

Strategy and innovation for sustainable development

Group projects – Class of 2020

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WBCSD Leadership Program 2020



The WBCSD Leadership Program is a unique professional and leadership development opportunity aiming to provide current and future business leaders with an in-depth understanding of sustainability challenges and opportunities that will feed into their strategic decision-making. As sustainable businesses will continue to lead the way in the future, it is critical for the next generation of leaders to understand the importance of sustainability to their businesses and integrate the opportunities and risks in their core business strategy.

THE LEADERSHIP PROGRAM 2020

The theme of the 2020 Leadership Program was *Strategy and innovation for sustainable development*. When developing a strategy, innovation is key to futureproofing and adapting business models and product service offerings.

In other words, innovation is critical to building a sustainable world. New technologies are unlocking unprecedented possibilities. However, new technology can also come with new challenges – especially in relation to human and social capital and the future of work.



FOREWORD

2020 has brought many challenges. However, I would like to stay optimistic as we have a very rare opportunity to shape a more sustainable and resilient world. Our choices now determine how we give meaning to “building forward better”. A crucial part of this is what the Leadership Program represents – lifelong learning, reflection, resilience and developing solutions.

The theme of Strategy and Innovation brings together these aspects. I’m very proud to present the 2020 group projects that sought to build knowledge and recommendations to ensure more sustainable businesses. From risk management to driving sustainability action to tackling deforestation, these projects propose recommendations for how to overcome global challenges.

GROUP PROJECTS 2020

The 2020 Program brought together 42 high-potential leaders from WBCSD member companies. Despite the challenges, we managed to meet at Yale University and in New York (USA), and participants successfully followed online training.

During the year, participants wrote individual and group reports. This brochure summarizes their group projects:

- Using lessons from the pandemic to drive action on sustainability
- Strategy, risk and resilience
- Integrating sustainability value communication into strategy
- Understanding how intangible assets build effective partnerships for systemic change
- Energy technologies for efficient management and transition to clean energy
- Technology-enabled traceability and transparency remain critical to addressing deforestation

The 2020 cohort brought together 42 high-potential leaders from various sectors across WBCSD member companies. We look forward to having these sustainability leaders enhance their company’s resilience and adaptability through strong talent and knowledge that they can share with their peers to address the future needs of business.

Prof. Dr. Rodney Irwin

Managing Director, Redefining Value & Education; Member of the Senior Management Team, WBCSD



Participants came from the following WBCSD member companies:



①

Using lessons from the pandemic to drive action on sustainability

BUSINESSES IN "EMERGENCY MODE" TO TACKLE CLIMATE CHANGE

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BACKGROUND

Throughout history, major emergencies and crises have sparked positive developments – instances that triggered humanity to think in an unexpected way and change its way of doing things. The COVID-19 pandemic might be one of these significant turning points and could act as a catalyst to transition to a more sustainable global economy.

As governments make decisive interventions to contain the virus and to provide public support, COVID-19 is accelerating transitions in five key areas: healthcare, supply chains, flexible working, sustainable travel and internet conductivity.

The pandemic has proven how rapidly and definitively governments, companies and society can act in a genuine crisis that is having severe impacts on human health. Other major global sustainability challenges, such as climate change, have not seen this sort of emergency response.

This report explores the most impactful behavioral responses to COVID-19 from businesses. It considers whether it is possible and how to apply the COVID-19 response approach to tackle the climate emergency and recommends concrete actions that policy-makers and businesses can take to leverage this emergency mode to tackle climate change.

IDEA

The COVID-19 pandemic is an immediate and tangible example of the type of crises to which the current global economic system

is vulnerable. In a similar vein, while it is obvious that climate change is going to have an impact, there is no full awareness of the extent of that impact.

We based our work on the premise that business is adaptable, innovative and nimble in times of crisis – and then focused our research on seeing if this holds true. We used the COVID-19 pandemic as a fertile learning ground to determine how companies can stress-test their adaptability, innovation and capacity to respond.

