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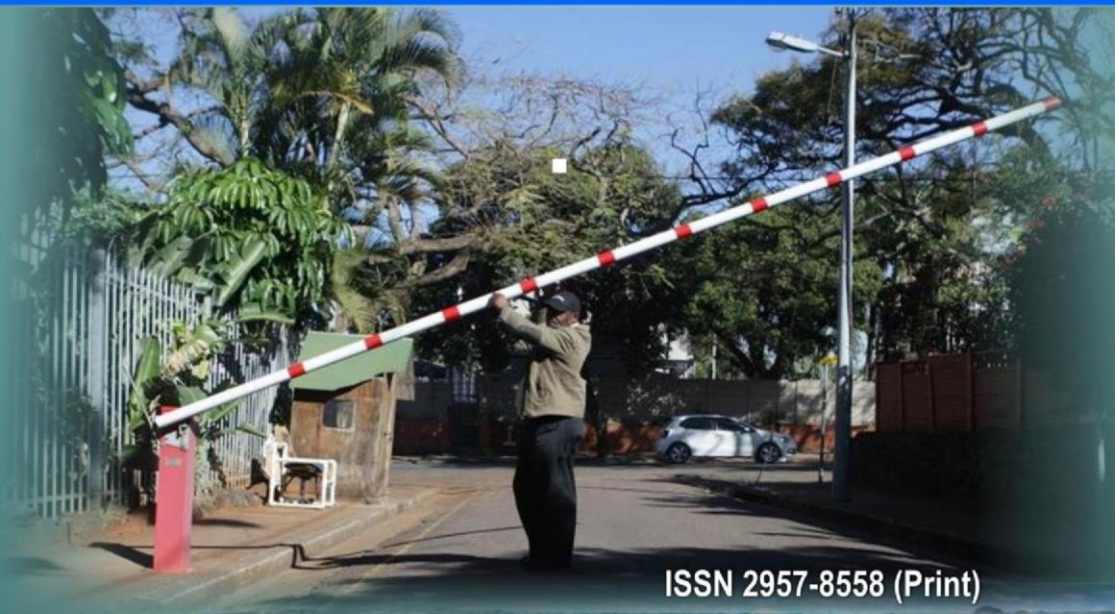
OF COMMUNITY ENGAGEMENT AND SOCIETAL TRANSFORMATION



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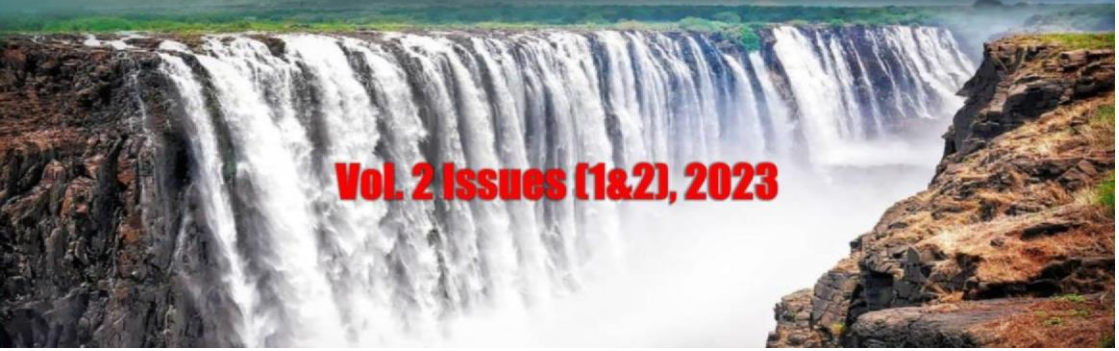

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About the Journal

JOURNAL PURPOSE

The purpose of the *Ngenani - Zimbabwe Ezekiel Guti University Journal of Community Engagement and Societal Transformation Review and Advancement* is to provide a forum for community engagement and outreach.

CONTRIBUTION AND READERSHIP

Sociologists, demographers, psychologists, development experts, planners, social workers, social engineers, and economists, among others whose focus is on community development.

JOURNAL SPECIFICATIONS

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SCOPE AND FOCUS

The journal is a forum for the discussion of ideas, scholarly opinions and case studies of community outreach and engagement. Communities are both defined in terms of people found in a given locale and defined cohorts, like the children, the youth, the elderly and those living with a disability. The strongest view is that getting to know each community or subcommunity is a function of their deliberate participation in

matters affecting them by the community itself. The journal is produced bi-annually.

