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About the **Philanthropy** Asia Alliance and the Philanthropy Asia Summit

Launched in 2023 by Temasek Trust, Temasek's philanthropic arm, the Philanthropy Asia Alliance (PAA) brings together over 80 global members and partners to foster and scale collaborative philanthropy in Asia.

The Alliance was initiated by Temasek Trust in 2022 with the support of the Bill & Melinda Gates Foundation, Dalio Philanthropies, Li Ka Shing Foundation, four companies of Sinar Mas*. and Tanoto Foundation.

Its members share two core beliefs: first, that philanthropists are most effective when they work together, partnering across the public and private sectors to unlock commercial capital and catalyse change; second, that Asia, home to over half of humanity, is where progress on global problems can and must be achieved.

2024 marks the fourth year of the annual Philanthropy Asia Summit (PAS), PAA's flagship platform for action, bringing together global and regional participants from the private, public, and philanthropic sectors. Themed "Partnerships for Action", this year's conference focused on the crucial role of multi-sector partnerships and the importance of philanthropists in mobilising private sector investment and government intervention.

Over four days, delegates exchanged robust and holistic insights on catalysing positive impact across the capital spectrum and explored the possibilities of collective action in driving real change.

They also embarked on impact-in-action site visits to Sembcorp Tengeh Floating Solar Farm and OceanXplorer.













^{*}The four companies are APP Sinar Mas, Golden Agri-Resources, Golden Energy and Resources, and Sinar Mas Land.



Impact Journeys

This year's PAS culminated in two experiential, impact-in-action site visits in Singapore, showcasing real-world applications of innovative, sustainable solutions. They were organised by PAA members – Sembcorp and Dalio Philanthropies.

Sembcorp Tengeh Floating
Solar Farm is Singapore's
first inland floating solar farm.
With over 122,000 floating
solar panels spanning 45 hectares, the
60MWp solar farm is a significant stride
towards contributing to Singapore's
solar energy deployment by 2025.









OceanXplorer, a research vessel operated by Dalio Philanthropies' OceanX non-profit initiative, houses the most advanced equipment and technology for ocean exploration.

The vessel is a key part of OceanX's multi-year research programme into ocean conservation in Southeast Asia.













Partnerships for Change





By convening like-minded partners to cross-pollinate best practices between Asia and the world, discover shared interests, and explore new collaboration models, we aim to collectively advance Asian solutions for global challenges."

Ms Lim Seok Hui, CEO, Philanthropy Asia Alliance (PAA)

THE THEME OF THIS YEAR'S PHILANTHROPY ASIA SUMMIT WAS PARTNERSHIPS FOR ACTION.

As Asia's philanthropy sector matures, there is growing recognition that families and foundations can maximise the impact of their capital by acting in alliance with key stakeholders. These strategic partnerships span three primary domains: engagement with regional and national governments, collaboration with private sector investors whose capital resources are unparalleled, and alliances with implementation partners and local communities.

A unique advantage of philanthropy is its capacity to drive significant social innovation through robust and impactful partnerships, Ms Lim Seok Hui, CEO of PAA, highlighted.

In a fireside chat, The Rt Hon Tony Blair, Executive Chairman of the Tony Blair Institute for Global Change and former Prime Minister of Great Britain and Northern Ireland, noted that if philanthropy wants to be transformative, **collaboration with government is essential**. Governments possess the resources, authority, and reach to enact substantial change within their communities.

Mr Blair emphasised the importance of philanthropy in building sustainable programmes that can be maintained by community efforts once established. For these collaborative efforts to succeed, philanthropists must cultivate durable relationships with governments founded on mutual trust. Only then can philanthropists present evidence of successful initiatives to government agencies and work together to scale them.

This could involve introducing the government to partners able to implement interventions with proven success at the state level that can be scaled nationwide, or partnering directly with the government to achieve this. Consequently, the success of local philanthropic interventions can be amplified to create national impacts.





Many speakers, including Mr Desmond Kuek, Executive Director and CEO of Temasek Trust, highlighted that the capital required to meet philanthropic objectives, particularly in addressing climate change, exceeds the resources of the philanthropic sector, let alone individual families or foundations.

Hence, the second critical partnership is with the private sector, whose capital is attracted when there are assurances of returns. In this context, philanthropic capital can absorb risks, such as taking equity stakes in projects, thus providing private sector investors with some protection against losses.

The final spoke in the partnership wheel, complementing the public, private, and philanthropic partners, are the local communities, delivery partners, and researchers.

As philanthropy in Asia evolves, it is essential to hand over execution to actors with experience on the ground and encourage beneficiary communities to co-create and own philanthropic initiatives.

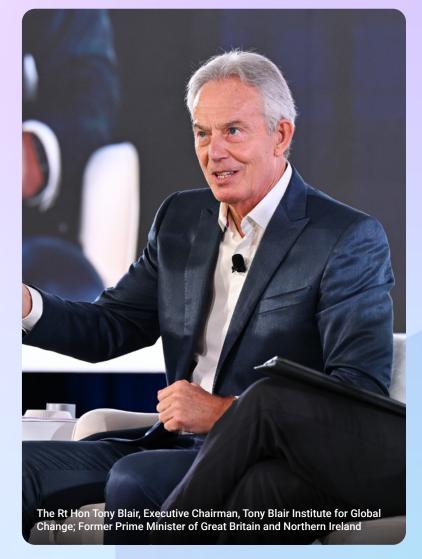
Evidence and data-driven approaches to measuring impact are vital to unlock both government action and private sector capital.

This is particularly pertinent to climate change, which was a major focus of this year's Summit. In 2020, climate mitigation efforts received less than 2% of global philanthropic funding, partly due to a lack of clear evidence on what works.1 However, speakers at PAS pointed out that philanthropic capital uniquely allows for risk-taking unconstrained by the need for short-term results.



In the end, there are some things that only a government can do. [The role of philanthropy] is to show the state what can work and then partner at a local level to introduce change."

The Rt Hon Tony Blair, Executive Chairman of the Tony Blair Institute for Global Change and former Prime Minister of Great Britain and Northern Ireland





Dr Regina E. Dugan, President and CEO of Wellcome Leap and a former director of the US government's Defense Advanced Research Projects Agency (DARPA), urged philanthropists to embrace funding efforts focused on delivering impact at scale. She outlined a structure and model where CEO-like programme directors optimise time-boxed programmes with bold, testable goals, and leverage partnerships across disciplines, organisations, and nations to enable teams to work together to accomplish something they could not accomplish alone.



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The new-age philanthropist's DNA requires them to be change agents, social entrepreneurs, and community partners. We need to earn it, give it, and encourage it."

Ms Solina Chau, Co-Founder, Horizons Ventures

Empowering partners and supporting their research and discoveries ensure a philanthropic approach predicated on human dignity and respect.

Whether catalysing action by governments and private sector investors or backing fundamental research, the message is clear – **philanthropists achieve more by acting in concert with other stakeholders than they do alone.** While philanthropic funding has grown globally over the last decade, stronger partnerships are key to effective giving. By bringing together hundreds of foundations, investors, government officials, researchers, and delivery partners over four days, PAS created an opportunity for vital new linkages to be formed.

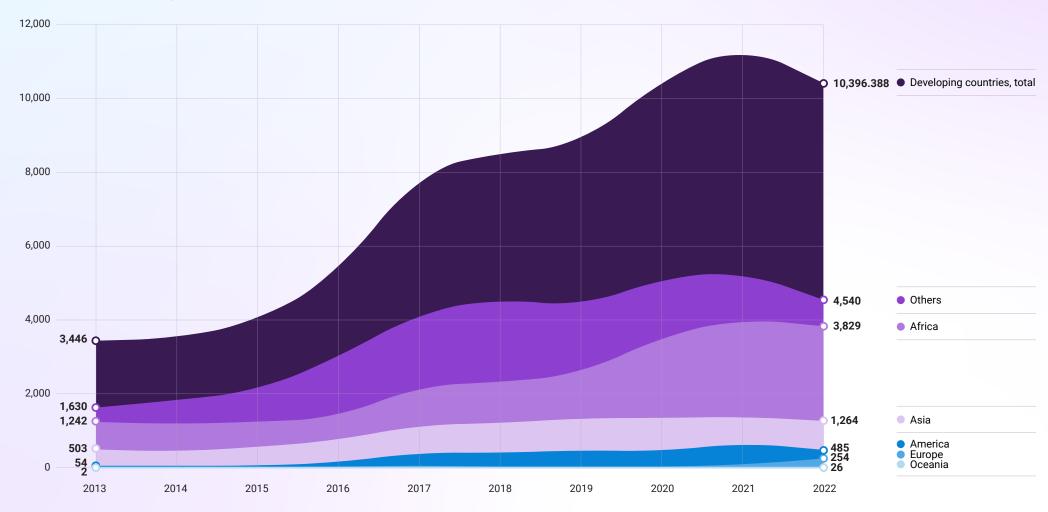




PRIVATE PHILANTHROPY SPENDING BY REGION, 2013-2022

Private philanthropy spending has grown significantly over the last decade before a modest decline after Covid-19.

US Dollar, Millions



Source: OECD²



Executive Summary

The discussions and learnings from the Summit were focused on five areas:

- 1 CLIMATE AND NATURE: TACKLING CLIMATE CHANGE
 - An exploration of the financial dynamics of environmental priorities
- 2 EDUCATION: TRAINING TOMORROW'S LEADERS TODAY

 A look into efforts to enhance educational access and quality
- 3 HEALTH: COMBATTING GROWING HEALTH CHALLENGES

 A spotlight on philanthropic interventions in medical research and public health initiatives
- 4 INTERSECTIONS OF CLIMATE, EDUCATION, AND HEALTH
 An analysis of how philanthropic approaches must address interlinked issues
- 5 ADVANCING PHILANTHROPIC CAPABILITIES AND IMPACT

An outline of frameworks for leveraging philanthropic resources to drive positive change in climate, education, and health



CLIMATE AND NATURE: TACKLING CLIMATE CHANGE

Executive Summary Output Description: Out

US\$2 TRILLION

IN CLIMATE INVESTMENTS NEEDED ANNUALLY BY DEVELOPING ECONOMIES



- Developing economies need US\$2 trillion in climate investments every year by 2030, according to the International Monetary Fund (IMF). But in 2022, just 1.6% of the US\$811 billion in philanthropic aid was focused on climate change mitigation, partly because of a lack of evidence about which interventions work in the sector.
- Philanthropists can support climate action by using blended finance for green infrastructure projects. In this model, philanthropic capital assumes the highest level of risk, giving private sector investors more confidence about potential returns. These projects are also able to attract more capital from larger players.
- Philanthropists can offer much-needed technical support for Asian governments to help advance their infrastructure programmes to the 'shovel-ready' stage to meet demand from private investors. Philanthropists can also help create products for blended finance, pooling similar projects into funds so that investors do not have to evaluate each project individually.

- Green infrastructure spending must include a gender lens. Funding for green infrastructure projects is likely to catalyse employment in sectors such as engineering and construction, in which women are traditionally underrepresented. Options to address this include seeking out female-led delivery partners and ensuring female representation on investment committees at fund managers.
- crisis. Nature-based Solutions (NbS), which include land management, biodiversity conservation, and ecosystem preservation, can contribute more than a third of the climate change mitigation needed to meet the goals of the Paris Agreement.³ Asian philanthropists are helping grassroots organisations prove the effectiveness of their NbS projects to unlock government and private sector support. They do this by creating databases, mapping and documentation tools, and experimenting with cash payments to encourage landowners to preserve biodiversity and discourage practices such as crop burning.



EDUCATION: TRAINING TOMORROW'S LEADERS TODAY



- Early-years education delivers outsized gains. Philanthropic interventions in the education sector are increasingly focused on pre-primary and early-years education, where there is a return of up to US\$9 for each dollar invested, far higher than for interventions in secondary or tertiary education.4
- Inclusion is key in engaging students. Philanthropists are increasingly experimenting with ways to improve educational inclusion and attainment levels among racial and linguistic minorities in Asia - for example, through bilingual or nativelanguage primary school programmes.
- Education plays a pivotal role in reducing gender inequality and improving outcomes for women and girls. Early educational interventions have been shown to significantly boost girls' future earning potential and overall life prospects. However, girls in Asia are disproportionately excluded from educational opportunities, so targeted philanthropic initiatives focused on promoting gender equality and empowering young women in education are essential.
- Collaborate with governments for scalable impact. Philanthropists are encouraged to partner with governments to enhance educational outcomes. By aligning their efforts with national development agendas and local governments' education priorities, philanthropists can reach more students and scale interventions to ensure broader, more sustainable impacts.
- Leverage technology for equitable education. Digital solutions can play a crucial role in bridging educational gaps and providing accessible learning platforms to enable high-quality, flexible learning. Philanthropists can support evidence-based technological interventions to ensure inclusive and continuous learning opportunities.
- An education strategy that includes health education is essential. Interventions that incorporate gender-sensitive efforts aimed at educating men about the importance of maternal and newborn care not only improve immediate health outcomes, but also lay a strong foundation for a child's academic success.





