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MAKING THE DECISION OF PROJECT TERMINATION DURING THE DELIVERY STAGE: THE KEYSTONE XL PIPELINE

1. INTRODUCTION

Infrastructure investment plays a pivotal role in shaping the economic development, competitiveness, job creation and improved quality of life for every nation. Infrastructure encompasses a broad range of essential sectors, ranging from transportation and energy systems to communication networks, water supply, and public facilities. Recent years have seen a revitalization of infrastructure investment mainly due to aging infrastructure, escalating urbanization, and evolving environmental conditions. It is estimated that just in 2017, the world spent over USD 10 trillion on new infrastructure. Nations worldwide keep investing to address deficiencies and adapt to modern challenges, such as enhancing sustainability, climate change and improving resilience against natural disasters.

A relevant example of the infrastructure investment boom is the United States of America (USA). With an increasing population exceeding 340 million people, and mainly concentrated in major cities such as New York, Los Angeles, or Chicago, the country has been increasingly investing in maintaining, improving, and delivering complex infrastructure projects. Despite the significant investments made in high-profile projects, such as the JFK Airport Expansion, the Hudson Tunnel Project, or the California High-Speed Rail, there have been relevant instances of major projects that have been terminated during the delivery stage.

Note: The case study is for didactic purpose only. It is a mix of real data and fiction. The name of the project, countries, and institutions is real. The name of Presidents is real to provide reality to the context. However, the names of any person or organisation are not real. If you want accurate and updated information, always use the appropriate references.

A noteworthy infrastructure project that has been terminated in the United States is the fourth stage of the Keystone XL Pipeline Project (KXL), generating political and social polarisation. Due to the variety of stakeholders involved, encompassing the National Government, regulatory agencies, contractors, environmental groups, First Nations, labour unions, investors, local communities, suppliers, NGOs, and financial institutions, there have been divergent views on the project. Due to the resources already invested, the environmental impacts associated to the project, and multiple changes on strategic priorities, the future of the KXL project is under review. In response to the ongoing debates, the new Government has decided to intervene to determine its future, and in collaboration with the project owner, a decision must be made on whether the project is needed or not. A reflexive approach must be taken by students to solve this case.

2. THE CASE STUDY

This section provides information regarding the context of the oil and gas sector in the context of the study, a background to the context of the project, information of the case study, and details of the specific issues being faced in the case study.

A global perspective of the oil and gas sector

The Oil and natural gas industries represent one of the most important industries in the energy market, and typically play an influential role in the global economy as the primary fuel sources around the world. Just in 2021, it is estimated that over USD 650 billion were invested worldwide in projects including pipelines, refineries, drilling platforms, storage facilities, and processing plants.

Oil and gas production is the multi-stage process of discovering a resource, transporting it to a refinery, and converting it into a finished product that is readily available for sale.

The oil and gas industry are often divided into three segments:

- Upstream, which refers to the exploration and production of oil and gas.
- Midstream, which refers to transportation and storage facilities.
- Downstream which refers to the refining and marketing activities.

The industry is highly complex, and requires capital-intensive, state-of-the-art technology and defined processes and systems, and is usually a highly regulated environment.

The downside of Oil and gas sector

Despite the relevance of the oil and gas sector in the worldwide economy, it is a sector that continues to spark controversy. This includes negative impacts including environmental, social, and economic, dimensions.

From an environmental point of view, the release of greenhouse gases is a major contributor to climate change. the extraction, transportation and refining process often results in air and water pollution, and natural habitats destruction. Oil spills pose a significant threat to biodiversity and ecosystems such as marine life. Deforestation and disruption of wildlife can result in long-lasting ecological consequences. Furthermore, as oil and gas are finite resources, their constant extraction contributes to the depletion

of non-renewable reserves.

From a social point of view, the oil and gas sector typically require large areas of land. This leads to the displacement of local communities that disrupt their traditional ways of life, cause social opposition, and lead to conflicts over land rights. This sparks further controversies, as in most of the cases, first nations and local communities do not always capitalise from the economic benefits that the project organisation usually generates.

