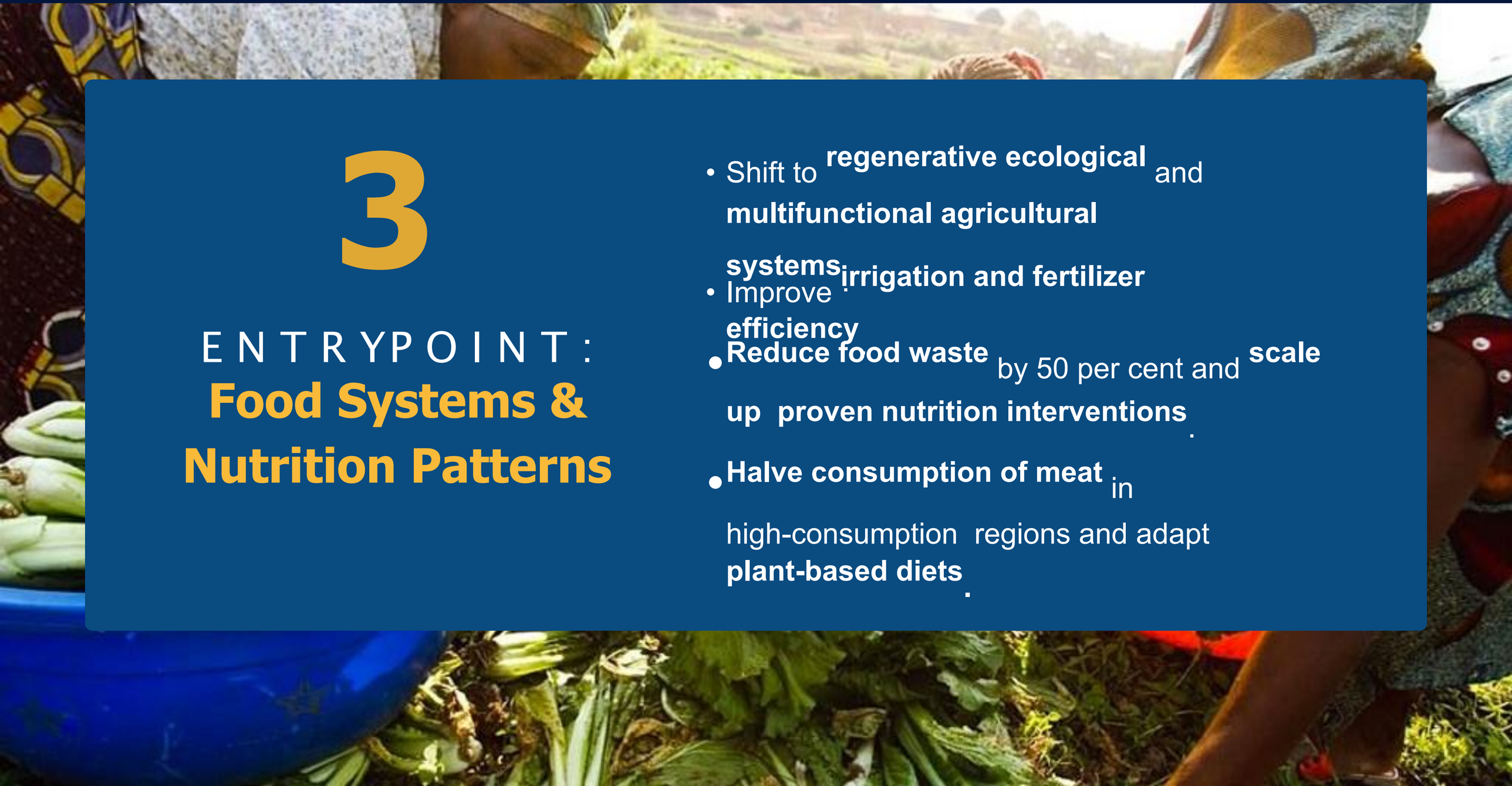
ENTRYPOINT: Human Well-being & Capabilities

- Scale up investment in primary **health** care and ensuring access to life-saving interventions
- Accelerate secondary **education** enrolment and completion and ensuring all girls are enrolled
- Increase investment in **water and sanitation** infrastructure to deliver universal piped water access and halving of untreated wastewater.