HEALTH: COMBATTING GROWING HEALTH CHALLENGES

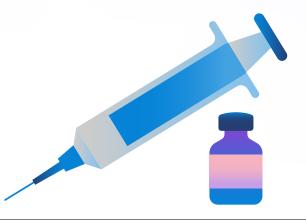








- Asia faces a complex dual threat of climate change and health crises. The region is dealing with a unique and unprecedented public health challenge as climate change, economic development, and rapid urbanisation act individually and in combination to increase the risk of both infectious disease outbreaks and chronic lifestyle conditions.
- Promising innovations for fighting communicable diseases need the backing of capital. For example, the development of viable dengue fever vaccines and the introduction of Wolbachia bacteria to control mosquito populations require funding to support wider rollouts.
- Philanthropists can provide risk capital for projects and initiatives that both protect the vulnerable and make it more attractive to private investors, which is how the Rockefeller Foundation is supporting health infrastructure in Asia. When aligned to government priorities, these types of multi-sector partnerships can help scale programmes that increase opportunities for everyone.
- Disease surveillance and early warning systems are crucial to controlling infectious outbreaks at the source but also require significant investment in local laboratories, public health education, and monitoring and testing. For example, early warning systems for dengue, which are supported by mathematical modelling to predict outbreak progression, have shown great promise. These models rely on accurate and rapid diagnoses of pathogens in laboratory facilities on the ground, and also on accessible data and cooperation between local surveillance agencies. In addition to supporting local primary care systems with diagnosis and screening, philanthropists can support data-sharing and intergovernmental cooperation in building the databases necessary to build accurate predictive models.











INTERSECTIONS OF CLIMATE, EDUCATION, AND HEALTH

- Climate, education, and health are intricately linked to each other, which means positive developments in one area can translate into desirable outcomes in the others. For instance, climate change affects low-income and marginalised communities the most, as they are more vulnerable to shocks such as flooding, droughts, and disease outbreaks. Education helps lift people out of poverty, thereby mitigating the impact of climate change. At the same time, a well-educated population is more likely to adopt a healthy lifestyle, be more aware of how human activities affect the environment, and take adequate steps to alter their behaviours to not exacerbate climate change while helping to reduce their impact on the planet.⁵
- Philanthropists should design climate interventions in a way that addresses the impacts on community health and educational inclusion in low-income communities. The Revitalising Informal Settlements and their Environments (RISE) initiative, for example, partners with the governments of Fiji and Indonesia to address the disproportionate impact of climate-induced water quality deterioration and flooding on people living in informal settlements.
- Philanthropists can harness ample data to guide their interventions. Unlike philanthropic responses to climate change, interventions in health and education have a long history with plentiful data to measure the outcomes of different types of financing approaches, including investments. Philanthropists can also use such data to encourage further action and support from the public and private sectors.
- Community engagement is imperative for effective programme delivery. Philanthropic foundations have sought to co-develop climate change responses with local communities in ways that create channels for them to share their perspectives with governments and inform policy responses. The non-profit Health in Harmony, for example, tackles illegal deforestation and infant mortality in the rainforest communities of Borneo through a "radical listening" approach that builds resilient forest management strategies in collaboration with local community members, particularly women who often lead the reforestation teams.

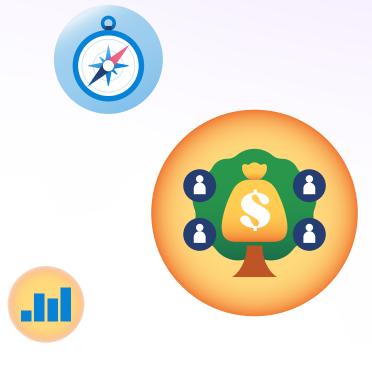


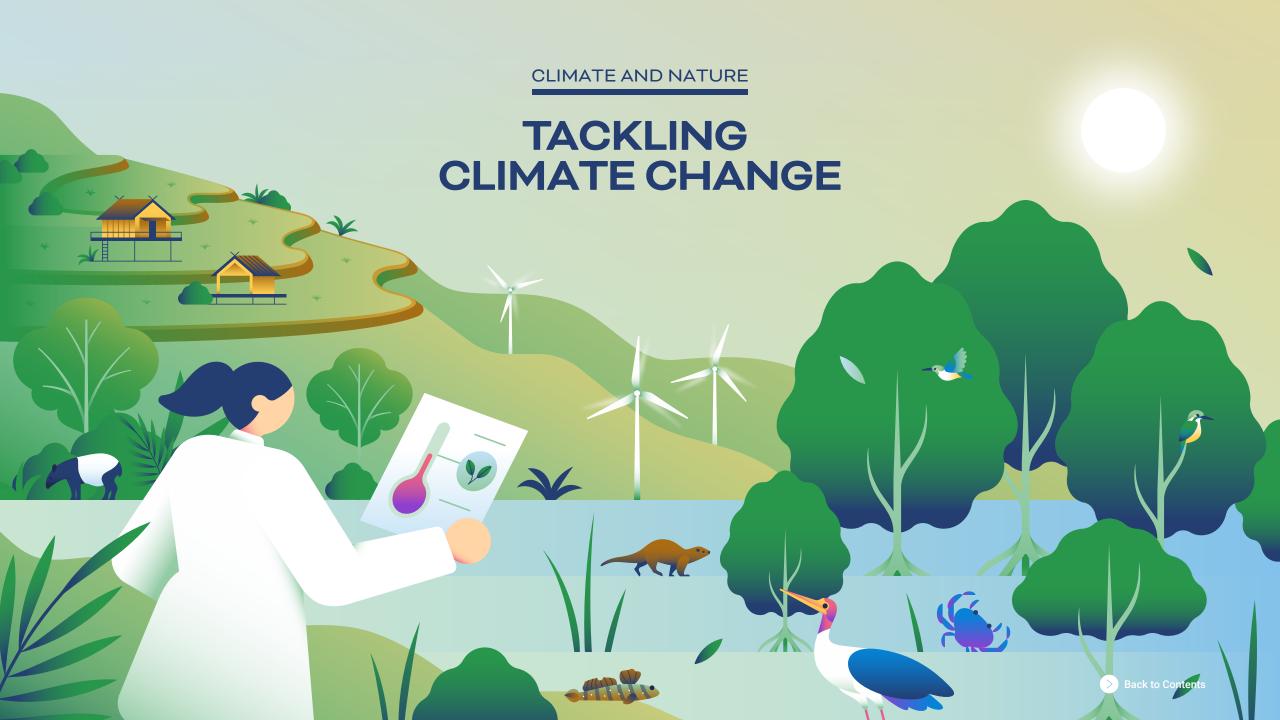


ADVANCING PHILANTHROPIC CAPABILITIES AND IMPACT



- Asia's philanthropy sector is becoming increasingly professionalised. Families and foundations are seeking to maximise impact by appointing experienced administrators to head their giving operations and forming enduring partnerships with delivery partners. In Singapore, which has become a centre for the region's philanthropists, initiatives such as the Philanthropy Asia Alliance, the Asia Centre for Changemakers (hosted by the Wealth Management Institute and launched at this year's Summit), and the Impact Philanthropy Partnership, are offering knowledge-sharing and learning opportunities to philanthropists and their partners alike.
- Navigating family relations, picking the right partners, and community engagement are key to fostering mutual trust and sustained impact across generations. More family offices have been setting up in Asia, and managing family dynamics and differences in opinion on philanthropic priorities and investments can be challenging. Wealthy individuals discussed how they created alignment within their families when it comes to specific social goals, while executives of family offices shared about the lessons learnt from deploying capital in search of those goals. Solutions include establishing a clear set of guidelines together, in order to resolve disagreements over which projects to fund. Certain philanthropists, for example, have created distinct foundations to accommodate the goals and interests of different family members.







Unlocking capital is essential to tackling the challenges climate change. Developing economies alone need US\$2 trillion in climate and infrastructure investment every year by 2030, according to the IMF, a fivefold increase from 2023.7 Yet despite this urgent need, just 1.6% of the US\$811 billion in philanthropic giving in 2022 was focused on climate change mitigation, according to ClimateWorks Foundation.8

Philanthropy's impact on addressing the climate change challenge can be strengthened by exploring blended finance approaches, with public-private-philanthropic partnerships (PPPPs)⁹ as their core principle. Other crucial areas include leveraging Nature-based Solutions (NbS), harnessing datadriven approaches, and exploring innovations such as payment for ecosystem services.





From left: Mr Dean Collins, Dechert LLP; Ms Kitty Bu, Global Energy Alliance for People and Planet (GEAPP); Mr Gilles Pascual, EY; Ms Kim Jin Young, Children's Investment Fund Foundation; Prof Lutfey Siddiqi, LSE IDEAS



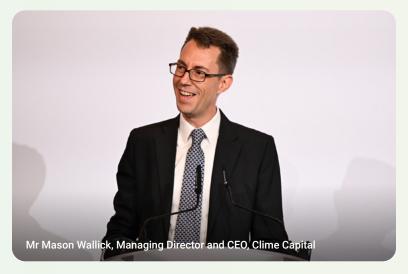
THE INFRASTRUCTURE CHALLENGE

Asia is home to over half of the world's population and around three-fifths of global carbon emissions from the power sector. ¹⁰ If ambitious emissions-reduction targets are to be met, economic growth and urbanisation will require a huge build-out of green infrastructure, from renewable energy to power grids and new transport systems.

While governments across the region are accelerating their shift to a green future, investment at the scale required to transition entire economies is beyond the power of state actors alone. The IMF calculates that private capital needs to account for 80% of climate mitigation investments in emerging markets and developing economies for these countries to reach net zero by 2050. Today, that figure sits at only 40%. 11 Private sector investment in emerging-market renewable power projects is declining in absolute terms, as investors favour projects in higher-income regions, according to Mr Blair.

The role of philanthropists in Asia therefore is clear. In partnership with providers of concessional finance, such as the World Bank, philanthropists can help green infrastructure projects rapidly move from concept to bankable project to enhance their appeal to global private capital players.

On the conference's third day, Clime Capital, a Singapore-based clean energy investment incubator, led a session to discuss how this might happen. The session covered a range of topics, including the roles that blended finance and technical assistance can play and the importance of ensuring women's representation.

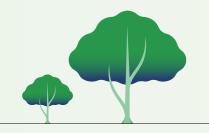




If you want to get climate finance into the developing world, you need to get projects into investible form. Otherwise, you can have as much private finance swilling around the world as you like, but it won't go into those projects."

The Rt Hon Tony Blair, Executive Chairman, Tony Blair Institute for Global Change; Former Prime Minister of Great Britain and Northern Ireland





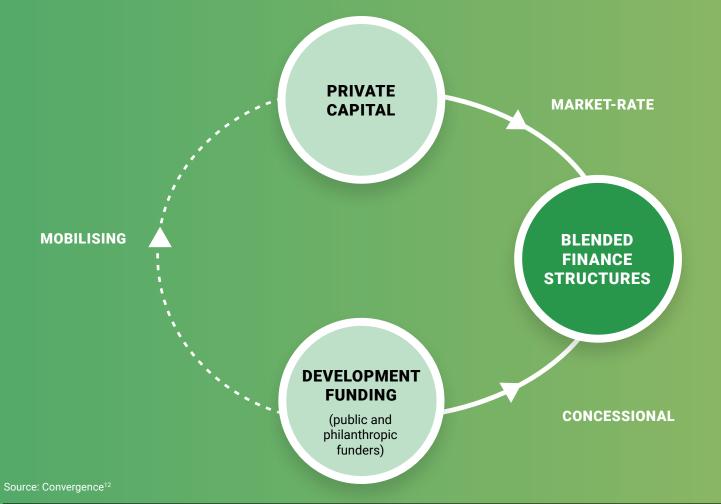






BLENDED FINANCE, DEFINED

Blended finance is the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development. It combines market-based and concessional financing approaches to maximise investment.



BLENDED FINANCE FOR THE LOW-CARBON TRANSITION

Blended finance is the strategic use of development finance to mobilise private sector capital, such as for infrastructure projects in developing countries.

Development finance, which tends to be provided on concessional terms or as a grant, can come from governments, international donors or potentially from philanthropists, as delegates at PAS discussed.

Often, it will take the form of investment capital, providing equity for a project or the most junior tranche of debt. This can then encourage private investors with a lower risk appetite to take on more senior debt, knowing that concessional finance will absorb losses first.

The development of climate-resilient infrastructure is inextricably linked with growth outcomes and an uplift in well-being and standards of living.

While the size of need is immense, no amount of capital, especially risk capital for blended finance, is too small to create change.



