

INSIGHTS INTO SUSTAINABLE PROJECT MANAGEMENT

A GPM RESEARCH INITIATIVE



Driving
Sustainable
Change

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GPM is the world's foremost authority on sustainable and regenerative project management. As a social enterprise we are focused on decoupling environmental and social degradation and prosperity by evolving the project profession through principled and value-based methods.

From our multiple award-winning standards, training, assessments, and certifications, we are a key driver of sustainable business and the UN Sustainable Development Goals (SDGs).

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Introduction

We are pleased to present the results of our third comprehensive study that provides insights on sustainability and project management.

Since our 2019 study, the global landscape has changed dramatically. In the profession, we have seen an increased level of awareness of what sustainability related impacts are and their relevance to projects and project management. As a result, we have been able to dig a little deeper into the qualitative aspects which you will see in this publication.

Set against a backdrop of a world that is much different than it was just three years ago, the lens that we look at projects through has changed. The Pandemic has had far-reaching impacts on our way of life, the frequency of extreme weather events is ever increasing, and as much as we advance technologically, the number of people who do not have access to basic resources needed to survive is staggering.

The preamble of the Earth Charter states that “we stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise.” This is more true today than it was over 20 years ago when it was written.

Project Management is the profession of change. Our work provides countless benefits to humankind, but those benefits also include challenges and costs. It is time we take a small step back, reassess what we are capable of, and take a giant leap forward to address challenges that put future generations at risk.

To quote Winston Zeddemore, “We have the tools, we have the talent.”



Dr. Joel B. Carboni
Founder and President, GPM Global



Respondent Breakdown

33,348 individuals from 94 countries participated in our study, with the largest respondent group coming from the United States. 51% were from 8 countries, as shown below. The remaining 49% were from 86 other countries. The number of respondents is down slightly from 40,000 in 2019; however, the sample size spans a more extensive and diverse demographic.

- USA
- U.K.
- Costa Rica
- France
- Russia
- China
- Australia
- All Others

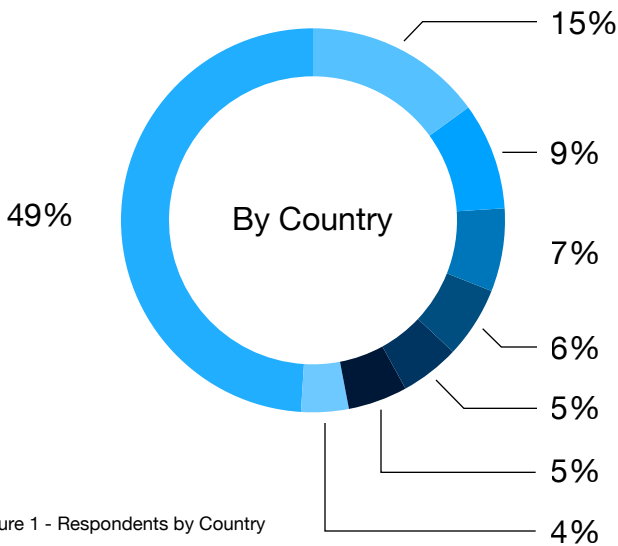


Figure 1 - Respondents by Country

- Project Manager
- Program or Portfolio Manager
- Consultant
- Executive
- Sustainability Manager/Director
- Academic
- All Others

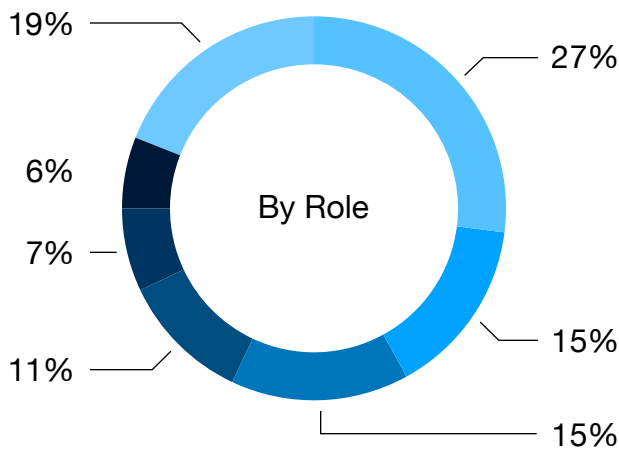


Figure 2 - Respondents by Role



Age Range Percentage of Respondents	
18-25	1%
26-35	18%
36-45	30%
46-55	26%
56-65	22%
66	3%

Table 1 - Age Range of Respondents

By Industry	
Consulting and Strategy	20%
Education	15%
Engineering	14%
Information Technology	13%
Construction	12%
Government and Defense	8%
Healthcare	6%
Banking	5%
Mining	3%
21 Others Combined	4%

Table 2 - Respondents by Industry

Project Management Must Take Action on the Climate Crisis

Climate change is the defining crisis of our time, and its impacts are being recognized and felt in a myriad of ways in each part of the world.