From an economic point of view, countries heavily reliant on oil exports can face economic instability due to fluctuations in oil prices. Sharp declines in prices can impact government revenue, leading to economic downturns and budgetary challenges.

Oil and Gas sector in the United States of America

Oil is one of the most relevant sources of energy in the USA. Until the end of 2022, the USA is the world's largest producer of crude oil in the world, followed by Sudi Arabia, Russia, Canada, and China. Crude Oil extracted from underground reservoirs is the basis for all petroleum products, such as gasoline and diesel. It is estimated that as of 2022, the average consumption of oil barrels in America was of 18,000,000 barrels daily, making it the top oil producer in the world as of 2022.

By the end of 2021, the surface area of the USA was reported at 9,831,510 km^2. Due to the vast surface of the country, the pipelines remain as the most efficient, and reliable way to transport crude oil. Statistics from the Government indicate that by the

end of 2021, there were 190 crude oil pipelines either active or under construction in the country. Just as a comparison, Russia has 61, China has 55, Canada 48, Saudi Arabia 39, Venezuela 27, and Algeria 18.

The USA is heavily dependent on crude oil. By the end of 2022, the Oil and Gas industry had contributed to nearly 15% of the GPD of the country (estimated to be $31.259 trillion). Because of this, several states, such as Texas, North Dakota, New Mexico, Alaska, or Colorado have the lowest unemployment rates. The Oil and Gas industry is estimated to directly support over 12 million jobs or close to 6.5% of the total USA employment force, and indirectly to over 3 million jobs to other sectors within the value chain.

Context of crude oil pipelines in the United States of America

Statistics from 2020 indicate that before COVID-19, approximately 75%-85% of the crude oil pipelines in the USA were utilised, with multiple projects and proposals coming along the way due to an expected production boom. However, after the global health crisis, the net use of pipelines has reduced to an estimated 55-60% and the global demand for oil and gas crumbled, with production and prices reducing drastically (below $20 per barrel), which is an historical low in over 20 years. Because of this, oil companies have been slow in recovering losses, rethinking their investment strategies, and paused investment for the future.

Due to other external factors, such as the war in Ukraine, oil and gas prices are on the rise, with estimates around $85 per barrel), which is closer to pre-pandemic levels. However, the outlook is still pessimistic. Recovering the original levels of production

and keeping up with the significant demand is not easy for the oil companies, as the cost of maintenance of the pipelines is expensive, and not all the companies are equipped for this. As of the beginning of 2023, the USA has not required new pipelines, as this is not expected to reduce costs of crude oil extraction, transportation of production, and building new pipelines in 2023 is much more economically feasible than it was in previous years. However, it is estimated that around 23% of the existing pipelines require significant investment for refurbishment and care, which would have a long-term impact if there were a further increase for capacity.

By the end of 2022, the USA saw a significant decline in the construction of crude oil pipeline construction. It is estimated that there was a decline of 15% compared to the previous year, and an estimated 20% in 2023. The country is focusing on the implementation of new environmental policies that make the construction of new pipelines much more complex. Oil companies are facing significant pressure to obtain permits on time for their projects, but the main barrier has been complying with environmental restrictions, which has significantly increased the construction cost. This, however, does not mean that the overall construction of crude oil pipelines has reduced worldwide. It is estimated that over 20,000 km of new oil pipelines are being constructed worldwide, with efforts being driven by the USA, Russia, China, and India.

The American Political System

The USA politics function within the framework of a constitutional federal republic and a presidential system, in which there are three distinct branches that share power: (i) The Legislative Branch, composed of the House of Representatives and the Senate, (ii) The Executive Branch, headed by the President, and (iii) The Judicial Branch,

composed of the federal court and the Supreme Court. Each branch has distinctive faculties. For instance, the House of Representatives and the Senate approve all bills. The president can appoint ambassadors, ministers, judges of the Supreme Court and all other officials of the country and has the power of veto, which can be overturned if two thirds of the votes of the legislative branch. The Supreme Court is responsible for interpreting and applying the laws of the constitution.

