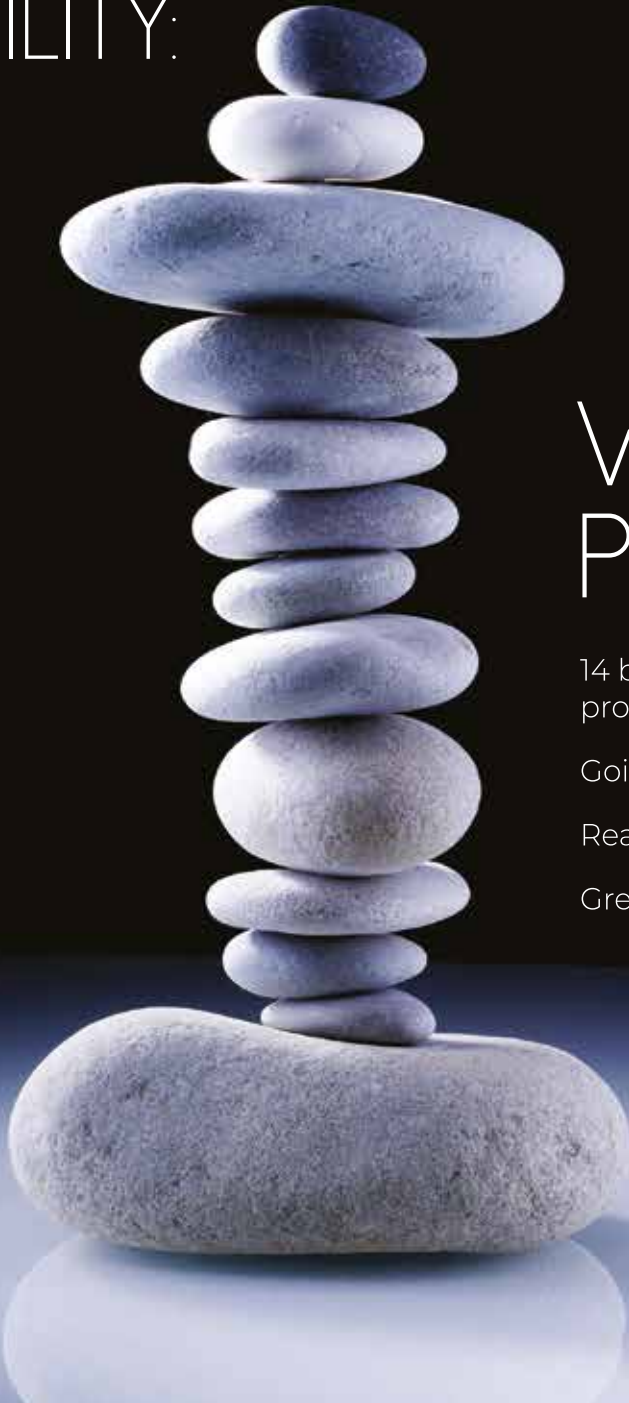


# INFOCUS

ECONOMIC  
STABILITY:



WORK IN  
PROGRESS

14 biggest environmental  
problems of 2023

Going circular good for business

Reactivate industries through tourism

Green insights for Islamic finance

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## About *IN FOCUS*

*IN FOCUS* is a complimentary bi-annual publication by WIEF Foundation. Its inaugural issue was published in November 2017 and it is an extension of the Foundation's online bank of articles that is constantly growing to cater to the reading pleasure of the global business community. Do drop us a line if you'd like to contribute articles or tell us what economic and business-related matters you think we should report on.

### *IN FOCUS* online

Website: [infocus.wief.org](http://infocus.wief.org)

Email: [infocus@wief.org](mailto:infocus@wief.org)

Digital version: [infocus.wief.org/digital-version](http://infocus.wief.org/digital-version)

### *IN FOCUS* editorial

Editor: Su Aziz

[su@wief.org](mailto:su@wief.org)

### Designer

Amphibia Digital Sdn Bhd

### Publisher

WIEF Foundation

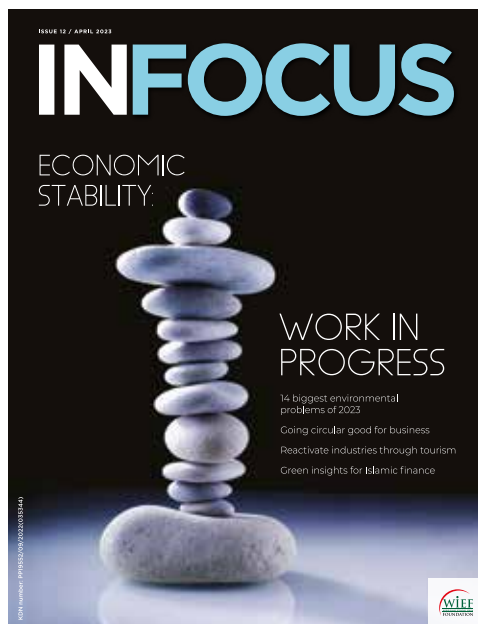
157 Hampshire Office Place, 1 Jalan Mayang Sari,  
50450 Kuala Lumpur, Malaysia.

Tel: +603 2163 5500

### On the cover of issue 11

*Economic Stability: Work in Progress*

Photo by Netfalls from Envato



It is with pleasure that I present to you the twelfth issue of WIEF Foundation's in-house magazine. Publishing this magazine turns out to be a great way to share our passion for all economy-related topics with others. It also becomes a good way to build a brand and reach new audiences, while providing a valuable resource to readers.

*In Focus* covers mainly regional and international economic issues. This is in tune with WIEF and the Foundation's philosophy of developing, as well as retaining, a global mindset. Now, it is important that we have access to sound and reliable information to stay ahead of the curve. It is a publication devoted to providing insightful feature articles on the latest economic trends and developments. It brings together experts from across the entire spectrum of the economy, offering perspectives from respected economists, business leaders and innovators.

The magazine is a beneficial resource for our readers. It will provide insight and knowledge necessary to make educated decisions that shape a business or a life, and its success. With each issue, we do our best to provide as well as record valuable information from respected sources, as well as business advice from expert contributors from all over the world and current issues, specifically business ones.

*In Focus* also offers glimpses into the success of entrepreneurs and is a platform for sharing their journey towards outstanding accomplishments, from which readers may gain valuable insights into what skills are required to persevere and thrive.

It is my hope that *In Focus* will become a valuable tool for those seeking to stay informed about the world economy. I am confident that knowledge and information shared in this publication will benefit our readers immensely as they pursue their business, as well as life, goals. ■

***Tan Sri Dato' Seri Dr Syed Hamid Albar***  
Chairman

# Stabilising the Economy is a Work in **PROGRESS**

**Right now,** everything in the world feels like a work in progress. It's like we are all waking up from a long, deep slumber and finding that things aren't quite the same. The term *work in progress* allows a solution to marinate for an unspecified period of time before it is ready to be seen or used. It's a useful way to track the progress of growth, but it erases urgency. Sometimes, it's good to let things steep. Time has shown us that many exceptional and sustainable results were the culmination of patience and deep consideration. I suppose, it is as they say, nothing good comes easy and if it does, be wary of short-lived success.

Stabilising the economy is an ongoing process requiring continued effort from both public and private sectors. There is no one-time solution either. It is truly a work in progress that needs careful monitoring and adjustment as the economic landscape

perpetually changes. There are, of course, a number of strategies that can work when it comes to stabilising the economy. They include fiscal and monetary policies, such as taxation, government spending, interest rates and currency exchange.

A big part of the strategy includes a change of mindset and principles to more sustainable and innovative ones. In tune with that, this issue of *In Focus* highlights benefits of circular economy for businesses and the long-term environmental solution of regenerative agriculture. Also, some thought has been given to the industries linked to tourism and their reactivation. All of this are tools that will heighten a collective effort of a government, businesses as well as the populace of a country to revive their economy and ensure its resilience.

Other topics that are current and tie nicely with this issue's theme

covers Islamic finance, ethics in the investment management industry, a look at the biggest environmental problems we're currently combating and Pakistan's strong commitment to its sustainable development agenda. There might be a lesson or two from the latter, since the 2030 deadline is looming and according to reports, we're not exactly on track to achieve about half of the sustainable development goals.

Interestingly, this issue started around the time ChatGPT's popularity gained traction and, needless to say, a lot of curiosity. It made planning for this issue a fun one. To test out all that was said about the chatbot, we asked it for drafts on a couple of topics. The experience was akin to training, editing and re-shaping an intern's draft – not bad but lacks substance that comes from experience and in-depth research. The experiment was to prove that we as writers, are not yet redundant. Yes, we can hear the discreet collective sigh of relief.

This is the year of hope and optimism. We're moving out from under the pandemic cloud and back into the sunshine. The question here is, what drives positive change? We may have some answers to that within these articles. So, keep turning the pages for an interesting read. ■

**Su Aziz**



## Driving Circular Economy:

## CHALLENGES



The fact now is, decreasing reliance on new materials can create a more resilient economy that's less vulnerable to inflation, recession and supply disruptions. Circular economy helps achieve all that plus reduce environmental degradation. All the more reason to go circular. Several key industries are the current drivers of this economic system such as automotive, food, electronics, textile as well as building and construction.

These industries are turning to circular economy solutions to reduce waste, extend the life of their products and increase efficiency. Part of their efforts include using not only recycled but recycled-content materials, using renewable energy, upcycling and thus, reducing the use of new material.

However, challenges the circular economy still face, include the lack of:

### 1. Education and awareness:

It requires a shift in mindset and behaviour by individuals, businesses and governments. To make this happen, there needs to be a greater understanding of the concept and benefits of the circular economy among consumers, businesses and policy makers.

### 2. Infrastructure:

To shift to a circular economy from the current linear economy, there needs to be an infrastructure in place that supports the collection, reuse, repair and recycling of products and materials.

### 3. Financing:

Adopting another system will always require funding to invest in new technologies, processes and infrastructure that can enable the shift. This requires a different way of how businesses and governments finance projects as well as initiatives to accommodate the shift.

### 4. Regulations:

Achieving a successful transition to a circular economy will require the development of regulations that promotes as well as incentivise the concept of reuse, repair and recycle.

### 5. Collaboration:

Businesses, governments and all involved need to create a shared vision and develop necessary regulatory and infrastructure frameworks.

*Source: Various media*



# ISLAMIC FINANCE, GOING GREEN



'Islamic finance shares similar underlying principles as that of sustainable finance, such as financial stability and economic growth, poverty alleviation and wealth distribution, financial and social inclusion as well as environmental preservation,' said Tan Sri Dato' Seri Ranjit Ajit Singh, former chairman of Securities Commission Malaysia. 'This has therefore allowed for Islamic finance to capitalise on these similarities to become a natural vehicle to propagate the elements of green finance.'

The natural fit between Islamic finance and green finance, in light of its fundamental principles of risk sharing and sustainability, which could prove critical in financing investments to address climate change, often involving innovative activities and technologies. Islamic finance has witnessed rapid growth and today, the total shariah-compliant asset is estimated around USD2 trillion. This offers tremendous potential in supporting the climate change agenda. Green economic development cuts across a myriad of economic sectors such as transportation and energy waste.

A clear message was that the greener the economy, the better the climate change phenomenon is being managed. This entails pursuing balanced economic development programmes which coincides well with the core principles of Islamic finance that builds upon the concept of *maqasid al-shariah* or Islamic legal doctrine.

Innovations in term of structures is important to increase the amount of funding for

environmentally beneficial projects. The United Nations Commission on Trade and Development has estimated that USD5 trillion to USD7 trillion in annual investments will be needed until 2030 to fund the 17 SDGs in developing countries. There must be a multi-pronged long-term approach to combating climate change and Islamic finance can significantly contribute by providing various financing solutions and tapping on a wider investor base. Islamic green finance requires a robust ecosystem to grow faster.

