



National Export Strategy of Iran 2021-2025

Trade-led resilience, made in Iran











This National Export Strategy was developed as part of the National Export Strategy of Iran on the basis of the process, methodology and technical assistance of the International Trade Centre (ITC) within the framework of its Trade Development Strategy programme.

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FOREWORD BY THE MINISTRY OF INDUSTRY, MINE, AND TRADE

Non-oil exports have become increasingly important to Iran in recent years. Increasing international trade is not only a means of boosting economic growth and the nation's welfare, but also contributes to strengthening international relations and the stabilization of economic and political affairs by paving the way for reinforcing friendly relations based on mutual interests with a wide range of trade partners. Trade is one of the most important forms of exchange between countries and fostering this will lead to connections such as foreign investments, scientific and technical exchanges, and cultural relations, all of which will contribute to the country's growth and prosperity in all respects. Hence, expanding trade would provide a basis for development in other areas of cooperation and is of great importance from this perspective. In addition to substantial investment to expand export potential, growing foreign trade requires strategic targeting as well as addressing constraints. In this context, Iran's Trade Promotion Organization developed a National Export Strategy (NES) with the support of the International Trade Center (ITC) that has similar experience in designing NES in more than 50 countries. The strategy is going to cover general trade-related factors such as ensuring export quality that is relevant to the export of all goods. It also addresses a number of sector-specific strategies in form of independent strategies. All activities in the framework of designing strategies have led to diagnosing sets of plans of actions in order to tackle issues and problems to facilitate export procedures.

The plan of actions indicated in the strategies will be implemented by I-TPO in close collaboration with national stakeholders during the next 5 years and I-TPO will enjoy ITC support during the implementation period.

I would like to thank each and every entity from the private sector, distinguished exporters as well as managers and exports from various ministries and institutions who have contributed to the development of the NES and sincerely appreciate their contributions. Also, the initiative would not be successful without supports from the European Union and the ITC. We hope all contributors to the designing of the NES would continue their support to the I-TPO during the course of implementation of the recommended actions so that we achieve the goals of this strategy in practice and we witness the export promotion of non-oil exports in our country.

Ministry of Industry, Mine, and Trade

FOREWORD BY IRAN'S TRADE PROMOTION ORGANIZATION

The ITPO signed a Memorandum of Understanding with the International Trade Centre (ITC) in 2016 in order to benefit from its expertise in expanding non-oil exports. One of the most important clauses of this MOU concerned the development of the NES. Implementation of the memorandum materialized after the European Union (EU) made a fund available for the ITC to provide technical assistance to ITPO in 2018. The NES development process started at the beginning of the Iranian year 1398 (April 2019), enjoying the technical assistance of the ITC as well as the contribution of international experts. The result of the 1.5 years of cooperation is now being presented to you.

The following points as regards these documents are worth mentioning:

- The NES has been developed in collaboration with the public and private sectors, relying on the expertise of the ITC. In fact, public and private stakeholders in each sector were consulted by the experts of the ITC in the process of designing the NES and, therefore, the results are agreed upon by these entities. Reaching such a consensus on non-oil exports is unprecedented and thus the proposed plans of actions in the NES are of great importance.
- Around 500 key participants from the production and export sectors of the country have been consulted by the expert group of the ITPO and the ITC during the process of NES preparation.
- While proposed solutions envisaged in the document address Iran's specific problems, they also make use of worldwide experience and international expert's viewpoints.

- Independent International consultants have been consulted in addition to the ITC experts and their views have been reflected in the documents.
- International experts' field visits to production and export chains and sites played a key role in understanding the current situation and designing the NES.
- The implementation of planned activities of the NES will take several years and require the support of the ITC and international experts.
- Through the process of the NES development in each sector, a set of reviews, consultation with stakeholders, and also field visits were organized and strategic objectives were set in order to address problems and remove constraints at the first step; then, operational objectives were set under each strategic objective; after that, relevant activities were designed under each operational objective; and finally, a leading entity and its partners were listed for each activity. More than 350 actions have been designed in total. We expect that non-oil exports to be revolutionized as a result of the implementation of this plan of action. More information regarding the NES and expert recommendations are listed in the following table:

Sectors	Strategic Objectives	Operational Objectives	Activities
Fruits and Vegetables	3	11	47
Medicinal Herbs	3	13	40
Tourism	3	11	41
ICT	3	15	50
Auto parts	3	8	29
Petrochemicals	4	12	33
Trade information and Promotion	3	7	35
Quality Management	3	15	56
Entrepreneurship	3	10	28
Total	28	102	359

- The NES has been developed with the goals of:
 - » Fostering coherence and coordination between stakeholders at the sectoral and national levels;
 - » Elaborating a comprehensive approach to removing constraints and expanding exporting in priority sectors;
 - » Identifying and addressing exporters' needs for support services;
 - » Supporting the SMEs throughout the export process;
 - » Providing necessary training in priority sectors with the support of national and international experts;
 - » Developing export promotion and branding;
 - » Making effective use of ICT in export-oriented marketing; and
 - » Identifying and assigning appropriate entities for the implementation of the designed activities in the NES.

The design of the NES would not have been possible without the support of the ITC and its experts, who have experience in designing export strategies in more than 50 countries. The NES is also the result of cooperation between representatives of 17 national ministries and various organizations and stakeholders with mandates related to the promotion of non-oil exports. This collaboration benefitted the design of the NES. Also, the process

enjoyed the network and sincere cooperation of Iran's Chamber of Commerce, Industry, Mine, and Agriculture in inviting the private sector to participate in consultation meetings and as a result, a large number of the private sector and associations' representatives and a variety of stakeholders were engaged. None of this would have taken place without the support of the EU and its work on "Trade for All" that is promoting economic and trade relations between countries as the best way to secure worldwide stability and peace.

Therefore, the ITPO, for its part, appreciates all entities and individuals who contributed to the designing of the NES. We hope to be privileged to have support from all actors in the implementation phase of the NES. Like the designing of the document that has resulted from the contribution of a wide range of national and foreign institutions and individuals, its implementation also could not happen without relying on all of those actors. Therefore, the ITPO, during the implementation phase, will seriously maintain and strengthen the established mechanisms and networks built during the course of the NES development. We hope that this move proves to be a big step towards the promotion of the non-oil export of the country and contributes to the improvement of the Iranian nation's living standards.

Iran's Trade Promotion Organization



FOREWORD BY THE INTERNATIONAL TRADE CENTRE



Iran's place between east and west has long put it in a pivotal position in global trade. With natural resources, a rich tourism offer, high-quality agricultural products and a well-rooted manufacturing industry, the country is well positioned to take the next step toward greater trade-led growth.

The country has the potential to leverage its assets to become a centre of innovative digital solutions. With its highly-educated and productive labour force and investment attractiveness Iran could position itself to be a major exporter to markets across the region and around the world.

These strengths have been cultivated in a challenging external context. But there have also been clear domestic constraints which have contributed to impeding the realization of Iran's potential for growth. However, the need to build greater economic resilience, especially with the impact of global pandemics, has taken centre stage.

Against this backdrop, Iran has developed its new National Export Strategy (NES). The document reflects a growing consensus on the need to focus on trade-led growth to complement domestic resilience.

Trade-led success will require consistent and organized efforts. In developing the strategy, key actors have acknowledged the need to tackle the private sector's critical challenges. The NES proposes tailored solutions and leverages the country's strengths and competitive advantages.

During the consultations for this NES, all stake-holders recognized the need for further policy convergence and stronger coordination at the level of institutions if the country was to move forward. This coherence is at the core of the NES – joining forces toward a shared vision and making strategic choices that further develop the economy. The NES provides a framework for setting priorities, coordinating action and defining concrete steps. It was designed through analysis and consultation involving hundreds of voices from across the public and private sectors and input from international market experts.

The International Trade Centre (ITC) commends the leadership of the Ministry of Industry, Mine and Trade, the Iran Trade Promotion Organization and applauds the enthusiastic involvement of the private sector in the design of this strategy. ITC will continue to support Iran to ensure that the objectives of the NES are attained rapidly to support greater inclusive, sustainable, and resilient development.

Finally, ITC wishes to thank the European Union for its support to this initiative as part of its EU-Iran Trade Development project.

Pamela Coke-Hamilton Executive Director of the International Trade Centre

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Ministry of Industry, Mine and Trade

- Trade Promotion Organization IRAN
- Deputy for Planning- Ministry of Industry, Mine and Trade
- Deputy of Industries
- Institute For Trade Studies and Research
- Iran Small Industries and Industrial Parks Organization
- Consumers and Producers Protection Organization

Ministry of Agriculture- Jihad

- Agricultural Planning, Economic and Rural Development Research Institute
- Iran Plant Protection Organization
- · Iran Veterinary Organization

Ministry of Economic Affairs and Finance

- · Iran's Customs Administration
- Organization for Investment Economic and Technical Assistance of Iran

Ministry of Foreign Affairs

Ministry of Roads & Urban Development

Ministry of Cultural Heritage, Tourism and Handicrafts

Ministry of Health and Medical Education (Food and Drug Administration)

Ministry of Information and Communications Technology (Information Technology Organization)

Iran Chamber of Commerce, Industries, Mines and Agriculture

Iran's Chamber of Cooperatives

Iranian National Standards Organization

Department of Environment of Iran

Vice Presidency for Science and Technology

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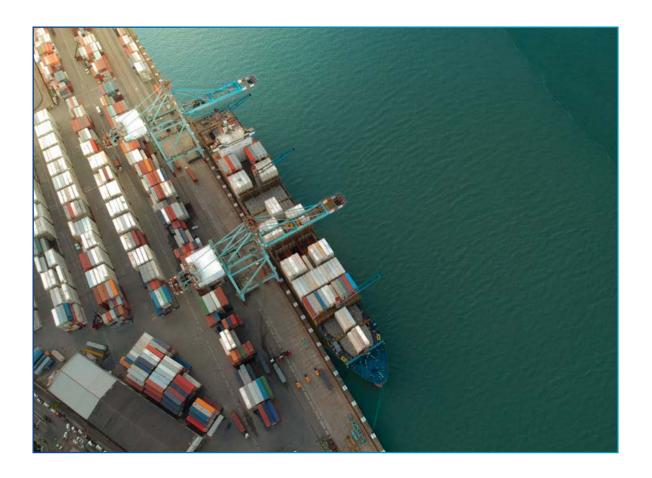
NOTE TO THE READER

The Iran NES was developed on the basis of a participatory approach, during which more than 400 Iranian industry leaders, small business owners, farmers and public sector representatives held consultations to reach consensus on key sector competitiveness issues and priority activities. These inclusive consultations were held in Tehran and in some sector-specific regions, including Kerman, Yazd and Isfahan.

Besides in-depth research and value chain analysis, these consultations were complemented by:

- Factory visits where supply chain assessments were carried out to gain further knowledge on key issues such as quality procedures, technical skills, lean management, quality of raw materials and access to markets, etc.
- Interviews with domestic, regional and international buyers to guide the NES with strategic insights and market intelligence as well as buyers' requirements in terms of quality standards, food safety, packaging, buying cycles, distribution channels and prices, etc.

The NES is aligned with existing national and sector-specific plans and policies and builds on ongoing initiatives in areas related to private sector development, regional integration, investment and economic empowerment of youth. Equally importantly, the NES initiative already accommodates budgeting to support implementation of critical pilot activities identified during the design process. This will ensure that impact and momentum are generated from early on, and support further resource mobilization and confidence-building.



The principal outputs of the Iran NES design initiative are endorsed, coherent and comprehensive export strategy documents with a five-year detailed plan of action (PoA) and implementation management framework. These documents include:

- I. A main NES document, which contains trade support functional strategies, offering critical support across value chains and acting as enablers for sector development;
- II. Individual NES priority sector strategies packaged as separate documents, but in alignment with the main NES findings and overarching strategic objectives.

Main NES document including trade support functional strategies:

- Quality management
- Trade information and promotion
- Entrepreneurship

NES Iran

Individual NES priority sector documents:

- · Fruits and vegetables
- Medicinal herbs
- Information and communication technology (ICT)
- Tourism
- Petrochemicals
- Automobile parts

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ACRONYMS AND ABBREVIATIONS

EMC	Export management company	MENA	Middle East and North Africa
EU	European Union	MoE	Ministry of Education
FDI	Foreign direct investment	MRA	Mutual recognition agreement
GDP	Gross domestic product	MSMEs	Micro, small and medium-sized enterprises
GI	Geographical indication	NACI	National Accreditation Center of Iran
HACCP	Hazard Analysis and Critical Control Points	NES	National Export Strategy
ICT	Information and communications technology	PoA	Plan of action
	(ICT)	QIS	Quality Infrastructure System
IFDA	Iran Food and Drug Administration	R&D	Research and development
ILAC	International Laboratory Accreditation	SMEs	Small and medium-sized enterprise
INAC	Cooperation	SPS	Sanitary and phytosanitary
IMF	International Monetary Fund	TIP	Trade information and promotion
IMI	Industrial Management Institute	TP0	Trade promotion organization
IPPO	Iran Plant Protection Organization	TVET	Technical and vocational education
IROST	Iranian Research Organization for Science and Technology		and training
INSO	Iranian National Standards Organization	UNCTAD	United Nations Conference on Trade and Development
ISO	International Organization for Standardization	UNESCO	United Nations Educational, Scientific and Cultural Organization
IT	Information technology	UNIDO	United Nations Industrial Development
ITC	International Trade Centre		Organization
ITO	Information Technology Organization	VPST	Vice Presidency of Science and Technology
ITP0	Trade Promotion Organization of Iran	WT0	World Trade Organization
IVO	Iran Veterinary Organization		



EXECUTIVE SUMMARY

Enhanced coordination and trade competitiveness is needed in fostering inclusive, sustainable and resilient growth

Due to a combination of external and internal factors, Iran's recent economic history has been one of relatively slow and volatile growth. There is a need for economic diversification to provide new opportunities, attract new investment and motivate productivity growth, and this growth will be best driven by enhancing export competitiveness.

This goal is complicated by the challenges arising from US-led sanctions and the international economic challenges arising from the COVID-19 pandemic. Against this backdrop, domestic-led efforts to enhance competitiveness and expand trade are nevertheless possible and, in fact, necessary. Efforts to enhance competitiveness and expand trading opportunities will help in adaptation and recovery, as well as positing Iran for stronger growth in the absence of these constraints. Development planning has recognized the need for improved trade performance and Iran's recent trading history has illustrated the potential for diversification through trade.

Iran's unique competitive advantages strengthen the prospects of trade-led growth

Expanding trade will require leveraging Iran's unique competitive advantages – related to resources, location, human capital and investment attraction – which have driven strong performance in the past, yet hold untapped potential to drive further growth. The country's natural resource endowment can be built on to foster diversification and the expansion of related industries. Iran's proximity to large and fast-growing markets provides opportunities to exporters. A young and well-educated population has expanded capacities in many



established sectors and is behind the growth of new services sectors, though the full potential of the country's human capital has not yet been realized. Despite remaining challenges in the business environment, Iran has proven adept at attracting international investment and accessing international technology flows.

Tractable constraints and challenges to trade competitiveness will need to be addressed

Despite these strengths, low levels of competitiveness and the lack of a coordinated approach to international trade have held back export diversification and growth, in addition to external challenges. Export diversification has been limited and productivity growth slow.

A dynamic business environment is needed to reduce production costs and motivate productivity upgrading within firms and through efficiency enhancing resource allocations between firms. Challenges are currently faced as a result of issues in the business environment generally and context for small and medium-sized enterprises (SMEs) in particular, constraints on investment and barriers to financial access.

Innovation remains limited, though its importance is being acknowledged. As an important aspect of productivity and competitiveness, innovation is also needed to expand exporting and drive economic diversification.

While the current demographic window presents opportunities for Iran, these benefits cannot be expected to be realized automatically. Reaping the rewards of this phase of the demographic transition requires supportive social, economic, institutional and political environments.

The way forward for improved export performance

Coordinated efforts are needed to improve Iran's export prospects and manage the twin challenges of sanctions and the economic downturn associated with the COVID-19 pandemic. Short-term solutions are needed to quickly improve growth and to lay the foundations

for growth in the medium – and long-term under improved external conditions. Therefore, focused efforts are needed in high-potential areas of the economy, alongside more broad-based initiatives.

The National Export Strategy supports upgrading in particularly promising and important value chains through dedicated strategies in six priority sectors: medicinal herbs, fruits and vegetables, petrochemicals, auto parts, information and communications technology, and tourism.

In order to support change in these sectors and broader-based enhancements to export competitiveness, actions are planned to improve three important trade support functions: trade information and promotion, quality management, and entrepreneurship.

Realizing the goals of the NES will require that the actions under the NES are elaborated on and implemented, which will in turn require the establishment of NES governance structures. Successful implementation management depends on monitoring implementation for effective resource allocation, the sensitization of implementing institutions to build ownership, private sector support and participation, financial resource mobilization for implementation, and an effective communication plan.



Figure 1: NES strategic framework

CHAPTER 1: ENHANCED COORDINATION AND TRADE COMPETITIVENESS IS NEEDED IN FOSTERING INCLUSIVE, SUSTAINABLE AND RESILIENT GROWTH

Introduction

Improving growth and development in Iran will require raising average income growth rates and reducing the volatility of this growth from what has been experienced in the past. Fostering economic diversification through increased and broadened exporting will support improved growth by providing new opportunities, attracting new investment and motivating productivity growth. While external challenges arising from US-led sanctions and the consequences of the COVID-19 pandemic in Iran and internationally have certainly posed obstacles to trade-led growth, this context also highlights the need for enhanced competitiveness and the pursuit of new export products and markets, which would offer a more resilient growth model.

In 1990–2017, real gross domestic product (GDP) growth averaged 3.3% per year, and, since 2010, this growth rate has averaged 2%. This relatively slow growth rate has resulted in income stagnation as the population has grown. In 1990–2017, Iran's GDP per capita growth averaged 1.9% annually (Figure 2). This has been well below the 3.6% average annual growth across all upper-middle income economies in this period, but similar to the 1.7% average annual growth among all countries in the Middle East and North Africa.



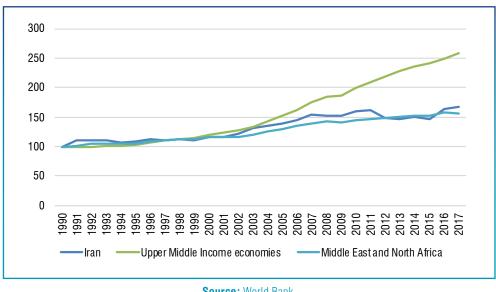


Figure 2: Growth in GDP per capita (1990–2017)

Source: World Bank.

GDP growth has also been highly volatile. According to official statistics, quarterly real GDP growth (yearon-year) has varied in the recent period from a low of - 7.7% in 1391 Q2 to a high of 15.1% in 1395 Q4 (Figure 3). 1 Volatile growth is partly the result of dependence on the production and export of oil. By sector, the greatest recent swings in gross value added (equal to GDP minus indirect taxes plus subsidies) have come from the

extraction of crude petroleum and natural gas, which is also the greatest contributor to gross value added.

External factors are responsible for much of these trends, though risks to Iran's economic performance can be moderated by adopting a position open to exporting that encourages the growth of new sectors to provide a broader-based and more inclusive path to growth.

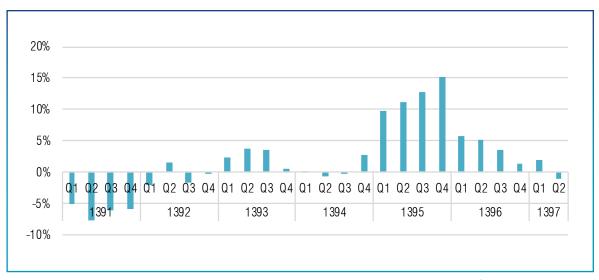


Figure 3: Quarterly GDP growth (year-on-year) (1391–97)

Note: The year 1391 in the Iranian calendar is equivalent to 20 March 2012 to 20 March 2014 in the Gregorian calendar, and 1397 is equivalentto 21 March 2017 to 20 March 2018.

Source: Statistical Center of Iran.

^{1.-} The year 1391 in the Iranian calendar is equivalent to 20 March 2012 to 20 March 2013 in the Gregorian calendar, and 1395 is equivalent to 20 March 2016 to 20 March 2017.

Managing sanctions

The impact of the re-imposition of US-led sanctions in August 2018 was felt soon after in terms of drops in oil exports, investor pull-outs, and uncertainty regarding financial and trade channels. Sanctions have isolated the financial sector internationally. US sanctions target foreign institutions dealing with Iranian financial institutions, and have had considerable effects on the country's financial sector. In addition, in November 2018, SWIFT, a financial messaging service based in the Kingdom of Belgium, announced that it would suspend the access of certain Iranian banks to its system.

Despite US rhetoric on the expected impact of the re-imposed sanctions on Iran, independent observers such as the International Monetary Fund (IMF) and the Economist Intelligence Unit (EIU) projected a rebound in the medium term, with a severe drop in the short run followed by a stabilization and moderate growth in the following years. Resilience in the medium term in the face of the sanctions was expected as a result of coping strategies crafted and deployed by the continuing importers less exposed to the risks of opposing the sanctions, namely the People's Republic of China, the Russian Federation, and the Republic of India. The Sultanate of Oman and the State of Qatar, who have close ties with Iran along different fronts, were expected to support Iran as well. The forms of these strategies were expected to take time to be realized, however.

In addition, the relatively isolated position of the United States of America in implementing these sanctions has led to the expectation that their effects would be relatively smaller than those of past sanction periods. The current geopolitical climate is vastly different to that of 2012, when the United States and the European Union (EU) presented a united front in restricting trade with Iran along a wide range of sectors. In fact, a review of Iran's trade performance reveals that the impact of sanctions seems to be more closely tied to the extent of the EU's participation in the sanctions regime than unilateral US sanctions (Figure 4). In 1995-2007, Iran's exports grew at a rapid pace, despite US sanctions (Iran and Libya Sanctions Act (ILSA) of 1996)2 and in the absence of EU sanctions. In 2009–2012, Iran's exports rose sharply despite the imposition of US-CISADA,3 and in the absence of EU sanctions. With the imposition of Iran Freedom and Counter-Proliferation Act (IFCPA) as well as EU trade sanctions that impacted the oil, natural gas and finance sectors, exports declined sharply in 2012-13. Iran's exports experienced an overall drop in 2014–15 even with the interim US agreement in place. EU trade sanctions were still in place during this period and are likely a strong contributing factor to the fall in exports.

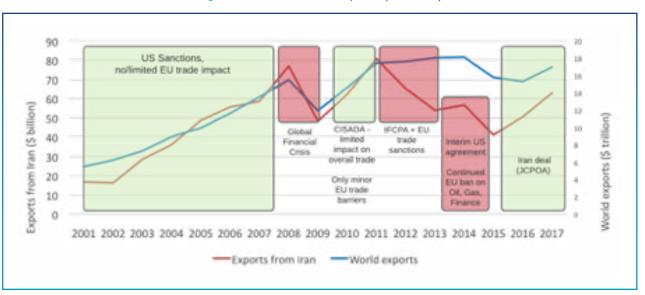


Figure 4: Iran and world exports (2001–17)

Source: ITC.

^{2.-} Iran and Libya Sanctions Act (ILSA) of 1996 were limited in scope from a trade perspective and were primarily aimed at curtailing large (>\$20 million) petroleum-related investments from US firms in Iran.

^{3.-} Comprehensive Iran Sanctions, Accountability, and Divestment Act.

Two factors may explain this seemingly counterintuitive trend. First, while the United States possesses the bulk of the "sticks" through its clout in terms of sanctioning individuals and institutions doing business with Iran, it is the European Union that possesses the "carrots" in terms of more established trading relationships (relative to the United States) in both oil/natural gas and productive sectors. Thus, even when US sanctions are lifted, the revival depends a lot on how quickly the

European Union trading relationships are revived. As evidenced in 2014–15, the lifting of US sanctions did not immediately revive exports nor as sharply, given that EU trade sanctions were still in place. In addition, the exemption of Chabahar and related projects stems from a consideration for the Islamic Republic of Afghanistan's long-term stabilization, and reflects a high-potential conduit for direct and transit trade (Box 1).

Box 1: Chabahar Port provides an opening for improving exporting

The long-term economic potential of the Chabahar Port for Afghanistan's economic growth has been reflected in the US exemption of the port from its latest round of sanctions. The key factor driving this seemingly unlikely concession on the part of the US is concern over Afghanistan's economic prospects and the fact that Chabahar and its associated infrastructure projects can expand and diversify Afghanistan's available trading routes options.

The Chabahar Port provides a key supply route of Afghan exports to India and to the larger region, bypassing the alternative of overland crossings from the Islamic Republic of Pakistan, which has not lived up to its potential envisaged through Afghanistan—Pakistan Transit Trade Agreement (APTTA). On 24 February 2019, 570 tons of Afghan dried fruits, textiles, carpets and other goods were shipped to Mumbai, India through the port, making this the first consignment of exports to the large Indian market. This waiver is not time-bound, unlike the energy-based waivers that were provided to some of Iran's oil importers. An associated railway project aimed at linking Chabahar through Zahedan on the Pakistani border up to Mashhad in the north-east, near the borders with Afghanistan and Turkmenistan, has also been exempted from sanctions. This 500km railway is also built with Indian support and amounts to a \$1.5 billion investment.

In the long term, this port and accompanying transportation-based investments offer a strong possibility for both Afghanistan and Iran to shore up their trade competitiveness, especially with the involvement of India as a hitherto reliable partner. So far, the United States' begrudging nod to the project, through a waiver, reflects an unlikely yet real example of how United States—Iran relations may evolve in the future.

Iran undoubtedly faces strong economic uncertainty, although this may be deflected by the fact that the country does not stand near-universally isolated as in previous iterations of sanctions. The European Union's support will be instrumental in ensuring diplomatic support (and more through the proposed special purpose vehicles, SPVs), and, if Iran continues capitalizing on existing goodwill and on its ongoing reforms agenda, its economy may just find enough lift to ride out the headwinds. It remains to be seen whether the European Union's support is token and in spirit, or whether it manages to implement a viable trade-spurring solution, but, unlike the last round of sanctions, Iran certainly does not stand alone.



Adapting to the COVID-19 pandemic and global economic crisis

Iran's potential to overcome the effects of sanctions will be held back, however, by the effects of the COVID-19 pandemic, which is slowing the domestic economy and international demand for Iran's exports. The pandemic reached Iran in February 2020, and the number of new cases began to grow quickly in March. By late May 2020, there was a cumulative total of more than 140,000 cases of the novel coronavirus in Iran, and approximately 5.8 million cases globally (Figure 5). As in

countries around the world, lockdown measures and travel restrictions were implemented in Iran in order to slow the spread of the virus. Reduced domestic economic activity, international value chain disruptions and depressed demand for Iranian exports soon led to a broad-based economic downturn. All major components of GDP have contracted and the rial depreciated within the first months of the earliest confirmed cases in Iran.

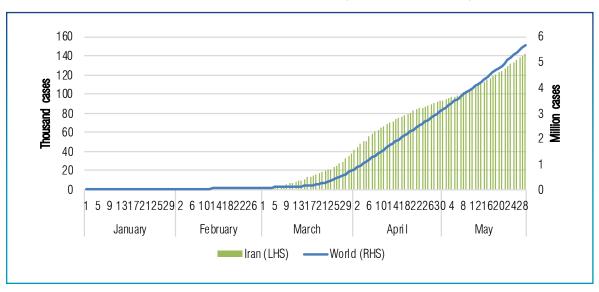


Figure 5: Cumulative COIVD-19 cases (January to May 2020)

Note: Data retrieved 29 May 2020.

Source: European Centre for Disease Prevention and Control.

According to forecasts by the World Bank, Iran's GDP will decline by 3.7% in 2020/21, before rebounding slightly with growth of 1.3% and 1.5% in the next two years respectively. The industry sector is expected to be hardest hit, averaging – 5.8% growth in 2019/20. On the demand side, gross fixed capital investment is forecast to see the greatest decline in the first full year of the crisis, falling by 7.7%. While both oil and non-oil GDP are expected to be negatively affected by the pandemic and the associated global economic crisis, declining fuel prices will have a particularly strong effect on Iran's growth potential. Prices are expected to recover from the lows seen during the beginning of the pandemic in spring 2020, though this will take time. Average crude oil prices are forecast to fall from \$61.4 per barrel in 2019 to \$35 in 2020, before increasing gradually again to \$52.7 in 2025 and \$70 in 2030 (Figure 6).



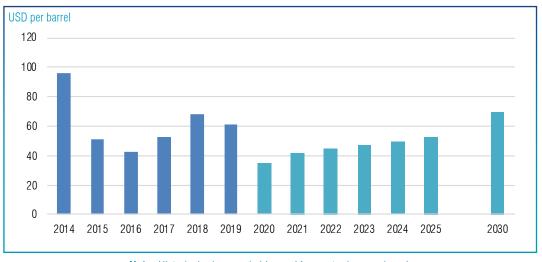


Figure 6: Average annual crude oil prices (2014–30)

Note: Historical prices are in blue and forecast prices are in red.