The American Political System is particularly sensitive to the environmental issues. It is often considered highly fragmented at a national, state, and local level. The Environmental Protection Agency (EPA) is an independent agency of the USA Government established for environmental protection. They have the responsibility to maintain and enforce national standards under the environmental laws, in consultation with stakeholders and state, First Natives, and local government. The President appoints the Administrator of the EPA, who is approved by the Senate. And while maintaining independency, the Presidente has the power to veto legislation and regulate the behaviour of the Administrator. The EPA has faced controversies regarding a satisfactory review of their programmes, policies, and activities towards environmental justice. Because of this, it is often seen as the EPA is still influenced by the President in turn and is guided by the environmental issues and administrative goals drawn from the Government in turn.

Project background: The Keystone XL (KXL) pipeline

The KXL project is a crude oil pipeline system that initiates in Canada and finishes in the USA. Crude oil is extracted from bituminous sand in the West part of Canada. This type of crude oil is one of the most polluting extraction techniques.

The project was originally initiated by OilCanada in 2005 and approved by the National Energy Commission of Canada in 2007. On March 2008, the Department of State of the USA issued a presidential license which granted permission to OilCanada to develop, maintain and operate the project at the border between the USA and Canada. Hence, both Governments agreed that the KXL system was of strategic interest for both countries and counted with sufficient support to proceed with its development. The project counted with the full support of President Bush, who was replaced by Obama once he became elected in 2008 and initiated his presidential period in 2009.

The development of KXL system is one of the major infrastructure endeavours that initiated construction shortly after the USA financial crisis of 2008. Infrastructure investment, energy saving, improvement of medical conditions and economic stability were some of the main priorities of Obama. The Ministry of Labour reported that by the end of December 2008, unemployment rate in the USA was as high as 10% of the total population (over 30 million individuals).

In June 2008, OilCanada formally initiates construction of the first phase of the project and in June 2010, it became operational. The first phase runs from Hardisty, Canada to Illinois, USA. The total length of the first phase is 3,375km, consisting of the reconstruction of 796 km of existing natural gas pipelines in Canada, a brand new 395 km new pipeline in Hardisty, and 2,184 km of new pipelines in the USA. The first phase has a total capacity of 450,000 barrels per day. The second phase of the project became operational by February 2011. It goes from Steele, Nebraska, to Oklahoma, with a total length of 460 km. This expanded the capacity of the network up to the

capacity of keystone pipeline system to 600,000 barrels per day. Once President Obama became president of the USA, the third phase of the KXL system was approved in March 2012, and was completed by January 2014. This segment runs from Cushing, Oklahoma to Nederland, Texas, with a total length of 784 km. This phase increased the capacity of the system up to 720,000 barrels per day.

Once the whole system became operational, a consideration for a fourth phase came into action. The fourth phase of KXL was planned to go from Hardisty, Canada, through to Nebraska, USA. The total length of the pipeline is 1,897 km and was expected to add an additional 800,000 barrels per day to the whole system.

Change of direction and opposing views towards the project.

By 2009, the views for the energy strategy from President Bush and President Obama were different. President Obama was an advocate of environmental protection and renewable energies. His energy strategy included initiatives such as the integration of solar, wind, and geothermal energy into the existing power grid. This implied redirecting resources into more sustainable sources of energy production and reduce the funding of taxpayer's resources to be directed into oil and gas projects to reduce dependence on fossil fuels.

Amongst the strategic priorities of the Government was to invest in major infrastructure projects to boost the economy of the country. Just phase one of KXL required an investment of over USD 12 billion, which falls within the strategic interests in terms of economic recovery. However, it does not align with the environmental and energy policies, which led to serious questionings. Despite such opposing views, official data

from the Ministry of Labour indicated that between 2008 and 2010, KXL phase one and two provided over 43,000 direct jobs for the USA economy. Because of the positive economic impact this generated, President Obama approved the construction of KXL phase three, mentioning that it was a way of curbing the rising cost of natural gas and the potential for employment generation, which directly contributes to a more stable economic environment. While the support towards KXL phases two and three remained constants until their completion, phase four did not count with the same luck, and no further support was foreseen soon.