The green bond market has grown exponentially over the last few years and Islamic finance has the opportunity to leverage this global trend. There is a misconception that green bonds are more complex and costly to issue, and this needs to be corrected. The green bond market is an example of how the conventional capital market has shifted its focus in factoring climate concerns into finance and investments.

The Islamic capital market segment follows suit with the issuance of the green sukuk and more recently with the sovereign green sukuk. There is a good number of case studies available on how sukuk has been used to support certified green projects. They highlight key aspects like facilitating factors, challenges faced and solutions provided as well as the experiences in using sukuk.

*Source: Islamic Green Finance, 2019, joint publication of Securities Commission Malaysia and World Bank Group*

## Lessons Learned from an Economic Crisis



COVID-19 pandemic has taught us a number of economic lessons. First, it has highlighted the importance of fiscal and monetary policy in managing the economic impact of a crisis. Governments around the world have implemented various fiscal measures to help businesses and individuals weather the economic storm. Central banks have also taken unprecedented action, such as reducing interest rates and providing liquidity to markets.

Second, it has emphasised the importance of global coordination. The pandemic has shown that global economic stability and growth are linked, and that countries must cooperate and coordinate in order to effectively respond to a crisis. There needs to be greater international collaboration on the development of effective public health policies and strategies, as well as economic stimulus measures.

Third, the importance of investing in public health. The pandemic caused immense economic damage, but it could have been far worse if governments had not invested in public health infrastructure and systems. This showed the importance of investing in public health systems in order to protect both lives and livelihoods.

Fourth, it highlighted the need for economic diversification. Many countries that were heavily reliant on certain industries or sectors have been hit particularly hard by the pandemic. This emphasised the need for countries to diversify their economies to reduce vulnerability to shocks.

Fifth, there is a need for greater economic inclusion. The most vulnerable and marginalised in society are often hardest hit by economic shocks. Ensuring that everyone has access to basic services and opportunities to participate in the economy is essential for economic stability and growth. This means measures to increase access to financial services, reduce inequality, and enhance economic opportunities for people in vulnerable situations.

Finally, the need for better data. Accurate and timely data is essential for policymakers to make informed decisions. It is essential for understanding the economic impact of a crisis and for informing policies that can help mitigate its impacts. Improved data collection, analysis and dissemination are fundamental.

*Source: Various media*



## Rebound and Recede: Inflation and Shortages

Inflation and shortages are two of the most common economic challenges that countries face. These challenges have a significant impact on the standard of living of the population. When inflation becomes too high it leads to economic difficulties for people. It leads to a decline in their purchasing power because they have to spend more money to buy the same goods and services. What's more, inflation leads to higher interest rates that reduces investments, slows economic growth and breed uncertainty about what their future purchasing power will be.

Shortages refer to a situation in which the demand for goods and services exceeds the supply. This leads to higher prices, reduced access to goods and services, and increased competition for available resources. Common causes of shortages include increased demand, limited supply and disruptions to supply chain. Sometimes, it can be caused by government policies, such as trade restrictions.

Measures that can be taken to alleviate the impact of inflation and shortages include raising interest rates to reduce the demand for goods and services, or increase

government spending to stimulate the economy. Another way is to increase the supply of goods and services by promoting investment in new businesses, increasing productivity and improving supply chain. Governments can reduce trade restrictions and promote free trade to help increase the supply of goods and services.

Also, governments can implement price controls to reduce prices of goods and services. Thus, making them affordable for the people. But price controls can have unintended consequences like reducing incentives for businesses to produce, which can lead to further shortages and inflation.

One of the most successful examples is China and their policies to keep inflation under control and maintain a high level of economic growth include keeping interest rates low, limiting credit expansion and encouraging savings. They invested heavily in infrastructure projects to keep the economy growing and create more jobs. India, and Brazil too, used a mix of fiscal and monetary policies, like reducing fiscal deficit and increasing government spending on infrastructure projects.

Source: Various media ■

Factors that drive positive change and create an environment conducive to economic growth and development:

1. Availability of capital:

Capital is the lifeblood of any economy. Its availability is essential for growth of businesses and creation of new jobs. It can come in the form of investments and a surplus of capital can help businesses expand, innovate and increase employment. It attracts foreign investment, which increases economic growth through new ideas and technologies.

2. Development of human capital:

This translates to knowledge, skills and abilities. A well-educated and highly skilled labour force is essential for economic growth, as it allows businesses to compete in the global market and increase productivity. Governments should invest in education and training programs.

# What Drives Positive Change?

*Positive economic change is not only driven by a sense of purpose. It's also driven by innovation, collaboration and collective effort. It requires challenging the status quo and taking risks. **Su Aziz** takes a closer look at what traits bring on economic opportunities and growth.*

3. Infrastructure:

Physical and social structures that support economic activity as well as reach new markets, such as transportation systems including roads and airports, water systems and telecommunication networks.

4. Consistent legal and regulatory framework:

This gives businesses confidence to invest and grow and provides a level playing field for businesses to compete. Governments should regulate clear regulations and enforcing them consistently.



### 5. Innovation and technology:

They are key tools that increase productivity and economic growth. Government should invest in research and development, and provide tax incentives for companies that invest in new technologies.

### 6. Stable financial system:

That also functions well gives businesses access to capital and credit. Regulations that protect the rights of investors and borrowers are important for stable business environment.



Other key drivers that have a significant impact on the economy:

#### ***Entrepreneurship and Innovation***

Entrepreneurs bring new ideas and innovations, which increase productivity and stimulate economic growth. They help create new businesses, which in turn create a healthy competition that increase innovation.

#### ***Education and Skills***

A well-educated workforce is more productive, innovative and adaptable to changing economic conditions. New skills and technology lead to new industries and job opportunities. A strong education system will result in a competitive workforce.

#### ***Competition***

A competitive environment promotes innovation and drives businesses to improve their products or services. Competition leads to lower prices, better quality goods and increased productivity. A healthy competitive market ensures a dynamic economy.

#### ***Free Trade***

Free trade allows countries to specialise in producing goods and services that are efficient and productive. Globalisation of trade opens up new opportunities for businesses and entrepreneurs, widening their market reach.

#### ***Consumer Spending***

The more consumers spend, the bigger demand gets for goods and services. A strong consumer market ensures longevity of businesses, their grow and ability to thrive even in challenging times. ■



# Economic Solutions from Technology

*Technology has greatly impacted the economy, in a good way, and provided various solutions to economic challenges.*

*Su Aziz writes.*

**T**here's no escaping technology, today. It's an integral part of our lives, from communication to transportation, it revolutionised how we interact and co-exist with each other. Its most significant impact on the economy is very possible providing innovative solutions to various economic problems. Through its ability to facilitate international trade is one of the ways technology has improved the economy.

Another way is providing businesses with more efficient means of communication. There's no denying just how the internet has made it so convenient for businesses to connect with customers and suppliers from all over the world. Therefore, businesses have widened their reach, increase customer base and profits.

In the financial industry, technology's positive effects include electronic banking, which makes it easier for individuals and businesses to access their money, make payments and transfer funds. What this did was help reduce cost of traditional banking services and enabled people to make more efficient use of their money. Most of all, it has been especially beneficial to marginalised and underserved communities. By providing access to banking, loans and other financial services, technology has encouraged inclusivity and level the playing field.

Automation has made it possible for companies to reduce their workforce and increase productivity. This resulted in



higher wages and better job security for employees. What's more, technologies such as AI and machine learning are creating new job opportunities by allowing people to specialise in areas they may not have considered before.

### *A Whole New World*

One of the most important economic problems technology helped solve is the problem of information asymmetry. This occurs when one party has access to more information than the other. Technology has enabled more efficient market information, allowing buyers and sellers to equally make informed decisions. It has also improved the ability of businesses to measure and manage risk.

Technology is an enabler for the development of new products and services that seemed impossible before. With the advent of these convenient innovations, greater economic growth became inevitable. An obvious example would be the internet and how it opened up a new world of possibilities for entrepreneurs, enabling them to launch businesses with minimal overhead cost, creating new markets and thus, generating additional revenue.

The positive impact technology has on the global economy extends to facilitating international trade, providing new job

## ECONOMY

opportunities, enabling businesses and individuals to increase their economic opportunities. What this ensures is that the global economy will continue to grow and thrive.

Technology has often been credited and looked upon as a key factor in driving economic solutions. Rightly so. It has enabled new ways for businesses to be more efficient, streamline processes and create new markets almost effortlessly. Digital technology has allowed businesses to automate manual processes. Thus, reducing cost and increasing output, which is every business's dream. Through data and algorithm, businesses can better understand the needs of their customers and develop products to meet those needs, as well as forecast what the market wants in the future. This reduces their exposure to risk.

By leveraging technology, remote work during COVID-19 pandemic kept productivity high. Today, through this trend, businesses are able to tap into a global pool of talent and reduce cost associated with office space and commuting. This is, of course, good for the environment. Also, businesses and governments are able to create more efficient and effective economic solutions. In turn, these solutions help reduce cost, improve customer experience and provide access to financial services to all, equally.



## Ways Technology is Used to Create Economic Solutions:

1. **Automating processes:** It automates mundane tasks such as processing orders, filing paperwork and managing data. This reduces cost and increase efficiency.
2. **Streamlining operations:** It streamlines operations, such as apps that are used to manage customer relationships or supply chain operations.
3. **Improving customer experience:** It improves customer experience through AI chatbots that can answer customer questions or provide personalised recommendations.
4. **Enhancing data analysis:** It analyses large amounts of data quickly and accurately, helping organisations make better decisions.
5. **Improving access to finance:** It provides access to financial services to underserved communities through mobile applications that provide access to loans or financial advice.
6. **Enhancing supply chain management:** It improves supply chain management by creating software apps to monitor product shipments or manage inventory levels.
7. **Improving financial literacy:** It improves financial literacy by creating online courses that provide basic financial education.



## How to Use Technology for Economic Solutions:

1. Use digital platforms to encourage the sharing economy. For example, websites and apps that enable people to list and rent out their goods and services to others, you can create an efficient marketplace to help spur economic growth.
2. Leverage big data analytics to gain insights into consumer behaviour and market trends. Companies can use data-driven solutions to better understand customers and markets they operate in and make informed decisions for growth.
3. Invest in automated solutions to increase productivity and reduce cost. Automation technology help businesses streamline tasks and processes to save time and money. This is efficient and cost-effective.
4. Implement cloud solutions to reduce IT cost. Cloud computing solutions allow businesses to store and access data from any location, eliminating the need for expensive onsite IT infrastructure. Businesses save money and free up resources for other areas.
5. Use mobile technology to increase access to services. Through mobile apps, businesses provide customers with access to their services wherever they may be.

## Latest Technologies that Significantly Impact the Economy

**Blockchain:** It's a distributed ledger system that records and stores digital data in a secure, verifiable and immutable manner. It can reduce the cost of transactions, increase the accuracy of data and provide greater transparency as well as trust in the overall economy. It enables faster and more secure payments. Thus, reducing risks associated with fraud. It allows for more secure and efficient supply chain tracking.

**Internet of Things (IoT):** It lets devices and machines to communicate with each other, creating a network of connected devices that can share data. This data can be used to improve business processes, create new products and services and automate tasks. IoT helps create new ways of doing business and making it easier for companies to access data and make decisions.

**AI:** A form of computer programming that allows machines to imitate human intelligence. It is able to analyse large amounts of data and identify patterns, that lets businesses improve efficiency. It can automate certain processes, eliminating the need for manual labour and reducing cost. ■

A circular skylight in a stone dome, viewed from below. The skylight is octagonal with a decorative border and is set within a larger circular opening in the dome. The stone is grey and textured. The sky is visible through the skylight, showing a blue sky with light clouds.