One solution is to combine philanthropic funding with other forms of capital from development finance institutions and the private sector, as Clime Capital has sought to do in its Southeast Asia clean energy funds.

However, philanthropic support for blended finance can come in many other forms. Partners can, for example, support governments in designing their infrastructure plans, or they can help to package several infrastructure projects into a larger investment vehicle so that risk is diversified across countries and industries and becomes more tolerable for private capital.

Philanthropists also provide the ability to leverage patient capital and can offer deep expertise and the willingness to take a longer view on returns.

These are crucial attributes to capitalise on, especially because levels of philanthropic giving to blended finance are currently low, and the lack of risk capital constricts commercial and other relevant players, including governments, from developing the required sustainable and climate-resilient infrastructure.

Philanthropists, therefore, might find many roles in the blended finance space, adding a fourth, philanthropic 'P' to the publicprivate partnerships (PPPs) that underpin blended finance.



At its heart, blended finance is about structuring and right-sizing risks."

Ms Gillian Tan, Chief Sustainability Officer, Monetary Authority of Singapore (MAS)







TECHNICAL ASSISTANCE

Philanthropists are playing a productive role in providing technical assistance in the blended finance space. Governments of smaller economies might launch a major green infrastructure project only once a decade, which makes it hard for the finance ministry to build up institutional knowledge and expertise in project design without the help of external consultants.

The Tony Blair Institute for Global Change embeds technical experts in government ministries to work across sectors including on infrastructure proposals, while other foundations fund independent studies that governments can leverage.

In the first-ever master plan feasibility study for offshore wind in the Philippines, philanthropic funding from Tara Climate Foundation assisted in the detailed assessment of sites with wind resource potential, including engagement with local regulatory bodies and government units to better understand the potential environmental and social concerns of building wind farms at those sites. The funding also helped accelerate the initiative while crowding in funding from the private and public sectors. 13

Meanwhile, Tri-Sector Associates, a Singapore-based blended finance intermediary and part of the Temasek Trust ecosystem, worked with a leading international conservation nongovernmental organisation to create a recyclable technical assistance facility for Nature-based Solutions. This multimillion dollar facility aims to make such Nature-based Solutions investment-ready for private sector investors.





THE ROLE OF DEBT

Although philanthropists may not always have sufficiently deep pockets to be large-scale debt investors in infrastructure projects, there are some specific cases where relatively small capital deployments can catalyse progress.

Mober, a logistics company that uses electric vehicles and a charging network to deliver goods across the Philippines, has been unable to secure debt financing because local banks, including those that offer green financing solutions, tend to prefer waiting until the electric vehicle market matures. Global investors, meanwhile, may not be keen because the small size of the loan Mober requires does not justify the due diligence involved.

At this point, philanthropic capital can provide small quantities of bridge financing to successful start-ups that need to scale their operations before they can attract the attention of commercial banks and private capital players.

CREATING INVESTIBLE PRODUCTS WITH PHILANTHROPIC SUPPORT

In attracting private capital for blended finance to fund green infrastructure projects, the most significant drawback is that each project is unique. Private investors must evaluate each proposal on its merit and evaluate individualised ESG statements. That makes every investment time-consuming.

Investment professionals at the conference said philanthropists could help to unlock private capital by aggregating infrastructure projects into single investment funds, to which investors could allocate capital. Such funds should undergo rating agency assessments and have dedicated portfolio management overseeing an active project pipeline, with a diversified risk profile across industries and sectors, to establish the trust of institutional investors.

Most importantly, the funds could be sizeable with projects needing billions of dollars in debt financing. They would appeal to large institutional investors, with specific investment thresholds, seeking to enter into blended finance transactions.

Philanthropists could also stimulate actions across the finance industry to make these products more investible, for example by incentivising insurers to offer products that allow investors to protect their capital should individual infrastructure projects fail.



PROMOTING GENDER EQUALITY

An often overlooked issue in blended finance, green infrastructure, and climate-friendly industrial development is their impact on gender equality. The sectors these models often seek to fund, such as construction and engineering, are typically male-dominated.

Bias, social norms, and rigid workplace practices contribute to a gender gap in STEM (science, technology, engineering, and mathematics) fields across many Asian countries. For instance, women make up only 18% of science and technology researchers in South Korea and 15% in Japan.¹⁴

As we pursue a green transition, it is crucial to ensure that initiatives such as the G7's 2X Challenge, aimed at promoting leadership opportunities for women in developing countries, are not undermined by a shift in investment focus towards male-led businesses.

Participants discussed how the fund management industry, donors, and infrastructure companies are working to prevent such outcomes. For example, Clime Capital's investments include Upgrade Energy Philippines, a solar panel developer led by Ms Ruth Yu-Owen and a rare example of an engineering and construction firm that is gender-balanced.

Funds can also prioritise gender diversity within their investment committees. Clime Capital, for instance, has a team that is predominantly women, with several members working remotely to manage family commitments.



PERCENTAGE OF WOMEN IN SCIENCE AND TECH RESEARCH

JAPAN

15%

SOUTH KOREA

18%





Ms Ralitsa Rizvanolli, Partner and Head of Investments at Sarona Asset Management, said her organisation, in its capacity as the investment manager for Australian Development Investments (ADI), encourages fund managers to increase women representation on investment teams, boards, senior management, and investment committees, and provides support in identifying suitable candidates. ADI structures incentives for making investments in a greater number of female-led companies.

Ms Rizvanolli suggested that organisations like 2X Global can further support fund managers to embed a gender lens in their investment process, which is a structural approach to increasing the number of women business leaders in Asia.





PHILANTHROPY FOR NATURE-BASED SOLUTIONS (NbS)

In considering climate change, our focus often turns to heavy industry, transportation, and the power sector — key drivers of energy consumption. Ms Jennifer Morris, CEO of The Nature Conservancy, stated that even if we moved to a world powered entirely by renewable energy tomorrow, we would still fall far short of emissions reduction targets if we did not also tackle emissions associated with the natural world.

BENEFITS OF NATURE-BASED SOLUTIONS

By integrating NbS into new projects and refurbishment proposals, stakeholders can provide adaptation to climate-related risks while delivering a multitude of benefits for nature. Identifying where NbS add value can lead to additional financing opportunities.



In fact, NbS, which include land management and biodiversity conservation, can contribute more than a third of the climate change mitigation needed by 2030 to keep global warming in check,¹⁵ while also reducing vulnerability to climate change, and providing food security and jobs. For instance, the International Rice Research Institute, supported by US\$30 million in research funding from the Gates Foundation, launched the Stress Tolerant Rice for Africa and South Asia (STRASA)¹⁷ project in 2007 and has developed more than 150 climate-smart rice varieties that are tolerant to flood, drought, and salinity to support millions of farmers in South Asia and in sub-Saharan Africa.¹⁸





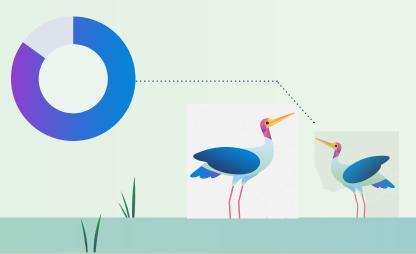
From the vast mangrove forests of Indonesia to the diverse coral reefs of the Philippines, Asia is home to some of the Earth's most critical biodiversity hotspots and could be at the vanguard of developing Nature-based Solutions (NbS). 19 Yet, its natural capital is being eroded at an alarming rate. Up to 42% of all species across Southeast Asia could be lost by 2100. Three socioeconomic systems – food, land, and ocean use; infrastructure and built environment; and energy and extractives – are projected to endanger 85% of all threatened and near-threatened species in the Asia Pacific region.²⁰

42%

OF SOUTHEAST ASIAN SPECIES **COULD BE LOST BY 2100**

Addressing these issues effectively requires adopting a collaborative approach to conservation, integrating sustainable agricultural practices, providing economic incentives for farmers, and learning from past failures. Initiatives such as eco-forestry and mangrove restoration can balance production with conservation. Implementing evidence-based strategies and involving local communities are crucial steps. Additionally, articulating the value of biodiversity and incorporating natural capital assessments into public policy are vital for long-term sustainability.

OF THREATENED AND NEAR-THREATENED SPECIES IN APAC AT RISK OF ENDANGERMENT



FOR THE Nbs sector to flourish, four **CRITICAL QUESTIONS MUST BE ADDRESSED:**

- · How to find and nurture NbS that can be scaled into major initiatives contributing decisively to the fight against climate change
- How to attract capital to such projects
- How to decide where to deploy such capital
- How to measure whether projects are delivering on their promises, including establishing guidelines for verifiable, appropriate, and consistent reporting standards





Monetisable revenue streams Non-monetisable benefit streams **COSTS AND BENEFITS OF AN COSTS AND BENEFITS OF AN URBAN INVESTMENT IN Nbs IN FORESTS Nbs Project** These cost-benefit calculations show the long-term holistic benefits of investing in Nature-based Solutions (NbS). Net benefits (€) Net benefits (€) Community WTP for green space €0 €0 Air purification Biodiversity value Recreation value Water filtration Capital and renewal costs Capital costs Increased property price Biodiversity value Avoided heat stress Ongoing **Ecotourism** Ongoing maintenance maintenance costs Avoided healthcare costs costs Reduced fire risk Avoided stormwater treatment costs Reduced timber production Carbon sequestration ▼ Net costs (€) ▼ Net costs (€)

DRIVING SUSTAINABLE LAND USE

Agriculture contributes to climate change both directly - such as through methane emissions from livestock or crop burning - and indirectly as carbon-absorbing forests are cleared to plant crops or graze animals. A quarter of greenhouse gas emissions come from agriculture and land use,²¹ and without changes in food production and consumption, an area of tropical forest the size of India will have to be cleared by 2050 to make way for crops and livestock.22

Technological solutions such as hydrogen fuel exist in areas like transport and energy. However, the pathways for achieving net zero in agriculture and land use sectors are less obvious.



Source: European Investment Bank²³



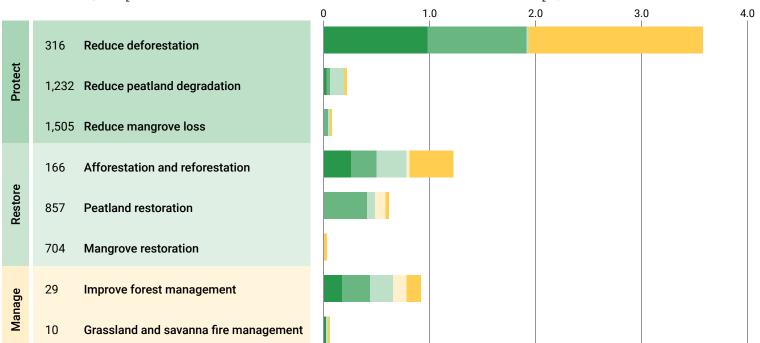
GLOBAL COST-EFFECTIVE MITIGATION POTENTIALS FOR LAND-BASED MEASURES ACROSS FORESTS, PEATLANDS, MANGROVES, AND GRASSLANDS FROM 2020 TO 2050

The potential of land-based mitigation initiatives shows the benefits of investing in sustainable land use.

Africa and Middle East
Asia and developing Pacific
Developed countries
Eastern Europe and West-Central Asia
Latin America and Caribbean

Cost-effective mitigation potential (GtCO₂e/yr)

Mitigation density (tCO₂e/ha)



While nature-based climate solutions — including those associated with food systems - have the potential to contribute up to 30% of climate mitigation needed to reach 2030 climate goals, less than 2% of climate finance is directed to agri-food solutions.

Alongside increased climate financing targeting landscape protection and restoration, there remain opportunities to scale investment in technology solutions that promote both climate mitigation and sustainable management of agricultural lands.



Ms Jan Yoshioka, Vice President of Sustainable Finance at Conservation International, proposed expanded engagement with technology entrepreneurs and venture capital to increase corporate investment in farmer-first climate strategies as one strategy to build up NbS spending.

Source: World Resources Institute²⁴





Conservation International's impact investment platform, CI Ventures, is putting this approach into practice by financing startups and small- and medium-sized businesses in the agriculture sector to invest in regenerative practices that enhance ecosystem benefits.

Mr Colin Moore, Regional Carbon Advisor at the Wildlife Conservation Society, also highlighted the Southeast Asia Climate and Nature-based Solutions (SCeNe) Coalition.

The SCeNe Coalition not only funds early-stage NbS projects but also prioritises sharing information, best practices, and capacity building to scale high-quality NbS projects that are climate-positive, protect biodiversity, and enhance the socioeconomic wellbeing of communities.

44

People just don't know what works in climate. We don't have accredited data to review."

Mr Iqbal Dhaliwal, Global Executive Director, J-PAL at MIT

Some studies, though, do indicate potentially massive mitigation dividends to land-based interventions in areas like forest protection and recovery (see chart on page 27).