Our report provides recommendations on how businesses and governments can leverage the current emergency mode to tackle climate change. The steps we took were to:

1. Understand whether businesses have significantly changed their strategies and corporate governance to respond to COVID-19.
2. Identify responses that have shifted businesses to emergency mode and which of these have proven successful in tackling external challenges.
3. Assess which of those impactful behavioral responses from businesses can also be adapted to tackle climate change.

CHALLENGES

The interviews and other research we conducted revealed a wealth of responses to COVID-19 that could inspire concrete and bold climate change action, with measurable results. Some examples include

rapid digitization, regional empowerment in global corporations and early moves on anticipated changes in consumer demands. While the climate emergency is in many ways similar to the COVID-19 pandemic (for example, COVID-19 – like climate change – is exacerbating systemic threats and socioeconomic inequalities worldwide), our research found significant differences in the level and type of response. While companies assumed there was less urgency to take climate action, they assigned equal or more importance to climate change in the longer run.

KEY LESSONS LEARNED AND RECOMMENDATIONS

COVID-19 is a stark reminder of the economic system's fragility, exposing social inequalities and interconnected vulnerability to systemic shocks, including climate change. The report proposes recommendations for companies and governments to mitigate risks and for further research as COVID-19 impacts are still unfolding. We encourage companies to embrace the WBCSD principles for a strong response to COVID-19,¹ to embed resilience at the heart of business strategy, and to assess and disclose business risks. We recommend that governments collaborate with businesses and other governments to: create impact at scale; prioritize policy and spending to accelerate the transition to an inclusive, just, resilient, zero-carbon economy; introduce regulation to support Task Force on Climate-Related Financial Disclosures (TCFD) recommendations; and enable climate education.

¹ Reference: <https://www.wbcsd.org/Overview/Resources/General/Principles-for-a-Strong-Response-to-COVID-19-Food-Systems-Security>

2

Strategy, risk and resilience

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INTRODUCTION

The COVID-19 pandemic has brought the world to a halt, with unprecedented impacts on human health, global economies and supply chains. Society, governments and businesses alike have deeply felt the effects of its disruptive force. It has highlighted weaknesses in pre-empting unexpected disasters and the need to innovate and pivot in order to withstand and move past crises.

Businesses are facing a diverse range of interrelated challenges stemming from the pandemic. These range from protecting their employees and the communities in which they operate, to stabilizing supply chain systems and operations, and managing cash-flow and liquidity. Businesses are also trying to navigate a maze of local government procedures, restrictions and support programs. Will this crisis be an opportunity for organizations to reinvent themselves by becoming more resilient and sustainable?

Based on literature and the recent experiences of some companies, this report consolidates frameworks and case studies concerning: i) "agile" risk identification/evaluation processes; ii) flexibility and business continuity during global shocks; iii) reframing company strategies to make them relevant to the new normal. The report to be a resource compiling initiatives and principles that companies can use to successfully navigate the new normal and the post-COVID-19 world.

PROPOSITION

Given the unprecedented nature of the COVID-19 pandemic as a public health, economic and social crisis, organizations need a comprehensive playbook that will help them adapt to present challenges and have a resource to navigate future global emergencies. The report seeks to provide a set of frameworks, initiatives and principles that companies can consider when faced with massive disruption. The report is a product of extensive research into the following critical areas: enterprise risk management, business continuity, crisis communications, corporate purpose, strategic agility, reinvention and growth, and sustainability. This is further supported by interviews and case studies from select multinational companies headquartered in North America, Europe and Southeast Asia that have all been adapting to the COVID-19 pandemic in unique ways.

The report aims to be a vital resource in the growing body of knowledge on how organizations can survive and thrive during massive global disruptions.

CHALLENGES AND OPPORTUNITIES

The research has yielded five fundamental challenges for organizations as they address the COVID-19 pandemic and prepare for a post-pandemic world:

1. Integrate effective risk management into core decision processes, governance and culture.
2. Institutionalize robust business continuity practices through emergency preparedness.
3. Garner high levels of employee engagement to accelerate organizational pivots.
4. Embrace a strong company purpose during a crisis.
5. Reposition the company to increase the chances of continued relevance and longevity.

Adapting to challenges and building sufficient resilience for future emergencies is an opportunity for companies.