# Going Around in Circles: Good for Business

*As awareness for more sustainable practices increases, businesses minimise their environmental impact by designing products with the intention of long-term use, thus, maximising their value.*

**Su Aziz** *finds out just how going circular may benefit them in return.*



Time and time again, businesses have been told of the numerous benefits of going circular. So, let's take a closer look at them: reduction of raw materials used, less energy consumption and lower production costs. Through these savings, circular economy practices help businesses raise their bottom line. What's more, designing products for durability and long-term use, can increase revenue. Also, utilising renewable materials reduces dependency on finite resources.

By embracing circular economy practices, businesses demonstrate to customers their proactive approach to sustainability. This action, will likely increase customer loyalty. The end results of adopting circular economy principles for businesses would include moving towards sustainability, gaining a competitive edge, as well as a firmer foothold in the market.

Now, those points are enough to make many businesses jump onto the circular economy bandwagon. Thus, making normal the now-popular concept of how resources should be reused, recycled and repurposed. This formula is supposed to ensure sustainable economic growth.

Before reaping the benefits, there are adjustments to be made for businesses to go circular and they include breaking old habits and changing how things were done.

Also, there is cost, which can vary depending on the type of business, its size and complexity of its operation. To put simply, businesses will need to invest in new technologies and processes that include waste reduction or material reuse. There's also training and education to ensure staff knowledgeable on new processes and procedures. Not to overlook is the need for businesses to invest in research and development to innovate and in marketing to spread the word on benefits of being circular to their consumers.

# How to be Circular?

These are steps for businesses to be more circular and be part of the solution in minimising negative impact and create a sustainable world:

## 1 Reuse and Repurpose Materials:

An effective way for businesses to be circular is reusing materials no longer needed for their original purpose like old packaging for new products and repurposing old clothing to make new items. This can easily happen if products are initially designed for repurpose.

## 2 Utilise Recycling and Waste Reduction Programmes:

The best way to create more opportunities where businesses can do more is to expand existing programmes to include product take-back and re-manufacturing for more materials to recycle and come up with innovative ways to minimise overall waste.

## 3 Invest in Renewable Energy Sources:

Installing solar panels, wind turbines or other renewable energy initiatives by businesses, reduce carbon footprint and support a more sustainable energy system.





## Examples of Industries that are **Circular**

### 4

#### Collaborate with Circular Economy Companies:

Companies that specialise in the circular economy include those that focus on upcycling, recycling, waste reduction and actively working on developing more sustainable materials and processes.

Collaborations with them will ensure knowledge transfer, access to the latest technologies and resources.

### 5

#### Consumer Education:

This can begin with businesses by telling consumers about circular economy and encouraging them to rent, borrow as well as share products. Also, businesses can have services that extend product life like upgrades and repairs.

#### 1. Automotive:

To reduce waste and increase efficiency, automotive companies implement circular business models. For example, Toyota has been using recycled car parts for years. Now, to conserve resources further, they are experimenting with usage of recycled plastics in car components.

#### 2. Clothing:

With the aim to increase sustainability, clothing companies such as Patagonia uses recycled polyester in its clothing and looking into ways to reuse and recycle garments. Their aim is to reduce negative impact on the environment while keeping to the same product quality. While Spanish clothing giant, Zara, is offering repair services of their used clothes to consumers.

#### 3. Food:

There are quite a few food and beverage companies innovating and looking into ways to further reuse or recycle food waste, such as turning it into new food, compost or animal feed. This helps to conserve resources while reducing the amount of waste produced.

#### 4. Electronics:

For quite a while now, electronic companies have been looking into ways to recycle and reuse old electronic parts and materials including metals and plastics, to turn into new products. The concept of being circular has further reaffirmed their effort to conserve resources, minimise waste and increase profitability.

#### 5. Agriculture:

Organic farming systems, such as permaculture, employ closed-loop systems that use natural resources like compost and manure to boost soil fertility. This means significant reduction of emissions, ability to conserve resources and decreases the use of chemical fertilisers. ■

# Committing Full Circle

Co-founder  
and chief impact officer  
of reNature, **Felipe Villela**,  
answers questions on achieving  
economic resilience through  
circular economy, specifically  
via regenerative agriculture  
and its benefits for  
businesses.



Felipe Villela



In 2018, along with Marco de Boer, Felipe Villela started reNature. While Felipe is based in Rio de Janeiro, reNature's headquarters is in Amsterdam, out of which they run a series of projects globally, from consultancy and shaping regenerative business models to implementing Model Farms – which are small to medium-sized plots with a carefully crafted mix of species that naturally support each other while creating the ideal ecosystem for the production of main cash crops. More importantly, the implementation showcases benefits of regenerative agriculture.

Regenerative agriculture is a farming system that focuses on restoring the environment and sustaining a healthy ecosystem by using nature's resources and energy sources to increase soil fertility, restore ecosystem balance and produce high-quality food. This system is based on the principles of biodiversity, conservation and sustainability. It emphasises the use of natural pest control methods and minimal tillage to promote soil health. Its benefits include cost reduction, increase yields and help farmers diversify crops. Thus, increasing their profits.

reNature further defines regenerative agriculture as an 'agricultural system designed to ensure farmers a healthy soil, food security, economic growth and climate resilience. It creates several benefits for farmers and communities including increase of soil carbon, biodiversity and water storage. It fosters food security, rural development and women

empowerment. It lowers input costs, diversify farmers income and can reach premium markets.' reNature develops transition strategies, model farms, technical assistance and access to finance as well as carbon markets. Our future, they believe, is regenerative.

The folk at reNature sees regenerative agriculture as a holistic, ecosystem-based approach to farming that focuses on improving soil health, increase biodiversity and enhance ecosystem services. But how useful is this system in relation to sustainable economic growth and resilience? The 30-year-old chief impact officer of reNature, Felipe, sheds some light on the matter and pens down some answers.

*How does regenerative agriculture drive circular economy and ensure economic resilience, as well as environmental health, for a country?*

Overall, regenerative agriculture builds economic resilience by reducing costs, increasing yields and promoting long-term viability of farming systems, while supporting principles of a circular economy by promoting healthy ecosystems and reducing waste.

In the first place, our work has a regional impact. For instance, on soil health. By using practices such as cover cropping, reduced tillage and crop rotations, regenerative agriculture improves soil structure and fertility, reduces erosion and increases the soil's ability to store carbon. By improving soil health and reducing emissions from synthetic inputs, regenerative agriculture helps reduce the release of greenhouse gases, such as carbon dioxide, into the atmosphere, which has a broader impact than the farmland itself.

## BUSINESS

*What steps should businesses take to implement regenerative agriculture practices to improve their bottom line?*

All big companies are feeling climate change pressuring their supply chain. Yields are threatened not only by a lower quantity but also a poorer quality. In their transition to regenerative agriculture, companies must start by understanding the current farming practices to identify areas for improvement and where regenerative agriculture techniques can be applied. This may involve working with agricultural experts such as reNature's local experts, conducting soil tests and collecting data on inputs such as water, fertiliser as well as pesticides.

Next, they should develop a plan to implement regenerative agriculture practices, considering factors such as crop rotation, cover cropping and soil health management. This plan should be based on a thorough understanding of the local environment and the company's goals.

The distance between manufacturer and farmer is the source of misunderstanding on what is needed to produce the quality and quantity required. reNature helps manufacturers understand what regenerative agriculture entails for them to be aligned with their producers.

The transition to regenerative agriculture should not be led by sustainability departments but has to be an integral company-wide

vision driven by procurement. We are a firm believer in monitoring and evaluation. Only by keeping close track of the implementation of the plan, true impact of crop rotation, cover cropping and soil health management practices, can be ensured.

Regenerative systems are more profitable than conventional plots and notably thanks to three factors:


1. A reduction of input costs
2. An improvement of crop yield and quality
3. An improvement of land and water use efficiency

Regenerative agriculture practices do not require external inputs, such as fertilisers and pesticides. The increased soil organic matter ensures that all necessary nutrients are available for crops and actively contributes to a higher soil biodiversity which let plant pests and diseases decrease. Therefore, regenerative agriculture leads to stronger crops and higher-value products for farmers, strengthening their resilience to market volatility and extreme climate events.

Regenerative agriculture also opens new green revenue opportunities for farmers, such as the access to the carbon credits market thanks to the enhanced ability of soils to capture and store carbon.

*What are the potential challenges businesses can expect while implementing the practices?*

The biggest challenge for businesses in implementing regenerative



practices is cost. Implementing regenerative agriculture practices can be expensive, particularly in the short-term. This can include costs associated with transitioning to new farming practices, such as cover cropping and reducing tillage, as well as the cost of training, new equipment and inputs. However, in the long term, these costs will pay themselves back because of fewer to zero synthetic inputs.

When pushed by the company, there might be cultural barriers to adoption, as some farmers may be resistant to change or sceptical of the benefits of regenerative agriculture practices. Also, they are not willing to cover the costs associated with the transition if there is no commitment to either a premium price or an offtake agreement.

Implementing regenerative agriculture practices may also require access to resources, such as seeds for cover crops, specialised equipment and technical support. This can be a challenge for farmers who may not have access to these





resources. reNature is, therefore, mostly working with local species to solve this challenge.

*What are examples of government policies or incentives available to businesses investing in regenerative agriculture?*

Starting in 2020, driven forward by the pandemic and need to find solutions against climate change, several multinational corporations announced commitments and huge investments in regenerative farming that became a key topic in global conferences, such as COP27. Therefore, governments started setting up policies and incentives to promote regenerative agriculture. For example:

- In 2022, President Joe Biden signed the Inflation Reduction Act making a USD20 billion investment to mitigate agriculture’s contributions to climate change and reduce the use of chemicals and fertilisers by supporting regenerative and ‘climate-smart’ agriculture.

- In 2022, the United Kingdom government launched the Sustainable Farming Incentive, the first of three new environmental schemes introduced under their Agricultural Transition Plan. Soil health and regenerative farming techniques are the key focus. Farmers will be paid to provide public goods, such as improved water quality, biodiversity, climate change mitigation and animal health as well as welfare.

- In 2021, the Agriculture Minister of New Zealand announced a partnership between food producers Synlait Milk and Danone, science provider AgResearch and Ministry for Primary Industries (MPI) Sustainable Food and Fibre Futures fund. The Government contributed USD2.8 million to a USD3.85 million five-year project aimed at assessing the impact of regenerative agriculture on 10 New Zealand farms.

*What would be your policy or incentive recommendations that governments should implement?*

Governments can offer several policies and incentives to businesses that invest in regenerative agriculture, like tax incentives, grants and subsidies, market incentives as well as education. Also, in some countries, governments could provide regulatory support to businesses that invest in regenerative agriculture, such as reducing regulations or offering permits to use certain inputs like cover crops.

*How does technology contribute to the success of regenerative agriculture practices or initiatives?*

Technology plays a significant role in the success of regenerative agriculture practices and initiatives. For instance, tools that can be used to monitor soil health, including soil moisture, temperature and nutrient levels. This information can help farmers make informed decisions about soil management practices and help improve soil health over time.

*How can businesses measure the success of their regenerative agriculture initiatives?*

The success of regenerative agriculture can be defined by measuring soil health, yield, profitability, biodiversity and carbon sequestration. But also looking into the more social-economic factors like women empowerment and economic resilience.

*Lastly, what is the lasting impact you want to achieve through reNature?*

reNature believes that nature and agriculture can work together, and farmers across the globe deserve a profitable future. Our lasting impact is to ensure farmers a healthy soil, food security, economic growth and climate resilience through regenerative agriculture. The reason why reNature strives for it lies in the impactful environmental, social and financial benefits that regenerative farming provides.

