2025, Vol. 39, No. 3, 55-73

Revue Française de Gestion Industrielle

article en open accès sur www.rfgi.fr

https://doi.org/10.53102/2025.39.03.1225

ISSN: 0242-9780
eISSN: 2804-9284

Public-private partnership and Industrial land development: the case of Algerian Qatari steel in the Bellara industrial zone - Jijel

Bilal Feltane [1], *Nasreddine Bennacer* [2]

[1] *Economics and Development Laboratory University of Bejaia, Algeria* bilal.feltane@univ-bejaia.dz

[2] *Economics and Development Laboratory Lecturer- Researcher, University of Bejaia, Algeria,* nasreddine.bennacer@univ-bejaia.dz

Abstract: The limited availability and high development costs of industrial land hinder regional and national economic growth. Despite its importance, its role in economic development remains underutilized, particularly in Public-Private Partnerships (PPPs). This study examines the impact of PPP-driven industrial investment, focusing on the Algerian Qatari Steel (AQS) project. Using a descriptive and analytical approach, it evaluates AQS's effects on the local and national economy. Findings show that AQS has significantly contributed to regional development through key infrastructure, partnerships with local businesses, and increased employment, wealth creation, and exports. This study highlights how PPPs can enhance industrial land utilization and promote sustainable economic growth. It underscores the importance of public-private collaboration in maximizing economic opportunities at both local and national levels.

Keywords: Public-Private Partnership; industrial land; steel industry, Jijel; Algerian Qatari Steel.

Partenariat public-privé et valorisation du foncier industriel : Exemple de L'Algerian Qatari Steel dans la zone industrielle de Bellara - Jijel

Résumé : La disponibilité limitée et le coût élevé du foncier industriel freinent la croissance économique régionale et nationale. Malgré son importance, son rôle dans le développement économique reste sous-exploité, notamment dans les Partenariats Public-Privé (PPP). Cette étude analyse l'impact des investissements industriels via les PPP, en se focalisant sur le projet Algerian Qatari Steel (AQS). Grâce à une approche descriptive et analytique, elle évalue les effets d'AQS sur l'économie locale et nationale. Les résultats montrent qu'AQS a stimulé le développement régional en renforçant les infrastructures, en établissant des partenariats avec les entreprises locales et en favorisant l'emploi, la création de richesse et les exportations. Cette étude met en évidence le rôle des PPP dans l'optimisation du foncier industriel et la promotion d'une croissance durable. Elle souligne l'importance d'une collaboration public-privé efficace pour maximiser les opportunités économiques aux niveaux local et national.

Mots clés : Partenariat Public-Privé ; foncier industriel ; industrie sidérurgique ; Jijel ; Algerian Qatari Steel.

Citation: Feltane B.; Bennacer N., Public-private partnership and Industrial land development: the case of Algerian Qatari steel in the Bellara industrial zone - Jijel. *Revue Française de Gestion Industrielle*, 39(3), 55-73. https://doi.org/10.53102/2025.39.03.1225

Historique : reçu le 29/08/2024, accepté le 20/06/2025, en ligne le 02/07/2025

1. INTRODUCTION

Since the mid-20th century, industrial activities have experienced substantial growth, now comprising more than a quarter of the global economy. From an operational standpoint, industrial activities necessitate physical spaces for their establishment, growth, and functionality, underscoring the vital role of land as a key driver of territorial attractiveness and competitiveness. Industrial zones and business parks serve as sustainable platforms, enabling investment projects to flourish and catalyzing economic development through job creation and wealth generation.

However, in the face of increasing demand and a limited supply of industrial land, investors are often forced to establish their operations in industrial zones that fall short of their requirements, potentially compromising the profitability and sustainability of their investments.

Moreover, some regions that meet attractiveness criteria such as favorable geographical location and available amenities, are occupied by modest-sized enterprises whose activities lack the potential to evolve into growth poles, as defined by François Perroux. Considering the often-limited financial resources of most private investors, and with the objective of attracting larger industries capable of serving as 'driving firms' to stimulate more substantial economic dynamics, public-private partnerships (PPP) emerge as a valuable tool. These partnerships, by providing essential financing, governance frameworks, and innovative technologies, can play a pivotal role in developing these areas and their surrounding territories. Recent research has also highlighted how performance frameworks and management engagement are central to the operational success of such partnerships. For example, Babei and Paché (2021) emphasize the role of executive commitment and work climate in enhancing coordination within complex systems, an insight transferable to industrial zones managed through PPPs.

At the local level, several studies have explored the role of Public-Private Partnerships (PPPs) in Algeria's economic and industrial development. Bouzid and Benhabib (2022) examined how PPPs facilitate knowledge transfer and improve institutional performance, emphasizing their potential in overcoming economic challenges. Similarly, Boukhalfa and Khaldi (2021) highlighted the role of PPPs in financing infrastructure projects, addressing the financial constraints that often hinder industrial expansion. Aissaoui (2020) further analyzed PPP investment opportunities, drawing from international best practices to suggest models that can enhance Algeria's industrial landscape. Beyond academic research, institutions such as the African Development Bank (2023) have underscored the importance of PPPs in fostering sustainable and inclusive growth in North Africa, emphasizing their capacity to diversify funding sources for large-scale infrastructure. Additionally, the World Bank (2024) provides a comprehensive overview of Algeria's PPP regulatory framework, outlining key policies that govern these partnerships. The study by Sboui, Rabenasolo, and Jolly-Desodt (2003) presents a new methodology for structuring synergistic partnerships, particularly in industrial sectors such as textiles. The authors emphasize the integration of logistics, management tools, competencies, and networks, highlighting the crucial role of human actors and project management in ensuring successful collaborations. While their research focuses on the textile industry, the principles they propose can be adapted to other industrial sectors, including steel production and large-scale infrastructure projects. In parallel, Buzon (2008) highlights how structured knowledge, sharing within supply chains can enhance performance, an insight that complements the collaborative dynamics at the heart of PPP-driven industrial initiatives. In the context of Public-Private Partnerships (PPPs), this study offers valuable insights into how effective coordination between stakeholders, including governments, private investors, and local operators, can enhance industrial land utilization and streamline operations.

While these studies provide valuable foundations for understanding the role of PPPs, they primarily focus on broad policy frameworks and financing mechanisms, leaving a gap in research concerning their direct impact on industrial land utilization and regional economic development. Algeria has invested heavily in industrial zones, yet issues such

as land misallocation, inefficient PPP frameworks, and slow infrastructure development persist. Despite policy efforts, there is a lack of empirical analysis on how PPPs influence industrial land utilization and economic growth. This study seeks to bridge this gap by examining the Algerian Qatari Steel (AQS) project, a prime example of how PPP-driven investments can optimize industrial land use, stimulate employment, and strengthen Algeria's industrial competitiveness. By combining theoretical insights with empirical analysis, this research provides empirical evidence on the role of PPPs in optimizing industrial land use, offers practical insights for policymakers on structuring successful PPPs, and contributes to the broader debate on how industrial zones can drive economic competitiveness in emerging markets.

This article explores the interplay between "Land and Industry" and the crucial role of public-private partnerships in optimizing investment locations aligned with these production models. Thus, it aims to broadly address the following question: How can an industry centered on public-private partnerships serve as a development lever for the host territory? This question will be addressed within the Algerian context by analyzing the case of the industrial complex created through Algerian-Qatari cooperation, situated in the Bellara industrial zone in Jijel province. Methodologically, this study employs two approaches: a descriptive approach to explore the theoretical aspects of land, industrial space, industrial activity, and public-private partnerships, and an analytical approach to examine the specific case of the Algerian-Qatari Steel (AQS) complex.

The remainder of the paper is organized as follows: Section 2 introduces a theoretical framework for land tenure. Section 3 examines the relationship between land tenure and industrial activities. Section 4 focuses on the development of industrial land. Section 5 explores Public-Private Partnerships (PPPs) and their role in the redevelopment of industrial land. Section 6 provides an overview of the industrial sector in Algeria, while Section 7 delves into the specifics of PPPs within the country. Section 8 discusses the industrial potential of Jijel Province, and Section 9 evaluates the Algerian Qatari Steel (AQS) Complex and its economic impact. Section 10 outlines the theoretical and practical implications of the study and section 11 presents stakeholder perspectives on PPP-driven industrial investments. Finally, Section 12 offers concluding remarks.