Multiple reports suggested that KXL phase four had the potential to inject over USD 20 billion in commercial activities, with the potential to generate at least over 25,000 direct employments. While the numbers were questioned, and suggested to be inflated, other studies estimated that the project had the potential to still generate around 5,000 direct employments with a forecasted cost of USD 8 billion for phase four. Furthermore, President Obama argued that the project would only be of strategic interest for the USA if it did not have a significant impact in terms of carbon pollution, which was one of his priorities on the environmental and energy strategy.

During the early months of 2015, the Ministry for Environmental Protection issues the final Environmental Impact Assessment (EIA), in which it was mentioned that KXL phase four would significantly increase greenhouse gas emissions. Because of the EIA, President Obama vetoed the permit to approve the construction of the project, despite it being approved by the Senate, and the Department of State declared that since it was no longer a matter of national interest, rejected any application of permits that could grant any contractor to proceed with the construction of the project.

During 2015, a significant milestone occurred worldwide. The Paris Agreement, a legally binding international treaty on climate change, was signed with the objective of substantially reducing the effects of climate change. The USA was one of the nations that signed this agreement, which served as a guidance for the development of other strategic priorities for the Government in the incoming years. While the KXL system initiated before 2015, the general perception from the Government was of total support and praise and support due to the benefits it generated in terms of economic development. After the signature of the Paris Agreement, there weas no further support and the focus shifted to environmental protection and energy transition.

Furthermore, following the new strategic priorities of the Government and given the fact that the KXL phase four could materialise in the future, multiple NGO's, environmental protection organisations and social movements were initiated to obstruct and protest the development of the project. Due to increased pressure and new priorities, for the remaining time of the presidential mandate of President Obama, KXL phase four remained suspended.

Due to the two-party system that the American political system has, namely Democratic and Republican Parties, there is a constant battle for power. Typically, there is a significant polarisation and opposing views regarding the strategies that the Government follows. This usually leads to contending political parties to publicly attack each other, mainly by neglecting or minimising the accomplishments of the previous presidential mandates. In 2015, President Obama mentioned that "*the keystone pipeline project occupies a role that I think has been exaggerated in our political*

discourse. It has become a symbol that both sides often use as a campaign stick, rather than a serious policy issue". This simplifies the complexity that the future of the KXL project has.

Following the national elections of 2016, Trump became elected president and began his Presidential period in January 2017. One of the first activities that President Trump did during his initial days in Office, he revoked Presidents Obama's veto to the construction permits of KXL phase four so that the project could be resumed. This shows how the project was an object of political polarisation within the Government.

Following President's Trump mandate in office, a further event came to fruition, which was the decision of the USA Government to cease all participation in the Paris Agreement, which meant that the USA was the first country to withdraw from it. President Trump argued that by being part of the agreement, the USA economy was undermined and at a permanent disadvantage. This led to a huge support from the Republicans, but highly criticised by Democrats, environmentalists, business leaders, scientists and the population rejected the withdrawal.

By November 2018, further needs to reassess the original EIA were made. This occurred because of multiple reports suggesting that the original EIA was outdated and not reliable. The report suggested that there was an estimated emission of 170 million tons of carbon from the KXL system, but that this would not generate any new greenhouse gas emissions. Furthermore, additional information suggested that emissions would occurs even without new pipelines being developed, as the need for oil was still in the market and that it would still come into the country through other

means. This led to further assessments in which the District Judge of Montana mentioned that the global decline of oil prices and the reduced costs of transportation would lead to an over-exploitation of the pipeline, significantly increasing greenhouse emissions, reason why the construction permit of KXL phase four was revoked and an updated EIA was requested to supplement the original from 2014.

Because of the extensive delays in resuming the construction of the project and the difficulties within the Government, President Trump revoked the original license and reissued a new one with the updated EIA. The comparison between both EIA suggested that there were no significant differences in terms of greenhouse gas emissions, which meant that the project could proceed normally. Construction continued until April 2020, in which complains from environmental agencies suggested that the project was not authorized properly, and construction was again suspended.