*All photos courtesy of reNature. ■*



# Reactivating Industries through

# Tourism

*Estimated at USD9 trillion before the pandemic, it's no surprise that tourism is seen as a crucial component in the economic recovery effort.*

**Su Aziz** asks experts on how, and what, are the essential steps.

If only reactivating economic activities can be as simple as pressing that 'ACTIVATE' button. Alas, it's not, and tourism is a key strategy for many countries to stimulate their economy after two years of borders shut down and restricted travel.

Tourism is now in the limelight and governments are focusing on its potential to jump-start their economies. This is also because tourism can also be helpful in reactivating industries that are hardest hit by the pandemic such as hospitality and accommodation that are struggling to stay afloat. What's more, tourism will create jobs and reduce unemployment rates that rose significantly in the past two years.

Also, tourism can support cultural and creative industries by encouraging visitors to museums, galleries and cultural sites. These are examples of how tourism is a fundamental tool in reactivating industries and drive global economic recovery.

## What the Experts Say

The pandemic changed a lot of things between 2020 and 2021.

Dr John Paolo Rivera who is based in the Philippines and an associate director of Asian Institute of Management-Dr Andrew L. Tan Center for Tourism, observed that certain business models [for tourism] are no longer relevant. To make tourism better than before, the following three aspects need to be considered:

1. Sustainability for communities, the environments of the tourism and the business.
2. Resilience – preparedness to face the future unprecedented crisis or threat.
3. Safety – on their end-to-end travel and the entire members of the tourism value chain.

To have a global safety certification, Dr John Paolo advises, 'An initial step should be to observe the entire tourism value chain.

In other words, the overall level in governance of tourism. Instituting safety policies should encompass the operations of all members within the tourism value chain. Technically, saving just one sector of is not going to save everyone.'



An effective approach should be a concerted effort from all stakeholders. ‘The unified collection of industries, governments, multilateral sectors, MSMEs as well as at grassroots level. When all of the industries work together, it will create a safe experience for tourists,’ says Dr John Paolo. ‘The Philippines is highly reliant on tourism. Their domestic tourism contributes significantly to the country’s economy. So, they standardise travel protocols between and among provinces [to ensure safety and consistency].’

Catherine Germier-Hamel who is CEO of Destination Mekong in Cambodia, feels that protectionism might be the reason why there’s a lack of collaboration in promoting tourism post-pandemic. ‘To rejuvenate the [tourism] industry, rather than focusing on differences, we should focus on similarities, promote synergies between corporations and collaborations to achieve goals of rebuilding the industry.’

As for the impact of sustainability on tourism, Dr John Paolo explains that sustainability can be defined as the triple bottom line strategy:

1. People
2. Planet
3. Profit

‘It’s a transformation framework for businesses and other organisations to help them move towards a regenerative and more sustainable future. Each pillar should be given equal weight of importance to ensure that sustainability principles can be achieved,’ he stresses. ‘Understanding and operating through a triple bottom line framework offers not only opportunities, but also improvements, as we move towards the recovery period and post-pandemic.’

With vast experience in sustainability, Catherine pointed out, ‘For tour operators to adopt sustainability [principles] in their operations, they first need to clearly understand sustainability, how it works and wisely weigh the direction of its achievement between quality or quantity.’ She added that sustainability is a vision and it’s important to convert the principle into practice and to have a framework in executing it.

One of the challenges tourism face due to the pandemic, is in attracting and maintaining talent within the industry. According to Rohizam Md Yusoff who is president of Digital Travel Technology Association of Malaysia, ‘We should develop manpower ahead of time to ready us

in facing an unprecedented situation. Tourism industry needs to be more transparent and come up with an effective way in developing manpower and encourage talent to return to the industry.’

Dr John Paolo says, ‘In the Philippines, and maybe in some parts of Southeast Asia, the demand for tourism and hospitality courses is still there. ASEAN has a mutual recognition arrangement in tourism and hospitality, in which there are certain pre-determined set of qualifications and criteria for member countries to participate in tourism industries of other member countries.’

Based in Malaysia, Hannah Pearson who is director of Pear Anderson says, ‘COVID-19 was an eye-opening experience for the tourism industry. There are windows for collaboration, new ideas and for rethinking all the rewards that re-generate during the peak-to-trough period of the pandemic. Now is the time for people to act and to collaborate. As we move forward, the need to incorporate technology in the industry is a *must* because this enabler can do wonders to help tourism get back better on track.’



## Examples of Countries Restarting Economy through Tourism

1. **Japan:** Started a *Go To Travel* campaign which offers discounts on domestic travel and encourages citizens to explore their own country. This has resulted in an increase in domestic travel and a resurgence of the tourism industry.
2. **Greece:** Greek National Tourism Organization launched *All You Want is Greece* and interestingly, *Greekend* that promotes the beautiful side of life in Greek cities and experiences to enjoy during a three-day break.
3. **Spain:** Its Minister for Industry, Trade and Tourism, launched *You Deserve Spain* to reinforce the country's position as the number one holiday destination in the main outbound markets, and a safe one. It offers confidence and security to tourists through the green digital certificate that guarantees mobility within the EU.
4. **Thailand:** Started a *New Normal* campaign to promote domestic tourism and encourage visitors to explore the country's attractions, beaches, and cultural sites. Tourists are encouraged to book their trips through the official website, which offers discounts and other incentives.
5. **Mexico:** Started *Visit Mexico* campaign, a public-private entity that aims to re-envision travel promotion. The country is experimenting on privatising tourism marketing, public relations and advertising activities that traditionally, rely on public funding from hotel and visitor taxes. ■

## TECH

It's not surprising if you've not heard about the metaverse. Despite its potential for immersive virtual experiences, it has hardly gone mainstream. It's because there is a lack of content available in the metaverse compared to social media. This makes it difficult to sustain an audience, and as a result, the metaverse remains relatively unpopular. Furthermore, the technology behind creating a metaverse is complex and costly. Thus, making it a difficult platform to develop and there is a lack of developers creating content for it.

# USEFULNESS OF THE METAVERSE

The metaverse suffers from a lack of regulations, which means developers have more freedom to create whatever they want, but at the same time, it can be difficult to ensure the safety of users. This makes them wary of entering an unregulated platform. However, it's generally looked upon as a powerful tool that is revolutionising the way people interact with each other and the world around them. Plus, it provides a wide variety of benefits to different industries. So, as the technology continues to evolve, the metaverse has been predicted to be useful for businesses and societies.

## USEFULNESS OF THE METAVERSE

In the metaverse, people can interact with each other in real-time, making it easier to collaborate and share information. It's also where businesses can create virtual stores and marketplaces to promote products as well as services, and facilitate e-commerce transactions. This is especially useful for businesses to widen their reach and be global. Virtual worlds that can be explored and inhabited are possible in the metaverse and they can be used for gaming, a virtual environment for art, education and, of course, business.



*Besides being a platform for socialising, the metaverse can also facilitate virtual meetings and other gatherings for businesses with staff members located in different parts of the world. But what else is it good for? **Su Aziz** finds out.*



## For Businesses

The concept of a metaverse is gaining traction in the business world. It's swiftly becoming an important platform on which they can interact with customers and create as well as maintain relationships with customers, allowing businesses to build loyalty and trust. Through this virtual world, businesses can provide personalised experiences since users can customise their avatar, environment and interactions.

As a platform for advertising, the metaverse can be effective because it allows immersive and engaging experiences through shareable virtual product demonstrations that are tailored to users' interests and needs. In the metaverse businesses can conduct virtual events such as conferences, seminars and workshops that can reach a wider audience while providing a more immersive experience.

The metaverse can be an effective tool for collaboration through utilising shared spaces, businesses can work together in real-time and create projects that span multiple locations. This increases efficiency and productivity and reduces travel costs as well as time. In a way, it helps make the economy more efficient.

## For Society

The metaverse is being used in many ways to improve the quality of life for people globally. For example, it is being used to create virtual classrooms and training programs that allow students to learn in an interactive and engaging way. It is also being used to create virtual meeting spaces where teams can work together on projects and collaborate from different locations. It's being used to create virtual worlds that can be used for entertainment, such as video game.

It's also used in the medical field to help diagnose and treat patients, create 3D models of organs, bones and other body parts that can be used for educational purposes or for medical surgeries. It can also be used to create realistic simulations of medical procedures, allowing medical students to practice their skills in a safe and controlled environment.



## LAST WORDS

One of the main downsides of the metaverse is its potential for misuse such as malicious activities like cybercrimes. With its vast scope of potential uses, it's difficult to regulate activity and ensure that users are playing by the rules. It can be a platform for exploitation, bullying and harassment. The anonymity of the metaverse makes it easy for perpetrators to target victims and commit crimes without fear of being identified. Also, a place to spread of misinformation with serious implications for the real world since it's difficult to ensure all information posted is accurate and up to date.

Still, we can't stop innovating. In the future, the metaverse is expected to become even more accessible and immersive, with an increasing number of people having access to virtual reality and augmented reality technology. It's expected to become more interactive, with users able to interact with each other and their environment in a more natural and intuitive way. Voice and gesture control will become more prevalent, allowing people to control the virtual world with their voice or body movements.

More importantly, the metaverse is expected to become more secure, with improved security measures in place to protect user data and prevent malicious people from accessing it. If this happens, it will truly be an indispensable platform for all.





## USEFULNESS OF THE METaverse INCLUDES:

1. **Enhanced Collaboration:** enables us to collaborate with others in a virtual environment, allowing us to access a wide range of resources and to connect with people from all over the globe. This could be invaluable for businesses and organizations looking to work together on projects, as well as for individuals looking to network and make new contacts.
2. **Increased Immersion:** a user can experience an environment that's is much more immersive than what can be achieved with traditional methods of communication. This could help to create more engaging experiences, such as virtual reality gaming and can help train people in different fields.
3. **Improved Accessibility:** users will have greater accessibility to a range of different services, including education and healthcare. They can access resources that would otherwise be out of reach due to geographical and other barriers.



## WHAT YOU NEED TO BE IN A METaverse:

1. A computer with an up-to-date operating system, internet connection and graphics card.
2. An account on the metaverse platform of your choice, such as Second Life or High Fidelity.
3. An avatar that you can customise to your liking.
4. Patience and willingness to learn the basics of the metaverse platform you chose.
5. A willingness to explore and interact with other users of the metaverse.
6. A headset or other device that allows you to communicate with other users in the metaverse.
7. An understanding of the rules and regulations that apply to the metaverse platform you chose.



## WHAT YOU NEED TO BUILD A METaverse:

1. **A virtual world platform:** it needs to be built with the flexibility to create and interact with avatars, objects and locations within a 3D environment.
2. **Robust server infrastructure:** it is necessary to ensure that the virtual world can handle a large number of users and data without any lag or other issues.
3. **A scripting language:** this is needed to allow users to create custom content and applications for the metaverse.
4. **A graphical user interface:** it is necessary to allow users to easily find, interact with objects and other users in the virtual world.
5. **Security measures:** such as authentication and encryption need to be implemented to ensure that the virtual world is secure from malicious actors.
6. **Cloud integration:** it needs to be implemented to ensure that the virtual world is accessible from anywhere with an internet connection. ■



# Islamic Global Equity Fund

Here, **Ashley Lester** of British global investment management company, Schroders plc, explains why Islamic global equity fund outperformed Dow Jones Islamic Market World Index in recent years. Interview courtesy of Crescent Leaders.





Ashley Lester

In 2021, less than a year since its launch, Schroders plc's Islamic Global Equity Fund was already outperforming the Dow Jones Islamic Market World Index. 'The index is one of the most prominent shariah-compliant global equity benchmarks,' explains Ashley Lester, head of systematic investments at Schroders and lead manager of the Islamic global equity fund.