Guidelines for Authors for the Ngenani Journal

Articles must be original contributions, not previously published and should not be under consideration for publishing elsewhere.

Manuscript Submission: Articles submitted to the *Ngenani - Zimbabwe Ezekiel Guti University Journal of Community Engagement and Societal Transformation* are reviewed using the double-blind peer review system. The author's name(s) must not be included in the main text or running heads and footers.

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PLANNING AND DELIVERY OF PROJECTS UNDER THE IMPACT OF COVID-19: SOME REFLECTIONS ON ZIMBABWE

ZEBEDIAH MUNETA[1], INNOCENT CHIRISA[2] AND ENOCK MUSARA[3]

Abstract

This article is a desktop study that seeks to discuss ethical considerations in the planning and delivery of projects under the impact of COVID-19, engaging evidence from Zimbabwe. The global impact of COVID-19 on project delivery has affected plans, costs and project timelines. In Zimbabwe, project planning has been affected by unsettled national and local politics. The COVID-19 pandemic might be another factor that has affected the delivery of projects and effective planning in the country. Several projects that started before the pandemic failed to be completed on the planned times lines and even in post-COVID-19 era, they are still in progress. The key cause of delays which will be discussed herein, includes re-allocation of financial resources to fight during and after the pandemic in monitoring construction projects in Zimbabwe.

Keywords: *policy, management, sustainability, management, scrutiny*

INTRODUCTION

The article seeks to discuss ethical considerations in the planning and delivery of projects under the impact of COVID-19. Zimbabwe has encountered different project crises affecting planning over the past years due to political influence, interference and natural disasters. A typical example is Cyclone Idai in 2019 which affected part of

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Manicaland. The global impact of COVID-19 on project delivery has affected overall costs, timelines and project delivery in the country. Evidence from Zimbabwe shows that planning is problematized by political instability and harsh economic conditions affecting project delivery. COVID-19 might be another factor affecting the delivery of projects and effective planning in the country. In construction, all resources are being allocated to revaluing necessary health and safety measures, forcing project managers to re-evaluate the necessary project delivery ways during the pandemic. The COVID-19 pandemic has changed the way of planning and project delivery due to the imposed restrictions that changed normal ways of working in post-COVID-19 period. Due to the pandemic restrictions, most project meetings were conducted virtually with the relevant stakeholders to improve coordination, as lack of communication and clarity on decisions can lead to duplication, inefficiency, frustration and wrong decisions.

Africa has been hit by several disasters for the past decade and people have been exposed to several hazards. Due to the rapid increase in urbanisation, poor infrastructure and informal settlements in most African cities, many people are exposed to these hazards. Environmental degradation, poverty and conflict further aggravate the risks and reduce the coping capacity of communities (Muchadenyika and Williams, 2017). COVID-19 has affected the continuous expansion of several infrastructural projects in Africa as it has affected the new ways of life. Many have found it difficult to grasp the meaning of COVID in their operations, especially for construction projects and capital expenditure programmes due to their multi-faceted components. The response of business and government entities that exist along the construction programme life cycle to COVID-19 is changing hourly, with more businesses and government entities operating under the guidelines of the World Health Organisation (WHO). COVID-19 has affected both capital and construction projects because of restrictions that have resulted in delays, an increase in costs and a loss of efficiency. Construction teams for on-site projects have been affected by this pandemic as the nature of the job requires them to be on the ground despite the COVID-19 regulations imposed by the government (Corbera *et al.*, 2020). However, in some circumstances, there was a total

shutdown imposed by the Zimbabwean government, seriously affecting project operations.

Environmental change influences the extent and severity of weatherrelated events, although it does not justify their destructiveness. The key factors are the populations of vulnerable persons and property, access to unsafe sites and lack of adequate personal protective equipment for COVID-19 (Hewitt, 2013). Catastrophes and damages suffered in most African countries have evolved over a century, while in wealthier nations, economic casualties are more dominant in causing deaths, unlike in developing countries (World Bank, 2010). In Southern Africa, it is difficult to distinguish urban threats from deprivation and wasteful transitions of ex-urban property lands or projects that push people into the cities.

