



## RESEARCH ARTICLE

### REVOLUTIONIZING CLUSTER FINANCING: A NEW DAWN IN ECONOMIC STRATEGY

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#### Manuscript Info

##### Manuscript History

Received: 11 April 2023

Final Accepted: 14 May 2023

Published: June 2023

##### Key words:-

Clusters, Financing, Government Policies, Private Sector Investments, Public-Private Partnerships, Economic Growth, Innovation, Competitiveness, Emerging Economies, Industry Development

#### Abstract

Clusters are important drivers of economic growth, innovation, and competitiveness. However, financing remains a major challenge for many clusters, particularly those in emerging economies or in industries that are not well-established. This research article explores ways to improve the financing of clusters, including government policies, private sector investments, and public-private partnerships. The article also highlights some successful examples of cluster financing from around the world.

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#### Introduction:-

Clusters are geographically proximate groups of firms, suppliers, and related institutions that are interconnected by a set of commonalities, including shared knowledge, skills, and resources. Clusters are known to be important drivers of economic growth, innovation, and competitiveness. They create jobs, attract investment, and foster entrepreneurship and innovation. However, financing remains a major challenge for many clusters, particularly those in emerging economies or in industries that are not well-established.

The financing of clusters can be classified into three categories: government policies, private sector investments, and public-private partnerships.

Governments can play a crucial role in financing clusters by providing financial support, tax incentives, and other forms of assistance. For example, the government can provide grants, loans, or equity investments to clusters that are considered strategic to the national economy. The government can also provide tax incentives, such as reduced corporate tax rates, to encourage firms to invest in clusters. In addition, the government can facilitate the creation of cluster-specific infrastructure, such as roads, ports, and airports, to improve access to markets and reduce transportation costs.

Private sector investments are also important sources of financing for clusters. Private investors can provide equity capital, loans, or guarantees to clusters that have the potential for high returns. Private investors are attracted to clusters that have a clear business model, a strong management team, and a competitive advantage. Private investors can also provide technical assistance, such as marketing and branding support, to help clusters compete in global markets.

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Public-private partnerships are collaborative efforts between the government and the private sector to finance clusters. Public-private partnerships can provide a variety of financing mechanisms, including equity investments, loans, and grants. In addition, public-private partnerships can provide technical assistance, such as business planning and marketing support, to clusters. Public-private partnerships are particularly important for clusters that are in the early stages of development and that require a significant amount of investment to become established.

### **Literature review:-**

Clusters have been widely recognized as important drivers of economic growth, innovation, and competitiveness. Porter (1998) defined clusters as geographic concentrations of interconnected companies, specialized suppliers, and associated institutions in a particular field that compete but also cooperate[1]. He argued that the proximity of these actors creates efficiencies, generates knowledge spillovers, and fosters innovation and entrepreneurship.