During the elections of 2020, Biden was elected president and initiated his mandate in January 2021. During his first day in office, he mandated to re-join the Paris agreement and cancel all construction licenses for the construction of the KXL phase four project. It is estimated that until the point in which President Biden decided to stop the project, approximately 53% of the project had been completed, with over USD $4 billion already invested in the project. This amount considers only the investment made so far in the project. It does not consider any additional costs for termination, namely cost of cancelling contracts, national and international litigations, repayment of loans, bonds or other type of structured finance, or the cost of proceeding with a different project. Until the end of 2023, there has been no further construction activities on the project. It will be after the 2024 elections in which a new president is elected when the

future of the project will be decided.

The constant power struggles and differing opinions within the Government has become a struggle for the population, investors, and other stakeholders in the country. It has been clear that there are major differences in strategic priorities between Democrats and Republicans, and every time there is a change of Government they tend to cancel or suspend their “opponents” projects, as it is perceived there is no sign of accountability, as they see it as “someone else’s” project, rather than a sense of accountability and ownership. This has sparked a series of concerns in international markets, seeing the USA as a fragile investment environment. Investors are afraid of making significant capital investments in large infrastructure projects knowing that if a transition comes during the delivery stage, key permits can not only be denied, but revoked. This is creating significant reputational risks. This lack of decisions, and the constant back and forth shows that every Government has a different approach to develop projects, and because it is so different and they prioritize different sectors differently, there is no clarity or strategic direction.

The controversies and opposing views towards phase 4 of the KXL project (In 2024 – The decision point)

The first three phases of the KXL System are no longer under discussion. They are functioning normally, and the Government is not planning to revoke any operational permit. However, the last phase has sparked multiple opposing views. The main concern is associated to the route of the pipeline, which goes through the dunes of Nebraska, a natural protected area in the USA. The controversial project has been under dispute by environmentalists’ groups and First Nations groups.

A description of the views per relevant stakeholders is included:

1. National Government (Neutral to termination)

The new government has been trying to act as a neutral party by balancing the overall benefit and impact of the construction of the project on society, the environment, the costs of termination of the project, and the economy. Their main interest is to prioritise the welfare and long-term interests of the local population. Their main tasks are assessing whether the project aligns with the broader public interest, economic development, and infrastructure needs. The key considerations for them include the potential cost overruns, environmental concerns, safety risks, or changes in public opinion. Terminating the project could significantly impact the public finances, as a significant amount of the cost of the project proceeds from taxpayers' money.

2. Investors (Against termination)

The Investors, include a consortium of private companies and financial institutions from the USA, Canada, the United Kingdom, and Saudi Arabia, and a First Nation alliance from Alberta (Canada). They are primarily concerned with the return on their investment. They want the project to proceed as planned to realise their financial gains. From their perspective, terminating the project can result in significant financial losses from which they believe will be impossible to recover from. They have committed substantial amounts of resources and capital, expecting future profits from the completed project, and once the full production capacity is in place, they would be satisfied. The investors argue that any issues or challenges encountered can be

addressed through modifications to the existing project or mitigation strategies without scrapping the project entirely. They emphasize the importance of honouring contractual agreements and protecting their financial interests.

3. Local Population (Mixed views - In favour and against of termination)

The local population, which includes First Nations, residents, and businesses in the project's vicinity, have mixed perspectives. Their primary concern is the immediate and long-term impacts and benefits of the project on their legacy and culture, their community, environment, and quality of life.

The First Nations groups are divided in two perspectives, (i) First Nations Alliance from Canada, and (ii) First Nations Alliance from the USA.

(i) The First Nation Alliance from Canada invested over USD 1 billion with OilCanada. Because the component of the project in Canada is completed, they argue that that investment will be lost and will affect all the First Nations in Canada. They argue that this prevents them from achieving economic development. They see the project to reduce the gap between the population and the First Nations in Canada.