Founded in 1804 and managing assets worth GBP700.4 billion, Schroders is offering its clients access to a global investment universe comprising more than 2,600 stocks that adhere to shariah law. In addition to using a shariah-compliant benchmark,

the British multinational asset management company retained Malaysia-headquartered Amanie Advisors to advise on the shariah compliance of the fund.

Ashley tells more about Schroders' investment strategy for this fund, what makes it different from other Islamic equity funds and how it benefits from ESG-related features.

### Reception of the Fund from Investors

We launched this fund along with our distribution partner because we felt that the Muslim population is growing rapidly. It's growing wealthier. Yet, the investment options available for Muslim investors remain limited. We see it as an opportunity to serve an important part of the community that is underserved, both in the United Kingdom and abroad.

Schroders has been very active in parts of the world where shariah investing is important, including parts of Southeast Asia. Our observation was that shariah-compliant Islamic investors were seriously underserved in terms of the range of product offerings and investment options available for them. We were fortunate to have a distribution partner who made the same observations.



There's been quite a lot of appetite from investors. As of the end of June 2021, the assets under management of the fund are nearly GBP150 million. We've had inflows into the fund well into the tens of millions of pounds. The fund is doing well in terms of assets under management and performance. It outperformed its benchmark [year of 2021] by 2.8 per cent and since inception, it outperformed it by 3.1 per cent as of June 2021.



### Difference Between Islamic Equity Fund and Other Shariah-compliant Funds

There are quite a lot of passive funds, but many investors wish to seek options that can do better than the market and obviously we seek to provide them in active space. Many of the funds out there are also quite small in terms of assets under management and they can often focus on quite a specific style of investment, either value or growth, in sort of a single style box.

What is unusual about our fund is our scale – we're bringing the full investment resources of Schrodgers in general and Schrodgers' Systematic Investments (SSI) in particular, to bear on the problems of making this the best fund that it can possibly be. SSI style is multi-factor, which means we seek to invest across a variety of diversified investment styles in an attempt to provide the smoothest

ride of excess returns that we possibly, reasonably can. We think this is differentiating – bringing a well-resourced team to bear on this problem and seeking to deliver value-adding excess returns in a well-diversified style.

Investors generally describe their investment process in terms of different styles of investments – styles that you can see in various trade publications that might describe investors as having a growth or value style. Within the world of quantitative investors, which is the world I'm part of, those styles are generally called factors. There are four or five basic factor ideas that drive most of the quantitative funds which investors see in the market. Those factors involve sources of long-run return that are reasonably well understood by the broad quantitative investment community.

Some examples are the value factor, the idea of buying stocks that appear cheap on some measure. There's the momentum factor, the idea of buying stocks that would have done well recently and there are other less well-known factors, such as the profitability factor, governance factors and low-volatility factor. These are all rules that quantitative investors use to decide which stocks to buy or not to buy.

It's possible to buy a quantitative investment that specialises in just one of those styles. However, we believe strongly that this is sub-optimal because by combining at the stock level all of the different sources of insight that you can have about the likely drivers of excess returns, one is more likely, over time, to select stocks which will outperform across a wider variety of market environments. A key part of our process is how to bring together the different factors in such a way that gives just the right amount of

diversification and exposure across each different factor.

### Business Sectors Equity Fund Targets

A characteristic part of sophisticated quantitative investment styles is that we don't specifically seek to target sectors most of the time. We can have specific measures which say at the moment, we'll focus more on technology or industrial, but in general, the great majority of the returns we see from our investment process are pure stock selection.

What we try to do is compare similar companies and buy more of the companies which seem better according to our rules. Overall, compared to the benchmark, we seek to have a pretty balanced set of exposures across industries. That's quite important because shariah-compliant set of industries are different from the global ones. If we were very focused on particular industries across our other portfolios, but those industries were some of the ones which were excluded from or were in very limited form in the shariah-compliant benchmark, then that would be a problem for our process.

### Converging ESG Principles with Schrodgers Islamic Global Equity Fund

Broadly speaking, there are two underlying driving forces behind ESG investment. One is impact-driven investing and it's important in ESG investing to measure the impact on the world of the stocks in which you're investing. Shariah investing

was there before ESG investing was there. Much of the idea of shariah investing is to align end investors' principles with their investments. [When comparing] measures of impact, shariah-compliant fund will show as having a better impact on the world than the market cap benchmark.

We measure that through our propriety tool SustainEx. It seeks to put a dollar value on all of the things a company does that [impact the world] but don't show up on their balance sheet. Shariah-compliant investing excludes many of the worst offenders including stocks like tobacco, gambling and alcohol and polluters because of the large quantities of debt that they have.

Why end investors might be interested in ESG is because it's a source of risk-adjusted returns and there we see a lot of convergence across funds. If you think that you have a source of long-run returns, then include that in your portfolio whether you're seeing impact or not. That's the focus of a tremendous amount of research by my team. It's clear that the direction for us, and probably for the industry, is to include across all of our funds more cognisance of the ways in which ESG factors can contribute positively to the return profiles of our investment portfolios.

In terms of our Global Islamic Equity Fund, for various product-specific and regulatory reasons, we ended up launching it without the ESG label. Nevertheless, we measure it relative to the overall benchmark and inherent in shariah investment itself

is ESG advantages over traditional investments.

Two, in terms of evaluating which stocks to buy within that universe, ESG factors are inherent to the whole process and becoming more so. The easiest example I can give is of factors which relate to governance. There's probably a longer tradition of funds using governance factors as a source of excess returns than there is of social and environmental factors. We use governance factors that reflect the extent to which management of a firm is aligned in its interest with the firm's shareholders as an integral part of our investment process in this fund.

### The Fund's Performance So Far and Future Plans

Our process is to look for lasting rules of what types of stocks tend to outperform in the long run and then invest across a set of those rules. One of the reasons to do this multi-factor process is that any given investment style or factor definitely goes through cyclical swings. There are periods when value stocks underperform. Through multi-factor investing, when one factor underperforms, another factor or more might be outperforming. Diversification is how to get the smoothest ride.

Solid statistical and financial evidence shows the factors we invest in generate return in the long run. Our process is about looking for types of stocks that do best in the long run rather than within six months and getting a diversification effect across these stocks. ■

# Green Insights for Islamic Finance

*Senior regional head of MENA at CFA Institute, **William Tohmé**, talks about what prevents a greater convergence between Islamic finance and ESG investing, green sukuk and the persistent problem of greenwashing in the investment industry. Interview courtesy of Crescent Leaders.*





William Tohmé



'If I leave it with the players, they want to keep ESG and Islamic finance separate. So that they have two streams of products and offerings,' says senior regional head of MENA for CFA Institute, William Tohmé. 'I think what is preventing the bridge from being obvious to everyone is the client base. [It will change] when we see portfolios that are both SRI (sustainable and responsible investment) and shariah compliant, which offer to save a lot on the fee side and provide a bigger client base.' But the market is not ready for shortcuts, 'they want to show you they have muscles in both sides. Of course, there are lots of common areas, but would they market it to you this way?'

William blames both ends, 'The supply side, it looks better on paper for you to have two big families of products. And the demand side, because we're not aware enough of the commonalities between the two streams of business. Therefore, we don't ask for one product that fits all.'

Now you see it happening with products such as green sukuk, which is about respecting the environment while being shariah-compliant. 'That's a pure example of something that has been driven by

demand. I'm keen on buying sukuk, but I'm no longer keen on buying sukuk that pollute the planet. I want to buy green sukuk. That's an example that gives me lots of hope in products that will be invented that respect both the shariah law and the environment,' says William.

### **Why hasn't green sukuk exploded like green bonds?**

I blame it on demography and size of the market. If I launch a green bond, I'll have all the big insurance companies in the world, that are not takaful. They have billions of dollars in retirement funds and future savings, and by regulation they have to be into bonds, so they go and buy bonds. When it comes to green bonds, they feel better from a marketing point of view. Clients feel comfortable about making money while respecting the environment in the long run.

Mainly local players here and in Malaysia are the ones buying sukuk in the region. You rarely find a big western insurance company coming into a sukuk, unless they did a comparison between the yield-to-maturity on a bond that's available for them at a certain rating. For the same rating, they have a better yield-to-maturity on the sukuk, plus the sukuk is asset



backed and the bond they have back home is not asset backed.

The only time you get conventional people coming to buy into a sukuk is when they have better warranty on the collateral. So, it's an asset backed bond all of a sudden with a better yield-to-maturity. In the region, if you are a takaful insurance you're not going to be able to invest in a conventional bond even if it's green, so you'll have to go for a sukuk. If the sukuk is green, then it's the cherry on top of the cake. The problem is with the demand and supply. We don't have enough supply of green sukuk, but we have a huge supply of green bonds because we know that the pockets of the asset owners and insurance companies are very deep. Also, by regulation they have to buy bonds.

### **What could change this and boost green sukuk market?**

What would change this is the demand. It needs a big player with deep pockets to come on the market and say, 'this is what I need, find it for me' and the supply would ignite itself. Then the investment bankers will make it happen and see all governments or corporates with great ratings, capable of putting an asset-backed sukuk, make sure it's green – or green wash it, unfortunately – then they'll accept the deal and pitch it to the asset owners.

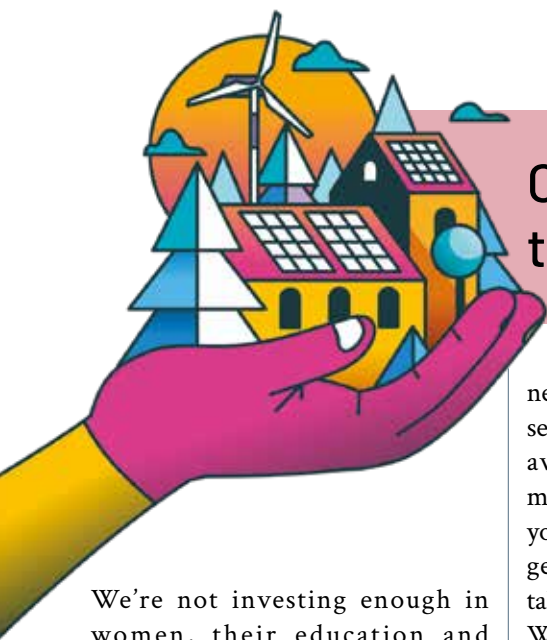
### **How do investors establish that a fund truly meets ESG standards?**

Everyone is busy with deciding what disclosure companies should be doing in order to be ESG compliant. We went the other way, to the investor side and said, 'you should be able to have a stamp of quality on these products, which will assure you that an asset manager is ESG-compliant in a certain product and this is why'.

We developed the Global Investment Performance Standards (GIPS) to make sure that we're comparing apples to apples. If you're an asset management company in Alaska and I'm an asset management company in Shanghai, and we're managing European equities, your numbers cannot be compared to mine. The local regulations of disclosures in Shanghai are different from those of Alaska. But if you make your numbers GIPS-compliant, and I do the same, then our numbers can both be 'apples' and they can be compared to one another.

We're doing the same with ESG standards. These are self-disclosure standards, so asset managers can decide to comply with these standards. It's a self-attestation based on a set of rules. We've been in consultation with the industry for a year and a half and had contributions from at least 150 practitioners. You can also hire a third party that would come and study your numbers and verify that you're doing the right work.





## CFA Institute's Exemplary Approach to Gender Diversity by William Tohmé

We're not investing enough in women, their education and experience, before we expose them. I'm always wary of hypocrites, who say, 'We're trying to empower women and we just appointed one of them as head of this department. See, it's not working, she's not good.' Did you invest in that person? Did you give them the same education that you gave to their male counterparts? Did you give them the right experience and exposure before you put them on stage?