Excessive casualties underline the role of socioeconomic factors in disasters in specific locations and classes of people. A moral view considers hurricanes, flooding and burning as indiscriminate threats (Chan, 2020). Impoverishment and pre-existing vulnerability classify most casualties of a tragedy and disproportionate deaths in subgroups. Most African countries, owing to their hard-earned expertise and feedback from civil society organisations (CSOs), such as the National Red Cross and Red Crescent Societies, are evolving beyond the conventional narrowly sensitive approach to disaster and pandemic responses. Rather than relying solely on the response process, African governments are gradually realising the value of taking preventive steps to reduce the effects of disasters and pandemics on the population (Corbera *et al.*, 2020).

RESEARCH METHODOLOGY

Given the noted and un-reviewed nature of this research problem, desktop research was adopted. Relevant information was identified from existing literature on disaster management in planning and project delivery in Africa, paying particular attention to Zimbabwe. Some data were collected from the WHO, World Bank reports, articles from Google Scholar and unpublished papers presented in the past on some of the key themes of planning, development and construction.

THEORETICAL FRAMEWORK

Business Continuity Management (BCM) has been characterised as an instrument that perceives the weakness of an organisation to inside and outer dangers and orchestrates hard and delicate resources for fruitful alleviation and recuperation (Surg, 2020). BCM includes the cycle of danger ID, including normally happening chances, human blunder chances and those emerging from pernicious acts, assessment of expected money-related misfortunes, reputational harms and conceivable legitimate activity, hazard relief procedures including limiting danger, moving danger, through protection and making redundancies, building up calamity recuperation plans and building up a cycle of ceaseless checking and controls (WHO, 2020). It can also be divided into four stages: safety, prevention, emergency and recovery (Corbera *et al.*, 2020).

BCM originated in information management and only recently spread to cover technology and the social aspects of maintaining asset protection and business continuity (Surg, 2020). It has also expanded in the field of higher education to include knowledge technologies, contact networks and the offer of services that can be expanded through inter-institutional collaboration. Price Waterhouse and Coopers (PwC) (2020) noted that the interconnectedness, unpredictability and worldwide nature of the development of business' flexibility chains and labour force influence the expense and timetable of framework ventures during the COVID-19 pandemic. The report proposes five moves that could be made to moderate negative outcomes. They are to distinguish basic providers, think about legitimate and monetary ramifications, discuss obviously with all partners, lead situation examination and make an emergency course of action (Corbera *et al.*, 2020).

Scenario planning strategies focus on a series of expectations that encourage one to consider future scenarios. Scenarios are based on a series of circumstances, factors or guiding powers decided upon by those involved in the practice of scenario planning (Curtis, Kross and Stapleton, 2020). This preparation aims to develop, build and expect practical yet stable potential scenarios by growing unpredictability. Therefore, the scenarios vary from the predictions as they require

discontinuities, new anomalies and developments to be implemented. The concept of scenario planning is an integral concept that should be inclusive and the planning exercise is also a dynamic ecosystem of instability and multiple risks that occur in a city or country, primarily due to its unorganised and unregulated development (ICT, 2012).

Scenario training can be coordinated by professionals, states, corporate departments, groups, or research activities. There are generally three stages of the description of driving forces each identifying features and alternatives or alternate solutions (for increasing driving force), review of the interdependencies of the driving forces and interpretation of possible possibilities and input and cooperation (*ibid.*). Scenario preparation is typically multi-hazard-oriented and does a collaborative multi-actor activity comprising limited or broader communities that consider contributions from their various sets of knowledge. The feedback is conveyed through stories, videos, two-dimensional or three-dimensional visualisation experiments or other ways (Surg, (2020). These repeated mechanisms, in a wider context of action research, highlight the need to strive to engage all participants in the chain of activities where information and choices are taken, continually develop and strive to be influenced (such as special meetings, conferences with key players, group meetings and seminars for society in general). Such participants are active in the cycle of utilising consensus-building methods to compile, validate and change the scenarios. The consistency of the scenarios is determined by the ability and expertise that each person brings into the process; this is why a wide range of voice-based involvement is needed (Khan *et al.*, 2015).