(ii) The First Nation Alliance from the USA are completely opposed to the development of the project. They argue that if the project continues, a significant amount of land will be taken away from them. They argue that because of the impacts of the project, they will be inevitably displaced, and see this as an unnecessary destruction of their ancestral lands, their identity, and a reinforcement to the historical injustices they faced due to colonialism.

The residents have mixed views on the termination of the project, are in favour of terminating the project, mainly due to environmental degradation, reduced property values, increased traffic, or health and safety and health risks. Many of them feel that the project is not in their best interest. They do not see any social value being delivered to them, neither on the short, medium, or long term. They manifested their opposition firstly through self-organised mobilisations. Once the movements began attracting more attention, in coordination with the First Nations Alliance of the USA, they joined forces with a political advocacy group to mobilise greater public protests, and legal challenges in the district courts. Once the movements They argue that the project's drawbacks outweigh its benefits and advocate for alternative solutions or mitigation measures. The social movements that have been organised were highly supported by environmental defence organisations.

Local business owners in the project’s vicinity are against terminating the project, mainly due to the potential economic growth, opportunities for employment creation and potential increased value of their businesses and properties. Most of them feel that if the project does not materialise, the Government will invest resources in other parts of the country, and this can lead to high unemployment rates and the potential of 65-80% of the existing businesses to close. They think that it is an opportunity they must capitalise.

4. Regulatory Agencies (Neutral to termination of the project)

The regulatory agencies, such as the Ministry of Infrastructure and the Ministry for Environmental Protection Agency are responsible for enforcing and upholding legal

and safety standards. Their role is to be neutral and objective on their assessments. They must ensure that projects and programmes comply with all relevant laws, regulations, and safety standards. If it meets these criteria, they must remain neutral and allow it to proceed under close invigilation and monitoring processes. Social movements sparked by the residents and First Nations Alliance, although not legally binding, attract the attention of regulatory agencies to monitor the project closely. If the project violates regulations, poses environmental risks, or threatens public safety, they have the capacity to impose fines, sanctions or other measures that can include modifications to the project, notice for suspension, or termination of the project to protect the public interest and ensure compliance with environmental legal requirements.

These opposing views of key stakeholders must be balanced as their different perspectives can significantly impact the outcome of the project. There are extensive negotiations, consultations, and transparent communication strategies that must be undertaken to address the different concerns of the multiple stakeholders.

Some additional figures

The continuation or termination of the project is open to many discussions and views. According to the Department of State, the KXL phases one through three were able to provide up to 45,000 indirect jobs and 5,000 direct jobs. This was a significant justification to continue with the project, despite different opposing views. Continuing with the development of KXL phase four is expected to generate a maximum of 2,300 direct jobs and up to 30,000 indirect jobs.

Key milestones of the KXL phase four project

- The approval of the third phase of the KXL project was made by President Obama in March 2012.
- The United States Department of State issues the final Environmental Impact Assessment (EIA) in January 2014. The document states that due to the market dynamics of the logistics system of North America, the crude oil transportation (upstream and downstream) will not have a significant environmental impact, whether the project was completed or not.
- The Supreme Court of Nebraska approves the construction of KXL phase four in January 2015.
- President Obama vetoed the bill to approve the construction of KXL phase four in February 2015. This happened despite the House of Representatives and the Senate having approved the bill.
- The United States Secretary of State declared that the project was no longer in public interest in November 2015. The justification for this was that there was a negative public perception due to the perceived increase on greenhouse gas emissions and the countries aim towards combatting climate change.
- Following the declarations of the Secretary of State, President Obama mentioned that KXL phase four was no longer feasible due to economic and environmental concerns. This is mainly related to the levels of domestic oil production being at its lowest point since 1985, and the project got suspended.
- During the Presidential Elections of 2016, Trump became elected President of the United States, and in January 2017 officially initiated his presidential period.
- During the first week of his mandate, President Trump mandated that the construction of KXL was resumed.