There's a problem in the industry. What we should be doing is say, 'Yes, I agree with you. Give me a couple of years because I'll be investing in their continued professional learning and their experience. I will expose them and then they'll get there. I prefer this kind of approach.'

Once you reach that level, you'll need a matrix of all the women who have the needed skills. A matrix where the columns have the skills a company needs, and the rows have the names. Whenever you need someone that ticks at least seven of the skills you

need, you can show immediately a selection of all the names that are available – CEO roles, senior management, you name it. This way you'll be selecting based on skills and gender. You'll have a reservoir of talents that you can choose from. What the industry is doing unfortunately is saying, 'We need to have more women on board, let's see who we have and let's project them and put them on stage. We're pushing some people just because they are women. They'll make us look good on gender diversity.'

[The thing is], who told you they are ready to go on stage? Why didn't you take the most experienced women available and ask them to be on stage? What about the other diversity metrics – race, ethnicity, age? Are we also putting diversity of those aspects on our boards? Beyond gender equality, I am for talent equality, experience equality and education quality. When you do those, naturally you'll have more representation.

CFA Institute launched a programme called *Mutamahin* in Bahrain a few years ago. We bring university graduates who can't find jobs and help develop their technical as well as soft skills. Never on this programme did we need to think how many women or men we have. Year after

year, we ended up with 80 per cent women, 20 percent men. This is because the women want to study more and prove themselves. They don't believe they have equal chances in finding a job. So, they put in double effort.

Look at the Saudi universities, the best GPA levels are being achieved by women because they know they have to compete with men who feel entitled to getting jobs. Women feel that they need to fight more later on to get these jobs. But at least, we're giving them equal chances of studying and proving themselves.

If you do the metrics I recommended, you'll definitely find more women available to work and contribute to the success of your firm. Also, at CFA, we stopped counting the years of experience and we now count hours of experience. If we keep the metric of how many years of experience you have, some women will be behind the men because they decided to have a family. [Through counting the hours], this means if you have kids and return to work, it won't put you at a disadvantage compared to men. This is because we are conscious that women sometimes don't have the consecutive years of experience, but they have the number of hours. ■

# 14

## Biggest Environmental Problems of 2023

*While the climate crisis has many factors that play a role in the exacerbation of the environment, there are some that warrant more attention than others.*

***Deena Robinson** looks at some of the biggest environmental problems of our lifetime, from deforestation and biodiversity loss to food waste and fast fashion.*

*This article first appeared on [Earth.Org](https://earth.org).*

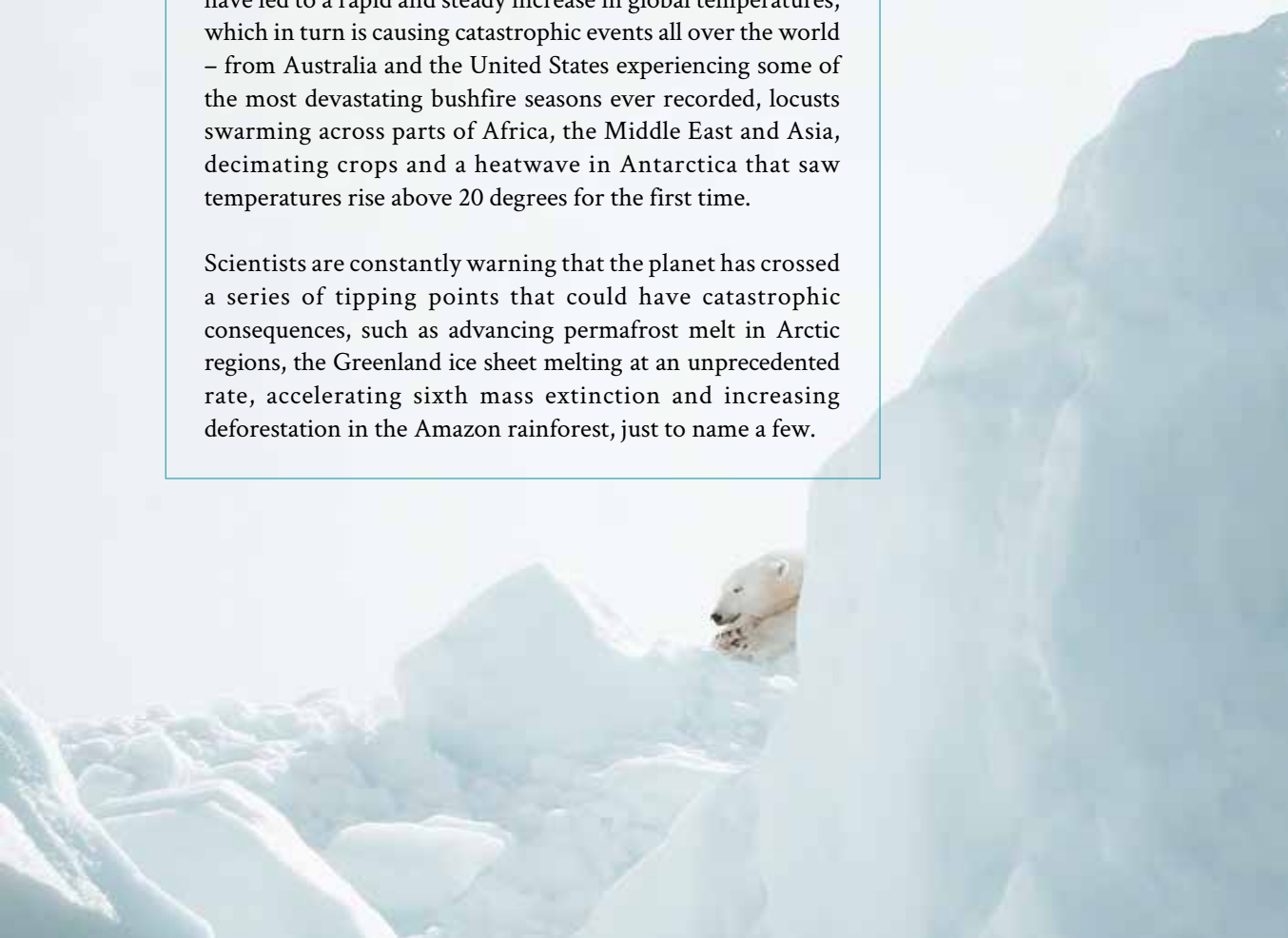


## 1

## Global Warming from Fossil Fuels

At the time of publication, CO<sub>2</sub> PPM (parts per million) is at 418 and the global temperature rise is 1.15 degrees Celsius compared to pre-industrial levels. The last time carbon dioxide levels on our planet were as high as today was more than 4 million years ago. Increased emissions of greenhouse gases have led to a rapid and steady increase in global temperatures, which in turn is causing catastrophic events all over the world – from Australia and the United States experiencing some of the most devastating bushfire seasons ever recorded, locusts swarming across parts of Africa, the Middle East and Asia, decimating crops and a heatwave in Antarctica that saw temperatures rise above 20 degrees for the first time.

Scientists are constantly warning that the planet has crossed a series of tipping points that could have catastrophic consequences, such as advancing permafrost melt in Arctic regions, the Greenland ice sheet melting at an unprecedented rate, accelerating sixth mass extinction and increasing deforestation in the Amazon rainforest, just to name a few.



## 2 Poor Governance

According to economists like Nicholas Stern, the climate crisis is a result of multiple market failures. Economists and environmentalists have urged policymakers for years to increase the price of activities that emit greenhouse gases (one of our biggest environmental problems), the lack of which constitutes the largest market failure, for example through carbon taxes, which will stimulate innovations in low-carbon technologies. To cut emissions quickly and effectively enough, governments must not only massively increase funding for green innovation to bring down the costs of low-carbon energy sources, but they also need to adopt a range of other policies that address each of the other market failures.

A national carbon tax is currently implemented in 27 countries around the world, including various countries in the

EU, Canada, Singapore, Japan, Ukraine and Argentina. However, according to the 2019 OECD Tax Energy Use report, current tax structures are not adequately aligned with the pollution profile of energy sources. For example, the OECD suggests that carbon taxes are not harsh enough on coal production, although it has proved to be effective for the electricity industry. A carbon tax has been effectively implemented in Sweden, where the carbon tax is USD127 per tonne and has reduced emissions by 25 per cent since 1995, while its economy has expanded 75 per cent in the same time period.

Further, organisations such as the United Nations are not fit to deal with the climate crisis: it was assembled to prevent another world war and is not fit for purpose. Anyway, members of the UN are not mandated to comply with any suggestions or recommendations made by the organisation. For example, the Paris Agreement, an agreement within the United Nations Framework Convention on Climate Change, says that countries need to reduce greenhouse gas emissions significantly so that global temperature rise is below two degrees Celsius by 2100, and ideally under 1.5 degrees. But signing on to it is voluntary and there are no real repercussions for non-compliance. Further, the issue of equity remains a contentious issue whereby developing countries are allowed to emit more in order to develop to the point where they can develop technologies to emit less and it allows some countries, such as China, to exploit this.



## 3 Food Waste

A third of the food intended for human consumption – around 1.3 billion tons – is wasted or lost. This is enough to feed three billion people. Food waste and loss, account for a third of greenhouse gas emissions annually. If it was a country, food waste would be the third highest emitter of greenhouse gases, behind China and the United States. Food waste and loss occur at different stages in developing and developed countries. In developing countries, 40 per cent of food waste occurs at the post-harvest and processing levels,

while in developed countries, 40 per cent of food waste occurs at the retail and consumer levels.

At the retail level, a shocking amount of food is wasted because of aesthetic reasons. In fact, in the United States, more than 50 per cent of all produce thrown away is done so because it's deemed to be 'too ugly' to be sold to consumers. This amounts to about 60 million tonnes of fruits and vegetables. This leads to food insecurity, another one of the biggest environmental problems on the list.

## 4 Biodiversity Loss

The past 50 years have seen a rapid growth of human consumption, population, global trade and urbanisation, resulting in humanity using more of the Earth's resources than it can replenish naturally. A recent WWF report found that the population sizes of mammals, fish, birds, reptiles and amphibians have experienced a decline of an average of 68 per cent between 1970 and 2016. The report attributes this biodiversity loss to a variety of factors, but mainly land-use change, particularly the conversion of habitats, like forests, grasslands and mangroves, into agricultural systems. Animals such as pangolins, sharks and seahorses are significantly affected by the illegal wildlife trade and pangolins are critically endangered because of it.

More broadly, a recent analysis has found that the sixth mass extinction of wildlife on Earth is accelerating. More than 500 species of land animals are on the brink of extinction and are likely to be lost within 20 years. The same number were lost over the whole of the last century. Scientists say that without human destruction of nature, this rate of loss would have taken thousands of years.



## 5 Plastic Pollution

In 1950, the world produced more than two million tonnes of plastic per year. By 2015, this annual production swelled to 419 million tons and exacerbating plastic waste in the environment. A report by science journal, *Nature*, determined that currently, roughly 14 million tonnes of plastic make their way into the oceans every year, harming wildlife habitats and the animals that live in them. The research found that if no action is taken, the plastic crisis will grow to 29 million metric tonnes per year by 2040. If we include microplastics into this, the cumulative

amount of plastic in the ocean could reach 600 million tonnes by 2040.

Shockingly, *National Geographic* found that 91 per cent of all plastic that has ever been made is not recycled, representing not only one of the biggest environmental problems of our lifetime, but another massive market failure. Considering that plastic takes 400 years to decompose, it will be many generations until it ceases to exist. There's no telling what the irreversible effects of plastic pollution will have on the environment in the long run.