2

ENTRYPOINT: Sustainable and Just Economies

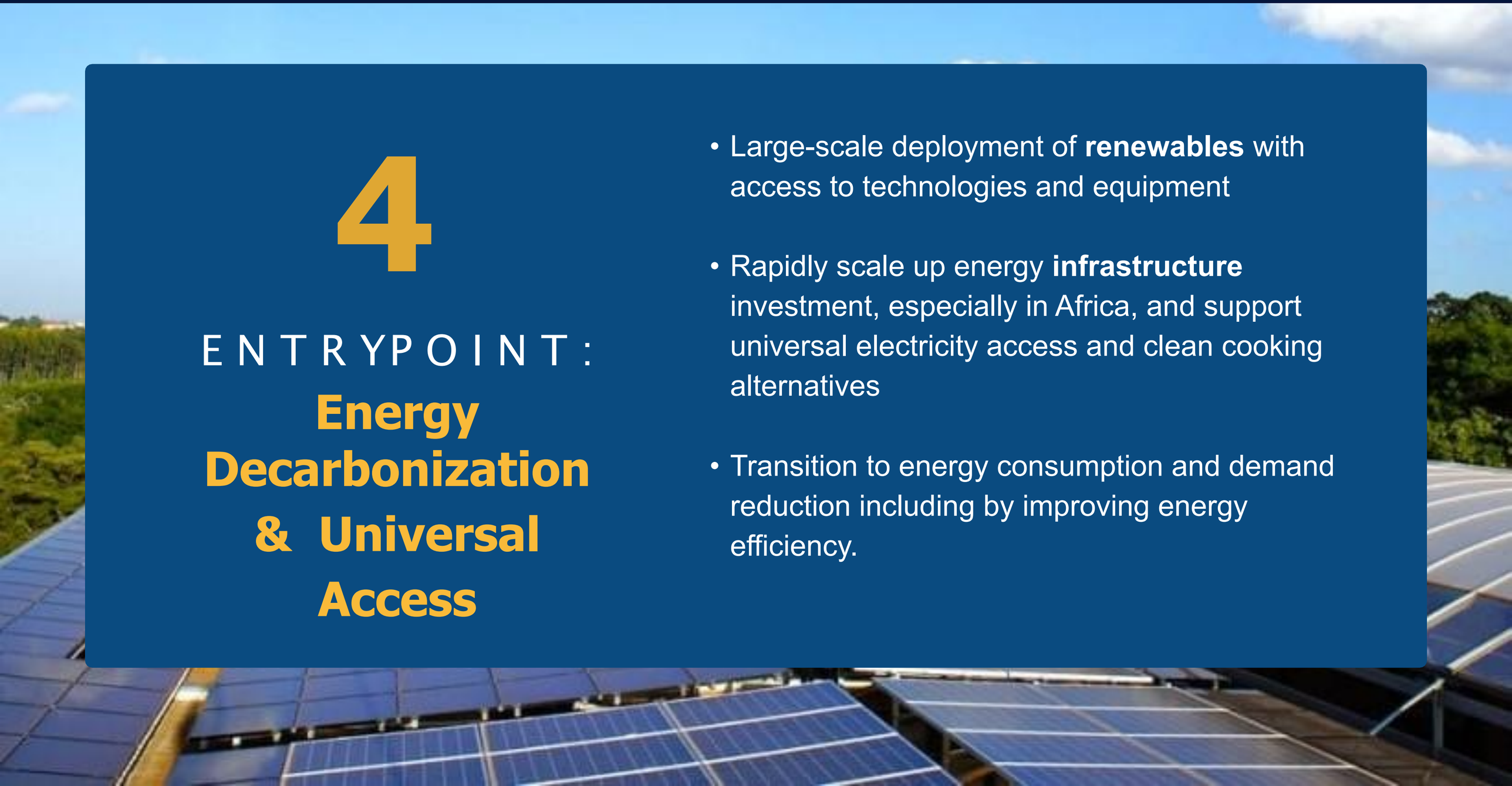
- Accelerate a **just economy** with **inclusive, pro-poor growth** including redistribution measures, doubling welfare transfers in low-income countries
- Rollout **good practice** climate policies and global carbon pricing
- Encourage **lifestyles** that promote ‘sufficiency’ levels
- Invest in **green innovation**, and **circular and sharing economy models.**



3

ENTRYPOINT: Food Systems & Nutrition Patterns

- Shift to **regenerative ecological** and **multifunctional agricultural systems**.
- Improve **irrigation and fertilizer efficiency**.
- **Reduce food waste** by 50 per cent and **scale up proven nutrition interventions**.
- **Halve consumption of meat** in high-consumption regions and adapt **plant-based diets**.



