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In collaboration with Bayer Foundation,
Bertha Centre for Social Innovation,
Impact Intelligence and Impact Hub

Climate and Health: The Social Innovation Landscape in Latin America and Asia-Pacific

INSIGHT REPORT
OCTOBER 2024



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Foreword



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Today, the bulk of our public dialogue continues to focus on mitigating carbon emissions. But billions of people, many of them in low- and middle-income countries, already grapple with the harsh and tangible realities of climate change today. For them, the consequences are manifold, and many are related to health issues, such as heat-related diseases, respiratory disorders caused by pollution or malnutrition due to drought-related food shortages. This insight report, exploring the social innovation and entrepreneurship ecosystems in Latin America and Asia-Pacific from the perspectives of inclusive health, sustainable agriculture and climate change, showcases the need for a cooperative and critical search for new solutions to issues affecting well-being and quality of life, and a holistic overview that recognizes them as interconnected and interactive categories.

The insights and strategies in the report are particularly helpful in conceptualizing how stakeholders and partners can develop strategies, partnerships, collaborations and solutions that will allow people to participate in actively shaping an ecologically sustainable, economically efficient and socially just environment. Importantly, the report demonstrates that **the capacity to develop these mechanisms depends on public and private partners working together to create environments in which social innovators and entrepreneurs can act to drive change.**

We invite you to read this report in combination with the previous publication, *Inclusive Health Systems: Innovation towards Health Equity in Africa*.¹ The two reports are a result of the collaborative and multistakeholder approach driven by the World Economic Forum's Global Alliance for Social Entrepreneurship, the Schwab Foundation for Social Entrepreneurship and the Bayer Foundation, bringing together academic leaders from the University of Cape Town Bertha Centre for Social Innovation and Entrepreneurship, in consultation with Impact Intelligence, practitioners from the private and public sectors, and experts on social innovation and entrepreneurship throughout Latin America and Asia-Pacific.

As outlined in our earlier report, global crises will only accelerate as the world confronts climate change, lack of access to water, migration and conflict, looming recession and food insecurity. **There is a need to re-examine inclusive health, sustainable agriculture and climate change as intersectoral components of a much wider social justice goal that cannot be achieved without addressing structural inequities in societies.** Partnering with social innovators who lead the way in developing practical and scalable solutions to address systemic barriers provides an actionable pathway for different stakeholders, including corporate and philanthropic leaders, alongside the public sector to follow through on their commitments.

Executive summary

Social innovators offer solutions at the intersection of climate, health and food systems – but supporting them requires a mindset shift.



↑ Image credit:
World Economic Forum,
LifeBank

Inclusive health, sustainable agriculture and climate change have an interdependent and intricate relationship. It is necessary to optimize partnerships and collaboration to develop solutions that will allow active participation in shaping an ecologically sustainable, economically efficient and socially just environment. Food security is challenged by climate change, traditional agricultural practices are disrupted by unpredictable weather patterns, extreme weather events threaten vulnerable populations, and harmful agricultural practices cause global warming. Addressing this vicious cycle requires a combination of strategies and solutions, many of which are spelled out in this report and which can serve as a guide to identifying private-sector investment opportunities.

These complex challenges mean that humanitarian and development organizations must shift their thinking to more sustainable and impactful channels of funding. This requires identifying pipeline catalysts, pinpointing donor capital from other sources, de-risking investments and promoting organizational readiness. Governments can also play a role in terms of policy and regulations that protect displaced and vulnerable populations in humanitarian crises.

The Green Climate Fund, announced at the 2023 United Nations Climate Change Conference (COP28), is a significant step forward. The fund received funding pledges from 31 countries for a record \$12.8 billion.² Another area that is ripe for

private-sector investment is agrifood tech. In 2021, this sector received \$51 billion of venture capital (VC) investment, which is less than 10% of the total \$612 billion VC allocation that year.³ Planning for future pandemic responses requires a \$31.1 billion annual investment.⁴ Finally, investment in community health is arguably an investment in climate response. However, until 2030, there is an annual financing need of \$11 billion for adapting human health systems to climate change (not including adjacent sectors such as agriculture), with \$2 billion needed in Asia (excluding Central Asia) and \$5.5 billion in Latin America and the Caribbean.⁵ Globally, only 0.5% of climate funding is being directed towards health systems and related outcomes.⁶ **A wider systems approach is required to support the social innovation ecosystem and enact greater change in financing for impact and facilitating just transitions.**

This report also demonstrates the power of social innovators and entrepreneurs, who are addressing the root causes that can lead to transformative systemic change. **Social innovators and entrepreneurs are an essential lifeline for the social impact sector as they take on the myriad challenges across the globe that affect structures, customs, mindsets and dynamics.** More resources, momentum and collaboration among the private, non-profit and public sectors are needed to address these challenges. Collective impact, as opposed to addressing issues in a siloed manner, is what will make the difference.

Introduction

It is crucial to enhance social innovation ecosystems in the face of climate crisis and regional challenges, with AI and radical collaborations important drivers of future progress.

The social innovation and entrepreneurship ecosystems in Latin America and Asia-Pacific require significant support from all stakeholders to make them more robust. Both regions are plagued by high levels of inequality, distrust of public-sector institutions, social and economic unrest and the effects of climate change. The overarching climate crisis intensifies the need for an urgent response and a bolstering of the social innovation ecosystems that can effect change where it is needed most.

Trends for the next decade include the use of artificial intelligence (AI) for social innovation, digital health, smart cities, reduction of carbon emissions, migration and food security. Social entrepreneurs, who have an innate understanding of their local contexts and who can use radical collaborations, are well placed to develop solutions to these issues. However, they still require access to funding and resources, capacity-building and an enabling policy and regulatory environment.

This report is an analysis that employs a mixed-method process entailing an AI-driven data and analytic approach spanning 65 countries in Latin America and Asia-Pacific and analysing textual data from 10 of the most prominent regional languages.

- More than 2.5 million articles, posts, news reports and academic publications were included, which took more than 10 weeks to analyse. This resulted in upwards of 900,000 patterns identified by the algorithm (“segments”), as well as more than 13,000 topics and 500 broad themes, which were distilled into 21 barriers and 109 sub-barriers.
- These 21 barriers were further refined to identify 10 barriers for detailed analysis.
- During the analysis, two workshops held with stakeholders from their respective regions examined the barriers and identified further topics for exploration.
- In total, 25 one-hour semi-structured validation interviews were held with innovators, entrepreneurs, funders, investors, multilateral organizations and academics.

The report provides an analysis of the data and includes cases studies to illustrate trends,

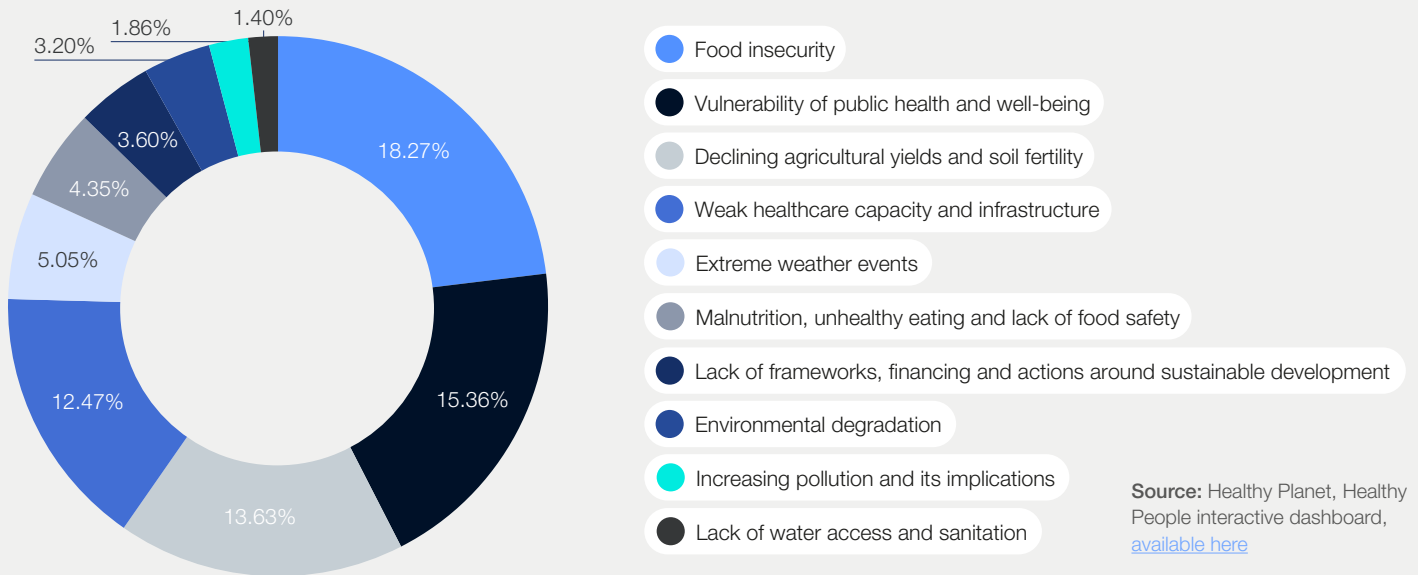
patterns and observations. This narrative report is complemented by an interactive, open-source data dashboard that allows readers to further explore any of the issues identified throughout ([available here](#)). Both the interactive dashboard and this narrative report build on the following terminology:

- A **barrier** is an obstacle hindering the progress towards inclusive health, sustainable agriculture and a healthy environment.
- A **solution** is defined as the initiatives and innovations aimed at lowering the identified barriers structurally or creating relief in the short term from the effects of these barriers. Examples include entrepreneurial innovations, humanitarian aid and initiatives by various organizations.
- The **enabling environment** refers to any activities that create and/or support preconditions in each geography that enable potential solutions to tackle the identified barriers. Examples of enabling environment activities can be policy incentives, training programmes, hackathons and accelerators focused on supporting development in an area.
- With this in mind, **barrier shares, enabler/solution scores** or **share of voice** track the frequency of discussions (prevalence) about specific problems, solutions and supportive environments in news, social media and academic research.
- The **gender score** (0–1) indicates the relevance of a problem to gender issues, with higher scores showing stronger gender correlation.

Figure 1 provides an overview of the barriers identified through the AI analysis.

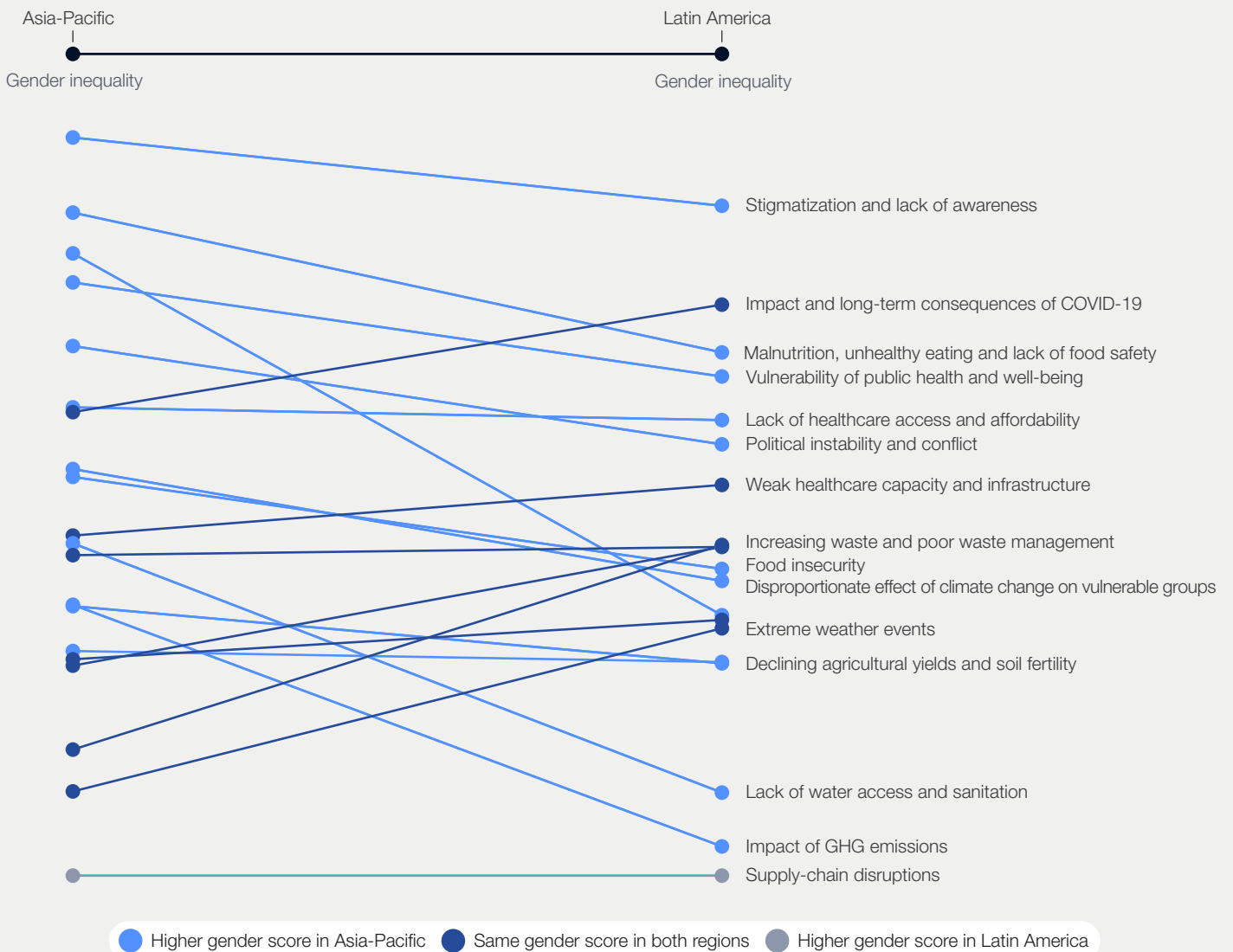
The barrier analysis included a gender viewpoint and highlighted the negative impacts experienced by women and girls. Stigmatization and discrimination are strongly gendered issues and are linked to health and agriculture. This is followed by the healthcare sector’s inadequate provision for women and issues of reproductive rights. This is also evident in the lack of employment opportunities. Figure 2 shows the barriers and their respective link with gender in both regions.