## 6 Deforestation

Every hour, forests the size of 300 football fields are cut down. By the year 2030, the planet might have only 10 per cent of its forests. If deforestation isn't stopped, they could all be gone in less than 100 years. The three countries experiencing the highest levels of deforestation are Brazil, Congo and Indonesia. The Amazon, the world's largest rainforest that spans 6.9 million sq km and covering around 40 per cent of the South American continent, is also one of the most biologically diverse ecosystems and is home to about three million species of plants and animals. Despite efforts to protect forest land, legal deforestation is still rampant and about a third of global tropical deforestation occurs in Brazil's Amazon rainforest, amounting to 1.5 million hectares each year.

Agriculture is the leading cause of deforestation, another one of the biggest environmental problems appearing on this list. Land is cleared to raise livestock or to plant other crops that are sold, such as sugar cane and palm oil. Besides for carbon sequestration, forests help to prevent soil erosion, because the tree roots bind the soil and prevent it from washing away, which also prevents landslides.

## 7 Air Pollution

One of the biggest environmental problems today is outdoor air pollution. Data from the World Health Organization shows that an estimated 4.2 to seven million people die from air pollution worldwide every year and that nine out of 10 people breathe air that contains high levels of pollutants. In Africa, 258,000 people died as a result of outdoor air pollution in 2017, up from 164,000 in 1990, according to UNICEF. Causes of air pollution mostly comes from industrial sources and motor vehicles, as well as emissions from burning biomass and poor air

quality due to dust storms. A recent report from the EU's environment agency showed that air pollution contributed to 400,000 annual deaths in the EU in 2012 (the last year for which data was available).



In the wake of the COVID-19 pandemic, attention has been put on the role that air pollution gases has in transporting the virus molecules. Preliminary studies have identified a positive correlation between COVID-19-related mortalities and air pollution and there's also a plausible association of airborne particles assisting the viral spread. This could have contributed to the high death toll in China, where air quality is notoriously poor, although more definitive studies must be conducted before such a conclusion can be drawn.

## 8 Melting Ice Caps and Sea Level Rise

The climate crisis is warming the Arctic more than twice as fast as anywhere else on the planet. Today, sea levels are rising more than twice as quickly as they did for most of the 20th century as a result of increasing temperatures on Earth. Seas are now rising an average of 3.2mm per year globally and they'll continue to grow up to about 0.7 metres by the end of this century. In the Arctic, the Greenland Ice Sheet poses the greatest risk for sea levels because melting land ice is the main cause of rising sea levels.

Representing arguably the biggest of the environmental problems, this is made all the more concerning considering that last year's summer triggered the loss of 60 billion tonnes of ice from Greenland, enough to raise global sea levels by 2.2mm in just two months. According to satellite data, the Greenland ice sheet lost a record amount of ice in 2019: an average of a million tonnes per minute throughout the year, one of the biggest environmental problems that has cascading effects. If

the entire Greenland ice sheet melts, sea level would rise by six metres.

Meanwhile, the Antarctic continent contributes about one millimetre per year to sea level rise, which is a third of the annual global increase. Additionally, the last fully intact ice shelf in Canada in the Arctic recently collapsed, having lost about 80 sq km – or 40 per cent – of its area over a two-day period in late July, according to the Canadian Ice Service. Sea level rise will have a devastating impact on those living in coastal regions. According to research and advocacy group Climate Central, sea level rise this century could flood coastal areas that are now home to 340 million to 480 million people, forcing them to migrate to safer areas and contributing to overpopulation and strain of resources in the areas they migrate to.

Bangkok, Ho Chi Minh City, Manila and Dubai are among the cities, most at risk of sea level rise and flooding.

## 9 Ocean Acidification

Global temperature rise has not only affected the surface, but it is the main cause of ocean acidification. Our oceans absorb about 30 per cent of carbon dioxide released into the Earth's atmosphere. As higher concentrations of carbon emissions are released thanks to human activities such as burning fossil fuels as well as effects of global climate change such as increased rates of wildfires, so do the amount of carbon dioxide that's absorbed back into the sea.

The smallest change in the pH scale can have a significant impact on the acidity of the ocean. Ocean

acidification has devastating impacts on marine ecosystems and species, its food webs and provoke irreversible changes in habitat quality. Once pH levels reach too low, marine organisms such as oysters, their shells and skeleton could even start to dissolve.

However, one of the biggest environmental problems from ocean acidification is coral bleaching and subsequent coral reef loss. This is a phenomenon that occurs when rising ocean temperatures disrupt the symbiotic relationship between the reefs and algae that lives within it, driving away the algae and

causing coral reefs to lose their natural vibrant colours. Some scientists have estimated coral reefs are at risk of being completely wiped by 2050. Higher acidity in the ocean would obstruct coral reef systems' ability to rebuild their exoskeletons and recover from these coral bleaching events.

Studies have also found that ocean acidification can be linked as one of the effects of plastic pollution in the ocean. The accumulating bacteria and microorganisms derived from plastic garbage dumped in the ocean to damage marine ecosystems and contribute towards coral bleaching.



## 10 Agriculture

Studies have shown that the global food system is responsible for up to one third of all human-caused greenhouse gas emissions, of which 30 per cent comes from livestock and fisheries. Crop production releases greenhouse gases such as nitrous oxide through the use of fertilisers. 60 per cent of the world's agricultural area is dedicated to cattle ranching, although it only makes up 24 per cent of global meat consumption.

Agriculture not only covers a vast amount of land, but it also consumes a vast amount of freshwater, another one of the biggest environmental problems on this list. While arable lands and grazing pastures cover one-third of Earth's land surfaces, they consume three-quarters of the world's limited freshwater resources. Scientists and environmentalists have continuously warned that we need to rethink our current food system, switching to a more plant-based diet would dramatically reduce the carbon footprint of the conventional agriculture industry.



# 11 Food and Water Insecurity

Rising temperatures and unsustainable farming practices has resulted in the increasing threat of water and food insecurity and taking the mantle as one of the biggest environmental problems today. Globally, more than 68 billion tonnes of top-soil is eroded every year at a rate 100 times faster than it can naturally be replenished. Laden with biocides and fertiliser, the soil ends up in waterways where it contaminates drinking water and protected areas downstream.

Furthermore, exposed and lifeless soil is more vulnerable to wind and water erosion due to lack of root and mycelium systems that hold it together. A key contributor to soil erosion is over-tilling. Although, it increases productivity in the short-term by mixing in surface nutrients such as fertiliser, tilling is physically destructive to the soil's structure and in the long-term leads to soil compaction, loss of fertility and surface crust formation that worsens topsoil erosion.

With the global population expected to reach nine billion people by mid-century. Food and Agriculture Organization of the United Nations (FAO) projects that global food demand may increase by 70 per cent by 2050. Around the world, more than 820 million people do not get enough to eat. The UN secretary-general António Guterres says, 'Unless immediate action is taken, it is increasingly clear that there is an impending global food security emergency that could have long term impacts on hundreds of millions of adults and children.' He urged for countries to rethink their food systems and encouraged more sustainable farming practices.

In terms of water security, only three per cent of the world's water is fresh water. Two-thirds of that is tucked away in frozen glaciers or otherwise unavailable for our use. As a result, some 1.1 billion people worldwide lack access to water and a total of 2.7 billion find water scarce for at least one month of the year. By 2025, two-thirds of the world's population may face water shortages.



# 12 Fast Fashion and Textile Waste

The global demand for fashion and clothing has risen at an unprecedented rate that the fashion industry now accounts for 10 per cent of global carbon emissions, becoming one of the biggest environmental problems of our time. Fashion alone produces more greenhouse gas emissions than both the aviation and shipping sectors combined, and nearly 20 per cent of global wastewater, or around 93 billion cubic metres from textile dyeing, according to the UN Environment Programme.

What's more, the world at least generated an estimated 92 million tonnes of textiles waste every year and that number is expected to soar up to 134 million tonnes a year by 2030. Discarded clothing

and textile waste ends up in landfills, most of which is non-biodegradable, while microplastics from clothing materials such as polyester, nylon, polyamide, acrylic and other synthetic materials, is leached into soil and nearby water sources. Monumental amounts of clothing textile are also dumped in less developed countries as seen with Chile's Atacama, the driest desert in the world, where at least 39,000 tonnes of textile waste from other nations are left there to rot.

This rapidly growing issue is only exacerbated by the ever-expanding fast fashion business model, in which companies rely on cheap and speedy production of low-quality clothing to meet the latest

and newest trends. While the United Nations Fashion Industry Charter for Climate Action sees signatory fashion and textile companies to commit to achieving net zero emission by 2050, a majority of businesses around the world have yet to address their roles in climate change. While these are some of the biggest environmental problems plaguing our planet, there are many more that have not been mentioned, including overfishing, urban sprawl, toxic superfund sites and land use changes. While there are many facets that need to be considered in formulating a response to the crisis, they must be coordinated, practical and far-reaching enough to make enough of a difference.





## 13 Overfishing

Over three billion people around the world rely on fish as their primary source of protein. About 12 per cent of the world relies upon fisheries in some form or another, with 90 per cent of these being small-scale fishermen – think a small crew in a boat, not a ship, using small nets or even rods, reels and lures not too different from the kind you probably use. Of the 18.9 million fishermen in the world, 90 per cent of them fall under the latter category.

Most people consume approximately twice as much food as they did 50 years ago and there are four times as many people on earth as there were at the close of the 1960s. This is one driver of the 30 per cent of commercially fished waters being classified as being ‘overfished’. This means that the stock of available fishing waters is being depleted faster than it can be replaced. Overfishing comes with detrimental effects on the environment, including increased algae in the water, destruction of fishing communities, ocean littering as well as extremely high rates of biodiversity loss.

As part of UN’s 17 SDG, specifically SDG 14, the UN and FAO are working towards maintaining the proportion of fish stocks within biologically sustainable levels. This, however, requires much stricter regulations of the world’s oceans than the ones already in place. In July 2022, the WTO banned fishing subsidies to reduce global overfishing in a historic deal. Indeed, subsidies for fuel, fishing gear and building new vessels, only incentivise overfishing and represent thus a huge problem.

## 14 Cobalt Mining

Cobalt is quickly becoming the defining example of the mineral conundrum at the heart of the renewable energy transition. As a key component of battery materials that power electric vehicles, cobalt is facing a sustained surge in demand as decarbonisation efforts progress. The world’s largest cobalt supplier is Congo, where it’s estimated that up to a fifth of the production is produced through artisanal miners.

Cobalt mining, however, is associated with dangerous workers’ exploitation and other serious environmental and social issues. The environmental costs of cobalt mining activities are also substantial. Southern regions of the DRC are not only home to cobalt and copper, but also large amounts of uranium. In mining regions, scientists have made note of high radioactivity levels. In addition, mineral mining, similar to other industrial mining efforts, often produces pollution that leaches into neighbouring rivers and water sources. Dust from pulverised rock is known to cause breathing problems for local communities as well. ■



# Effective Action on CLIMATE

It's a race against time to combat climate change because the consequences for the planet and future generations will be devastating. **Su Aziz** writes on how this can be done effectively.

**C**limate change is a pressing issue. The disastrous impact of burning fossil fuels include not only extreme weather events like floods, droughts and heat waves, but also the health of oceans, environment and wildlife, availability of food, water as well as other resources. Gases from burning fossil fuels trap heat and cause the planet to warm, which in turn causes changes in weather patterns, rising sea levels, to name a few.

Other factors, such as deforestation and land-use change, may also contribute to climate change. If left unchecked, climate change cause irreparable damage to our planet, with devastating consequences for human and animal life. Furthermore, effective climate action will create jobs and economic opportunities in the renewable energy sector.