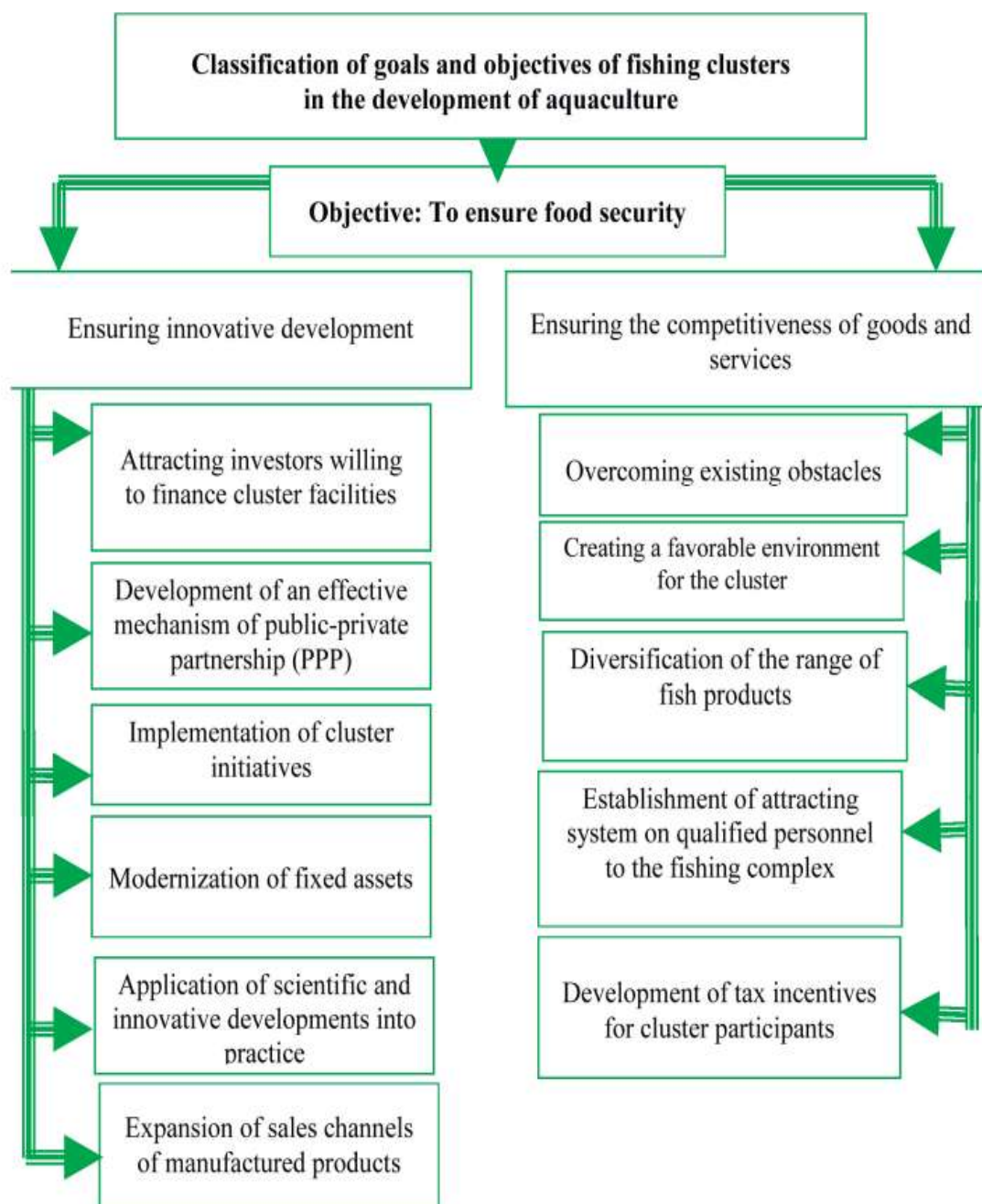
However, financing remains a major challenge for many clusters, particularly those in emerging economies or in industries that are not well-established. Huggins and Prokop (2015) noted that clusters often face difficulties in accessing finance due to the perception of high risk and low profitability by financial institutions[2]. They argued that financing is critical for clusters to grow, innovate, and compete in global markets.

Government policies have been recognized as important sources of financing for clusters. For example, Martin and Sunley (2003) argued that government policies can play a crucial role in the development of clusters by providing financial support, tax incentives, and other forms of assistance[3]. They cited examples from the UK, where the government has provided funding for the development of regional clusters in industries such as biotechnology, information technology, and creative industries.

Private sector investments have also been identified as important sources of financing for clusters. Martin and Sunley (2003) argued that private investors can provide equity capital, loans, or guarantees to clusters that have the potential for high returns[3]. They noted that private investors are attracted to clusters that have a clear business model, a strong management team, and a competitive advantage.

Public-private partnerships have also been recognized as important sources of financing for clusters. Kautonen et al. (2015) argued that public-private partnerships can provide a variety of financing mechanisms, including equity investments, loans, and grants[4]. They noted that public-private partnerships can also provide technical assistance, such as business planning and marketing support, to clusters. They cited examples from Finland, where public-private partnerships have been used to finance clusters in industries such as ICT, health technology, and cleantech.

One of the most common directions today is a cluster in the development of aquaculture system[5], the role of clusters in providing is very important innovative development and provision of industry competitiveness of goods and services (Figure 1).



**Figure 1:-** Classification of goals and objectives of clusters in the development of aquaculture<sup>1</sup>.

It should be noted that the analysis of factors, planning and control over the activities of all subjects of the cluster have their own specifics, in connection with which it is necessary to centralize all the above functions. This will allow coordinating the activities of the cluster, creating a coherent strategy and acting within the framework of a large organization united by a common goal.