2. THEORITICAL APPROACH TO LAND TENURE

Land has always been a central concern for states, organizations, and individuals. It is not only a crucial factor of production and an economic asset but also a living space that profoundly shapes the social, economic, political, and cultural fabric of human society.

The term "*Land Tenure*" traditionally refers to the natural resource of « the soil» (From an etymological perspective, the term "foncier" refers to a plot of land). Over time, its scope has broadened to encompass not only land ownership but also its role as a foundation for human activities, planning, and construction, as well as a financial investment (Guelton, 2020). In this broader context, land tenure denotes the set of regulations governing access, use, and control over land and renewable natural resources (Lavigne Delville, 2002). This aligns with Durand (2010), who analyzes how regulatory frameworks influence industrial access to land, particularly in relation to planning and operational constraints. Boudès (2006) further emphasizes the strategic dimension of industrial land, arguing that its availability and governance directly impact regional competitiveness and industrial attractiveness.

The pursuit of understanding the relationship between land tenure and economic activities has spurred significant theoretical advancements from the 17th to the 20th century. Among these, theories of land rent stand out as some of the oldest and most extensively studied in economic sciences (GILLIO, 2017).

According to the LAROUSSE dictionary, rent is defined as a regular income not derived from labor, but rather from the rights to use land or other scarce resources. It can be described as "the income generated from leasing land property, for which a

price is paid to access the productive potential of the soil (Magrin, 2013).

The economic implications of land tenure were initially explored through the study of natural resource use and rent by prominent economic theories, including classical economics (David Ricardo) and neo-classical economics (Jean-Baptiste Say, Léon Walras, among others), as well as by Karl Marx. This was followed by spatial analyses of agricultural activities (Von Thünen), and later, industrial activities (Weber, Lösch, Christaller, Hoover) (Bennacer, 2019), which examined the behaviors of various stakeholders such as landowners, businesses, investors, and employees.

3. LAND TENURE, THE FOUNDATION OF INDUSTRIAL ACTIVITIES

The Industrial Revolution marked a transformative shift in manufacturing, serving as the catalyst for sustained economic growth (Marnot, 2012). This period was distinguished by a multitude of inventions and technical innovations that enhanced both the quality and quantity of products while driving down production and transportation costs. These advancements, in turn, stimulated a robust demand for manufactured goods.

3.1 The concepts of labor and industrial space

Before exploring the concept of industrial space and the factors that have shaped its development, it is essential to first understand the evolving meaning of "labor" as both a factor of production and a crucial element in the advancement of industrial trades.

It was in the 18th century that the term "labor" began to be widely accepted, encompassing a range of activities previously governed by diverse dialectics (Méda, 2011). For Max Weber, labor emerged as a social value with the rise of capitalist society in the modern era. This value was further reinforced in the 19th century by the Industrial Revolution and the expansion of commercial exchanges (Vatin, 2014). During this period, labor came to be seen as the source of wealth, equated with productive activity occurring within a specific space and time. The transformation of industrial space through technological innovation and evolving labor relations is further illuminated in recent scholarship. Derrouiche, Lamouri, and Naoui-Outini (2022) explore how Industry 4.0 technologies reshape production layouts, land utilization, and supply chain logistics in modern industrial zones. Moreover, Derrouiche et al. (2023) provide a retrospective on foundational studies in industrial management, helping to trace how early discourse around labor, space, and industrial organization informs current territorial planning theories.

On the other hand, The industrial act has often been studied in relation to other spatial distributions, such as urban, agricultural, and rural areas. However, studies have often focused more on the broader context of industrialized spaces, whether at the level of a country or an industrial region, rather than on the concept of industrial space itself (Dezert & Verlaque, 1978). Industrial space is defined as an area designated for industry, formed through the concentration and densification of industrial establishments.

3.2 The concept of industrial activity

The transition to industrialization transformed the economic environment, giving rise to major heavy industry firms, innovative production methods such as mass and serial production, and an extensive expansion of infrastructure, including road networks, railways, telegraphs, pipelines, and electricity (Brasseul, 2016). This transformation led to the evolution of the concept of "industry." Originally signifying diligent, skilled labor requiring expertise, the term gradually came to represent manual activities and eventually expanded to include all economic activities focused on wealth production through transformation (Jarrige, 2022). In this context, building on Allan Fisher's 1934 classification and Colin G. Clark's generalization from 1940, the industrial sector was designated as the "secondary sector". This classification was set alongside the primary sector, which encompasses natural resources such as agriculture, forestry, fishing, and mining, and the tertiary sector, which includes transportation, commerce, financial and real estate activities, and various services (Bost, 2018).

Today, industrial activity extends beyond traditional notions of transformation and production. It now

includes the management of the value chain, brand strategy, consumer engagement, and the pursuit of a positive return on investment (Fontagné et al. 2014).

3.3 Spatial distribution of industrial activity

Since the pre-industrial era, workshops and artisans' homes were unified spaces. However, as new trades emerged and industries expanded, industrial locations began to form in a spontaneous, uncontrolled, and dispersed manner across cities. During this period, the focus was primarily on accessing raw materials and energy sources, such as coal and electricity, with little attention given to service networks or labor considerations (Meza, 2023).

The earliest studies on the optimal location for industries date back to the 19th century. Marshall A.'s work (1890) highlights the rationale and benefits of spatial concentration for industries (Triboulet & Pérès, 2015). Additionally, German economist Alfred Weber's research (1909) explains the locational behavior of industries by seeking to minimize transportation costs (Bailly et al., 2016).

The relationship between cities and industries has evolved in response to industrial and environmental risks. The growth of polluting industries, such as steelmaking and metallurgy, which are typically large factories requiring extensive space, has led to their isolation and distancing from urban areas.

The emergence of a new urban landscape, shaped predominantly by industry, has introduced the concept of the industrial city. This type of city is designed entirely, or almost entirely, for industrial purposes, in contrast to pre-industrial cities, where factories were integrated primarily through the expansion of suburbs around the existing urban core (Del Biondo & Edelblutte, 2016).

Land is also addressed through the issue of the location of economic activities and their criteria. The mobility of these activities is driven by ongoing global economic shifts that impact territorial development (GILLIO, 2017). Conversely, the availability of land for industrial use is assessed more qualitatively than quantitatively to better meet business needs. In this framework, the development of industrial zones and business parks enhances the role of industrial land as a catalyst for productive investment and a support for employment and economic growth.

4. DEVELOPMENT OF INDUSTRIAL LAND

Land development represents the deliberate efforts of a social group to organize or transform space to achieve positive societal outcomes (Barles, 2018). In this context, it serves as a strategic instrument for implementing policies aimed at fostering equitable and balanced territorial development (Bennacer & Bouaichi, 2019).

Historically, the organization and management of territory have often been addressed in an ad hoc manner. It was only after World War II that land development saw substantial growth, driven by the urgent need to build and reconstruct infrastructure and superstructures, provide spaces for people and their activities, mitigate regional imbalances, and address economic demands. In this context, land development is defined as the systematic organization of all territorial elements (Thomas, 2021). The state, as the primary landowner, plays a central role by implementing a development policy tailored to the processes of location, management, and enhancement of land. This development is viewed as essential for any territorial project. Consequently, industrial land is characterized as a physical space equipped with the necessary infrastructure and facilities to attract and support businesses, facilitate their production and marketing activities under optimal conditions, and foster the development of local connections among them.

5. PUBLIC-PRIVATEPARTNERSHIPS (PPP) AND THE REDEVELOPMENT OF INDUSTRIAL LAND

Industrial activities that produce tangible goods are vital drivers of national growth and prosperity. During the post-war economic boom, known as ’Les Trente Glorieuses’ (The Thirty Glorious Years), industry accounted for over 70% of exports and more than 80% of research and development expenditures globally (Gaffard, 2012). However, despite the attention given to the secondary sector, the onset of the first oil shock in the early 1970s

marked the beginning of a decline in its attractiveness, initiating a crisis characterized by a downturn and, in some cases, the disappearance of certain manufacturing activities (notably mining and textiles), accompanied by a loss of industrial jobs (Fontaine & Vigna, 2019). This phenomenon, which notably impacted developed countries, prompted the expansion of the tertiary sector and sparked waves of outsourcing and the relocation of certain activities to regions with cost advantages, including lower labor costs.