FIGURE 1 | Barriers to healthy people, a healthy planet and their respective share



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

FIGURE 2 | Comparison of the gender scores of identified barriers for Asia-Pacific and Latin America



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

1

A detailed look: Barriers and insights for stakeholders

The relationship among inclusive health, sustainable agriculture and climate change demonstrates that people are interdependent.

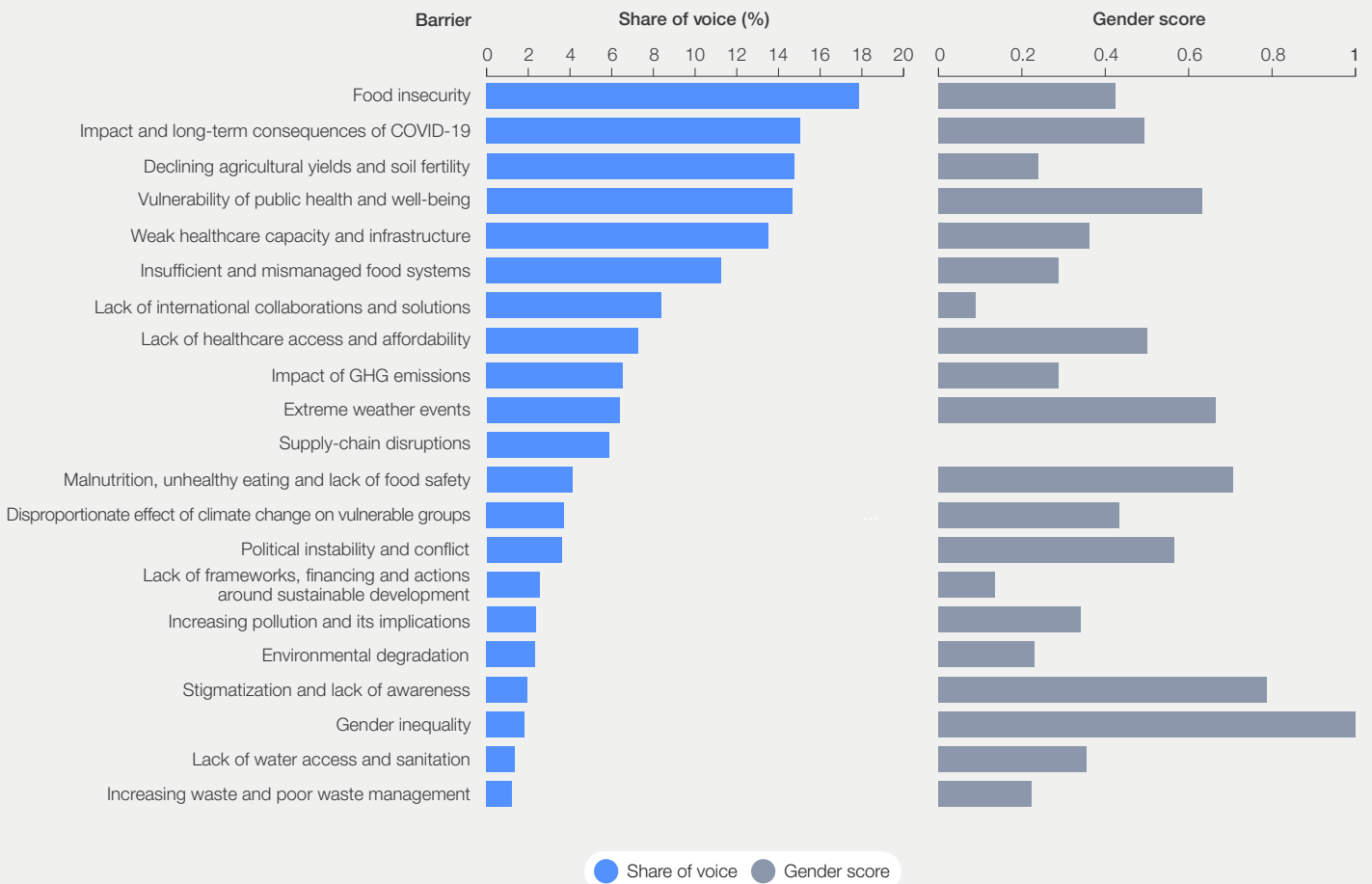
Actions have an impact on the lives of others and on the health and prosperity of the planet.

The insights and strategies below are particularly helpful in conceptualizing how stakeholders and partners can develop strategies, partnerships,

collaborations and solutions that will enable people to participate in actively shaping an ecologically sustainable, economically efficient and socially just environment. Figure 3 shows the percentage share of discussions about specific barriers as well as the link to gender through the gender score.

FIGURE 3 Share of discussion of barriers and gender score

Share of discussion of barrier and gender score representing how frequently gender-related issues are mentioned together with each barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

1.1 Food insecurity

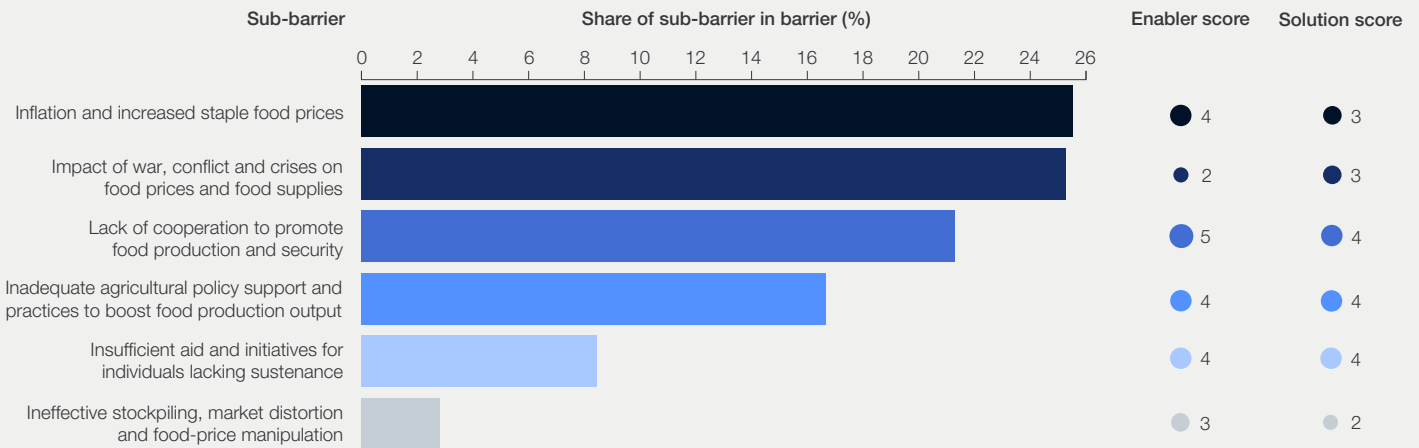
Food insecurity is a pressing challenge throughout the Latin America and Asia-Pacific regions, and the number of people affected is staggering. In Latin America, food insecurity contributed to a score of 18.67% of the share of barriers and had a gender score of 0.32. In the Asia-Pacific region, it contributed to 17.88% as a barrier and 0.42 as a gender score, which implies that women and girls are more negatively affected by food insecurity. The solutions in Latin America were humanitarian aid for extreme weather events and food insecurity (27%), export regulations to alleviate food insecurity (20%) and provision of

nutritious and affordable food (14%). In Asia-Pacific, the solutions were primarily in export regulations to alleviate food insecurity (33%), humanitarian aid for extreme weather events and food insecurity (23%) and international collaborations (11%).

While there are solutions to mitigate the burden of food insecurity, it is important to remember that the issue has deeply rooted causes. Brazil's Centre for Nutrition Recovery and Education, Vaola Vanilla in Samoa, AXA, iFarmer and Nilus are all examples of organizations achieving real social impact.

FIGURE 4 Share of sub-barriers in the barrier – food insecurity in Latin America

Share of sub-barriers in the barrier



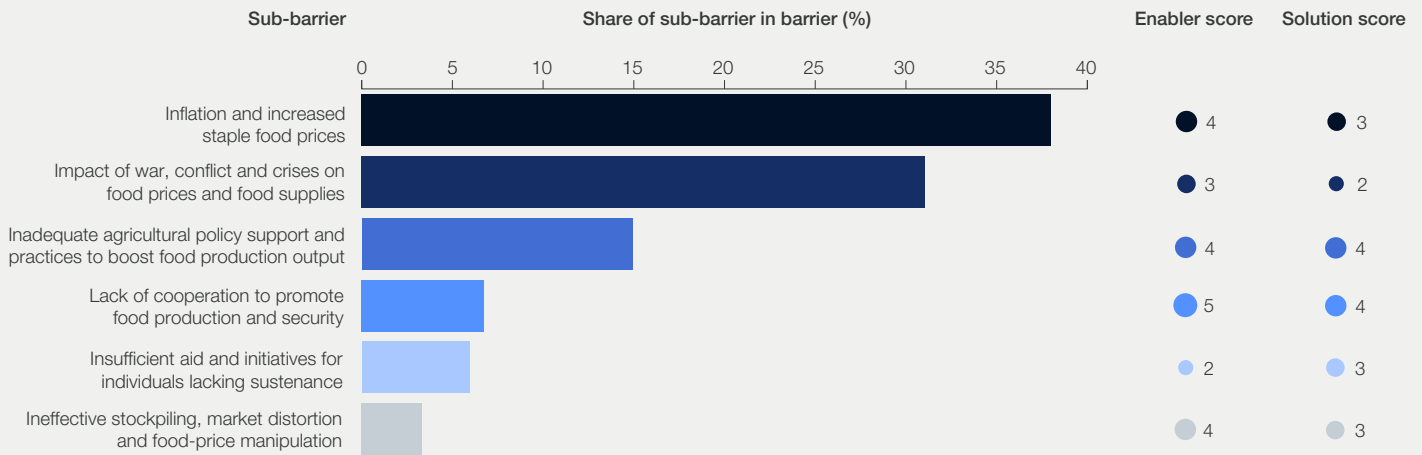
↓ Image credit:
Nutrivida

Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)



FIGURE 5 | Share of sub-barriers in the barrier – food insecurity in Asia-Pacific

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Inflation and increased staple food prices

Macroeconomic policies contribute to rising food prices while the vulnerable bear the heaviest burden.

Ever-increasing food production and transportation costs contribute to worsening food insecurity. In Asia-Pacific, inflation and increased staple food prices were a significant challenge (38% share), with a high enabler score and moderate solution score. In Latin America, the issue was less prevalent (25%), with a moderately developed enabling environment and solutions in place.

India, one of the top producers of rice, imposed restrictions on rice exports through a 20% export duty to ensure food security within its borders.⁷

In Latin America, food inflation soared to 43.9% in 2022, with the highest increases noted in Venezuela and Argentina.⁸ Vulnerable communities and households that rely on staple food diets are disproportionately affected, and many are forced into making difficult decisions and budget trade-offs daily. The escalating input costs of agriculture, the decrease in subsidies provided to farmers and climate-related insurance for agricultural products contribute to the higher cost of staple foods. Also contributing to the rising food prices are stockpiling and price manipulation in the markets.

CASE STUDY 1

Centre for Nutrition Recovery and Education

The **Centre for Nutrition Recovery and Education (CREN)** in Brazil is an example of how social innovation and entrepreneurship can build capacity, increase knowledge and provide new perspectives on the impact of rising food prices and unhealthy dietary practices. Operating in São Paulo, CREN engages whole families by offering healthcare,

education and nutritional support and by providing training to secure employment opportunities. CREN takes a holistic co-creation approach to working with children and their families to effect real changes in their lifestyles and achieve the long-term impact of developing empowered, critically reflective and active citizens capable of meeting the challenges they face.

Conflict has repercussions for the most vulnerable populations in any part of the world.

Impact of war, conflict and crises on food prices and food supplies

Conflict, war and global crises have profound consequences for food security, particularly in regions heavily reliant on imported produce. In Latin America, war, conflicts and crises have contributed to a high prevalence of food price and supply issues, accounting for 25.3% of the overall barriers. While some solutions exist, the enabling environment remains weak. The Asia–Pacific region shares a similar challenge, with disrupted food supply chains being highly relevant. Solutions are scarcer, and the enabling environments are weaker compared to Latin America.

The Russia–Ukraine conflict serves as a stark example of the repercussions of these disruptions. Both Russia and Ukraine are major exporters of essential food staples such as wheat flour and oil, and the conflict affects global food prices. The impact has been especially significant in Latin America and the Caribbean, as the war directly affects several Latin American countries that rely

heavily on wheat exports from Ukraine and Russia. For instance, Nicaragua imports roughly 80% of its wheat from these two countries.⁹ Additionally, the conflict in Gaza has constrained the operations of humanitarian aid programmes, creating a ripple effect on aid distribution worldwide.¹⁰

Governments often respond to geopolitical tensions by imposing restrictions on the flow of agricultural products, exacerbating vulnerability for domestic and refugee populations. To address these challenges, countries with vulnerable populations are encouraged to invest in local initiatives that promote food production and bolster agricultural infrastructure. This approach helps create buffers against food crises during turbulent times. Social innovators and entrepreneurs can complement these efforts by supporting social protection programmes, developing information systems to monitor food prices and agricultural inputs and assisting farmers to overcome constraints.