Successful examples of cluster financing from around the world demonstrate the effectiveness of these approaches. For example, the Jurong Island Chemicals Cluster in Singapore has been successful in attracting more than 100

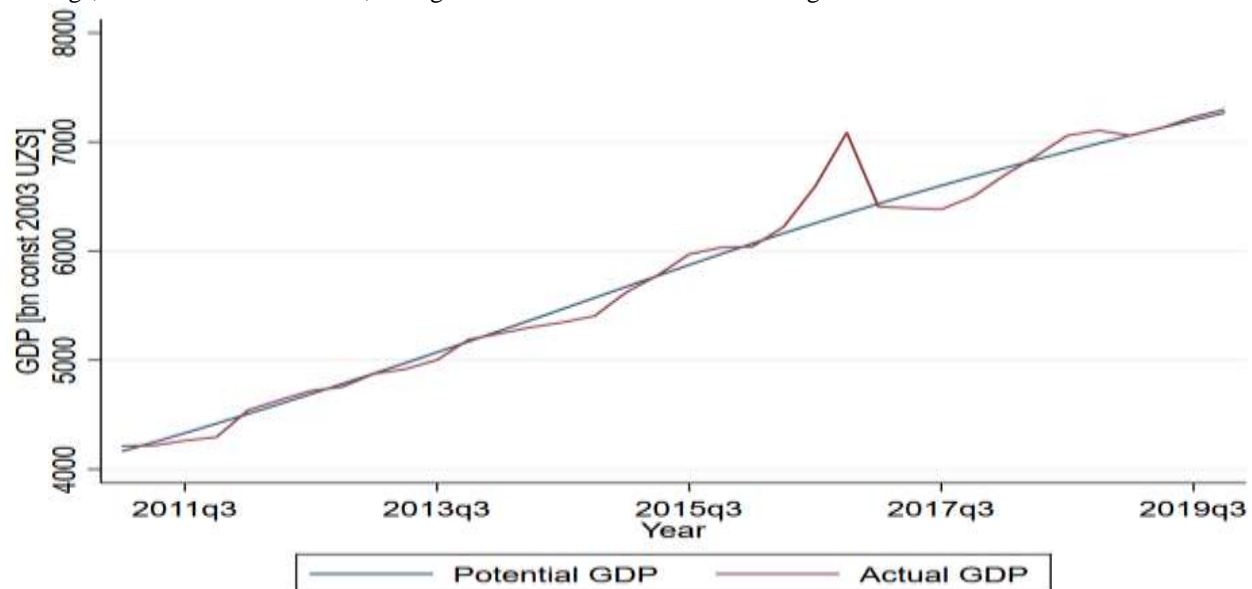
<sup>1</sup>Opportunities for public-private partnerships in the field of aquaculture. G.D. Dushmuratov - c.e.s., associate professor, I.O. Yunusov - PhD, associate professor Tashkent Institute of Irrigation and Agricultural Mechanization Engineers. №3(7).2020 Journal of "Sustainable Agriculture".

chemical companies and creating over 20,000 jobs. The Singapore government has provided infrastructure, tax incentives, and other forms of support to the cluster, while private investors have provided equity capital and loans[6,7]. Similarly, the Aerospace Valley cluster in France has been successful in attracting significant financial support from the French government, as well as private investors.

Overall, the literature suggests that clusters are important drivers of economic growth, innovation, and competitiveness, but financing remains a major challenge for many clusters[8,9,10]. Government policies, private sector investments, and public-private partnerships can all play important roles in financing clusters and enabling them to grow, innovate, and compete in global markets. Successful examples of cluster financing from around the world demonstrate the effectiveness of these approaches.

### Method and Data Analysis:-

Uzbekistan's economy operated below its potential output level until 2015 except for several incidents of a positive output gap (**Error! Reference source not found.**). The foreign exchange liberalization occurred in the second half of 2017 and as a result, the Uzbek economy deviated from its potential output level but recovered rapidly reaching the long-run output levels. However, since 2018 the economy has started exceeding its full capacity level which is expected to return to its potential output level eventually. To improve the competitive advantage of a country, achieve sustainable economic growth, and increase the well-being of the population the Government of Uzbekistan 2017 adapted and successfully implemented the Actions strategy<sup>2</sup>. It is comprised of enhancement of the state and social construction, provision of rule of law and reforming the judicial system, development of economy and social sphere, establishing security, inter-ethnic and religious peace, and mutually fruitful foreign policy as major fields of Uzbekistan's development. Being one of the key components of the Action Strategy, the third direction on the development of the economy and liberalization focused on providing stable currency and prices, attracting foreign investments, enhancing partnership and cooperation with international financial institutions, improving export capacity by implementing modern production technologies, improving Uzbekistan's position in international rankings, and last but not the least, taking measures to accelerate economic growth.