DEVELOPING DATA-DRIVEN MODELS

One area where philanthropists can clearly contribute to NbS, therefore, is in supporting the development of datadriven models that show value for money.

The SCeNe Coalition is an example of an attempt to bridge the gap between grassroots climate initiatives and data-driven investors. Established by eight international NGOs, including the World Wildlife Fund (WWF) Singapore, Conservation International, and Mandai Nature — the conservation arm of Temasek Trust and Singapore's Mandai Wildlife Reserve — it aims to support the development of high-quality NbS projects across Southeast Asia.

The SCeNe Coalition's NbS Incubator identifies projects led by frontline organisations with the potential to scale and then offers them resources, expertise, and mentoring. The coalition has also released an NbS tool that allows NbS initiatives to assess their potential impact using an interactive map and data analysis. Its NbS portfolio provides criteria against which to approach and evaluate NbS projects.





PAYMENT FOR ECOSYSTEM SERVICES

One area where evidence of impact is beginning to emerge is in so-called 'payment for ecosystem services', where farmers, especially smallholders, are paid to act as good stewards of land and act in a way that reduces emissions.

Mr Iqbal Dhaliwal, Global Executive Director, J-PAL at MIT described how randomised control trials in the Indian state of Punjab have significantly reduced seasonal crop-burning by providing payments to farmers in return for compliance. Small sums of philanthropic capital deployed into such trials can produce a strong body of evidence to persuade governments or international agencies to deploy capital at a larger scale in future.



STRENGTHENING INCOME SECURITY

Smallholder farmers lack access to market, credit, technology, logistic services, and even precise data such as weather forecasts. Jollibee Foods Corporation, a Philippines-based restaurant chain, is seeking to solve this by sourcing more of its produce locally and facilitating farmers' access to business development services.

The corporation's philanthropic arm, Jollibee Group Foundation, set up a programme to encourage smallholders to do collective marketing, and then partnered with international agencies, local institutions, and companies to provide resources like SMS weather updates, preferential credit, and technical soil analysis. Most importantly, Jollibee engages in long-term supply contracts directly with farmer cooperatives.





The stable market and security of income that we provide to farmers have allowed them to repay their debts, secure back assets that they have pledged as collateral for loans, and secure the resources they need to invest in education as well as other assets."

Ms Gisela Tiongson, President, Jollibee Group Foundation







It is only through philanthropy, with its ability to move nimbly and create things with real risks and interests, can we move the needle on elevating the ocean's value to humanity."

Dr Vincent Pieribone, Co-CEO and Chief Science Officer, OceanX

OCEAN CONSERVATION IN SOUTHEAST ASIA

Southeast Asia's oceans, rich in diversity due to their unique position at the confluence of three oceans, sustain local communities and economies through maritime activities, shipping, and fisheries.

However, this diversity is being threatened by climate change. Sea surface temperatures in the region are expected to rise by 1.1-2.9°C on average this century, 25 causing widespread coral bleaching and mortality. Rising sea levels and ocean acidification further endanger coastal and marine ecosystems.

With 99% of the deep ocean in Southeast Asia still unexplored, urgent collective action is needed to conserve its rich marine ecosystems for future generations.

Effective interventions to address the multifaceted challenges of ocean conservation require collaboration among stakeholders from academia, philanthropy, private enterprise, and government. By leveraging multidisciplinary expertise, innovative solutions can be developed, scaled, and implemented more efficiently. Involving local communities in the design and implementation of interventions ensures better acceptance and sustainability.

Philanthropy can take the lead by catalysing bold initiatives and taking risks. Philanthropic resources can scale transformative, low-cost ocean solutions, bridging the gap between scientific research and community implementation. By reducing the risk of such initiatives, philanthropy can mobilise public and private sector capital for ocean conservation efforts.





TRAINING TOMORROW'S LEADERS TODAY





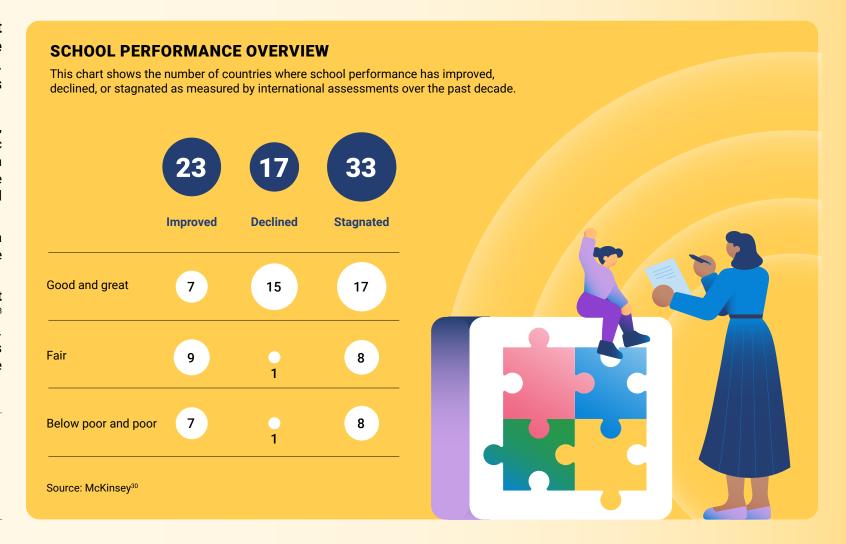
The Asia Pacific region has experienced significant economic progress in recent decades and is now home to some of the world's most prosperous societies. However, in certain areas, up to 78% of 10-year-olds still struggle to read a simple text.²⁶

As well as stunting the prospects of millions of young people, this represents a significant drag on the region's economic potential. As part of a broader stagnation in education performance globally, 60% of the world's illiterate adults live in the region.²⁷ Global education targets cannot be achieved without improving performance in Asia.

In a breakout session at PAS, delegates from UNICEF, Asia Philanthropy Circle, and leading education foundations in the region discussed how this challenge could be addressed.

Asia's education issues partly reflect economic development disparities. For instance, in lower-middle-income Philippines,²⁸ up to 90% of children leave primary school unable to read. Similarly, preschool education quality in China's poor rural areas lags behind that in its wealthier urban regions.²⁹ However, there are also other factors at play.









Singapore, where the education system is consistently ranked among the best in the world in the OECD's PISA assessments,³¹ also has the largest attainment gap between best- and worst-performing, meaning thousands of students are being left behind.

There is significant gender disparity in education across the Asia Pacific region, with 15 million out of 35 million out-of-school children being girls.³² This gap is most severe at the primary level for girls and secondary levels for boys, varying by country and education level.

For instance, 66.5% of girls in Indonesia are out of primary school and 40.9% out of lower secondary school. Despite regional gains, girls in Micronesia, Mongolia, Brunei, Thailand, and the Marshall Islands often miss pre-primary education. In Laos and Myanmar, disparities are especially acute among the poorest rural families.

Philanthropists agreed that interventions must focus on providing early childhood education in rural and economically disadvantaged areas to ensure children enrol in school and are equipped to succeed.

For every dollar invested in pre-primary education, there is a return of up to US\$9,33 yet 16 million children in the Asia Pacific region are not enrolled in pre-primary education.34

Prudence Foundation, the philanthropic arm of Prudential PLC, has partnered with UNICEF to intervene in children's lives well before school age, providing caregiving support to families across Thailand and Indonesia, and educating parents on the importance of holistic nurturing care that includes responsive caregiving and early learning opportunities to help young children develop to their full potential.³⁵

UNICEF has also partnered with Microsoft in the region to provide digital learning opportunities that do not require internet access, to enable low-income students to have ongoing learning opportunities.³⁶

Philanthropists also collaborate with governments to design initiatives aimed at increasing inclusion and education attainment levels for children, particularly those from disadvantaged backgrounds such as ethnic and linguistic minorities.

During the conference, Ms Vang Thi Tu Ha, a Hmong university student from the mountainous Lào Cai province in northern Vietnam, shared her experience.

A decade ago, she was among the first students enrolled in a dual-language Hmong-Vietnamese primary school programme developed by UNICEF in partnership with central and provincial governments, to enable Hmong students to study in their native language.







"I'm currently in the second year of university studying journalism and communication," Ms Thi Tu Ha said. "But I would not have had the opportunity to study at university in the capital like I do today, if it weren't for the chance given to me 10 years ago, when I was selected as one of the two student cohorts to participate in the bilingual education programme."

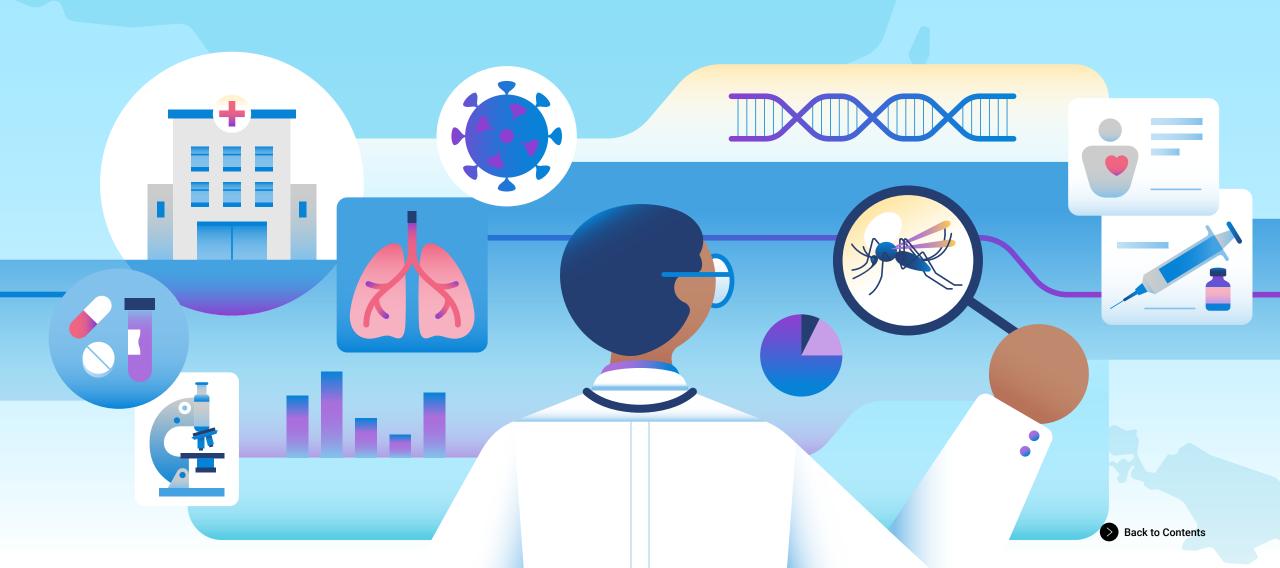
Delegates emphasised the need to work with governments, rather than establishing parallel educational systems, as a way to reach the maximum number of students. They also stressed the importance of directing resources to interventions that have data-driven evidence of success.

Ms Fifi Pangestu, Executive Director of Bakti Barito Foundation, explained how her organisation leverages a partnership with the University of Indonesia to conduct independent evaluations, generating data to inform and refine their programme moving forward.

Meanwhile, Ms Raman Sidhu, CEO of Octava Foundation, highlighted the opportunity for philanthropy to support emerging areas such as evidence for technology to deliver quality teaching and learning experiences in public school systems.



COMBATTING GROWING HEALTH CHALLENGES





In the coming decades, Asia will face a unique public health challenge due to climate change, economic development, and rapid urbanisation, which increase the risk of infectious disease outbreaks and chronic lifestyle conditions.

Rising temperatures will exacerbate tropical diseases. Land use changes and urban migration will increase human-animal interactions and disease transmission. Increased antibiotic usage, as a result of economic modernisation and improved access to healthcare, will fuel the proliferation of antimicrobial resistance.

At PAS, philanthropists and public health professionals explored the strategic use of catalytic capital to address this challenge.

Traditional methods such as funding vaccine research complement innovative approaches like deploying Wolbachia bacteria to reduce mosquito populations and combat infectious diseases.

Philanthropists play a crucial role in advancing scientific research in established fields while also driving progress through pioneering initiatives.





PARTNERING FOR A HEALTHY ASIA

In a panel led by the Wellcome Trust and supported by the Bill & Melinda Gates Foundation and the Novo Nordisk Foundation, panellists deliberated on the unique disease management challenges confronting Asia amidst climate change and economic transformation.

According to Professor Teo Yik-Ying, Vice President for Global Health at the National University of Singapore and Dean of the Saw Swee Hock School of Public Health, Asian public health communities need to respond in three distinct ways.

First, they must complete the unfinished business of eradicating or fully controlling infectious diseases, such as dengue, which disproportionately impact low-income populations. In Southeast Asia, an estimated 5.6 million lives are lost each year to endemic and emerging communicable diseases, making up 40% of all deaths in the region.³⁷

Second, they need to develop entirely new sets of interventions for chronic conditions associated with high-income countries, such as mental health.