This situation led to the decline of many industrial wastelands and, in some instances, the loss of entire industrial regions, as exemplified by Detroit in the United States. In response, public authorities have implemented incentive and corrective measures to rehabilitate and reindustrialize these land reserves. Efforts have focused on optimizing land use and creating new, suitable spaces through collaboration with private actors, both local and foreign, including investors, developers, and managers, within the framework of public-private partnerships.

5.1 Public-private partnership in the industrial sector

An industrial partnership can take multiple forms, such as sharing production responsibilities, leveraging production factors, or responding to tenders that require specialized skills and resources. The goal is to minimize costs and risks while promoting industrial activities that generate wealth, employment, and social progress.

This mode of partnership evolved from traditional subcontracting relationships between clients and suppliers, gradually transforming into long-term cooperative agreements founded on trust, synergy, and efficiency. Its aim is to fulfill the final client's demands for quality, flexibility, and service by enhancing the joint offering of the same product. This approach has led to integrated decision-making to boost overall performance and, concurrently, increased competitiveness for both firms (MOUSSAOUI, 1996).

Forming partnerships with the private sector has become essential for enhancing the efficiency and sustainability of public infrastructure and services. Consequently, governments are actively seeking private partners to design, finance, build, operate, and maintain various infrastructure and productive entities. On the other hand, the concept of PPP lacks a universal definition. It is broadly used to describe any form of association, cooperation, or long-term contractual or legal relationship between the public and private sectors aimed at enhancing or expanding infrastructure services, excluding public works contracts (Delmon, 2010). The use of PPPs is intended to overcome several challenges. It enables public investments within a challenging budgetary environment, capitalizes on the expertise and innovative capabilities of private enterprises, and ensuring an equitable distribution of risks between the public entity and the private partner, with each assuming the risks they are best equipped to manage (Marty et al., 2006). There is no single model of PPP to follow. Furthermore, the projects that are intended to be subject to PPPs are not clearly identified. Therefore, adaptation must be applied to each sector, which may require a suitable solution depending on the structure and context. The concept of PPP covers several areas, including energy, transportation, education, health, culture and sports, port infrastructure, and water/sanitation.

The new model of industrialization creates a fertile environment for establishing PPP contracts, promoting production, innovation, and growth. This approach aims to revitalize and sustain the industrial base by harnessing the opportunities, skills, and potential offered by such partnerships. Notably, industries such as mining and steel, automotive, and shipbuilding and aerospace are particularly well-suited to the PPP model, showcasing its effectiveness in these sectors.

5.2 The impact of PPP on the attractiveness of industrial land

Through development policies, states frequently seek to encourage investment by establishing infrastructure, such as roads, networks, railways, and telecommunications systems that serves the public interest and supports productive activities among private enterprises to meet economic demands (Angles, 2012). Consequently, the quality of this infrastructure directly influences

the attractiveness of both the territory as a whole and industrial land in particular for productive activities.

Public-Private Partnerships (PPP) serve as a strategic approach to financing and managing infrastructure, aiming to enhance its sustainability and value. According to World Bank statistics, optimizing infrastructure and delivering essential services require annual investments amounting to 4.5% of global Gross Domestic Product (GDP). Developing countries alone need approximately $2.4 trillion per year over the next seven years. In 2022, private sector involvement in infrastructure projects reached $91.7 billion across 263 operations, reflecting a 23% increase from 2021 (Chen, 2023). Therefore, selecting well-designed and relevant projects for PPP implementation is essential. Effective project selection leverages the expertise and substantial equity of both public and private actors within a stable legal and macroeconomic framework (Beaussé & Gonnet, 2012).

6. THE INDUSTRIAL SECTOR IN ALGERIA: AN OVERVIEW

The Algerian economy, like other rentier economies, has faced numerous challenges over the decades, characterized by a business climate that has been less than conducive to investment. For nearly sixty years post-independence, aside from the hydrocarbons sector, which constitutes nearly all exports and contributes up to 40% of public revenues, the national industry has struggled with low productivity. Furthermore, in the first two decades of the 21st century, the industrial production's contribution to Algeria's GDP, excluding hydrocarbons, remained modest, often below 5%, despite substantial efforts to develop an efficient industrial base and leveraging the country's natural and human resources.

Beginning in 2020, public authorities implemented an ambitious and comprehensive economic recovery plan, enacting reforms across global, sectoral, organizational, and legislative dimensions. The plan's primary aim is to diversify the economy through a suite of measures designed to enhance the investment climate, modernize the banking and financial systems, foster knowledge and innovation, promote digitization, support subcontracting and Small and Medium-sized Enterprises (SMEs), advance agriculture and rural development, and accelerate the energy and ecological transition.

In the industrial sector, a new policy has been introduced, focusing on incentives and solutions to bolster national production and encourage non-hydrocarbon exports. This policy, adopted by public authorities, aims to elevate the industrial sector's contribution to GDP to 15% in the coming years. It also seeks to address the structural imbalances within the secondary sector to enhance the resilience of the national economy.

According to the National Statistics Office (see Table 1), the initial outcomes of this policy are promising. Algeria's GDP grew by approximately 4.1% in 2023, while industrial production has exhibited positive growth rates surpassing 5% since 2021. Specifically, in 2022, the growth rate was 5.2%, and in the first quarter of 2023, it reached 6.1% compared to the same period the previous year. This upward trend is expected to continue, bolstered by substantial investment projects. In 2023, the Algerian Agency of Investment Promotion (AAIP) recorded 2,060 industrial projects valued at over 1,500 billion DZD, anticipated to generate nearly 62,000 new jobs. These projects account for nearly 50% of all projects registered with the AAIP (Algerie Press Service, 2024).

Table 1 : Evolution of the Non-Hydrocarbon Industry Growth Rate During the Period 2017-2023 (Source : National Office of Statistics (NOS))

Year	Non-Hydrocarbon Industry Growth Rate (%)
2017	4.7
2018	3.9
2019	4
2020	-3.5
2021	5.3
2022	5.2
T1-2023	6.1

Industrial land represents a key incentive for industrialists, with its availability and development quality serving as critical factors in attracting investment. In Algeria, a new approach emphasizing transparency has been adopted to eliminate bureaucratic obstacles, combat corruption in land

allocation, and optimize management practices. The initial step involved the revitalization of industrial zones and activity areas to reclaim unused plots and reallocate them to genuine investors. Furthermore, the management of industrial land has been assigned to the AAIP. The AAIP now oversees all aspects of investment and land allocation through a digital platform, ensuring transparency and equal access to information for both national and foreign investors.

On the legislative front, a range of laws and decrees has been introduced to support and shape the reforms directed at enhancing the business climate and promoting productive investments. Notable among these regulatory texts are:

- Law No. 22-18 of July 24, 2022, related to investment.
- Presidential Decree No. 22-296 of September 4, 2022, which outlines the composition and functioning of the High National Commission for Investment-Related Appeals.
- Executive Decree No. 22-297 of September 8, 2022, establishing the composition and functioning of the National Investment Council.
- Executive Decree No. 22-298 of September 8, 2022, establishing the organization and functioning of the AAIP.
- Law No. 23-17 of November 15, 2023, setting the conditions and modalities for granting economic land from the state's private domain intended for investment projects.
- Executive Decree No. 23-488 of December 28, 2023, creating, organizing, and functioning of the National Agency for Industrial Land.

Since 2020, the new investment-promoting policies have successfully eliminated obstacles for nearly 900 companies and reclaimed over 6,000 hectares of unused land (Bouaricha, 2024). This land spans across the 755 industrial zones and activity areas within the national industrial land portfolio. This portfolio is being progressively expanded with the ongoing development of a program to establish 50 new industrial parks across 39 wilayas.

7. PUBLIC-PRIVATE PARTNERSHIP IN ALGERIA

Public-private partnerships in Algeria are still in their early stages, and the country lacks a dedicated legal framework for this type of collaboration (A draft bill on public-private partnerships was reviewed by the Algerian government in January 2024). Nevertheless, several projects have already been executed under the public procurement code, along with laws and regulations specific to sectors such as water, energy, public works, and transport. These projects have involved both public and private operators. Notable examples of partnerships within this framework include:

- The construction of Eleven seawater desalination plant ;
- The development of two power plants led by Algerian Energy Company (AEC);
- The concession of three container terminals at the ports of Algiers, Bejaia, and Djen-Djen;
- Six management contracts for the management of potable water (Algiers/Tipaza, Oran, Constantine, Annaba/El Taref), the Algiers metro, and Houari Boumediene Airport in Algiers.