Lack of cooperation to promote food production and security

Governments, businesses and global organizations have a much bigger role to play in food security.

Key cooperation areas include digital agriculture, technology, machinery, trade, reducing food waste and disease control, with a focus on policy exchange and capacity-building. In Asia–Pacific, the lack of cooperation between the public and private sectors in food production and security was a marginal issue (7% score), suggesting a robust enabling environment for solutions. A standout example is Samoa’s **Vaola Vanilla**, advocating for e-commerce market access to export organic vanilla while ensuring local sustenance. However, challenges such as trade restrictions, exports and reluctance to facilitate credit card purchases for small businesses impede progress.

In Latin America, lack of public–private-sector cooperation in food security was a significant barrier (21%), with high enabler and solution scores. Strategies include countering export bans, enhancing access to agricultural inputs and gender-equitable distribution of nutritious foods. Despite these efforts, national governments and global institutions fall short in cooperation against food insecurity.¹¹ Issues include reduced subsidies for agricultural inputs, inadequate agricultural policies and insufficient mitigation of the effects of climate change on farming.

CASE STUDY 2

Nilus

In Latin America, social innovator **Nilus** is making strides in Argentina, Mexico and Peru. It has developed a digital marketplace connecting food producers with community kitchens, using surplus and “ugly” food for soup kitchens and schools. With more than 3.5 million kilograms of food

waste rescued and 6.9 million kilograms delivered to low-income communities, Nilus exemplifies the innovative and collaborative spirit of social entrepreneurship in addressing food-security challenges.



↑ Image credit:
Schwab Foundation for
Social Entrepreneurship

Insufficient aid and initiatives for individuals lacking sustenance

Food insecurity, affected by dwindling humanitarian aid, is a critical issue. In Asia–Pacific, insufficient aid and too few initiatives for those lacking sustenance account for just under 6% of the barriers, facing weak ecosystems and moderate solution availability. In Latin America, the issue is more prevalent (8% of total barriers), but it benefits from a stronger enabling ecosystem and a greater number of solutions.

Despite a \$10 billion increase in humanitarian assistance in 2022, bringing the total to \$46.9 billion, the humanitarian funding gap has widened.¹² This is partly due to donor priorities shifting towards populations affected by conflict and protracted crises. This shift in donor focus has contributed to the significant funding shortfall. A move from reliance on traditional philanthropic and donor funding towards more sustainable and impactful channels is recommended.

In Latin America, humanitarian aid for extreme weather and food insecurity, constituting 26.5% of solutions, shows significant potential. Impact investing presents a viable alternative to generate measurable social and environmental impacts alongside financial returns.¹³ This approach aligns public and private stakeholder incentives, promoting unique collaborations among governments, non-profits, philanthropies and traditional finance firms. Humanitarian and resilience investing for commercial and catalytic capital in pre-emerging markets offers another pathway, involving identifying pipeline catalysts, sourcing alternative donor capital, de-risking investments and promoting organizational readiness.¹⁴ Governments also play a crucial role in policy and regulations to protect vulnerable populations in humanitarian crises.

The rapid growth in the need for aid far outstrips the volume and growth of donor funding provided.

CASE STUDY 3

Asian Development Bank

The Asian Development Bank exemplifies collaborative funding efforts with its recent pledge of \$14 billion through to 2025 to alleviate the worsening food crisis in the Asia–Pacific region. This commitment aims to improve farming and food supplies, addressing the needs of the 1.1 billion people

in the region who lack healthy diets due to poverty and escalating food prices. This initiative is a significant step in strengthening food security in the face of climate change and biodiversity loss.

Policies and regulations are insufficient to promote food security.

Inadequate agricultural policy support and practices

Agricultural policy has long been a lower-ranked priority area in comparison to other development needs in the Latin American and Asia–Pacific contexts. In Asia–Pacific, the issue seems only moderately prevalent (barrier score of 15%). It is driven by inadequate agricultural policy support and practices to boost food production output. In Latin America, the issue is slightly more prevalent (17% of barrier score) and is supported by a strong ecosystem with several solutions in place. This means that if a concerted effort is made to design and implement policies and practices throughout the ecosystem to support agriculture, there are easy wins to be gained.

There are shortcomings in the modernization of technologies and infrastructure, information and data management, capacity-building and training of farm workers. Addressing these areas has the potential to increase food system resilience and promote the growth of rural market produce. Areas for policy reform include supporting investments that promote regional farmers, markets and food-chain systems.¹⁵ Government subsidies for farming inputs such as fertilizer, pesticides and equipment promote agriculture and help prevent systemic shocks when conflicts and wars arise in other parts of the world.¹⁶ Additionally, regulations to promote private-sector investment in agriculture, agritech and supply chains for produce should be supported.

CASE STUDY 4

Insurance and protection mechanisms

Insurance and protection mechanisms can act as buffers against the effects of climate change and natural disasters. One such mechanism is provided by **AXA**, an insurance company that works with the United Nations and various governments to provide insurance for farmers in areas prone to natural disasters and extreme weather events. Another

example is **iFarmer**, a social enterprise in Bangladesh, which also works closely with the public sector and private insurance companies to subsidize insurance for farmers. Regulations should encourage access to and uptake of insurance products, especially for small-scale farmers who may be more vulnerable to systemic shocks.

Efforts to prevent short-term food security are a double-edged sword.

Inefficiencies due to stockpiling, market distortion and food-price manipulation

Due to high levels of inflation, and to counter constrained economic environments, some countries resort to ineffective stockpiling. In Asia–Pacific and Latin America, ineffective stockpiling, market distortion and food-price manipulation are less often discussed (3% in Asia–Pacific and 2% in Latin America). But, at least in Asia–Pacific, the issue offers opportunities for innovation as the enabling environment seems strong, although the number of solutions is still subpar. In Latin America, the opportunity is less pronounced but still worth highlighting as the enabling environment is deemed moderate with a low number of solutions.

Price manipulation is a significant factor that can lead to food insecurity. To protect people from the impact of undue price increases, countries have implemented price ceilings for staple foods such as rice. Geopolitical forces such as the Russia–Ukraine conflict and India’s rice export duty have meant that governments must protect domestic households and prevent exorbitant food pricing.

However, the price ceiling has meant that farmers are restricted in terms of how much they can charge for their produce.

An example of a country responding to these constraints is the Philippines, which provides aid to farmers during El Niño. The Philippine government will distribute aid of \$200,000 sourced from taxes imposed on rice imports.¹⁷ However, this solution is only temporary and efforts for longer-term investment to ensure bigger crop yields and more food security are necessary. The analysis found that export regulations are a potential solution (19.5% of the share of solutions in the Latin American context). Similarly, nutritious and affordable food is a solution opportunity in Latin America (14.1% solution score). Alternatives to price increases must be explored to ensure that actors throughout the ecosystem, especially the vulnerable, are not negatively affected. Governments and businesses have an important role to play here.

1.2 Weak healthcare capacity and infrastructure

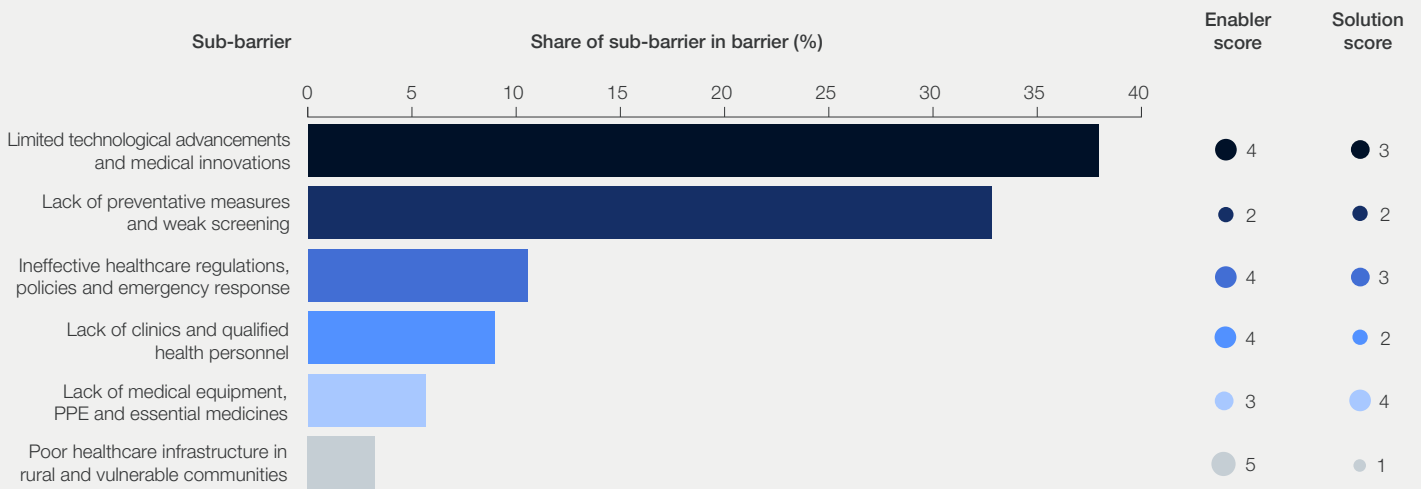
Healthcare systems around the world are strained and have yet to recover from the global COVID-19 pandemic. They are further strained by the health concerns and burdens placed upon them by food insecurity and climate instability.

The COVID-19 pandemic, climate change and global crises have shown the interconnectedness of the world and the urgent need for collective action. **Healthcare systems, strained by the pandemic, food insecurity and climate instability, highlight the deepening divides in access and resources.**

Weak healthcare capacity in Latin America (11.4% barrier score, gender score 0.41) and in Asia-Pacific (13.5% barrier score, gender score 0.36) underline these challenges, with women disproportionately affected. Solutions focused on telemedicine, digital health and infection prevention are critical. Notable social innovators such as Umana in Argentina and Medtronic LABS in countries such as Bangladesh are making strides in addressing healthcare disparities, particularly for vulnerable populations.

FIGURE 6 Share of sub-barriers in the barrier – weak healthcare capacity and infrastructure in Latin America

Share of sub-barriers in the barrier



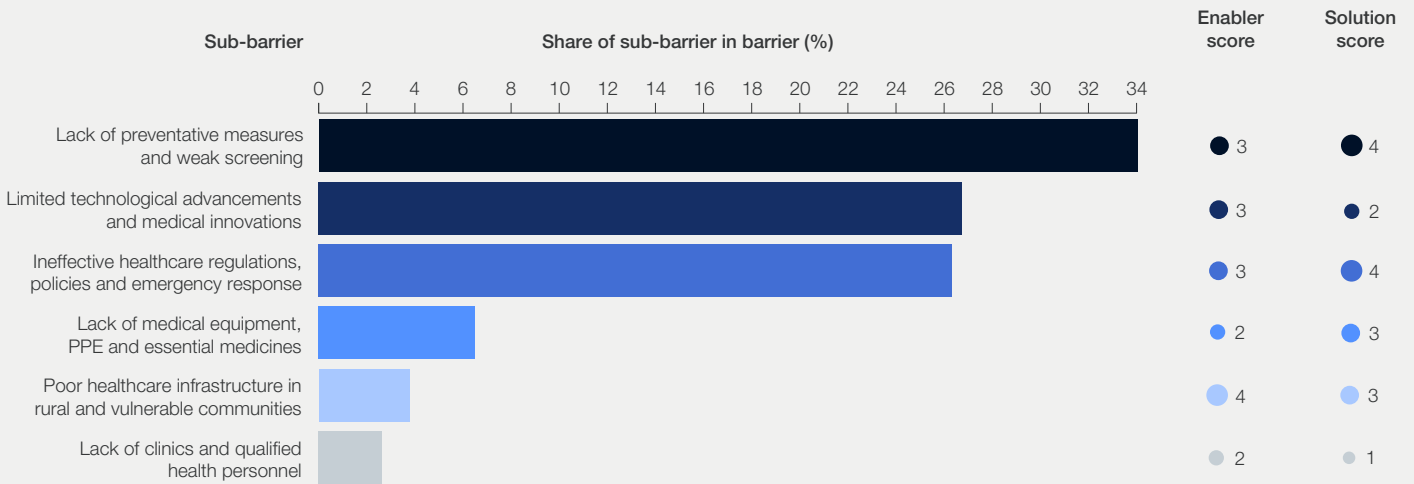
↓ Image credit:
SAS Brasil

Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)



FIGURE 7 | Share of sub-barriers in the barrier – weak healthcare capacity and infrastructure in Asia–Pacific

Share of sub-barriers in the barrier



↓ Image credit:
Thaki

Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)



Limited technological advances and medical innovations

Health systems must allow for technology and innovation, especially in the Global South.

New technologies and medical innovations are crucial for improving healthcare systems, yet limitations in these areas contribute significantly to the issue of healthcare capacity and infrastructure (26% barrier score in Asia–Pacific and 38% barrier score in Latin America). In Latin America, the data suggests a strong enabling environment and a moderate number of solutions. In Asia–Pacific, there is a slightly weaker enabling environment and fewer solutions. Innovators within Latin America and Asia–Pacific have highlighted the gaps that they face, which include lack of access to seed capital to develop innovation prototypes and to incubators and accelerators to help them refine their ideas and get them to market. Improvements in technology also require internet connectivity, which is either expensive or inaccessible in many places.