KEY LESSONS LEARNED AND RECOMMENDATIONS

Our findings demonstrate that most organizations seemed to be tackling the challenges stemming from the pandemic through three key stages of activity: i) identification of risks and opportunities, ii) ensuring business continuity, and iii) adjusting and transforming their strategies for the “new normal”.

Although all organizations are facing the same crisis, the pandemic has impacted them in different ways and they have reacted and adapted in unique ways depending on their business priorities. We recognize that organizations are in different phases in dealing with the crisis and that the impacts have varied by industry and location.

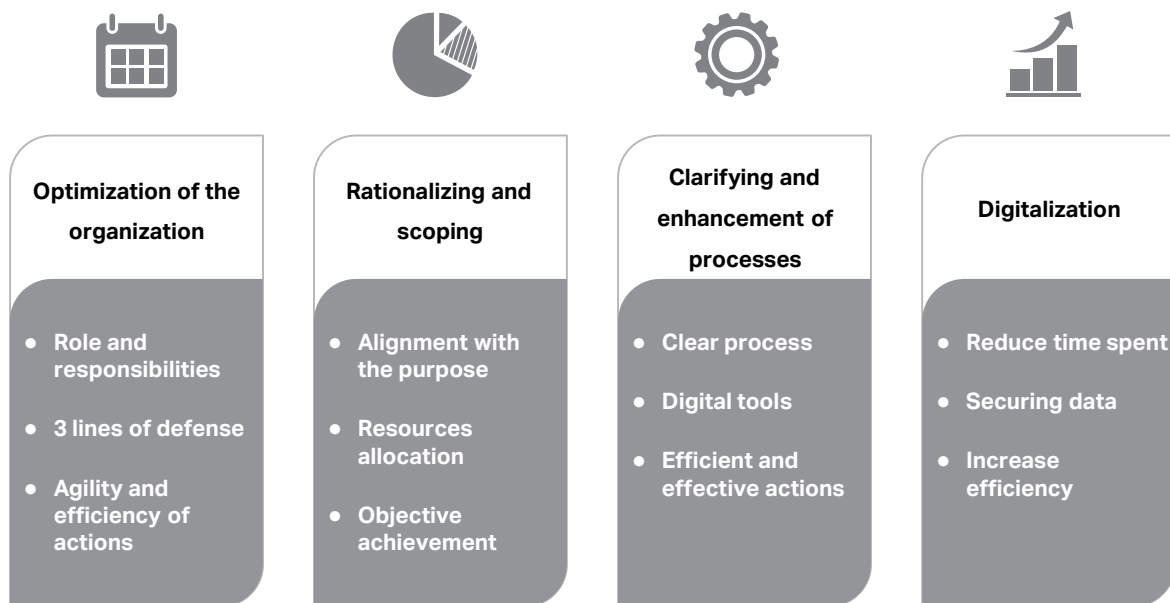
We conclude that organizations reflect on several fundamental considerations as they address such crises:

1. Effective risk management systems are vital to addressing crises and businesses should ensure their integration into core business decision making, governance and culture;
2. Robust business continuity during a crisis such as COVID-19 is dependent on emergency preparedness;
3. Employee engagement is essential for businesses to undergo rapid and significant pivots;
4. A strong purpose is fundamental to companies as they navigate a crisis;

5. To survive and thrive in the post-COVID-19 world, companies must reposition themselves to increase their chances of continued relevance and longevity.

The following chart summarizes the key pillars of activity linked to organizational risk and resilience and their related enablers.

Figure 1: Key pillars to manage risks and reinforce resilience



Source: team’s brainstorming (based on literature, interviews and reflexions)

3

Integrating sustainability value communication into strategy

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INTRODUCTION

The primary aim of most businesses is to generate profit for their owners or shareholders through activities that generate financial value by providing a product or service. In most cases, funding these activities requires finance, with the aim of generating value beyond the firm's cost of capital.

Historically, investors have made investment decisions based upon the potential for financial return: buying shares based upon dividend yield; making loans based on the ability to repay with interest. They often make such financial decisions in the short term and align them with financial reporting cycles.