Using the knowledge obtained from the scenario planning exercise, the right strategic steps may be identified to accomplish the optimal or ideal scenario, avoid the bad ones from occurring, capture incentives and encourage tactics to allow good, realistic results to be achieved (Corbera *et al.*, 2020). Law, policies, strategic methods and practical decision-taking ideas may be built from such an exercise. Although the process does not guarantee the political will or commitment of the community necessary to take the desired actions, increasing awareness of alternative

paths for sustainable growth is also a strong starting point for promoting progress (Khan *et al*., 2015).

LITERATURE REVIEW

Much of the ethical preparation is undertaken in reaction to the problems of the 19th-century industrial community. The early days of planning and public health were indistinguishable in the global north (Muchadenyika, 2015). Indeed, advocacy to tackle public health issues encouraged policy-makers to intervene with private property rights in the public interest, resulting in a system of policies and laws that helped define planning as a separate discipline. With a focus on unhealthy miasma, overpopulation, and a growing fear of social instability, new models emerged in Europe and North America from the 1880s to the end of World War II, seeking to find a way to plan a liveable city. These designs were intended to moderate congestion by strategically controlling densities and ensuring the availability of a large open public space.

Improving proximity, access and exposure to green spaces were essential. However, these ideas did not finally materialise, as they were overtaken by the automobile in the post-war period, especially in North America. As suburbanisation became the norm in many northern cities since the late 1950s, concerns arose about how poorly managed sprawl resulted in declining social cohesion, traffic jams and a multitude of environmental problems (Corbera *et al*., 2020). It was in this context that the planning began to take a full turn, where once she struggled with density, she embraced it. Specifically, a new cohort of planners began to re-examine old configurations of urban neighbourhoods that the previous generation of professionals considered detrimental to public health (Khan *et al*., 2015).

In the face of the impact of COVID-19 on planning, capital projects and construction programmes, there are important steps that owners, contractors, subcontractors and suppliers can take to improve the control of their building programmes and be well-positioned when the pandemic abates. Currently, there are several self-imposed guidelines,

ordinances and restrictions regarding the planning, design and management of certain construction projects (Corbera *et al*., 2020). Guidelines change daily and affect projects in different ways, depending on the status, scope and location of the project. Planning steps to consider include proactively developing a mitigation plan for potential project delays, closures and restarts, reviewing projects to identify work that may need to be strategically suspended, assessing services that may continue off site, to limit schedule delays and focusing on design and contracts, limiting the risks associated with uncertain hours and are positioned for effective engagement once restrictions are relaxed (PWC, 2020).

In project management, developing the project start-up plan before slowing down or stopping, has a bearing effect on the project timeline, hence the need to complete proper documentation of project planning with some allowance of the disturbances that affect the project timeline. Hence, the available literature provides possible opportunities that project managers can implement on their projects in the future and review active projects to determine stages of development and evaluate the proactive measures that can also be implemented to improve the workplaces of their teams on the ground.

Following the maximum impact of the pandemic, most companies in all industrial sectors will focus on profitability to ensure sustainable demand for delivery teams at competitive prices in delivery centres (Lennon, 2020). The economic consequences of the pandemic increased the appetite for the benefits of global delivery labour arbitrage, increasing competition for talent in major centres. In the medium term, service providers may need to adopt a more open and flexible approach to remote working to retain their best employees (Curtis, Kross and Stapleton, 2020). This can be a challenge given the drastic approaches taken by some companies to maintain the productivity of their home-workers, including the intrusive use of online working for people's safety.

An increase in the use of independent resources, as companies seek to keep their internal bench as lean as possible while bringing in outside

experts to fill specific gaps in their ranks, could be seen after the pandemic. This is a role that will continue to be supported in more flexible labour markets such as the UK and the Netherlands, by wellestablished body shops. However, this will also spark interest in platforms like e-work in Sweden that connects companies to independent consultants with relevant experience (Deloitte, 2020).

The massive remote work experience will have a lasting impact on workforce preferences that service providers must respond to in a war for talent. There may be a slight shift from the recent emphasis on local delivery to the use of global equipment driven by the need to reduce costs and limit exposure to regional risks (Lennon, 2020). As new projects start to take off, it will be beneficial to use independent resources to keep internal teams as tight as possible (Le *et al*., 2020). As part of the COVID-19 response, the project's decision-making time may not keep up with the organisation's typical day-to-day operations. Project managers may be required to make decisions with incomplete or rapidly changing data. If an initial risk assessment has been completed, the project team will be better prepared to implement contingency plans and make the most informed and effective decisions to move the project forward. By taking an inventory of the skills and competencies that exist within the project team to confirm gaps or uncover hidden talents, one may find that they have a hidden cameraman, educator or writer who could benefit from the project (PWC, 2020).