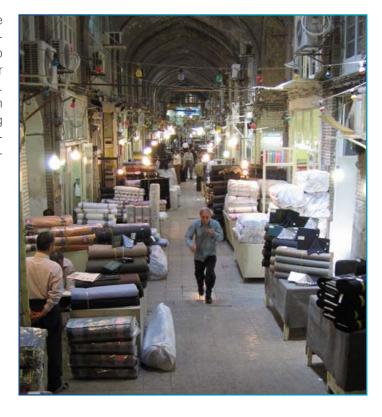
Source: World Bank.

Many micro, small, and medium enterprises (MSMEs) risk closure, and workers in the informal sector are particularly at risk. Recognizing the economic challenges faced, early relief and recovery measures announced by the government equivalent to approximately 5% of

GDP include cash transfers to households and affordable loans, low-interest rate loans for businesses retaining workers, moratoriums on business taxes and other charges, an increase in the legal minimum wage and support for unemployment insurance.

Realizing Iran's potential through trade

Iran's economy is expected to remain resilient in the face of these double threats. Efforts to enhance competitiveness and expand trading opportunities will help in adaptation and recovery, as well as positing Iran for stronger growth in the absence of these constraints. Exporting can be a driver of growth and diversification – a need recognized in Iran's development planning (Box 2) – by motivating improved competitiveness, expanding markets, facilitating knowledge and technology transfer.



Box 2: NES alignment with national development priorities

The strategy's coverage and focus is to be aligned with and in support of national development priorities, which recognize trade and investment as necessary avenues for growth alongside calls for improved resilience and self-reliance. Iran has set itself ambitious and wide-ranging economic and socioeconomic goals, articulated through the five-year development planning system. The current iteration, the Sixth National Development Plan, places thrust on diversification in non-oil sectors, investment promotion, job creation via entrepreneurship, and youth engagement, among other diverse economic and socioeconomic areas.

Launched soon after the lifting of sanctions in late 2016, the plan's vision and scope reflects the overall optimism prevailing at the time within the government, the private sector and international partners, including investors, among other stakeholders. Stated goals include the following:

- Build a conducive business and investment climate
 - » Attract \$50 billion in foreign investment, including through direct investment and joint ventures;
 - » Increase private sector participation and develop a conducive business and investment climate aimed at spurring joint venture activity in productive sectors with high spillovers for MSMEs;
 - » Improve the business and investment climate by addressing concerns on guarantees, dispute resolution, enforcement of foreign arbitration awards, transparency and transfer of funds;
 - » Wide-ranging financial sector reforms in line with developing the energy market and supply of crude oil and gas through commodity markets.
- · Facilitate diversification among productive and downstream petrochemical sectors
 - » Grow non-oil exports t15% of GDP by 2020;
 - » Increase productivity in the agroprocessing sector tdevelop high-quality products with trade potential;
 - » Facilitate development of the tourism industry and incentivize tourism infrastructure growth along Iran's shorelines.
- Leverage the demographic dividend and develop human capital aligned with long-term private sector needs
 - » Attract knowledge and innovation from leading countries and develop the export markets in tourism, engineering, technical services and labour force;
 - » Develop a strong entrepreneurship and innovation base focusing on youth;
 - » Ensure skills alignment between policymaking, private sector and skills providers.
- Increase Iran's participation within international organizations.

Similarly, Supreme Leader Ayatollah Ali Khamenei's Nowruz speech in March 2019 touched on important issues to be addressed in the Iranian economy, recognizing that there are important issues to address urgently. Even in the challenging international context, it was acknowledged that internal factors contribute to economic difficulties, and that reduced resources revenues often opens opportunities for reforms in many countries. Stated priorities included boosting production and enhancing the role of the private sector to boost employment; increasing the contributions of agriculture, industry and the knowledge-based economy; and using the banking system to improve resource allocation through investment. The speech emphasized that building trust in institutions and working on fairness towards entrepreneurs is critical.

Iran's recent trading history has illustrated the potential for diversification through trade. Total and net exports have both been relatively strong in the recent past. Exports of goods and services totalled 24.9% of GDP in Iran in 2017, about average for a country at its income level, but somewhat lower than the recent peak of 30.3% of GDP in 2005 before the imposition of sanctions by the United Nations Security Council

under Resolution 1737. The current account balance has been fairly steadily positive since the late 1990s, though it has declined as a share of GDP in recent years (Figure 7). Iran's export value added is forecast by the World Bank to decline by 4.8% in 2020/21, before beginning to recover with growth of 5.1% in 2021/22 and 2.2% in 2022/23.

3000 2500 2000 1500 1000 500 0 2011/12 2012/13 2014/15 2015/16 2016/17 2017/18 Exports Imports -0-Net exports

Figure 7: Exports and imports of goods and services (2011/12–2017/18)

Source: Statistical Center of Iran.

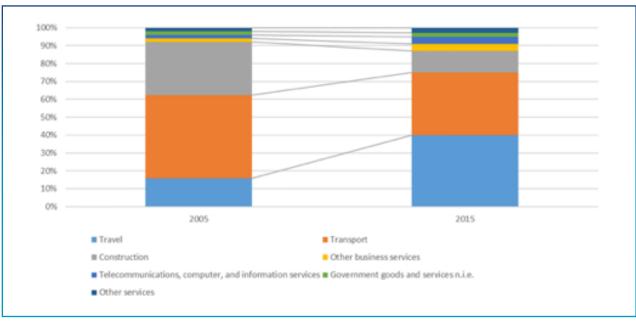


Figure 8: Services exports by sector (2005–15)

Source: ITC.

Services are growing in importance as a share of Iran's total exports. Travel and tourism is a particularly important and growing export sector and ICT is still a small contributor to services exports, though it is growing quickly (Figure 8).

According to ITC's export potential assessment, Iran has the potential, even in the current challenging context, to expand its exporting of goods by \$9.4 billion. While China, the Republic of Iraq, and India are the leading potential export destinations, trade with many

countries could be improved by ameliorating trade frictions and taking advantage of growing demand (Figure 9). On top of this, services exports could be increased by \$2.2 billion. Realizing this additional export potential could lead to the creation of hundreds of thousands of new jobs. The current sanctions are estimated to have a limited effect on Iran's export potential, as their removal would only add about \$430 million to this potential, much of it from increased possible exporting to Hong Kong Special Administrative Region, China, the United States and India.

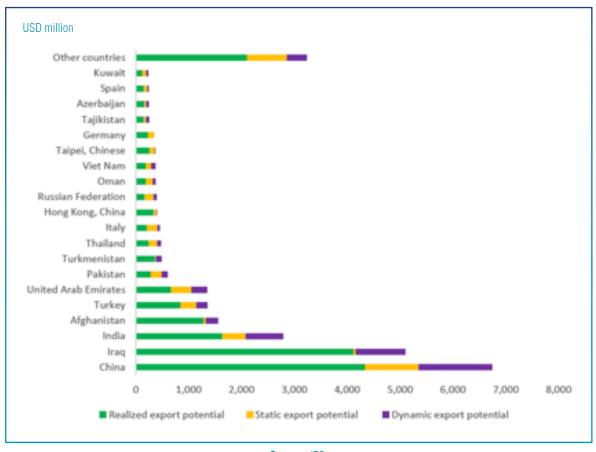


Figure 9: Total and untapped export potential in goods, by destination

Source: ITC.

Key messages for strategy design

While external factors have posed serious challenges, Iran's growth has been slowed and made more volatile, and domestic challenges are also shaping prospects for development and stability. In particular, there remains significant potential to realize export-led growth and diversification through enhanced competitiveness and coordination on trade. The difficult external environment created by US-led sanctions and the effects of the COVID-19 pandemic highlight the need for improved productivity. Iran's export potential in a wide range of sectors has been acknowledged, and building on this will be among the main goals of the National Export Strategy. This will be achieved in part by leveraging the strengths and competitive advantages possessed by Iran.



CHAPTER 2: IRAN'S UNIQUE COMPETITIVE ADVANTAGES STRENGTHEN THE PROSPECTS OF TRADELED GROWTH

Introduction

Iran's export potential is underpinned by fundamental competitive advantages related to its natural resources, strategic location, demographics and attractiveness to investment. By leveraging these strengths, the NES provides a tailored roadmap for export-led growth, diversification, and development that is suited to Iran's unique context and the opportunities it faces.



Using natural resources to foster diversification

Iran is blessed with proven natural resources in oil and natural gas (the 4th and 2nd largest global reserves respectively), and indeed oil has served as the mainstay of the economy in the past several decades. Aggregate exports are largely driven by oil exports, though they have declined somewhat in importance as export products have been diversified. Oil and other fuels have reliably been Iran's dominant exports (Figure 10). Fuel products (HS27) represented 76.8% of the total value of Iranian exports in 2009, but declined slightly to 68.7% of the total in 2018, when these exports were valued at \$66.4 billion.

While heavy reliance on these resources has contributed to slowed economic diversification, it has also provided revenues facilitating investment in social development and productive capacities. Downstream sectors, including petrochemicals and agriculture, also have the potential to build on reliable and lower-cost access to inputs, supporting their growth and enhanced productivity. Export strategies under the NES relating to these sectors highlight these strengths and the further enabling factors that will be needed to realize their potential.

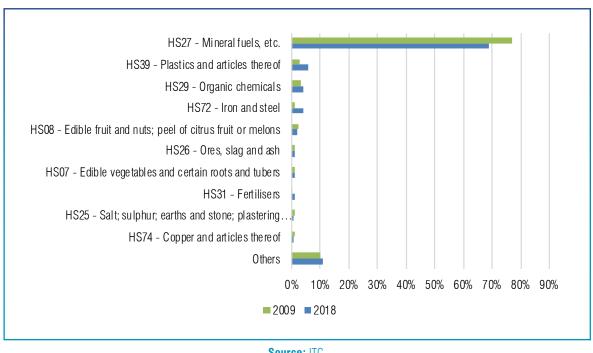


Figure 10: Trends in oil-based exports versus other sectors

Source: ITC.

Accessing growing markets thanks to a strategic location

Iran's strategic geographical position imparts strong potential for fostering regional integration by facilitating robust connectivity to Central Asia (via Turkmenistan), to Europe (via the Republic of Turkey), to the Mediterranean countries (via Iraq, and now India) and beyond (through Chabahar Port). This strategic position in West Asia, bordering the Caspian Sea, Persian Gulf and the Gulf of Oman close to shipping lands and key markets, has always part of Iran's larger positioning strategy, and serves as a valuable base for accessing markets. Leveraging this locational advantage is now even more important in the context of the sanctions, and Iran has been in discussions with neighbouring partners such as a Pakistan, Oman, Qatar and Iraq (Basra) for using their shipping lines and ports. Related trade with these countries, especially Oman and Qatar (which is facing a trade embargo of its own within the region), has already gone up in the last year.

Iran's trade has shifted towards emerging economies in the region and East Asia, signalling gradual momentum in terms of market diversification, though considerable concentration in export markets remains (Figure 11). By value, the most important importers of Iranian goods exports in 2018 were China (9.5%), Iraq

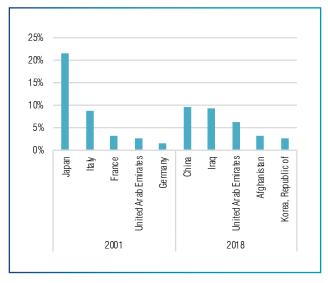


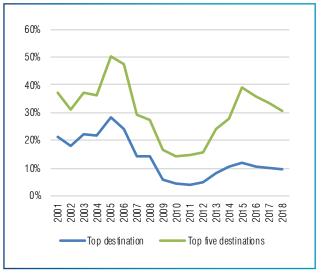
(9.3%), the United Arab Emirates (6.2%), Afghanistan (3.0%) and the Republic of Korea (2.7%). Market diversification has the potential to improve the scale of Iran's exporting while helping to mitigate the effects of economic headwinds.

Figure 11: Top export markets (2001–18)

A. Share of exports of top five destinations (2001 and 2018)

B. Share of exports to top destinations (2001–18)





Source: ITC.

Making the most of the demographic window of opportunity

The demographic window currently characterizing Iran's demographics presents opportunities for economic development through the increased savings of the relatively large working age population, opportunities for human capital development among the young and the low dependency ratio. Iran has been experiencing a youth bulge since the first post-revolution decade and owing to the high reproduction rates that followed that period. As of 2016, this bulge is currently prominent in the 20-39 age group, a group that also has a high fertility rate, contributing to the wide base of the age pyramid (Figure 12). As a result, 36% of the working population were 15-29 years of age in 2016, and more than half were 15-34. In 2006, the country entered a period referred to as a demographic window of opportunity, which is expected to last until approximately 2046.4 According to the IMF, the addition of another 500,000 individuals to the working age population is expected in 2017/18-2027/28.

Investments made in human capital will help in realizing the potential offered by demographic change. Iran has a strong higher education system. Iran was recently ranked 5th in science, technology, engineering and mathematics (STEM) education across the world. By 2026, almost half of the population aged 25–34 are expected to hold a bachelor's degree or higher, keeping in trend with the fact that total enrolment in universities almost doubled between 2003 (2.3 million) and 2016 (4.3 million). Humanities and engineering attracted the largest share of students pursuing higher education at 2 million and 1.3 million respectively.

Iran has also managed to improve the well-being of much of its population. Iran's Human Development Index (HDI) score increased fairly evenly in 1990–2018, from 0.58 to 0.80. Ranked 65th in the world in 2018, its ranking has improved slightly in recent years, from 68th in 2010. Poverty rates in Iran have fallen, and headcount ratios at \$1.90 per day (0.3% of the population), \$3.20 per day (2.3%) and \$5.50 per day (10.9%) in 2017 were all well below the average ratios among upper-middle income countries (1.5%, 5.1% and 18.4% respectively).

^{4.–} Abbasi-Shavazi, Mohammad & Sadeghi, Rasoul & Hosseini-Chavoshi, Meimanat & Torabi, Fatemeh & Mahmoudiani, Serajeddin & Torkashvand, Mohammad (2013), Demographic and Socio-economic Status of Youth in I.R. Iran, United Nations Population Fund (UNFPA), Tehran.

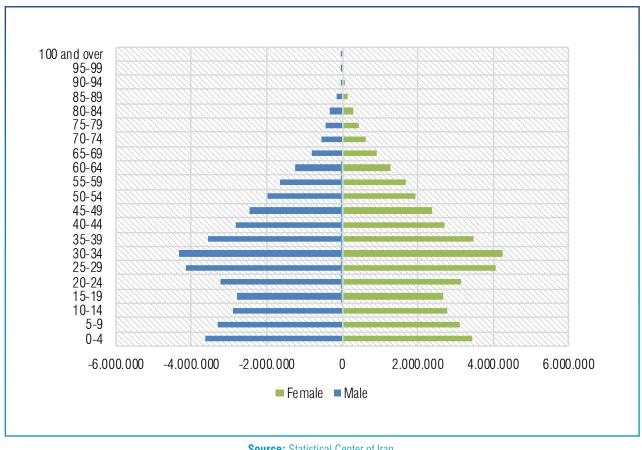


Figure 12: Age pyramid, Iran (2016)

Source: Statistical Center of Iran.

Building on solid fundamentals for attracting investment

Attracting investment is critical to strengthening exporting capacities and competitiveness, as well as economic diversification. Iran's recent history illustrates that it has the fundamental strengths needed to draw in foreign direct investment (FDI), even if current conditions pose considerable challenges to realizing investment objectives.

The re-imposition of US sanctions in November 2018 cast uncertainty not only for Iran's economy, but also for major EU investments. Companies that pulled out of Iran following the announcement of the sanctions included Peugeot, Renault, Deutsche Telekom, and Airbus, and major airlines, including British Airlines and Air France, ceased operations in the country. Despite these headwinds, the fact that investments increased so soon after the last rounds of sanctions were listed in 2016 is an important indication of the importance

that investors lend to Iran as an investment destination. The Joint Comprehensive Plan of Action (JCPOA) and removal of sanctions led to an increase of FDI flows into Iran; in 2017, foreign investment inflows totalled \$5 billion, the equivalent of 1.1% of GDP (Figure 13).

Investors appeared to be have a positive view of such fundamental factors as Iran's innate human capital; improved aspects of the business environment; the "payback mentality/morality" of Iranian businesses (and citizens in general); and the perception that the Iranian Government takes investor attraction and postinvestment care seriously, borne out by recent work started on the anti-corruption framework. It is likely that reduced uncertainty with time will see a recovery in foreign investment, even with sanctions remaining in place. Iran's diaspora also offers opportunities for improving FDI inflows (Box 3).



Figure 13: Approved foreign direct investment projects (2010–18)

Source: UNCTAD.

Box 3: The Iranian diaspora represents a significant source of potential investment

It is estimated that approximately 7 million Iranians have left Iran since 1979 to resettle primarily in Europe and North America, but also in Turkey, other Middle Eastern states and Australia. Much of the emigration (especially in recent years) has taken place through working class professionals seeking upward economic and social mobility. These individuals are likely to have strong familial ties in Iran and constitute an important conduit for future remittances and investment.

An example from Afghanistan may be pertinent where professionals with advanced degrees and experience have returned to the country to form information technology (IT) and e-commerce-based businesses. In addition to technical knowledge, these individuals are also sharing valuable soft skills in terms of business etiquette, communications and client management, etc. It is likely that the barriers to entry for diaspora entrepreneurs are high in Iran (as noted in the section on start-ups), but, if properly incentivized and provided with "hand-holding", the diaspora can have a significant impact on start-up activity. Potential sectors for diaspora-led investment are ICT, agriculture and tourism, among others.

According to the Iran Press Service (2000), Iranian expatriates had invested between \$200 billion and \$400 billion in the United States, Europe and China, but almost nothing in Iran. The Foreign Investment Promotion and Protection Act (FIPPA) was a preferred avenue for Iranian investments, including for Iranian diaspora. Recognizing the potential offered by the diaspora, an expatriate fund (joint investment fund) with an initial capitalization of \$5 billion was proposed in 2010 by the Iranian Government, with the goal of spurring investment activity through diaspora-led investments.

In addition, Iran has 10 signed and 58 in force bilateral investment treaties to facilitate FDI flows (Table 1). It is also a party to two treaties – the Organization of the Islamic Conference (OIC) Investment Agreement (in force since 1988) and Economic Cooperation Organization (ECO) Investment Agreement (not yet in force) – with investment provisions, and a further 14 investment-related instruments.

Table 1: Iran's bilateral investment agreement partners -

Signed	EgyptRepublic of MoldovaPhilippinesAlbaniaGambia	KenyaDjiboutiLuxembourgHungaryCzech Republic
In force	 Pakistan Kazakhstan Lebanon Belarus Yemen Sudan Poland Switzerland Qatar South Africa Azerbaijan Bangladesh Tunisia Morocco Oman Ukraine Italy Bulgaria Turkmenistan Finland Austria Uzbekistan Spain Bahrain Tajikistan France Ethiopia Romania Turkey 	 Democratic People's Republic of Korea Georgia Germany Kyrgyzstan China Croatia Syrian Arab Republic Algeria Republic of Korea Venezuela Serbia Malaysia Sweden Afghanistan Greece Indonesia Bosnia and Herzegovina Libya Kuwait Viet Nam Cyprus North Macedonia Zimbabwe Sri Lanka Russian Federation Japan Slovakia Singapore
Terminated	Austria Germany	• Zimbabwe

Source: United Nations Conference on Trade and Development (UNCTAD).

The government's demonstrated reform agenda of diversification, financial sector reforms and MSME growth bodes well for developing the country's innate economic and investment potential. In the past five years, the government has made it a priority (including in the Sixth National Development Plan) to drive growth in non-oil sectors. Growth activity has picked up in certain

sectors, although the overall pace is still slow and limited. The scale of reforms are broad-ranging, visionary and indicative of Iran's stated intention to leverage trade as a lever of growth. This demonstrated intent has been widely received positively by trade partners, including the European Union.

Key messages for strategy design

The emergence of the COVID-19 pandemic has affected the entire global economy. This major negative impact on the level of production is taken into account in the National Export Strategy (NES) in order to help Myanmar both cope with the economic challenge and promote its exports.

Iran's historical and potential future export performance has been supported by its natural resource endowment, a strategic location with access to large and fast-growing markets, favourable demographics and fundamental attractiveness to investment. The National Export Strategy is designed to leverage these strengths and address some of the main domestic challenges to improved exporting.

CHAPTER 3: DOMESTIC CONSTRAINTS AND CHALLENGES TO COMPETITIVENESS MUST BE ADDRESSED

Introduction

In addition to external challenges, low levels of competitiveness and the lack of a coordinated approach to international trade have held back export diversification and growth. Upgrading and prioritization will, therefore, be needed to improve trade prospects in the near term and to lay the foundations for further improvements in export performance under more favourable international conditions. At a fundamental level, domestic limitations in competitiveness are related to the business environment, innovation and human capital, which in turn give rise to more proximate constraints affecting much of the economy (see Annex I).

Little diversification has taken place in non-oil exports (comprising a low 8.5% of the GDP based on IMF

figures). Plastics, chemicals and metals are existing sectors where some diversification has taken place. Petrochemicals dominate this segment, primarily benefiting from the free and ample available natural gas.

In addition to the moderate degree of diversification in export sectors, there has been some dynamism in exporting at the product level (Figure 14). By 2017, 20.6% of the products (HS six-digit level) exported in 2001 were no longer exported, and 30.8% of the products exported in 2017 were new, having not been sold abroad in 2001. In addition to product diversification, the continued shift in the focus to new export markets will help to boost exports.

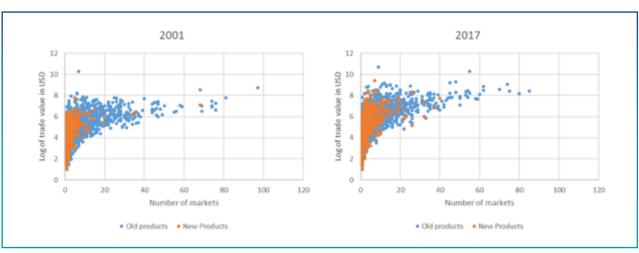


Figure 14: Value reach of exports (2001–17)

Source: World Integrated Trade Solution (WITS).

While technological intensity has improved, Iran's exports have a low degree of technological intensity, even considering the predominance of oil exports (Figure 15).

Improved competitiveness and productivity are essential to strengthening and diversifying exporting. Productivity has been improving in Iran, contributing to rising incomes. GDP per person employed in Iran was 69.1% of the high-income country average in 2018. Labour productivity has been improving, however,

and mostly from within-industry improvements rather than the less sustainable gains from structural change (Figure 16). Annual aggregate labour productivity growth in 1990–2016 averaged 1.9%, but fell slightly in 2011–16. Total factor productivity (TFP) growth has been low, growing by an average 1.5% in 1990–2016, though it has declined by an average 0.8% per year in 2007–16. Slow productivity growth contributes to cost competitiveness challenges in Iran (Box 4).

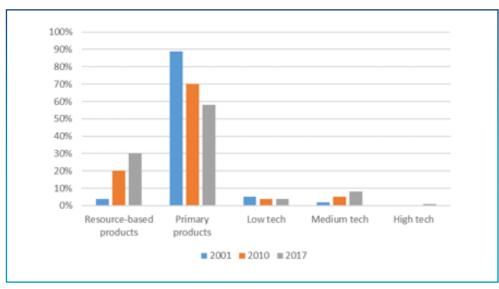


Figure 15: Technological classification of exports (2001–17)

Source: World Integrated Trade Solution (WITS).

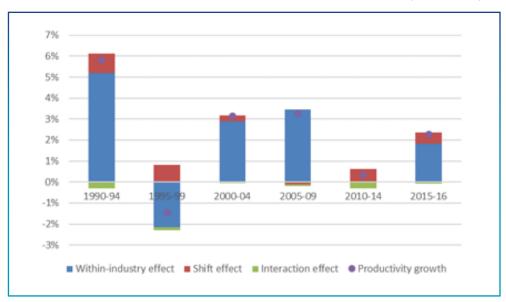


Figure 16: Shift-share decomposition of labour productivity growth (1990–2016)

Note: The within-industry effect is based on a measurement of productivity growth within each sector. The shift effect is a measure of the effect on aggregate productivity growth of the movement of labour between sectors with varying productivity levels. The interaction effect is a measure of labour reallocation effects between industries with varying productivity growth rates. Period growth rates are calculated as the average of annual growth rates. **Source:** ITC calculations using data from Asian Productivity Organization (APO).

Box 4: Rial depreciation and cost competitiveness

Between the beginning of April and the peak in late September 2018, the free market USD/IRR sell price rose from 47,730 to 190,000, after which it declined again before climbing again from late 2019, reaching nearly 180,000 in May 2020. This places the market rate well above the official rate of 42,000 (Figure 17). While significant foreign exchange reserves back up the official exchange rate, the beginning of the depreciation of the unofficial exchange rate led the government to abandon an effort to unify the official and market exchange rates (though greater restrictions have been placed on access to and use of the official rate, which effectively subsidies selected imports).

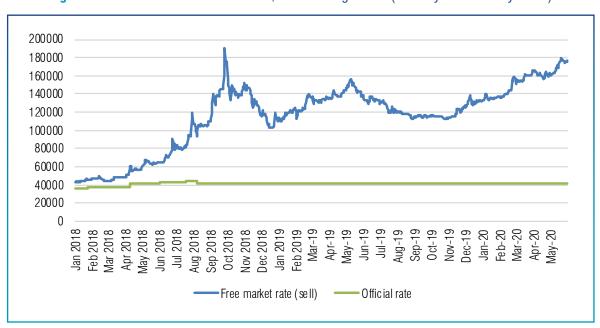


Figure 17: Free market and official USD/IRR exchange rates (January 2018 to May 2020)

Source: Bonbast and Central Bank of Iran.

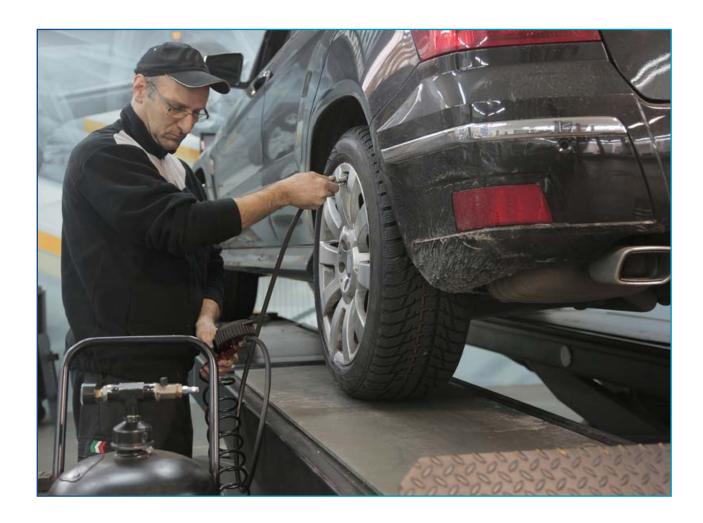
While the recent depreciation may have a positive influence on exports' cost competitiveness, this is offset by recent price increases and other constraints. Inflation has tended to be higher in Iran than among its neighbours and has increased following the re-imposition of sanctions, which, along with currency depreciation, is pushing up the price of imports. Continued inflation is possible despite slow growth if inflationary expectations remain high, as was experienced in Iran during earlier periods under sanctions, particularly from 2012/13–2013/14. Sustained improvements in competitiveness require improvements to productivity and efficiency.

Building a dynamic business environment

A dynamic business environment is needed to reduce production costs and motivate productivity upgrading within firms and through efficiency enhancing resource allocations between firms. Challenges are currently faced as a result of issues in the business environment generally and context for MSMEs in particular, constraints on investment and barriers to financial access.

BUSINESS ENVIRONMENT AND THE MSME SECTOR

Improvements in productivity require that constraints in the business environment be addressed. Administrative barriers to firm establishment and weaknesses in the legal framework for bankruptcy raise the costs of



entrepreneurship and risk-taking, reducing the beneficial effects of firm competition and dynamics, and so need to be addressed. The World Bank's Ease of Doing Business score for Iran for 2020 is 58.5, giving it an overall ranking of 127th out of 190 economies. This is a slight improvement from 2019, and recent improvements noted were the introduction of online tax filing options and enhancements to the national trade single window. Iran was ranked highest internationally in terms of registering property (70th) and dealing with construction permits (73rd), and lowest in terms of starting a business (178th) and paying taxes (144th).

Compared with other firms, MSME exporters face a number of additional constraints and challenges. According to the Small Industries Investment Making Fund, MSMEs account for just 10% of Iran's exports. MSMEs beginning or expanding exporting face barriers including administrative procedures and restrictions, the cost and difficulty of connecting with foreign customers (e.g. communication, collection of payment, and unfamiliarity with foreign business practices and language or cultural differences), and underdeveloped distribution channels and logistics services.

Border compliance takes an average of 101 hours, for example, well above the 58-hour Middle East and North Africa (MENA) average. Iran performs better than its neighbours in some aspects of customs procedures, however, such as the time and cost of documentary compliance for imports and exports. Improvements have also been made in the development of the national single window, which is making trade easier.