Fighting climate change is not only the responsible thing to do, it is also the most cost-effective option. Investing in renewable energy sources, energy efficiency and other measures to reduce emissions now, will save us money in the long run. Plus, it'll protect Earth's climate for future generations. Not to forget, protecting biodiversity is essential for maintaining a healthy environment and mitigating the effects of climate change. This can be done by preserving habitats and ecosystems, promoting sustainable agriculture and reducing pollution.

As we already know, to fight climate change effectively, governments must work together to create and implement comprehensive international climate change policies. This includes setting goals for reducing greenhouse gas emissions, providing incentives for the development of renewable energy sources and establishing regulations

to reduce pollution.

Change has to begin with you. Individuals, as well as businesses, must take responsibility for their carbon footprints by reducing energy consumption and making environmentally conscious choices when it comes to transportation and consumption. For businesses and governments, investing in research and development of new technologies – such as new ways of capturing carbon dioxide from the atmosphere, creating more efficient ways of using renewable energy sources and improving the efficiency of existing technologies – will reduce impacts of climate change.

As we already know, knowledge is power. It can start on educating the public on why we need to fight climate change and how to reduce its impacts. This includes providing information on the latest research



# CHANGE

and developments, as well as promoting sustainable practices and lifestyle changes.

One of the most effective climate change fighters is the former American President Barack Obama. During his time in office, he worked hard to implement policies that would lead to a more sustainable future. He was a strong advocate for renewable energy, supported the Paris Climate Agreement and pushed for the United States to lead the way in reducing greenhouse gas emissions. He helped create the Clean Power Plan, which set limits on carbon emissions from power plants and invested in clean energy technologies.

In addition to his domestic policies, Barack worked to promote international cooperation on climate change, launching the US-China Climate Change Working Group

(CCWG) in 2014 to facilitate bilateral cooperation on climate change. It's tasked with identifying areas of potential cooperation, developing joint initiatives and advancing the interests of both countries. To date, CCWG has achieved a number of successes. In 2018, the two countries agreed to halve their greenhouse gas emissions by 2030. Even during the Trump administration, CCWG continued to make progress. In 2020, the two countries announced a joint initiative to reduce emissions from coal-fired power plants and the year after, they agreed to establish an international carbon market.

As the two largest economies and emitters of greenhouse gases, their cooperation is essential to making progress and achieving the goals set out in the Paris Agreement. As the Biden administration works to rebuild relationships with China,

CCWG will be essential in helping both countries move forward in their efforts to address climate change. These initiatives helped to foster cooperation between countries and create a more unified global effort to fight climate change.

Many countries are making significant progress in their efforts to combat climate change. In Europe, the European Union's Emissions Trading System has been effective in reducing emissions from the energy sector and helped Europe meet its 2020 emissions reduction target, as well as its 2030 target. While the Indian government adopted a series of ambitious renewable energy targets that included a goal of achieving 175 GW of renewable energy capacity by 2022. What's important is that these efforts continue for progress in tackling climate change to be significant.

## How businesses can reduce the impact of climate change

1. **Increase Energy Efficiency:** focus on reducing reliance on fossil fuels and transitioning to clean and renewable sources of energy. This can be done by investing in energy efficient technologies, such as LED lighting, solar panels, efficient heating and cooling systems.
2. **Reduce Waste:** aim to reduce their waste by implementing recycling and composting programs, as well as using reusable and recyclable packaging.
3. **Invest in Sustainable Solutions:** Businesses can invest in sustainable solutions such as green buildings, green transportation and renewable energy.
4. **Support Climate Action:** Businesses should support climate action by participating in initiatives that promote sustainability and advocate for policies that reduce emissions and support clean energy.
5. **Educate Employees:** Businesses should strive to educate their employees on the importance of climate action and how they can reduce their own carbon footprint. By taking these steps, businesses can play an active role in the fight against climate change. By doing their part, businesses can help to create a healthier and more sustainable future.

## Effective ways an individual can fight climate change

1. Reduce your carbon footprint by driving less, carpooling, taking public transportation and using renewable energy.
2. Reduce food waste by planning meals ahead and buying only what you need.
3. Plant trees and other vegetation to absorb carbon dioxide from the atmosphere.
4. Choose energy-efficient appliances and replace old appliances with more efficient models.
5. Use renewable energy sources like solar and wind power for electricity.
6. Insulate your home to reduce energy use.
7. Support policies that promote renewable energy use and reduce fossil fuel emissions.
8. Buy local and organic products to reduce your carbon footprint.
9. Educate yourself and others about climate change and its causes.
10. Support organisations and initiatives working to combat climate change.

## Examples of Effective Communication on Climate Change

1. **Social Media Campaigns:** Utilising platforms like Twitter and Instagram to share information and stories about climate change can be an effective way to reach a wide audience. For example, the #ActOnClimate hashtag was created to encourage people to take action and raise awareness about climate change.
2. **Visual Storytelling:** Using images and videos to communicate the effects of climate change can be a powerful way to engage people. For example, the 'before and after' photos of glacier retreat due to global warming create a stark visual representation of the problem.
3. **Educational Resources:** Providing resources such as infographics, fact sheets and videos about climate change can help people better understand the issue and feel empowered to take action. For example, the *National Geographic* website provides an interactive map to explore the impacts of climate change around the world.
4. **Events and Conferences:** Holding events and conferences to bring together experts can be a great way to share knowledge and discuss solutions to climate change. For example, the yearly UN Climate Change Conferences bring together world leaders and experts to discuss international climate policies. ■

# Sustainability in Pakistan

*Focusing on Pakistan's policy innovation to facilitate regulatory environment and the role of private sector to drive impact investments, particularly in the areas of renewable energy, healthcare, education and financial inclusion. Article courtesy of **Crescent Leaders**.*



Pakistan was among the first countries to endorse and adopt the 17 SDGs, with a strong commitment to its 2030 agenda for sustainable development. In 2018, the government of Pakistan developed and approved a National SDG framework to prioritise and localise SDGs. This is alongside the institution of monitoring and evaluation processes critical to the implementation of SDGs, partnership building with development partners, civil society organisations, think tanks, academia and the private sector.

To drive the sustainability agenda forward, Pakistan identifies three core dimensions including social, economic and environmental. It also focuses on developing integrated policies that connect these three dimensions of development.

The country is committed to improving public service delivery including health care and education, stimulating human development, shifting towards green economy and reducing carbon footprint through higher dependence on renewable energy, as well as increasing forest cover.

## Government Policies Towards Sustainable Development

Government of Pakistan promotes alignment of new and existing policies with the 2030 agenda, to ensure policies support innovative environment with better coordination among stakeholders. In this regard, Pakistan's twelfth five-year plan that runs between 2018 and 2023, is completely aligned with the SDG's objectives of equity, inclusivity and sustainability.

## GREEN



In 2021, Pakistan secured USD800 million in financing for two programmes that are Pakistan Program for Affordable and Clean Energy (PACE) and Securing Human Investments to Foster Transformation (SHIFT II). PACE focuses on driving the country's transition to low carbon energy and improving the financial viability of the power sector. SHIFT II will provide sustainable financing to optimise primary health care and education services, enhance income-generation opportunities for the poor, especially women, and promote inclusive economic growth.

According to Times Higher Education Impact Ranking 2020, Pakistan's National University of Science and Technology is among the top 300 institutes in the world in promoting SDGs awareness across the country.

### Companies Encouraging Sustainable Healthcare

Pakistan recognises that investment in healthcare will ultimately translate into economic sustainability, as most of its population lives under the poverty line. The country has made tremendous progress across the health care sector in recent years through improved access as well as stronger infrastructure, systems and policies. In this



regard, the National Health Vision Pakistan, which runs from 2016 to 2025, empowers provincial departments to implement policy frameworks to accomplish universal healthcare.

There are various local and international healthcare companies promoting sustainability practices across the health sector. For example, e-health clinics offer easy and affordable access to every segment of society. Among them, Sehat Kahani is prominent. It provides employment opportunities to female physicians not working due to social and cultural reservations by utilising e-health.

### Renewable Energy Sector

Pakistan depends on a mix of thermal, hydel, renewables and nuclear power plants to fulfil its energy needs. Based on the effects of climate change across the world and Pakistan's commitment to achieve a carbon-free environment, the country has instituted special provisions to ensure the development of a sustainable energy market.

The Policy for Alternative and Renewable Energy 2019, known as ARE Policy 2019, offers a roadmap to realise the full potential of ARE as well as the utilisation of ARE-based applications by commercial and domestic consumers. This policy envisages sustainability, affordability, responsibility and availability while encouraging private sector investment.

Government of Pakistan has set a target of at least 30 per cent renewable energy generation by 2030. This untapped sector of Pakistan offers numerous opportunities for investors. Due to flexible policies and incentives offered by the government, several international players have shown interest to promote financing for sustainable and climate-friendly projects.



Karandaaz Pakistan, a not-for-profit company promoting access to finance for SMEs and financial inclusion for individuals, is working on renewable energy, energy efficiency, green buildings, clean transportation and waste management projects under the International Climate Finance (ICF).

## ■ Education Sector

Due to massive poverty, budgetary constraint and poor infrastructure, there exist a huge gap in the education sector of Pakistan. According to an estimate, more than 22 million or 36 per cent of children between the ages of five to 16 are out of school. The pandemic worsened this situation by enhancing the learning gap for different segments of society. There are various organisations across Pakistan which are working for sustainable development in the education sector. These organisations inculcate technology solutions to drive equal access to education for all across society.

Idara-e-Taleem-o-Aagahi is working across Pakistan with a mission to promote education as a comprehensive process for human and social transformation or sustainable development. They are working with national and international donor organisations to ensure access to universal education across Pakistan. Taleem Finance Company Ltd offers financial and non-financial support to schools to enhance sustainability and overall learning outcomes resulting in higher employability for their students, especially girls.

## ■ Companies Promoting Financial Inclusion

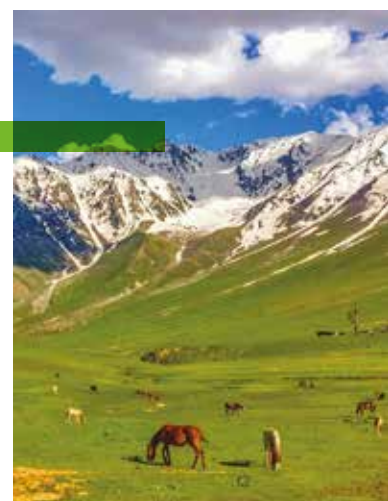
In Pakistan, there's limited access to formal financial services for individuals and firms to use quality payments, savings, credit and insurance services. Especially women are left behind in the finance sector. According

to The Economist, only seven per cent of women enjoy access to financial services out of a total female population of 49 per cent. In the same way, the SME sector of Pakistan, which constitutes more than 40 per cent of the country's GDP, enjoys very little access to finance.

In recent years, the government has shown some commitment to enhancing the inclusion of women and the SME sector in the economy through effective policy measures and engagement with regulatory stakeholders. For example, the State Bank of Pakistan announced the SME Asaan Finance (SAAF) scheme in August 2021, to meet the financing requirements of SMEs. There are various private players which are providing green finance for the development of sustainable agricultural value chain activities.

Kashf Foundation, a female-led microfinance organisation, operating across 41 districts, with 188 branches and 13 service centres, focuses on accelerating women's means of earning through access to finance and financial literacy. Also, Khushhali Microfinance Bank Limited operates in 76 districts with 200 branches. It's the largest provider of microcredit in Pakistan, delivering financial products for the agriculture sector.

To promote digital banking across Pakistan, companies like TAG are working on enhancing financial inclusion. TAG, a digital wallet or payment service, provides an opportunity for everyone across Pakistan to open an account with a free Visa card within three minutes. This will provide access to finance or digital financial services for diverse communities, including marginalised women populations and less lucrative rural markets. ■



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