The past 30 years have seen the rise of investment practices that consider a wider set of aspects in addition to financial return. These were initially "ethical" or faith-based approaches, but have since grown to encompass a range of environmental and social considerations. Such investments are now known by several terms, such as socially responsible investing, environmental, social and governance (ESG), and sustainable investment. Investments with some social, ethical or environmental aspect totaled USD \$30.7 trillion globally in 2018.

Our work looks at how companies communicate their sustainability approach, their commitments to and performance with both mainstream and socially responsible investors. It seeks to identify those companies that are successful in doing this and explores what these companies communicate (the message), how they communicate (the channels) and, more importantly, why they feel it is important to communicate the value of sustainability.

PROPOSITION

While it is easy to measure, report and understand the financial aspects of business, it is less easy to do so for sustainability actions and strategies because it is not possible to quantify them in the same way. For financial reporting, laws regarding the following of methodologies and procedures ensure transparency, consistency and comparability. However, as the reporting of sustainability is non-financial and difficult to quantify, stakeholders have yet to adopt such reporting a framework.

Those companies that measure and manage sustainability handle longer-term risk better than those that do not and show better long-term financial performance. Having good sustainability management may also be an indicator of good governance.

But how do companies collect and communicate these non-financial actions in a meaningful way and in which investors can have confidence when determining their investment decisions? What are the elements that investors are seeking to understand and how do they assess their materiality? What is the value of "doing good" and is it compatible with profit generation? This is what we sought to explore.



OUR FINDINGS

- ESG oriented investment, while growing in importance and focus, is still the subject of separate communication between sustainability professionals in companies and ESG investors, rather than an integrated aspect of all investor communication.
- There is general growth in the scope and scale of demand from a range of investor types for more, and more consistent, ESG information.
- There is a requirement for companies and investors to move from seeing ESG and sustainability as a subject solely relating to corporate and investment risk to also being critical to opportunity and growth.
- Challenges remain for companies in understanding the contribution of sustainability to overall corporate value.
- The issue of materiality is key – for both companies and investors – and a one-size-fits-all approach to identifying material issues is unlikely to be useful or meaningful for either party.

CHALLENGES

Our project identified six key challenges faced by companies when communicating the value of their work on sustainability to investors:

- A lack of trust or credibility caused by using a narrative rather than metrics.
- The separation of investor relations and sustainability departments, which hampers the ability to communicate sustainability to investors.
- The absence of a single clear framework or standard for reporting, resulting in limited comparability of information.
- Expressing the value of sustainability in terms that are meaningful for investors.
- Materiality, determining whether what is important to the company is important to the investor.
- Balancing short-term financial cycles with long-term impacts

RECOMMENDATIONS

We make several recommendations to overcome the challenges faced by companies in trying to communicate the value of sustainability to investors:

- a) Have a dedicated sustainable investor relations team to develop the expertise to drive the communication of value.
- b) Quantify the impact of actions on sustainability in financial terms.
- c) Use independent assurance to bridge the trust gap.
- d) Collaborate with investors on materiality and explain the importance of long-term action.
- e) Work with others to develop consistent standards for reporting.
- f) Shape the conversation to focus on long-term opportunities and not just risks.



4

Understanding how intangible assets build effective partnerships for systemic change

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BACKGROUND

The business landscape is changing, with increased long-term outcomes and intangible assets versus a legacy of prioritizing profit-driven growth. In the last few years, sustainability has finally started to become mainstream at board-level discussions. Governments and private companies around the world are starting to address key threats such as climate risk, social inequality and, more recently, global pandemics.

Environmental and social risks account for the most significant global risks in terms of impact and likelihood. Yet up to 80% of a company's value is intangible, including assets such as research, innovation, knowledge, relationships and skills.

In the face of these risks, partnerships among governments, the private sector, civil society and the third sector are growing in importance in the sustainable development space. Each of these sectors is significantly advancing the development of sustainable policy, finance, industry standards, goods and services, and public awareness. However, the sustainability landscape is complex and far-reaching. Because projects require intangible resources from multiple sectors to be successful, the use of collaboration and partnership in sustainable development projects is escalating. These are an increasingly effective way to address – and solve – systemic sustainability concerns.