The business environment is not conducive to the development of a competitive MSME sector. Difficulties faced in the domestic business environment affect productivity growth and the potential of new firms and MSMEs. The costs of establishing formal firms and overregulation of labour markets are also factors contributing to the significant size of Iran's informal sector, where small firms' productivity and the potential to expand and export may be constrained, and informal employment, where workers lack the protections and benefits of formal work. MSME competitiveness is further constrained by the use of outdated equipment and machinery, excess capacities in certain industries, lack of policy coordination on the development of non-oil sectors of the economy and an underdeveloped financial sector, among other issues.

INVESTMENT

Investment, particularly FDI, will play an important role in building capacities and competitiveness for exportled growth. In addition to capital inflows, FDI can improve productive potential and support diversification and innovation through technology transfers, strengthened international linkages and trade, improvements to human capital, enhanced competition and spurred enterprise development. As a share of GDP, gross fixed capital formation (GFCF) has been relatively low in Iran, and FDI has been relatively less important to the Iranian economy than in similar countries. It is also largely concentrated in the oil and gas sectors.

In addition to the effects of sanctions and the broad challenges present in Iran's business environment, foreign investors may face specific difficulties related to the transfer of foreign capital, firm ownership structure and dispute settlement. Investment policy and promotion is also complicated by the multiple responsibilities of the Organization for Investment, Economic and Technical Assistance, which also includes managing a number of technical and other aspects of foreign investment.

ACCESS TO FINANCE

A well-functioning financial sector is critical to efficient resource allocation. Iran's financial sector is severely constrained by the isolation imposed by sanctions, though domestic factors also affect its stability and development. Broad-based reforms have been started in the financial sector, but uncertainty reigns related to the projected progress path. Financial market reforms have been an important area of stated reform for the current government. Comprehensive restructuring and recapitalization of banks is urgently needed, and there is also a need to unify the multiple exchange rates in favour of a market based rate.

International isolation has resulted in significant reliance on domestic sources of financing, which, combined with the underdevelopment of the Iranian financial sector, has reduced efficiency and increased risk. Efforts have been made recently to reduce risks in the financial sector, including the merger and closure by the central bank of a number of unlicensed financial institutions judged to be threatening to the sector's stability. The central bank has also been made the only licensing and regulatory authority of financial institutions, and a new Central Bank of Iran law has been drafted and amendments to the banking law proposed.

However, longer-term structural issues remain to be addressed. According to the IMF's Financial Development Index, a ranking of the depth, access and efficiency of countries' financial institutions and markets, Iran's level of financial development is below that of a number of other upper-middle income countries, though it has been improving (Figure 18). The efficiency of and access to financial institutions were scored highest and its financial markets' depth and efficiency scored lowest. Substantial restructuring may be needed, including the recapitalization of viable banks and resolution of non-viable institutions.

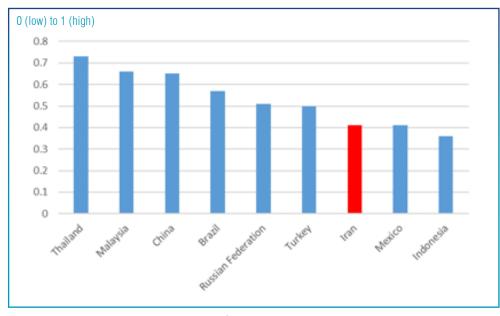


Figure 18: Financial Development Index scores in selected countries

Source: IMF.

Credit has grown rapidly – mostly into the trade and services sector – though its growth rate dropped significantly (from 31.4% to 12%) in 2016/17–2017/18. The capital adequacy ratio was already low and nonperforming loans ratio already high when the situation was exacerbated by the re-imposition of sanctions and loss of access to the global financial system. However, low levels of foreign debt have reduced pressure from the recent depreciation in servicing debt in foreign currency. A more stable and developed financial sector is needed to attract investment, allocate resources efficiently and improve access to finance.

Access to finance is critical in driving firm creation, growth and competitiveness, as the choice of a range of financing instruments is needed to match firms' needs for investment, working capital and risk management. While a number of reforms have been made in Iran, to credit information systems and other factors affecting financial access, many firms – particularly MSMEs – face barriers to access that limit their potential. By addressing these barriers, the NES will support improved and more inclusive financing.

Fundamental development factors in Iran also affect access to finance and the use of financial services. These are partly on the demand side; individuals without bank accounts are most likely to say that this is because another family member already has one (67.1%), they lack money (61.6%) or they have no need for financial services (29.8%). The prevalence of informality among smaller Iranian firms also imposes significant credit constraints.

Within the financial sector, deeper challenges related to its international isolation, development and stability affect the availability of financial instruments and services. For example, small and underdeveloped capital markets leave firms largely reliant on banks for financing, limiting financing options and raising costs. In addition, Iran's large state-owned banks and directed credit schemes lack the efficiency of market-guided decisions on resource allocation.

More proximately, many small firms lack sufficient collateral or the right kind of collateral to access loans. Loans to MSMEs in Iran tend to use land as collateral, creating difficulties for firms in knowledge-based sectors, for example, which are reliant on intangible assets and may find that banks see them as high-risk borrowers and are, therefore, less willing to lend to them. Loans also come at high cost. Financial literacy is lacking and institutions supporting financial education are underdeveloped, exacerbating risks.

Improvements to trade finance are also needed, through supporting institutions are in place; MSMEs receive financing through the Bank of Industry and Mine and exporters are provided assistance through the Export Guarantee Fund of Iran. In the context of sanctions, trade finance has taken on additional urgency, and new approaches and partnerships will be needed to provide both importers and exporters with the necessary tools.

Fostering innovation to drive growth

Innovation, an important aspect of productivity and competitiveness, remains limited, though its importance is being acknowledged. While total patent applications, by residents and non-residents, increased from 616 in 2000 to 15,632 in 2016, research activities remain relatively limited. Research and development (R&D) expenditure represented just 0.8% of GDP in 2017, well below the average level for upper-middle income countries (Figure 19). Relatively little research involves international collaboration, though sanctions appear to be forcing firms and policymakers to acknowledge the need for domestic innovation.

The quality of research can also be improved on. Iran is home to a growing nanotechnology sector and, while there has been a large increase in the number of articles produced on nanotechnology, average citations per article are relatively low, indicating the potential to improve the quality of this work. In 2017, 116.9 articles

were written per million people in Iran, a similar number to the rate of production in the Czech Republic and Qatar. The average number of citations per article was only 2.5 in 2018, however, a level comparable to that of Oman and the Syrian Arab Republic. International collaboration is also quite limited; Iran is ranked 104th globally in the share of articles produced with international partners (20.2%).

The importance of developing a knowledge-based economy is acknowledged by the government in its Vision 2025 plan, for example, and will be a critical component of diversifying trade. Iran has considerable potential to develop exports in knowledge – and technology intensive activities, as well as through the transformation of other areas of the economy through innovation. Additional attention will also be needed in investing in innovation and adaptation to Iran's pressing environmental challenges (Box 5).

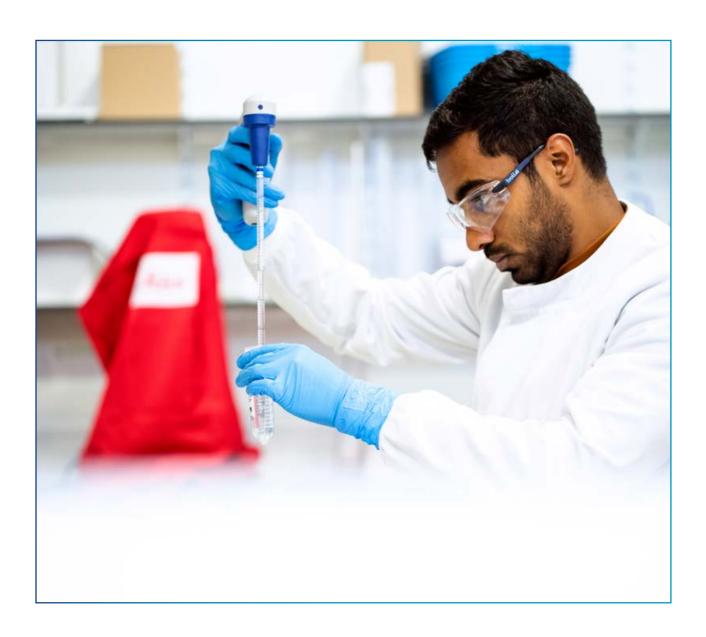
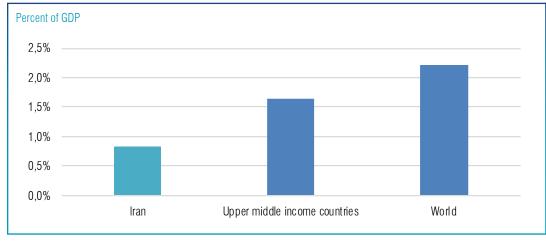


Figure 19: Total research and development expenditure (2017)



Source: World Bank.

Box 5: Climate change and environment

Iran's environmental problems are severe and wide ranging. Iran's array of environmental problems include climate change, water and air pollution, soil erosion, deforestation, conservation losses, water scarcity and flooding. These issues, in particular climate change, impose high socioeconomic costs and affect trade competitiveness.

Iran regards itself under the category of a climate "vulnerable" country according to United Nations Framework Convention on Climate Change (UNFCCC definitions).1 Climate change has resulted in the following impacts:

A decline in annual mean rainfall for dry land parts of the country;

- More floods for wet areas:
- An increase of 0.26°C from 2008 to 2018;
- Increasing aridity in southern basins;
- Changes in climatic extremes (e.g. increase in warm nights and hot days);
- Decreasing precipitation in spring and summer.

In addition, the expected economic impacts of climate change are high. The sector most vulnerable to the impacts of climate change is agriculture. Most Iranian studies on the impact of climate change on yields relate to the wheat sector and show that impacts are negative. Under a scenario of a 2.7°C rise in temperature, it is modelled that yields would fall by 18% by 2025 and 24% by 2050. The impacts are expected to be lower in irrigated wheat.

Under all climate change scenarios, Iran will experience a large decline in water resources. In the last two decades, over-extraction of water has caused a drawdown in the country's aquifers, especially in the south and eastern regions. Climate change is expected to decrease the availability and quality of groundwater resources. Due to the traditional method of irrigation and conveying water, a large proportion of water is lost to evaporation and percolation. Long-term salinization is also likely under climate change scenarios. Climate change will also greatly increase crops, especially cereals' water consumption requirements. This will increase over time. Iran's Intended Nationally Determined Contribution (INDC) envisages losses of "national programmable water" of 20–25 billion cubic metres of water.

Iran has ratified the main climate change treaties, including United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention to Combat Desertification (UNCCD) and the Kyoto Protocol. Climate change issues are included in the 20-Year National Vision of the Islamic Republic of Iran, the Fifth National Development Plan and the national action programmes (NAP) under the UNCCD. The government has also approved many climate change-related policies and actions like development of greenhouse gas (GHG) mitigation policies, adaptation programmes and acquisition of technologies for adaptation to climate change.

As a result of current and expected challenges, Iran faces considerable costs of climate change adaptation. Iran's INDC estimates the cost of adaptation to climate change to be approximately \$100 billion (2010 fixed prices). This would cover investment in water resources infrastructure, demand management, increasing productivity in the water sector, increasing efficiency and reducing losses in water yield, water networks and new water resources. Technology needs include:

- Early warning systems for extreme climate events;
- Environmental technologies for water desalination, recycling and treatment;
- Climate-smart agriculture technologies for scattered local communities.

Water use is unsustainable and conservation strategies are required. The agricultural sector is responsible for more than half of the total water consumption in Iran. However, the sector only contributes to 11% of Iran's GDP. Iran is using 92% of its renewable freshwater resources, far above the limit of 40% recommended by international norms. Most farmers use flood irrigation during the day when evaporation is greatest.2 The average annual water consumption in Iran is estimated to be approximately 96 billion cubic metres (BCM), a figure 80% higher than the scarcity threshold level of the country (approximately 53 BCM).

Practical solutions proposed to address the crisis include:

- Improve water productivity through modernization of irrigation, expansion of greenhouses and optimization of crop pattern;
- Terminate some water-intensive activities.3

^{1.—} These factors include one-third of the average global precipitation, three more times evaporation than global average, three times more deserts per capita than global average, and high frequency of extreme climatic events.

^{2.-} David Laylin (2018). Environmental and wildlife degradation in Iran, Atlantic Council, June 2018.

^{3.-} Mesgaran Mohsen B., Pooya Azadi (2018). A National Adaptation Plan for Water Scarcity in Iran, Working Paper 6, Stanford Iran 2040 Project, Stanford University, August 2018.

Realizing the full potential of human capital

While the current demographic window presents opportunities for Iran, these benefits cannot be expected to be realized automatically. Reaping the rewards of this phase of the demographic transition requires supportive social, economic, institutional and political environments. Measures tackling needs of youth empowerment for economic development, such as expanded employment opportunities (including increased opportunities for the presence of women in the workforce), increased and diversified investment, and improved quality of human capital are thus essential for policymakers.

By 2026, almost half of the population aged 25–34 are expected to hold a bachelor's degree or higher, keeping in trend with the fact that total enrolment in universities almost doubled between 2003 (2.3 million)

and 2016 (4.3 million). Humanities and engineering attracted the largest share of students pursuing higher education at 2 million and 1.3 million respectively (Figure 20). More than 5% of the country's total population or 7.4% of country's adult population (aged 19 and older) were enrolled in Iran's higher education system. However, due to numerous factors, the country cannot provide jobs for the graduates it produces. This is where Iran's higher education system is facing a crisis: producing far more college graduates (and often with low levels of practical experience) than the domestic economy can absorb. The misalignment of education and market demand, which has got worse in the past decade, has in turn exacerbated the country's economic, social and political problems (Box 6).

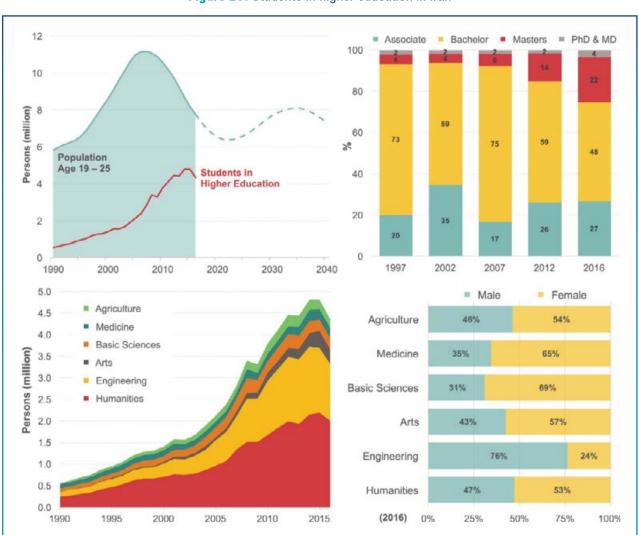


Figure 20: Students in higher education in Iran

Source: Stanford Iran 2040 Project.

Box 6: The opportunities offered by a young population risk becoming challenges to growth and development

In other countries, the inappropriate management of the youth bulge has often led to additional challenges due to rapid social change, the emergence of new social movements, increasing social problems and rising high-risk behaviours. Cities faces many of these challenges in particular, as Iran's general and youth populations are highly urbanized (Figure 21). Approximately 74% of the population live in cities, and half of these in the 20 largest cities, and unemployment levels are highest in urban areas (14% of the total urban population is unemployed, versus 8% of the total rural population).

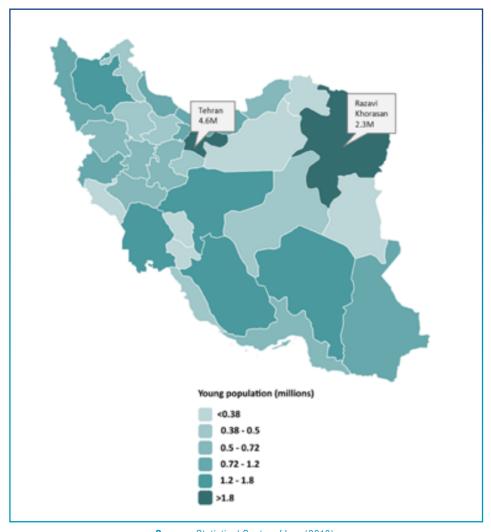
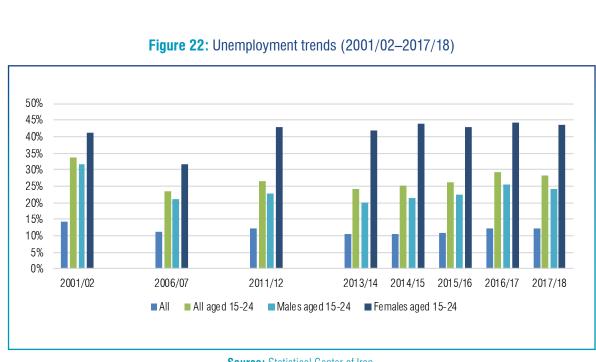


Figure 21: Geographical distribution of young population (15–34)

Source: Statistical Center of Iran (2018).

The difficulty encountered by youth, especially higher-educated youth, leads to an overall feeling of dissatisfaction with the economy. The youth unemployment rate (15–24) increased in recent years to 29.2% in 2016/17, particularly among women, who faced an unemployment rate of 44.2% (Figure 22). With a degree from college, notwithstanding its quality and its relevance to Iran's job market, graduates have higher expectations and are, therefore, even more dissatisfied with the current context. Teachers at the University of Tehran often note that their best students, who are selected from the top 20% of their high schools' graduating classes, lack plans for their future after graduating and recognize the importance of personal connections in finding work. The deep frustration among young Iranian graduates has also contributed to other social challenges.



Source: Statistical Center of Iran.

Limited economic opportunities contribute to emigration by the highly educated. The commonly cited IMF figure puts Iran in the first position as the country with the highest rate of brain drain in the world: every year, 150,000 educated Iranians leave their home country to pursue better opportunities abroad. This is estimated to cost the country more than \$50 billion each year in economic losses or one-eighth of its GDP in 2016. The phenomenon undoubtedly represents a significant loss for the country in economic terms.

A number of factors contribute to the skills mismatch. The bulk of jobs exist in agriculture and manufacturing (Figure 23). This is especially true given that the MSME segment, which usually is an engine of job creation, is still very weak. However, job seekers (especially those from a semi-urban/urban, middle-class background) do not have a preference for such sectors, instead preferring to wait until the overall economic and labour situation improves. Higher education also constitutes an unspoken route to delay or avoid compulsory and much lower-paid military service, if certain criteria are met, which may also be contributing to the high applications and enrolment in universities. Finally, there is a cultural aspect as well, favouring education and, at the national level, prizing knowledge-based growth, self-reliance and a spirit of competitiveness, which contributes to high university enrolment rates.

The opportunities offered to students and workers by technical and vocational education and training (TVET) are often not recognized. The vocational education path starts at the level of upper secondary education as a specialization option (Figure 24). It then further continues at the tertiary level with the Technical and Vocational University (TVU) and specific institutes of the University of Applied Science and Technology (UAST). Ways of strengthening alternative study and carrier pathways should, therefore, be considered to improve resource allocation in the education system. Such an approach would require important educational reforms, which will directly build on the effort initiated in 2011.

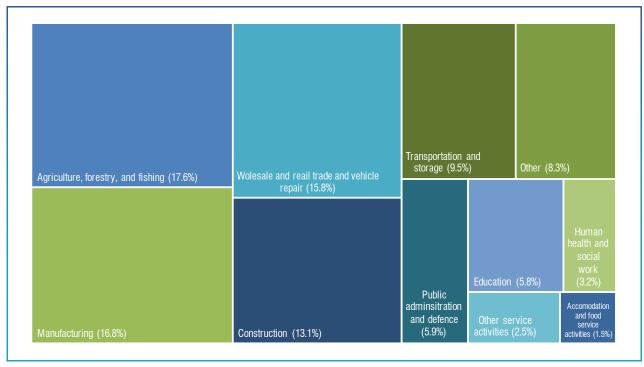


Figure 23: Employment by sector (2017/18)

Source: Workforce Yearbook 2016.

PhD Master's degree 3 years 2 years Master's degree Tertiary (ISCED 5-8) 2 years Bachelor's degree 5 years Bachelor's degree 4 years Associate degree Associate degree 2 years 2 years Entry test - concour Upper secondary (ISCED 3-4) College-preparatory year (Pish-daneshgahi) 1 year / grade 12 (age 17) Diploma to grant access to Upper Secondary Education (Dabirestan) grade 12 3 years / grades 9-11 (age 14-16) General education Technical/ Professional Mixed TVET and general Physics/maths, sociovocational: (Kar Danesh) economic, literature/culture Business, agriculture More flexible path TVFT secondary wide exam (ISCED 2) Lower secondary education (Rahnamaei) Key exams and 3 years / grades 6-8 (age 11-14) requirements Nation-Possible pathways wide exam Compulsory education Primary (ISCED 1) Primary education (Dabestan) 6 years / grades 1-5 (age 6-11)

Figure 24: Education system in Iran

Source: ITC compilation, using United Nations Educational, Scientific and Cultural Organization (UNESCO), TVET Country Profile: Iran.

In recent years, the focus of many programmes and policies relating to youth has been on cultural issues, though economic and unemployment-reduction policies are becoming a priority, especially in the face of the stalling unemployment generally, the low economic participation rates of youth and the current youth bulge (Table 2). Policymakers, however, are mainly concerned with later-stage consequences and upcoming issues related to population ageing. However, the government's objectives to achieve a healthy, active and successful senior population cannot be reached if the current demographic window is not properly leveraged.



Table 2: Policies related to youth —

Relevant ministries and agencies	Issues
 Ministry of Youth Affairs and Sports Council for Youth Ministry of Science, Research and Technology National Elites Foundation Ministry of Health and Medical Education Office of Adolescent and Youth Health Ministry of Education (MoE) Ministry of Labour and Social Welfare Technical and professional organizations 	 Economic empowerment of youth has not consistently been a policy priority. Variable approaches towards youth from each successive government has led to certain policies being neglected or abandoned. The status and responsibilities of official institutions responsible for youth policy and planning can be unclear. There is an unclear status of documents in youth policy and planning and ambiguous position of youth programmes in the budget. There is a lack of monitoring and evaluation, as well as enforcement of laws regarding youth.

Source: Abbasi-Shavazi, Mohammad & Sadeghi, Rasoul & Hosseini-Chavoshi, Meimanat & Torabi, and Fatemeh & Mahmoudiani.

Key messages for strategy design

The emergence of the COVID-19 pandemic has affected the entire global economy. This major negative impact on the level of production is taken into account in the National Export Strategy (NES) in order to help Myanmar both cope with the economic challenge and promote its exports.

The proximate causes of barriers to competitiveness of Iranian exports arise from challenges related to the dynamism of the business environment, context for innovation and realization of the potential of the country's favourable demographics. Addressing these domestic constraints is, therefore, a focus of the National Export Strategy in finding potential short-term solutions for enhancing exports and establishing the foundations for later success through trade. Due to the complexity of the situation faced by exporters, coordinating and setting appropriate priorities will be essential.



CHAPTER 4: THE WAY FORWARD FOR IMPROVED EXPORT PERFORMANCE

Introduction

The NES outlines priorities for bolstering Iran's economy in the short term, while facing a very challenging external environment, while also building momentum for improvements in competitiveness that will support growth prospects in the medium and long term.

The NES vision of "trade-led resilience, made in Iran" is to be realized through coordinated actions under separate sector strategies for the six priority sectors – medicinal herbs, fruits and vegetables, petrochemicals, auto parts, information and communications technology, and tourism, as well as for the three cross-cutting trade support functions. Effective implementation capacities are needed in translating these strategies into action, which in turn require the establishment of supportive institutions (Annex II).

Cushioning the short-term economic shock and preparing for longer-term growth

For the NES to provide direction in helping Iran to cope with the twin challenges of sanctions and the economic downturn associated with the COVID-19 pandemic, there is a need for short-term solutions to quickly improve growth and to lay the foundations for growth in the medium and long term under improved external conditions. For example, initiatives and reforms related to trade information, promotion and facilitation, quality, and access to needed inputs are among those that can be expected to have a short-term impact, while improvements to education, investment attraction, firm dynamism and the capacities of trade support institutions are among those that can be expected to have greater impacts over the medium and long term (Table 3). While initiatives with longer-term impacts may have fewer returns in the near future, it will be important to continue these activities in order to foster more sustained growth.



Table 3: Examples of NES initiatives with short – and longer-term impacts on Iran's export prospects -

Short-term impact Medium – or long-term impact Improved education, worker training and development of business skills; Branding and export promotion; Trade facilitation measures; Medium – or long-term impact Improved education, worker training and development of business skills; Fostering investment in new productive capacities and technological upgrading;

systems;Improved access to imported inputs and technologies.

· Strengthened quality management, standards and certification

- Facilitating increased firm entry and dynamism;
- Supporting greater environmental sustainability;
- · Reforming trade policy to expand reach of exports;
- · Reforming trade support institutions;
- Streamlining of administrative procedures and similar reforms affecting the costs of doing business.

The challenge in driving short-term performance in the current context will be in ensuring that it does not come at the expense of the character and directional pace of recent reforms. Increasing international openness and fostering export orientation in the Iranian economy should be pursued with appropriate recognition of Iranian firms' previous degree of exposure to international competition. In light of this consideration, gradualism is likely to be needed, in terms of both the pace of reform and its sequencing. Simpler actions and initiatives to strengthen firm capacities may make sense to pursue before emphasizing international opportunities, for example. Prioritizing the more achievable reforms that are expected to have short-term payoffs can have the additional advantage of building support and momentum for reform.

In the short term, there is a need to focus on economic activities that can yield rapid returns, in addition to reinforcing trust, spurring entrepreneurship and innovation, and widening access to available markets. Wide-ranging reforms that are already in the planning stages or early stages of implementation must be followed through with steadfast focus.

In order to limit uncertainty, key policy reforms and essential competitiveness enhancement measures will include essential amendments to regulations/laws that make the business operating environment more conducive and streamlined. Market access is the most critical challenge facing Iranian exporters in the immediate term. The key challenge, however, is to find market partners willing to trade in US dollars for Iranian products (not only limited to oil) in order to shore up Iran's foreign exchange buffers. Given that the sanctions have also curtailed imports of essential inputs for many value chains belonging to productive sectors, reliable partners/sources for inputs are also required. The NES outlines some high-potential markets for Iranian exporters to target (Box 7).

Box 7: Target markets to maximize export potential

In both the short and longer term, careful consideration will need to be given to markets – and market–product combinations – to target or prioritize in export promotion activities, alignment with market needs, trade policy and other areas. The strategies needed to maintain market access in the medium term will need to be agreed to with trade partners. Iran has the potential to benefit from its trade relationships with large and growing markets in the region and beyond. Deeping involvement in regional value chains would help to support the deepening of these ties. The pivot towards Asian clients will further strengthen over time if oil imports are supplemented with international investments in other areas, including the productive sectors of the economy. Leveraging a fast–solidifying relationship with regional partners and larger economies such as China and the Russian Federation will counterbalance US sanctions and losses in other trade and investment relationships. Five of the sector strategies under the NES identify high–potential markets for goods and services from these sectors, highlighting the particular potential of regional, Asian and European markets (Table 4).

Sector	Target markets
Medicinal herbs	 Saffron: Hong Kong, China, India, Qatar Persian shallot: Iraq, Oman, Qatar Cumin: Japan, Bangladesh, Nepal, India Damask rose: Turkmenistan, Iraq, Bulgaria, United Arab Emirates, Chinese Taipei France, Germany
Fruits and vegetables	Iraq, Afghanistan, United Arab Emirates, Russian Federation, Pakistan, Turkey
Petrochemicals	China, India, Iraq, Turkey, Afghanistan, United Arab Emirates
Auto parts	European Union, Iraq, Russian Federation, China
Information and communications technology	China, India, United Arab Emirates, Germany, Iraq

In the medium and long term, with improved external conditions for trade, Iran's export prospects will be increasingly determined by factors related to the competitiveness of the domestic economy. At a fundamental level, this will mean reviving trust in institutions, spurring private sector development and fostering inclusiveness across the economy.

Reviving trust in institutions can be done by strengthening the resilience and capability of public sector institutions most relevant to export competitiveness. In addition to public sector institutions, sector-level associations will be supported as well in order to build their capability for improving collaboration between constituent stakeholders, and advocating for their sectors in a meaningful way that informs policymaking.

Spurring private sector development and innovation will be an important priority. Aimed at enhancing the supply-side and market-entry dimensions of enterprises, this includes building enterprise capabilities in terms of entrepreneurship, production, technical knowhow, markets identification and entry. Tangible steps will involve establishing an entrepreneurship policy framework that will optimize the regulatory environment, education and skills development, as well as the entrepreneurship, technology and innovation technical areas to ensure that a dynamic entrepreneurship culture is developed marked by innovation, and that skills are aligned with industry needs, among other areas such as access to trade information and in-market support.