4

ENTRYPOINT: Energy Decarbonization & Universal Access

- Large-scale deployment of **renewables** with access to technologies and equipment
- Rapidly scale up energy **infrastructure** investment, especially in Africa, and support universal electricity access and clean cooking alternatives
- Transition to energy consumption and demand reduction including by improving energy efficiency.

5

ENTRYPOINT: Urban & Peri-urban Development

- Double the recycled and composted share of municipal waste by 2030 and increase circularity of waste cycle
- Greater use of electrical vehicles
- Better public transport with cities' and infrastructure oriented to people and pedestrians
- Good-practice policies for transport, buildings and waste

6

ENTRYPOINT: Global Environmental Commons

- Expand **protected** areas, abandon intensive agricultural practices in protected areas, reforestation of all degraded forest areas, shift societal preferences towards conservation land use
- Reduce **water** consumption and ensure environmental flow requirements
- Adopt a **1.5°C land-sector road map** that combines ambitious protection, conservation, restoration and lifestyle changes

Key Shifts

ENTRY POINT:

Human wellbeing and capabilities

- Scale-up investment in core primary **health** care interventions, ensure that every pregnant woman and neonate has access to lifesaving interventions, optimize existing health systems and expand community-based health initiatives.
- Accelerate secondary **education** enrolment and completion rates, ensure all girls are enrolled in secondary education by 2030, expand tertiary education and education on sustainability issues.
- Increased investment in **water and sanitation** infrastructure, particularly; transition to universal piped water access and halve untreated wastewater that by 2030 (and halve again by 2050).

Interventions by lever

GOVERNANCE

Health: policy and population-wide interventions (e.g. regulatory interventions, taxes, restrictions and bans); periodic outreach and schedulable services (e.g. vaccines, family planning, nutrition, supplements); first-level and above clinical services (e.g. disease treatment, counselling, mammography, asthma, pulmona). Optimising health systems to address staff shortages, retrain workers, reinforce infrastructure and supplies, strengthen networks and expand services

Education: eliminating school fees, improving local access to schools, increasing the number of years of compulsory schooling, and providing food, stipends, and other resources for children at school

BUSINESS &FINANCE

Health: additional USD200 billion per year from 2020 to 2030 for core PHC in LMICs

Water & Sanitation (W&S): reallocate financing away from conventional freshwater supply systems combined with massive ramp-up in investment in efficiency and clean supply projects. Incremental investment in piped water access and water treatment reaches USD260 billion per year by 2030.

SCIENCE &TECHNOLOGY

W&S: rapid expansion of desalination and wastewater recycling in water stressed regions

INDIVIDUAL& COLLECTIVE ACTION

W&S: additional 10% end-use efficiency improvement beyond baseline due to behaviour change

CAPACITY BUILDING

Build capacities to implement each lever and to overcome impediments including building an adequate workforce that is well-resourced, available where needed, and with accessible infrastructure and functioning equipment, addressing financing gaps for investment in health, education and water and sanitation, strengthening governance and institutions, and resolving conflicts.

ENTRY POINT:

Sustainable and just economies

Key Shifts

- Encouraginginclusive, pro-poor growth including progressive redistribution measures, doubling welfare transfers in low-income countries
- Rollout of good practice **climate policies** and **global carbon pricing**
- Encouraging **lifestyles** that promote sufficiency levels
- Investment in **green innovation**, and **circular and sharing economy models.**

Interventions by lever

GOVERNANCE

- **Just Economy:** policies for redistribution, income transfers, and redirecting public investments to focus on productive capacity and raising the incomes of the poor, including universal cash transfers, universal insurance coverage, or instituting a basic income. Social transfer schemes can include equal per capita payments or progressive redistribution inversely proportional to income.
- **Sustainable Economy:** good practice climate policies including economy-wide measures such as differentiated carbon pricing through taxes or cap- and-trade. Environmental policies and taxation to accelerate behaviour change, for example when applied to transport or energy. Governments can also create markets for new innovations through regulations, tax exemptions, deployment subsidies and labelling.