Telemedicine is one of the categories with the largest share of solutions in the Latin American context (21.2%). Investment in technological advances is crucial. However, while technology is a great equalizer, it would be a mistake to assume that the benefits of technology – such as digital health interventions – are universal. Innovators in this space must therefore look to solutions that acknowledge issues with access (such as broadband connectivity), adoption (which includes digital readiness) and trust (which requires digital literacy and transparency). Social innovators and entrepreneurs must embed inclusion and equitable access into their designs to ensure that beneficiaries have direct access to the services and facilities necessary for their health and well-being.

Prevention is better and cheaper than any cure and yields long-term savings for governments.

Lack of preventative measures and weak screening

In Latin America, lack of preventative measures and weak screening practices emerge as significant challenges, constituting a 33.1% barrier score. Unfortunately, the enabling environment for innovation in healthcare is weak in this context, with limited solutions in place. Asia-Pacific follows suit, with a 34% barrier score. However, Asia-Pacific benefits from a better enabling environment, and it exhibits a stronger presence of solutions.

Governments can explore various policy measures to promote preventative healthcare. Implementing taxes on unhealthy foods and drinks has the potential to reduce demand for and consumption of such products.¹⁸ Legislation can be used to

restrict the marketing of unhealthy items, especially targeting vulnerable groups such as children and adolescents. Private-sector involvement is vital in promoting behavioural change practices that prioritize health and disease prevention.

Investing in preventative and screening technologies is crucial and can yield substantial long-term returns by saving lives and increasing productivity. Governments play a pivotal role in informing policy decisions that can avert the future exorbitant costs associated with treating diseases. Collaboration among donors, non-profits and other actors in the healthcare ecosystem can make the most of expertise and resources to implement effective health programmes.

CASE STUDY 5

Umana

Umana, a social enterprise in Latin America, provides healthcare access to rural populations in Argentina. It offers a subscription model for healthcare services, including consultations, pharmacies, laboratories and diagnostic facilities, at affordable rates paid per use. This approach creates incentives for healthcare providers, as patients

receive discounted rates at the point of service rather than waiting for reimbursement. Umana places a strong focus on women's health, with women making up the bulk of the 68,000 patients served. However, challenges such as the lack of facilities and potential strain on the healthcare system must be addressed.

Health policies must be integrated with others because this will contribute to universal health coverage.

Ineffective healthcare regulations, policies and emergency response

Ineffective healthcare regulations, policies and emergency responses are considerable barriers (25%) in Asia-Pacific, with a moderately developed enabling environment and a high number of solutions. In Latin America, the issue was less prevalent (10.6%), potentially due to a stronger enabling environment. However, there were also only a moderate number of solutions in place. Some countries have a favourable policy environment in which health is prioritized, whereas others have dated policies that result in systems that are slow to respond.

Policies should be designed with the intention of improving the affordability and availability of healthy foods and should place an emphasis on underserved populations and households. It is important for policies to cover a range of sectors that interplay with health and nutrition, including agriculture, water and sanitation, and trade and industry. Policies should also be dynamic and allow for adaptation during future crises.¹⁹ It is important to note that all policies and responses must be made based on equity and protecting the populations most in need.

CASE STUDY 6

Associação Saúde Criança

Social innovators and entrepreneurs play a major role in bridging the gap among governments, business leaders and other principal stakeholders and can act in a supportive advocacy role as governments work to enact necessary policy changes. An example of a leader of systemic change is Brazil's **Associação Saúde Criança**, which takes a

holistic approach by targeting cycles of severe illness and extreme poverty, working closely with families to achieve good outcomes in health, housing, income, citizenship and education. This model is now established, in the form of social franchises, in six Brazilian states and has been taken up as a public health programme in the municipality of Belo Horizonte.

A reliable supply of equipment and medicines is an essential building block of an effective healthcare system.

Lack of medical equipment, personal protective equipment (PPE) and essential medicines

For a health system to be efficient, appropriate medical equipment and essential medicines must be available. Technologies such as wearables, robots, telemedicine, 3D printing, AI for healthcare and cybersecurity to prevent data breaches all play a role. Industry bodies are responsible for regulating medical devices and ensuring that they meet acceptable standards. However, the processes required to obtain medical equipment certification are lengthy and prolonged, which may result in deferred patient care and treatment.

There is a lack of medical equipment, personal protective equipment (PPE) and essential medicines in both regions. The issue is slightly more pronounced in Asia-Pacific (6.5%) than in Latin America. In both regions, the enabling environment to solve this issue is weak, but in Latin America, more solutions seem to exist (relative

to the data shared). For Latin America, the Pan American Health Organization has reported that Latin American countries demonstrate a significant reliance on active pharmaceutical ingredients (APIs) that are produced in other countries.²⁰ This presents a risk to Latin American health systems because, when demand within countries outstrips the available supply from international sources, there is a knock-on effect that results in negative impacts on the patient populations seeking treatment.

By manufacturing medicines, devices and PPE regionally or locally, production capacity can be increased, supply-chain costs can be reduced and input costs can be subsidized. Solutions here include telemedicine and digital health (21.2% of the total solution score) in Latin America. However, investments should be made to strengthen innovation in this area.

Poor healthcare infrastructure in rural and vulnerable communities

Basic health infrastructure provides the foundations for equitable healthcare.

National governments have long recognized the need to strengthen health systems in vulnerable communities. In Asia-Pacific (4%) and Latin America (3.2%), this issue has had a lower barrier share (prevalence of the issue within the dataset). The enabling environment in Asia-Pacific seems strong, with a moderate number of innovations. Latin America shows a low number of solutions in a highly supportive environment. This translates into a low number of social innovation solutions despite the favourable environment for solutions, which presents an opportunity for social innovators to address issues of poor healthcare infrastructure in rural and vulnerable communities.

Increased budgets and policies are insufficient to ensure that underserved populations in Latin America can access universal health coverage. Ultimately, infrastructure and inclusive strategies will protect populations from catastrophic healthcare expenditure. It is important to encourage investments in healthcare infrastructure that will provide Indigenous and underserved populations with the healthcare they need.²¹ Quick wins can be gained by expanding the number of community health workers who can serve as the first line of response for rural areas throughout Latin America.

CASE STUDY 7

Inter-Island Health Service Boat Project

Social innovations include the **Inter-Island Health Service Boat Project** in the Philippines, a boat-based transportation solution that connects remote village health centres to municipal facilities. In one of the country's municipalities, which is island-based and contains many coastal villages, this intervention allows access to birthing facilities through a sea ambulance. The birthing facilities are accredited with

the Philippine Health Insurance Corporation, and providers can therefore claim for patient care in this innovative model. This has resulted in an alternative form of health infrastructure as sea levels continue to rise. Achievements include improvements in maternal and newborn health outcomes in the country due to the higher number of births that are assisted by skilled attendants and midwives.



↑ Image credit:
Mothers 2 Mothers

Lack of clinics and qualified health personnel

A crucial foundation of strong healthcare systems is having enough skilled professionals to staff the facilities. However, many countries in the Global South struggle to ensure adequate staff-to-patient ratios to address healthcare burdens. Lack of clinics and qualified health personnel were found to contribute much more significantly to lower healthcare capacity in Latin America (10%) than in Asia-Pacific (2.6%), despite a stronger enabling ecosystem in Latin America. In both regions, the prevalence of solutions remains low. This translates to having a conducive environment that promotes the establishment of clinics and encourages the growth of the healthcare workforce. However, there are a low number of social innovations in the area.

Health personnel are particularly scarce in rural and remote areas, but one way to mitigate this is by investing in the recruitment, training and development of health personnel from rural backgrounds because these clinicians and other professionals are more inclined to work in rural areas after qualifying.²² There is also a need to implement rural orientation in teaching curricula and to offer electives and internships in rural areas, since these interventions usually promote a greater degree of interest in practising medicine in rural communities.

Health facilities and health workers are crucial factors in enabling healthcare access.

CASE STUDY 8 Medtronic LABS

An example of an organization addressing healthcare worker capacity shortfalls is **Medtronic LABS**, which works closely with communities and technology to make healthcare more equitable in Bangladesh. Through its SPICE platform, an open-source technology, Medtronic can strengthen

community healthcare worker responses and contribute to improved patient health outcomes. Medtronic also collaborates with governments and donors to strengthen their response and adequately design their programmes.

1.3 Vulnerability of public health and well-being

One of the most effective ways to achieve universal health coverage is to strengthen primary healthcare. This involves a shift from a curative approach to focusing on social determinants of health and illness prevention. Public health systems show significant vulnerability (16.08% barrier score), with women in Asia-Pacific disproportionately affected (gender score 0.63). Solutions include knowledge- and awareness-building (19% in Asia-Pacific, 18% in Latin America), chronic disease prevention (12% in Asia-Pacific, 15% in Latin America) and infection prevention (11% in Asia-Pacific, 15% in Latin America).

Social innovators and entrepreneurs within the health sector have a fine understanding of how intensely interconnected and intersectional their work is. As systems leaders, they focus on addressing root causes and effecting systemic change within structures, customs and mindsets, with the goal of creating lasting social impact. The Model for Integral Care for Rurality, the Karuna Trust and Neurosynaptic Communities are valuable case studies.

FIGURE 8 Share of sub-barriers in the barrier – vulnerability of public health and well-being in Latin America

Share of sub-barriers in the barrier

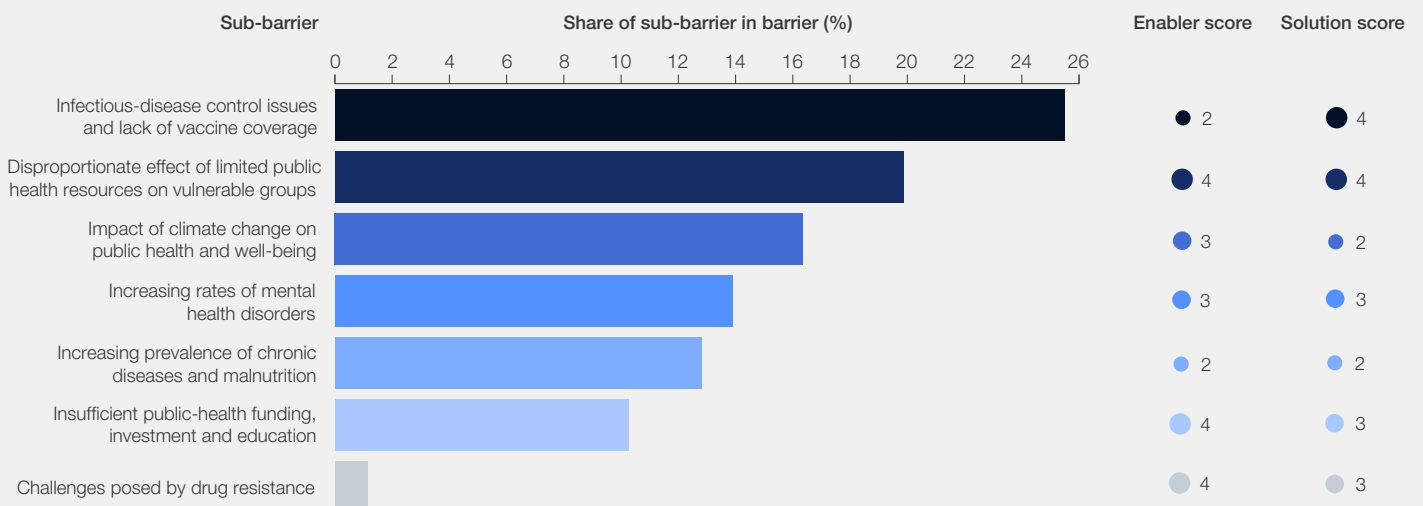


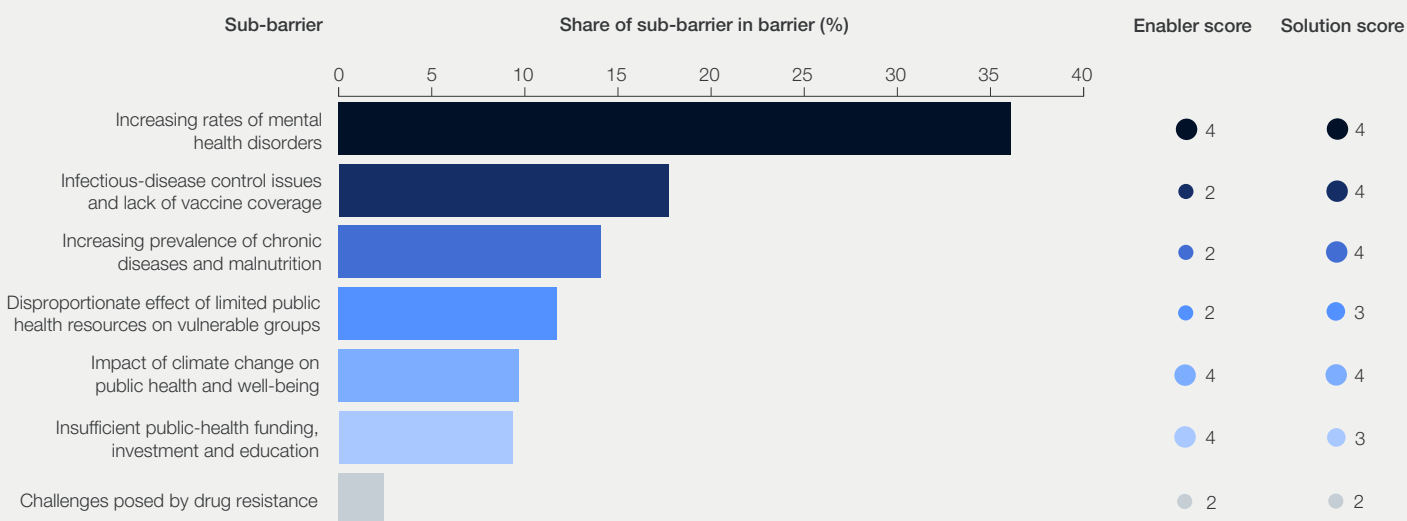
Image credit: Tibu Africa

Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)



FIGURE 9 | Share of sub-barriers in the barrier – vulnerability of public health and well-being in Asia-Pacific

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Infectious-disease control issues and lack of vaccine coverage

There are several “quick-win” solutions to address preventable diseases.