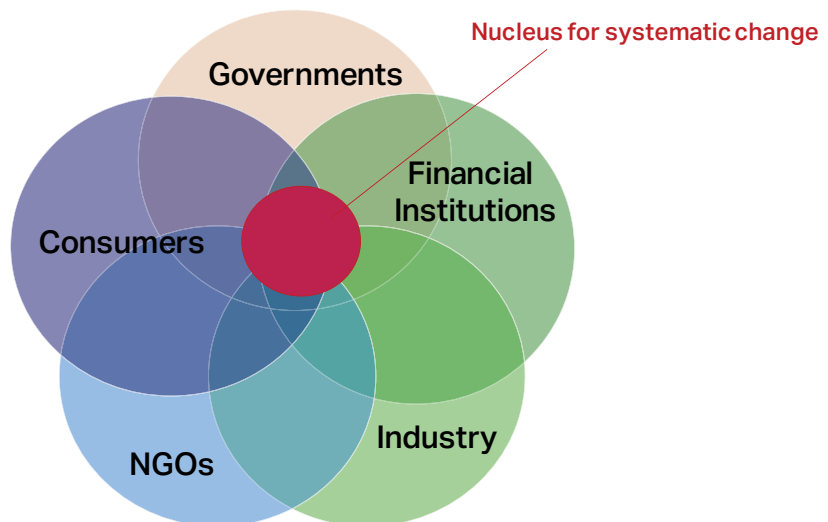
PROPOSITION

We have identified intangible assets fostered by partnerships that enable increased alignment across sectors in relation to sustainable development. This highlights the importance of collaboration across sectors in sustainable development projects in order to create systemic change.

Figure 2 shows that ongoing collaboration helps to strategically align sectors around a common vision; it is this convergence point that acts as a nucleus for sustainable and systemic change.

Through a series of case studies, we evaluated the hypothesis that it is the intangible assets fostered in these partnerships that strengthen outcomes at the project level and beyond while also improving ongoing alignment among sectors and helping to drive systemic change. A useful next step for further work on this agenda and to better understand and implement the link between partnerships and intangible assets could be to reverse-engineer and test these high-level recommendations to further refine how to identify and increasingly leverage the value generated at the individual company-level.

Figure 2: The nucleus for systemic change in sustainable development is through ongoing collaboration across sectors



Source: Created by project group to explain the concept under discussion

The case studies show how companies successfully brought together multiple parties for a shared purpose. They also demonstrate that intangible assets were a key factor in the success of each project and in many cases forged the path for ongoing collaboration and best practices in sustainable development. The case studies include:

- Mitigating the impacts of distribution lines on bird life in Portugal
- Minimizing food waste in Indonesia
- Addressing inadequate housing in Mexico
- Increasing affordable housing in Seattle, Washington
- Developing a national forest inventory in the United States
- Helping the financial sector mitigate modern slavery and human trafficking
- Progressing Dubai's Green Energy Strategy

CHALLENGES AND OPPORTUNITIES

- The sustainable development landscape is often too complex for one sector to successfully address challenges alone.
- A lack of aligned culture undermines the chance of collective success.
- New technologies come with legal and operational complexities.
- Stakeholders are holding corporations and governments accountable for demonstrating meaningful progress on reaching a more sustainable future.

- Companies cannot solve problems by applying the same mindset that created them.
- Significant benefits can result from partnerships based on intangible assets.

KEY LESSONS LEARNED

Across our case studies, we identified a set of intangible assets that resulted in positive outcomes at both project and longer term strategic levels.

They are:

1. Aligned culture
2. Technical knowledge
3. Stakeholder engagement
4. Innovation
5. Customer relationships.

RECOMMENDATIONS

Through the intangible assets that we identified and the experiences gleaned from the case studies, we suggest three recommendations for successful partnerships in sustainable development:

- **Connect purpose and profit:** Recognize the importance of a dual-purpose mindset that generates both shareholder and societal value (intangible 1. Aligned culture; 2. Technical knowledge).
- **Be willing to innovate:** Recognize the potential for innovation through collaboration (intangible 4. Innovation).
- **Measure and communicate outcomes and impact,** internally and externally: Ensure the reflecting of the value of intangible assets and the reporting of Sustainable Development Goal-aligned key performance indicators (intangible 3. Stakeholder engagement; 5. Customer relations).