Sanctions are forcing diversification and the development of non-oil sectors, and provide an opportunity for MSMEs to play a greater role in the economy. Additionally, domestic sentiment (against the sanctions), challenges in importing goods and services and pertinent concerns over declining private sector



activity will most certainly renew calls for increased selfreliance (through local MSME activity) in domestic production of goods and services. However, the MSME base does not have sufficient absorptive capacity for displacing imports or handling additional businesses, lending credence to the business case for prioritizing and supporting MSME development with urgency. At the same time, Iran's plurality is a core strength and should be leveraged to the highest extent possible. Recognizing that the private sector's success will be a function of the aggregate success of many different actors such as youth, women, micro, small and medium-sized enterprises (MSMEs), family businesses and semi-state/state-owned enterprises, it is important to develop this ecosystem evenly. MSME development, especially for youth and the dominant family business segment, will take centre stage, amid a wider thrust to ensure various economic and socioeconomic segments of the Iranian population can access the job market as well as establish/operate their own businesses.

Coordinating action through the National Export Strategy

Translating these goals into action will require a magnet to coordinate national (and international) action towards a unified vision of trade competitiveness. The NES helps to articulate this overarching vision as well as the strategic roadmap from a multidimensional and multisectoral perspective and ensures that the strategy is comprehensive, national-owned, inclusive, dynamic and implementable.

The vision summarizes the ultimate goals and purpose of the national export strategy. The NES vision of "trade-led resilience, made in Iran" highlights the potential of trade to contribute to growth that supports a resilient economy and is aligned with national development priorities.

This vision encapsulates a number of interrelated goals for growth and development, including:

- Institutionalizing the translation of economic dividends from the energy sector towards non-oil sectors with the broad goal of economic diversification and enhanced competitiveness;
- Fostering a thriving MSME base and entrepreneurial ecosystem characterized by attracting and fostering productive investment, building a strong start-up culture and facilitating innovation;
- Leveraging the demographic dividend offered by the high percentage of educated youth population by enhancing participation in the productive economic sector;
- Offering strategic options for market substitution/diversification as a means of coping with external headwinds and driving long-term success in international markets.

Snapshots of priority sectors

NES priority sectors must have sufficient potential to contribute to the above goals and spur growth in other sectors of the economy. Proper selection is critical given that resources are limited and given the five-year strategy time-frame. The selection of priority sectors was led by the core team, using a range of sources of information and measures of potential (Annex III). The following sectors have been selected as NES priority sectors:

- Medicinal herbs
- Fruits and vegetables
- Petrochemicals
- Auto parts
- Information and communications technology
- Tourism

MEDICINAL HERBS

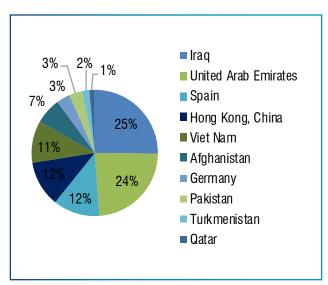
While precise numbers are difficult to determine, global demand for medicinal herbs is large and growing. The drivers of this demand are factors such as ageing populations in developed countries, the rise in chronic disease and unhealthy lifestyles, the rising costs

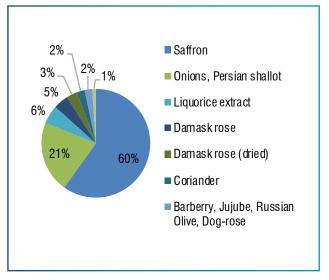
of medical treatments and the stress associated with modern lifestyles. An estimated 4,000–6,000 species are traded globally, providing a source of income for rural populations.

Iran has the potential to leverage its natural diversity of medicinal plants, heritage of more than 3,000 years of traditional medicine, existing capacities and widespread natural and organic cultivation methods, and innovations in supplying global demand. The sector can also contribute to job creation and environmental resilience. Recognizing this, the government is working to protect and commercialize the sector's scientific and industrial achievements. The Ministry of Agriculture Jihad targets the creation of 79,000 direct jobs and 320,000 indirect jobs through medicinal herbs production during the period of the Sixth National Development Plan (2017–22).

The two major exported products are saffron and Persian shallots, together representing approximately 81% of exports from the sector, with considerable growth in recent years (Figure 25). Exports of other medicinal herbs have been stagnant. The United Arab Emirates and the Kingdom of Spain together represent almost 50% of Iran's total saffron exports. Much of the saffron sold to Spain is eventually re-exported.

Figure 25: Export markets and export products for raw medicinal herb products (2018)





Source: ITC.

However, challenges in production will need to be addressed and steps taken on unrealized potential in related activities. Increased demand for Iranian products has put natural resources under strain, especially considering the predominant rangeland harvest of medicinal herbs, leading to a degradation of quality. Under the vision "preserve and share traditional Iranian plant knowledge with the world", the sector strategy outlines activities to foster improved exporting from the sector by rebuilding knowledge on medicinal herbs, improving the quality of exports and building a positive international image of Iranian medicinal herbs (Table 5).

The implementation of the strategy will thus lead to increased exporting through reduced uncertainty and improved connections with high-potential markets, expanded downstream activities for increased domestic value added and export diversification, increased efficiency and sustainability in natural resource usage, a sustainable income secured for rural populations and especially an improved national image through the development of a national medicine brand.

- **Table 5:** Medicinal herbs strategic and operational objectives

Strategic objectives	Operational objectives
	1.1. Strengthen the extension services targeting medicinal herbs
Rebuild the knowledge about medicinal herbs, their	1.2. Improve documentation and nomenclature on Iranian medicinal herbs
preservation, cultivation and use	1.3. Develop accessible materials and promotional campaign of a high-quality Persian medicine, in parallel with conventional medicine
	2.1. Spread good harvesting, production and post-harvesting techniques
2. Ensure quality, quantity and	2.2. Support mechanization of production and harvesting
safety of Iranian medicinal	2.3. Align processing technology for export market requirements
products for exports	2.4. Increase control of medicinal herbs rangeland harvesting to ensure safeguard of the natural resources
	2.5. Spread international certification among Iranian herbs producers
	3.1. Develop an international brand of Persian medicine
3. Build an international image of	3.2. Develop connections with the health tourism in Iran
Iranian traditional medicine and	3.3. Establish GI ⁵ for key herbs from Iran
secure distribution channels	3.4. Strengthen networks to promote Iranian medicine and herbs and to bring market information
	3.5. Improve supply and export market intelligence provision

^{5.-} Geographical indications.

FRUITS AND VEGETABLES

The volume of fresh and processed fruits and vegetables traded globally has more than tripled since 2001, with increasing demand from developing economies in particular. Nevertheless, there are high levels of competition in the sector, and success in exporting depends on factors including production capacities, efficient value chains, certification, environmental sustainability, differentiation and branding, and reaching niche markets.

Iran's temperate climate is generally well suited to the production of fruits and vegetables, and various microclimates around the country are suited to the needs of particular products, resulting in high-value and a strong export orientation. However, the high quality of Iranian

produce has yet to be discovered by new potential buyers beyond the regional, and sometimes, trade relationships based on convenience. The sector is estimated to have significant potential for improving exporting and job creation if challenges to its competitiveness and sustainability can be addressed.

Together, exports of fruits, nuts and vegetables (including prepared products) were worth \$3.3 billion in 2018. Although the importance of these products has been declining in much of the past two decades, they still represent 11% of total exports (Figure 26). Iraq is a particularly important destination, importing 41% of Iran's fruits, nuts and vegetable exports. Some major products include figs, apples, melons, grapes, tomatoes and potatoes, which had a combined export value of \$1.2 billion in 2017.

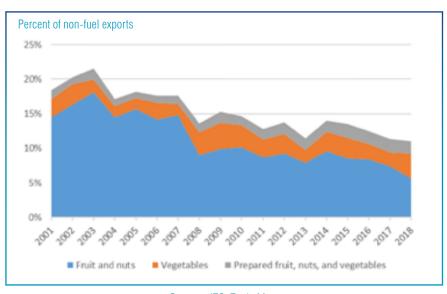


Figure 26: Fruits, nuts and vegetables exports (2001–18)

Source: ITC, Trade Map.

The total export potential of the horticulture sector is estimated to be \$4.2 billion, of which \$1.6 billion is untapped. It is estimated that untapped export potential in fruits alone is worth \$644 million. Realizing this potential could create 47,000 new jobs. The top markets for potential horticulture exports is the Middle East (with untapped potential exports of \$698 million).

In addition to external challenges, the sector is held back by the limited visibility for Iranian exports in key markets, which has reduced export values and constrains value chain development. Additionally, the prevalence of smallholder farmers limits productivity and creates logistical challenges to trade, and unsustainable water use. These challenges call for a strategic, market-led and sustainable response, under the vision of "exporting a fresh blend of taste, modernity

and sustainability". This is to be achieved by establishing an enabling environment for the sector's growth, improving productivity at the farm and firm level, and restoring the visibility of Iranian fruits and vegetables products on international markets (Table 6).

The implementation of the strategy will thus lead to increased exporting through reduced uncertainty and improved connections with high-potential markets, expanded downstream activities for increased domestic value added and export diversification. It will also increase the efficiency and sustainability in natural resource usage and a sustainable income secured for rural populations. Finally, it will strengthen Iran's positive national image through the development of a national horticulture brand.



Table 6: Fruits and vegetables strategic and operational objectives -

Strategic objectives	Operational objectives
	1.1. Update and rationalize raw product marketing mechanism
Establish an enabling environment and marketing system for raw products	1.2. Align policies to mitigate climate change impact risks
marketing dystem for raw products	1.3. Align the national quality infrastructure to support the needs of producers and processors
	2.1. Modernize production and processing skill sets
2. Improve productivity, processing	2.2. Improve access to inputs at the production level
capacities and sustainability of Iranian fruits and vegetables production	2.3. Spearhead the sustainable mechanization of production and improve fresh produce packaging for export
	2.4. Expand processing capacities
	3.1. Create an Iranian fresh and processed produce brand
3. Strengthen the image and presence of	3.2. Improve supply and export market intelligence provision
Iranian products in a variety of markets	3.3. Align trade policy to export diversification priorities
	3.4. Secure connections to markets and build trust

PETROCHEMICALS

New producers and new sources of demand arising in emerging economies are changing the global petrochemicals sector, and considerable opportunities exist for Iranian exports. Facing growing global demand, but also increasing competition from emerging producers around the world and within the region, a more diversified and competitive Iranian petrochemical sector has the potential to further expand its exporting by leveraging the country's resource endowments and existing production capacities. The sector strategy support seizes the potential in petrochemical exporting by addressing the most important challenges being faced.

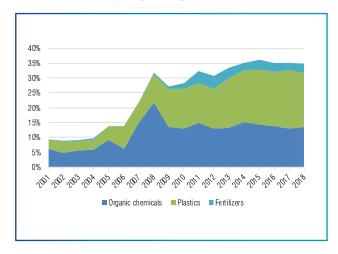
The Iranian petrochemical sector has grown as a result of natural assets and exogenous factors, such as:

- Access to raw materials, a strategic location and strong domestic demand;
- Sector organization factors, such as its established and growing industrial capacity, supportive policy environment and strong fundamentals to attract investment;
- Human and technology factors, such as the pool of experienced labour and higher education capacities

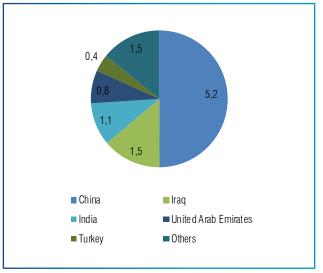
Exports have grown too; organic chemical exports were worth \$4.1 billion in 2018, representing 13.6% of total non-fuel exports. Combined with plastics and fertilizers exports, the other major categories of petrochemical products, Iran exported \$10.5 billion in 2018 (Figure 27). Approximately half of this was destined for China, though Iraq, India, the United Arab Emirates and Turkey are also important markets.

Figure 27: Petrochemical exports (2001–18)

Percent of non-fuel exports (2001–18)



USD billions (2018)



Note: HS 27 excluded from total value of goods exports.

Source: ITC.

Nevertheless, further export potential remains unrealized. The total export potential in the chemicals sector is estimated to be \$6.4 billion, with another \$6.7 billion in export potential in rubber and plastics. Export potential for chemicals is greatest in East Asian markets (with \$875 million in untapped export potential), followed by those of South Asia and the Middle East. Realizing the full export potential of the chemicals sector would create an estimated 51,000 new jobs and improve output in related sectors.

Domestic constraints to improved export performance and inclusive and sustainable growth include:

- The need for upgrading and diversification of production in the sector and the domestic regulatory framework, which has little transparency and can foster inefficiencies;
- The management of the effects of sanctions;
- The need for new sources of investment to be identified and attracted;
- The underdevelopment of downstream petrochemical activities;
- The concentration of production among a small number of firms;
- The need to mitigate the sector's environmental impacts.

Under the vision of "building on Iran's natural assets and industrial strengths to supply global markets", the petrochemicals sector strategy builds on the sector's strengths. It thus works to address the challenges faced through activities to manage trading relationships to



succeed in an uncertain and changing external environment, support institutional and policy reform to broaden production opportunities, facilitate investment and access to finance for growth and diversification, and promote quality and sustainability for long-term growth in the sector (Table 7).

-Table 7: Petrochemicals strategic and operational objectives-

	,
Strategic objectives	Operational objectives
1. Managing trading relationships to succeed	1.1. Position petrochemical exports to succeed in international markets
in an uncertain and changing external environment	1.2. Manage constraints to trade for reduced uncertainty
	2.1. Strengthen public-private dialogue and design effective regulation for a dynamic sector
2. Supporting institutional and policy reform	2.2. Foster efficient and connected productive clusters
to broaden production opportunities	2.3. Enhance technical and business skills for growth and diversification
	2.4. Build institutional capacities for regulatory implementation
	3.1. Attract new investment in the sector
3. Facilitate investment and access to finance for growth and diversification	3.2. Improve access to finance
Tor growth and divoronication	3.3. Encourage investment in new technologies, processes and products
	4.1. Strengthen quality management systems
4. Promote quality and sustainability for long-term growth in the sector	4.2. Implement standards for environmental protection
iong torm growth in the decitor	4.3. Encourage investment in environmental sustainability

AUTO PARTS

The global auto parts sector, and broader automotive sector, are major contributors to international flows of trade and investment, though they are undergoing change as a result of emerging trends, including the rise of new sources of demand in middle-income economies, shifting regulations and market expectations on vehicles and components, and technological change. Iran and other exporters of parts will, therefore, need to be flexible in order to succeed in international markets.

Auto parts manufacturing in Iran is a significant source of value added, employment and exports, both directly and indirectly. This is due to natural assets and exogenous factors such as the large domestic automotive sector and proximity to important export markets; sector organization factors such as established and growing capacity in auto parts production and

supportive government policy; and human and technology factors, particularly high levels of human capital. The sector has the dynamic potential to contribute to innovation and diversification through the development of manufacturing capabilities and cross-linkages with other industries. Realizing this potential will require that constraints to supplying domestic and international automakers related to price competitiveness and quality be addressed.

However, direct exports of auto parts from Iran represent a small share of export value. At \$79.1 million in 2018, auto parts exports represented just 0.2% of total non-fuel export value. Firms that do export also tend to be focused on a narrow range of markets. While the composition of the top export destination markets for auto parts has changed considerably during the past two decades, it has also become more concentrated (Table 8).

-Table 8: Top auto parts destination markets (2001–18)—

Percent of total auto parts exports

Country ranking 2001 2005		2005	2010	2015	2018	
First	France (25.8%)	France (21.7%)	Venezuela, Bolivarian Republic of (24.6%)	Iraq (74.3%)	Iraq (33.3%)	
Second	United Arab Emirates (15.2%)	United Arab Emirates (14.6%)	Syrian Arab Republic (21.9%)	United Arab Emirates (5%)	Italy (31.4%)	
Third	Russian Federation (8.1%)	Iraq (11.1%)	Iraq (16.3%)	Russian Federation (4.6%)	Azerbaijan (7.7%)	
Fourth	Iraq (7.1%)	Turkey (7.5%)	Saudi Arabia (7.8%)	Italy (4.5%)	Syrian Arab Republic (7.3%)	
Fifth	Malaysia (6.2%)	Italy (7.4%)	France (5%)	Turkey (2.3%)	Russian Federation (3.2%)	
Others	37.6%	37.7%	24.3%	9.3%	17.1%	

Source: ITC.

Domestic constraints to the competitiveness of the auto parts sector include the need for improved price competitiveness in the face of heightened competition at home and abroad, as well as the need to improve the quality of parts and to develop more technology intensive products to adapt to changing demand and to succeed in new markets. The scope for connecting firms to markets and investors is constrained by the focus of firms on supplying the domestic market and the concentration of exports in a small number of foreign markets. The potential to change and improve the sector's prospects is affected by challenges in attracting additional inflows of foreign investment and the limited competition and dynamism in the sector and domestic market.

Under the vision of "moving towards a dynamic sector with efficient production and high-quality exports", the sector strategy outlines activities to address these constraints on competitiveness by:

- Attracting investment to increase technology intensity and strengthen firm capacities for upgrading;
- Fostering a competitive and dynamic sector by opening opportunities for new and small firms;
- Connecting firms to international opportunities and competing with the world (Table 9).



Table 9: Auto parts strategic and operational objectives -

Strategic objectives	Operational objectives		
	1.1. Enhance investment targeting and promotion		
Attract investment to increase technology intensity and strengthen firm capacities for upgrading	1.2. Incentivize new investment in the sector		
on onguion mini outpuolitos for apgrading	1.3. Foster innovation and technological upgrading		
2. Foster a competitive and dynamic sector by opening	2.1. Address barriers to firm entry and growth		
opportunities for new and small firms	2.2. Facilitate access to finance for new and smaller firms		
	3.1. Improve access to trade information		
3. Connect firms to international opportunities to compete globally	3.2. Strengthen export promotion and support activities		
giobally	3.3. Build quality management capacities		

INFORMATION AND COMMUNICATIONS TECHNOLOGY

Globally, the information and communications technology sector accounts for a small, but growing share of trade, led by large producers such as China, the Federal Republic of Germany and the United States, which are the largest contributions to exports. Nevertheless, ICT has proven to be important to Iran's growth, and as tradeable services these have significant potential to drive export growth. However, challenges related to firms' domestic focus and the policy and entrepreneurship environment can be adequately addressed for this growth potential to be realized. The

software development, financial technology (fintech) and e-commerce subsectors are particularly promising, and are the focus of the sector strategy.

Iran's ICT export potential has been demonstrated in the past. Computer services exports, for example, have been small, but are growing quickly as a share of total services exports. In 2005, these exports accounted for just 0.7% of services exports, though this increased to 3% in 2015, when they were worth \$338 million (Figure 28). Its performance has been driven by investment in ICT infrastructure, domestic demand, the government's recognition of the sector's potential in terms of its direct economic contribution and as a leader in the development of a knowledge-based economy, and the development of required skills.

3,5% 3.0% 2,5% 2.0% 1,5% 1,0% 0,5% 0,0% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Figure 28: Computer services exports (2005–15) (percent of services exports)

Source: ITC.

Further export potential remains unrealized, however. Even in the current context, reduced trade frictions and growing demand in key markets would be expected to contribute to improved exporting, particularly in China, India and the United Arab Emirates. Deeper constraints pose additional challenges, however. Key institutions face capacity and organizational challenges. Despite the impressive pace at which growth in ICT access and use has occurred, significant gaps remain that limit the scale of the domestic market and hinder the sector's potential as a source of inclusive growth. Institutions and policies have not been adapted to the sector's needs. Technical and business skill gaps remain to be addressed. While the domestic market has fostered the sector's early growth, there has been a strong focus on this and limited support for exporting. Significant

increases in investment are needed to expand capacities and competitiveness, but support for this is not available and firms lack the needed access to finance. Support for start-up growth can be further strengthened to drive growth and innovation.

To leverage the strengths of the ICT sector in Iran and address these challenges, the strategy outlines activities to enable the vision of "building the knowledge-based economy and connecting Iran to strategic markets" through the ICT sector. These activities are related to the establishment of an enabling ecosystem for ICT MSMEs and start-ups to thrive, the further development of skilled human capital and spurring innovation, and consolidating the competitiveness of ICT firms to enhance export readiness (Table 10).

Strategic objectives Operational objectives 1.1. Consolidate private and public plans and establish a monitoring mechanism 1.2. Fill the current regulatory gaps and build understanding about ICT regulation 1. Establish an enabling ecosystem for ICT MSMEs and start-ups to thrive 1.3. Increase public-private collaboration on ICT projects 1.4. Facilitate and incentivize export of Iranian software 2.1. Retain Iranian ICT specialists 2.2. Increase number of graduates in ICT specialties 2. Further develop skilled human capital and 2.3. Build export skills and knowledge within ICT firms spur innovation 2.4. Improve the quality of the start-up and MSME ecosystem and support 2.5. Support innovation and uniqueness of Iranian software solutions 3.1. Spread certification of Iranian ICT products 3.2. Focus investment in ICT firms with high potential for export 3.3. Spread the use of EMCs⁶ 3. Consolidate the competitiveness of ICT firms to enhance export readiness 3.4. Establish foreign networks for ICT export-ready firms 3.5. Raise awareness on Iranian ICT sector in key markets

3.6. Support firms to access regional and international markets

- **Table 10:** Information and communications technology strategic and operational objectives

^{6.-} Export management companies



TOURISM

Changing demographics, advances in technology, shifting social mores and behaviours, and other influences have caused major shifts in the tourism industry, with tourists increasingly looking for experiences or services that closely match their ideals and expectations. International tourism is a promising sector in Iran that can continue to grow and produce wider benefits for the economy and society. In order for tourism's potential to be realized, however, solutions to important domestic and external challenges will need to be implemented.

The potential of Iran's tourism sector and focus of the sector strategy is on the ecotourism and community-based tourism, medical tourism, and cultural and historical tourism subsectors. This builds on the country's strengths, which include natural, cultural and technical endowments to generate growth, trade and employment opportunities, which have yet to be tapped.

However, tourism remains relatively small for an economy of Iran's size. In 1995-2017, the number of international arrivals in Iran grew by an average of 10.3% -considerably faster than in the MENA region, uppermiddle income countries or globally - though growth has been negative since 2015. Nevertheless, the number of arrivals is still somewhat low for Iran's relative size in the global economy and income from tourism is low, though growing, due to the relatively low spending per visitor. A large number of domestic tourists helps to make up for some of this gap. Current international visitors mainly come from within the region. Out of the 5.1 million tourist arrivals into Iran in 2017, more than 70% came from short-haul markets, especially from neighbouring countries. This increased to 90% in 2018 with 7.8 million tourist arrivals (Figure 29). The tourism sector's growth is impeded by weaknesses in the policy framework and a lack of sufficient marketing.

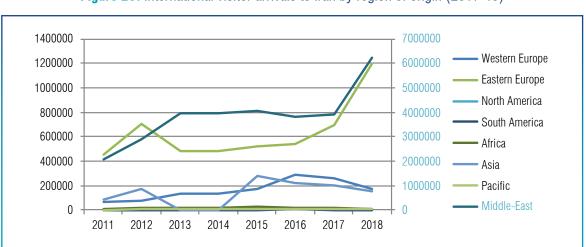


Figure 29: International visitor arrivals to Iran by region of origin (2011–18)

Source: World Tourism Organization (2019), Compendium of Tourism Statistics dataset, United Nations World Tourism Organization (UNWTO), Madrid, data updated on 7 October 2019.



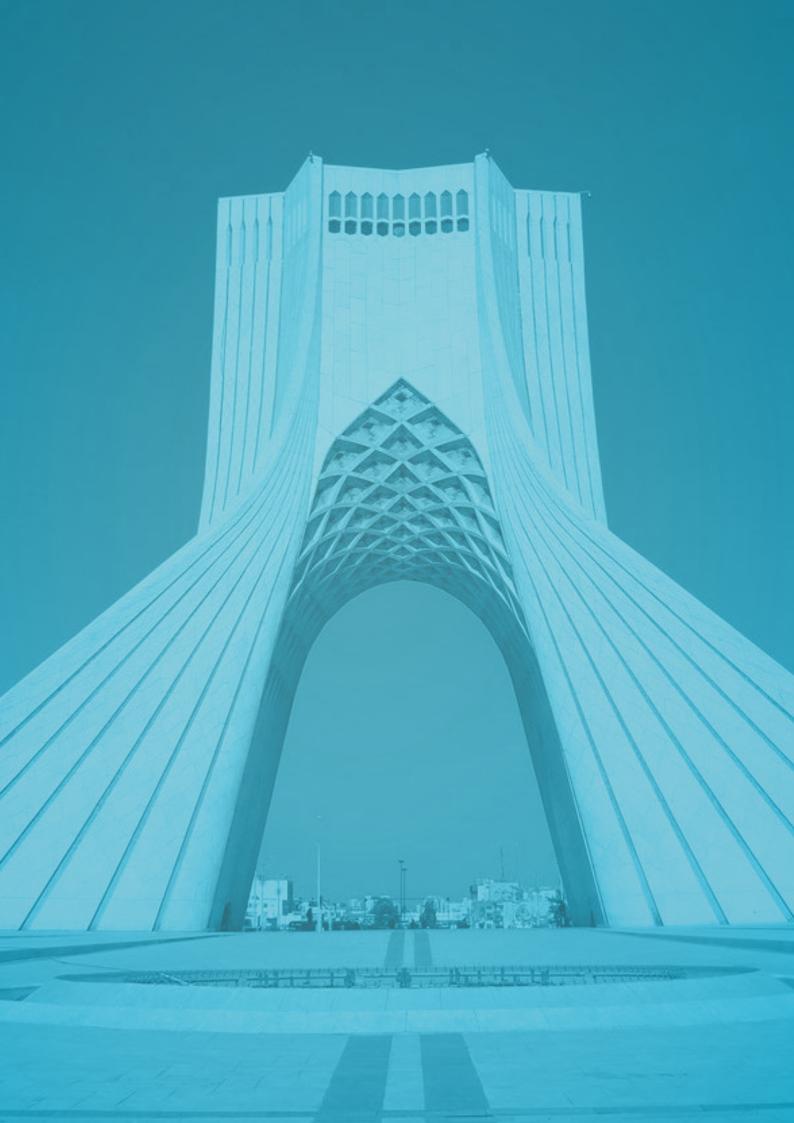
Under the vision "Iran: Everywhere is yours", and complementing the next tourism master plan, the sector strategy will focus mainly on expanding into new markets outside South Asia and the Middle East. The development of eco-travel and community-based tourism thus includes enlarging the customer base to other market segments, the development of health tourism services including a focus on therapeutic services in thermal areas of Iran, and historical and cultural tourism being developed beyond traditional destinations. In particular, the strategy outlines activities related to enhancing coordination and cooperation in ecotourism/nature-based tourism and community-based

tourism, leveraging Iran's expertise in medicine/science to grow health tourism, upgrading and capitalizing on existing public and private sector practices and untapped assets, and changing Iran's image through branding activities (Table 11). The tourism sector strategy's objective is, therefore, not to negate what exists, but rather to capitalize on the past and current efforts and projects of the government and private operators and to provide the necessary elements for their success and sustainability, as well as to replicate good practices in order to enrich both visitors and residents' experience in Iran.

	lable	11		Iourism	strategic	and	operational	l objectives -
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Strategic objectives	Operational objectives
To enhance coordination and	1.1. Provide a framework for coordination, convergence and control of activities in the field of ecotourism and CBT ⁷
cooperation in ecotourism/nature- based tourism and community-based	1.2. Constantly update the institutional knowledge on new trends in tourism with a focus on wellness tourism, ecotourism and CBT
tourism	1.3. Establish a more effective coordination and cooperation mechanism between tourism stakeholders
2. To leverage Iran's expertise	2.1. Align health tourism-related services to international standards
in medicine/science to gain a competitive advantage in health	2.2. Improve knowledge and exchange experiences and best practices on medical tourism in Iran
tourism	2.3. Raise awareness of and Improve access to medical services to foreigners
3. Upgrade and capitalize on existing	3.1. Enrich the experience and the storytelling of historical and cultural tourism
public and private sector practices as well as untapped assets	3.2. Products and brand development for specific thermal area
	4.1. Promote the openness and diversity of tourism supply
4. Change Iran's image through rebranding	4.2. Support off-the-beaten-track product development
branding	4.3. Increase the promotion and branding

^{7.-} Community-based tourism.



CHAPTER 5: KEY TRADE SUPPORT FUNCTION STRATEGIES

In addition to the priority sectors, the achievement of the goals of the NES is supported by the identification of priority cross-sector functions and actions to be taken on broad challenges in the country. With consideration of the context faced, and strengths and challenges of Iranian exports, the following have been selected as NES priority cross-sector functions:

- Trade information and promotion
- Quality management
- Entrepreneurship



Trade information and promotion

Internationalization is one of the most daunting propositions that any company faces as part of its growth trajectory. Forging and sustaining export relationships requires significant investments in terms of time, finances and effort, and risks can be particularly high due to the large externalities over which the firm has limited control. The types of challenges are frequently similar regardless of firm size or country context. However, the severity and impact is particularly pronounced for MSMEs in developing country contexts. Such companies often have to rely on a "go it alone" approach due to a weak institutional support ecosystem, and have to account for high fixed costs involved in collecting and understanding trade information and undertaking promotional activities. By contrast, MSMEs in developed countries typically have higher buffers and more

robust, multidimensional institutional support mechanisms, which serves as a conducive ecosystem assisting their internationalization journey.