The COVID-19 pandemic highlighted inadequacies in health system responsiveness, particularly in the management of infectious diseases and non-communicable diseases, often treated in isolation. Integrated care models can enhance public health and primary healthcare. In Latin America, infectious-disease control and vaccine coverage issues contribute a minor share to overall health challenges (2.5%), with a strong prevalence of solutions despite a weak enabling environment. This indicates that the COVID-19 crisis has spurred solution development. In contrast, Asia-Pacific faces a more significant challenge in this area (17.5% sub-barrier), yet exhibits a high prevalence of solutions despite a similarly weak environment, again indicating active social innovation in disease control and vaccination.

Governments must integrate vaccination campaigns into routine health services, facilitating comprehensive healthcare during single facility visits. International organizations can provide technical assistance and support communication efforts to enhance vaccine uptake. Collaborating to strengthen local manufacturing capabilities is also vital. For instance, Canada’s US\$15 million in support of the Pan American Health Organization aims to boost vaccine production in Latin America and the Caribbean, enhancing equitable access.²³

However, routine vaccination programmes have declined, exacerbated by the COVID-19 pandemic. UNICEF reports that one in four children in Latin America and the Caribbean have not completed their immunization schedules.²⁴ This issue is compounded by vaccine hesitancy rather than issues of vaccine availability.

CASE STUDY 9

The Model for Integral Care for Rurality

An example of a social innovation project addressing these challenges is **The Model for Integral Care for Rurality** in Sumapaz, Colombia. This initiative improves health access and quality of care in rural Colombian communities, addressing issues such as lack of clean water, poor nutrition, food insecurity

and socioeconomic exclusion. Focusing on community participation, integral health, environmental factors and partnerships with educational institutions and local governments, this model demonstrates the effectiveness of community-collaborated, root cause-focused solutions for lasting impact.

Increasing prevalence of chronic diseases and malnutrition

The prevention and management of long-term illnesses is a pillar of primary healthcare.

Latin American and Asia–Pacific countries struggle with a high burden of chronic diseases. Cardiovascular diseases – which include diseases such as high blood pressure, stroke and heart disease – contributed to 28% of deaths in Latin America and 45% of deaths in Asia–Pacific, as reported by the Organisation for Economic Co-operation and Development (OECD).²⁵

In the Asia–Pacific context, chronic diseases have a high prevalence (almost 14% of the share of the barrier), while a high number of potential solutions face a weak enabling environment. There are thus several solutions for tackling chronic diseases despite the unfavourable environment in the region. In Latin America, the prevalence of the sub-barrier was almost the same (13%). Here, the ecosystem is not favourable for social innovations, which is likely the reason for the low number of social innovation solutions.

CASE STUDY 10

Neurosynaptic Communities

Neurosynaptic Communities from India monitors patients through telemedicine. Its solutions include last-mile health provision, teleconsultations and patented technology platforms to drive patient care in remote communities. Its technology enables screening, diagnosis and triaging, and aids healthcare providers in providing access to care. The organization received government support in the form of loans and expanding internet connectivity to extend its

reach. Support has also been provided through national digital health systems such as the **Ayushman Bharat Digital Mission**, helping to create electronic patient medical records and standardizing the system. However, there is room for the private sector to play a more active role, especially in the space of non-communicable diseases and improvements to the health system.



↑ Image credit:
Lifebank

Impact of climate change on public health and well-being

The impact of climate change on public health and well-being has a significant impact on primary healthcare (almost 16.4% barrier share). The supportive ecosystem in Latin America remains modestly prepared and few solutions are available. In Asia–Pacific, this sub-barrier has a strong enabling environment with a high number of solutions.

Data is a crucial component of building an adequate response, and surveillance is important for detecting outbreaks. Tools such as vulnerability and adaptation assessments can determine priorities for response when extreme weather

or other adverse events occur due to climate change. Early-warning systems can also integrate technologies such as satellite monitoring and AI to predict and prepare for disasters in advance. The investment gap for climate adaptation in developing countries is estimated to be 10–18 times larger than that of developed countries, and the modelled costs are \$215 billion annually, according to the United Nations Environment Programme.²⁶ However, climate adaptation financing has declined by 15%, which means there will be a bigger gap to cover over time, and there is an urgent need to mobilize funding.

As the world faces more risks, health systems must be strengthened from multiple angles.

Rather than being considered as an extra cost, investments in mental healthcare will yield returns.

Financing primary care requires new ways of thinking for a shrinking public purse.

↓ Image credit:
Glasswing International

Increasing rates of mental health disorders

Mental health disorders show high prevalence in Asia-Pacific (35%) but also indicates a strong ecosystem and a high prevalence of solutions, likely boosted by the COVID-19 pandemic's focus on mental health services. In Latin America, the issue contributes a smaller share (13.9%) but is hindered by a less supportive ecosystem, resulting in fewer solutions.

To manage the growing mental health burden, investment in strengthening health systems and ensuring adequate financing for mental health in primary care settings is essential. Latin America requires increased support for mental health patients. A striking 75% of mental health disorder patients in

the region lack access to treatment. For example, the number of trained psychiatrists in Chile, Peru, Brazil and Mexico is below the OECD average.²⁷

Community-level mental health promotion and first-line responses are vital, necessitating investment in healthcare worker capacity-building for mental health. Mental health disorders often co-occur with non-communicable diseases, requiring simultaneous attention to both disease burdens. Early detection and community-level intervention are critical investments for population health, considering the significant financial burden these illnesses place on government resources.

Insufficient public health funding, investment and education

Public health systems in Asia-Pacific and Latin America are facing challenges due to chronic underfunding and shrinking investment (10% in Latin America, 9% in Asia-Pacific). Despite strong enabling environments in both regions, there are few solutions, indicating a gap between potential funding efficiency and actual partnerships or innovations.

During the COVID-19 pandemic, out-of-pocket healthcare expenses decreased due to funding being redirected towards emergency responses

such as PPE and disease surveillance.²⁸ And independently of the pandemic, healthcare costs continue to rise. A shift from healthcare funding to healthcare investment is therefore crucial. Focusing on the efficiency and equity of healthcare spending and seeking impact through health outcomes or value-based care will be essential. Innovative finance tools – such as taxes on unhealthy products or environments, debt swaps and public-private partnerships such as social impact bonds – offer creative solutions to constrained public resources.

CASE STUDY 11

The Karuna Trust

The Karuna Trust in Karnataka, India, exemplifies an innovative public-private partnership model. It aims to provide accessible healthcare to remote and underserved populations in tribal areas. Managing 71 primary health centres in five Indian states, the Trust covers 1.5 million people, ensuring

vaccine coverage, health treatment and health education. This model shows the need for flexible funding to meet the demands of social innovators and entrepreneurs, urging traditional funding models to evolve and funders to become active partners in systemic social change.





↑ Image credit: Babban Gona

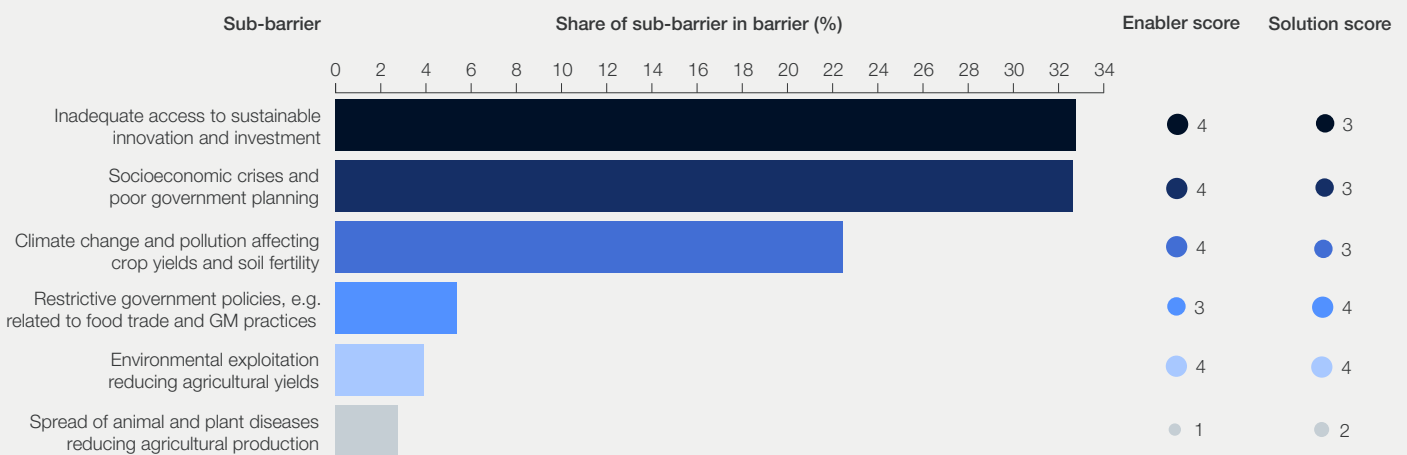
1.4 Declining agricultural yields and soil fertility

Declining agricultural yields and poor soil fertility, both a major threat to food security, show strong prevalence in Latin America and Asia-Pacific (12.5% and 14.75% share of the voice respectively), with similar gender-related issues in both regions (0.24 score in Asia-Pacific and 0.25 score in Latin America). Hotspots include Paraguay, Argentina, Mexico and Sri Lanka. Solutions focus on agritech (25% in Asia-Pacific, 20% in Latin America), regenerative and climate-resilient agriculture (18% in Asia-Pacific, 23% in Latin America) and environmental protection (13% in both regions).

Education for sustainable development is crucial, aiming for capacity-building, knowledge-enhancement and transformative learning. In this way, farmers and agricultural ecosystems can address one of climate change's most serve impact areas: declining yields and soil fertility. Social innovators such as Colombia's Ecosistema Jaguar, the Latimpacto investment network and Bangladesh's iFarmer play a critical role in promoting sustainable action and bridging gaps in climate change impact.

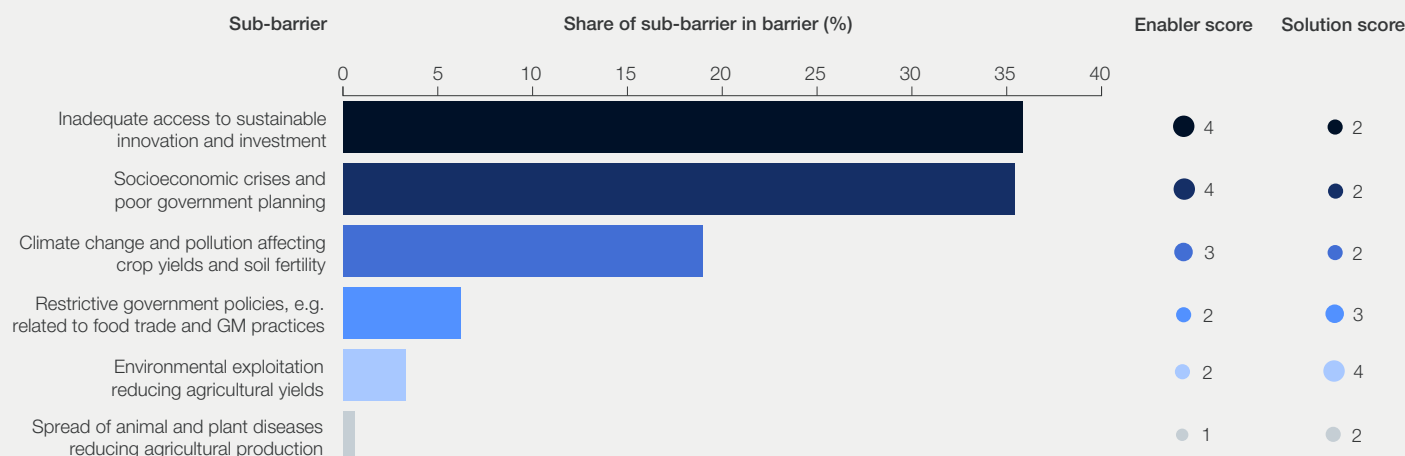
FIGURE 10 Share of sub-barriers in the barrier – declining agricultural yields and soil fertility in Latin America

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

New and innovative methods of ensuring that environmental resources are used sustainably can yield wider impact.

Environmental exploitation reducing agricultural yields

Sustainable agricultural practices are essential for environmental preservation. In Asia–Pacific, environmental exploitation reducing agricultural yields constitutes nearly 3% of the barrier share, facing a weak enabling ecosystem but with many solutions. Similarly, in Latin America, the barrier share is about 4%, but with a strong enabling environment and prevalence of solutions.

Success stories in Latin America highlight the impact of sustainable practices. In Ecuador, a climate-smart initiative increased milk production while reducing greenhouse gas (GHG) emissions by 20%. Mexican agribusinesses lowered emissions by 6 million tons of CO₂ using renewable biomass. In Uruguay, alternative pest control methods led to a 70% higher crop yield and savings of up to \$40 per hectare. The Chilean Clean Production Agreement

improved farmers’ incomes by 15%, enhancing soil and water quality and reducing emissions and waste. Collaborative projects in Guatemala and Colombia on forest management boosted investment and community development, while cross-border initiatives in trawling fisheries reduced unintentional catch and wastage by 40%.²⁹

Investors are urged to collaborate with organizations to identify priority areas aligned with their investment philosophy, helping to maximize impact. Collaborative actions, including forest management, sustainable fishing and investment partnerships, are vital for bridging the value–action gap. Recognizing the interconnectedness of their actions with economic, social, political and environmental systems, people can better promote sustainable behaviours and mechanisms.