Rising temperatures are fueling environmental degradation, natural disasters, weather extremes, food and water insecurity, economic disruption, conflict, and environmental refugees. Sea levels are rising, the Arctic and Antarctic's ice sheets are melting, coral reefs are dying, oceans are acidifying, forests are burning, and businesses and projects are being affected.

Extreme and more frequent weather events are the most straightforward way we feel climate change in our daily lives.

In 2021 alone, the effects of only 10 weather events, including Hurricane Ida, the European floods, the Texas winter storm, Henan floods in China, the British Columbia floods and once in a thousand year heat dome, France's "cold wave," Cyclone Yaas in India, and Bangladesh, the Australian floods, Typhoon In-fa in China, Philippines, and Japan, and Cyclone Tauktae in India, Sri Lanka, and the Maldives resulted in 170 Bn USD alone in direct destruction. This does not consider the disruption that they and other extreme weather events had on business operations and projects from lost capability, capacity, and reconstruction costs.

When we posed the question **"Have extreme weather events such as flash floods, wildfires, sea-level-rise impacted your project work?"** to Project Managers, 38% said yes. This is up from just 4% in 2019. The response was even higher among Program and Portfolio Managers, who noted that 42% are being impacted. Among Executives, 28% said yes, while 72% were either unsure or said no.

When asked if the project profession is doing enough to combat climate change, 100% said no.

There is no question that each profession must put the investment and work in to understand its impact on climate change and take immediate measures to eliminate harmful practices.

Business as usual is not good enough, and as the infinite cost of climate change reaches irreversible highs, now is the time for bold collective action in assessing the impact of projects and project work.

Aside from utilizing our **P5 Standard for Sustainability in Project Management**, performing a **P5 Impact Analysis, and embedding a Sustainability Management Plan** into the project, answering a couple of simple questions can ensure balance.

1. Does my action heal the future or steal from it?
2. Does it enhance human well-being or diminish it?
3. Does it restore bio-diversity or deplete it?
4. Does it increase global warming or decrease it?
5. Does it serve human needs or manufacture human wants?

According to Project Managers, 38% of projects globally are being impacted by climate change.

Have extreme weather events such as flash floods, wild fires, sea level rise impacted your project work?

Impact by Industry	
Consulting and Strategy	18%
Education	12%
Engineering	23%
Information Technology	33%
Construction	54%
Government and Defense	25%
Healthcare	16%
Banking	9%
Mining	24%

Table 3 -Impact by Industry (Project Managers)

By Role	
Project Manager	38%
Program or Portfolio Manager	42%
Consultant	34%
Executive	28%
Sustainability Professional	43%
Academic Professionals	14%
Others	27%

Table 4 -Response by Role

Questions derived from Paul Hawken's Action + Connection Checklist

Get Used to Pandemics, They Aren't Going Away

There is general consensus in the science community that deforestation and our encroachment on diverse wildlife habitats is helping diseases to spread from animals to humans more frequently.

Additionally, melting permafrost can free Methuselah microorganisms (microbes that have been locked in permafrost for millennia), which can re-awaken if Arctic ice and the microbes defrost, releasing bacteria that are resistant to antibiotics, or introduce viruses that humans have never encountered before.

It is only a matter of time before the next Pandemic rears its ugly head. In the last 20 years alone, the world has had several major health crises - SARS, MERS, Ebola, avian influenza, swine flu, and finally, COVID-19.

It will be quite some time before we understand the full impact of the COVID-19 pandemic, but history has shown that crises can produce lasting changes in the business world. The 2003 SARS outbreak in China is largely credited with the rapid shift to e-Commerce and paved the way for Alibaba (at the present time, one of the worlds most financially valuable corporations).

For projects to ensure stability and deliver on intended benefits, risk management must account for disruptions of this magnitude and establish ways of working that ensure continuity.

In our research, we asked In response to COVID-19 if their organization placed greater emphasis on sustainability issues such as increased work from home/less commuting to reduce pollution.

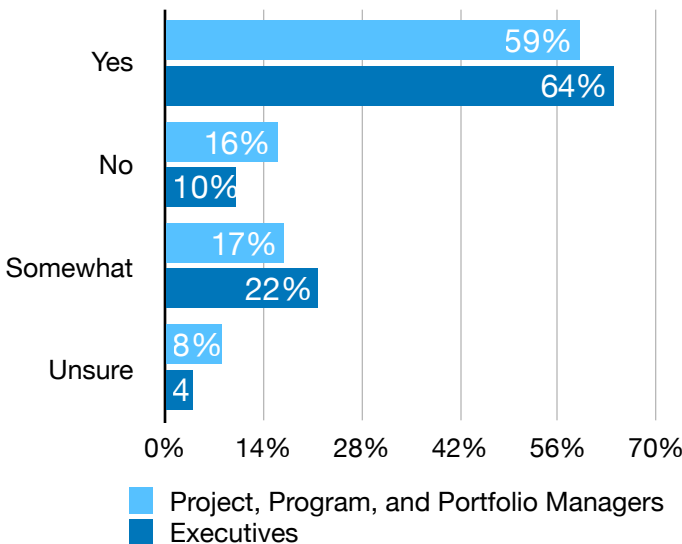


Figure 3- PPM and Executives Emphasis on Sustainability Issues



Public Cremations in India, 2021 Photo Courtesy of Aldaf Quadri / Picture Alliance