5

Energy technologies for efficient management and transition to clean energy

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INTRODUCTION

The energy sector includes all industries whose main objective is to produce, sell and distribute energy. These industries are inherently connected with the world's economic activity: production and consumption. Although energy is essential to the world economy and to progress prosperity globally, it's also the key contributor to climate change, responsible for 60% of total greenhouse emissions. Until renewable and clean energy become mainstream, it is imperative that we conserve and utilize energy in the most efficient way.

In this report, we examine emerging information technology and hydrogen science use cases that help to prevent energy waste post-production:

Reliable energy generation

- Use of artificial intelligence (AI) algorithms to improve forecasting of renewable energy input into the grid.

Efficient storage and transmission

- Use of AI to optimize renewable energy storage and improve demand forecasts and application at the site level.
- Power-to-X conversion of surplus energy to hydrogen to provide flexible fuel and electricity solutions.

Grid management

- Smart thermostats with IoT (internet of things) functionality to facilitate communication between energy providers and consumers, optimizing grid management and resulting in savings for consumers.

- Smart grids that integrate power flow and secure communication, allowing utility customers to become both energy consumers and providers, and decentralizing energy transmission for greater system reliability.

Grid security

- Using blockchain coupled with machine learning to detect compromised devices and improve overall system health.

PROPOSITION

While oil and gas producers and providers currently have plans to convert energy to more sustainable sources, traditional fossil fuels still are primarily adopted. Recent technologies such as AI and IoT are being applied to drive greater efficiency, logistics and management of distribution. The investment in these technologies can provide short-term gains and coupled with long-term investments in renewable energy can have a significant impact.

Challenges and opportunities

- Most of these technologies are only adopted in the developed world and do not address inequality.
- In order to address more complex decisions, machine learning must adapt to the power system and understand complex sets of data, including engineering practices, scientific research mechanisms, and production management demands.
- It is too expensive or too difficult to obtain enough training data from a power grid for the development of more sophisticated models.

- With any digital system, cyber security is a top-of-mind concern with evolving risks and limited solutions.
- For hydrogen technology, safety around highly flammable nature.

To address these obstacles, there needs to be continuous capital investment and sharing of non-proprietary datasets that can be leveraged by the industry. For hydrogen to lead the clean energy transition, it is necessary to breakdown barriers around electrolysis of hydrogen from oxygen, transportation and safety.

KEY LESSONS LEARNED

- Technology can help fight climate change and make the use of existing energy sources more efficiently.
- Though these technologies have challenges to their adoption, implementing them would have a positive environmental impact in developed countries that have higher emissions than developing countries.
- The wide adoption of cleaner energy will only happen if all actors (consumers, businesses, governments, etc.) embrace it and accept that even though capital expenditure is unavoidable in the short term, this is the only way clean energy can become the status quo in the long-term.

⑥

Technology-enabled traceability and transparency remain critical to addressing deforestation

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INTRODUCTION

Despite national and international initiatives,² deforestation is not slowing. Forest loss in tropical primary forest was 3.8 million hectares during 2019. This compares to losing “a football pitch of primary forest every 6 seconds for the entire year”.³ Unmanaged deforestation can have detrimental social, environmental and economic impacts. Scientific research and data show the extent of biodiversity loss, soil erosion, and the impact on water cycles and carbon cycles. Forests still cover about 30% of the Earth’s surface and provide habitat for more than 80% of animal and plant species. Some 250 million indigenous people continue to depend on forested areas for their livelihoods. However, if deforestation continues at its current rate, estimates suggest that forests will completely disappear within the next 100 years.⁴

Our research focused on the main obstacles to tackling deforestation and the role of technology in breaking this impasse.