Furthermore, the public sector within the commercial domain is authorized to invest in PPP projects under the guidelines set by the State Participation Council (SPC) Resolution No. 04/120/17/11/2011, as amended and supplemented by Resolution No. 11/134/14/03/2013. These resolutions outline the procedures for seeking and executing industrial partnership projects. Additional investment provisions have bolstered this framework, particularly those involving foreign capital, including the removal of the 51/49 rule for non-strategic activities and the easing of dividend transfers.

8. THE INDUSTRIAL POTENTIAL OF JIJEL PROVINCE

Jijel Province, with its strategic geographical location and abundant natural and human resources, holds significant potential for the development of industry and various other economic activities.

Table 2: Sectoral Distribution of Companies in the Wilaya of Jijel. (Source : National Center for Trade Register (Data as of 9 May 2024))

	Natural Persons	Legal Entities	Total
Industrial Production and Construction and Public Works	4921	735	5656
Craft Production	103	5	108
Wholesale Trade	813	229	1042
Retail Trade	21051	204	21255
Services	16693	703	17396
Export	17	60	77
Import	17	128	145

8.1 Brief overview of the Jijel province territory

Jijel Province, a coastal region with over 120 kilometers of shoreline, is situated 350 kilometers northeast of the capital Algiers. As of 2023, it hosts a population exceeding 800,000 within its 2,398 square kilometers. The province is administratively divided into 11 districts, comprising 28 municipalities. Notably, 80% of its landscape is mountainous, offering a unique blend of geographical features. In terms of infrastructure, Jijel Province boasts a road network spanning 1,917 kilometers, including 204.5 kilometers of national roads, along with a 137-kilometer railway. The province is also home to a commercial port, a marina, two fishing ports, and an international airport located just 12 kilometers east of the provincial capital.

As the beginning of May 2024, as shown in Table 2, the local economy comprises 45,679 enterprises, with only 5,656 in the industrial sector, representing nearly 12% of all registered productive entities. The majority of these enterprises are concentrated in the retail trade and service sectors, which account for 46% and 38% of the total, respectively.

8.2 Industrial land in the state of Jijel

The state of Jijel features two industrial zones and seven activity zones, encompassing more than 750 hectares. The industrial zones, Bellara and Ouled Salah, are situated in the communes of El Milia and El Emir Abdelkader, respectively. Together, they span 607 hectares, accounting for over 80% of the Wilaya's total industrial land area. These zones are divided into 295 plots, covering approximately 475 hectares, with the Bellara zone alone accounting for 402 hectares. Figure 1 illustrates the locations of these industrial and activity zones within Jijel Province.

The seven activity zones, covering a total of 143.43 hectares, are strategically located across six municipalities: Jijel, El Milia, Emir Abdelkader, Oudjana, Settara, and Ouled Yahia. These zones are subdivided into 263 plots, which collectively span 90.89 hectares.

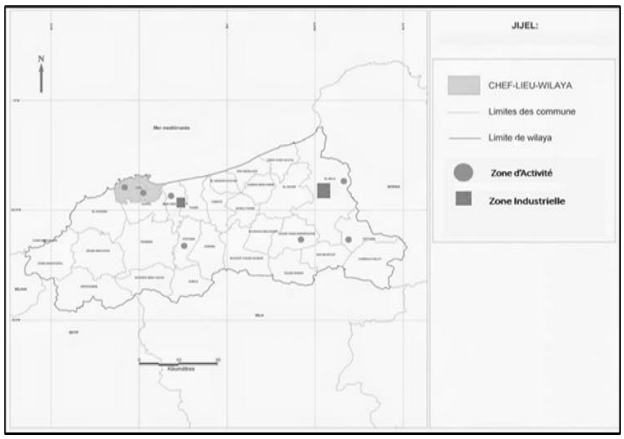

Figure 1: Map of Industrial Zones (IZ) and Activity Zones (AZ) in Jijel Province (Source: Directorate of Industry of the Wilaya of Jijel (June 2024))

The 558 transferable plots collectively cover an area of 565.47 hectares. Of this, 434.51 hectares have been allocated, comprising 366 lots. This results in an occupancy rate of over 76.84% for all industrial and activity zones within the state of Jijel. Consequently, approximately 131 hectares of industrial land remain available, distributed across 172 lots, 145 in the two industrial zones and 27 in the five activity zones.

According to data from the Directorate of Industry of the Wilaya of Jijel (2024) (refer to Table 3), there are 183 planned investments in the activity zones. Of these, 113 projects are currently operational, representing approximately 62% of the total. Additionally, 16 projects are under development, 18 have yet to commence, and 36 are currently at a standstill.

*Table 3 : Distribution of Industrial and Activity Zones in Jijel Province. (Source : Directorate of Industry of the Wilaya of Jijel (June 2024)), (* Some disputed lots were not taken into account)*

Zones		Date of Creation	Total Area (Ha)	Transferable (Ha)		Allocated		Available *	
				Area	Nbre	Area	Nbre	Area	Nbre
IZ	Ouled Salah	1986	84	72	62	71.7101	61	0.7493	1
	Bellara	2011	523	402.58	233	299.52	88	101.78	144
AZ	El Haddada	1986	26	17.43	68	17.42	67	0.017	1
	El Milia	1986	6,64	4.5	50	4.5	50	0	0
	Emir Abdelkader	2016	4,7	3.44	33	3.44	33	0	0
	Chouf Letnine	2014	73	47.44	39	28.41	23	11.61	11
	Beni Ahmed	2012	16.8	4.9	33	3.76	25	1.02	6
	Oudjana	2013	10.39	7.99	23	3.37	9	2.04	6
	Settara	2014	5.9	5.19	17	2.38	10	2.68	3

In the Ouled Salah industrial zone, out of 61 allocated plots, 52 are operational while 9 remain inactive. The zone features 15 public operators and 40 private enterprises, engaged in a diverse array of sectors including agri-food, construction materials, glass, pharmaceuticals, textiles and leather, energy, and painting.

By the end of May 2024, the industrial land cleanup operation has successfully reclaimed 56 hectares. This reclaimed area includes 29 plots totaling 30.12 hectares within the industrial zones, 25 plots covering 16.35 hectares in the activity zones, and 7 plots outside these zones encompassing 9.52 hectares.

8.3 The Bellara industrial zone

Situated 50 kilometers east of the Djen-Djen port and adjacent to the national road linking the wilayas of Mila, Skikda, and Constantine, the Bellara Industrial Zone was established in 2011 in the commune of El-Milia, State of Jijel. Originally chosen by the National Agency for Spatial Planning (NASP) to host Algeria's inaugural free trade zone, the project was established under Executive Decree No.97-106 of April 5, 1997, aimed at promoting industrial exports and investments. However, this project was abandoned in 2005. The Bellara Industrial Zone spans approximately 523 hectares, with 402.53 hectares available for allocation. It comprises 233 land plots designated for investment, of which 88 have been allocated, covering a total of 299.52 hectares. This zone represents over 71% of the usable industrial land in the State. It also boasts the largest number of available plots, 144 in total, encompassing 101.78 hectares.

This accounts for nearly 18% of the total transferable area and over 84.89% of the currently available land (see Figure 2). The Bellara Industrial Zone is well-equipped with essential infrastructure for industrial activities, including energy networks, communication facilities, a railway line, and a 6-kilometer road bypass. As of June 2024, the zone hosts 20 registered projects with the Directorate of Industry. Among these, two operational projects occupy half of the total area: the AQS steel complex and a major power plant with a capacity exceeding 1,200 megawatts, situated on approximately 40 hectares.

The remaining 18 projects are still in the planning stage and encompass various sectors, including agri-food, construction materials, plastics, hospitality, automotive equipment, packaging, and a facility for recovering iron residues from the steel complex.

9. THE ALGERIAN QATARI STEEL (AQS) COMPLEX AND ITS ECONOMIC IMPACT

The decision to establish a steel complex in the State of Jijel was made in the late 1970s, with the goal of serving as the central hub for regional planning and development. However, it was not until the second

decade of the 21st century that this vision materialized, with a total investment of $2.1 billion. The Algerian-Qatari Steel (AQS) company was founded in December 2013, with the construction of the steel complex commencing in March 2015. The facility partially opened in April 2017 and was fully operational by February 2021.