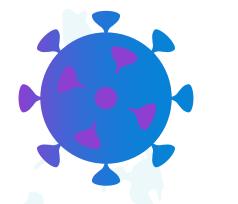
Finally, they need to improve disease surveillance to predict and contain disease outbreaks in dense urban environments.

Prof Teo advised philanthropists aiming to accelerate progress in any of these fields to tailor their approach accordingly. Promising advancements have already emerged; Asian governments have identified several effective responses, after having combatted infectious diseases such as dengue for decades.

Yet, the remaining hurdle lies in equity of access. A comprehensive strategy must ensure that financial resources, training, and innovations such as vaccines reach vulnerable communities, preventing outbreaks where they are most at risk.

5.6 MILLION

LIVES LOST ANNUALLY TO ENDEMIC AND EMERGING COMMUNICABLE DISEASES IN SOUTHEAST ASIA









DENGUE: HOW PHILANTHROPISTS CAN SCALE INNOVATION

While malaria is typically the first mosquito-borne disease that comes to mind, dengue fever, characterised by fevers and joint pain, is significantly more widespread, accounting for 100 million cases annually worldwide.³⁸ South and Southeast Asia are prominent hotspots of infection. Up to 5% of cases progress to severe dengue, which can be fatal without proper management, while others may experience chronic symptoms such as fatigue and difficulty concentrating.³⁹



Wealthy countries and populations are not shielded from dengue. In Singapore, for example, more people died from dengue than from Covid-19 in 2020.⁴⁰ Asia's steadily increasing population density, meanwhile, is likely to create more favourable conditions for dengue transmission in fast-growing cities, according to Prof Ooi Eng Eong, Professor of Emerging Infectious Diseases at Singapore's Duke-NUS Medical School.

Historically, dengue control relied on eradicating mosquito populations through repeated spraying, a notoriously imperfect solution. However, the PAS conference highlighted innovative methods to combat the disease, emphasising philanthropic capital's role in proving their efficacy and scaling up the most promising solutions.

One novel way of controlling dengue may be the introduction of the *Wolbachia* bacteria into mosquito populations. *Wolbachia*, which is harmless to humans, reduces the ability of mosquitoes to transmit viruses to people, decreasing the risk of dengue, Zika, chikungunya, and yellow fever outbreaks. *Wolbachia* is an evidence-based, safe, one-time (non-GMO) intervention for protecting communities against mosquito-borne diseases. In areas where *Wolbachia* is established in the resident mosquito population, data from those communities show major reductions in disease incidence.⁴¹

Dr Kristen Pierce, Professor of Medicine and a principal investigator at the vaccine-testing centre at the University of Vermont, discussed her team's work to build vaccine infrastructure in icddr,b (International Centre for Diarrhoeal Disease Research, Bangladesh) as part of the team's work advancing the promising tetravalent dengue vaccine designed at the National Institutes of Health (NIH) in the US. The work coincided with the worst dengue outbreak in Bangladesh history in 2023. Multiple companies across the globe hope to manufacture this vaccine. She noted that the vaccine has consistently demonstrated safety from early trials to larger-scale studies in Brazil and Bangladesh. It produced a well-balanced antibody response against all four dengue serotypes.



There is a clear role for philanthropic capital in scaling these solutions. Dr Pierce's team is actively seeking funding and vaccine donations for a large-scale trial of the NIH vaccine in children in Bangladesh to understand the durability of the immune response and protection from disease, particularly important in regions with surging outbreaks of dengue illness. Meanwhile, the global non-profit World Mosquito Program (WMP), is seeking partners to expand Wolbachia interventions to low-income countries where significant capital is required to develop factories to produce Wolbachia mosquitoes and release them into communities.

Diagnosis and surveillance represent another area of progress in combating dengue, providing early warnings of outbreaks. Mathematical models have been developed to predict the progress of outbreaks and inform policy responses, while laboratories have been set up in affected countries to rapidly and accurately diagnose pathogens. 42 There are also examples of local-level interventions that have improved diagnosis and screening at the primary care level and provided healthcare workers with resources to educate people about preventing dengue transmission.43

Dr Do Kien Quoc, Senior Epidemiologist at the Institut Pasteur in Vietnam, said more capital is needed to expand these programmes. He foresees a role for philanthropists to fund scientists to produce evidence of the effectiveness of screening programmes so that governments invest in them.







WOLBACHIA-INFECTED MOSQUITOES: PHILANTHROPY AND SCIENCE IN ACTION

In just two decades, a naturally occurring bacterium has delivered startling progress in the fight against dengue fever. Behind this breakthrough is a partnership between philanthropic capital and scientific research.

The Wolbachia bacteria is found in 50% of insects – but crucially not in the Aedes aegypti mosquito that spreads infectious diseases, including dengue and Zika. Australian scientist Prof Scott O'Neill, founder of the World Mosquito Program, has been studying Wolbachia since the 1980s to understand whether it might play a role in preventing dengue transmission. When Wolbachia mosquitoes are released, they breed with wild mosquitoes until, over several generations, they replace the local mosquito population. WMP's Wolbachia method provides long-term protection from mosquito-borne diseases without posing any risk to natural ecosystems or human health.

A textbook example of how philanthropic capital can enable real-world applications of pioneering scientific research is the breeding of *Wolbachia*-infected *Ae. aegypti* mosquitoes at scale by Prof O'Neill's team.

The first public test in 2011 in Cairns (Queensland), Australia, halted dengue transmission in its tracks. Dengue outbreaks had been a near-annual occurrence in the city since 1905 but have now ceased entirely there and across Australia.

The WMP, set up by Prof O'Neill to scale Wolbachia interventions, has since expanded the programme to 14 countries. In Colombia, a 95% reduction in infections was reported across a population of 3.5 million people, while there were just 69 dengue cases recorded in the Brazilian municipality of Niterói after Wolbachia was introduced compared to 17,000 infections just across the Guanabara Bay in Rio de Janeiro in the same period.

Currently, WMP's *Wolbachia* method protects more than 11.4 million people, but with further funding, the WMP hopes to reach millions more people across the world. That requires funding to build factories within affected countries to breed *Wolbachia* mosquitoes. Each facility costs up to US\$10 million – a significant capital outlay but still a fraction of the cost of building a major pharmaceutical factory, Prof O'Neill pointed out.

For low-income countries this will involve philanthropic funding, while the WMP also hopes to partner with local NGOs on last-mile delivery of *Wolbachia* mosquitoes into dengue hotspots where they can be introduced to the *Ae. aegypti* population.

WOLBACHIA METHOD PROTECTS MORE THAN

11.4
MILLION
PEOPLE



BUT WITH FURTHER FUNDING, THE WMP HOPES TO REACH MILLIONS MORE GLOBALLY





ANTIMICROBIAL RESISTANCE (AMR)

The discovery of antibiotics a century ago revolutionised the healthcare system as once-fatal bacterial infections became relatively easy to treat. After decades of intense use for human health and livestock management, however, more bacteria are becoming resistant to drugs, developing antimicrobial resistance (AMR).

Over a million people die directly due to AMR each year, with five million deaths linked indirectly.⁴⁴ The problem is more severe in lower- and middle-income countries, but even in Singapore, a wealthy country where antibiotic use is tightly regulated, one study showed that one in four people carry AMR bacteria in their gut, according to Dr Mo Yin, Deputy Director of the Saw Swee Hock School of Public Health, National University of Singapore.

5 MILLION

DEATHS INDIRECTLY LINKED TO ANTIMICROBIAL RESISTANCE EACH YEAR







Delegates discussed how philanthropists could support the fight against AMR by increasing our understanding of the science behind the phenomena, with bacteria constantly evolving to survive. Two main themes emerged.

On the one hand, philanthropists can support public health agencies in initiatives that educate people on the need for behavioural change so that bacterial infections are less likely to spread in the first place, and with antibiotics withheld in cases where they are not needed. Rapid diagnostic methods such as gene-based technologies or point-of-care tests could help.

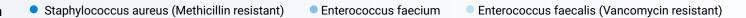
The second theme was the potential to fund research and development into new broad-spectrum antibiotics that bacteria currently lack resistance to. This is especially significant because no new antibiotics have come to market in a quarter of a century, allowing AMR bacteria to evolve and develop greater resistance to existing products.

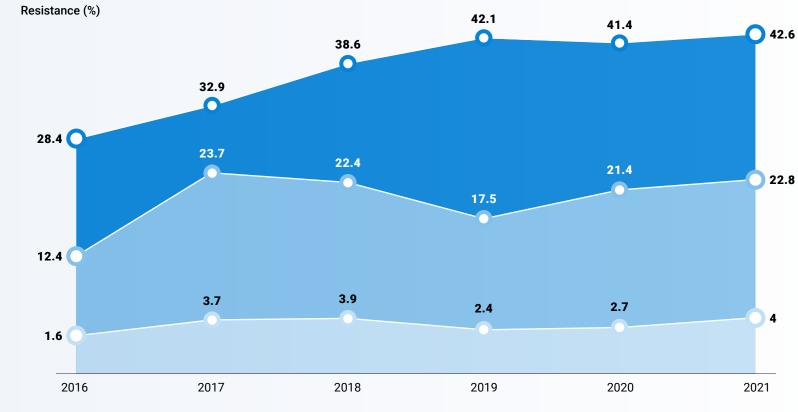
Philanthropists were also encouraged to use their leverage with governments and international organisations to increase the understanding of AMR – a quiet but steady global killer whose threat will escalate if left unchecked.



BACTERIAL RESISTANCE TRENDS, INDIA (2016-2021)

These trends show an increase in resistance to antibiotics across several types of bacteria in India.





Source: The Lancet⁴⁵



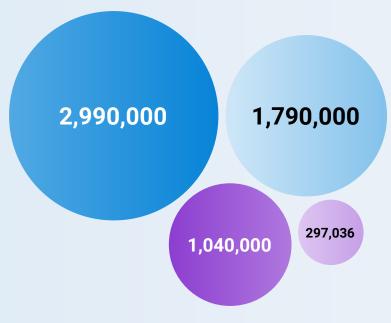
INFECTION-RELATED DEATHS IN ASIA BY COUNTRY IN 2019

These numbers show yearly infection-related deaths across countries in Asia, including those attributable to or associated with antimicrobial resistance, with India leading in fatality numbers.

Sepsis Bacterial infections Resistance (associated) Resistance (attributable)

INDIA

Highest number of infection-related deaths





Source: The Lancet⁴⁶



DISEASE SURVEILLANCE

As the world learnt to its detriment during the Covid-19 pandemic, once an infectious disease begins to circulate, its spread can be exponential. Early detection and interventions are therefore crucial, and philanthropists are increasingly active in supporting governments and international organisations to improve disease surveillance. Delegates discussed how governments should decide which diseases to focus on.

"It is impossible to have enough resources to provide comprehensive surveillance for an entire country at a time, so a focused, risk-based approach is needed," said Dr Ng Lee Ching, Group Director, Environmental Health Institute, National Environment Agency, Singapore.

All governments should have a functioning disease surveillance mechanism in place for all notifiable and emerging diseases. That means modelling the likely severity of an outbreak and evaluating the effectiveness of available responses – two areas where philanthropists can provide technical assistance.

When developing surveillance systems, philanthropists can support research and the deployment of interventions, including rapid testing and the sequencing and genotyping of diseases, which can be adapted locally. These novel tools have become widely available in Asia since the Covid-19 pandemic and can play a crucial role in enhancing national surveillance efforts.

Organisations such as the Asia Pathogen Genomics Initiative (Asia PGI), for example, are working to build genomic sequencing capacity across the region both for early detection and tracking of pathogens. Furthermore, Asia PGI supports partnerships that help genetic information about emerging threats inform the design of low-cost diagnostic tools and vaccines. Finally, philanthropists can encourage data-sharing and intergovernmental cooperation on surveillance.



Transmitted diseases do not simply affect one country, but migrate across borders. The more we can transfer knowledge and capacity, [the more] all of us are protected."

Dr Basil Rodriques, Senior Regional Health Advisor for East Asia and Pacific, UNICEF This approach, Dr Rodriques added, might involve providing incentives to governments to pool data and share it in uniform formats, leveraging the framework of the International Health Regulations (IHR). Under this mechanism, countries commit to sharing information on notifiable diseases and outbreaks, ensuring compliance that benefits all stakeholders.









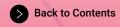














Scientists, researchers, practitioners, and policymakers sometimes see development domains such as climate, education, and health in isolation. However, there is no question that these three factors are inextricably linked and can impact one another.

Climate change-related events can damage critical infrastructure and displace communities, thus disrupting access to education in the affected communities.

For instance, research on the impact of super typhoons in the Philippines⁴⁷– which are expected to become more intense with climate change⁴⁸– has shown long-term damage to children's education. Slow onset disasters like heat waves also impinge on children's ability to study and learn.