Effective trade information and promotion (TIP) activities identify opportunities in international markets and help the private sector translate them into trade. These activities lower exporting costs (both in real terms as well as in terms of opportunity costs) by improving MSMEs' understanding of the challenges and opportunities in international markets, assisting them in adapting their products and services to market needs, and supporting marketing and promotion activities in targeted markets. The overall substantive scope of TIP is quite extensive, segmented along the three interrelated areas (Figure 30).

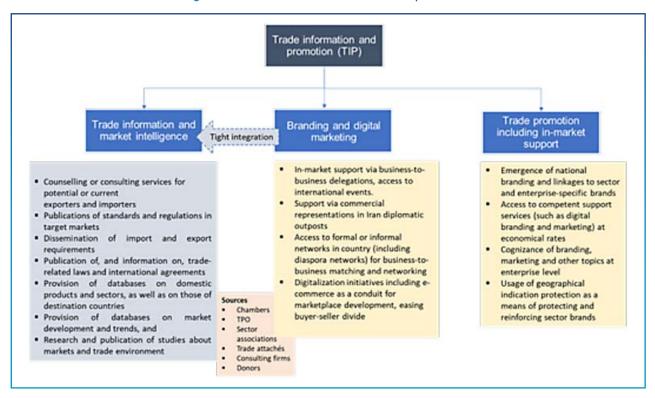


Figure 30: Substantive areas covered as part of TIP

Improving firms' access to trade information as well as provision of in-market support is critical in fostering a greater degree of export orientation, especially among smaller firms, and in facilitating trade with new markets. The development of national and sector brands helps to communicate positive qualities and values about the

country and its exports both internally and externally. In this regard, the role of the TIP function for MSME-level trade competitiveness is invaluable. Across the six NES priority sectors, a number of challenges related to trade information and promotion have been identified (Figure 31).

Figure 31: Internationalization challenges related to TIP

Sector	Challenges
Fruits and vegetables	 Existing buyer preferences and involvement of traders has depressed demand for branded products, in favour of bulk/commoditized products Expensive and time-consuming for small-scale individual producers to brand their own products Few exporting producers directly interact with the buyers/retailers in export markets, and cooperatives are relatively weak in terms of accessing/leveraging trade information and marketing/branding Lack of GI protections
Medicinal herbs	 Absence of national brands reflecting long-established tradition in global markets Rebranding of Iranian herbs (e.g. saffron in Spain) is occurring very frequently due to lack of use of GI protections, while significant levels of re-export both stem from and contribute to brand leakage Limited awareness of market entry requirements (technical and voluntary certification), current sector trends and other factors in key international markets Weak marketing efforts towards end consumers in key markets
Petrochemicals	 High demand coupled with robust competition requires detailed understanding of market/product combinations where Iran has competitive advantages, though this information gap tends to be large Environmental considerations require detailed introspection in terms of branding and marketing, which are not currently strong areas of expertise within the sector
Auto parts	 Paucity of information on customs rules and other market access issues, market trends and important customers (among original equipment manufacturers, wholesalers and distributors, and aftermarket firms) A national auto parts consortium is needed to jointly market and fulfil contracts, develop collective branding and drive increased export readiness Limited avenues are available to facilitate participation in international networking events such as expos Self-limiting market selection by firms

Sector	Challenges
ICT	 Hitherto dominant focus on insulated domestic market has hindered enterprise-level marketing and branding capacity development Information is needed on administrative and technical aspects of selling in key markets, and on market conditions and expectations, including certifications for service providers Limited institutional support available for ICT firms, who have traditionally followed a "go it alone" approach (with support from the Iranian ICT Guild Organization) for penetrating international markets Strategic analysis on market identification has not been conducted and largely ad hoc approaches for developing high-potential activities within the sector
Tourism	 It is especially hard to attract international travellers seeking experiential tourism offerings, given the difficulty in matching international trends Promotion efforts in target markets are not tied to strategic planning, and there is a disconnect between marketing and planning functions at the Ministry of Cultural Heritage, Handicrafts and Tourism, leading to overall weak value proposition of tourism sector

Closely related to trade policy (Box 8), trade information and promotion is, therefore, critical for firms in building and sustaining valuable trade relationships. Success depends on how well the institutional framework can provide support for trade information, in-market support and marketing/branding functions, and to what extent enterprises can harness existing support services/information elements and develop their own capabilities for trade promotion. This is complex at the best of times, but especially so given the maelstrom of external sanction-led challenges and internal institutional and enterprise-level weaknesses within the trade information and promotion infrastructure. The ongoing pandemic has exacerbated existing constraints by stretching the government's focus and putting the private sector on a back foot/survival mode.



Box 8: Key issues in trade policy

Although Iran is highly constrained by sanctions, trade policy offers useful tools for the country regardless of whether or not it seeks World Trade Organization (WTO) membership. Key considerations include the management of imports to foster domestic growth, including through boosting value-added processing and upgrading; improving access to key target markets; joining profitable regional value chain development initiatives; and establishing a supportive environment for MSMEs. The export ban introduced in June 2018 is an example of a fairly blunt instrument being used, though multilateral and bilateral agreements, tariffs and non-tariff measures are all used as well, and can help to direct trade and improve export prospects.

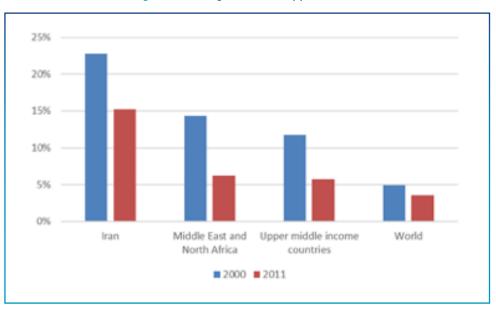
Iran has been a WTO observer since 2005, and submitted the Memorandum on the Foreign Trade Regime (MFTR) in November 2009. However, with long periods under sanctions and lacking international support – particularly from the United States – its accession has not since progressed. Iran has, however, received a small amount of capacity building assistance under the WTO's Trade Facilitation Agreement Facility, as part of United States Agency for International Development (USAID) assistance to the Middle East region in 2016, and indicated some interest in joining the agreement at the time.

As a non-member of the WTO, multilateral and bilateral trade agreements are particularly important in setting the rules in which Iran trades. It is party to a small, but growing number of such agreements, including the Global System of Trade Preferences among Developing Countries (GSTP), the Economic Cooperation Organization Trade Agreement (ECOTA), a new trade agreement with the Eurasian Economic Union (EAEU), and partial scope bilateral agreements with a number of other countries.

Iran's tariff rates have declined over time, but are relatively high in comparison with the averages for its region and county income group, with a weighted mean tariff rate of 15.2% applied on imports in 2011, the most recent year with internationally comparable data. These were relatively higher on manufactured goods (16.2%) when compared with primary products (11.9%).

Box 8: Key issues in trade policy (cont.)

Figure 32: Weighted mean applied tariffs



Source: World Bank.

Iran makes considerable use of non-tariff measures (NTMs) as a tool of trade policy, including behind-the-border measures such as price controls. Several trade measures used by Iran have significant protectionist effects, complicating Iranian firms' participation in global value chains. Imports and exports in Iran are subject to a number of licences, permits and certificates (L/P/C). The documentary requirements for obtaining these can be cumbersome.

- As border agencies request work permits from importers to authorize exports to Afghanistan, traders must obtain original
 documents prior to submitting their requests through the single window.
- Despite the establishment of the electronic single window, traders are still required to visit border regulatory agencies in person to obtain L/P/C approvals.
- L/P/C processes can be delayed due to administrative bottlenecks, such as where the approval rights for L/P/C issuance are limited to the agency head.

Trade facilitation initiatives are lowering the costs of trade with and in Iran. Recent notable reforms have included the introduction of an electronic single window, the implementation of an integrated risk management system to reduce the number of inspections, the introduction of an authorized economic operator scheme based on international guidelines, and the implementation of automatic data exchange with partner countries, among others. In June 2019, rules requiring a certificate of origin for imported goods before customs clearance were removed following a proposal by the Iran Chamber of Commerce, Industries, Mines and Agriculture.

Remaining challenges include the incomplete implementation of trade facilitation mechanisms by the customs authority on prearrival processing and expedited shipments for cargo destined for business use. Improved use of advance rulings, mechanisms to settle guarantees, mechanisms for domestic transit and single window flexibility for weight changes are also needed.

There is also a lack of transparency on border operations and requirements; detailed and actionable information on trade-related laws, regulations and procedures are not easily available; traders complain about the quality of service at agency enquiry points; and regulations and procedures change without sufficient notification. Governance in general could be improved through strengthened private sector consultation, enhanced transparency on policymaking and performance, and an improved appeals process.

SUPPORTING SMALL EXPORTERS AT HOME AND IN INTERNATIONAL MARKETS

Market intelligence and market development services are offered to Iranian firms by a number of trade support institutions, including the Trade Promotion Organization of Iran (ITPO), Iran Small Industries and Industrial Parks Organization (ISIPRO), and the Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA). As the national trade promotion organization (TPO), ITPO is a critical link in the TIP chain. The institution's presence is currently limited mainly to Tehran, although the Ministry of Industry, Mine and Trade (MoIMT) has representatives in all provinces. The President of ITPO also serves as the secretary of the high-level export council. The main stakeholders approaching ITPO are commercial firms and production entities who are

exporters already, are interested in exporting or are at a very low level of export readiness.

Trade information services offered by ITPO are aimed at MSMEs and foreign partners to find/collect market intelligence-related data. Some databases are available in this regard. Usually, trade attachés find market data and they upload it to specific portals and websites, which can be accessed by MSMEs. Another route is via cooperation with other organizations. For instance, for trade analysis and statistics, a special business intelligence database in cooperation with Iran Customs was designed recently, via which MSMEs can access import and export data. The Institute for Trade Studies & Research (ITSR) is active in trade information, particularly working on trade policy based research, including trade agreements and WTO issues. Recently, new and revised services are being offered by ITPO (Box 9).

Box 9: Recent developments in ITPO TIP services

- Export clinics featuring online consulting services will be launched soon. These will involve questions in the form of text and voice messages sent by MSMEs to ITPO where appointed officers will respond to the questions. The answers are uploaded to the portal and there will be a mechanism for tracking the flow.
- A new version of the Iran trade portal is going to be released soon by ITC. This portal involves data converted/processed into
 an analysis, which companies can absorb. Types of information relates to laws and regulations, market/product reports and
 international events, etc. Identified requirements for Iranian MSMEs to enter new markets are uploaded in the Iran trade portal.
- Partly as a result of the pandemic, cooperation efforts between ITPO and other organizations have been forged. Examples
 include chambers of commerce and other institutions procuring data, which can then be processed by ITPO via their business
 intelligence (BI) capabilities and disseminated for the benefit of all. There is strong cooperation between ITPO and select
 unions, and private sector associations. ITPO also has strong linkages with the Centre for the Promotion of Imports (CBI).
- Another area influenced by the pandemic involves acceleration in digitalization within ITPO's offerings. All physical exhibitions have been cancelled, and this has spurred thinking on holding digital exhibitions and leveraging platforms. Work is progressing rapidly within ITPO to launch digital exhibitions.
- ITPO maintains an exemplary exporter programme where companies that meet the minimum quality and reliability criteria from the government's end are provided with the status of an exemplary exporter. These companies can use this as a badge of recognition. On the other hand, the association with government is a dissuading factor for companies.

There are two main key deputies at ITPO: a market deputy and a product deputy. The market deputy is prioritized along three regions and includes special desks for priority countries, with a main focus on government-to-government interactions.

The product deputy focuses on business-to-business (B2B) relationships, with the core aim to provide export-related incentives to companies. This support primarily takes the shape of indirect support (cost sharing for attending trade fairs, etc.), as well as for training support. Trade delegations to external markets and to Iran are organized under this deputy. This is ITPO's

main arm, which deals with matchmaking commercial entities, sector associations/chambers with buyers and investors as well as provisioning trade information.

Commercial counsellors/trade attachés are involved as part of this deputy. Each of the attachés has a specific website that they keep updated for the use of key stakeholders, and their primary responsibility is to collect, analyse, package and feed relevant information to ITPO for onward use. Until recently, 22 trade attachés have been posted in key markets. Upon the expiry of their term limits, the positions so far remain vacant. Recently, the government's intention is

to appoint attachés to 10 locations, including Turkey, Iraqi Kurdistan, the Republic of Armenia, India, China, the Russian Federation, the Republic of Uzbekistan, Afghanistan and Oman.

The strategy being followed vis-à-vis trade attachés is that focus on neighbouring countries is prominent, although, in previous years, trade attachés were present in Africa as well. Due to the impact of the sanctions, a broader focus is considered unfeasible until the situation improves.

The product deputies are also involved in holding exhibitions inside Iran, which are also held, more recently, in mining, chemical products, agriculture, and textiles, among other sectors.

Other service providers are active in trade information and promotion. Financial advisory services are also offered by the Export Development Bank of Iran and their foreign counterparts and clients. ITPO and the Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA) are also involved in aspects of trade promotion, including organizing trade missions and expositions, managing trade inquiries and contributing to international trade cooperation.

The Iran Small Industries and Industrial Parks Organization (ISIPRO) is one of the few organizations explicitly targeting small business development, with a broad focus beyond trade. ISIPRO is a developmental organization affiliated to the Ministry of Industry, Mine and Trade offering services to MSMEs on broad topics such as business skills, market development, financial assistance, consulting and engineering, and internet access.

Sector associations can play an essential role as anchors for provision of trade intelligence for their members. Iran also benefits from a range of chambers of commerce and associations, including the Iranian ICT Guild Organization, the Iran Auto Parts Manufacturers Association, and the Iranian Oil, Gas and Petrochemical Products Exporters Union, which are dedicated to advocacy for their membership. Enhancing their capabilities so that they can provide value-added services would be of significant benefit for export-ready and exporting firms. At the provincial level as well, a network of public and association-level information providers exist.

CONSTRAINTS

Recognizing the importance of TIP to export success, firms have expressed concern about their own capacities and their access to support (Figure 33). A number of constraints to improving trade information and promotion can be identified:

- The lack of appropriate frameworks for TIP support;
- No national branding programme;
- Institutional capacity constraints among key service providers;
- Unavailable forms of support and little coordination among providers of support;
- Limited firm TIP capacities;
- Barriers to firms taking advantage of external support.

Figure 33: Quotes from Iranian enterprises on their TIP challenges



There is a general lack of national-level frameworks for improving trade information and promotion

Severity:8 • • ○

Borne primarily out of geopolitical considerations, the policy focus on national self-reliance has converged on the domestic market as an optimum target for the MSME segment, and attention towards external markets as a growth medium has been pushed to the sidelines. This decades-long approach has entrenched a relatively inwards-looking mentality within the macro (policy), meso (institutional) and micro (enterprise level) structures. Thus far, Iran's trade policy agenda has been relatively weak, and focus on sector and markets diversification is still uncertain and fragmented at best. The unfortunate consequence has been felt on the efficacy of the TIP function. Trade has been considered as the domain of large state-owned enterprises (SOEs) involved in extractives, and the MSME sector has focused only on the domestic market out of selfpreservation concerns. Institutional support for export promotion has not meaningfully evolved and, where it exists, the mechanisms are largely ad hoc.

While a range of institutions are involved in trade support activities in Iran –including ministries and agencies involved in trade policy development and implementation, domestic chambers of commerce, joint international chambers of commerce, private sector associations, and institutions offering trade financing assistance – an overall framework on trade information and promotion is missing. This is particularly noticeable regarding support for MSMEs and start-ups, which tend to require broad-ranging support if they are to adapt and diversify to international markets.

Iran's economic growth prospects are increasingly contingent on the private sector carving out export relationships in high-value international markets. Although the large domestic market will remain the mainstay for the private sector, and is undoubtedly essential from a self-reliance perspective, there are a number of high-potential Iranian products recognized for their quality and for which there is international demand.

Export orientation will not necessarily lead to loss of national self-sufficiency, but rather can contribute to it, considering Iran's untapped export potential, and the related economic and socioeconomic dividends associated with potential exports growth in productive sectors. Tapping into these market opportunities would certainly help boost Iran's economic diversification efforts away from extractives, while serving as an avenue for overall MSME growth. The opportunity for such products/sectors – prioritized within the NES – is immense, and the question is how, not if, Iranian companies should exploit this potential.

MSMEs, however, will require significant support, due to the decades of relative neglect that has degraded their capabilities in terms of absorbing existing (albeit limited) support mechanisms for export promotion, and also self-learning/using aspects of trade information and marketing/branding. In the current state, Iran does not provide sufficient focus and support on the TIP function, which will undoubtedly serve as a formidable barrier to MSME led trade growth, unless redressed.

Much of the activities taking place on trade information and promotion support are done in an ad hoc manner. As a result, feedback loops between Iranian representations abroad and back in Iran are weak, and market intelligence, business contacts and other key information pieces are not relayed back (and made available to firms) in a consistent manner. Trade promotion includes a wide spectrum of activities that have to be undertaken systematically and in a targeted manner to leverage a good return on investment in the form of increased MSME-led international trade transactions.

Coordinated activities on trade information and promotion should be aligned with trade and investment policy. Among other issues, there is a need to review the visa regime for potential investor firm representatives, considering that joint ventures are a desired policy target, which will lead to enhanced domestic sector as well as likely international activity for companies. This is also important from pure export activities in case potential buyers (in the case of business-to-business transactions) may wish to inspect enterprise facilities via site visits prior to starting a business relationship.

^{8.—} Following Hausmann, Rodrik and Velasco's (2004) approach to identifying binding constraints to economic growth, the severity of constraints is evaluated here with consideration of their direct impacts, as well as their tractability. Specifically, the impacts of these constraints are considered in terms of their immediacy, depth (i.e. the scale of negative effects on affected sectors) and breadth (i.e. the extent of the areas of the economy affected). Consideration of constraints' tractability encompasses the complexity of the challenges and capacities to address them. Evaluation of constraints' severity is, therefore, context-specific. This approach manages the practicalities of prioritizing multiple issues with limited resources and incomplete information on the relationships between constraints. Hausmann, R., Rodrik, D. and Velasco, A. (2004). QGrowth diagnosticsÈ, in Stiglitz, J. and Serra, N., eds. *The Washington* Consensus Reconsidered: Towards a New *Global Governance*, Oxford University Press, Oxford.

9.— According to the ITC's export potential assessment, Iran has the potential, even in the current challenging context, to expand its exporting of goods by \$9.4 billion. While China, Iraq and India are the leading potential export destinations, trade with many countries could be improved by ameliorating trade frictions and taking advantage of growing demand. On top of this, services exports could be increased by \$2.2 billion. Realizing this additional export potential could lead to the creation of hundreds of thousands of new jobs. The current sanctions are estimated to have a limited effect on Iran's export potential, as their removal would only add approximately \$430 million to this potential, much of it from increased possible exporting to Hong Kong SAR, China, the United States and India.

The lack of a national branding programme for exports limits the impact of other promotional activities

Institutional capacity constraints hinder the effectiveness of trade information and support programmes

Severity: • • •

Professional branding in Iran is limited mainly to the domestic market, and no sector or national brands have been created with significant success. Such brands, which would communicate positive qualities and values about the country and its exports both internally and externally, could be particularly important in sensitive sectors such as tourism. However, national brands also have broader impacts, including, for example, supporting investment promotion activities. As both new and small firms may face additional challenges in affecting demand in foreign markets, they are likely to be among the firms facing the biggest constraints as a result of these shortcomings.

Branding is particularly relevant to image-sensitive sectors, such as ICT services and tourism, in which Iran possesses significant trade potential. The private sector's mentality for recognizing and creating brands is evolving gradually, but still has not translated to cognizance that a brand is a tool for gaining export competitiveness and retaining customer loyalty, etc. The bottom line impact of weak branding is especially felt in terms of companies not able to manage a foothold in markets or re-establish relationships. Of course, this is especially relevant in the recent challenges posed by the sanctions.

TIP service providers have so far not focused on prioritizing products based on their potential and demand in international markets and where Iran has national strengths (particularly relevant in tourism, ICT, auto parts and medicinal herbs). Taking the example of medical tourism, the branding activity should pick 1–2 areas of medical tourism on which to focus promotional efforts, as areas with particular experience, knowledge or infrastructure (e.g. oncology or heart surgery). The idea is that, if such a high-end service is very developed, more basic services will necessarily be good too. It also responds to the idea on the buyer's side that one cannot be good at everything.

Severity: • • •

Means and competencies among TIP providers are uneven, although inherent capability levels are high. Governmental and TIP service provider-driven schemes do exist, but overall there is a need to improve the content/scope, and resources allocated to them. ITPO, chambers of commerce and other TIP providers are not always equipped and in some cases suffer from capacity gaps that prevent them from discharging their duties. These capacity gaps include collecting, analysing and disseminating trade information that is accurate and meaningful, providing advisory services to MSMEs on specific target markets, and enterprise-level capacity enhancements oriented towards market intelligence and marketing/branding, etc., matching market opportunities with offerings/capabilities of Iranian firms.

There is a requirement for institutional capacity building for ITPO to ensure fulfilment of national mandate. ITPO has provided significant value to its key beneficiaries. However, there is an important need to inject resources to allow it to meet continuing demands. Of the approximately 7,000 exporters, ITPO services 1,000. Apart from the core budgetary funds that mainly fulfil staffing costs, extra-budgetary funding required for expanding value-added services to exporters are not provided.

At the same time, the network of trade attachés in key target markets has been disrupted due to resource constraints and the prevailing pandemic. ITPO has a system of trade attachés who are posted in key target markets. In the last iteration, there were 22 attachés whose terms have not been renewed upon expiration due to a mix of resource constraints and restrictions stemming from the current pandemic. The main stated reason is that they cannot be replaced due to challenges with hard currency and budgets. The system of trade attachés plays a very important role for driving trade information and promotion activities, and should be addressed on a priority basis.

There is no institutional mechanism for benefiting from the vast and reliable knowledge that trade attachés possess after the completion of their terms and return to Iran. Proactive efforts on the part of individual trade attachés has led to select trainings, etc., but there is no institutional knowledge management mechanism

in place or structured programme for post-term activities for the trade attachés.

Given that ITPO is a public sector organization, its mandate requires that the services are for free and cannot be used as a resource mobilization mechanism. At the same time, international best practices call for a tiered system of services, including value-added and very specific services that can be availed by larger/professional companies who are willing to pay for them. This may actually benefit ITPO in terms of capability upgrades they would need to have to match the services requirements, and also impart seriousness among the client companies, since they are paying for the service. The obvious benefit to the serious budgetary shortfalls at TPO are indeed an important consideration as well. While the modality of execution can be tailored to suit the official protocols, the degradation of ITPO's capabilities directly related to budgetary challenges are sufficiently large that such alternate forms of revenue generation may be worth considering.

Key services are not readily available

Severity: • ○ ○

Access to key trade information and promotion services can be uneven. For example, product prioritization and subsequent branding and storytelling at the sector level has not emerged, similar to the enterprise level. Iran's productive sector products are not only important from an economic and socioeconomic perspective, but also as a bulwark that can protect downturns in the future, to some extent. Meaningful and powerful sector-specific brands can protect against headwinds, because the value that consumers receive from the brand stems from more than just the immediate consumption. For this to happen, enterprises must, of course, work on their supply-side challenges and build their own brands, but it is equally important to develop sector-specific brands - for example, in the case of saffron, which has a well-recognized set of attributes in international markets. TIP service providers have struggled to first identify specific products that could be targeted to select target markets, and then weave together a national brand focusing on the sector, from which enterprises can benefit in their own market penetration efforts.

There is also limited relevant and up-to-date information available on market-product combinations. For ITPO, MENA region and CIS country specific data is hard to find. Most of the databases that they use are out of date, so they face challenges in providing information related to these markets. The information gaps faced by ITPO and other TIP providers also stem from challenges in expanding their presence in international markets, as well as process-related weaknesses for developing intelligence feedback loops from markets back to national TIP providers and thereafter to the private sector; this issue has become exacerbated in recent years.

Coordination among support providers is limited

Severity: • ○ ○

An important reflection on the TIP landscape is that TIP providers have not developed robust partnership strategies with international agencies such as TPOs and development partners. This mainly stems from the traditional state-led nature of most support services in Iran, the historical isolation and in particular the severity of the recent round of sanctions. Strategic alliances with regional and international partners are essential to organize/participate in events such as business-to-business missions, matchmaking events and trade fairs, etc. Such arrangements are indeed present, but not within a strategic long-term framework.

Within the country as well, coordination between the TIP providers needs improvement, so as to ensure both provincial and capital-based TIP providers are able to cover the spectrum of products, provinces and target markets. ITPO used to have a robust presence in all provinces, but the network has become weakened now due to the resource-based challenges that are affecting other areas of service delivery as well. There is an important need to strengthen the provincial-level presence to ensure inclusion for countrywide MSMEs and, of course, manage smooth information dissemination.

There is a need to develop linkages with international diaspora networks, which can function as an important avenue for Iranian companies to gain exposure. So far, such unofficial networks with diaspora communities in target markets have not been proactively cultivated, although the trade attachés embedded in consulates previously used to foster cultural ties and linkages to an extent. With trade attachés being absent, there is no alternate mechanism for linking exporters informally or formally to diaspora communities.



Many smaller firms do not have internal trade information and promotion capacities

Severity: • • ○

A number of enterprise-level challenges limit firms' internationalization prospects. Often, firms are not sufficiently motivated to export. There is a significant proportion of firms that have not considered exporting due to perceived obstacles. They prefer doing business with existing partners using traditional mechanisms. The overall lack of firm-level understanding of exporting is indeed a factor leading to their pessimism/disinterest in exporting. In fact, many have heard about the difficulties of exporting from peers, contributing further to reduced interest.

As a result, Iranian MSMEs are largely missing a market-led approach in their operations, or more appropriately put, the approach in most cases is solely focused on the domestic market and supplying the public sector. Indeed, for many firms, the golden goal has been to contract with the government to ensure access to a stable market and sell at a fixed price. Despite significant untapped export potential along a number of sectors, firms have difficulties in complying with market

entry requirements, or in many cases are not aware of those requirements or the market opportunities. For instance, they struggle to find out the minimal quality and food safety requirements (regulation and private standards, etc.).

Among export-oriented sectors, many are focusing on neighbouring markets, and here they do not look for meaningful trade information for medium – or long-term strategy use. There is no strong requirement identified by these exporters for securing access to sophisticated market intelligence. They just want spot information on prices and contact information on buyers, etc. Also as a result of the sanctions, exporters are more geared towards markets such as Iraq and Afghanistan, and they are not looking for more sophisticated solutions.

Limited information among MSMEs and other firms on the technical requirements to trade, as well as information on markets, distribution channels and ways of doing business, hinder export growth. There is a clear mismatch between offerings of Iranian firms and buyer expectations in terms of prices and payment terms, volumes, delivery times/options, packaging and quality standards, among others. Companies are not aware of market segmentations and trends, which directly impacts how well firms can tailor their products' suitability to in-demand requirements within the target markets.

Companies possess limited information to decide on the market segments they should target strategically and subsequently work via the channels serving these segments. Companies lack information elements such as trends in consumption, use and application of their products. There is also a lack of product prioritization and story building around specific products. Generally, businesses are keen to discuss and promote the full range of available products. However, this does not prioritize some specific product pitches to attract buyers' interest.

In some sectors, especially agriculture, the enterprise-level challenge stems from structural issues. The companies (micro, small and medium-sized enterprise especially) rarely export themselves, with their products often passing through several intermediaries before reaching their final markets. Firms are, therefore, are not aware of what is happening to their products and the export requirements, as this part is handled by the brokers/middlemen.¹⁰

Language proficiency, particularly in English and Arabic (for those exporting to regional markets), plays an important constraining role for Iranian firms in terms of absorbing the plethora of relevant information on the web.

^{10.—} One of the recommendations for agro sectors is to minimize the amount of middlemen by creating e-marketplaces for agricultural products (showing product availability by region, quantity and price) and make these directly accessible to potential international buyers. Another solution was to bring producers directly to fairs for them to meet directly with the buyers. This will build buyers' confidence in the products' origin and production methods (usually, this information is unknown by the brokers).





Limited firm capacities can prevent their taking advantage of TIP support programmes

Severity: • • •

In addition to the limitations in firm capacities that hold back their development of internal trade information and promotion activities, many MSMEs also lack the capacities or connections to make use of external support. There is a need, therefore, to establish support programmes that will facilitate provision of trade information, and allow MSMEs to translate trade intelligence to upscaling and adapting their production and marketing systems to best serve market needs.