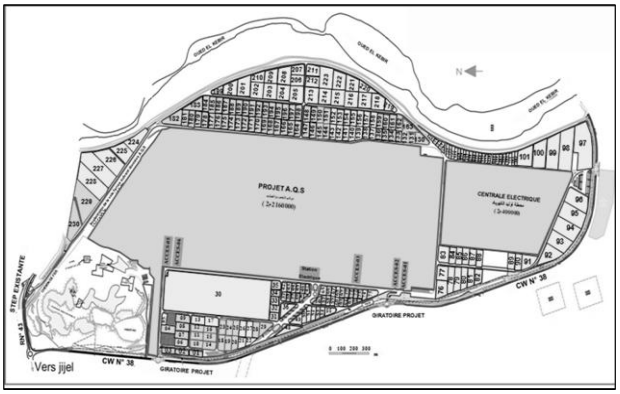

Figure 2. Site Plan of the Bellara Industrial Zone (Source: Directorate of Industry of the State of Jijel (June 2024))

This project represents a collaboration between Algerian and Qatari interests, featuring a share capital of 58.61 billion DZD. Qatar Steel International (QSI) holds a 49% stake, the SIDER Industrial Group owns 46%, and the National Investment Fund (NIF) possesses 5%. The construction of the complex was carried out by the prestigious Italian firm, Danieli.

As noted earlier, the AQS steel complex spans 216 hectares within the Bellara Industrial Zone, situated 400 km from Algiers. It stands as one of the largest industrial facilities in Algeria and Africa, specializing in the production of steel wire, coils, rebar, and cast iron molds.

The complex is equipped with ten advanced production units, prominently featuring the Direct Reduction (DR) unit, which stands as the core of the facility with an impressive capacity of 2.5 million tonnes per year. It also includes three rolling mills with a total annual production capacity of 2 million tonnes, and two electric arc furnaces with a combined capacity of 2.2 million tonnes per year. Additional infrastructure comprises a natural gas station, an electrical transformer, a lime plant, and a water treatment facility, each contributing to the complex's comprehensive operational capability.

9.1 AQS and the national company for rail transport (NCRT)

The National Company for Rail Transport (NCRT), established in 1976 as a Public Industrial and Commercial Enterprise (PICE), is tasked with overseeing passenger and freight transport, along with managing, operating, and maintaining Algeria's rail network, which it owns and operates. In Jijel Province, the NCRT manages the "Bazoul" marshalling yard, a crucial hub for transporting diverse cargoes—including pipes, salt, cereals, coils, and hydrocarbons—on behalf of key economic operators such as SONATRACH, OAIC, ALFA PIPE, NAFTAL, and ENASEL.

Since 2022, AQS has become both a client and partner of NCRT through a transportation contract. NCRT facilitates the movement of raw materials for the steel complex via a 50 km rail line. Initially, NCRT allocated a train with two locomotives and 32 wagons, capable of transporting 1,800 tonnes per trip. With four rotations per day, this setup enables the daily transport of 7,200 tonnes of raw iron from the port of Djen-Djen to the Bellara steel complex. This volume is expected to gradually increase to 12,000 tonnes per day to meet the complex's requirement of 10,500 tonnes daily, aiming for an annual production of 2 million tonnes.
From the perspective of NCRT-Jijel's operational growth (as shown in Table 4), the transportation contract with AQS has significantly boosted its revenue by 70% and led to a remarkable volume growth rate of 162.95% in 2023 compared to 2022. Transported volumes increased from 157,141 tonnes in 2021 to 497,428 tonnes in 2022, with 61% of this volume dedicated to serving the steel complex. By 2023, NCRT -Jijel had transported over 1,166,261 tonnes of raw materials to the Bellara complex, accounting for more than 89% of the total volumes handled that year, which reached 1,307,007 tonnes.

Alongside the increased activity at NCRT-Jijel driven by its contract with AQS, the workforce at the marshalling yard expanded by 50% during 2022 and 2023. Additionally, the implementation of the double-track railway line between the port of Djen-Djen and the Bellara Industrial Zone has alleviated truck congestion on the Jijel-El Milia national road

Table 4 : Some Indicators on the Freight Transport Activity of NCRT-Jijel (2019-2023) (Source : Personal Creation based on data from NCRT-Jijel, June 2024)

Year	NCRT-Jijel Tonnage	Annual Growth (%)	Tonnage for AQS	AQS Share of Total NCRT-Jijel Tonnage (%)
2019	216 334	-	-	-
2020	178 432	-17.52	-	-
2021	157 141	-11.93	-	-
2022	497 428	216.55	302 352	61%
2023	1 308 007	162.95	1 166 261	89%

(RN-43), streamlined internal traffic within the complex, and significantly reduced harmful environmental emissions.

9.2 AQS and the Djen-Djen port authorities

To enhance its supply and export capabilities, the Bellara complex has secured a 40-year concession for a mineral terminal at Djen-Djen port.

Situated on the western quay and spanning 10 hectares, this key infrastructure is operated by AQS. Initially, the terminal will handle up to 3.5 million tonnes per year, with plans to expand this capacity to 7 million tonnes annually in a subsequent phase. Currently equipped with two towering unloading cranes, each nearly 60 meters high, the terminal will soon feature a new berth designed to accommodate mineral ships up to 170,000 tonnes. The partnership between the Port of Djen-Djen and AQS exemplifies a highly effective collaboration between major economic players. For the steel complex, the port is a critical asset, handling 100% of its raw material imports and 80% of its exports (The remaining 20% of the steel complex's exports pass through the ports of Annaba, Skikda, and Bejaia).

Conversely, this relationship has significantly boosted activity at the Port of Djen-Djen. From 2019 to 2023, as detailed in Table 5, transactions with the Bellara steel complex accounted for between 6% and 35% of the port's total cargo volume and between 10% and 16% of its revenue.

In summary, the establishment of the steel complex in the Bellara Industrial Zone has not only enhanced the availability of steel products in local markets and diversified Algerian exports but has also cultivated a vibrant economic network.

This network includes key stakeholders such as NCRT and the Port of Djen-Djen, highlighting the complex's broader impact on the regional economy.

9.3 Economic impact of the AQS complex

9.3.1 Employment generation and local business growth

A significant outcome of the AQS project is the creation of direct and indirect employment opportunities. The number of employees grew from 537 in 2018 to 2,720 in 2023. With the upcoming second phase of expansion, direct employment is projected to increase to 4,000, while an additional 10,000 indirect jobs are expected to be created in related sectors such as transportation, maintenance, and logistics (see Figure 3).

Table 5 : Tonnage Handled and Revenue Generated by the Port of Djen-Djen During the Period 2018-2023. Source : Port of Djen-Djen, June 2024

Year	Total Tonnage (T)	AQS Tonnage (T)	(%) AQS	Total Revenue (DZD)	AQS Revenue (DZD)	(%) AQS
2018	3 372 168	106 828	3%	3 688 108 300	126 573 412	3%
2019	4 455 565	584 933	13%	3 976 206 880	480 310 222	12%
2020	4 756 476	269 847	6%	3 272 809 942	358 014 205	11%
2021	7 258 167	1 487 080	20%	4 256 707 958	698 651 334	16%
2022	9 258 212	2 846 869	31%	5 900 586 412	664 476 431	11%
2023	9 713 859	3 395 200	35%	6 406 703 548	651 978 574	10%

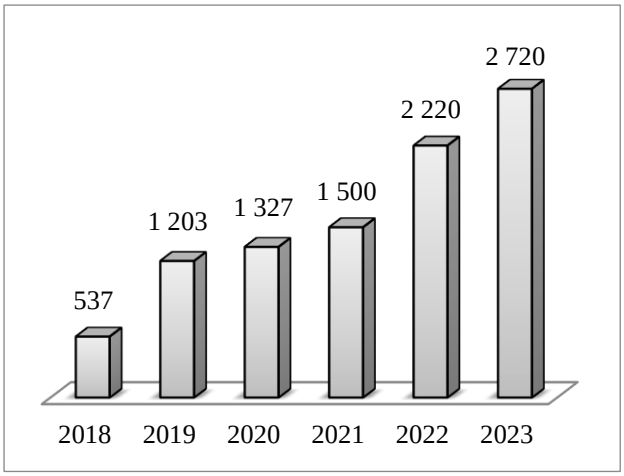

Figure 3 : Evolution of the Numbers of Direct Jobs Created by the AQS Complex During the Period 2018-2023 (Source: Personal Creation Based on Statistics Obtained from The Directorate of Industry of The Sate of Jijel (June 2024))

9.3.2 Contribution to industrial production and revenue

The AQS steel complex fulfills a critical need for ferrous products within the national economy, generates significant employment opportunities, invigorates local business activities, and enhances the diversity of Algerian exports. Over the past three years, Algeria has transitioned from being an importing country (with imports totaling $36.4 billion for a volume of 41 million tonnes between

2010 and 2016) to becoming an exporting country, achieving nearly $1 billion in exports in 2023 in the steel industry sector (see Figure 4).