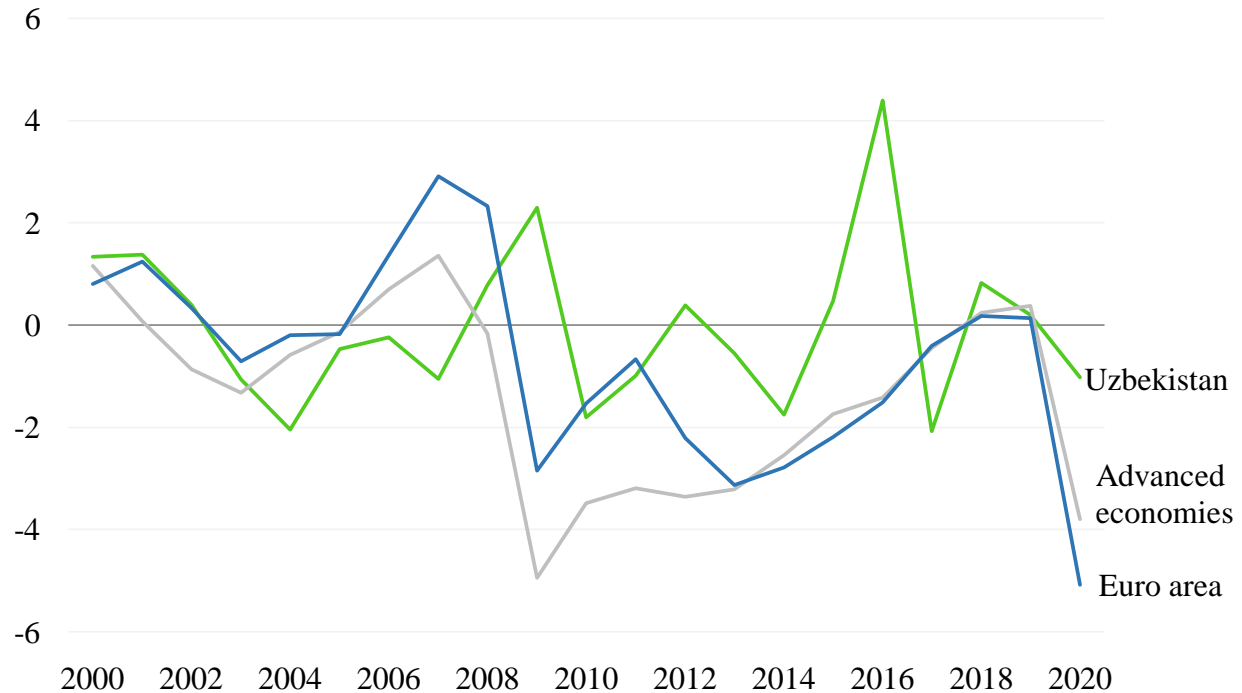


**Figure 2:-** Estimated potential GDP of Uzbekistan over 2010–2019.

**Source:** The authors' estimates are based on the Ministry of Economic Development and Poverty Reduction data.

The observed negative output gap levels of Uzbekistan from 2002–to 2015 may indicate economic growth could be hampered by inefficiencies arising from outdated infrastructure, underdeveloped institutional framework, and market imperfections. All of these factors have been inhibiting the long-run growth rate of the Uzbek economy and its potential level of output. % of potential output