Access to necessary regulatory procedures and uncertainty regarding the current status of rules is uneven. Firms face limited information on complying with Iran's own rules regarding trade. For instance, average release times computed by customs are not made available to traders and other border agencies. Businesses also report that new laws, regulations and procedures are prone to be adjusted without prior information being shared with the business community. Despite each agency having dedicated internet portals, detailed and actionable information on trade-related laws, regulations and procedures is not readily available to firms. For example, a list of prohibited imports and exports is not easy to find. Similarly, while enquiry points are available in each agency as per government rules, traders complain that these do not meet their needs and expectations. Traders also report frequent and sudden changes being made to trade-related regulations and procedures without prior notice, leading to shipments being rejected at the border.

Iranian MSMEs are generally traditional, and generally they do not proactively seek out trade or self-improvement tools proactively. They do not review the full process of identifying potential markets and packaging requirements, etc. The vast majority of enterprises do not participate in international events/fairs. Even enterprises that have participated in select trade fairs have limited success due to weak preparation levels. A related challenge is the limited use of direct marketing and the high proportion of offline MSMEs (i.e. who do not have any online presence at all).

Relatedly, there is an overall lack of feedback from the enterprise level back to the TIP service provider level, which could inform ITPO and other institutions on how best to adapt their offerings (on a continual basis) to support exporters. Sector associations could be a meaningful avenue for establishing this feedback loop.

THE WAY FORWARD

While external challenges hinder Iran's trade prospects, past evidence and future expectations show that they are not an insurmountable obstacle to making continued progress on trade. Key to this success will be improving access to and use of information by exporters while improving awareness of and perception of their exports in key markets. However, in terms of both policy and institutional support, the focus on export promotion and the TIP function is weak. The trade information and promotion strategy outlines an approach to improving trade prospects through activities at the level of policy, institutional capacities and firm capacities. This builds on related work to be done at the sector level. The six sector strategies of the NES include activities on improving access to trade information by firms, tailored services for supporting new and expanding exporters, and branding and promotion activities and other means of growing demand in key markers (Table 12).

Table 12: Trade information and promotion in the NES sector strategies -

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Sector	Relevant activities
Medicinal herbs	 3.1.1. Develop a brand proposition for Persian medicine through a competition mechanism 3.1.2. Align export products' brands with the national branding initiative 3.1.3. Identify suitable IP11 right protection for newly developed products and existing IP unprotected products 3.5.1. Develop new and regularly updated sources of information on domestic and international markets 3.5.2. Carry out capacity-building workshops for farmers and firms on use of trade information
Fruits and vegetables	 3.1.1. Establish a national brand for fruit and vegetable products produced in Iran 3.1.2. Carry out an information campaign about the brand towards national stakeholders 3.1.3. Promote the brand abroad 3.1.4. Develop a national campaign promoting the consumption of nationally branded fruit and vegetable products 3.2.1. New web-based portal available for market information on fruits and vegetables 3.2.2. Establish regular means of communicating market intelligence news to farms and firms 3.2.3. Carry out capacity-building workshops for farmers and firms on use of trade information 3.2.4. Build capacities of farmers' associations and sector associations to provide trade information
Petrochemicals	 1.1.1. Improve firm access to information on export opportunities 1.1.2. Build firm capacities on the legal and technical aspects of trade 1.1.3. Promote Iranian petrochemical products in international markets 1.2.1. Leverage established trading relationships to reduce trade uncertainty in the sector 1.2.2. Establish a centralized reference on current and potential traders/importers in collaboration with active exporters 3.3.2. Review, in consultation with sector representatives, barriers and obstacles to importing new equipment and machinery to facilitate new investment 4.3.2. Ensure the ease of importing energy efficient production technology through a review of barriers to trade and customs procedures
Auto parts	 3.1.1. Develop a reference resource for firms on five target export markets 3.1.2. An auto parts market information support service established and promoted 3.1.3. Information sessions for firms about existent trade information sources and how to use them 3.2.1. Form a national export consortium to promote auto parts in key markets 3.2.2. Capacity building for consortium members on how to leverage key markets 3.2.3. Increased trade fair presence (at least four new trade fairs) 3.2.4. Directory of auto parts manufacturers is available online 3.2.6. Informative sessions about value of global value chains participation
Information and communications technology	 3.6.1. Market access training to firms on a yearly basis 3.6.2. Market surveillance unit to be established through the Iranian ICT Guild Organization 3.6.3. Establish a trade accelerator geared towards the ICT sector 3.6.4. Provide relevant languages courses to firms, in particular English and Arabic
Tourism	 1.2.1. Yearly professional tourism conference to keep updated on the trends 1.2.2. Development of manuals on effective trade fair participation 4.1.1. Geographical indication (GI) system in place for "ecotourism area", "CBT village" or "award winning village" 4.1.2. Crisis response unit in the Ministry of Cultural Heritage, Handicrafts and Tourism to ensure rapid response online about negative image 4.1.3. Invitation of travel influencers 4.1.4. Capacity building of tourism advertisers in the foreign embassies 4.2.1. Duplication of the ASEAN Sustainable Tourism Awards competition 4.2.2. Highlight of best practices on the main tourism websites 4.2.3. Raising awareness about career in tourism and prospects 4.3.2. Innovative marketing campaign portraying Iran as a progressive destination 4.3.3. Definition of channels for the campaign 4.3.4. Organization of international events (sports, competitions and festivals)

STRATEGIC OBJECTIVES

In addition to addressing trade information and promotion challenges through the six sector strategies, cross-curring efforts are to be made through the NES

with activities related to facilitating policy coherence, accelerating institution transformation and capacity enhancement for service providers, and strengthening enterprise capacities to absorb and leverage existing resources (Table 13).

• Table 13: Trade information and promotion strategic and operational objectives

- 1. Facilitate policy coherence related to
- 1.1. Integrate TIP within national trade policy and accompanying strategy

instruments

- 1.2. Develop a meaningful national brand encapsulating the qualities of the land, culture and society
- 2. Accelerate institutional transformation and capacity enhancement for TIP services providers
- 2.1. Enhance the capabilities of key TIP service providers
- 2.2. Strengthen the network of coordination between TIP service providers
- 2.3. Strengthen MSME focus and orientation of TIP service providers
- Strengthen enterprise capacities to absorb and leverage existing TIP resources
- 3.1. Promote exports as a viable mechanism for enterprise growth
- 3.2. Foster digital transformation to expand firms' markets

Strategic Objective 1: Facilitate policy coherence related to the national TIP function

This strategic objective seeks to firmly integrate the TIP function within the national development agenda so that it can fulfil its critical role vis-à-vis trade competitiveness. The activities falling under this objective seek to push TIP from the margins of policy discussions towards the centre in line with exports competitiveness. Overall, a structured transformation of the TIP function is required. Given the challenging environment brought on by external sanctions, the TIP function will even more so be dependent on state support and government would have to handhold and support the private sector even more so than other countries.

The goals of this strategic objective are to ensure that TIP becomes an integral part of policies and projects that are aimed at harnessing the trade potential for Iran, because exports competitiveness goes in hand in hand with the quality of TIP provision, and that national—and sector-level brands emerge. These brands should be developed with markets in mind and based on core qualities reflected by Iran and Iranian products, which will ultimately accelerate market penetration for Iranian products and services in priority markets.

The activities here will also focus on managing the significantly negative news content related to Iran – for instance, the proposal to have a crisis management unit, formed as part of the tourism sector strategy, for monitoring and reacting to negative information concerning Iran. The goal is to quickly publish positive/counterbalancing content to react to the negative information on the web.

Strategic Objective 2: Accelerate institutional transformation and capability enhancement for TIP services

With institutions in mind, this strategic objective focuses on the first two interrelated segments of the TIP function – trade information and trade promotion (in-market export promotion). As noted, the weak enterprise-level

capabilities and the challenging external climate places the onus primarily on the state to lead on TIP function, and this is passed on to official TIP providers. There is an important need for these institutions to shore up their capabilities, so that they can serve their ultimate beneficiary – export-inclined and exporting MSMEs.

This will first require a broad introspection among TIP service providers (starting most prominently with ITPO) to assess exactly what services will be in demand by various export priority sectors in the next five years, and the degree of current mismatch in current offerings. The priority sector-wide approach followed by the NES has resulted in a wide range of analytical insights and weaknesses at the macro, meso and enterprise levels, which can function as a starting point for this introspection.

Activities under this objective will strengthen capabilities of individual TIP service providers and build a coherent, flexible network between them for the provision of relevant and up-to-date trade information, the scope of which includes data and research related to market intelligence, advisory services and e-solutions, and enterprise-specific trainings. The scope that can be covered in all of these sub-areas is broad and, therefore, a phased approach for building capabilities and services will be adopted.

Boosting the quality and capability levels of the trade attaché programme will be a priority as well. There is an important need to ensure that the resident and valuable knowledge possessed by returning trade attachés is adequately leveraged. A knowledge management process and a database could be conceptualized where information can be stored by trade attachés during and after their terms in target markets, with insights available internally to ITPO officers as well as potentially available for beneficiaries. An onboarding/training programme for trade attaches will also be developed.

A national network (spanning Tehran, 2nd tier cities in provinces and spearheaded by ITPO) needs to be developed that can comprehensively address trade information requirements based on sectors' markets for enterprises. No single institution can have all the information, but coordination via network or crowdsourcing

can have a significant impact. The use of IT technologies in the form of a portal (as an example) with a common database, managed collaboratively by the aforementioned network is recommended.

The development of the national network would, of course, depend on institutional capability enhancements of key TIP providers, in particular ITPO, given its lead role.

The strategic objective will also aim to bridge the support gap for in-market support promotion; i.e. the assistance available for exporters in target markets, via commercial representations as well as the network of diaspora and businesses active in the markets. Given Iran's relative isolation from a political perspective, Iranian exporters more than ever need targeted support on events, opportunities and access to handholding via business-to-business (B2B) events and cost-sharing/grants for pursuing in-market business development.

There is also significant potential via a private sector consulting-based model, where TIP services could be provided by export management companies (EMCs). There are already operational EMCs (16 or so) in existence. These companies (operating with the authorization of ITPO) focus on handholding Iranian MSMEs in international markets. There is, however, some resistance among the larger, well-established firms to use export management companies given that these are certified/regulated by the government. So the potential for EMCs remains untapped and underused. In any case, development of a private sector-based consulting model for TIP services constitutes a best practice model and should be pursued.

Finally, digitalization and e-commerce are possible means of addressing the TIP issues raised (e.g. reducing transaction costs and lowering barriers to trade for smaller firms, etc.). As the United Arab Emirates market review for the fresh fruits and vegetables (FFV) sector uncovered, e-marketplaces involving a range of buyers and suppliers coming together have served as essential conduits for spurring activity on both demand and supply sides, not only domestically, but also internationally. Given the maturity of Iran's ICT sector, ecommerce-related initiatives can be significantly viable if planned adequately. From this perspective, e-commerce can emerge as a growth mechanism, especially with the support of the ICT sector, which possesses the resources to develop home-grown solutions.

Strategic Objective 3: Strengthen enterprise capabilities to absorb and leverage existing TIP resources

Enterprise-level capability development will be crucial, regardless of the enhancements taking place on the institutional side of the TIP function. As noted, Iranian firms are not adept at collecting trade information on markets and customers and broadly suffer from weak awareness of target market requirements. In plain terms, this amounts to companies strengthening their absorptive capacities so that they can make full use of support programmes and market intelligence that will become available. Activities under this strategic objective will result in enhanced enterprise capacities to improve practices/operations and business decisionmaking process through accurate, timely and targeted trade intelligence.

This strategic objective aims to support firms in being able to proactively use existing TIP resources and gain a broad understanding of trends, opportunities, threats in key target markets and the competitor base in key target markets, and assess relative competitive advantages/disadvantages, and develop and implement firm-level strategies for branding and marketing in target markets.

Select initiatives to be implemented to enhance enterprise capacities include capacity-building and awareness-raising workshops, export readiness assessment, business clinic services, coaching and mentoring programme, and market development schemes (including financial grants). Given the presence of a number of products that have high export potential, but have suffered due to brand leakage stemming from smuggling and re-exporting, it is worthwhile to examine the protection offered by geographical indication (GI) for products such as saffron. This will also constitute a focus for this strategic objective.

PLAN OF ACTION

To achieve the vision and strategic objectives discussed, a robust, actionable and realistic strategic plan of action (PoA) is required. This is provided below, and constitutes the heart of this strategy. The PoA is structured along the three strategic objectives described above and their operational objectives, with information on the priority, timing, type, targets, and lead and supporting implementing partners for each activity.¹²

^{12.—} Leading implementing partners are the accountable lead institutions for each activity, which may have a technical role or only an oversight and coordination role, and supporting partners are any other institution that should be involved at any stage of the activity's implementation.

			Priority	Implementation period	ation	,		Leading	
objective	objective	Activity	2=Med. 3=Low	2022 2022	2025 2024	project	Targets	implementing partner	Supporting partners
		1.1.1. Position TIP centrally within national trade policy (and related policy areas) and mainstream the issue within inter-ministerial committees focusing on trade, and sector-specific development strategies and development initiatives.	2			Project	 Initiatives directly related to trade information and promotion are included in at least five sector — or higher- level planning documents 	Ministry of Industry, Mine and Trade	ITPO
	1.1. Integrate TIP within national trade policy and accompanying strategy	1.1.2. For each of the priority sectors and target market combinations, develop a detailed market entry action plan derived from the NES sector strategies' plans of action to drive the implementation and tracking of TIP strategic activities within the public sector.	2			Project	• Entry plans are developed for at least 20 market–product combinations, with institutional key performance indicators (KPIs) and clearly demarcated lines of responsibility	Ministry of Industry, Mine and Trade; ITPO	
i. Facilitate	instruments	1.1.3. Review and simplify the visa regime for potential investors in priority sectors, especially where this can help to support investment in joint venture activity.	က			Reform	 Priority investment areas and target investor groups are identified Revised visa rules are implemented 	Ministry of Foreign Affairs; Organization for Investment, Economic and Technical Assistance of Iran	Ministry of Industry, Mine and Trade
coherence related to TIP	1.2. Develop	1.2.1. Develop a national brand for Iran focused on a set of characteristics that convey qualities of the land, culture and society, as well as the business/investment climate. To the greatest extent possible, the band should be aligned with sector-level branding (including in tourism) to have the greatest possible impact.	-			Project	 National brand and sup- porting material (including promotional materials and website) are established 	Ministry of Industry, Mine and Trade; ITPO	Ministry of Cultural Heritage, Handicrafts and Tourism; Ministry of Agriculture Jihad (and other relevant sector ministries and associations)
	a meaningful national brand encapsulating the qualities of the land, culture and society	1.2.2. Establish geographical indication (GI) protection for specific Iranian products (including saffron), which would safeguard the Iranian brand against misuse in international markets. • Hold consultations on establishing GI for highpotential products. • Once GI is established, consider using one of the various mechanisms for protecting it abroad (including via bilateral trade agreements, World Intellectual Property Organization's (WIPO's) Lisbon System for the International Registration of Appellations of Origin, or the Madrid System for the International Registration of Marks)	2			Project	Gls developed and implemented for four product categories	Ministry of Industry, Mine and Trade; Ministry of Agriculture Jihad	ITPO; Organization for Registration of Deeds and Properties

0;50407	loro:toroco		Priority	Implementation period			Leading	
objective objective	Operanonal objective	Activity	2=Med. 3=Low	2022 2023 2024	D LOSS STORY OF THE COLUMN TO	Targets	implementing partner	Supporting partners
1. Facilitate policy coherence related to TIP	1.2. Develop a meaningful national brand encapsulating the qualities of the land, culture and society	1.2.3. Establish a strategic monitoring cell that continuously reviews information on Iranian exports in the public domain (e.g. media and websites), and provides counteracting positive information that can serve as open clarifications. This type of a mechanism—aimed to combat negative publicity/information that can potentially depress the potential of the NES priority sectors and other areas of the economy—would be important to safeguard fragile brands as they emerge.	2		Project	Strategic monitoring cell is established	Ministry of Industry, Mine and Trade	ITPO
2. Accelerate institutional transformation and capacity en	2.1. Enhance the capabilities of key TIP service	 2.1.1. Build the capacities of ITPO and other TIP service providers. Conduct an institutional benchmarking of ITPO to assess its mandate, operations and capabilities, and overall future readiness relative to the requirements of exporters. Based on the results of the benchmarking exercise, reorient products, staff training and services (and organizational structures, if necessary). In a phased manner, conduct similar assessments for other TIP service providers. 	-		Project	A comprehensive review of ITPO is conducted and a prioritized list of organiza- tional reforms is produced, with concrete steps for their implementation outlined	ITPO	Other TIP service providers
TIP services providers	providers	2.1.2. Develop a standardized onboarding and training programme (a package of trainings) for trade attachés prior to deployment to their mission locations. This package should include a self-learning tool/guide related to the fundamentals of trade information, along with other substantive and country specific information (including on ITC tools) that trade attachés may need as part of their role.	2			 A standardized onboarding package of trainings is developed and integrated as part of the deployment for commercial attachés. 	Ministry of Foreign Affairs; Ministry of Industry, Mine and Trade	ITPO; other TIP service providers

	implementing Supporting partners partner	Ministry of Foreign Affairs; Ministry of service providers Industry, Mine and Trade	Ministry of Ministry of Industry, Foreign Affairs Mine and Trade	Ministry of Health Ministry of Industry, and Medical Mine and Trade Education	Ministry of Ministry of Foreign Industry, Mine and Affairs Trade
	Targets	Report completed on review, with detailed recommendations and implementation plan for commercial representatives, ITPO and other TIP service providers	 Guidelines established and communicated to trade attachés 	 New post-secondary education programme is established 	 At least five trade promotion and innovation centres are established in international markets
Reform or	project	Project .	Project	Project	Project
ıtion	202 2				
Implementation period	5023				
dwl	2022 2021				
Priority 1 = Hioh	2=Med. 3=Low	8	က	က	ო
	Activity	 2.1.3. Review the readiness of commercial representatives located in Iranian international consulates and offices for collecting and disseminating market intelligence and conducting export promotion activities in their country locations. Based on the review, make adjustments to the following areas: Training of commercial representatives on priority sectors and types of information to review on a regular basis; Cultivation of networks within Iranian businesses and diaspora in countries that may be of interest to Iranian firms; Collection and analysis of market-specific intelligence to be transmitted to ITPO and then disseminated to interested firms and other TIP service providers; Support services for Iranian firms seeking to participate in international events, network with specific entities or seek general guidance regarding undertaking business activities in the country; and Enhancing information sharing between the network of foreign offices. 	2.1.4. Develop post-term completion guidelines/recommendations for trade attachés on how they can best share their insights and knowledge with interested beneficiaries after their return to the country. Structured initiatives should result from these recommendations.	2.1.5. In collaboration with national universities, develop bachelors' programmes, masters' programmes or certificate-level programmes in export promotion to foster the next generation of trade promotion professionals.	2.1.6. Establish trade promotion and innovation centres in high-potential export markets (separate from consulates), with a focus on knowledge development, networking and promotion. These centres will have the capacities to act as hubs for interested exporters to access a range of in-market services as well as an ecosystem of advisers, potential partners and an agenda of business development events.
Onerational	objective	2.1. Enhance the capabilities of key TIP service	providers		
Strategic	objective	2. Accelerate institutional transformation and capacity en-	TIP services providers		

Supporting partners	Sector associations					Ministry of ICT, Iranian ICT Guild Organization
Leading implementing partner	ITPO	ITPO	ITPO; other TIP service providers	ITPO; other TIP service providers	Ministry of Industry, Mine and Trade; Ministry of Foreign Affairs; ITPO; OIETAI	Ministry of Industry, Mine and Trade
Targets	Data collection and processing project established and communicated to sector associations	A review of potential revenue-generating tools is produced, with input from current and potential clients	Mapping completed and a report is produced that identifies potential areas for cooperation and coordination	A network is established among ITPO and other service providers, including chambers of commerce and sector associations	 Focal points are identified at each organization and regular meetings are held for coordination purposes 	New online resources for trade information, firm trainings and administrative produces related to trade are created
Reform or project	Project	Reform	Project	Project	Project	Project
2022 period 2024 2025 2025 2025 2025 2025 2025 2025						
2021						
Priority 1=High 2=Med. 3=Low	က	ო	-	2	2	5
Activity	2.1.7. Introduce a service where sector associations, unions and other TIP providers can submit relatively raw data information to ITPO, who can process it and provide bottom-line analyses and insights to the beneficiary. In parallel, improve ITPO's data-mining and analysis capabilities.	2.1.8. As an alternate revenue generation mechanism, as well as keeping in mind relatively complex needs of specific types of companies, consider introducing value-added paid services on a pilot basis. Ensure balance between free and paid services so as to impart sustainability to ITPO's portfolio of services.	2.2.1. Conduct a complete mapping of TIS service providers in Iran, along with baselining in terms of responsibilities and capacities, to be used in guiding potential areas for cooperation.	2.2.2. Formalize a strategic and operational network of TIP service providers across Iran under the leadership of ITPO, which can serve to efficiently share responsibilities for TIP services in Iran for the benefit of private sector beneficiaries in a range of sectors. The network will expedite information sharing between Tehran, second-tier, provincial-based TIP service providers.	2.2.3. Establish formal coordination channels between the Organization for Investment Economic and Technical Assistance of Iran (OIETAI), ITPO and relevant ministries to ensure that trade promotion efforts leverage and contribute to initiatives related to investment promotion and broader foreign relations rather than being conducted in isolation.	2.2.4. Extend e-government initiatives to support improvements in TIP, including through digitalizing and making available online information, training material and administrative processes. Provide guidance to companies involved in trade on accessing single window and other digital-transformation initiatives that simplify trade procedures.
Operational objective	2.1. Enhance the capabilities	orkey IIP service providers		2.2. Strengthen the network of	coordination between TIP service providers	
Strategic			2. Accelerate institutional	transforma- tion and capacity en- hancement for TIP services providers		

	ers			SU
	Supporting partners	ITPO	ITPO	Sector associations
Leading	implementing partner	Ministry of Industry, Mine and Trade	Ministry of Industry, Mine and Trade	ITPO
	Targets	An online trade information portal is established, designed with input from private sector representatives	A trade promotion financial assistance scheme is established to support exporters	 Training of trainers programme is established, with at least 20 direct participants
Reform or	project	Project	Project	Project
LI.	5052			
Implementation period	2024 2023			
nplem per	2022			
드	2021			
Priority 1 = High	2=Med. 3=Low	-	ю	2
	Activity	 2.2.5. Develop an online portal functioning as a comprehensive repository of relevant and current trade information. Users will be able to search by market, product/sector and other criteria for information on topics including: Tariffs and non-tariff measures; Standards and technical regulations; Sanitary and phytosanitary measures; Environmental and consumer regulations; Logistics providers; Private sector associations (e.g. sector associations); professional organizations and import associations); Directories of agents, importers, distributors and wholesalers, and major retailers; Market conditions and trends (e.g. data and analysis on trade, production, consumption, price and market outlook); and Export and other administrative procedures. The portal will be stewarded/managed by ITPO, and linked to a wider network of TIP service providers. It will also be linked to trade attaché as a means of uploading information to a centralized location (as part of a broader knowledge management exercise). 	2.3.1. Deploy grants and export credit schemes that can be used by eligible firms for activities related to their internationalization efforts, such as participation in international events and expenses related to international transactions.	2.3.2. Develop an ITPO-led training of trainers (ToT) programme aimed at training of private sector-based consultants who can offer value-added TIP services for Iranian firms. This will help expand the support services available for companies in terms of internationalization.
Onerational	objective	2.2. Strengthen the network of coordination between TIP service providers	2.3. Strengthen MSME focus	and orientation of TIP service providers
Strategic	objective	2. Accelerate institutional transformation and capacity enhancement for TIP services providers		

	:		Priority	Implementation period	,		Leading	
Strategic objective	Operational objective	Activity	1 = High 2 = Med. 3 = Low	2024	Reform or project	Targets	implementing partner	Supporting partners
		2.3.3. Develop market profiles for key priority sector—market combinations, including the main market tendencies, investment/partnership opportunities, market entry requirements and market segmentation in terms of consumer types and penetration possibilities. Establish a mechanism for keeping the market-profiles current.	-		Project	 At least 20 profiles are developed and disseminated to stakeholders 	ITPO	Ministry of Industry, Mine and Trade
		2.3.4. Develop a self-learning package of training content for MSMEs aimed at helping them develop their capacities for collecting and analysing trade information. This can include e-learning content for ITC market analysis tools.	ო		Project	 Package developed and deployed for MSMEs 	ITPO	Ministry of Industry, Mine and Trade
2. Accelerate institutional transformation and capacity en-	2.3. Strengthen MSME focus and orientation of TIP service	2.3.5. Conduct studies of gaps in information and greatest needs at the firm level and of awareness and opinion of Iranian exports in high-potential export markets to enhance the understanding of MSME needs and priorities.	2		Project	 Reports are completed on studies of firm informa- tion gaps and of export perceptions 	ITPO	Ministry of Industry, Mine and Trade
hancement for TIP services providers	providers	2.3.6. For the key priority sectors, organize business-to-business (B2B) missions to international markets (including participation in exhibitions and fairs and meetings) where Iranian companies can interact with potential buyers and learn more about market entry requirements and expectations.	-		Project	 Four international missions are organized with participa- tion from a variety of firms and sectors 	ITPO	Ministry of Industry, Mine and Trade
		2.3.7. Develop specific support schemes (involving guidance or financial assistance for specific expenditures) for MSMEs engaging in fulfilling international contracts via alliances with other MSMEs or larger firms, given that such collaborations will likely lead to increased maturity and pooled resources for the involved companies. The support schemes can include financial (grants-based) and guidance-based components.	-		Project	• Two support schemes are established, with at least 50 beneficiary firms	Ministry of Industry, Mine and Trade; ITPO	

ő	Operational	A city of A	Priority 1=High	Implementation period	ntation od	Reform or	r f	Leading	or it is a second
objective	tive	Acuvity	2=Med. 3=Low	2023 2023	2024 2024		largers	implementing partner	Supporting partners
		2.3.8. Expand the scope of the exemplary exporter programme to reward companies meeting certain criteria with a seal of approval/logo the company can use to access a range of expedited services, including at customs and loan facilities, etc. Expansion of the scope would go beyond modifications to the ITPO website. This programme would prequalify the firm for a range of support programmes and clearance for official processes.	2			Project	 Trusted exporter programme is established and at least 10 firms participate in the programme 	Ministry of Industry, Mine and Trade	
3. Str MSME nd ori ori f TIP prov	2.3. Strengthen MSME focus and orientation of TIP service providers	2.3.9. Develop/expand the export management company initiative aimed at incubating private sector-based consultants who can provide handholding advice for companies related to their export goals, including in market support. These export management companies (EMCs) will be certified/endorsed by ITPO for legitimacy.				Project	 EMC initiative developed Certiciation by ITPO in place 	ITP0	
		2.3.10. Develop an export potential assessment programme for firms, wherein international trade experts are hired via a cost-sharing scheme to provide advisory services and export potential assessments for companies, with gaps and potential markets identified at the firm level. Results could then be used to direct firms to relevant TSI services.	2			Project	 Export potential programme is established with at least 20 beneficiary firms 	Ministry of Industry, Mine and Trade; ITPO	Other TIP service providers
3.1. P expo a vi mech	3.1. Promote exports as a viable mechanism	3.1.1. Undertake a nationwide change management campaign aimed at the private sector, in particular MSMEs, to sensitize them on the benefits of exploring exports as a growth mechanism and to provide information on support options available to firms if they pursue international relationships.	2			Project	 Campaign materials are prepared and key messages reach at least 500 MSMEs in a variety of sectors 	IIP0	Sector associations; other TIP service providers
or en	for enterprise growth	3.1.2. Enhance the development of coordination, common positions and provision of feedback by firms to TIP service providers, so that services can be adjusted accordingly based on private sector needs.	က			Project	 Feedback loop mechanism established for firms to TIP providers 	ITPO	Sector associations; other TIP service providers

Strategic objective	Operational objective	Activity	Priority 1=High 2=Med. 3=Low	2022 2023 2023	5025	Reform or project	Targets	Leading implementing partner	Supporting partners
	3.1. Promote exports as a viable mechanism for enterprise growth	3.1.3. Establish export incubation or acceleration programmes, and support ongoing initiatives such as the Bordar Export Accelerator in Isfahan and Export Accelerator (Iran Chamber of Commerce, Industries, Mines and Agriculture) in Tehran, to build capacities of enterprise interested in full lifecycle export capability development, including within the TIP function.	2			Project	New export incubator/accelerator established or capacity-building programme implemented to expand the reach of and improve the services of existing centres	Ministry of Industry, Mine and Trade	ПРО, ПС
3. Strengthen enterprise capacities to absorb		3.2.1. Promote digital transformation as a tool to support firms in reaching international markets, especially in sectors such as tourism that can be early and robust anchors for e-commerce and other forms of digitalization. The programme will involve basic workshops/boot camps for firms at the lower end of the readiness spectrum, and customized guidance on topics such as e-commerce and participation in marketplaces for firms with greater capacities. The programme will be initiated in Tehran and other large cities before being expanded to second tier cities.	2			Project	 A nationwide programme helping MSMEs move to business online models is established with at least 50 beneficiary firms 	Ministry of Industry, Mine and Trade	Ministry of ICT; ITPO
existing TIP	3.2. Foster digital transformation to expand firms' markets	3.2.2. Support the development of e-marketplaces for priority sectors through assistance for private sectorled initiatives or government-led initiatives. These marketplaces will initially focus on the domestic market, integrating payment solutions and logistics services, and gradually expand to international markets. Reduced dependencies on middlemen, especially for agricultural products (showing product availability by region, quantity and price) and making these directly accessible to potential international buyers will be a goal of the marketplaces.	2			Project	Six sector-specific e-mar- ketplaces are established, where regular business is conducted with a number of firms. Alternatively, a single marketplace with multiple sector focus can be established.	Ministry of Industry, Mine and Trade; ITPO	Ministry of ICT; Iranian ICT Guild Organization; Ministry of Agriculture Jihad
		3.2.3. In collaboration with the ICT sector, develop a collaboration and networking toolkit that can be used by firms and sector associations to gain market intelligence, and also use for other tasks such as marketing, branding and graphic design.	ന			Project	 A toolkit is developed with input from MSME exporters 	ITPO; Iranian ICT Guild Organization	

Quality management

International competitiveness is the key to Iran's participation in global trade and competitiveness. Without quality, there can be no competitiveness, irrespective of the sector, size and nature of firms. Only firms that produce quality products and services are able to successfully compete, gain access to markets and sustain their presence in international markets. In order to remain competitive, firms must reduce the costs associated with poor quality and improve productivity. While much can be achieved at the company level on this front, the ability to meet requirements of export markets is neither limited nor within the exclusive control of enterprises. There are fixed costs associated with exporting. These costs are incurred by Iran's firms in order to access a foreign market, such as market information costs (information on prevailing technical requirements), or the cost of adapting processes to comply with foreign technical requirements, for example, for implementing standards and measures to fulfil technical regulations, and carrying out conformity assessment in a manner acceptable to markets. This fixed cost of exporting turns out to be critical in determining which firms will be able to access foreign markets and which firms will fail to do so. This fact is even more pertinent for efforts geared towards designing and implementing Iran's trade competitiveness strategy where concerted efforts could reduce these fixed costs collectively through coherent, consistent and non-divergent enabling policies, technical regulations and support mechanisms.