The growth in the workforce at the AQS steel complex is directly linked to its expanding production capacities since its partial commissioning in 2017. Production volumes increased steadily, rising from 80,000 tonnes in 2018 to 250,000 tonnes in 2019. Although production dipped to 248,000 tonnes in 2020 due to the COVID-19 pandemic, it surged to 800,000 tonnes with the full commissioning of the complex in 2021. By 2023, production had exceeded 1,700,000 tonnes, generating an estimated revenue of 1.2 billion USD.

Furthermore, the project has strengthened local business networks by integrating small and medium-sized enterprises (SMEs) into the industrial supply chain, fostering entrepreneurship and industrial diversification. This integration has enhanced the competitiveness of local firms and increased their participation in large-scale industrial activities. By fostering business linkages and encouraging industrial clustering, PPP-driven projects contribute to long-term economic sustainability and the development of competitive industrial ecosystems.

9.3.3 Export growth and economic competitiveness

By increasing domestic steel production, the AQS complex has played a crucial role in reducing Algeria's reliance on steel imports and expanding its export potential. This shift has not only improved the country's trade balance but has also positioned Algeria as a competitive player in regional and international steel markets. The increase in export capacity has generated foreign exchange earnings, contributing to overall economic stability and growth. Starting in 2021, AQS successfully exported 180,000 tonnes of products, generating an estimated revenue of 110 million USD. By 2022, this figure rose to 160 million USD. In 2023, AQS significantly expanded its reach, exporting to 30 countries across Europe, Africa, Asia, and America. Exports soared to 700,000 tonnes, representing 40% of total production, with an estimated value of 423 million USD (see Figure 4).

Additionally, the enhanced infrastructure and industrial efficiency resulting from the PPP framework enable Algerian industries to compete effectively on a global scale, reinforcing the broader economic impact of strategic industrial investments.

9.3.4 Quality, certifications, and market access

Alongside its annual production increases, the complex prioritizes quality and environmental responsibility, evidenced by its acquisition of notable international certifications, including ISO 9001 and ISO 14001, as well as product certifications from the British Steel Product Certification Agency. These credentials highlight its dedication to excellence and sustainability, facilitating its entry into global markets.

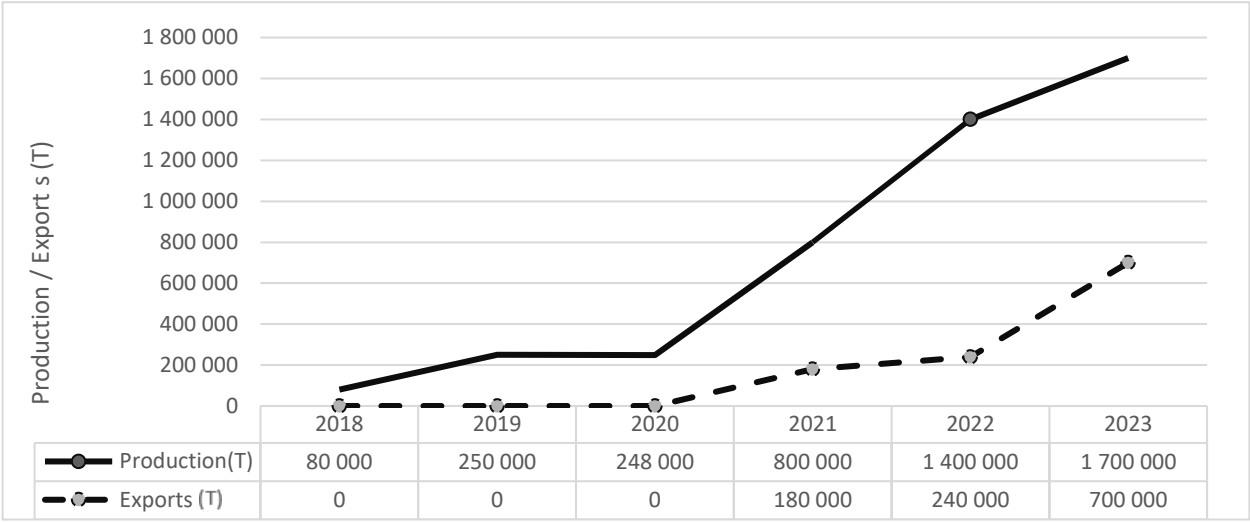

Figure 4 : Growth in Production and Exports at the AQS Complex: 2018-2023. Source : Personal Creation based on statistics obtained from Algerian Qatari Steel.

Beyond its contributions to job creation, local supply enhancement, and steel product exports, the complex's operations have also had a positive ripple effect on local enterprises, including the National Company for Rail Transport (NCRT) and the Djen-Djen Port Authority.

10. IMPLICATIONS OF THE STUDY

The findings of this study highlight the critical role of PPP-driven industrial investments in fostering economic growth, employment generation, and international competitiveness. By examining the Algerian Qatari Steel (AQS) complex, this study provides insights into how strategic partnerships between the public and private sectors can enhance industrial efficiency, trade balance, and local business development. The implications of these findings can be categorized into two main areas: theoretical insights that contribute to academic discussions and practical applications for policymakers and industry stakeholders.

10.1 Theoretical implications

The case of the AQS complex reinforces theories related to economic diversification, industrial clustering, and international competitiveness. It aligns with Porter's Competitive Advantage Theory (1990), demonstrating how industrial hubs stimulate economic development through supply chain integration and specialization.

Moreover, the study supports New Structural Economics (Lin, 2012), which argues that state-private collaboration can drive sectoral transformation, overcome market inefficiencies and accelerating industrialization. The findings emphasize how PPP frameworks contribute to sustainable industrial policies, providing a model that can be replicated in other emerging economies.

10.2 Practical implications

The practical significance of this study lies in its relevance to economic policymakers, investors, and industry stakeholders, offering key takeaways for the development of future PPP-driven industrial projects.

- Job Creation and Local Business Growth: The AQS complex has significantly expanded employment, creating both direct and indirect opportunities in related sectors such as logistics, transportation, and maintenance. This underscores the importance of industrial megaprojects in reducing unemployment and strengthening local supply chains.
- Trade Balance and Economic Stability: By transitioning from a net importer to an exporter of steel, AQS has improved Algeria's trade balance, generating foreign exchange earnings. Similar to Turkey's Kardemir steel industry, this demonstrates how PPP investments in industrial production can drive export-led growth.
- Global Competitiveness and Market Access: The adoption of ISO 9001 and ISO 14001 certifications

has positioned AQS as a globally competitive steel producer. This mirrors the approach taken by South Korea's POSCO, where quality assurance and sustainability measures enabled international market penetration.

This study provides a comprehensive understanding of how PPP-driven projects impact economic development, offering both theoretical contributions and practical lessons that can inform future industrial policies and investment strategies.

11. STAKEHOLDER PERSPECTIVES ON PPP-DRIVEN INDUSTRIAL INVESTMENTS

11.1 Government authorities: balancing economic growth and policy challenges

For policymakers, Public-Private Partnerships (PPPs) serve as a crucial mechanism for accelerating industrialization, attracting foreign investment, and addressing budgetary constraints. Projects like the Algerian Qatari Steel (AQS) complex are seen as instrumental in fostering job creation (see Figure 3), regional development, and export growth while alleviating the state's financial burden by leveraging private capital (see Figure 4). However, government officials acknowledge that bureaucratic inefficiencies, inconsistent regulatory frameworks, and delays in project approvals can pose significant obstacles to the success of PPPs. To maximize the benefits of these partnerships, policymakers emphasize the need for streamlined administrative processes, stronger institutional coordination, and well-defined legal protections that balance public interests with private sector incentives.