One of the most common risks that organisations face due to COVID19 is the risk to the project schedule. Many client partners have had to re-allocate resources, including project team members, to cope with the immediate increase in patients admitted to hospitals due to COVID-19. In some states, construction projects have been temporarily suspended to reduce transmission of the virus. As argued by Deloitte (2020), for companies to avoid complete closure of some projects, they must rework their schedules and determine areas that can be compressed or consolidated simultaneously instead of sequentially (Deloitte, Many companies develop a priority scale for the project and work on the deliverables. Even though COVID-19 is still spreading, experts are reading warnings of more waves of the virus and similar viruses to

come. This would reduce the risk of project bogging in planning and implementation due to the deadly pandemic (PWC, 2020).

In project planning and management, the danger lies in shortening execution times as projects will be less participatory due to lack of workers on site. Proper participation in the project identification phase takes time, ideally allowing everyone involved to reflect, deliberate and come together if necessary (Le *et al*., 2020). One of the biggest challenges that could be encountered in the post-COVID-19 period for development project managers could be linked to good turnout on tight deadlines. The importance of the project guide provides information on the activities of the sequence activities and estimates the duration of the activity. Key elements of effective project planning, the project's critical path and waterline are very important during the planning phase (Lennon, 2020). Project development experience tends to focus more on the human side of projects as time management is given less priority. In the post-COVID era, time management is becoming a more critical activity, showing that levelling and smoothing resource optimisation techniques are gaining importance in the development industry. Project implementation and schedule control are complementary to schedule planning and include making adjustments to the project to correct deviations from the schedule plan (Deloitte, 2020).

As organisations seek competitive advantages in current dynamic business environments, project management becomes the method of improving quality to improve the overall performance of an organisation (Le *et al*., 2020). In this sense, management of an organisation's projects turns out to be the means of change and growth. By leveraging project management tools and techniques, organisations strategise and implement innovative business approaches to gain or, perhaps, maintain competitive strengths (Lennon, 2020). Since the life of many organisations is tied to their ongoing projects, their particular revolutionary organisational strategies have led to project management as a vital business practice. It is also considered a practical approach as it forms the foundation of organisational strategy.

As COVID-19 persists, policy-makers and healthcare providers are focusing on urgent needs like improving medical capacity, combatting

malnutrition and protecting businesses and families from evictions and bankruptcy. Many funds from the the World Bank, the International Monetary Fund (IMF), other national development banks or central banks, aim to fund security teams at clinics, support financial systems and compensate companies for providing funds, products and services to critical staff. or provide direct cash assistance to households (Lennon, 2020). Interim research has been initiated in several countries on what the next growth period would look like and the position of effective public intervention to improve demand, generate replacement income and encourage new investment (Curtis, Kross and Stapleton, 2020). Most countries, including China, Germany and South Korea, have promising signs of ecological problems as part of their rebirth. The decisions that policy-makers make to jump-start their economic engine and the long-term social, fiscal and environmental co-benefits they seek to derive from their stimulus spending would be extremely important in ensuring that they come back stronger and in better health.

RESULTS

Many have faced human and financial resource constraints to meet the urgent needs of students in the COVID-19 era. Government partners and staff face fiscal and technical constraints to allow staff to work remotely and meet student needs. The lockdown has reduced staff mobility with implications for the implementation of response activities that have affected the progress of several projects in the country due to travel restrictions imposed by the government. While the government issued some letters authorising movement after the initial lockdown, some partners face new mobility challenges during the second phase of the lockdown. In other sectors, urgent solutions to target learners who are unable to access digital or radio lessons due to coverage or domestic considerations, are minimal and need to be deepened to improve response.