- President Trump declared that KXL is of national interest and the Department of State issues a new statement in March 2017 indicating that the project is resumed.
- During January 2017, First Nation leaders and Environmentalists groups mobilised to protest against KXL and other fossil fuel projects.
- The District Judge of Montana revokes the construction license of the KXL phase four project in November 2018.
- President Trump directly issues a new construction licence for the KXL phase four project in March 2019, revoking the previous licence.
- During March 2010, the construction of KXL phase four project resumes.
- A month later, in April 2020 the project gets provisionally suspended by the District Judge of Montana due to environmental concerns, invalidating the new construction license issued by President Trump.
- During July 2020, the Supreme Court of the United States suspends the KXL phase four project, and all activities related to the construction activities.
- During October 2020, the First Nations Alliance of Canada announce the signing of a Memorandum of Understanding (MoU) to facilitate equity investment in the project.
- New presidential election was held on November 2020 and Biden becomes elected.
- During the first day of his presidential period on January 2021, President Biden revokes the construction license for the KXL project, and the project got suspended.

3. FINAL REMARKS

The case focuses on the concept of project termination or cancellation. Termination is the premature discontinuation of a planned project before its intended completion and achieving its objectives. Project termination can occur during any project lifecycle phase, from the initial planning and design stages to the later stages of construction

or implementation. This case focuses on project termination during the delivery stage.

Project termination is one of the most challenging decisions that decision-makers face, as it is often associated with failure and high levels of political risk. It concerns situations where internal or external forces cause the project to become irrelevant, unsuitable, unprofitable, or even harmful and is often associated with failure. Project termination may result from various factors, such as changes in strategic priorities, regulatory issues, or a reassessment of the project's feasibility or benefits, to mention a few. Project termination is associated with sunk costs, loss of potential economic gains, and disruptions to stakeholders' plans and expectations. Despite the negative connotation associated with project termination, contrasting views argue that not because a project is being well developed means that it should continue to be supported.

Understanding the termination of construction projects is relevant for the project management discipline for several reasons. It provides valuable insights into complex decision-making for both, public and private stakeholders, and assess multiple perspectives that are not always clear or straightforward.

The termination of projects occurs because of multiple reasons that are present during the development of the project, which includes:

- **Social opposition or acceptability:** The termination of a project can be observed through social movements in favour or against the project, and it can be measured at a national, state, local or territorial through polls.

- **Environmental considerations:** Endangerment of protected resources that jeopardizes or exploits the environment, flora or fauna and protected areas; misrepresentation of environmental impact assessments that arise from failure to identify or assess proper impacts and mitigation measures; or transition to cleaner sources of energy as a worldwide effort to contribute to the fighting against climate change can be an example of a shift in strategic priorities to terminate a project.
- **Cost Analysis:** The termination of a construction project can result in significant financial losses. Understanding the implications, where resources can be reallocated or when to stop can guide to into adequate financial planning and risk management.
- **Biases in decision-making:** Behavioural biases in project management play a central role in the decision to terminate or not a project. Optimism bias, strategic misrepresentation, or Escalation of Commitment are examples of biases that lead decision-makers to persist with a project because of the resources invested in the project, and there is too much on stake to quit. Further research on biases such as the reverse escalation of commitment are novel insights to identify when to terminate a project from a rational point of view.
- **Risk Mitigation:** Identification of factors that are conducive to termination can help in risk assessment and mitigation. By recognising pitfalls or issues, project stakeholders can implement strategies to avoid or address these challenges in future projects.
- **Accountability and Transparency:** the termination of construction project provides accountability in project management. It ensures that stakeholders, including project owners, contractors, and regulators, are accountable for their roles in the project's outcome. Transparency in decision-making is essential for

maintaining public trust.