11.2 Private sector: profitability vs. investment risks

For private investors, PPPs offer an attractive opportunity to expand their market presence, benefit from state incentives, and gain long-term operational stability. The AQS project, for instance, highlights how foreign investment, technological expertise, and strategic joint-ventures can contribute to modernizing Algeria's industrial sector. However, private sector actors often express concerns about regulatory uncertainty, policy inconsistencies, and investment risks. Sudden changes in industrial policies, complex administrative procedures, and delays in land allocation or licensing can increase operational costs and deter future investments. To encourage greater private sector participation, companies advocate for transparent governance, clearer investment protection mechanisms, and a stable legal framework that ensures the security of capital investments.

11.3 Local communities and labor force: economic gains vs. social concerns

For local communities and workers, large-scale PPP-driven industrial projects bring substantial economic benefits, particularly in job creation, skills development, and infrastructure improvements. The AQS complex has contributed to employment growth, strengthened local supply chains, and provided new opportunities for small businesses in the surrounding areas. However, despite these advantages, concerns remain about labor rights, environmental sustainability, and long-term community well-being. Workers and labor unions emphasize the need for fair wages, better working conditions, and long-term job security, while community groups highlight potential environmental risks such as pollution and industrial waste management. Addressing these concerns requires proactive corporate social responsibility (CSR) initiatives, sustainable environmental policies, and a commitment to ensuring that industrial investments generate broad-based social benefits.

11.4 Economists and researchers: evaluating long-term Economic sustainability

From an academic and policy standpoint, economists and researchers analyze PPPs in terms of efficiency, cost-effectiveness, and sustainability. Empirical studies suggest that well-structured PPPs can enhance productivity, improve trade balances, and boost industrial competitiveness by effectively leveraging private sector expertise and financial resources. However, some scholars warn that PPPs may lead to financial inefficiencies such as cost

overruns, an unequal distribution of risks between public and private actors, and excessive reliance on government subsidies. To mitigate these risks, experts recommend establishing strong governance frameworks, improving contract transparency, and implementing clear accountability measures to ensure that PPPs deliver sustainable economic benefits without placing an undue financial burden on the state.

11.5 Financial Institutions and Development Agencies: Ensuring Investment Security

Banks, international financial institutions, and development agencies play a critical role in financing PPP projects, ensuring that investments are secure and capable of generating long-term economic returns. Organizations such as the African Development Bank and the World Bank emphasize that PPPs in North Africa can drive sustainable growth, provided that governments enforce robust financial policies and maintain stable regulatory environments. However, financial institutions remain cautious about investment risks associated with political instability, weak contract enforcement, and economic volatility. To attract greater investment, development agencies advocate for stronger financial governance, well-defined legal protections, and strategic risk mitigation policies that enhance investor confidence and encourage long-term commitments to industrial projects.

11.6 Aligning stakeholder interests for sustainable industrial development

While PPP-driven industrial projects like AQS offer significant economic opportunities, their success depends on balancing the interests of all stakeholders. Governments must streamline regulations and create investor-friendly policies, private sector participants need assurances of operational stability, and local communities must benefit from sustainable development. By addressing regulatory hurdles, social concerns, and financial sustainability, PPPs can serve as a transformative tool for industrial expansion, economic diversification, and long-term national growth.

12. CONCLUSION

In independent Algeria, revitalizing national production and diversifying exports have consistently been at the core of economic development policies. After a phase of extensive public investment and the gradual inclusion of private capital from the 1990s, the transition towards public-private partnerships now presents promising new opportunities for the national economy. Given their substantial resource mobilization capabilities, such partnerships, particularly those centered on heavy investments, have the potential to create industrial hubs that revitalize local areas, boost their appeal, foster national production growth, and diversify exports.

Algerian Qatari Steel (AQS) stands as a premier example of a thriving public-private partnership with far-reaching impacts across multiple regional levels. By revitalizing a previously underdeveloped area, this steel complex has significantly enhanced the Bellara Industrial Zone's profile through substantial infrastructural investments, including the railway link to the Port of Djen-Djen, a power plant, and various essential networks. The partnership with local stakeholders has transformed the region's economic landscape, attracting industrialists who value its strategic location and cost-efficiency. Consequently, the complex not only bolsters regional industrial activity but also generates employment opportunities and improves the quality of life for the local community.

Finally, AQS not only fulfills its role in steel production and satisfies national demand for ferrous products but has also emerged as a prominent international supplier, with steadily growing export volumes. This positions AQS as a key player in transitioning Algeria from an importer to an exporter of steel. Looking ahead, AQS's strategic role will be further reinforced by expanding its production capacities alongside other steel complexes like Sider El Hadjar and Tosyali. Additionally, ongoing investments in the development of the Gara Djebilet iron ore deposit,

including the Bechar steel complex and the Gara Djebilet-Tindouf-Bechar-Oran railway, are poised to elevate Algeria to the forefront of global ferrous product exporters. By aligning stakeholder interests and addressing regulatory, economic, and social challenges, PPP-driven industrial investments can serve as a powerful engine for Algeria's long-term industrial transformation.

13. BIBLIOGRAPHY

APS. Algerie Press Service. https://www.aps.dz/economie/164737- investissement-plusieurs-reformes-concretisees-pour-relancer-l-industrie-et-rendre-disponible-le-foncier

African Development Bank. (2023). *North Africa to boost public-private partnerships to support economic development.* African Development Bank (AfDB). https://www.afdb.org/en/news-and-events/press-releases/north-africa-boost-public-private-partnerships-support-economic-development-62171

Aissaoui, A. (2020). Investing opportunities through public-private partnerships in Algeria. Journal of Economic & Financial Research, 9(1), 36-49. University of Oum El Bouaghi. https://www.univ-oeb.dz/JEFR/docs/num09/36.pdf

Angles, B. (2012). Les partenariats public-privé : l'avenir du financement des infrastructures. (A. E. Régulations, Éd.). Revue d'économie financière (108), 221-230. https://doi.org/10.3917/ecofi.108.0221

Babei, J., & Paché, G. (2021). Engagement de la direction générale et climat de travail : quelle maîtrise des accidents en rétro-logistique hospitalière ? *Revue Française de Gestion Industrielle, 35*(1), 7–23. https://doi.org/10.53102/2021.35.01

Bailly, A., Beguin, H., & Scariati, R. (2016). La localisation industrielle Dans Introduction à la géographie humaine. in A. Colin (Ed.), Chapter 8 pp. 141-162. https://doi.org/10.3917/arco.baill.2016.01.0141

Barles, S. (2018). L'aménagement et l'urbanisme : disciplines de l'interface, interdisciplines. Revue européenne des sciences sociales (56-1), 203-218. https://doi.org/10.4000/ress.4043

Bennacer, N. (2019). Logique de gouvernance du territoire et localisation des activités industrielles: Essai d'analyse du cas de la wilaya de Bejaia. Thèse de doctorat en sciences économiques, Université A. MIRA de Bejaia. http://univ-bejaia.dz/dspace/123456789/14053

Bennacer, N., & Bouaichi, N. (2019). Gouvernance et développement territorial: Une lecture à partir de la politique algérienne d'aménagement spatial. Dialogue Méditerranéen, *10* (3), 16-36. https://asjp.cerist.dz/en/downArticle/281/10/3/109155

Bost, F. (2018). Les fondamentaux de la géographi . in A. Colin (Ed), 2018.01.0323, Chapitre 13 pp. 344- 359. https://doi.org/10.3917/arco.bost.2018.01.0262

Boudès, P. (2006). Le foncier industriel dans les régions françaises : enjeux et dynamiques. *Revue française de gestion industrielle, 25*(2), 45–52. https://doi.org/10.3166/rfg.332.45-52

Boukhalfa, M., & Khaldi, A. (2021). Public-private partnership as a tool for financing infrastructure projects in Algeria. Algerian Journal of Economic Development, 14(3), 171-186. https://asjp.cerist.dz/en/downArticle/2/14/3/171636

Bouzid, A., & Benhabib, A. (2022). The future of Algerian public institutions in the context of closer public-private partnership.