More positively, given the intersections of climate, education, and health, favourable developments in one area can also be advantageous to the others.

For instance, the UN recognises **education as a critical agent in addressing climate change.** ⁴⁹ An educated population can learn to better mitigate and adapt to the impacts of climate change, as well as teach the younger generation about this existential challenge. That, in turn, empowers the youth to become effective climate leaders and drive collective impact for a sustainable future.

Philanthropists can support schools and teachers to deliver climate education in areas including gender, rights, and resilience.





The Covid-19 pandemic spotlighted the **impact that health-related issues can have on education.**⁵⁰ At its height, lockdown measures aimed at limiting the virus's spread affected the education of nearly 800 million students across Asia.

Research has also shed light on the link between menstrual hygiene facilities (or the lack thereof) in schools across South Asia and local poverty rates. Over a third of female students in the region are said to miss school during their periods due to a lack of access to toilets or sanitary pads. While this so-called period poverty can push girls to drop out of school, access to quality education, on the other hand, leads to better social and economic outcomes as well as a healthy society with higher social capital. 252

As philanthropists often operate outside specialised fields and can deploy capital with fewer political constraints, they are uniquely positioned to recognise linkages between various issues. This enables them to advocate for policymakers and practitioners to adopt a broader perspective.

For instance, the non-profit Health in Harmony reverses rainforest deforestation by improving access to high-quality healthcare services for rural communities in Borneo. It offers discounts on these services if the households decrease illegal logging, and accepts alternative payment methods such as rainforest seedlings so they do not have to log to pay for healthcare.⁵³

Several sessions at PAS discussed these and other intersections between different development goals, and how philanthropists can bring holistic thinking to social and environmental challenges.











Climate change, biodiversity loss, and environmental degradation each poses severe threats to human health. But they are also interlinked such that each of these problems can make the others worse." Mr Bob Ward, Policy and Communications Director, Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science

THE CLIMATE AND HEALTH NEXUS

Delegates discussed four ways to tackle challenges stemming from the intersection of climate and health.

The first is policy. It is evident that public health is significantly impacted by climate change and ecological devastation such as air pollution, water contamination, extreme weather events, and diseases aggravated by environmental factors.

Therefore, policies aimed at reducing emissions could also mitigate the health impacts caused by the emissions. Mr Bob Ward, Policy and Communications Director for the Grantham Research Institute on Climate Change and the Environment, suggested that funding for fossil fuel extraction, for example, be redirected to other technologies that are better for the environment and human health.

Emissions trading and carbon markets aim to incorporate the climate change externalities of carbon-intensive processes into their pricing structures, yet they have not been universally adopted.⁵⁴

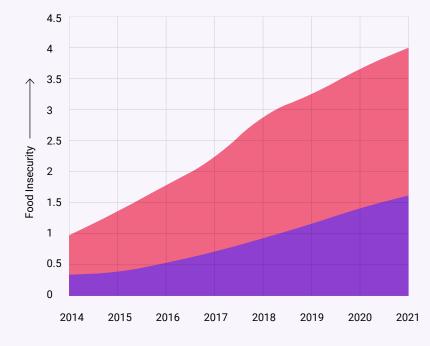
In the absence of these market mechanisms, policymakers should estimate the financial cost of the "non-market" health and environmental impacts of various policies and investments. By doing so, they can more effectively integrate these considerations into their decision-making processes.



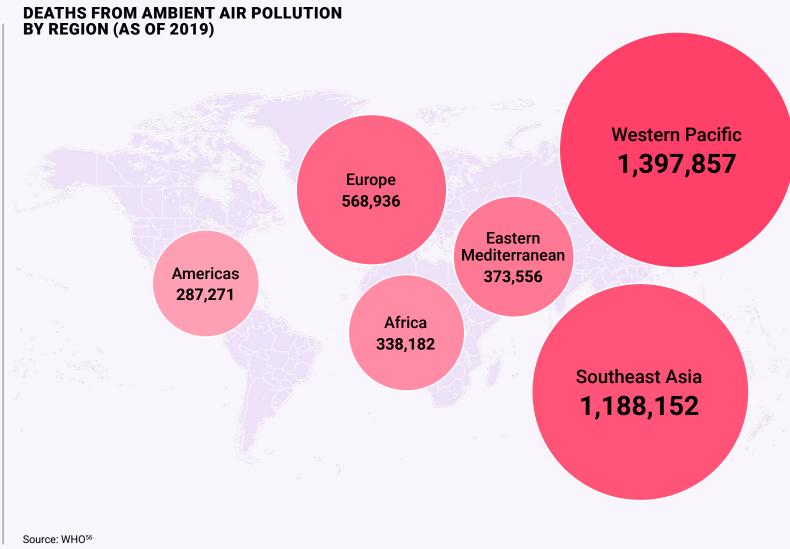
IMPACT OF EXTREME WEATHER ON FOOD INSECURITY

HeatwaveDrought

Point change (%)









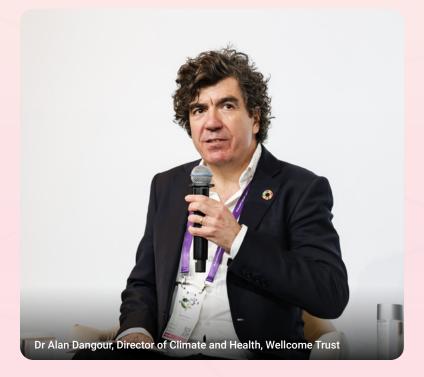
The second way to approach the climate and health nexus is by focusing climate interventions on the communities that have been impacted by environmental degradation.

The Revitalising Informal Settlements and their Environments (RISE) initiative, for example, partners with the governments of Fiji and Indonesia to address the disproportionate impact of climate-induced water quality deterioration and flooding on people living in informal settlements.

Funding is provided for wastewater treatment and improved sewage systems, which are co-designed with local communities.

Philanthropists can also play a role by helping community representatives advocate for redress. In India, where extreme heat poses severe health risks like dehydration and heat exhaustion and damages food and water sources, cities have implemented action plans to mitigate the impacts of severe heat waves. The Mahila Housing Trust empowers women and youth in poor urban communities in India to collect data on heat stress for public service authorities to field-test solutions.⁵⁷

A third area involves anticipating scenarios where a climate or health intervention could have unintended consequences. Demand for air-conditioning, for example, is set to grow across Asia as temperatures rise and more people gain the economic means to pay for it. The Clean Cooling Collaborative, a philanthropic initiative of ClimateWorks Foundation, scales up and improves access to efficient, climate-friendly cooling projects that reduce energy use and avoid highly polluting refrigerants.



Finally, philanthropists can fund research into the interrelationship between climate and health - where the lack of data has hamstrung policy action. Studies on the impact of extreme heat, for example, have focused on male athletes but not women or children in tropical countries, said Dr Alan Dangour, Director of Climate and Health at Wellcome Trust.

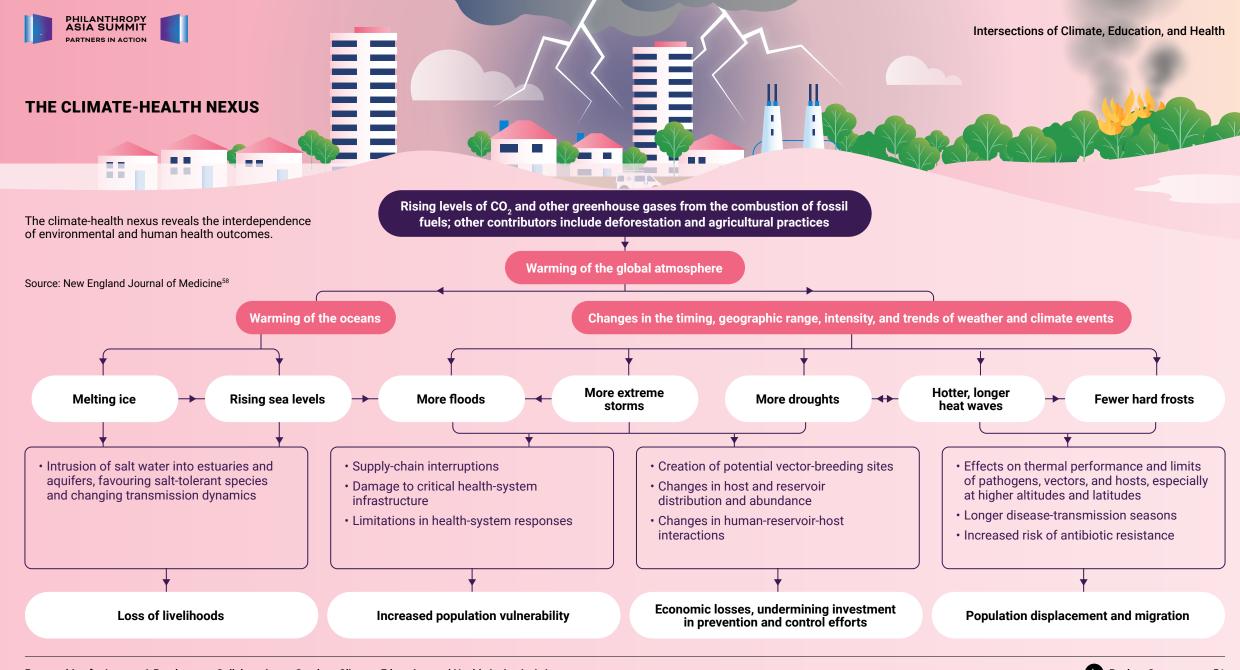
This means the full extent of climate change's impact on maternal and child health remains inadequately explored and potentially underestimated. Better evidence is crucial to scaling up climate and health initiatives.

Underlying all these strategies is a new way of thinking, recognising that climate change is not only an environmental issue but connected to a range of health equity considerations among impacted communities.



Studies on the impact of extreme heat, for example, have focused on male athletes, but not women or children in tropical countries."

Dr Alan Dangour, Director of Climate and Health, Wellcome Trust





EMPOWERING FUTURE GENERATIONS: CLIMATE, EDUCATION, AND SCHOOLS

Extreme weather events brought on by a changing climate are impeding the delivery of education, but they are also a lever for change and a motivator for the next generation to become informed environmental stewards.

As the effects of global warming become more pronounced, it will be essential to equip young people with the knowledge and skills to address climate challenges. **Supporting education through philanthropy plays a pivotal role in this effort**, not only in teaching about climate science but also in fostering environmental awareness and insulating educational institutions against the effects of climate change.

To cultivate a deeper understanding and appreciation of the interconnectedness between ocean health and human activities, education initiatives such as community engagement and awareness-building among stakeholders are vital.

For example, from March to April 2024, OceanX Education, an initiative of Dalio Philanthropies to develop the next generation of ocean leaders, partnered with organisations such as Conservation International Singapore, the Lee Kong Chian Natural History Museum at the National University of Singapore, Nanyang Technological University, Temasek Foundation, and WWF-Singapore to provide more than 300 educators and youth with first-hand learning experiences aboard the OceanXplorer.



During the Summit's Impact Journey, OceanX and Tanoto Foundation also announced a memorandum of understanding to open discussions about collaboration on programming and ocean educational programmes in Indonesia and Singapore.

To empower young people to play a concrete role in tackling climate disruption, teachers must also be equipped to provide students with a holistic environmental education and focus on action-oriented learning, according to UNESCO.⁵⁹

Bakti Barito Foundation's Green Guardians initiative, aimed at equipping youth with tools and knowledge to mitigate and adapt to environmental challenges, focuses on empowering both students and teachers. The initiative provides capacity building for teachers and access to learning platforms on plastic waste management, biodiversity conservation, and disaster mitigation.

As communities work to improve education around climate-related issues, ongoing climate impacts must be mitigated so that students can have safe and productive environments for learning.

One way is by ensuring people in regions most at risk from warming temperatures have access to cooling technology. This is especially important in schools, as heat exposure inhibits learning. ⁶⁰ Severe heat is already impacting education outcomes in Asia — 33 million students had to stay home as Bangladesh shut schools during one heatwave in April 2024. ⁶¹

Cool Roofs Indonesia, an implementing partner of ClimateWorks Foundation's Clean Cooling Collaborative, cools buildings with a solar-reflective roof coating. At an elementary school, this lowered the indoor temperatures by 3°C.62

33 MILLION

STUDENTS FORCED TO STAY HOME DURING ONE HEATWAVE IN BANGLADESH



TRANSFORMING HEALTH AND EDUCATION THROUGH PHILANTHROPY

Health and education have long been major areas for philanthropic intervention because of their potential to deliver transformative impact.

Capital invested in early-years education delivers far greater returns than interventions later in life, while the health of a population is a key determinant of economic activity and productivity.

During a plenary session at PAS, speakers emphasised how these sectors' centrality to economic and social development makes it crucial that philanthropists follow a systems-based approach, focusing investments on interventions where there is clear potential for positive outcomes - and doing so in a way that unlocks additional capital.