In general perception, enterprise-specific elements related to meeting customer requirements for a good-quality product or service are relatively more well-known. The quality related aspects that permeate beyond enterprises to the realm of institutions, services providers and policies, their roles and inter-relationships, frequently remain vague or are relatively less understood, sometimes even among practitioners. In fact, the entirety of this interlinked system comprising organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services and processes is what is termed the Quality Infrastructure System (QIS). Beyond the quality management functions inside an enterprise, this QIS is necessary at a national level to define and develop quality requirements for products and services, enable value addition by use of international standards, and demonstrate that products and services actually meet these requirements through internationally accepted conformity assessment procedures. Importantly, the availability and accessibility of such a QIS can reduce the fixed costs mentioned above that are associated with exporting.

Therefore, it follows that Iran's success in achieving the goals of economic diversification and trade competitiveness will correlate highly with the coherence of its national quality infrastructure system vis-à-vis the priorities defined in the NES and the effectiveness with which it delivers standardization, quality management, conformity assessment, accreditation and metrology services to exporting companies. A well-functioning quality infrastructure in Iran that helps firms in priority sectors meet the requirements of export markets and supports them in demonstrating conformity with the requirements in a holistic manner will act as a catalyst to improve the competitiveness of Iran's economy and its ability to participate in global trade, and increase the value of trade.

IMPROVING EXPORT PERFORMANCE THROUGH ENHANCED QUALITY MANAGEMENT

Enhanced quality management is critical to achieving the goals of the NES. It supports trade competitiveness, expands access to key markets and supports investment attraction, promotes private sector development, provides opportunities for leveraging Iran's strengths, supports economic diversification and provides opportunities for international cooperation.

First, quality management has essential contributions to make in realizing Iran's common trade competitiveness vision and an important role to play in reinforcing the coherence of the approach to improving export and growth. The proposed implementation of a comprehensive policy and institutional reform can include the articulation of a national quality policy¹³ and the review of national quality infrastructure system institutions to better align and streamline their mandates as well as optimize coordinated delivery of relevant services.

^{13.–} Iran has a regional quality policy as elaborated with United Nations Industrial Development Organization (UNIDO) assistance for the Economic Cooperation Organization (ECO) region (Afghanistan, the Republic of Azerbaijan, Iran, the Republic of Kazakhstan, the Kyrgyz Republic, Pakistan, the Republic of Tajikistan, Turkey, Turkmenistan and Uzbekistan).

Implementing quality management systems and even simple quality improvement techniques can help stimulate private sector activity through higher employee engagement, ideation and innovation to improve processes. Application of industry best-in-class practices and international standards can prepare domestic firms with limited exposure leading to increased confidence within the business community to face international competition. These activities can be introduced gradually in a stepwise and phased manner.

Second, if many of Iran's high-potential sectors require international markets (and foreign investment) to thrive, then facilitating the application of international quality management practices and meeting the requirements of international markets becomes even more

important for those sectors. The commitment and ability of firms in high potential sectors to adopt best-quality management practices, improve processes, implement international standards (e.g. ISO 9001, ISO 22000, ISO 14001 and ISO 45001) and demonstrate compliance with export market requirements with relative ease will add to their attractiveness to foreign investment.

As regards the technology transfer component of FDI, it is evident that, once transferred, e.g. through machinery or equipment, it entails skills and know-how for operations and maintenance and managing technical changes. Quality management is essential to quantifying, optimizing and sustaining the dividends of technology transfers over time (Figure 34).

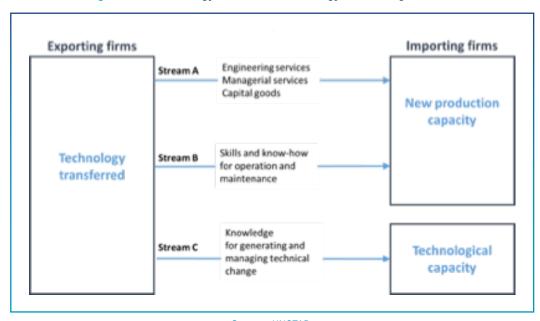


Figure 34: Technology content of technology transfer agreements

Source: UNCTAD.

Third, in order to foster a thriving MSME base, build an entrepreneurial ecosystem, invigorate a strong start-up culture and boost innovation in Iran, quality should be among the prime concerns. Quality and standards underpin critical success factors for these initiatives in formulating the unique selling proposition of consistently offering goods and services with excellence built in from the start, reducing the chances of failure. Iranian MSMEs, entrepreneurial ecosystems and start-ups' orientation to quality will help to methodically reduce risk, and systemize and stabilize operations by:

- Planning quality (i.e. designing products that meet customer requirements);
- Controlling quality (i.e. ensuring that products meet these requirements);

- Ensuring quality (i.e. ensuring products can continue to meet requirements); and
- Improving quality (i.e. making products even better).

Fourth, improvements to quality management would leverage Iran's human capital potential. A science, technology, engineering and mathematics (STEM) education is a common requirement Iran can easily fulfil, as indicated by its high ranking (5th across the world) in STEM education. Iran's export potential will be enhanced if it is able to attract and mobilize STEM graduates for successful deployment and retention in strengthening the national quality infrastructure system for widespread compliance with relevant technical requirements in the priority sectors (Figure 35).

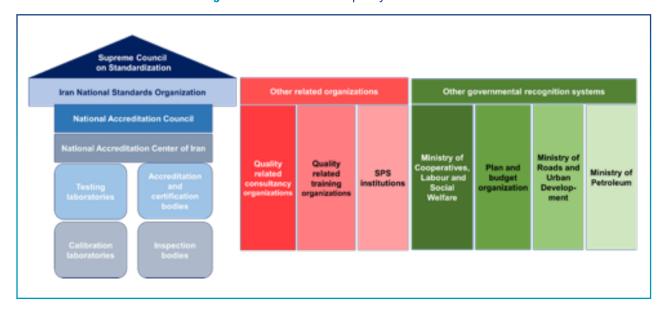


Figure 35: Iran's national quality infrastructure

Looking at the scope (both breadth and depth) of the functions of a typical national quality infrastructure system, it need not be highlighted that quality management in itself offers numerous rich avenues for employment. Expertise in this area is highly sought after and relatively rare. Iran in particular must not ignore the possibilities that can be generated in this field in light of existing STEM-qualified youth. Through intensive outreach, induction and mentoring programmes, Iranian youth can increase their participation and strengthen productive economic sectors. In good time, their exposure and experience can generate large pools of high-value professionals with requisite quality management (QM) expertise. Steps in this direction may help overcome any skills mismatch and lack of required expertise in the domain of quality and standards, while generating a much-needed employment stream responding to lack of skills alignment among policymakers, support institutions and private enterprises.

While Iran would need concerted efforts and focused initiatives concerning quality and standards, these initiatives must not be viewed as a separate/discrete element. The ultimate beneficiaries and users of a strong QIS in Iran are enterprises. Therefore, quality management activities would also need to be actively linked with programmes and activities developed to foster a strong entrepreneurship and innovation base among youth who are envisaged to create future enterprises and generate economic activity. In this regard, these two programmes could be seen as mutually reinforcing. This is to say, on one hand, quality and standards-related programmes can nourish entrepreneurship and innovation programmes to reinforce their quality orientation On the other hand, a QIS needs entrepreneurship

and innovation to generate quality related service providers in the form of advisory, training and consultancy services – either as private entities or under the auspices of public bodies.

Fifth, Iran aims to diversify and grow non-oil exports, among others, by increasing productivity in the agroprocessing sector to develop high-quality products with trade potential. Participation in international markets for food products entails compliance with some of the most stringent technical requirements like food safety, which is regulated, as well as buyers' requirements, which may include additional social and environmental exigencies. In this regard, it is imperative that Iran's agricultural and manufacturing sectors apply international standards related to food safety such as ISO 22000. This has to be built on prerequisites programmes such as Good Agricultural Practices (GAP), Good Manufacturing Practices (GMP), Good Hygiene Practices (GHP), and Hazard Analysis and Critical Control Points (HACCP). Certifications related to food safety systems and product standards will be important for Iranian firms in this sector. Food safety, moreover, would have an essential bearing on the tourism industry in being able to cater to the needs of international tourists and their expectations of safe and healthy food.

Sixth, increasing Iran's participation in international standardization activities at the level of International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), International Telecommunication Union (ITU), Codex, World Organisation for Animal Health (OIE), and International Plant Protection Convention (IPPC) will provide opportunities for the country to influence the formulation of international standards and market technical

requirements, taking into consideration the needs of the local producers. Such participation will enhance experience sharing in the field of standardization and adoption of best practices and new technology.

MAPPING THE QUALITY MANAGEMENT AND SPS FRAMEWORK

Iran's quality and sanitary and phytosanitary (SPS) infrastructure can be categorized along five themes:

- Standardization, which includes the "Supreme Council of Standards" and the Iranian National Standards Organization (INSO);
- The accreditation system, which includes the National Accreditation Center of Iran (NACI) and other governmental recognition systems;
- Conformity assessment, which includes metrology and calibration institutes, certification services and testing labs, and inspection services;
- Quality related consultancy and training organizations; and
- Sanitary and phytosanitary certification bodies, which includes the Iran Plant Protection Organization (IPPO), veterinary organizations and the Iran Food and Drug Administration (IFDA).

In addition to these, there are a number of quality and SPS-related associations that contribute to the efficiency and effectiveness of Iran's quality and SPS management systems.

Standardization

Standardization in Iran is established and sustained by the government. The two main governmental structures responsible for standardization are Iran's Supreme Council on Standards and the Iranian National Standards Organization (INSO). Iran's Supreme Council on Standards is the highest authority for standardization, and decides on all related policies and which standards should be mandatory. The President of Iran is the head and president of the council. The President of INSO is Secretary of the Supreme Council on Standards. INSO was established as a national standards body in 1960. Since 2011, INSO is under the direct supervision of the President of Iran, before which it was under the Ministry of Industry, Mine and Trade. INSO has so far developed some 29,000 national standards in different fields such as food and agricultural products, chemicals and polymers, mechanics and metrology, automation and vehicles, and quality management, etc.

Developing national standards is one of INSO's main responsibilities. Technical committees develop national standards in different fields. These committees comprise experts from INSO, stakeholders, academia, industries and research centres. Iran has 34 national committees to develop national standards in accordance with rules and regulations (Box 10). The committees are established in line with guidelines of respective functions and the policy established for selection of technical committees' members is approved by the Supreme Council of Standards. There are also 119 organizations, associations and/or institutes approved by INSO for developing draft of national standards.

Box 10: Halal standards

One of the issues for Muslim countries is the observance of divine laws in supplying Halal food. In this regard, Iran has attempted to deliver views emanating from religious beliefs. These measures include the following:

- INSO 12000, Halal Food General Guidelines: This standard determines the baseline for compliance requirements and characteristics of raw material and food products (at every stage of the food supply chain) according to the ordinances and the laws of Islam and consistent with the requirements of the Ja'fari faith.
- INSO contributions to developing Organization of the Islamic Conference (OIC) standards and General Guidelines for Halal Food: According to the laws and regulations, INSO is the sole official authority for both developing national standards and adopting international standards as national ones for products and services. Therefore, with an emphasis on preserving the common Islamic principles and avoiding conflicts and disputes, INSO contributed to the development of draft OIC standards based on commonalities of all Islamic faiths.
- Approval of halal logo: According to Clause 16 of Article 20 of INSO law, approving the design of standard marks as the governmental mark is the responsibility of the Supreme Council of Standards.



INSO is a participating member in 215 ISO technical committees (TCs) and subcommittees (SCs). It is an observer member in 219 ISO TCs and SCs. INSO acts as the secretariat for animal feeding stuffs; surface active agents; packaging (twinned secretariat with Japan); fertilizers, soil conditioners and beneficial substances; and cosmetics. It is a participating member in the Policy Development Committees on conformity assessment, consumer policy, developing country matters and reference materials. To date, INSO has participated in 624 ISO/TCs, 290 of which as a participating member, and 334 as an observing member.

National mirror committees set up by INSO contribute significantly to the development of international standards. These committees consist of secretariat, secretary, chair, vice chair and members that comprise a harmonious composition of different stakeholders such as producers, consumers, distributers, ministries, governmental organizations and institutes, research and laboratorial centres, academia, professional associations, engineering and consultation service providers, experts, conformity assessment bodies and INSO.

National mirror committees are evidently scientific and professional. Members of these committees are selected amongst qualified groups interested in contributing to the development and revision of international standards. They should set up a secretariat to enable industrial and professional associations' participation in the development of international standards, collecting finalized comments of stakeholders as per national interests and industrial development and then submitting

them to the international technical committees. Eight ISO standards have been developed, based on the original Iranian national standards, related to cosmetics microbiology. There are 210 mirror committees in INSO. Furthermore, INSO has some ongoing projects regarding international standards.

Metrology

The first Weights and Measures Law in Iran was adopted in 1925, according to which the International System of Units (SI system) was announced as the official measuring system in the country. The Islamic Republic of Iran became a member state of the International Bureau of Weights and Measures (BIPM) in 1975 and a member state of the International Organization of Legal Metrology (OIML) in 1977. Iran signed the International Committee for Weight and Measures Mutual Recognition Agreement (CIPM MRA) in 2016.

The National Metrology Centre of Iran (NMCI) was established in 1975 as a subdivision of INSO, with the technical assistances of UNIDO, the United Nations Development Programme (UNDP) and UNESCO as the biggest centre of its type in the Middle East. It is comprised of the Mechanical Measuring Department and the Electrical Metrology Department.

In 2012, aiming to reach the development standards and innovative technological prowess of industrialized nations, the Metrology, Weights and Measures Center of INSO initiated the development of a National Metrology Development Strategy programme, using

the latest scientific, academic, research and industrial capabilities. This strategy forms the basis of its first and the second five-year programmes. Following the organizational structure of metrology institutes in developed and developing countries, Iran's Metrology, Weights and Measures Center consists of scientific, industrial and legal metrology departments.

At international and regional levels, NMCI collaborates with the International Bureau of Weights and Measures (BIPM), the International Organization of Legal Metrology (OIML), the Asia Pacific Metrology Program (APMP), the Standards and Metrology Institute for Islamic Countries (SMIIC) and other national metrology institutes. It participates in various committees, including the standardization committees of OIML/TC, ISO/REMCO reference materials and the Metrology Council of SMIIC.

Conformity assessment

Conformity assessments consist of testing, inspection, certification and accreditation. In Iran, both the public and private sector carry out conformity assessment functions. Different organizations are involved in these two categories.

INSO is responsible for conformity assessments of different products and services, and issues the licence for use of its standard mark on products. Moreover, there are some other governmental organizations that conduct conformity assessments on some technical products and services. INSO's duties and roles in connection with conformity assessments are related to surveillance, permitting use of the INSO standard mark, issuing product quality certificates, evaluation, inspection and other technical activities, determining the nature

of importing goods and notifying customs, and certification of compliance with the energy consumption index.

Some governmental organizations in Iran act as conformity assessment bodies for specific technical products and services, including the Iran Food and Drug Administration (IFDA), the Ministry of Information and Communications Technology (ICT), the Road, Housing and Urban Development Research Center (BHRC) and the National Iranian Gas Company (NIGC).

There are a number of organizations in the private sector that provide conformity assessment services. These organizations may be active in one or more services in the assessment of conformity. A large number of certification bodies (CBs) operate in Iran, some of which are foreign companies and some are Iranian and accredited by NACI. Services delivered by certification bodies vary according to their competencies and accreditation. These services cover different areas related to quality in different sectors, and according to relevant international or national standards.

Services to certifying quality management systems include inventory taking of the current quality management system, reflection on the framework conditions (e.g. ISO 9001), certification, and monitoring audits, among others (Figure 36). While not all certification bodies can cover all services due to accreditation-related constraints and low competencies, joint venture certification bodies such as TÜV NORD Iran and foreign certification bodies that have affiliation in Iran can cover most of these services. However, due to sanctions, many foreign CBs had to discontinue or limit their services in Iran. The main certification bodies in Iran that have been accredited by NACI and/or by an international accreditation body include TÜV NORD Iran, DQS Middle East, and L'Istituto italiano del marchio di qualità (IMQ).

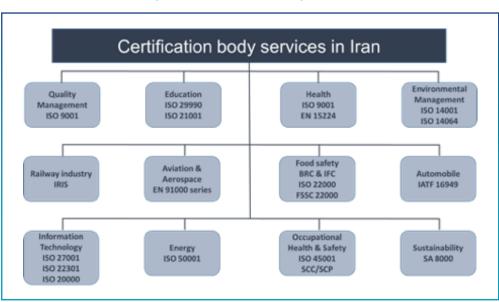


Figure 36: Certification body services

Private conformity assessment services provided in Iran also include inspection services. There are 173 inspection companies in Iran with valid ISO 17020 accreditation. Inspection services available in Iran include advanced non-destructive testing solutions, packaging commodities inspection, and material and goods inspection.

Non-destructive materials testing is an extremely effective way for product manufacturers and plant operators to gain a fast and reliable statement regarding product quality or plant condition. Defects in quality can be recognized early, and weak spots and damage –often leading to unplanned downtimes and gaps in production – can be avoided.

Non-destructive testing helps to maintain product quality and prevent disturbances in plant operation caused by component failure. Non-destructive testing services delivered from international inspection companies in Iran are accredited to DIN EN 473 at Levels 2 and 3, who have many years of practical experience and comprehensive know-how, working both on –and off-site. Inspection companies are also able to undertake non-destructive testing for organizations at manufacturers' and operators' premises at home and abroad. The following non-destructive testing services are available in Iran:

- Acoustic emission test
- Fast corrosion
- · Guided wave ultrasonic test method
- Inspection by Method of Saturated Low Frequency Eddy Current (SLOFEC)
- Phased array
- Thermography
- Corroscan
- Digital radio
- Time of flight diffraction (TOFD)
- Magnetic flux leakage (MFL)
- Positive material identification (PMI)
- Ring type joint (RTJ)
- Remote ultrasonic testing (RUT)
- Remote visual inspection (RVI)

Inspection of packaging commodities includes quality control of the packing items for petrochemicals along with the necessary standards and test instructions, and the evaluation of output capacities of manufacturing plants producing packaging materials. International standards, laws and local regulations and the situation are considered in this regard.

Material and goods inspection includes exported/imported goods inspection; inspection in the petrochemical complexes; monitoring and inspection of carriers; monitoring production lines; monitoring the accumulation, sorting and classifying of the goods entering a



warehouse; and the monitoring and inspection of the goods at the time of loading and arranging goods in the applicable transport.

As mentioned before, there are many inspection companies in Iran, of which some of the most well-known ones include Arya SGS, Iranian Inspection Company (IRICO), Techinco, Iran Group of Surveyors (IGS), Industrial & Engineering Inspection Co. of Iran (IEI), Iran Standard and Quality Inspection Co. (ISQI), Research Centre of Informatics Industries, Engineering and Technical Inspection Company (IKA), TÜV NORD Iran, and Lloyd Alman. Some inspection bodies have been accredited by NACI.

There are 740 testing laboratories accredited to ISO 17025. Testing laboratories give a wide variety of services in different fields such as metallurgy, electrical and electronics, wood and wood products, packaging, mechanics and metallurgy, food and agriculture, fertilizers and pesticides, chemistry, petroleum and petrochemical products, construction and mining materials and products, and vehicle and propulsion.

The accreditation system in Iran includes the National Accreditation Center of Iran (NACI) and other governmental accreditation centres. The National Accreditation Council has been established to ensure the impartiality and independency of NACI (Figure 37). The members are representatives from different ministries, universities, certification bodies and the private sector. The Council Chairman is the President of the National Iranian Standard Organization as described in the relevant bylaws. The Chairman presides at the Council meetings. All Council decisions are endorsed by the Chairman and enacted in close relationship with the NACI President. The Council has minimum 7 and maximum 21 members selected from the interested parties of the public & private sectors. The private sector representatives are selected from the organizations with scope of activities related to the NACI accreditations, with priority given to the NGO representatives of such organizations. The Council members are selected for 4 years.

The President and the Management Representative of NACI as Council Secretary will participate in all Council meetings. An updated list of Council members, including their full name and address, along with the organization & sector they represent, will be kept by the NACI Secretariat.

The Council members are selected based on their representation of relevant sectors, or on the basis of their individual expertise, impartiality and independence needed for the Council functions. The public sector representatives may include the followings among others:

- Planning & Development VP of the INSO President,
- · National Iranian Standard Organization;
- Standard Research Institute;
- Ministry of Health and Medical Education;
- Ministry of Agriculture;
- Ministry of I.C.T;
- Ministry of Industry, Mine & Trade;
- Ministry of Cooperative Labour and Social Welfare;
- Consumer & Producer Protection Agency; and
- The Iranian Chamber of Commerce Industries, Mines and Agriculture.

The private sector representatives are invited from the following NGOs among others:

- · Iranian Society for Quality,
- · Iranian Quality Management Association,
- Audit & Inspection Association of Iran,
- Association of Cooperating Labs,
- · Association of the Standard Mark Holders,
- · Executive Management Association,
- Welding & NDT Association of Iran,
- Project Management Association of Iran,
- Association of Management Consultants, and
- Iranian Association of Development & Improvement of Industrial Quality.

Competent representatives depending on the needs & balanced representation of NACI activity sectors as decided by the President may be more than one member from some interested parties.

The Iran accreditation system was established in 1996 and changed its name to the National Accreditation Center of Iran (NACI) in 2010 and performs its responsibilities as an independent centre under the direct supervision of the INSO President since 2012. NACI provides services regarding accreditation related to product and management system certification bodies, calibration and testing laboratories based on ISO 17025, laboratories based on NACI instruction-208/111, and inspection bodies.

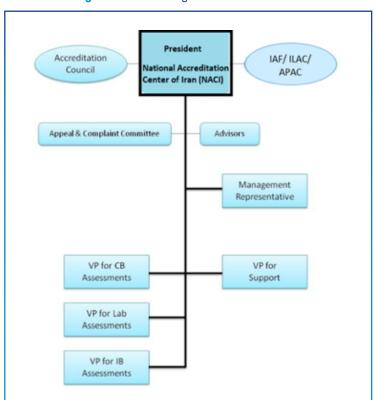


Figure 37: NACI organizational structure

Based on the Multilateral Recognition Agreement (MLA) by the President of NACI and the head of the International Accreditation Forum (IAF) at the IAF-ILAC Joint Meeting on 19 July 2017, NACI gained international recognition for its accreditation services related to environmental management systems certification (ISO 14001), quality management system certification (ISO 9001), energy management system (ISO 50001), occupational health and safety management system (ISO 45001), and food safety management (ISO 22000) certification in more than 70 countries.

Alongside NACI, there are a number of accreditation systems in Iran that are under the supervision of ministries and other governmental structures. The Ministry of Cooperatives, Labour and Social Welfare provides two types of recognition: it authorizes contractors in relation to safety issues, and provides Labour Office Certificate of Competence. The Plan and Budget Organization is under the direct supervision of the President of Iran. The Certificate of Contractor Competency is issued by Plan and Budget Organization and the Vice President for Planning and Strategic Supervision. This certificate is based on ranking or grading system and indicates the technical and executive capability of a company, and is useful for contracting companies, consulting companies and software companies. The Road, Housing and Urban Development Research Center (BHRC) is the unique official Iranian research organization in the field of building and housing. It is responsible for studying and researching relevant problems associated with construction activities in the country, planning options, improving the quality, capacity, scientific and technical capabilities in the fields of transportation, building and housing, architecture and urban development. The Department of Consultants and Contractors Affairs in the Ministry of Petroleum formulates the rules of certification of consultants and contractors and certifies consultants and contractors in the petroleum sector. The Iran Information Technology Organization evaluates and accredits companies in the ICT field and also evaluates and endorses laboratories in the field of information security. These laboratories are responsible for testing security products.

Promotion of quality

The promotion of quality in Iran concerns quality related training and consultancy activities and the work of quality associations.

Among INSO's responsibilities is training and promotion of standards. Among its responsibilities in this regard are policy development, the development

and supervision of educational and advocacy programmes, technical and other partnerships with the private and public sectors, and the accreditation of associate educational centres. There are a number of organizations providing quality related consultancy and training services to society. Prominent quality related consultancy and training organizations include the Industrial Management Institute, TÜV Academy Iran-Germany, Arshanik Avid, Iran Engineering Inspection Co., Fahameh, Pooya Sanat, and Marzban Keyfiat Danesh. In addition, available quality related training services include Master of Business Administration (MBA) programmes in industrial engineering management and quality management, training based on ISO 9001:2015, IRCA¹⁴-registered ISO 9001: 2015, ISO 14001:2015, ISO 45001, ISO 5001 lead auditor training courses, and trainings on process management and risk management, among others. Quality related consultancies offer assistance in targeted areas.

The main quality associations in Iran are the Iranian Quality Management Association, Iranian Scientific Association of Quality (ISAQ), Audit and Inspection Society of Iran (AISI), Iran Association for Standard Holders (IASH), and Iranian Society for Green Management (ISGM).

Sanitary and phytosanitary capacities

The four main institutions or departments in Iran that play a key role in sanitary and phytosanitary (SPS) services are the Iran Food and Drug Administration (IFDA), Food Control and Evaluation Laboratories Centre (under IFDA), Iran Plant Protection Organization (IPPO), and Iran Veterinary Organization (IVO) for animal health.

The Iran Food and Drug Administration (IFDA) is the main body responsible for food safety in Iran and, as part of its duties, carries out the related import—export controls and support services. According to an ISO 2018 survey, 81 companies are certified and 68 companies have HACCP certification in Iran.¹⁵ The Food Control and Evaluation Laboratories Center, a department of IFDA, is responsible for control of imported raw materials, food and beverage products and related activities.

Iran has 257 approved food laboratories with different scopes. There are eight accredited inspection and audit companies for conducting food safety audits abroad.

According to the Act of Veterinary Organization (1971), import and export of live animals, embrocated eggs, animal sperm, raw animal origin products, veterinary drugs, vaccines, serum, biological materials,

^{14.-} International Register of Certificated Auditors

^{15.-} https://www.fda.gov.ir.



disinfectants and poisons, and concentrated feedstuff and complementary feedstuff or required drugs for manufacturing the mentioned materials, shall be done in agreement with the Ministry of Agriculture Jihad.

Under the auspices of the Ministry of Agriculture Jihad, the Iran Veterinary Organization (IVO) was established in 1924, upon a rinderpest outbreak imposing a heavy loss to the animal farmers. IVO is the national authority in the field of animal health and raw animal-derived product hygiene. IVO has 6,000 employees around Iran and 747 offices and units in 31 provincial general directorates. More than 21,000 personnel work as veterinarians and para-veterinarians in Iran. IVO has implemented the GIS¹6-based animal disease surveillance system throughout the country, along with the integral quarantine system and other related systems to comply with World Organisation for Animal Health recommendations.