CASE STUDIES OF PROJECTS AFFECTED BY COVID-19IN ZIMBABWE

The affected projects in Zimbabwe were on loan facilities secured from China Eximbank and other financial institutions. The Zimbabwean government-imposed lockdown restrictions in the country following the recorded coronavirus cases and deaths. Several Chinese projects

delivery in the country were affected by this pandemic, namely the US$1,1 billion Hwange Thermal Power Station expansion, the US$153 million Robert Mugabe International Airport expansion and the US$100 million New Parliament Building in Mt Hampden, Harare, and the US$70 million NetOne expansion (Muchadenyika, 2019).
Zimbabwe is already battling to resuscitate its collapsing economy and the outbreak of COVID-19 worsened the situation, especially in project delivery, as these projects are key in turning around the country's economic fortune. Post-COVID-19 resources were re-allocated to the slowed down projects, showing that some activities started to pick up, for example, the completion of the New Parliament Building and the Robert Mugabe International Airport.

However, economic analysts have revealed that the implementation of the projects has been disrupted by the pandemic with the delay in huge construction shipments, as the world races to find a solution to contain COVID-19. Chinese Enterprises (2019) noted that

> ―several projects and other investments by the global economic powerhouse in Zimbabwe had been severely hit by the pandemic, with completion targets hanging in the balance.‖

Major projects were affected because key technicians and engineers could not come to Zimbabwe, and this applies to construction equipment and materials due to international travel restrictions (Kairiza, 2020).

The Zimbabwe Mining and Smelting Company (ZIMASCO) has a project that was affected by this pandemic. The construction of new ferrochrome furnaces in Mberengwa in the Midlands Province was delayed due to challenges induced by COVID-19. ZIMASCO and Afrochine Smelting, the country's leading ferrochrome producers, entered into a joint venture to build four smelters with a production capacity of 140,000 tonnes per year. Construction was delayed due to the interruption of the pandemic (*ibid.*). In general, the pandemic has caused a sharp drop in commodity prices, tax revenues, foreign exchange earnings and foreign financial flows, travel restrictions, a drop in tourism and hotels, and the freezing of the labour market, among

others. Kairiza (*ibid.*) noted that funding for new capital projects would be adversely affected due to disruptions caused by COVID-19 and, possibly, suspensions and delays. This is happening in other parts of the world where some proposed projects are delayed. The first ZIMASCO furnace was to be commissioned in 2021, followed by the commissioning of the second plant in 2022 and finally the third and fourth in 2023, but these projections have been affected by the pandemic.

DISCUSSION

Organisations in the infrastructure sector have implemented strategies to comply with the lockdown and not risk the lives of their employees and stakeholders. Currently, most infrastructure projects have allowed their employees to work from home with the relaxation of closure rules (*ibid.*). Policies have been implemented to operate secure remote offices for employees. The results of this study suggest that project managers face various challenges in daily activities and are advised to use effective supervisory criteria to reduce erroneous results, rejection and reworking activities. Successful perimeter control should be implemented by project managers at the outset of the management plan to reduce the possibility of work delay due to an accidental landslide on the perimeter (Jallow *et al.*, 2020). Furthermore, the findings indicate that human resource management remains one of the most difficult tasks for project administrators in the 21st century.

The findings identify the following as the primary demotivating factors impacting the overall success and productivity of project managers on a variety of projects. Chan (2020) notes that the ambiguity of the relationship between expectations and performance, a lack of financial reward strategies, a way of aligning intangible results, a timeconsuming decision-making process by clients, a pay scale, systematic bias and the impact of culture on project results, a pause in reacting to a request for information, project and operational maturity, a shortage of skilled labour, a material shortage, create key performance metrics for supplier evaluation, strategic clarification and completeness of technical specifications, frequent order changes during execution, and rework activities (Lennon, 2020).

Policy-makers need to take several considerations into account when crafting an economic package, including urgent demands, local financial capacity, business dynamics, free funding and the impact of past spending decisions on infrastructure (Chan, 2020). Some parameters for determining stimulus initiatives or projects include capacity for job growth, the time required to initiate the project and government investment that will help draw private capital to further finance a project and the impact on the country's long-term pollution trajectory. Sustainability entails considering long-term criteria such as decarbonisation, environmental resilience and adaptive capability, and the effect on physical, financial, and human resources (Lennon, 2020).

The sustainable development framework raises issues that governments will encounter when evaluating the most successful initiatives and connecting them (Yan, 2020)). Most policy-makers have advanced policy frameworks that can be used as additional guidelines. This review draws heavily on the analysis of the 2008 economic downturn and looks, in particular, at the additional government or structural improvements to ensure initiative preparedness (Lennon, 2020). One of the main lessons from the 2008-09 interventions in Zimbabwe is how the lack of simple policy changes or enabling policies puts many renewable energy initiatives at a disadvantage, compared to advanced technologies.