- **Improved Decision-Making:** Making the decision of termination is not easy. However, learning from terminated projects can improve decision-making in future endeavours to make more informed choices.
- **Resource Allocation:** Understanding why and when to terminate projects can help allocate resources more effectively. By recognising patterns or recurring issues, governments, organisations, and investors can allocate resources to projects with a higher likelihood of success.
- **Legal and Regulatory Compliance:** If a project is terminated, there are also legal and regulatory compliances that need to exist before, during and after termination. Knowing what happened in the project can ensure that all legal and regulatory requirements were met while the project was under execution. This is crucial to prevent legal issues, disputes, or non-compliance with applicable laws and regulations.
- **Data for Research and Analysis:** Understanding and gathering data from similar projects or historical projects is valuable to understand common causes, patterns or trends that are conducive to the termination of projects. This can ultimately lead to improved practices and policies.
- **Stakeholder Communication:** Engaging with stakeholders and explaining the reasons behind project termination is essential for maintaining trust and relationships with them. This includes government agencies, investors, contractors, and the local community. It demonstrates transparency and a commitment to responsible project management.
- **Continuous Improvement:** Understanding and analysing projects that have been terminated is integral to the concept of continuous improvement. By learning from

past experiences, stakeholders can adapt and enhance their practices and decision-making processes to increase likelihood of success for future projects.

This case study highlights the importance to make timely decisions based on different types of information available and allow the reader to understand the contextual factors that affect the project's development and decide whether to terminate the project during the delivery stage or not. Understanding the termination of construction projects is a crucial process that helps organisations and government agencies learn from their past experiences, make informed decisions, and improve their project management practices. It ultimately contributes to better resource allocation, risk management, and the successful execution of future construction projects.

4. YOUR TASK

For the solution of this case study, assume that the date is 1 February 2024. A new president has been elected for the USA. The new Government is aware of the back and forth that has been occurring with the project but wants to avoid any further controversies regarding the project. A decision must be made regarding the future of the project. The decision will be final.

1. Assume that you are the CEO of OilCanada. The president of the USA has requested you to explain what you will do. In the short run, you need to decide the future of the project.
   a) The project continues to be delivered.
   b) The project gets terminated.

You need to be explicit and choose one of the two options (a or b) and explain why. Include any relevant assumption and explain your rationale for the decision. Consider that your response will be an official answer to share with the press. Your investors, the Governments (USA and Canada), and the public are listening.

2. What are some of the causes that you identify that have led to the termination of the project?
3. What are some of the financial implications of terminating a project?

5. REFERENCES

Brockner, J., (1992). "The Escalation of Commitment to a Failing Course of Action: Toward Theoretical Progress". Academy of Management Review. 17(1), pp. 39-61.

Cantarelli C.C. and Flyvbjerg B. (2013) "Megaprojects cost performance and lock-in: problems and solutions". In: Priemus H and Van Wee B (eds) International Handbook on Megaprojects. Cheltenham, U.K.: Edward Elgar.

Denicol, J., Davies, A., and Krystallis, I. (2020). "What are the causes of poor megaproject performance? A systematic Literature Review and Research Agenda." Project Management Journal, 51(3), pp. 328 – 345.

Drummond, H. (2014). "Escalation of commitment: When to stay the course?" Academy of Management Perspectives, 28, pp. 430–446.

Flyvbjerg, B. (2021). "Top Ten Behavioral Biases in Project Management: An Overview". Project Management Journal, 52(6), pp. 531-546.

Juarez Cornelio, J. R., Sainati, T., and Locatelli, G. (2021). "What does it take to kill a megaproject? The reverse escalation of commitment". International Journal of Project Management, 39, pp. 774-787.

Juarez Cornelio, J.R., Sainati, T., Locatelli, G. (2023). “Digging in the megaproject’s graveyard: Why do megaprojects die, and how to check their health?”. International Journal of Project Management, 41(6), 102501.

Ross, J. and Staw, B.M. (1993). “Organizational Escalation and Exit: Lessons from the Shoreham Nuclear Power Plant”. Academy of Management, 36(4), pp. 701-732.

Winch, G. M. (2013). “Escalation in major projects: lessons from the Channel Fixed Link”. International Journal of Project Management, 31(5), pp. 724–734.

Zhang, Q. (2019). “Legal options to stop the revival of Keystone XL Pipeline”. Environmental Claims Journal, 32(3), pp. 201-220.