Spread of animal and plant diseases reducing agricultural production

“Big wins” can be achieved when priority is given to disease prevention systems.

The looming threat of antimicrobial resistance poses a significant public health challenge. In the wake of the COVID-19 pandemic, the risk of this resistance, coupled with the spread of animal and plant diseases reducing agricultural production, has been particularly concerning. Data indicates low discussion prevalence on this issue, with few enabling factors and scant solutions, suggesting it is an overlooked yet critical area needing attention as antimicrobial resistance escalates and vector-spread disease increases.

The interaction among wildlife, livestock, plants and humans, especially in Asia’s diverse ecosystems, fosters an environment conducive to pathogen spread. Urbanization, population growth and changing food demands exacerbate the threat of antimicrobial resistance. To prevent future pandemics, investment in strong disease surveillance, early detection systems and capable testing laboratories is essential. A successful Latin American case is the near-eradication of foot-and-mouth disease in livestock, supported by the

Regional Bank of Foot and Mouth Disease Antigens (BANVACO). Today, 98.6% of cattle in Latin America are free from the disease thanks to effective prevention, surveillance and control measures.³⁰

Investment in emergency preparedness, including contingency plans and rapid-access emergency funds, is crucial for governments and private-

sector investors. Intersectoral collaboration in health, agriculture and environmental portfolios is essential for a unified response. Building capacity among professionals such as veterinarians, researchers and epidemiologists to study the interplay of animal and zoonotic diseases will enable the development of effective response plans for potential pandemics.

Inadequate access to sustainable innovation and investment

Asia-Pacific is lagging behind in its progress towards the United Nations Sustainable Development Goals (SDGs), with only a 15% advance towards the 2030 targets. Strengthening data systems is essential to fill data gaps and meet SDG targets. Social innovators are crucial in this effort, but they face significant challenges, especially in Latin America, where inadequate access to sustainable innovation and investment constitutes 33% of the barrier share. Despite a strong enabling environment, only moderate solutions are evident. In Asia-Pacific, this barrier accounts for more than 35% of the share, with a lower prevalence of solutions, indicating a need for enhanced support in social and sustainable innovation.

Current funding models for social and sustainable innovation are inadequate, and social innovators typically encounter a number of barriers. Philanthropies and foundations often provide grants that fail to ensure long-term sustainability,

while private investors are hesitant to fund high-risk ventures such as social innovations. A paradigm shift is needed in investment thinking, recognizing the potential of social innovations to meet environmental, social and governance (ESG) outcomes and the SDGs.³¹ Funding models should evolve to be more flexible and long-term, enabling social innovators to measure impact and to scale and partner effectively.

This shift in funding approach is essential if social innovators and entrepreneurs are to thrive, particularly in sectors such as agriculture, where innovations can have significant environmental and poverty-reduction impacts. Public-sector regulation of technologies for regenerative agricultural practices is also crucial. Such collaborative and flexible funding models are key to achieving the SDGs by 2030, especially in areas such as sustainable innovation and investment in the Global South.

Social innovators are overlooked in the drive to achieve the Sustainable Development Goals.

↓ Image credit:
Ujala Cygnus
Healthcare

CASE STUDY 12

Ecosistema Jaguar

Ecosistema Jaguar in Colombia exemplifies social innovation in agriculture. It offers varied services to farmers, promoting regenerative agricultural practices through platforms such as WhatsApp for efficient communication.

However, there is a lack of interest from venture capitalists and private funders in agricultural social innovations, highlighting the need for new thinking to support the growth of social innovation.



Public policies should be dynamic and should cater to social innovations.

Restrictive government policies, e.g. those related to food trade and GM practices

A significant area of concern is the absence of policies in support of social innovation. There are restrictive government policies related to food trade and genetically modified (GM) farming practices (6% of the broader barrier) in Asia–Pacific, with a low enabler score and a moderate solution score. In Latin America, the issue was found to be less pronounced (5% share of the barrier), with a moderate enabler score but a high solution score. Governments must play a bigger role, developing policies that are not restrictive and promote food trade, which will ensure greater agricultural yields and soil fertility.

Governments are therefore encouraged to strengthen public policy that encourages social innovation while also addressing the broader structural issues that necessitate the development of social innovations in the first place.³² As social innovations become more disruptive, especially in a dynamic context in which climate change poses a risk, public policies must themselves adapt accordingly to create favourable policy conditions. Once social innovations prove to be successful and create impact, they should also be able to scale to benefit a wider group of people.

CASE STUDY 13

Latimacto

Latimacto – a network of investors and philanthropists that provides impact capital – plays a significant role in the Latin American social innovation ecosystem. As an enabler, Latimacto disseminates knowledge on innovative finance and impact management and measurement, while brokering connections between stakeholders. Its work mostly involves collaborations with the private sector and development banks but there is a willingness to collaborate with the public sector

to drive further change. Among the barriers, however, are the long periods of instability in the region, shrinking fiscal spending and an erosion of trust. Jointly, these issues are harmful to potential collaboration opportunities. Areas of impact investment have mainly concentrated on technology, education and climate change, where philanthropists are trying to fill the gap. Brazil is one of the countries in the region that is leading the use of innovative finance and impact investment.

Climate adaptation solutions must be urgently prioritized to ensure agricultural yields.

Climate change and pollution affecting crop yields and soil fertility

Climate change and pollution significantly affect crop yields and soil fertility, with Asia–Pacific facing an 18.9% barrier share and Latin America 22%. Asia–Pacific's moderate enabling environment contrasts with a lack of solutions, indicating structural challenges in addressing climate-related issues. In contrast, Latin America's strong enabling environment and moderate solution prevalence suggest a conducive atmosphere for addressing climate change and the impact of pollution on agriculture.

In the Asia–Pacific region, nearly 90% of the population is exposed to unhealthy air, contributing to a high rate of premature deaths³³ and reducing agricultural productivity by 5–20% in important crops such as maize, wheat, rice and soya.

Additionally, atmospheric pollution hinders plant productivity by impeding photosynthesis. The Climate and Clean Air Coalition exemplifies successful collaboration for climate adaptation, with public- and private-sector stakeholders supporting national action plans in around 20 countries in Asia–Pacific.

These initiatives underscore the fact that resolving air pollution and climate change requires collective action from stakeholders to mitigate the effects on vulnerable populations and communities, making the most of strong enabling environments and increasing solutions to combat these pressing environmental challenges.

The public sector requires multidimensional planning, with foresight and commitment.

Socioeconomic crises and poor government planning

Socioeconomic crises and poor government planning have contributed significantly to declining agricultural yield and soil fertility (35% share of barriers in Asia-Pacific, 32% in Latin America). In Asia-Pacific, a strong enabling environment is met by few solutions. In Latin America, solutions are more prevalent in a similarly strong enabling environment. Planning requires significant investment for the variety of public priorities that must be addressed. Policies that cover multiple agendas – such as socioeconomic, environment and climate – will yield larger returns on investments.

The economic growth in rural areas – and resulting increase in consumer spending – has caught the attention of private-sector companies, who see rural areas as destinations for investment.³⁴ However, future policies should be comprehensively designed to cover environmental regulation, sustainable agricultural practices, waste management, infrastructure and eco-tourism. A multipronged approach will combat the socioeconomic crises in both Latin America and Asia-Pacific and will also contribute to meeting SDG targets.

CASE STUDY 14

iFarmer

In the Bangladeshi context, **iFarmer** is a social enterprise that provides a one-stop shop for small-scale farmers otherwise unable to access affordable farming inputs or get their produce to market. iFarmer also partners with insurance companies to provide opt-in insurance packages

for smallholder farmers to insulate them from the effects of climate change disasters. It also works closely with different levels of government and collaborates with microfinance institutions to provide farmers with credit solutions.

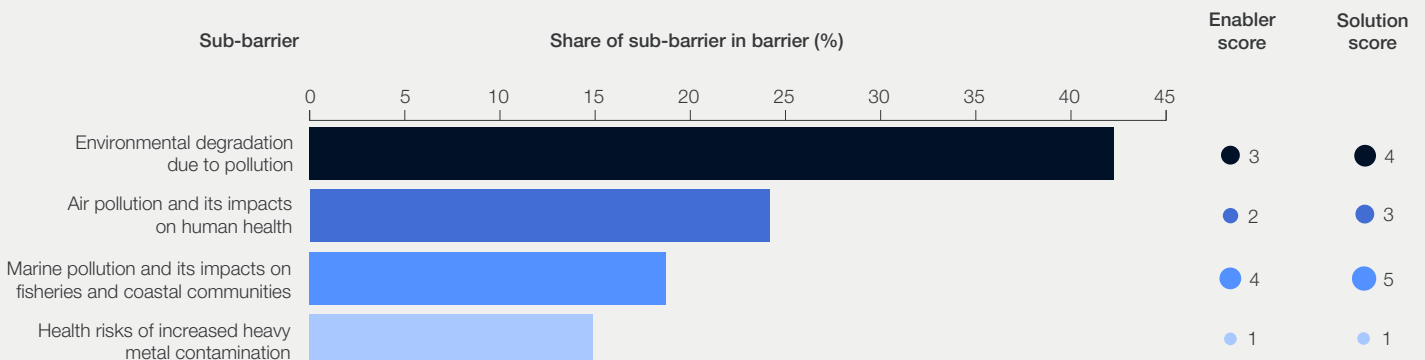
1.5 Increasing pollution and its implications

Pollution, affecting the environment and health, has a disproportionate impact on women (gender score of 0.342 in Asia-Pacific and 0.35 in Latin America) and requires joint efforts from governments and the private sector. Its barrier share is 2.34%, with hotspots in Asia-Pacific (Mongolia, India and China) focusing on environmental protection (23%), waste management (17%) and infection control

(11%). Latin America's hotspots (Peru, Colombia and Bolivia) emphasize environmental protection (43%), regenerative agriculture (18%) and food tech (8%). Achieving the SDGs necessitates balancing environmental health with societal development, highlighting the global impact of local actions. This approach ensures environmental concerns are integrated with the pursuit of improved living standards.

FIGURE 12 Share of sub-barriers in the barrier – increasing pollution and its implications in Latin America

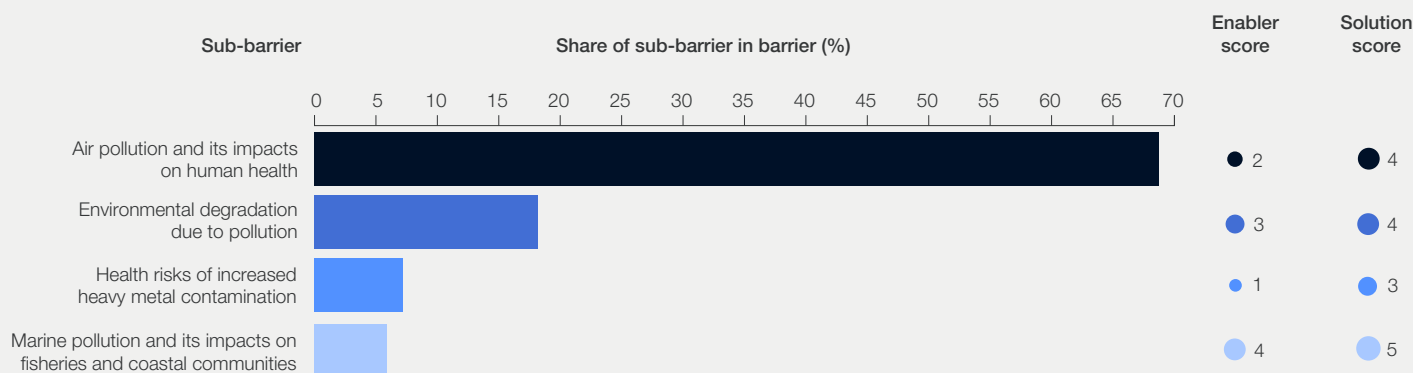
Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

FIGURE 13 | Share of sub-barriers in the barrier – increasing pollution and its implications in Asia–Pacific

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Air pollution and its impacts on human health

The negative health impacts of air pollution are rampant and must be addressed as a public health priority.

Air pollution significantly affects human health in Latin America, holding 24% of the overall barrier share but with a weak enabling environment and low solution prevalence. In Asia–Pacific, the issue is more severe, with air pollution comprising a staggering 68.7% of barriers. Despite a high solution score, the enabling environment remains weak, indicating challenges in implementing effective solutions.

Governments in Asia–Pacific have introduced laws to reduce air pollution, controlling emissions from power stations, factories, vehicles and construction sites.³⁵ More efforts are needed to limit agricultural incineration, methane emissions from manure, fertilizer application and shipping

emissions. Latin American cities are promoting low-emission transport, green public transport and clean electromobility,³⁶ alongside household heating alternatives and potential solar solutions.

Predictive models suggest rising temperatures will heighten pollen counts, posing challenges for public health planning.³⁷ Investment in climate models to predict the impacts of climate change on pollination and particulate matter is vital for developing mitigative and adaptive public health policies. Social innovators and entrepreneurs can play an essential role in addressing these issues, with collaboration crucial for making progress in reducing pollution and its effects on health.

↓ Image credit:
Amazon Sacred
Headwaters Alliance



Environmental degradation due to pollution

Pollutants not only affect the environment but also have a disproportionate impact on marginalized people.