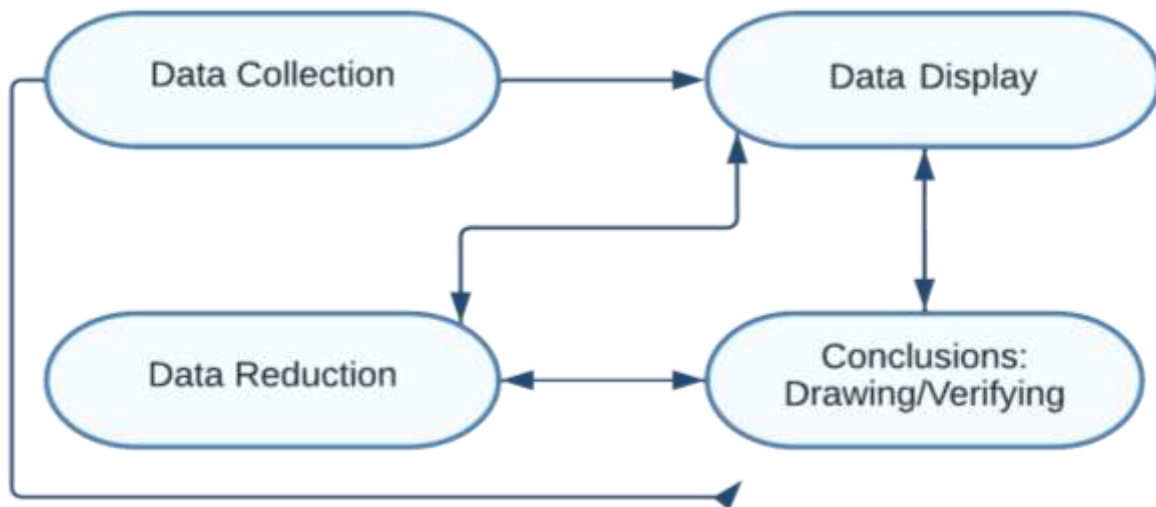
<sup>2</sup> Presidential Decree PF-4947 "On the Actions Strategy for further development Uzbekistan", as of 2017-02-04.



**Figure 3:-** The output gap is estimated for Advanced economies, the Euro area, and Uzbekistan.

**Source:** The authors' estimates and IMF World Economic Outlook.

The author utilized Miles and Huberman model for providing visual reference how a collected data were tackled[12].



**Figure 4:-** Components of Data Analysis: Interactive Model.

Source: Miles and Huberman (1994, p. 12)

### Presenting research data

The literature review highlights the importance of financing for clusters, which are recognized as important drivers of economic growth, innovation, and competitiveness. Clusters are defined as geographic concentrations of interconnected companies, specialized suppliers, and associated institutions in a particular field that compete but also cooperate. Financing remains a major challenge for many clusters, particularly those in emerging economies or in industries that are not well-established. The review identifies several sources of financing for clusters, including government policies, private sector investments, and public-private partnerships.

The literature also emphasizes the importance of public-private partnerships in providing a variety of financing mechanisms, such as equity investments, loans, and grants. In addition, public-private partnerships can provide technical assistance, such as business planning and marketing support, to clusters. The review cites examples of successful cluster financing from around the world, such as the Jurong Island Chemicals Cluster in Singapore and the Aerospace Valley cluster in France.

The review further suggests that private investors are attracted to clusters that have a clear business model, a strong management team, and a competitive advantage. Government policies can also play a crucial role in the development of clusters by providing financial support, tax incentives, and other forms of assistance.

There are several successful examples of cluster financing from around the world. For example, the Singapore government has established the Jurong Island Chemicals Cluster, which is a world-class chemicals hub that has attracted more than 100 chemical companies and created over 20,000 jobs. The Singapore government has provided infrastructure, tax incentives, and other forms of support to the cluster. In addition, private investors have provided equity capital and loans to the cluster.

Another successful example is the Aerospace Valley cluster in France. The Aerospace Valley cluster is a leading global center for aerospace research, development, and innovation. The French government has provided significant financial support to the cluster, including grants, tax incentives, and research and development funding. In addition, private investors have provided equity capital and loans to the cluster.

Overall, the literature highlights the importance of financing for clusters and the role that public-private partnerships can play in providing the necessary resources to enable clusters to grow, innovate, and compete in global markets. Successful examples of cluster financing from around the world demonstrate the effectiveness. Uzbekistan has taken several initiatives to develop clusters in various sectors, including textiles, agribusiness, and tourism. The government has established special economic zones and industrial parks to promote industrial clustering and has introduced policies to support small and medium-sized enterprises (SMEs), which are the main beneficiaries of cluster financing.

The government has also introduced several financial instruments to support SMEs and clusters, including credit lines, guarantees, subsidies, and tax incentives. The Uzbekistan Reconstruction and Development Fund provides financing for SMEs and has allocated funds to support the development of clusters. In addition, the country has signed several agreements with international financial institutions, such as the World Bank and the Asian Development Bank, to support the development of clusters and SMEs.