BUSINESS & FINANCE

- **Just Economy:** recycling revenue raised from carbon taxes in all countries to households to alleviate poverty, with shortfalls in LICS to be met by a portion of revenues raised in HICS and committed to a global fund. Greater concessional finance and debt relief for developing countries to ensure scope for social spending.
- **Sustainable Economy:** global carbon tax revenue potential of USD436-1360 billion by 2030 under different mitigation pathways. Rollout of good practice climate policies would cost 0.02% in annual GDP growth to 2050.

SCIENCE & TECHNOLOGY

- **Sustainable Economy:** industry technology measures include carbon capture and storage (HICS 1.5% of total CO_2 emissions by 2030), improving final energy efficiency (HICS 11% and LMICS 6% by 2030); and reducing N_2O emissions. Support from state investment banks, public-private financing facilities, and government science funding mechanisms for green innovations. Divestment in current business-as-usual practices and technologies and increasing investment in R&D.

CAPACITY BUILDING

- Build capacities to implement each lever and overcome impediments including building institutional capacities for navigating revenue collection and redistribution, overcoming political resistance, managing environmental and economic trade-offs, designing and delivering carbon taxes to address

ENTRY POINT:

Food systems and nutrition patterns

Key Shifts

- Shift to **regenerative ecological** and **multifunctional agricultural systems**.
- Improve **irrigation and fertilizer efficiency**.
- **Reduce food waste** by 50 per cent and **scale up proven nutrition interventions**.
- **Halve consumption of meat** in high-consumption regions and adapt **plant-based diets**.

Interventions by lever

GOVERNANCE

- **Sustainable Food Systems:** policy reform and investment in enabling conditions including improved value chains, finance, extension, gender-responsive policies and investments, social protection, water management, implementation of carbon payments and smart subsidies, and agroecological and landscape approaches. Investing in education and social security can address lock-in effects of unskilled workers in agriculture.
- **Healthy nutrition/diets**: investment in public health information and educational materials and guided food choices through incentives or disincentives, including regulations.

BUSINESS & FINANCE

- **Sustainable Food Systems:** agricultural R&D investments of USD4 billion per year have the potential to nearly end hunger by 2030 while a further USD6.5 billion per year in technical climate-smart options can achieve GHG emissions reductions consistent with the 1.5°C pathway. Increased trade liberalisation; abolishment of import tariffs and export subsidies on agricultural products.
- **Healthy nutrition/diets:** investments to address stunting cost USD19.75 billion between 2019 and 2030. Investments to address wasting cost USD275.97 billion between 2019 and 2030. Interventions to address anaemia cost USD16.98 billion between 2019 and 2030.

SCIENCE & TECHNOLOGY

- **Sustainable Food Systems**: a rapid uptake of improved technologies, especially in Africa, Asia and Latin America; investments in R&D, yieldaugmenting technologies, management improvements and irrigation technologies to reduce losses in conveyance and application; adoption of new crop varieties; precision agriculture and automation, redesigning agricultural practices including intercropping and agroforestry.
- **Healthy nutrition/diets:** increasing R&D investments of USD4 billion per year above the baseline could reduce hunger incidence to 5% globally by 2030.

INDIVIDUAL& COLLECTIVE ACTION

- **Healthy nutrition/diets**: influencing social norms around diet for younger population (ages 15-44).

CAPACITY BUILDING

- Build capacities to implement each lever and overcome impediments including building institutional capacities for navigating revenue collection and redistribution, overcoming political resistance, managing environmental and economic trade-offs, designing and delivering carbon taxes to address financing gaps, developing markets for sustainable innovations, and shifting ingrained unsustainable behaviors and attitudes.

Key Shifts

ENTRY POINT: **Energy Decarbonisation & Universal Access**

- Large-scale deployment of **renewables** and best available technologies, appliances and equipment
- Rapidly scaling up **infrastructure** investment and support for universal electricity access and clean cooking alternatives
- Phasing down of **fossil fuels** by 2030 in a domestically and globally just manner
- Major changes in global **consumer behaviour** to reduce energy consumption and end-use electrification.