In Latin America, pollution's impact on environmental degradation (42% barrier share) garners more attention than its health effects. Despite a high solution prevalence, the enabling environment is moderately placed. This imbalance suggests efforts to address the environmental impacts of pollution outweigh the available solutions. In Asia-Pacific, the health impact of pollution is more prominent (68.7% barrier share), whereas its contribution to environmental degradation is lower (18% barrier share). Here, a moderate enabling environment contrasts with a high prevalence of solutions, indicating a strong response to environmental degradation despite challenging conditions.

The threat of air pollution to agriculture and food security is particularly alarming in the Asia-Pacific, home to 60% of the world's undernourished people.³⁸ The region's focus on economic growth often conflicts with public health protection, necessitating policies that balance both aspects.

Recommendations to mitigate environmental degradation include fines for agricultural waste incineration, improved livestock waste management, reduced nitrogen fertilizer reliance, clean household energy sources and forest fire prevention. Policies reducing air pollution benefit climate efforts, environmental protection and public health.

Environmental degradation disproportionately affects vulnerable communities, increasing their exposure to hazards and limiting their access to resources. The gender implications are significant: women, often responsible for feeding the household and prevalent in agriculture, are adversely affected by environmental degradation.³⁹ Structural barriers limit their access to financial services and agricultural inputs, while lack of clean energy provision poses health risks. Integrating gender into environmental policy-making and resource distribution, alongside promoting women's environmental stewardship, is crucial for addressing these disparities.

↓ Image credit:
Map Biomas



Health risks of increased heavy metal contamination

Heavy metals present a considerable public health risk.

Heavy metal contamination poses varying health risks within regions, with Asia-Pacific facing a 7% barrier share and Latin America nearly 15%. In both regions, a weak enabling environment contributes to low solution prevalence, indicating inadequate attention to this significant public health issue. In Latin America, lead and mercury are growing public health concerns. Colombia reports high lead exposure in children due to battery recycling

and metal-smelting activities, while Indigenous communities in the Amazon (Brazil and Colombia) face mercury exposure from contaminated fish, a result of extractive mining practices. Potential solutions include biomonitoring, especially in children, and more research to understand the risks and possible protective measures for vulnerable populations.

Marine pollution and its impacts on fisheries and coastal communities

Ocean ecosystems provide a lifeline for the communities that rely on them, and must be protected.

Marine pollution significantly affects fisheries and coastal communities, with varied attention between regions. Latin America shows a high barrier share (18.7%), while Asia-Pacific has a lower focus (6%). This disparity may be due to marine pollution being a more recent topic of discussion in Latin America compared to its longer-standing presence in Asia-Pacific. Both regions demonstrate strong enabling environments and solution prevalence, reflecting awareness and prioritization of ocean and marine ecosystem conservation.

Plastic pollution poses a significant threat to marine environments, with six Association of Southeast Asian Nations (ASEAN) countries collectively generating 31 million tons of plastic waste annually. The Philippines alone contributes 2.7 million tons, largely due to inadequate disposal facilities.⁴⁰ Fisheries face threats from illegal, unreported and unregulated fishing with links to organized crime and human rights abuses. Transparency and awareness initiatives (e.g. tracking fish from ocean to plate along with robust data management) are necessary for sustainable fishing practices. These measures ensure commercial fishing viability while maintaining seafood access for coastal communities.

↓ Image credit:
Shining Hope for
Communities

CASE STUDY 15

Nazava

Nazava, in Asia-Pacific, exemplifies a successful case study, addressing clean water challenges in Indonesia's geographically dispersed archipelago. It provides affordable water filters, benefiting women, children, refugees

and displaced populations. Nazava's partnership with microfinance institutions facilitates water filter accessibility through manageable payments.



1.6 Extreme weather events

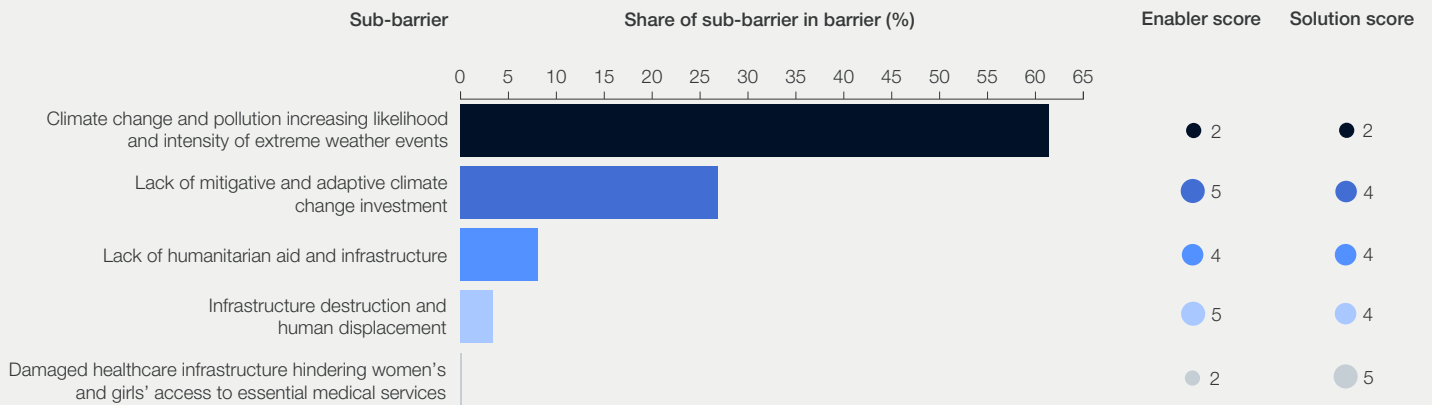
As climate change intensifies, the risk of extreme weather events escalates, yet investments in climate resilience are declining.

Vulnerable populations disproportionately suffer the impacts of such events, highlighting the need for comprehensive, inclusive interventions. Extreme weather events, being geographically and temporally specific, contribute marginally to overall barriers (3.72%). The gender impact varies, with a significant concern in Asia-Pacific (gender score

0.66) compared to Latin America (0.27), indicating that women and girls in Asia-Pacific are more affected. Key areas of impact include Pakistan, Afghanistan, small island developing states in Asia-Pacific and Cuba. Solutions in Latin America focus on humanitarian aid (39%), environmental protection (15%) and export regulations (11%). In Asia-Pacific, humanitarian aid (70%) and environmental protection (75%) are prioritized, along with awareness-building (4%).

FIGURE 14 | Share of sub-barriers in the barrier – extreme weather events in Latin America

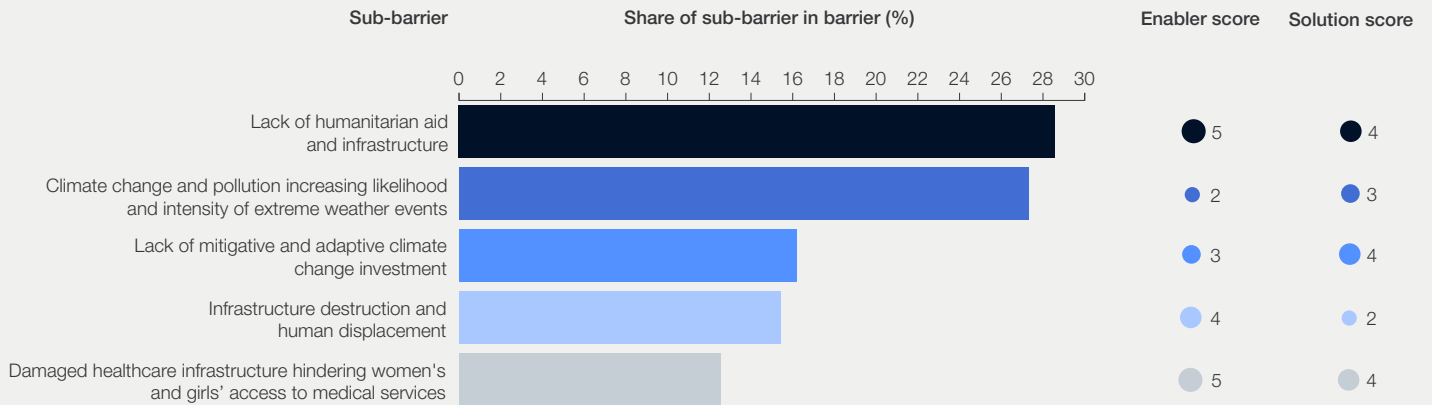
Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

FIGURE 15 | Share of sub-barriers in the barrier – extreme weather events in Asia-Pacific

Share of sub-barriers in the barrier



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Funding for disaster responses and the construction of climate-resilient infrastructure has become a necessity.

Lack of humanitarian aid and infrastructure

In Asia–Pacific, lack of humanitarian aid and infrastructure significantly contributes to the challenges following extreme weather events (28.6% barrier share), but a strong enabling environment and numerous solutions exist. This indicates an ecosystem rich in enabling factors and established solutions provided by social innovators. In Latin America, such challenges form a smaller part (8%) of the overall issue, yet similar strong enabling environments and solution prevalence suggest effective mobilization of humanitarian aid and infrastructure.

A declining trend in humanitarian aid for extreme weather events is observed due to shifting donor priorities and emerging conflicts. The United Nations Development Programme's Climate Promise highlights a substantial funding gap in the Global South for climate action, with a need for

\$160–\$340 billion annually but only \$50 billion being provided.⁴¹ Funding application processes pose barriers, often dictated by top-down approaches. This has led to an emphasis on bottom-up or locally led adaptation, enhancing community ownership and resilience. Indigenous communities, through intergenerational knowledge sharing and environmental stewardship, are critical in climate adaptation efforts. Collaboration among scientists, policy-makers and Indigenous communities can yield mutually beneficial solutions.

Infrastructure projects must integrate climate resilience, using environmentally friendly materials and innovative designs. Additionally, boosting mental health services and addressing vector-borne diseases prevalent in natural disasters are crucial for comprehensive health management.

Climate change and pollution increasing likelihood and intensity of extreme weather events

The increasing frequency and intensity of weather events warrants urgent attention.

Climate change and pollution increasing the likelihood and intensity of extreme weather events contributed towards a large share of the barrier in Latin America with a score of 61% and low enabler and solution scores. In Asia–Pacific, this sub-barrier contributed towards 27% of the share of the barrier, with a low enabler score but a moderate solution score and a high gender score of 0.66. Women in Asia–Pacific are disproportionately affected by extreme weather events and thus gender-focused social innovations are required.

A large proportion of Latin American and Caribbean populations are vulnerable to the risks of climate change and extreme weather events due to rural–urban migration. In addition, many people throughout the region live in informal settlements that are particularly susceptible to disasters.

Asia–Pacific has a multitude of geographies and ecosystems and therefore faces a wide range of extreme weather events. The International Disaster Database reports that an average person living in the Asia–Pacific region is six times more likely to be affected by disaster than a person living in any other region.⁴² To address this reality, an Asia–Pacific Regional Riskscape has been developed to determine the level of disaster risk, whether disasters will be intensive and the pace of onset.⁴³ To mitigate and adapt for climate change-related weather events, efforts to ensure food security in the region are needed. Renewable energy sources must be further explored and, if successful, should be scaled to decrease the reliance on unsustainable and non-renewable fossil fuels.

↓ Image credit:
Haqdarshak



The variety of innovative finance tools can be applied to investments for climate change resilience and adaptation.

Lack of mitigative and adaptive climate change investment

In Asia–Pacific, lack of climate change adaptation investments is a significant barrier (16% share), with a moderate enabling environment and numerous solutions. This indicates regulatory and policy gaps but a growing presence of social innovations and solutions, emphasizing its priority in the region. In Latin America, the issue is more critical (27% barrier share), with both the enabling environment and solutions strongly present. This highlights the urgent need for climate change investment and funding mobilization.

Investment in climate change challenges is insufficient, with a widening funding gap. Latin America, vulnerable to climate impacts, struggles to attract investment. The Brookings Institution suggests a shift from infrastructure investment to social protection and a just economic transition, structuring returns to include financial and climate benefits.⁴⁴ Involving multiple stakeholders can reduce investment risks. The Asian Development Bank's Asia–Pacific Climate Finance Fund mobilizes

capital for climate resilience, supported by various donors.⁴⁵ Tax reforms in the region and support from multinational development banks lower capital costs for climate change mitigation investments.

Debt-relief mechanisms offer benefits for developing countries, allowing loan obligations to be written off in favour of development. Incentives for private investors, such as preferential tax treatments and strong legislative frameworks, are exemplified by Costa Rica's Green Transport Law promoting electromobility, while green taxes price environmental externalities and thereby integrate factors such as emissions into a company's economic decisions. Integrating ESG measures into impact measurement and financial reporting is crucial. The market for such investments is expanding, and partnerships among governments, development banks and the private sector are vital to make the most of expertise and promote financial innovation in climate resilience.

The scale of economic and human losses arising from displacement necessitates a proactive response from all stakeholders.

Infrastructure destruction and human displacement

Extreme weather events contribute to large economic losses due to the destruction of infrastructure and loss of life. The Asia–Pacific region estimated economic losses of \$780 billion in 2021, or 2.5% of the region's gross domestic product (GDP).⁴⁶ The region also reported the largest proportion of people displaced following a disaster or extreme event. Displacement means that people lose land and are deprived of their ability to earn an income and contribute to the economy.

As the frequency and intensity of extreme weather events increases, the current approach of relying on emergency funding is unsustainable.⁴⁷ A shift to

disaster-related displacement prevention is needed. Vulnerable people and low-income earners bear a greater burden because they are more likely to live in areas prone to disasters. Children, elderly people, women, members of the LGBTQIA communities and people with disabilities do not receive equitable interventions when climate events take place and therefore experience losses on a much wider scale. This is evident in Indonesia, where recurrent floods mean that people are repeatedly displaced. Displacement is inadequately documented, and policy-makers are therefore unable to access accurate data for planning.