Respondents who's organization planned to continue alternative working models post-COVID

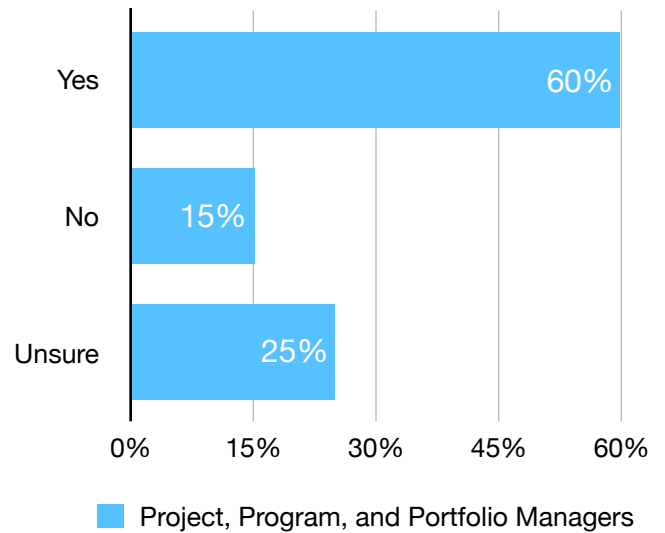


Figure 4 - PPM Continuing practices post-COVID

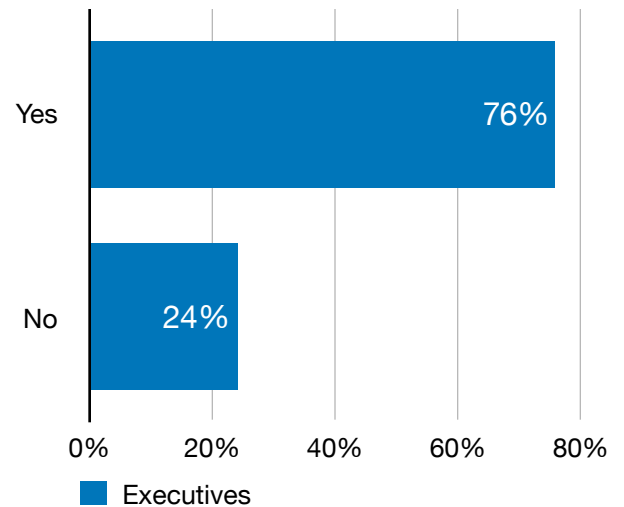


Figure 5- Executives Continuing practices post-COVID

Based on interviews with our respondents, these six trends are likely to continue, if not accelerate, post-pandemic.

1. **Enhanced Health & Well-being Initiatives** - With a focus on mental health and stress reduction. McKinsey's report about the **Future of work** found that at least 49% of remote workers are feeling some symptoms of burnout. This is an alarming proportion, signaling that the productivity gains may not be long-lasting unless project managers take action in supporting the psychological well-being of their team.
2. **Remote Teams and Hybrid Meetings** - A recent **Gartner poll** showed that 48% of employees will likely work remotely at least part of the time after COVID-19 versus 30% before the pandemic.

Even as people return to the office, project team meetings are likely to keep a hybrid element that enables full-fledged remote participation.
3. **Personal Growth and Development** - Maintaining a work life balance while in quarantine proved challenging for many as the lines between personal and professional life became further blurred. Using free time to work on personal development as well as mindfulness enhances quality of life.
4. **Emphasis on Impact** - The command and conquer approach to project delivery has been giving way to a values and benefits focused approach and will continue until impact equals profitability in importance.
5. **Purpose over Profit** - While nobody questions the need to be profitable, organizations must put principles, values, and ethics at the forefront of decision-making to contribute to regenerative development.
6. **Resilience** - Organizations must build resilience by establishing resilience governance, revisiting and rethinking crisis management structures and response strategies, while fostering a culture of resilience.

This begins with deconstructing silos between teams, and integrating them to coordinate the tactics, tools and technologies needed for an effective crisis response.