The guideline for projects should extend to any set of programmes or initiatives that are introduced as part of a stimulus package from cash grants to specific expenditures on modern facilities. This can be added to the lists of current initiatives, for example, regional construction programmes, transportation or water master plans, nationally determined contributions under the Paris Agreement, or new projects developed explicitly for post-recovery. This spans two-time scales that are the short-term need to produce as many workers, employment and consumer activity; and the long-term need to achieve sustainable development and stability.

The World Bank has proposed a mechanism built on its experience collaborating with countries to consistently develop their capacity to respond to and handle catastrophe threats. It is built on five pillars: risk

assessment, risk avoidance, preparedness, financial security and resilient recovery (World Bank, 2016). These are defined as:

Risk assessment - Understanding the risks that policy-makers and societies pose is the first step in risk management. Risk analysis can assist states, societies and people in making responsible decisions by quantifying the dangers and possible detrimental effects of natural disasters.

***Risk reduction*:** Accurate information on catastrophe risk will guide planning strategies and programmes aimed at reducing short- and long-term risks using both structural and non-structural measures. This information can be used to develop training modules to strengthen the national and local experience in DRM.

Preparation: Not all risks can be avoided, hence proper preparation is essential. Nations must have effective and properly prepared warning systems. The most cost-effective crisis management structures to save lives and protect livelihoods.

Financial protection: Financial protection can help protect governments, businesses and households from the economic burden of disasters. Governments can adopt disaster risk financing strategies to increase financial response capacity after a disaster while protecting the long-term fiscal balance. Access to insurance can increase the financial resilience of society as a whole.

Resilient Recovery and Reconstruction: Effective recovery is key to restoring the livelihoods of affected communities and rebuilding damaged infrastructure to higher levels of quality and standards. The aftermath of a disaster is often the starting point for a long-term commitment to reduce vulnerability (World Bank, 2013).

The results indicate that the lockdown proved difficult to manage projects as employees work from home. This causes delays in a project, as most employees cannot physically get to the site and perform the

work. Managers find it difficult to manage their teams. However, technological tools such as video chat and meetings through online platforms have proven to be more effective in communicating with project teams. The building information modelling design has been helpful as 3D design models help visualise the project within team meetings to comply with COVID-19 rules and follow social distancing guidelines. However, the induction of any new initiator is proving difficult to manage with the pandemic and the lockdown as it involves drug and alcohol testing before starting work on the project.

CONCLUSION

The COVID-19 virus threatens capital projects and development projects. Project stakeholders must be cautious and constructive in handling the volatile situation and project partners must communicate effectively. Understanding one's contractual rights and meticulously recording disruptions or other effects will place one in a healthier place to re-establish activities as one's project recovers, and the company returns to usual. Governments must plan their laws and regulations to address this rising threat by encouraging community disaster risk prevention efforts, fostering international disaster and recovery aid, and lowering regulatory barriers to shelter. The article gave a valuable look into the perception and knowledge of the effects of COVID-19 and the improvements that the infrastructure industry has made to comply with the lockdown rules while remaining profitable. This research leads to educating policy-makers about certain lessons learnt from the management of COVID-19 from the viewpoint of the infrastructure market. This article described on-going infrastructure projects that have been impacted by COVID-19 and the effect on management teams, operations teams (site engineers, surveyors), architecture teams (including the BIM team), new employees, internal personnel, supply chain and customers. The lockdown is proving difficult to maintain projects as employees are working from home. This leads to a delay in a project activity as people cannot physically go on-site and conduct work.

RECOMMENDATIONS

- **Preparedness**: Active early warning systems, well-prepared disaster response processes, and evacuation planning are among the most cost-effective ways to save lives and protect livelihoods.
- **Financial Insurance:** Financial protection will help shield states, companies, and families from the economic costs of disasters. Governments should use catastrophe risk funding mechanisms to improve financial response capability in the wake of a disaster while maintaining long-term fiscal balance.
- **Resilient Recovery and Reconstruction**: Effective recovery is critical to restoring displaced peoples' livelihoods and rebuilding destroyed facilities to a greater level and standards.

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