https://www.researchgate.net/publication/358536765_The_future_of_Algerian_public_instutions_in_the_context_of_closer_public-private_pratnership

Brasseul, J. (2016). Petite histoire des faits économiques*:* Des origines à nos jours. Paris: A. Colin (Ed.). https://doi.org/10.3917/arco.brass.2016.02

Buzon, L. (2008). Un système d'échange de connaissances dans le cadre des chaînes logistiques. *Revue française de gestion industrielle, 27*(1), 101–104. https://doi.org/10.3166/rfg.172.101-104

Chen, G. (2023). Investissements privés dans les infrastructures : tendances et leviers d'action. In B. Mondiale(Ed.). https://blogs.worldbank.org/fr/voices/investissements-prives-dans-les-infrastructures

Del Biondo, L., & Edelblutte, S. (2016). Le paysage des anciennes villes-usines européennes : un nouveau patrimoine entre négation, alibi, reconnaissance et complexité des jeux d'acteurs. (A. Colin, Éd.) Annales de géographie(711), 466-489. https://doi.org/10.3917/ag.711.0466

Delmon, J. (2010). Partenariats public-privé dans le secteur des infrastructures, Guide pratique à l'intention des décideurs publics. THE WORLD BANK. https://ppp.worldbank.org/public-private-partnership/library/partenariats-public-prive-dans-le-secteur-des-infrastructures

Derrouiche, R., Lamouri, S., & Naoui-Outini, F. (2022). Supply Chain 4.0 : rôles et opportunités de la gestion industrielle [Special issue]. Revue Française de Gestion Industrielle, 36(1). https://doi.org/10.53102/2022.36.01

Derrouiche, R., Fernandes, V., Naoui-Outini, F., & Saikouk, T. (2023). Les collectors de quarante et un ans de recherche en gestion industrielle, Tome 1 : les articles

précurseurs. Revue Française de Gestion Industrielle, 37(3), 3–8. https://doi.org/10.53102/2023.37.03.1198

Dezert, B., & Verlaque, C. (1978). L'espace industriel. Paris: Masson. https://excerpts.numilog.com/books/9782225619526.pdf

Durand, T. (2010). Accès et régulation du foncier pour les activités industrielles. *Revue française de gestion industrielle, 29*(3), 73–80. https://doi.org/10.3166/rfg.461.73-80

Fontagné, L., Mohnen, P., & Wolf, G. (2014). Pas d'industrie, pas d'avenir ? In C. d. économique (Ed.) Notes du conseil d'analyse économique, 1-12. https://doi.org/10.3917/ncae.013.0001

Fontaine, M., & Vigna, X. (2019). La désindustrialisation, une histoire en cours. In P. d. Po (Ed.) Revue d'histoire (144), 2-17. https://doi.org/10.3917/vin.144.0002

Gaffard, J.-L. (2012). Compétitivité et développement industriel en Europe. In L. Découverte (Ed.) Regards croisés sur l'économie (11), 116-124. https://doi.org/10.3917/rce.011.0116

GILLIO, N. (2017). Le foncier, une ressource territoriale pour le développement économique. thèse de Doctorat, Université Grenoble Alpes. Grenoble Alpes, France. https://theses.fr/2017GREAH012

Guelton, S. (2020). Les futurs débats du foncier. In F. F. Bâtiment, (Ed.) CONSTRUCTIF (57), 43-46. https://doi.org/10.3917/const.057.0043

Jarrige, F. (2022). Origine et signification du mot « industrie » Retour sur une querelle sémantique de l'entre-deux-guerres. Artefact(17), 265-283. https://doi.org/10.4000/artefact.13334

Lavigne Delville, P. (2002). Le foncier et la gestion des ressources naturelles. In Cirad (Ed.) Mémento de l'Agronome, 201-221. https://www.foncier-developpement.fr/publication/le-foncier-et-la-gestion-des-ressources-naturelles/

Le ministre de l'Industrie a assuré que c'est humainement difficile à gérer : Aoun condamne l'organisation du secteur public en grands groupes industriels.

https://elwatan-dz.com/le-ministre-de-lindustrie-a-assure-que-cest-humainement-difficile-a-gerer-aoun-condamne-lorganisation-du-secteur-public-en-grands-groupes-industriels

Lin, J. Y. (2012). *New Structural Economics: A Framework for Rethinking Development and Policy*. World Bank. https://documents1.worldbank.org/curated/en/991771468155733696/pdf/663930PUB0EPI00nomics09780821389553.pdf

Magrin, G. (2013). VOYAGE EN AFRIQUE RENTIÈRE. Paris, France: Éditions de la Sorbonne. https://doi.org/10.4000/books.psorbonne.106122

Marnot, B. (2012). La mondialisation au XIXe siècle (1850-1914). In A. Colin. Chapter 1 PP. 15-40. https://doi.org/10.14375/NP.9782200255145

Marty, F., Trosa, S., & Voisin, A. (2006). Les partenariats public-privé. In L. Découverte (Ed.) Paris, France. https://doi.org/10.3917/dec.marty.2006.01

Méda, D. (2011). Une histoire de la catégorie de travail. Tours: Presses Universitaires François-Rabelais. https://books.openedition.org/pufr/17548?lang=en

Meza, E. (2023). L'impact des zones industrielles et zones d'activités dans la wilaya de Constantine. THÈSE de doctorat Université de Constantine 3. Algérie. https://dspace.univ-constantine3.dz/jspui/handle/123456789/4156

MOUSSAOUI , I. (1996). LE PARTENARIAT INDUSTRIEL IMPLICATIONS MANAGERIALES ET PERSPECTIVES STRATEGIQUES. Thèse de Doctorat en Sciences de Gestion, Université des Sciences et Technologies de Lille, Institut d'Administration des Entreprises. LILLE, France. https://pepite-depot.univ-lille.fr/LIBRE/Th_Num/1996/50374-1996-243.pdf

Partenariats public-privé en Méditerranée: État des lieux et recommandations pour développer les PPP dans le financement de projets dans le Sud et l'Est de la Méditerranée. Collection Construire la Méditerranée. Paris: Institut de Prospective Économique du monde Méditerranéen(ipemed). https://www.ipemed.coop/adminIpemed/media/fich_article/1328537476_IPEMED_LesPPP.pdf

Porter, M. E. (1990). *The Competitive Advantage of Nations*. Free Press. https://economie.ens.psl.eu/IMG/pdf/porter_1990_-_the_competitive_advantage_of_nations.pdf

Sami S., Besoa R. & Anne-Marie J. D (2003). Vers un partenariat synergique : une nouvelle méthodologie de mise en place de partenariat. Revue Française de Gestion Industrielle, 22(1), 55–75. https://doi.org/10.53102/2003.22.01.396

Thomas, L. (2021). Le foncier économique, variable d'ajustement des modèles de développement ? Une étude de cas en Région Provence-Alpes-Côte d'Azur. Thèse de Doctorat UNIVERSITÉ D'AVIGNON. France. https://theses.fr/2021AVIG1212

Triboulet, P., & Pérès, S. (2015). La répartition spatiale des industries agroalimentaires dans le secteur coopératif français. In S. F. (SFER) (Ed.) Économie rurale

(346), 49-69. https://doi.org/10.4000/economierurale.4619

Vatin, F. (2014). Le travail : activité productive et ordre social. Nanterre, France: Presses Universitaires De Paris Nanterre. https://doi.org/10.4000/books.pupo.7496

World Bank. (2024). Country profile: Algeria. Public-Private Partnership Legal Resource Center. https://ppp.worldbank.org/public-private-partnership/country-profile-algeria

14. BIOGRAPHY

Bilal Feltane received his Bachelor's degree in Accounting and Taxation from the University of Jijel followed by a Master's degree in Finance and Currency from the University of Biskra. Currently, he is pursuing a PhD in Monetary and Banking Economics at the University of Bejaia.

Bennacer Nasereddine Associate professor at MIRA University of Bejaia an number of the LED research Laboratory, which focuses on topics related to spacial, regional, and urban economics.

[1]***Bilal Feltane***, *Economics and Development Laboratory University of Bejaia, Algeria* *bilal.feltane@univ-bejaia.dz* ,

[2]***Bennacer Naseredine***, *Economics and Development Laboratory Lecturer- Researcher, University of Bejaia, Algeria,* *nasreddine.bennacer@univ-bejaia.dz*