Valuing the Process Not Just the Outcome

Dr. Rodrigo Tavares,
Founder and President,
Granito Group

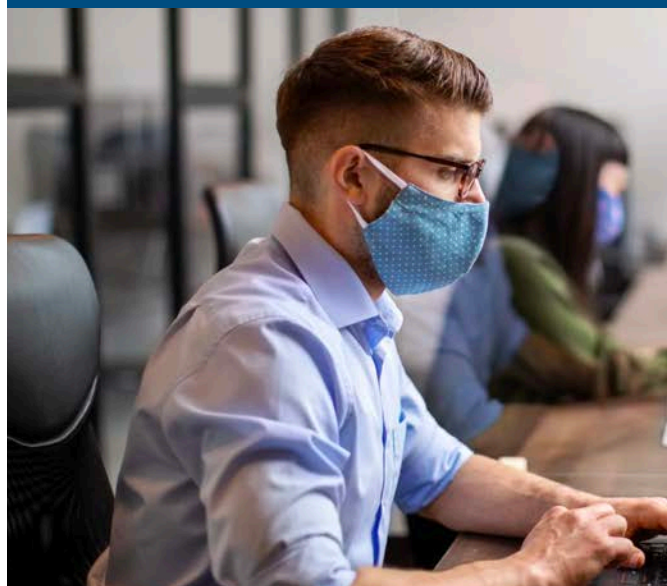


“Work is a set of activities involving mental or physical effort done in order to achieve a result.

With time, the final result gains substantially more importance than the efforts themselves. Most workers work to achieve financial compensation, positive societal or environmental impact, or an emotional sense of personal fulfillment or social realization.

Work then becomes output-driven, achievement-based, product-oriented. When work becomes a means and not an end in itself or when we stop truly valuing our daily professional activities, disengagement and fragmentation starts.

In the future, being a leader perhaps won't be so much about targets and accomplishments, but about having the courage to reconnect ourselves with our inner strengths, values and rhythms.”



Sustainability is the Bare Minimum, and That Isn't Enough

Since 2009 GPM has worked to advance sustainable practices in project management. Our approach has always been to go beyond the common understanding of sustainability and focus on value creation, the central focus of regeneration.

According to Merriam Webster, Sustainable is defined as "capable of being sustained" and "of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged." That simply isn't good enough.

Our methods and tools advocate for addressing root causes of sustainability-related issues and focuses on *value creation*, whereas the common understanding is merely "do no harm" but not necessarily to "do good".

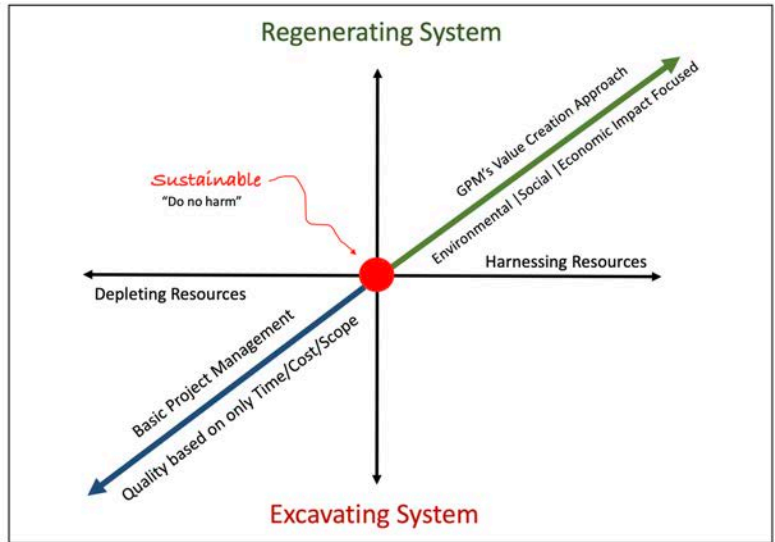


Figure 6- Excavating vs Regenerative

In practice, we have been advocating for regeneration since our founding, what Paul Hawken eloquently outlines in his new book, ["Regeneration: Ending the Climate Crisis in One Generation"](#) as **putting life at the center of every action and decision.**

The challenge with introducing new or different terminology (Regeneration vs. Sustainability) is that it took 30 years for sustainability to gain a foothold as a household term. Detractors could see it as just a repackaging of the old. In reality, regeneration goes beyond sustainability in making decisions that put life first. Ultimately we must ask ourselves, "what is it that we are sustaining?" We must regenerate what has been lost and sustain that future regenerated state. To put it mildly, sustainability is the bottom rung on the ladder, we must climb higher.

Whether you want to use Green, Sustainable, or Regenerative, your action is what matters.

In our research we prefaced a question with "Sustainable Development means to do no harm whereas Regenerative Development means to regenerate what has been lost or resolve existing harms" and then asked "In your projects, are you seeing an increased focus on Sustainable Goals, Regenerative Goals?"