PROPOSITION

We believe that technology and innovation, such as satellite monitoring and blockchain, have played and will continue to play a key enabling role in the creation and implementation of scalable solutions to deforestation. The traceability of deforestation-free products and transparency along complex supply chains will allow for the financial recognition of marginalized actors in the chain, such as independent soybean growers in Brazil, for their sustainable farming practices. This improved transparency will also allow businesses to set measurable and actionable goals and metrics. Customers can exercise their informed choices on products, including whether to pay a premium. Regulators

can use the information to set the right measures and enforce them. And other stakeholders in non-related industries can feel confident if they want to invest in forestry protection projects to contribute to their climate ambitions.

Our objective was to understand which technologies are applicable in this context, how effective they are and what business needs to unlock their full potential in tackling deforestation. We analyzed the opportunity to leverage blockchain distributed ledger technologies to promote transparency in supply chains and support forest management.



² Pietsch, S. & Heyl, A. (2020). Why are we still failing to stop deforestation? International Institute for Applied Systems Analysis. 25 May 2020. Retrieved from: <https://iiasa.ac.at/web/home/about/news/200525-global-forest-transitions.html>.

³ Weisse, M. & Goldman, E.D. (2020). “We Lost a Football Pitch of Primary Rainforest Every 6 Seconds in 2019.” World Resources Institute. 20 June 2020. Retrieved from: <https://www.wri.org/blog/2020/06/global-tree-cover-loss-data-2019#:~:text=The%20tropics%20lost%2011.9%20million,today%20on%20Global%20Forest%20Watch>

⁴ Nunez, C. (2019). Deforestation explained. Accesible at: <https://www.nationalgeographic.com/environment/global-warming/deforestation/>

Given the increasing notoriety of blockchain to solve supply chain challenges, multiple companies are leveraging blockchain to create a better user experience through supply chain visualizations, as well as customizing it for purpose, including for book and claim schemes for commodities such as palm oil. In addition, satellite monitoring has evolved to provide nearly real-time feedback on forests around the world, which supports efficiency in forest monitoring activities. Global Forests Watch is a widely used and open-source technology collating satellite imagery and providing alerts when it recognizes land-cover changes.

CHALLENGES

The scaling of technology alone will solve the issue of deforestation.

- It is necessary to overcome limitations to technologies like blockchain, including complexity, adoption rates, cost and integrity of the source data feeding it. Data management systems at individual companies and alignment across industries and sectors will be key to data standardization and utility.
- Satellite imagery for monitoring also has limitations in that ground-level monitoring is often still necessary. In addition, continuing to innovate and expand upon existing technologies, such as the Global Forests Watch, may require additional capital to complete.

OPPORTUNITIES

As pressure to address climate change accelerates, forests will come into greater focus, resulting in the need for efficient and useful technologies to support traceability and monitoring.

- Companies can set ambitious goals for forests and should expect stakeholders to hold them accountable due to growing awareness among end-consumers, especially Gen Z. In return, this may translate into a willingness to pay a premium for verified sustainable products.
- Diverse stakeholders, such as companies and farmers, can work together on innovative forest solutions, for example integrating livestock and forestry systems.
- Carbon markets can provide new funds for managing forests when they leverage forest carbon stocks to offset harder to abate emissions.

KEY LESSONS LEARNED AND RECOMMENDATIONS

- Companies should take an active role to prevent deforestation in their supply chains as the risk of inaction has cascading effects on crop yields, the quality of their produce/raw materials and, ultimately, financial returns.
- Technologies can enable the integration of information and actions that prevent deforestation and ensure a value chain free of products coming from deforested zones, but this is not a unique solution. It will require stakeholder alignment and increased corporate actions to eliminate deforestation from their supply chains.
- It will be necessary to overcome the costs of technology deployment, in particular to enable independent growers to leverage them to create additional revenue to reward sustainable practices.
- Other value chain participants beyond farmers can be a great source of technology, funding and demand for more sustainable land use (such as companies that provide inputs to farmers).

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Suzanne Feinmann, WBCSD Education team, led the publication of this document.

DISCLAIMER

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ABOUT THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. We help make our member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD \$8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability: united by our vision of a world where more than 9 billion people are all living well and within the boundaries of our planet, by 2050.

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