Public Disclosure Authorized

HUMAN CAPITAL PROJECT
climate

WORLD BANK GROUP
Climate Change

The Human Capital Project & CLIMATE

#INVESTin*People*

Why CLIMATE?

Increasing and more intense heatwaves, floods, and other extreme weather events pose a serious threat to the human capital of billions of people.

Human capital can play an important role in reducing greenhouse gas (GHG) emissions, generating long-term human development gains. Reducing the carbon footprint can also have immediate benefits. For example, actions to cut GHG emissions can lower air pollution, the fourth-leading risk factor for death worldwide largely affecting children.

The benefits of climate action are greater than ever before, while the costs of inaction continue to mount. Low-carbon and resilient growth could deliver economic benefits of US$26 trillion by 2030.[1] The Human Capital Project can support this shift to a new climate economy.

CLIMATE CHANGE IS A THREAT
to human capital

Human capital can play a critical role
IN REDUCING GHG

WITHOUT ACTION...

...severe **stunting** could increase by 31-55% in regions ofsub-Saharan Africa and 62% in South Asia.[2]

...the **health** of millions of people could be adversely affected through increases in vector-borne and waterborne diseases, heat stress, malnutrition, air pollution, and severe weather events. Between 2030 and 2050, climate change could cause an additional 250,000 deaths a year due to malnutrition, diarrhea, malaria and heat stress. In 2017 alone, some 157 million vulnerable people were exposed to heatwaves, with 153 billion hours of labor were lost last year due to heat exposure.[3]

...learning and educational attainment can be adversely impacted by extreme heat and poverty. For example, research shows that extreme heat can reduce learning by up to 15%.[4]

...more than 100 million people could return to **extreme poverty.**[5]

Higher temperatures and lack of access to cooling will impact labor productivity and the well-being of populations: by 2050, work hours lost due to heat may be as high as 12% in the worst affected regions of South Asia and West Africa, or 6% of annual GDP. The lack of adequate cold storage and refrigerated transport contributes to over 1.5 million vaccine preventable deaths each year.[6]

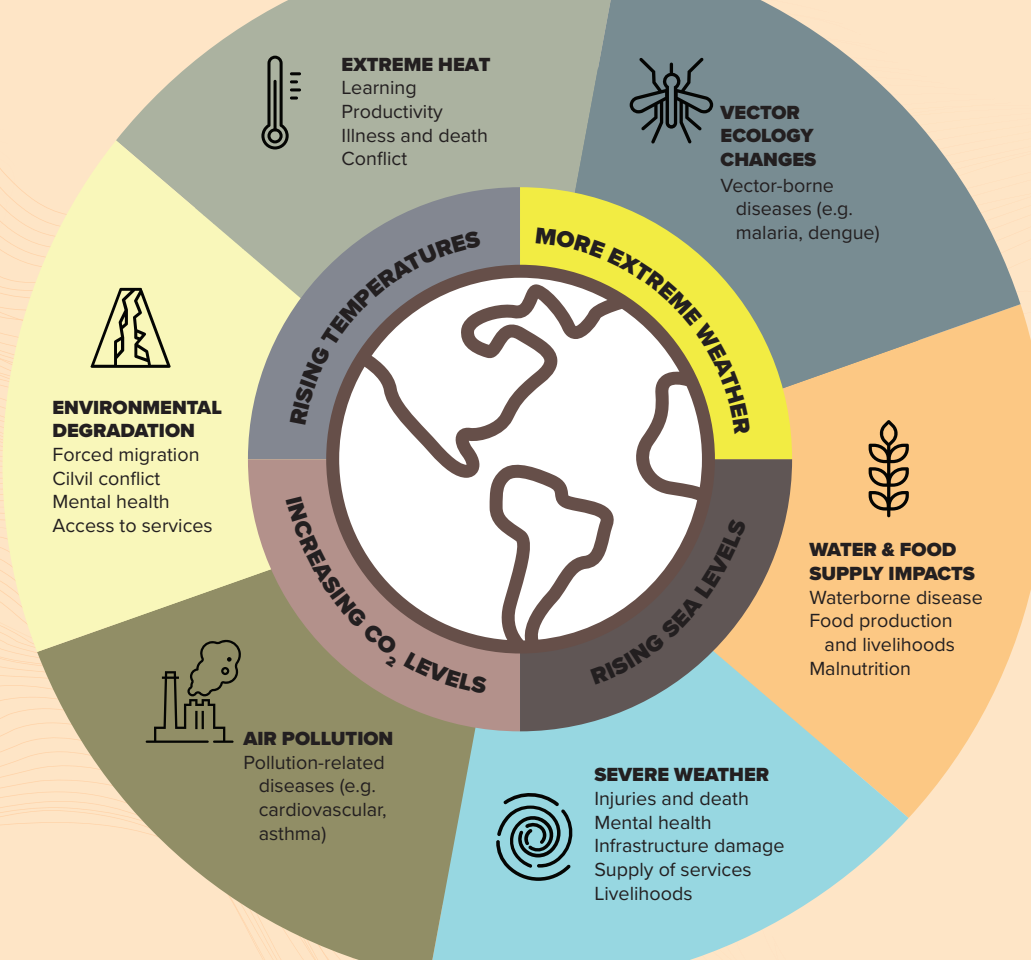
BUT IF WE ACT NOW...