	Sustainable Goals	Regenerative Goals	Neither	Both	Unsure
Project Managers	46%	7%	23%	18%	6%
Portfolio and Program Managers	49%	5%	29%	12%	5%
Executives	61%	7%	10%	20%	2%
Government Officials	66%	6%	7%	19%	2%
Sustainability Professionals	76%	14%	2%	8%	0%
Academics	53%	4%	17%	10%	16%

Table 5 - Sustainable or Regenerative

The outcome of the question **“In your projects, are you seeing an increased focus on Sustainable Goals, Regenerative Goals?”** provides some insights as to where communities, permanent organizations and projects are in terms of alignment with sustainable development and/or regenerative development.

There is strong alignment among Project, Program, and Portfolio Managers, Executives, and Government Officials as shown in Figure 7.

The current focus is on sustainable development with a slight edge to both among Executives.

This is a trend that we will keep close eye on to see if the paradigm shifts in the coming years as proponents for Regenerative Development build tools and methods to support its advancement.

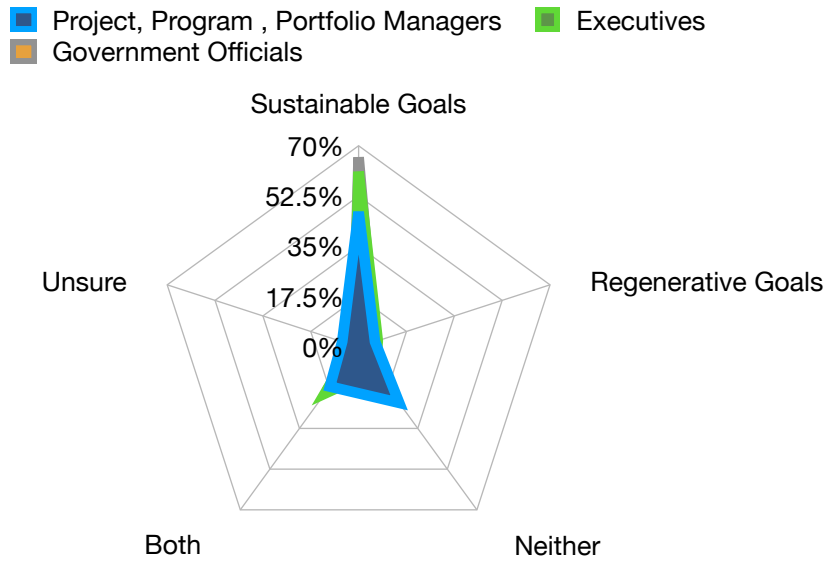


Figure 7- Sustainable or Regenerative

Why we Made the Shift to Regenerative Development

Brian Harroun, Founder and CEO, Nobilis Industries - USA

“Regenerating means restoring, renewing and replenishing in addition to conserving. For us, decarbonizing operations and eliminating waste in our value chain by partnering with our suppliers and customers is paramount. By sharing best practices and encouraging the adoption of regenerative practices while advancing prosperity and equity for our employees and the environment that supports our facilities is how we will lead manufacturing and revolutionize the steel industry. For us, the GPM360° P5 Assessment process outlined areas that we didn’t think to include in our strategy, allowing us to put our best foot forward. We are committed to do our part in transforming the world’s manufacturing industry to be regenerative.”



The Impact of The P5 Standard for Sustainability in Project Management

In 2016, we began studying the impacts of our P5 Standard on the PM profession. The initial study, which surveyed individuals from a wide range of disciplines, provided us some basic information on how our standard was being utilized.

Below is a comparison of the responses followed by some quantitative analysis.

P5 Impacts				
Year	Respondents by Role	Respondents by Location	Respondents who put the P5 Standard into Practice	Respondents who saw a tangible increase in project performance
2022	42% Project/Program/Portfolio Managers 21% Consultants 11% Executives 7% Sustainability Professionals 19% Others	61% The Americas 16% Asia Pacific 15% Europe 5% Russia & CIS 2% Middle East 1% Africa	87%	95%
2019	32% Project/Program/Portfolio Managers 23% Academics 18% Government Officials 15% Executives 6% Sustainability Professionals 3% Training Providers	46% The Americas 19% Europe 13% Asia Pacific 3% Africa 2% Russia and CIS 1% Middle East	82%	95%
2016	39% Project Managers 19% Academics 11% Executives 8% Training Providers 6% Government Officials	44% Europe 38% The Americas 10% Asia Pacific 6% Africa 2% Middle East	76%	93%

Table 6 - Respondents over the years

For 2022, we had the benefit of surveying and interviewing a wider audience as our standard has enjoyed widespread distribution with over a half million downloads worldwide of our 2.0 Release in English, Farsi, French, Indonesian, Italian, Malay, Portuguese, Polish, Russian, Serbian, Spanish, and Arabic (Version 1.1).

In this release, we followed up with many respondents to gather more qualitative analysis with the aim of improving future releases to better serve the profession.

What We Learned From Project Managers

The P5 Standard was first released as a concept and has evolved over the past twelve years through various forms. It provides guidance on how to approach sustainability in projects and how to manage risks and opportunities. Project Managers comprised the largest respondent group in our study with 9,000 responses representing 97 countries and territories.