In the education sector, two distinct models were identified for how philanthropic capital can catalyse action.

First, by demonstrating the potential profitability of an intervention to unlock private capital; second, by showcasing social impact to shape government policy.

For the first model, Mr Jaime Augusto Zobel de Ayala, Chairman of Ayala Corporation, explained how philanthropic funding, through the Ayala Foundation, which in turn worked in coordination with the Department of Education, focused on two public schools in the Philippines to trial different approaches to curricula, student nutrition, teacher training, and parent-teacher interactions.

Based on this experimentation, the foundation developed an evidence-based model for school management and then deployed capital in much greater quantities, with confidence that it would see a return on investment.

Philanthropy has a role to play at the learning stage and in understanding where the pain points are, but then impact investing is needed to create scale."

Mr Jaime Augusto Zobel de Ayala, Chairman, Ayala Corporation







In India, meanwhile, Mr Ashish Dhawan explained how the Central Square Foundation (CSF), one of the many social impact organisations he has founded, strongly advocates for 'structured pedagogy' to improve literacy and numeracy outcomes in the early years. This scientific, evidence-based, learner-centred approach to teaching is implemented by CSF in collaboration with state governments across Indian classrooms. Mr Dhawan, who is also the founder of Accelerate Indian Philanthropy, emphasised the importance of strategic philanthropy in India.



If I look at India, whatever we spend is immaterial compared to the government's budget. Therefore, philanthropists have to think of themselves as the Archimedes lever, building evidence to inform government policy."

Mr Ashish Dhawan, Founder-CEO, The Convergence Foundation; Board of Trustees, Bill & Melinda Gates Foundation



To advance global and public health, speakers urged philanthropists to capitalise on their freedom from the need to deliver financial returns, to instead devote capital to interventions that otherwise would not be funded.

Dr Zhang Ya-Qin, Chair Professor and Dean of the Institute for Al Industry Research (AIR) at Tsinghua University and a board member of the Philanthropy Asia Alliance, explained how his organisation adapted self-driving technologies developed for cars to create mobility aids for the elderly, handicapped or blind - an application that few commercial investors would have chosen to dedicate resources to because of the small potential market.



ADVANCING PHILANTHROPIC CAPABILITIES AND IMPACT











The notion of giving back is deeply ingrained in Asian culture and family life, but this was for a long time a largely private activity with little coordination."

Mr Brian San, Executive Director, Programmes and Strategic Development, Wealth Management Institute (WMI)

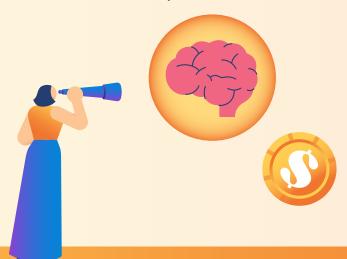
In recent years, as a new generation of Asian philanthropists has emerged, Asia has seen a growing interest in more strategic and innovative forms of philanthropy.

As a centre of Asian banking, Singapore has seen rapid growth in private banking in recent decades to meet the needs of the increasing number of family offices and foundations created in the country. In 2023, Singapore's Private Banking Industry Group launched an Impact Philanthropy Partnership (IPP) with WMI, Asia's centre of excellence in wealth and asset management education and research.⁶³



The IPP, supported by MAS, seeks to build momentum for philanthropy by bringing together wealth owners and the family office ecosystem to collectively tackle society's most pressing challenges and issues. In its first year it brought together more than 400 family office professionals, principals, and social entrepreneurs in group sessions. The idea is to connect likeminded donors and philanthropic intermediaries to galvanise giving and forge impactful partnerships for change.

At PAS, the IPP convened a session to discuss how Asia's homegrown impact philanthropy industry can flourish. Wealthy individuals discussed how they created alignment within their families when it comes to specific social goals, while executives of family offices discussed lessons learnt from deploying capital in search of those goals. The sessions also featured the launch of the ACC by WMI.



ASIA CENTRE FOR CHANGEMAKERS

Hosted by the Wealth Management Institute (WMI), the Asia Centre for Changemakers (ACC) aims to professionalise learning in Asia's fast-growing impact philanthropy industry. ACC is supported by Temasek Trust and the Philanthropy Asia Alliance.

One of its key initial initiatives is a certified professional programme in impact philanthropy, which will allow managers of philanthropic wealth to build their professional expertise and skills. Certification involves an intense period of training delivered by faculty members who are leading practitioners in their fields. The first cohort of advisors and wealth managers began the programme in May 2024 with the aim of producing a steady flow of trained professionals for Singapore's philanthropic foundations and family offices.

For philanthropists themselves and social entrepreneurs delivering programmes on the ground, the ACC will offer a space for reflection and knowledge-sharing through regular roundtables.

Lastly, the ACC hopes to be a source of Asia-specific philanthropic thought leadership, providing ideas and resources to guide the philanthropic sector to meet specific local needs.

Overall, philanthropy and impact capital are increasingly becoming areas of interest for wealth owners. In addition, with the expected US\$2.5 trillion 'great wealth transfer' over the next decade, the next generation of wealth owners and philanthropists will increasingly play a larger role. Hence, it is crucial to educate and professionalise the sector to deliver greater impact – and build a virtuous cycle of increasing interest, commitment, and action.





PHILANTHROPY IN ACTION

While the future of philanthropy in Asia promises to be ever more professionalised and systematic, with a cadre of trained experts sharing best practices, individual families often take discrete approaches.

Speakers discussed the tensions between seeking systemic change, which often requires investing at a scale beyond the reach of any single foundation, and the desire to attach a family name to an achievement.

Mr Wee Boo Kuan, Co-Founder of Extra Ordinary People, said the experience of Covid-19, in particular, had persuaded Asian philanthropists to work in consortium with other philanthropists, putting aside individual differences to solve large social challenges. This reflects an increasing focus on impact, which extends to the adoption of evidence-driven investing strategies.

Mr Francesco Caruso, Chairman of the Firetree Philanthropy Foundation, shared that when he initially began dispensing money, he soon realised that the interventions he was funding were only addressing the most visible symptoms of deeplyrooted social problems.

This helped him to recognise that research and engagement are needed to understand underlying causes and devote resources to resolving them.

Philanthropists also discussed changing attitudes towards both the communities they work with and the partners they select to deliver programmes. Several philanthropists, including Ms Carol Liew, Managing Director of the ECCA Family Foundation, likened the process of finding organisations to work with to a dating process. They emphasised the need to invest resources upfront to engage meaningfully, with clarity, transparency, and openness, to truly understand each other's goals and shared vision.

When it comes to affected communities, philanthropists said that engaging with beneficiaries on the ground taught them not to think of recipients of philanthropy as less fortunate, but instead as members of thriving communities who can co-own and direct initiatives.

The conference also heard about emerging methods and models of philanthropy. While most foundations focus on a single issue or single geography, Mr Christian Algot Enevoldsen, Principal at ECCA Family Foundation, chose to adopt a sandbox approach to test and experiment with partnerships of various scales and themes. Through anonymous surveys to understand its partners' needs, the foundation developed a more focused strategy anchored in relational philanthropy.

This approach emphasises building genuine, long-term relationships with partners, engaging in deep listening, and tailoring support to meet their specific needs, ultimately fostering mutual trust and sustained impact.





PHILANTHROPIC INVESTMENT FUNDS

Philanthropic capital is essential to the global development ecosystem because of its risk tolerance. While commercial investors require a high level of confidence about future returns to invest, philanthropists can act like venture capitalists, backing high-risk projects with the potential to deliver exponential social returns. As these projects prove that they are viable with philanthropic seed capital, the idea is that commercial capital will crowd in.

As Asian family foundations proliferate and philanthropists in the region seek to deploy their money more systematically, more capital has become available for such investments.

But, according to Ms Kim Jin Young, Climate Director at the Children's Investment Fund Foundation, there is a lack of high social impact projects in Asia seeking substantial funds to scale. In other words, philanthropic capital is available, but the supply of potential projects is too low.

One area where a supply of capital-hungry socially motivated projects can be readily found is in green infrastructure. Here, projects such as power grids or major renewable energy installations require significant upfront capital and may take years to deliver, often introducing uncertainties regarding financial returns that deter commercial investors.

Mr Gilles Pascual, Partner for Energy Transition and Climate Strategy at EY, said investors in the region actively talk about the need for more philanthropic and concessional capital to take stakes in the green energy sector and unlock private debt finance.

A potential way to make this happen is the creation of philanthropy-enhanced investment funds, which could allow a range of philanthropists, foundations, and socially motivated investors to pool capital, which can then be dedicated to green projects.



The missing P in philanthropy is actually product - or philanthropyenhanced investment products. We need to market philanthropic funds like a product that family offices can invest in, just like they already devote part of their portfolio to private equity or hedge funds."

Prof Lutfey Siddiqi, Visiting Professor-in-Practice, London School of Economics (LSE IDEAS)



PHILANTHROPY'S IMPACT GENERATION

For sustained impact across generations, intergenerational dialogue is essential to align values and philanthropic goals. Next-generation philanthropists in Asia are increasingly adopting systems thinking, recognising the need for cross-sector collaboration, and leveraging innovations in areas such as technology to amplify their impact. Transparent dialogue within families and the establishment of shared goals can advance their philanthropic initiatives.

For Ms Cherie Nursalim, Vice Chair of GITI Group, a Singaporean conglomerate, her family had long practised philanthropy by supporting communities and programmes. As she became more involved in the family's philanthropy, she has fostered closer collaboration with international organisations and NGOs, enabling her family's giving to support tri-sector collaboration toward shared goals.

She has also taken up roles outside the family business, such as being a climate advisor to the Indonesian government, given her greater intentionality about driving systems change.

To address differences in opinion on philanthropic priorities and investments, setting up a governance framework that assesses initiatives based on mutually agreed upon principles and predefined desired outcomes can be helpful.

Mr Pierre Lorinet, for example, manages the Mongoliafocused Lorinet Foundation with his wife, Bolor, and they have established such a governance framework to ensure initiatives align with their values and evaluation criteria.



In some cases, family differences are best managed through separate foundations, or even through individual giving, to maintain a clarity of vision, even if it means losing the scale of a larger capital base.

Ms Carol Liew, Managing Director of the ECCA Family Foundation, was brought on board by the Danish family behind Pandora jewellery to establish distinct foundations for various family members, accommodating their diverse interests and approaches to driving change.

For Ms Quek Sue Yian, Executive Director of the Hong Leong Foundation, the charitable arm of the Malaysian Hong Leong Group, her hope for change continues personally with philanthropic efforts from her own purse, where certain programmes are outside the Board's charter as her mission is to strive for holistic paradigm change.

With the growing recognition of the need for multi-sector collaboration to address interconnected challenges, next-generation philanthropists can participate in platforms such as the Giving Pledge, Asia Philanthropy Circle, and Philanthropy Asia Alliance to foster connections with likeminded peers, exchange knowledge, and collaborate on interconnected issues.



Key Takeaways

Embrace Systems Thinking and Holistic Approaches

Philanthropists should adopt a systems-based approach when deploying capital and extend their reach beyond specialised fields to address interconnected challenges. This involves funding critical research in under-explored areas, such as the intersections of climate and health, and supporting innovative early-stage solutions with potential for scalability. By recognising systemic interdependencies, philanthropists can drive more holistic and sustainable change.

2 Build Mutual Trust for Durable Multi-Sector Partnerships

Building mutual trust is a fundamental, non-negotiable aspect of all enduring partnerships. Philanthropists should prioritise transparency, accountability, and open communication to cultivate strong, trustworthy relationships with their partners. This foundation of trust is crucial for collaborative efforts and the long-term success of philanthropic endeavours.

Empower Local Communities and Other Stakeholders

Empowering local communities and other stakeholders is essential for the sustained success of philanthropic initiatives. Philanthropists should focus on co-creating and co-owning projects with these stakeholders, ensuring that interventions are culturally relevant, sustainable, and effectively executed. By fostering local ownership, philanthropists can enhance the impact and longevity of their efforts.

Adopt Data-Driven and Evidence-Based Strategies

Philanthropic interventions should be guided by data-driven, evidence-based approaches to ensure their effectiveness and impact. By rigorously measuring outcomes and demonstrating the viability of pilot projects, philanthropists can crowd in funding from the private and public sectors. This strategic use of data not only validates the success of initiatives but also enhances their scalability and sustainability.

5 Invest in Capacity and Community Building

Philanthropists should invest in capacity and community building within the broader Asian philanthropic sector. Strengthening the capabilities of local organisations, fostering leadership, and promoting collaboration will enhance the overall effectiveness and resilience of philanthropic initiatives, building a robust ecosystem that can drive sustained positive change regionally.