CASE STUDY 16

Friendship

Friendship, a social enterprise, assists displaced people in Bangladesh. Friendship's climate-compatible infrastructure serves multiple purposes – as schools, clinics and shelters for displaced people. The organization has also partnered with

local communities to advocate to government for the needs of communities, e.g. infrastructure for schools and bridges, which will improve the lives of community members.

CASE STUDY 17

CIEDS

CIEDS, a Brazilian social innovation organization, assists youths who have been displaced from the areas surrounding the Amazon Forest. CIEDS works closely with all levels of government stakeholders to ensure there is a bottom-up approach to making an impact in the communities in which

they work. Although the country has plenty of policies related to sustainability, the gap to implementation at the local level is a large one to fill as people are unaware of the policies. This serves as a barrier to social innovation in the country.



↑ Image credit:
Esoko

Women's healthcare is usually low on the rank of priorities during disasters, and this needs to change.

Damaged healthcare infrastructure hindering women's and girls' access to essential medical services

Damaged healthcare infrastructure that hinders how and whether women and girls access essential medical services is currently not part of the public discourse in the Asia-Pacific region. This indicates that the issue's disproportionate effects on women's healthcare during or after extreme weather events is ill-addressed at the moment. Similarly, in Latin America, there was a negligible score of 0.2% for the share of the barrier.

The issue is significant, however. A United Nations Population Fund report found that extreme weather events made it more difficult for women and girls to access sexual and reproductive health services.⁴⁸ This results in poor health outcomes such as increased risk of developing maternal complications. During climate-related events and humanitarian emergencies, women and girls are at

an increased risk of gender-based violence, rape, human trafficking, forced and child marriages, sexual harassment and abuse, as well as unintended pregnancies.

The effects of climate change, such as persistent droughts, also mean that women must travel greater distances to collect water and food, which also often places them at risk and means they must forego wages. Climate policy-makers and stakeholders must mandate the provision of sexual and reproductive health services for women and girls during climate-related events to make it a higher priority when events occur.⁴⁹ More investment is required to provide a package of services that addresses the needs of women and girls in humanitarian situations.

CASE STUDY 18

DoctHERs

DoctHERs, a Pakistani social innovation, works with female healthcare providers to ensure that patients have access to healthcare. The care continuum covers primary care, managed care, pre- and post-hospitalization and mental

health and well-being. DoctHERs makes use of a hybrid model that incorporates telemedicine and in-person care. The team also ensures patient engagement and compliance with treatment while keeping healthcare costs low for patients.

2

Practical pathways forward

Collaboration is needed among those working in health, agriculture and social development to ensure a cohesive response in the face of climate change.

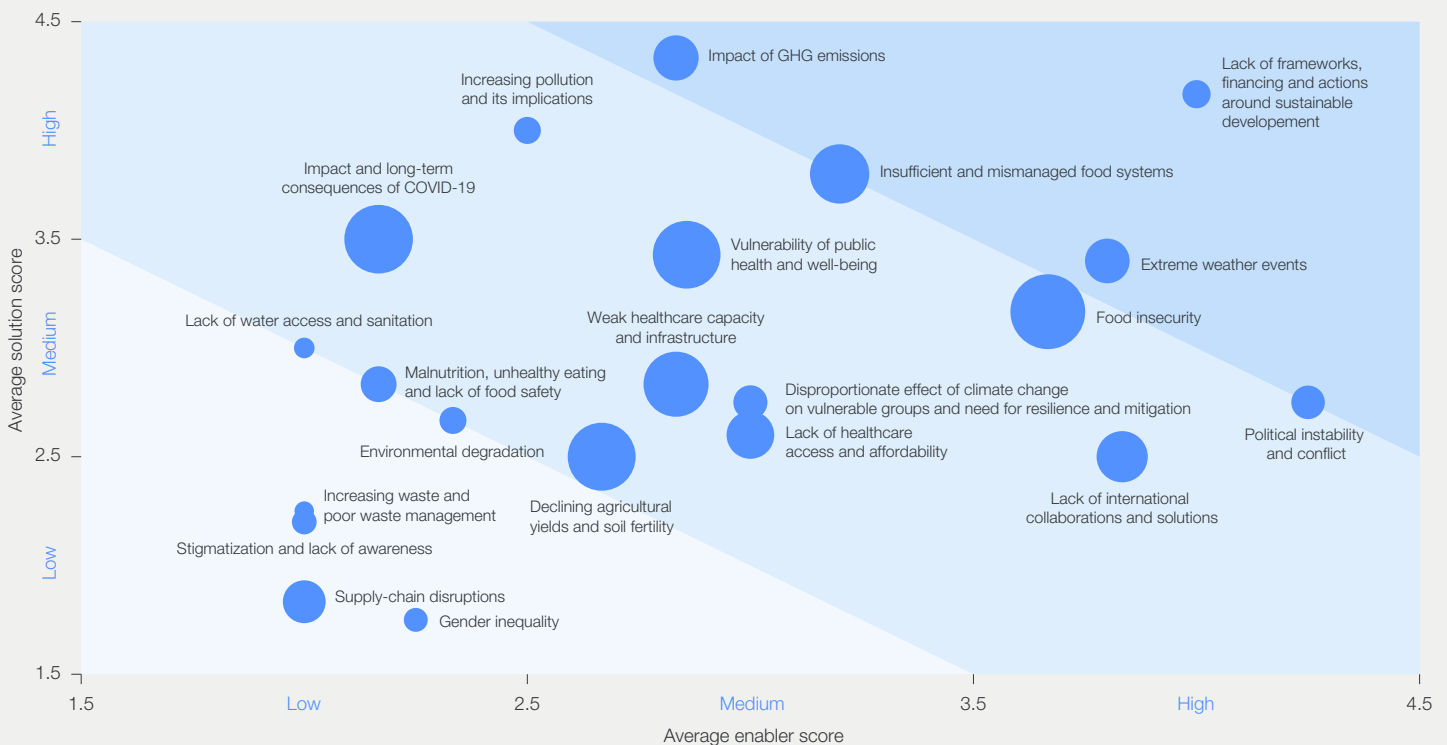
The pace of climate change and its effects far outstrip the ability of governments to adapt and implement policies and protective measures. Further action is required to promote the necessary collaboration between sectors.

When examining the barriers, solutions, enabling environments and insights, there are several key areas where it is possible for stakeholders to play an important role in accelerating the impact of

social entrepreneurs. Conversely, stakeholders – including private-sector actors, corporate entities, investors and philanthropists – can rely on social entrepreneurs to scale and embed their solutions to address systemic barriers.

In Asia-Pacific, solutions focused on the impact of GHG emissions, lack of frameworks for finance and action on sustainable development are potential areas where the greatest impact can be realized.

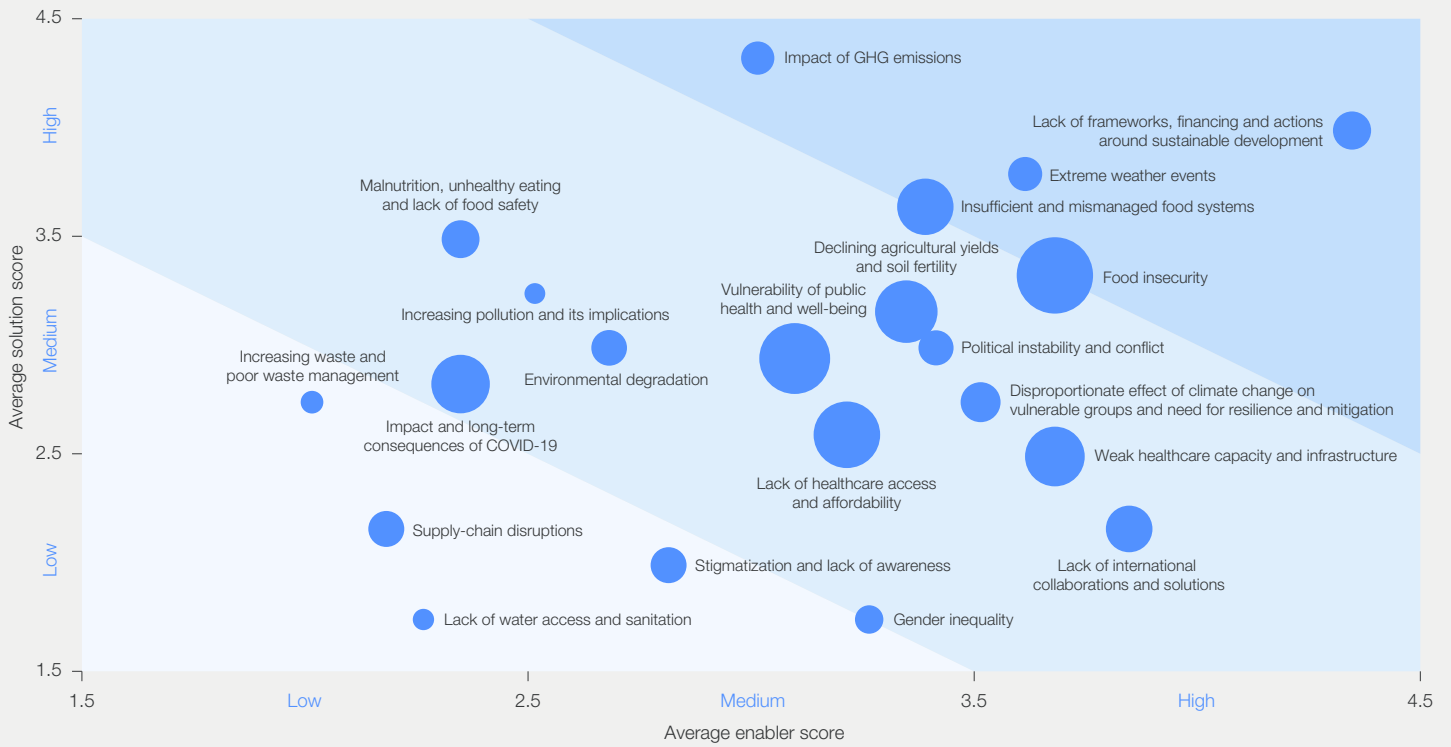
FIGURE 16 Gap analysis in Asia-Pacific



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Note: The size of the bubbles represents the share of voice.

FIGURE 17 | Gap analysis in Latin America



Source: Healthy Planet, Healthy People interactive dashboard, [available here](#)

Note: The size of the bubbles represents the share of voice.

Innovative finance and impact investing are tools that can be used to achieve the “quick wins”. This entails commitments by investors, funders, philanthropies and foundations, whose investments will have the greatest potential in these areas. Outcomes-based contracting and pay-for-results mechanisms could be employed to deliver on these priorities. Systemic barriers require patient capital

investments coupled with a systemic change to achieve impact. In addition to regulation to create a conducive environment for social innovation, blended finance arrangements are another tool that can be used to address investment needs. This can involve concessionary or first-loss finance from governments, coupled with investment from the private sector.

Conclusion

Successful innovation in climate and health requires coordinated efforts and steps to address social inequities in the regions.

In the face of climate change and regional challenges, it is crucial to enhance social innovation ecosystems for healthcare and food systems in Latin America and Asia-Pacific. Technology and radical collaboration can drive progress. However, the local social innovation and entrepreneurship ecosystems need substantial support to become more robust and impactful. The data compiled in this report provides insights for decision-making and collaboration across stakeholder groups. But it specifically calls on the public sector and impact investors to collaborate for improved health outcomes.

For investors, food insecurity in Asia-Pacific is a major barrier (17.88% share), with a high gender score (0.42), indicating a disproportionate impact on women and girls. Despite significant needs, there are relatively few solutions. Investors may focus on innovative agricultural technologies, climate-resilient crops and food supply-chain optimization to address this gap. In Latin America, food inflation affects staple prices significantly (25% share),

yet there is a moderate enabling environment for solutions. This opens up investment opportunities in agritech to cost-effectively scale outputs or climate adaptation measures to stabilize crop yields.

Similarly, **the public sector** may leverage the data to focus its attention on enhancing agricultural policies to support local farmers, subsidize inputs and promote sustainable practices – especially in Latin America. In Asia-Pacific, policies may encourage public-private cooperation in food security and trade mechanisms to stabilize food supplies.

Both investors and the public sector have critical roles to play in addressing the pressing challenges in Latin America and Asia-Pacific. By focusing on high-barrier, low-solution areas with strong enabling environments, they can drive significant social impact. But, above all, there is a need for increased collaboration across the stakeholder spectrums. Table 1 outlines some of these collaboration opportunities.

TABLE 1 Collaboration opportunities across stakeholder groups

Stakeholder	Investors	Public sector
Individual action	Intensify investments in organizations addressing food insecurity, healthcare and sustainable agriculture.	Create supportive policies and invest in essential infrastructure. Provide innovative funding such as outcome funding to enable innovative business models.
Collaboration with investors	Collaborate to provide streamlined funding mechanisms (co-financing, blended finance, outcome-based finance) at all venture stages to scale impactful social innovations.	Engage with impact investors to tailor supportive policies and enable local funders to crowd-in commercial capital.
Collaboration with the public sector	Advocate for, inform and support policy changes that enable social innovation. Share insights into innovative healthcare delivery models.	Partner on regional initiatives that address systemic barriers. Take lessons learned and apply them in other contexts.
Collaboration with the private sector	Engage with corporate partners to provide portfolio companies with access to business-to-business (B2B) clients and partnership opportunities. Work with companies to ensure demand signals for social innovation solutions.	Provide long-term guidance and legislative stability to encourage private-sector investments in healthcare.

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