To better understand the impact of the standard, we asked why they initially downloaded the standard and to find out how it benefited their projects.

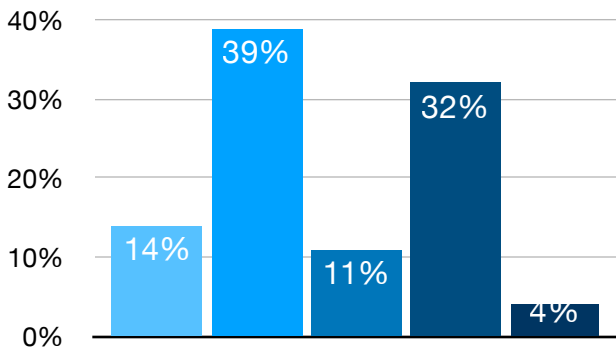


Figure 8- Reason for downloading the P5

- Research
- As a project tool to integrate sustainability
- To develop governance
- To learn about sustainability and projects
- Other

26% realized the most improvement in environmental sustainability

14% saw the most improvement in social sustainability

5% saw the most improvement in economic sustainability

55% realized a balanced improvement across all three domains

80% of PM respondents who downloaded the standard to put it into practice which is up from 26% in 2019.

Years of PM Experience	Percentage
0-1	2%
1 to 3	10%
4 to 5	7%
6 to 10	42%
11 to 15	14%
More than 15	25%

Table 7 - Respondent Experience

14% of respondents were conducting research on how to integrate sustainability into projects, up from 5% in 2019.

“Have your projects improved in performance from a sustainability standpoint as a result of P5?”

95% Yes
5% No

This number has remained unchanged even with an increase in adoption through new languages.

“How would you rate the increase in project performance, from using the P5 Standard, on a scale from 1 to 10? (Of those that said that they use it and see benefit...)”

10 - 16%	5 - 3%
9 - 28%	4 - 6%
8 - 19%	3 - 3%
7 - 10%	2 - 3%
6 - 9%	1 - 3%

What We Learned From Executives

As was the case in our 2019 study, almost all executives (97%) who responded believed that projects and project management are integral to sustainable development. Of those same executives, only 13% believe the profession is doing enough to combat climate change.

Despite 91% of executives seeing a tangible increase in sustainability performance as a result of implementing the P5 standard, a slight increase from 2019's 86%, there is concern that not enough organizations are mapping project objectives to organizational sustainability strategy and reporting.

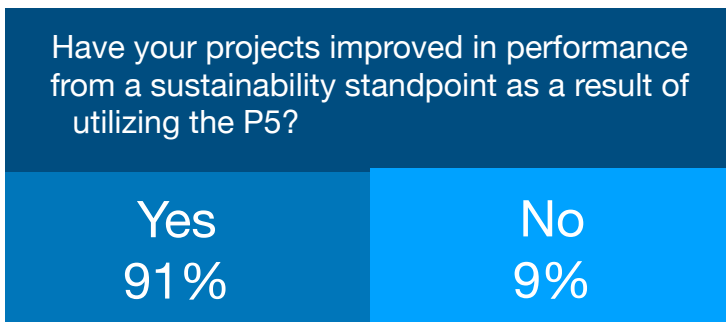
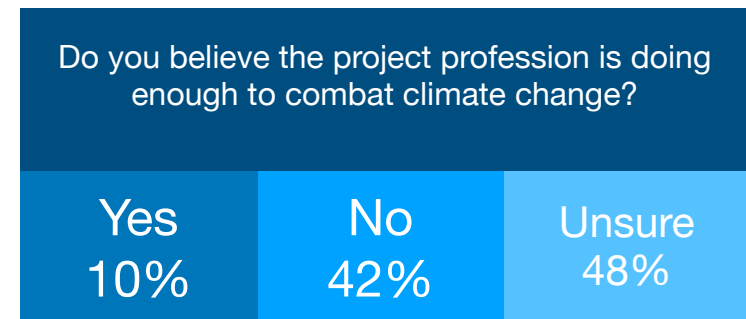
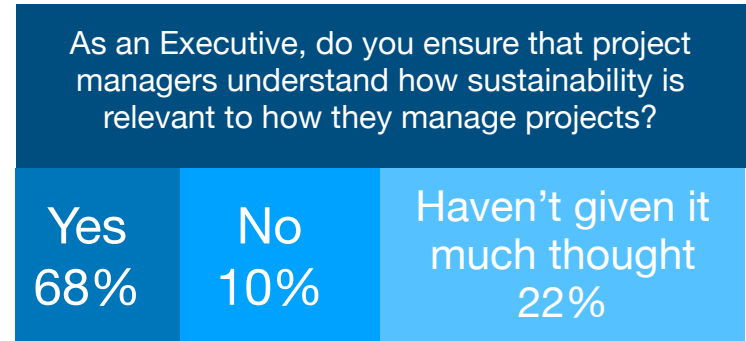
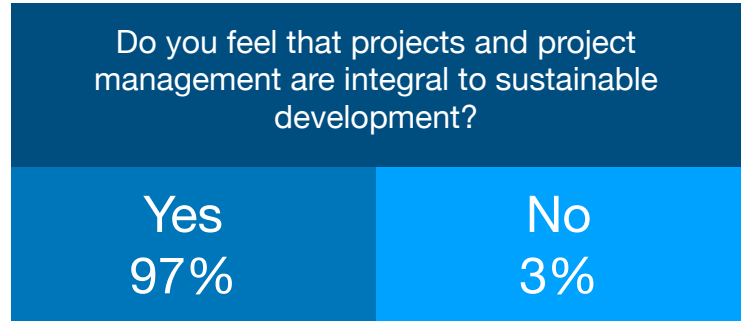
Of the organizations who stated that they do sustainability reporting, only a handful (6%) stated that they include projects.