we could reduce the expected negative impacts of climate change on human capital and reduce the carbon footprint.

How climate affects HUMAN CAPITAL

HOW CLIMATE *affects Human Capital*

The impacts on human capital— which depend on physical exposure and adaptative capacity—are location specific, and disproportionately affect the poor. Research suggests that investments in human capital enhance adaptive capacity, thereby reducing vulnerability.[7]



ACTING NOW:
Supporting Adaptation

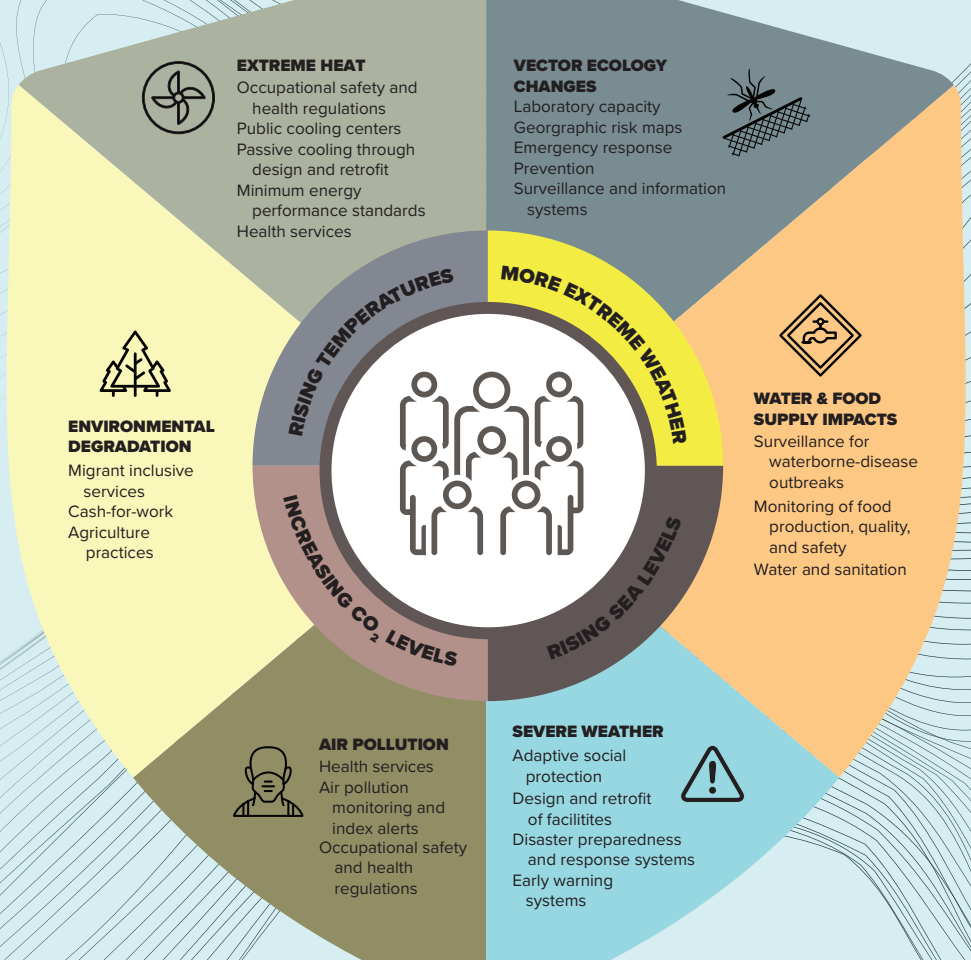
Climate-smart policies and interventions can significantly reduce the expected negative impacts of climate change on human capital.