Interventions by lever

GOVERNANCE

- **Access**: subsidies to stimulate the adoption of cleaner cooking fuels/technologies or regulations to near-complete phase out biomass cookstoves by 2030.
- **Decarbonisation**: carbon pricing of emissions and subsidies for renewables. Energy system policies for faster phase out of coal and near-complete phase out of traditional biomass by 2040, restrictions on nuclear capacity additions and bioenergy potential, and faster phase out of fossil energy subsidies by 2030. Mandatory targets to increase share of renewables in electricity generation and ban new installations of coal power plants by 2025 (HICS) or 2030 (LMICs).
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BUSINESS & FINANCE

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SCIENCE & TECHNOLOGY

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- **Demand**: promote digital technologies for energy use, transmission and monitoring and innovation in high quality housing with highly efficient facilities for cooking, storing food and washing, low-energy lighting.

INDIVIDUAL & COLLECTIVE ACTION

- **Demand**: incentivize behaviour change to reduce energy consumption.

CAPACITY BUILDING

- Build capacities to implement each lever and overcome impediments including for designing and implementing market conditions, incentives and regulatory settings for investment in sustainable energy infrastructure and improving revenue collection, navigating political resistance from sunk investments in capital stocks, managing trade-offs and competition between socioeconomic and environmental goals, building coalitions and public support in favour of

ENTRYPOINT:

Sustainable urban and peri-urban development

Key Shifts

- Shift towards **sustainable urban development** by doubling of the recycled and composted share of municipal waste by 2030 and increased circularity in the waste cycle; implementing mandates for electric vehicle market penetration; increasing demand and provision of public transport; rollout of good practice climate policies for transport, buildings and waste; investing in innovation to reduce plastic and solid waste; transition to smart cities using modern digital technologies. water access and halve untreated wastewater that by 2030 (and halve again by 2050).

Interventions by lever

GOVERNANCE	Expanding municipal waste collection systems, incentives and educational initiatives for composting and recycling;32 investment in public transport networks, multi-modal transport and incentives or mandates for electric vehicle uptake (e.g. 50% new sales by 2030), regulations or standards to improve fuel efficiency of passenger cars and aviation,7,12,16 building standards to improve final energy intensity of new residential and commercial buildings and no new installations of boiler capacity;12 retrofitting of existing building stock to improve energy efficiency (6-11% by 2030);12 reducing waste emissions by 28-55% by 2030.
SCIENCE& TECHNOLOGY	Investing in innovation to reduce plastic and solid waste14 and modern digital technologies to transition to smart cities.
INDIVIDUAL &COLLECTIVE ACTION	Incentives and educational initiatives for behaviour change around composting and recycling and public transport.

ENTRY POINT:

Global Environmental Commons

Key Shifts

- Protect and restore life on land by expanding protected areas to all priority conservation areas and biodiversity hotspots reaching 40-50% of terrestrial areas by 2050; preserving 85% of tropical/ boreal forest and 50% of temperate forest on each continent; abandoning agricultural land in protected areas or areas with >5% threatened species; ambitious reforestation of all degraded forest areas; and implementing a 1.5°C land-sector roadmap for 2050 combining avoided deforestation and land conversion, restoring forests and wetlands, improving forest management, lifestyle changes (diets, waste) and reduced reliance on BECCS. Protect other global environmental commons including ensuring environmental flow requirements; greater conservation of water by households, farms and industry, and improved air quality control.

Interventions by lever

GOVERNANCE

- Conservation policies, establishment of protected areas, land use regulation and law enforcement, integrated land use planning, sustainable forest management (optimising rotation and stocks, low-impact logging, certification, fire management), improved land tenure, sustainable commodity production, improved supply chain transparency, procurement policies, commodity certification, cleaner cookstoves, investments in ecosystem restoration and nature-based solutions, integration of agroforestry into agricultural and grazing lands, limit water extraction to local environmental flow requirements in low, intermediate and high flow periods.

BUSINESS & FINANCE

- Payment for Ecosystem Services schemes, including Reducing Emissions from Deforestation and Forest Degradation (REDD+).

INDIVIDUAL & COLLECTIVE ACTION

- Shift societal preferences from production to conservation land use and enable lifestyle changes around diets and waste.

CAPACITY - BUILDING

- Build capacities to implement each lever and overcome impediments including for managing trade-offs between food production and biodiversity protection, designing and implementing effective financial conservation schemes, establishing sustainable land management regulations, institutions and governance systems.