The estimated global GDP in 2021 stood at 94 Trillion US dollars. According to our executive respondents, 28% stated that their projects are being impacted by climate change-related extreme weather events which, if project work comprises 30% of global GDP* (in some countries more), amounts to 7.9 Trillion US dollars being put at risk.

As was mentioned on page 8, sustainability is the bare minimum required to transition to a NetZero economy and limit the global rise in temperature to 1.5°C above pre-industrial levels.

In order to tip the scales towards regeneration, a wide-scale movement to address sustainability related impacts at the project level is a critical starting point.

The profession must be a valuable piece to the puzzle if we are to address climate crisis.



P5 In Action

The demand for digital transformation continues to increase and a number of challenges must be addressed for its full potential to be realized, some relating to the environmental impact of digital technology itself.

From a total systems lifecycle perspective, the consumption of natural resources to develop and deliver technical solutions is creating an ever-increasing amount of e-waste, resulting in environmental degradation.

Complex supply chains and data centers need to ensure that technological advances are in lock step with regenerative development.

Utilizing the P5 Impact Assessment, organizations can identify areas of impact, develop mitigation strategies, and create key performance indicators (KPIs) to ensure that the project is delivered in a sustainable way that supports regenerative development.

“We use the P5 Impact Analysis and the Sustainability Management Plan throughout the project lifecycle and it has been instrumental in introducing the topic of sustainability within the IT departments and talking about these with ease and everyone understanding the concept.

It enabled our customers’ IT departments and their Senior Management to contribute to their CSR programs, and other sustainability practices.”

Katie Cox, Original Consultants – UK



"We utilized the P5 for a 20M EUR construction development project. The original design included underground storm drainage storage pipes to reduce excess water infiltration due to heavy rain events that infiltrate the city drainage system. However, these pipes are costly to lay and incur additional operation and maintenance costs even if they are not utilized (i.e., in dry years).

With value engineering, alternative solutions were developed and presented for further consideration to the client. These solutions have been analysed for their impact using the P5 Standard, which helped identify the most advantageous solution. Finally, the existing grade could be used for temporary water storage by simply elevating concrete curbstones that were to be implemented due to safety regulations. As a result, engineering found, a 2 inch higher curb would be sufficient to store enough water to prevent flooding from heavy rain events. At the same time no additional material and labour had to be used to reach this goal. This is a low-tech and low-maintenance solution [with a long lifespan] and supports several sustainability goals since it reduces labor, material, O&M, and engineering costs compared to the original solution.



Using the P5 standard, the solution could be identified as a sustainable feature of the design and will be implemented for other projects going forward."

Alexander Schroer,
estecasa FertigModulbau GmbH, Germany

"My organization, Better Work, delivers assessments, advisory, and training services to factories in the garment industry to help them offer better working conditions and to be more competitive in global supply chains.

As part of the ILO, our interventions are heavily focused on people. The main challenge for me was reviewing the factories' processes. The P5 framework helped me consider things that could have easily been an oversight, such as the resources required to review the processes and ensure that we remain viable (We do not make a profit, however, our clients pay for our services).

My team also often says that we need to identify ways to make our service model more sustainable by integrating environmental sustainability practices. It's always been a struggle because we do not have this in-house expertise. However, with the P5, I was able to clearly see the opportunities to reduce waste and improve our carbon footprint by reducing travel and moving to more remote activities.



This is still a work in progress, and our next step is to work with our Research and Impact team to ensure that the reporting indicators include key P5 elements."

Marie-Lyne Thomas
Better Work, France

Impact, the GPM Sustainable Project of the Year 2021

Company: Sepakat Setia Perunding Sdn. Bhd.
Project: Wastewater and Sanitation at Yen So, Hanoi Vietnam

In 2008, only 10% of the wastewater in Hanoi was treated. Although septic tanks are often provided during construction of new developments, they are not maintained, and eventually discharge untreated wastewater. Untreated wastewater, together with polluted stormwater runoff, is discharged directly into the rivers, causing severe pollution.