Everage Blended Finance Mechanisms

Philanthropic impact can be amplified via blended finance mechanisms. By taking on higher-risk segments of projects, philanthropists can crowd in public and private sector funding, mobilising larger pools of capital for sustainable initiatives. This approach also combines diverse expertise and perspectives, fostering scalable, innovative solutions. Collaboration with regulators and government stakeholders is essential given the evolving regulatory landscape.



Appendix: **Event Programme**

THEME: PARTNERSHIPS FOR ACTION

15 - 18 April 2024

Marina Bay Sands, Singapore | Sands Expo & Convention Centre All times shown are in Singapore time (GMT +8).



15 April <u>20</u>	15 April 2024, Monday						
14:00 - 14:05	Welcome	• Lim Seok Hui, CEO, Philanthropy Asia Alliance					
14:05 - 14:15	Opening Remarks	Lim Boon Heng, Chairman, Philanthropy Asia Alliance; Chairman, Temasek Holdings					
		(Delivered by Desmond Kuek , Executive Director & CEO, Temasek Trust; Board Director, Philanthropy Asia Alliance)					
14:15 - 14:20	Impact in Action: Solution Showcase Video	(Control of 5) 2 control 1 active 2 notice a Cast, 1 active 2 notice, 1 maintain opp, 1 dec 1 maintain op					
14:20 - 14:50	Fireside Chat	• The Rt Hon Tony Blair, Executive Chairman, Tony Blair Institute for Global Change and Former Prime Minister of Great Britain and Northern Ireland					
		Moderator: Steven Chia, Senior Editor/Presenter, CNA					
14:50 - 15:00	Co-Axis Launch / Amplifier Announcement	Dawn Chan, CEO, Centre for Impact Investing and Practices (CIIP)					
15:00 - 15:05	Impact in Action: Solution Showcase Video						
15:05 - 15:20	Perspectives	Dr Regina E. Dugan, President and CEO, Wellcome Leap					
15:20 - 15:25	Impact in Action: Solution Showcase Video						
15:25 - 15:40	Perspectives	Solina Chau, Co-Founder, Horizons Ventures; Director, Li Ka Shing Foundation					
15:40 - 16:00	Networking Tea Break						
	Frontier Philanthropy: Positive Climate Action and Innovation	Solina Chau, Co-Founder, Horizons Ventures; Director, Li Ka Shing Foundation					
		• Leiming Chen, Chief Sustainability Officer, Ant International and Senior Vice President, Ant Group					
16:00 - 16:40		• Iqbal Dhaliwal, Global Executive Director, J-PAL at MIT					
		• Elizabeth Yee, Executive Vice President of Program Strategy, The Rockefeller Foundation					
		Moderator: Neo Gim Huay, Managing Director, Centre for Nature & Climate, World Economic Forum					
16:40 - 16:45	WMI / ACC Announcement	• Foo Mee Har, CEO, Wealth Management Institute					
16:45 - 16:50	Impact in Action: Solution Showcase Video						
	Making the Impossible Possible: Transforming Health and Education through Philanthropy	Jaime Augusto Zobel de Ayala, Chairman, Ayala Corporation					
		Børge Brende, President, World Economic Forum; Board Member, Philanthropy Asia Alliance					
		Ashish Dhawan, Founder-CEO, The Convergence Foundation; Board of Trustees, Bill & Melinda Gates Foundation					
16:50 - 17:30		Dr Regina E. Dugan, President and CEO, Wellcome Leap					
		• Dr Zhang Ya-Qin, Chair Professor and Dean of Institute for Al Industry Research (AIR), Tsinghua University; Board Member, Philanthropy Asia Alliance					
		Moderator: Jaime Ho, Editor, The Straits Times					
17:30	End of Plenary						



16 April 2024, Tuesday						
07:00 - 14:00	Partner Event: Ecosperity Week 2024					
14:00 - 17:30	Concurrent Partner Events:					
	Session 1: A Conversation on the Climate and Health Nexus	Anchored by World Economic Forum				
	Session 2: Driving Action Towards a Climate-Positive World	 Anchored by Southeast Asia Climate and Nature-based Solutions (SCeNe) Coalition and Philanthropy Asia Alliance; 				
		 Supported by Conservation International, Jollibee Group Foundation, Sinar Mas and J-PAL at MIT 				
	Session 3: Shaping the Future of Education for Children in Asia Pacific to Succeed in a Fast-Moving World	Anchored by UNICEF and Asia Philanthropy Circle				

17 April 2024, Wednesday						
07:00 - 14:00	Partner Event: Ecosperity Week 2024					
14:00 - 17:30	Concurrent Partner Events:					
	Session 1: The Power of Health Innovation: Future-Proofing Infectious Disease Management	Anchored by Wellcome Trust;Supported by Bill & Melinda Gates Foundation and Novo Nordisk Foundation				
	Session 2: Blended Finance for the Low Carbon Transition	Anchored by Clime Capital				
	Session 3: Insights to Impact – Shaping Tomorrow's Solutions with Strategic Philanthropy in Asia	Anchored by Wealth Management Institute				

18 April 2024, Thursday				
10:00 - 11:30	Impact Journey (AM): Sembcorp Tengeh Floating Solar Farm			
16:00 - 20:00	Impact Journey (PM): OceanXplorer			
	Panel 1: Impact Generation Panel	Ong Tze Boon, Founder, GoFlow; Chairman, Ong & Ong Pte Ltd		
		Quek Sue Yian, Executive Director, Hong Leong Foundation		
		Cherie Nursalim, Vice Chairman, GITI Group		
		 Moderator: Robert Rosen, then-Director, Bill & Melinda Gates Foundation 		
	Panel 2: Ocean Science and Innovation in Southeast Asia	Hannah Jones, CEO, The Earthshot Prize		
		• Dr Vincent Pieribone, Co-CEO, OceanX		
		Chavalit Frederick Tsao, Chairman, Tsao Pao Chee (TPC)		
		 A/Prof Huang Danwei, Deputy Head, Lee Kong Chian Natural History Museum, NUS 		
		Moderator: Jennifer Lewis, Lead for Advocacy & Partnerships, Temasek Trust		



Endnotes

- Philanthropy Asia Alliance, 2023
 Catalysing Climate Action In Asia: Unlocking The Power Of Philanthropic-Public-Private Partnerships
- 2. OECD, 2024 OECD Data Explorer
- International Union for Conservation of Nature, 2024 Nature-based Solutions
- 4. University of Pennsylvania, 2015 High Return on Investment (ROI)
- 5. Earth Day, 2023
 The Interconnection Of Health, Environment, And
 Climate Education
- 6. Health in Harmony, 2024 Radical Listening
- 7. IMF, 2023
 Emerging Economies Need Much More Private Financing For Climate Transition
- 8. Climateworks Foundation, 2023 Funding Trends 2023: Climate Change Mitigation Philanthropy
- Philanthropy Asia Alliance, 2023
 Catalysing Climate Action In Asia: Unlocking The Power Of Philanthropic-Public-Private Partnerships

10. Reuters, 2023

Asian Power Generation Gets Cleaner, Even As Coal Emissions Rise

11. IMF, 2023

Emerging Economies Need Much More Private Financing For Climate Transition

- 12. Convergence Blended Finance
- 13. RMI, 2024 Unlocking The Wind: Three Offshore Wind Zones To Power The Philippines
- 14. The Asia Foundation, 2021 Accelerating Women's Advancement in STEM: Emerging Lessons On Network Strategies and Approaches in Asia
- 15. The World Bank, 2022
 What You Need To Know About Nature-Based Solutions
 To Climate Change
- 16. UK Green Building Council
 The Value of Urban Nature Based Solutions
- 17. Stress-Tolerant Rice For Africa And South Asia (STRASA)
- 18. IRRI Annual Report 2018 Gates Foundation Funds USD 30M IRRI Initiative To Unify And Modernize Rice Breeding Efforts In South Asia And Africa

19. Estoque et al., 2019

The Future Of Southeast Asia's Forests | Nature Communications

- 20. Ecosperity, 2021

 New Nature Economy: Asia's Next Wave
- 21. David Laborde et al., 2021
 Agricultural Subsidies And Global Greenhouse Gas Emissions |
 Nature Communications
- 22. Center for Global Development, 2015
 Tropical Forests Equal To The Size Of India Will Be Lost By
 2050. Unless We Act
- 23. European Investment Bank, 2023
 Investing in Nature-based Solutions
- 24. World Resources Institute
 State of Climate Action 2022
- 25. Plymouth Marine Laboratory, 2023
 Projections Show That The Seas Of Southeast Asia May Warm
 By 1.1 To 2.9°C Through The 21st Century
- 26. UNICEF South Asia, 2022 78% Of 10-Year-Olds In South Asia Now In Learning Poverty, Unable To Read And Understand A Simple Text
- 27. The Diplomat, 2019
 The Asia-Pacific's Education Crisis



- 28. The Manila Times, 2022 Why 9 Out Of 10 Filipino Children Can't Read
- 29. Yong Jiang (姜勇) et al., 2022 China's Preschool Education Toward 2035: Views Of Key Policy Experts
- 30. McKinsey, 2024
 Spark & Sustain: How All Of The World's School Systems Can
 Improve Learning At Scale
- 31. OECD, 2023
 PISA: Programme For International Student Assessment
- 32. UNICEF, 2019
 Learning Against The Odds: Evidence And Policies To
 Support All Out-Of-School Children And Adolescents In East
 Asia And Pacific
- 33. University of Pennsylvania, 2015 High Return On Investment (ROI)
- 34. UNICEF East Asia and Pacific, 2019

 Nearly 16 Million Children In East Asia And Pacific Region Are

 Not Enrolled In Pre-Primary Education
- 35. UNICEF Thailand, 2023
 Prudential Thailand And Prudence Foundation Announces
 Partnership With UNICEF To Support Early Childhood
 Development In Thailand

- Forbes, 2023
 UNICEF And Microsoft Prioritize Education Via The Learning Passport
- 37. The Lancet Regional Health Southeast Asia, 2022 New Vision For A Healthier Southeast Asia
- 38. Charu Aggarwal et al., 2024
 Severe Disease During Both Primary And Secondary Dengue
 Virus Infections In Pediatric Populations | Nature Medicine
- European Centre for Disease Prevention and Control, 2023
 Factsheet About Dengue
- 40. The Straits Times, 2020 More People Have Died From Dengue Than From Covid-19 In Singapore This Year
- 41. Awoke Minwuyelet et al., 2023
 Symbiotic Wolbachia In Mosquitoes And Its Role In Reducing
 The Transmission Of Mosquito-Borne Diseases: Updates And
 Prospects | Frontiers In Microbiology
- 42. Maíra Aguiar et al., 2022 Mathematical Models For Dengue Fever Epidemiology: A 10-Year Systematic Review | Elsevier
- 43. Carlos Alberto Montenegro-Quiñonez et al., 2023
 Interventions Against Aedes/Dengue At The Household Level: A
 Systematic Review And Meta-Analysis

- 44. Antimicrobial Resistance Collaborators, 2022
 Global Burden Of Bacterial Antimicrobial Resistance In 2019:
 A Systematic Analysis
- 45. The Lancet. Sihombing et al., 2023 Response To Antimicrobial Resistance In South-East Asia Region
- 46. The Lancet. Sihombing et al., 2023
 Response To Antimicrobial Resistance In
 South-East Asia Region
- 47. European Economic Review, 2015
 The Tempest: Short- And Long-Term Consequences Of A
 Natural Disaster For Children's Development
- 48. University of the Philippines Diliman, College of Science, 2023 More Intense Typhoons To Come This Century, UP Study Warns
- 49. United Nations
 Education Is Key To Addressing Climate Change
- 50. UNICEF
 COVID-19 Education Situation Analysis
- 51. Reuters, 2018
 Third Of Girls In South Asia Miss School During Periods Study
- 52. ASEAN

 Education Overview



- 53. Isabel Jones et al., 2020 Improving Rural Health Care Reduces Illegal Logging And Conserves Carbon In A Tropical Forest
- 54. United Nations Development Programme, 2022
 What Are Carbon Markets And Why Are They Important?
- 55. Lancet Countdown, 2023
 Explore The Key Findings Of The 2023 Report Of The Lancet Countdown
- 56. World Health Organization, 2024
 Ambient Air Pollution Attributable Deaths
- 57. Mahila Housing Trust
 Advancing Women Participation In Governance And Planning
- 58. New England Journal of Medicine, 2022 Climate Change and Vectorborne Diseases
- 59. UNESCO, 2024
 UNESCO Launches New Initiatives For "Greening
 Education" In Classrooms
- 60. Nature, 2020
 Learning Is Inhibited By Heat Exposure, Both Internationally And
 Within The United States
- 61. NBC News, 2024
 Extreme Heat Forces School Closures Across Asia, Affecting
 Millions Of Students

- 62. Clean Cooling Collaborative, 2023 Indonesia's Cool Roofs Champion
- 63. Impact Philanthropy Partnership (IPP), 2024
 Impact Philanthropy Partnership







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