For instance, building schools and hospitals that are resilient in the face of mounting climate impacts, investing in adaptative social protection so that communities can bounce back more quickly from natural disasters.

REGIONAL DISEASE SURVEILLANCE SYSTEMS
REDISSE strengthens integrated vector management approaches and aligns timing and location of activities with potential climate-induced shifts in disease burden.

BANGLADESH TRANSFORMING SECONDARY EDUCATION
Incorporates adaptation measures in the construction and retrofitting of education facilities such as schools, labs, and training centers.

CHAD SOCIAL SAFETY NETS
Builds the resilience of the poorest through cash transfers, the creation of a social registry responsive to shocks, and program scale-up in response to weather shocks, among other measures.



Different ways
TO PROTECT HUMAN CAPITAL

ACTING NOW:
Reducing the carbon footprint

Behavior Change

Carbon emissions are the result of billions of decisions made by individuals. Human capital has a critical role to play in shaping important decisions on home energy, food choices and waste, transport, among others. Women's empowerment, for instance, through universal education and family planning, can contribute to mitigation and adaptation to address climate change.[8]

BANGLADESH QUALITY LEARNING FOR ALL PROGRAM
Content on climate change mitigation in school curricula.

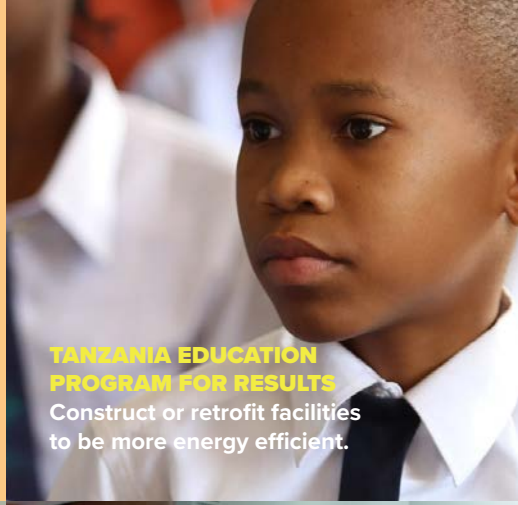
A New Climate Economy

Human capital can support a shift to a new climate economy through investments in research, retraining and developing the skills for the jobs of

Low Carbon Services

Designing, building, operating, and investing in delivery systems and facilities in smart ways can generate substantial reductions of greenhouse gases. Low carbon services consider a range of aspects, including building design and construction, use of energy, waste minimization and management, transport and water consumption policies, and procurement policies.

Considering the large carbon footprint of procurement for the healthcare sector in many countries, sustainable procurement policies, strategies, and practices (particularly when carried out on a large scale), can be an important route for de-carbonizing the supply chain and achieving climate-smart healthcare.



TANZANIA EDUCATION PROGRAM FOR RESULTS
Construct or retrofit facilities to be more energy efficient.

tomorrow. Research from the New Climate Economy shows that bold climate action could generate 65 million new low-carbon jobs globally by 2030, more than offsetting employment reductions in declining sectors, leading to a net employment gain of 37 million jobs.[1]

Unless this economic transition is carefully and responsibly managed—with an important role for social protection systems—there is a real risk of stranded communities and workers, exacerbating social exclusion of the poorest and most vulnerable. Such a transition also needs to be designed to ensure more female labor force participation, ensuring a more inclusive employment landscape.

EGYPT HEALTHCARE REFORM PROJECT
Establish a climate and health research program that is accompanied by higher education and a specialized skills program to reduce energy consumption in healthcare systems.

Investing in **human capital:** a critical element in the response to climate change.

www.worldbank.org/humancapital

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