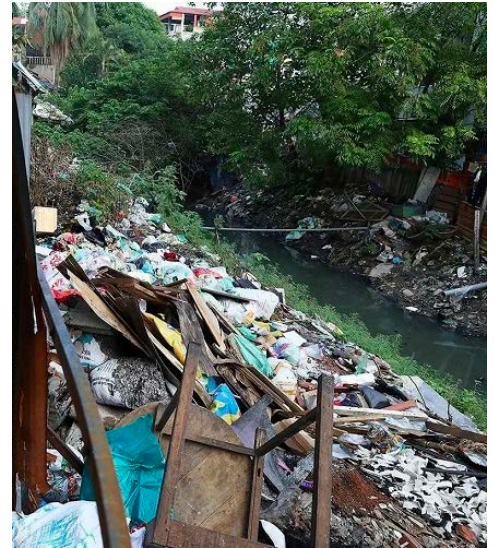
The pollution level of Kim Nguu River and Set River had reached an alarming level. In view of the severity of the issues, SSP has come out with engineering solutions in line with the existing Hanoi City Sewerage Master Plan to address this issue.

Part of the challenge was to align to the UN SDGs.

SDG 6 – Clean Water & Sanitation: Solve 40% of the Hanoi City sanitation & floating debris problem. Provide conducive environment for Development

SDG 7 – Renewable Energy: Harvest Methane Gas from Anaerobic Sludge Treatment for Bio Gen set. Recycle water for internal plant usage

SDG 9 – Innovation & Infrastructure: Make use of existing canals as trunk sewer to convey sewage to WWTP. High quality treated effluent benefits 100km downstream usage (agriculture activities)



The Project, located in the North of Yen So Park in Yen So ward, Yen So Sewage Treatment Plant spans 91,959 Sq.m and has a daily capacity of 200, 000 cu.m, equivalent to **half of Hanoi's total sewage.**

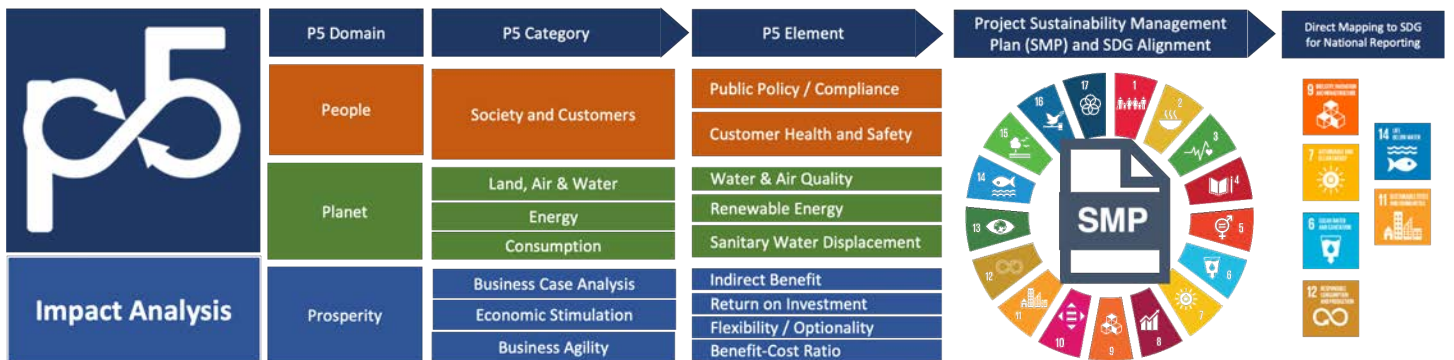


Figure 9 - The Project's P5 Impact Analysis Approach to Align Project Objectives to Sustainability Measures and align with UN SDGs

The project integrated development for all of Vietnam focusing on environmental improvement and a better quality of life for its citizens. Previously sewage and wastewater were discharged indiscriminately into open drains, canals and rivers in the city. It is now treated hygienically in the hydro and solar powered plant.

Utilizing the P5 Impact Assessment, the project was able to align the core project objectives with impact areas for sustainability to ensure sustainable delivery while mapping directly to the UN SDGs goals and targets.

Benefits:

To the Local Communities: Clean effluent from the WWTP provides a valuable resource to the farming communities in the district who until now had to contend with foul water for their irrigation needs. The benefit of the clean water quality will be enjoyed by the agricultural activities and residents living along the 100km Nhue River.

Efficiency in Waste Water Management: Reduce and control pollution in the waterways and in the long run protect the surrounding environment of Hanoi.

Reduce Health Issues: Contaminated water poses severe health threats to the communities. A well-designed wastewater treatment facility will reduce and prevent disease transmission or outbreak and go a long way to maintaining public health in general.



Sepakat Setia Perunding Receiving their project of the year award together with SustNet, the steward of the GPM Awards in ASEAN.



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