Despite these efforts, access to financing remains a major challenge for SMEs and clusters in Uzbekistan. The financial sector is still dominated by state-owned banks, and private sector banks are relatively small and have limited experience in financing SMEs and clusters. The legal and regulatory environment is also perceived as complex and burdensome, which further hinders access to finance. of these approaches.

### **Presenting research results and discussion:-**

However, there are also operators practicing the above model who charge fees for their roles and services in managing takaful fund investments. In case of cancellation or refusal, the participant will be refunded the net balance of his contribution, if any, after deducting all upfront fees such as wakala fees and other management costs from the takaful fund.

Takaful insurance has the potential to play an important role in the economic development of many developing countries. It can provide an alternative form of financial protection to those who are underserved by formal financial institutions, promote ethical and socially responsible behavior, and contribute to poverty reduction and financial inclusion. As such, there is a need for policymakers in developing countries to recognize the potential benefits of Takaful insurance and to develop appropriate regulatory frameworks to support its growth.

One of the main drivers behind the activation of Islamic insurance in Uzbekistan is the desire to provide more options for those who wish to adhere to Shariah law principles. Traditional insurance, which operates on the basis of interest, is not considered permissible under Islamic law. As a result, many Uzbek Muslims have been hesitant to

take out insurance policies, as they do not want to violate their religious beliefs. Islamic insurance offers a viable alternative, allowing individuals to protect themselves and their assets without compromising their faith.

Another factor driving the activation of Islamic insurance in Uzbekistan is the potential economic benefits it could bring to the country. The Takaful industry is rapidly growing around the world, with many countries seeing it as a source of economic growth and job creation. By establishing a strong Islamic insurance sector, Uzbekistan could attract foreign investment and create new job opportunities in the financial sector.

The activation of Islamic insurance in Uzbekistan is still in its early stages, but there are already some positive signs. In 2020, the Central Bank of Uzbekistan issued a license to the first Islamic insurance company in the country, Uzbekinvest Hayot Takaful. The company offers a range of products, including motor insurance, property insurance, and personal accident insurance[6,7]. The establishment of this company is seen as a significant milestone in the development of the Islamic insurance sector in Uzbekistan.

### **Conclusions and Recommendations:-**

In conclusion, clusters are important drivers of economic growth, innovation, and competitiveness. However, financing remains a major challenge for many clusters, particularly those in emerging economies or in industries that are not well-established. Governments, private investors, and public-private partnerships can all play important roles in financing clusters. Successful examples of cluster financing from around the world demonstrate the effectiveness of these approaches. With the right support, clusters can continue to drive economic growth and create jobs in the years to come.

Based on the literature review and the situation in Uzbekistan, here are some recommendations for improving cluster financing:

**Encourage public-private partnerships:** Public-private partnerships can provide a range of financing options and technical assistance to clusters, which can help them grow and innovate. Governments can work with private investors to create investment funds that target specific clusters, or they can provide grants to encourage private investment.

**Strengthen the financial sector:** Developing a strong private sector financial sector can help increase the availability of financing options for clusters. Governments can promote the development of non-bank financial institutions, such as venture capital funds or microfinance institutions, to provide financing to clusters.

**Simplify regulations and improve the legal framework:** Complex regulations and a lack of clarity in the legal framework can hinder access to financing for clusters. Governments can work to streamline regulations and create a more supportive legal framework to encourage private investment in clusters.

**Promote cluster-specific financing mechanisms:** Governments can create financing mechanisms that are specific to clusters, such as cluster-based loan guarantee schemes or cluster-based equity funds, to provide tailored financing options for these entities.

**Foster international partnerships:** Collaborating with international financial institutions and other countries can bring in new sources of financing for clusters. Governments can work to establish partnerships with international financial institutions to provide technical assistance and financing for clusters.

**Develop and implement a cluster development strategy:** Developing a comprehensive cluster development strategy can help identify the financing needs of clusters and create a roadmap for addressing them. Governments can work with stakeholders to create a strategy that addresses the specific needs of clusters in different sectors and regions.

By implementing these recommendations, Uzbekistan can improve access to financing for clusters, which can help these entities grow and contribute to the country's economic development and competitiveness.

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