Veterinary services are provided by private, country veterinary, provincial veterinary, special national veterinary and central veterinary labs. These labs provide services such as specialty pathology and diagnosis, microbiology and diagnostic parasitology, diagnostic serology, diagnostic toxicology, chemical analysis of food and feed of livestock and poultry, food microbiology and plant protection.¹⁷

Under the supervision of the Ministry of Agriculture Jihad, the Iran Plant Protection Organization (IPPO) is one of the main institutes responsible for plant protection in Iran. Operating under the Plant Protection Act and International Plant Protection Convention (IPPC), the IPPO's council includes high-level representatives from the Ministry of Agriculture Jihad, the Ministry of

Interior, the Ministry of Health and Medical Education, and other public sector organizations. The IPPO's goal is to protect the country from entry and spread of pests and disease, through appropriate policies. It has three directorates respectively for plant quarantine, pest risk analysis, and phytosanitary standards and pest control. The Plant Quarantine Directorate is responsible for control of imports and exports and issues phytosanitary certificates in line with International Standards for Phytosanitary Measures (ISPM) standards. It has 70 quarantine offices, many of which are at borders.

Technical regulatory framework

Based on the law of the Sixth Five-Year Development Plan, which was enacted in 2017, Iran's major goals regarding quality are the improvement of the quality and competitiveness of products for export through modifications to currency, trade and tariff policies, as well as modernization of industries to reduce energy consumption and pollution, and increase efficiency and improve the quality of domestic production and their competitiveness for export.

The first meeting of the National Quality Strategy Council was held on 18 December 2017, with the President of the INSO, the representatives of ministries and the Supreme Body of the Standardization Council, the President of the Iranian Quality Management Association, as well as academic specialists and representatives of specialized organizations to develop and document the National Quality Strategy. This strategy document is not yet finalized.

Key pieces of legislation related to quality and SPS in Iran include:

- The Law of Weights and Measures (1925);
- Strengthening and developing the standardization system (2017);
- Amendment of Rules and Regulations of INSO (1993);
- Establishment of INSO (1960);
- Integrating national standard system in the country;
- Article 33 of the Law on Amendment of the Law of the Fourth Economic, Social and Cultural Development Plan (2004);
- Article 4 of the Law of the Sixth Five-Year Development Plan (2017);
- Law on Food, Beverage and Cosmetics (1967);
- Bio Safety Act (2009);
- Act of Veterinary Organization (1971);
- Plant Protection Act (1967);
- Labour Law (1990) (Table 14).

^{16.-} Geographic information system.

^{17.-} https://int.ivo.ir/.

Table 14: Legislation related to quality and SPS -

Legislation and year	Purpose/scope	Enforcement body
The Law of Weights and Measures (1925)	Weights and measures	INSO – Metrology, Weights and Measures Center
Strengthening and developing the standardization system (2017)	Standardization and accreditation in Iran	INSO and NACI
Amendment of Rules and Regulations of INSO (1993)	Rules and regulations of INSO	INSO
Establishment of INSO (1960)	General policy and outline of INSO's technical, financial and administrative matters	Ministry of Industry, Mine and Commerce
Integrating national standard system in the country	Integrating national standard system in the country in industry, agriculture and service sectors	President of the Islamic Republic of Iran
Article 33 of the Law on Amendment of the Law of the Fourth Economic, Social and Cultural Development Plan (2004)	Conformity assessment	INSO and NACI
Article 4 of the Law of the Sixth Five-Year Development Plan (2017)	Improving the quality and competitiveness of products for export	Executive branch
Law on Food, Beverage and Cosmetics (1967)	Issues about food, beverage and cosmetics production, import and export	Ministry of Health and Medical Education, Vice Chancellor's Office in the Iran Food and Drug Administration
Bio Safety Act (2009)	Issues related to bio safety	Ministry of Agriculture Jihad; Ministry of Health and Medical Education; Ministry of Science, Research and Technology; Department of Environment
Act of Veterinary Organization (1971)	Improving animal health	Iran Veterinary Organization
Plant Protection Act (1967)	Plant protection	Plant Protection Organization
Labour Law (1990)	Labour safety	Ministry of Cooperatives, Labour and Social Welfare

CONSTRAINTS

Key constraints related to the quality management system have been identified at the levels of technical and regulatory factors, enterprise capacities, and institutional cooperation and capacities.

Technical and regulatory factors raise costs

Severity: • • ○

There is a need to address shortcomings at the technical regulatory level in order to support compliance and reduce associated costs in Iran. Organizational overlaps, as well as overlapping controls (INSO, IFDA, the Consumer and Producer Protection Organization, and others) need to be reduced or eliminated, where possible, and organizational reforms may be needed to ensure that institutional capacities match responsibilities and exigencies.



The principles of Good Regulatory Practice (GRP) should be applied against mandatory standards (technical regulations) and regulatory burdens on both agencies and enterprises eased. The governmental organizations related to different ministries of Iran and NACI should establish cross-functioning regulations in order to harmonize the different accreditation/approval systems for Iranian manufacturers and service providers (modification of technical regulatory framework). Standardization can also be harmonized in line with regulations and laws applicable in different commercial zones (e.g. European Union).

Enterprise-level capacities need to be strengthened

Severity: • • ○

At enterprise level, to maintain and improve access to markets, there is a need to build enterprise-level capacities to enhance quality. This would include building the capacities of MSMEs to comply with international standards, and technical regulations in target markets. In particular, the capacity of firms to comply with food safety and packaging requirements of certain foreign markets, especially the European Union, should be considered. Special attention should be given to reduce the number of interceptions at EU borders related to food safety issues.

Capacity development is hindered by a lack of information, such as relevant product – or sector-specific information and technical regulations and SPS measures applicable to exporters' products in target markets. There is also the need to increase the awareness of traders and exporters about accreditation and certification regulations, benefits and importance.

A mechanism is lacking to protect firms from losing the access to international markets they presently have by providing support for renewing of certifications and increasing the number of firms with certification to international standards for enhanced market access.

The COVID-19 pandemic has illustrated the need for enhanced resilience. Firm capacities in risk management, business continuity management system, crisis management and innovation management can be further improved based on guidelines and requirements of international standards.

Institutional factors have slowed reform

Severity: $\bullet \bullet \circ$

At the institutional level, capacity challenges remain an issue. The small pool of NACI assessors is an issue in regards to the large pallet of different accreditation schemes. Laboratories need to participate in proficiency testing schemes and comparison between labs to



comply with the accreditation standard ISO/IEC 17025. A better coordination among different quality related institutions is needed for better synergy in their assistance to MSMEs for compliance to standards, technical regulations and SPS measures. More generally, a greater emphasis is needed on strategic planning among relevant standards and quality related institutions for better service to exporting companies.

Furthermore, limited international cooperation hinders institutional effectiveness. It would be beneficial for NACI to be a signatory of the International Laboratory Accreditation Cooperation (ILAC) MRA, in support of international recognition of the testing and calibration laboratories and inspection bodies, as well as for NACI to enhance its scope of work and make cooperation agreements with more national and international entities.

THE WAY FORWARD

The objective of the quality management roadmap is to support the goals of the NES and to simultaneously address underlying factors in the national quality infrastructure system that significantly influence the ability of Iranian firms to supply quality products in international markets. It provides guidance and support in the identification and implementation of actions that reinforce Iran's quality infrastructure system, aligning it to international best practices. At the same time, activities coordinated with sector priorities will enable firms to improve quality, meet standards and demonstrate compliance to technical requirements, including sanitary and phytosanitary measures, in targeted export markets (Table 15).

	Table	15:	Quality	, manac	rement	in the	NFS	sector	strategies	
_	IUDIC	IU.	Quality	HIIAHAC	101110111	III UIO	IVLO	366101	oti atouioo	

Sector	Relevant activities
Medicinal herbs	 2.5.1. Support exporters in compliance with Good Agricultural and Collection Practices (GACP), Good Manufacturing Practices (GMP), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), HACCP, SPS and the Convention on Biological Diversity (CBD)/Access and Benefit Sharing (ABS) 2.5.2. Develop organic production of medicinal herbs and derived products 2.5.3. Establish a specific EU market expert unit/desk to support exporters to comply with the European legislation 2.5.4. Publicize the list of voluntary standards required in target markets, including organic, sustainability and corporate social responsibility (CSR) 2.5.5. Develop participatory guarantee systems (PGS)
Fruits and vegetables	 1.3.1. Monitoring unit on quality management (QM) issues in the Ministry of Agriculture Jihad 1.3.2. Consultations with farmers and firms to identify required reforms 1.3.3. Mutual recognition agreements with target markets (at least five) 1.3.4. Support NACI to get ILAC membership 1.3.5. Develop new traceability requirements 1.3.6. Capacity building on QM to fruits and vegetables farmers and retailers
Petrochemicals	 4.1.1. Conduct a capacity assessment of the domestic organizations involved in quality management of petrochemicals products 4.1.2. Encourage greater compliance with international quality standards and the requirements of high-potential export markets 4.1.3. Sensitize firms to the importance of standards and quality certifications in expanding exporting and raising the value of exported products 4.2.1. Develop new environmental requirements and voluntary standards 4.2.2. Support firms' compliance with international voluntary standards on sustainability to foster improved export prospects
Auto parts	 3.3.1. Campaign about benefits of international standards certification 3.3.2. Provision of support to achieve international certification 3.3.3. Develop a voluntary quality rating system for auto parts with parts and vehicle manufacturers 3.3.4. Establish an independent body with public and private sector representatives to manage sector-specific quality measures 3.3.5. Establish a grant scheme to support businesses' internationalization via product certificates
Information and communications technology	3.1.1. Set up a business certification programme for offshore markets. This programme will focus on the certifications needed for software developers, including facilitating access to certification to ISO 27001 and 22000
Tourism	 1.1.3. Development of specific materials on best practices, quality standards and sustainability at each node of the tourism value chain 2.1.2. Align certification process to international standards for companies interested in specializing in health tourism-related services 3.2.3. Development of certification and regulation for therapeutic balneotherapy suppliers

The implementation of the quality management system (QMS) strategy will ultimately enhance Iran's technical institutional and regulatory framework, improve conformity assessment procedures and attain recognition of its conformity assessment bodies (CABs) at international level, and enhance the capacity of its enterprises to comply with technical requirements in foreign markets and receive the necessary certification.

As a result, Iran will reinforce the competitiveness of its priority sectors as regulatory and procedural burden on firms are eased and a higher number of firms improve quality and comply with technical requirements, and can get certified in a manner that is recognized in foreign markets. The national technical regulatory framework will also be more conducive and business

friendly while Iran's quality infrastructure system will be able to provide a more comprehensive and streamlined range of services to its enterprises.

Strategic objectives

The plan of action outlines a path to achieving this vision, through the implementation of activities under three strategic objectives, related to enhancing the technical, institutional and regulatory framework, improving conformity assessment procedures and attaining their recognition at the international level, and enhancing enterprise capacities to comply with foreign market technical requirements (Table 16).

-Table 16: Quality management strategic and operational objectives-

- Enhance the technical, institutional and regulatory framework, making it more business friendly
- 1.1. Review the role and responsibilities of the different quality and SPS-related institutions to ensure better synergy among the institutions
- 1.2. Develop/review the national quality policy to better support the quality culture of MSMEs and build their resilience to crises (such as COVID-19)
- 1.3. Set up an improved coordination mechanism among INSO and regulatory bodies
- 1.4. Review, update and improve the quality and SPS-related legislation
- 1.5. Set up a coordination mechanism among different quality related institutions for better synergy in their assistance to MSMEs for compliance to standards, technical regulations and SPS measures
- 1.6. Support relevant standards and quality related institutions to develop their strategic plan for better service to exporting companies

- Improve conformity assessment procedures and attain their recognition at the international level
- 2.1. Support NACI for becoming signatory of the ILAC MRA
- 2.2. Support selected priority testing and calibration laboratories for recognition at international levels. This will include support on their participation in international proficiency testing and inter-lab comparison programmes
- 2.3. Alignment of inspection procedures with new official control regulations of the EU and training and coaching of inspectors to implement these procedures

- Enhance enterprise capacity to comply with foreign market technical requirements (i.e. standards, technical regulations and SPS measures)
- 3.1. Train MSMEs on updated information access to standards, technical regulations and SPS measures using different existing tools
- 3.2. Train and coach MSMEs through the national quality associations in the implementation of quality tools to improve quality and productivity
- 3.3. Train and coach MSMEs to implement occupational health and safety management system (ISO 45001) for better protection of workers
- 3.4. Train and coach selected MSMEs to comply with specific market technical requirements
- 3.5. Build capacities of firms to improve their resilience in times of crisis (such as COVID-19) through the implementation of risk management, business continuity management system, crisis management and innovation management based on guidelines and requirements of international standards
- 3.6. Provide a matching grant for MSMEs to improve quality and get necessary marketrelevant certification

Strategic Objective 1: Enhance the technical institutional and regulatory framework and making it more business friendly

Institutional and regulatory factors set the conditions for Iran's quality management system, and are in need of attention. This will begin with a review of the roles and responsibilities of relevant institutions, to facilitate coordination and more efficient organization, which will be further supported through the establishment of an improved coordination mechanism among INSO and regulatory bodies. A separate coordination mechanism among different quality related institutions will also be established to promote better synergy in their assistance to MSMEs. A similar review of the National Quality Strategy will also help to identify opportunities for improving support to MSMEs. SPS-related legislation is to be reviewed and reformed. Support is to be provided for relevant standards and quality related institutions to develop their strategic planning.

Strategic Objective 2: Improve conformity assessment procedures and attaining their recognition at the international level

International recognition of conformity assessment procedures is critical in leveraging a more effective quality management system to improve Iranian exporting.

Under this strategic objective, support is to be provided for the NACI to become a signatory of the ILAC MRA. Activities will also support selected priority testing and calibration laboratories for recognition at international levels. Inspection procedures are to be aligned with Official Control Regulations of the EU and training and coaching of inspectors to implement these procedures.

Strategic Objective 3: Enhance enterprise capacity to comply with foreign market technical requirements (i.e. standards, technical regulations and SPS measures)

At the enterprise level, capacities will need to be strengthened to complement institutional and regulatory reform and to take advantage of expanded international opportunities. Activities to be carried out targeting firms include trainings on updated information access to standards, technical regulations and SPS measures using different existing tools, working with national quality associations, and an occupational health and safety management system. Support will also be provided on building firm resilience through the implementation of risk management, a business continuity management system, crisis management and innovation management based on guidelines and requirements of international standards. Financial assistance will be offered as well.

PLAN OF ACTION

To achieve the vision and strategic objectives discussed, a robust, actionable and realistic strategic plan of action (PoA) is required. This is provided below, and constitutes the heart of this strategy. The PoA

is structured along the three strategic objectives described above and their operational objectives, with information on the priority, timing, type, targets, and lead and supporting implementing partners for each activity. The successful implementation of the roadmap will depend on several factors (Box 11).

Box 11: Key success factors in implementing the quality management roadmap

The approach adopted to deliver the quality management roadmap is equally important. Processes underlying delivery of outputs and results will encourage participation, consultation and a partnership approach with shared responsibilities. The quality management roadmap will garner commitment, favour exchange of views, and coordination among relevant stakeholders to build capacities and competence in the QIS for firms' compliance with market requirements, thus improving their competitiveness and enabling market connections. To this effect, the quality management roadmap will be delivered using ITC's 5C approach to quality (Figure 38).

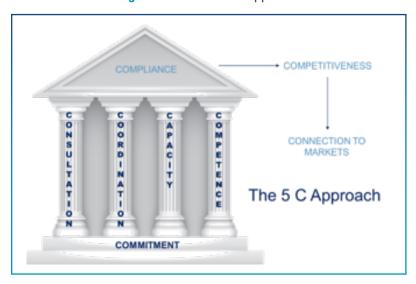


Figure 38: The five Cs approach

Commitment of policymakers and other local stakeholders is indispensable to carrying out effective, efficient and sustainable interventions. Towards garnering commitment, quality management interventions will build on Iran's overarching quality vision and, as needed, adapt to align with an agreed-on policy and existing strategies. Envisaged work under this cross-functional roadmap will help Iran to define well its national technical regulatory framework and support the formulation of relevant enabling legislation to give effect to its shared vision.

Capacity building will form the essence of quality management work. Based on international best practices, where required, activities will aim to reinforce institutional capacities and services provided by the national standards body, conformity assessment bodies (testing laboratories and certification/inspection bodies), metrology institutions, agencies related to food safety, national plant protection and animal health services, etc.

An institution/national partner-led approach will importantly form the basis of assistance to enterprises. The said assistance will aim at building awareness on the importance of quality and standards among firms, disseminating information on technical requirements in target markets, and building their capacity to comply with technical requirements and achieve the certification needed. Through training and transfer of know-how, methodologies and skills, relevant staff from national institutions and related associations will be strengthened such that they may fully assume their role in service provision to prompt and promote quality and standards among enterprises and provide services to improve their ability to comply with technical requirements of target markets and be certified.



Box 11: Key success factors in implementing the quality management roadmap (cont.)

Competence recognition support activities will primarily address the issue of non-recognition of Iran's national bodies active in conformity assessment, which has been the cause of delays, unnecessary costs to transactions and even, in some cases, rejection of consignments. To overcome this challenge, NACI will be supported to be a signatory of the ILAC MRA, towards international recognition of the testing and calibration laboratories, and inspection bodies.

Consultation enhancement between policymakers and the private sector will aim to reduce the burden of government regulations or measures on transactions, and ultimately increase the predisposition and willingness of the private sector to follow these rules and procedures. The consultation activities under quality management roadmap implementation will provide a mechanism for consultation on technical regulations and SPS measures, in line with good regulatory practices.

Coordination and collaboration among institutions in the QIS, key sector associations and export promotion and trade development bodies is essential to address any duplication in procedures that increase transaction costs or result in confusion or unnecessary controls and delays for businesses. The activities carried out under the quality management roadmap will encourage coordination and cooperation among all relevant institutions towards creating operational synergies while expanding present and new services and the ability for outreach.

				Period				
Strategic objective	Operational objective	Activity	Priority	2022 2023 2023 2023	Reform or project	Targets	Leading implementing partners	Supporting implementing partners
		1.1.1. Seek preliminary views from each institution.	-		Project	 Institutions engaged and concerns and perceptions understood, 	Ministry of Agriculture Jihad (Iran Plant Protection Organization and Iran Veterinary Organization)	IFDA; INSO
		1.1.2. Organize stakeholder consultations. Identify and articulate benefits. Address concerns and define and agree jointly on scope. Ensure overall stakeholder alignment and agreement.	-		Project	 Stakeholder agreement on way forward 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
	1.1 Review of the role	1.1.3. Assess the roles and responsibilities of each institution to identify overlaps and gaps.			Project	 Roles, Gaps over- laps and rationale understood 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
1. Enhance the technical, institution	and responsibilities of the different quality and SPS-related institutions to ensure better synergy among the institutions	1.1.4. Conduct stakeholder workshop to validate the roles and responsibilities.			Project	 Agreement on identified roles, gaps, and overlaps 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
and regulatory framework and make it more business friendly		1.1.5. Fact find, sequence and analyse control measures with specific reference to priority sectors.			Project	 Practical aspects of gaps and overlaps identified 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
		1.1.6. Recommend ways to reduce overlaps and propose a streamlined and optimized set of responsibilities.	-		Reform	 Solutions/alternates devised 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
		1.1.7. Conduct stakeholder workshop for comments and discussions. Finalize recommendations.	-		Reform	 Stakeholder agree- ment on proposed solutions. 	Ministry of Agriculture Jihad (Iran Plant Protection Organization, and Iran Veterinary Organization)	IFDA; INSO
	1.2 Develop/review the National Quality Policy to better support the quality culture of SMEs	1.2.1. Based on the review under 1.1., set up a task force to develop/review the National Quality Policy of Iran with an action plan.	-		Project	 Task force members identified and accorded mandate 	INSO	Supreme Council of Standards members
	and build their resilience to crises (such as COVID-19)	1.2.2. Conduct a validation workshop of the National Quality Policy.	-		Reform	 NQP validated with action plan 	INSO	Supreme Council of Standards members

:	Supporting implementing partners	Supreme Council of Standards members	IFDA; Consumer & Producer Support Organization; Department of Environment; IVO; IPPO	IFDA; Consumer and Producer Protection Organization; Department of Environment; IVO; IPPO	IFDA; Consumer and Producer Protection Organization; Department of Environment; IVO; IPPO	IFDA; Consumer and Producer Protection Organization; Department of Environment; IVO; IPPO	IFDA; INSO; IPPO	IFDA; INSO; IPPO	
	Leading implementing partners	INSO	OSNI	OSNI	OSNI	OSNI	Ministry of Agriculture Jihad; Iran Plant Protection Organization; Iran Veterinary Organization	Ministry of Agriculture Jihad; Iran Plant Protection Organization; Iran Veterinary Organization	
	Targets	• Technical Committee members identified, roles defined, and timelines and workplan set	Present coordination areas frequency and departments identified	 Additional areas and options for ease of coordination identified. 	• Stakeholder agreement built	 Systems and procedures in place 	Relevant legislation identified and listed Texts of legislations received Preliminary Comments, observations, and recommendations prepared	Operational and institutional context understood Recommendations shared with beneficiaries	
	Reform or project	Reform	Project	Project	Reform	Reform	Project	Project	
Period	2025 2023 2023 2023								
	Priority	-	-	-	-	-	-	-	
	Activity	1.2.3. Set up a technical committee to guide and monitor the implementation of the National Quality Policy and its action plan.	1.3.1. Examine current means/methods of coordination.	1.3.2. Identify areas to improve coordination.	1.3.3. Propose options and mechanisms to coordinate in participation with stakeholders.	1.3.4. Set in place the mechanisms for coordination.	1.4.1. Compile and review texts and provisions of relevant legislation.	1.4.2. Identify areas for improvement and prepare recommendations for update.	
	Operational objective	1.2 Develop/review the National Quality Policy to better support the quality culture of SMEs and build their resilience to crises (such as COVID-19)	1.3 Set up an improved coordination mechanism among INSO and regulatory bodies (IFDA; Consumer & Producer Support Organization; Department of Environment; IVO, IPPO)				1.4 Review, update and improvement of the quality and SPS-related legislation		
	Strategic objective	1. Enhance the technical, institutional and regulatory framework and make it more business friendly							

	Leading implementing Supporting implementing partners	Ministry of Agriculture Jihad; Iran Plant Protection Organization; Iran Veterinary Organization			Ministry of Agriculture Jihad; IFDA; Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Org.)	Ministry of Agriculture Jihad; IFDA; Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Org.)	Ministry of Agriculture Jihad; IFDA; Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Org.)	Ministry of Agriculture Jihad; IFDA; Ministry of Industry, Mine and Trade (Iran Small Industries and
	Targets Leading i pa	Improved understanding and rationale behind formulation of tech nical regulations among regulators and implementers understandinistry of tech Organis Acterinary Among regulators Ueterinary	Ministry of point action plan Jihad; Iran I prepare and agreed Organison. Veterinary of the prepare and agreed on the prepare and agreed on the prepare and agreed on the prepare and th	Ministry of GRP implementa- Jihad; Iran I fran I fran begins Organi:	Identify weaknesses in the current mechanisms of coordination	A map of interre- lated activities, new areas of coordina- tion and improved coordinaton methods identified	Stakeholder agree- ment on proposed coordination measures	 Mechanism TORs, agreed which institutions ratify.
	S025 or project	• Project	Project	Reform	Project I	Project	Project	• Reform
Period	Priority 2021 2022 2023				-	-	-	
	Activity	1.4.3. Conduct workshop on good regulatory practices and share recom- mendations.	1.4.4. Validate a joint way forward and plan of action.	1.4.5. Implement the joint action plan	1.5.1. Examine current means/methods of coordination.	1.5.2. Identify areas to improve coordi- nation.	1.5.3. Propose options and mechanisms to coordinate in participation with stakeholders.	1.5.4. Set in place the mechanisms for coordination.
	Operational objective	1.4 Review, update and improvement of the quality and SPS-related legislation legislation among different quality related institutions for better synergy in their assistance to SMEs for compliance to standards, technical regulations and SPS measures						
	Strategic objective	1. Enhance the technical, institutional and regulatory framework and make it more business friendly						

Supporting implementing partners	Ministry of Industry, Mine and Trade; Ministry of Agriculture Jihad (including NPPO and IVO); IFDA; ITPO	Ministry of Industry, Mine and Trade; Ministry of Agriculture Jihad (including NPPO and IVO); IFDA; ITPO	Ministry of Industry, Mine and Trade; Ministry of Agriculture Jihad (including NPPO and IVO); IFDA; ITPO	OSNI	INSO	INSO	INSO	
Leading implementing partners	OSNI	OSNI	OSNI	NACI	NACI	NACI	NACI	
Targets	 List of associations, contacts, and man- dates understood 	 SWOT maps and analysis with recommendations ready 	 Strategic action plan validated 	 Improved understanding of procedures, criteria rationale among NACI staff 	Relevant staff understand the requirements to fulfil	• NACI aware of which requirements are fulfilled and which need further action to be fulfilled	 NACI possesses specific steps to take to fulfil require- ments and readied to act on these. 	
Reform or project	Project	Project	Project	Reform	Reform	Reform	Reform	
2022 2023 2024 2024								
Priority				2	2	2	2	
Activity	1.6.1. Identify key institutions for support based on their importance to selected export sectors.	1.6.2. Conduct a strengths, weaknesses, opportunities and threats (SWOT) analysis for the selected institutions.	1.6.3. Develop and validate the strategic plan with stakeholders of the institutions.	2.1.1 A one-day awareness seminar on the importance of accreditation to facilitate international trade, the procedures used for accreditation, and the criteria for participation in the ILAC arrangement and the International Accreditation Forum (IAF) MLA.	2.1.2 Train relevant NACI staff on ISO/IEC 17011:2017 general requirements for bodies providing assessment and accreditation of conformity assessment bodies.	2.1.3 Facilitate self-assessment against requirements of the standard.	2.1.4 Identify actions and measures to fulfil the requirements not met.	
Operational objective	1.6 Support relevant standards and quality related institutions to develop their strategic plan for better service to exporting companies			2.1 Support NACI for becoming signatory of the ILAC MRA				
Strategic objective	1. Enhance the technical, institutional and regulatory framework and make it more business friendly			2. Improve conformity assessment procedures and attain their recognition at international level				

				Pe	Period				
Strategic objective	Operational objective	Activity	Priority	2022	5052 5054 5053	Reform or project	Targets	Leading implementing partners	Supporting implementing partners
		2.2.1 Training on the specific application of ISO/IEC 17025 for laboratory assessors.	2			Reform	 Laboratory assessors improve knowledge and skills on application of ISO 17025 	INSO	NACI; National Metrology Centre of Iran
	2.2 Support selected priority testing and calibration laboratories	2.2.2 Arrange attachment training for accreditation body staff in a recognized accreditation body.	2			Reform	 Attachment training improves capacity and skills of NACI staff 	OSNI	NACI; National Metrology Centre of Iran
2. Improve	international levels. This will include support on their participation in international	2.2.3 Facilitate collaborative assess- ments of laboratories and certification bodies with recognized foreign accredi- tation bodies.	2			Reform	 Improved comparability and convergence with international best practice 	INSO	NACI; National Metrology Centre of Iran
conformity assessment procedures	inter-lab comparison programmes	2.2.4 Training on the management of proficiency testing and participation in external proficiency testing programmes.	2			Reform	 Proficiency services in Iran strengthened 	OSNI	NACI; National Metrology Centre of Iran
and attain their recognition at international level		2.2.5 Facilitate access to the ILAC/ISO Pre-Peer Evaluation Process and to the IAF/ISO Pre-Peer Evaluation Process.	2			Reform	NACI recognized at international level for accreditation of conformity assess- ment bodies	INSO	NACI; National Metrology Centre of Iran
	2.3 Align inspection procedures with new official control regulations of the EU and train and coach inspectors to implement these procedures	2.3.1 Train regulatory agencies undertaking official controls in Iran on the provisions of Official Controls Regulation (EU) 2017/625 with emphasis on riskbased approach to official controls.	2			Project	Regulatory agencies understand advantage and benefits EU RBA and controls and relation to improved risk management	INSO; IFDA; Ministry of Agriculture Jihad (including NPPO and IVO)	Members of National Inspection Board; Islamic Republic of Iran Customs Administration; Central Bank of the Islamic Republic of Iran; TPO; Iran Chamber of Commerce, Industries, Mines and Agriculture; Audit & Inspection Society of Iran

	Leading implementing Supporting implementing partners	Members of National Inspection Board; Islamic Republic of Iran Customs Administration; Central Bank of the Islamic of Agriculture Jihad (including NPPO and IVO) Chamber of Commerce, Industries, Mines and Agriculture; Audit & Inspection Society of Iran	Members of National Inspection Board; Islamic Republic of Iran Customs Administration; Central Bank of the Islamic Republic of Iran; ITPO; Iran Chamber of Commerce, Industries, Mines and Agriculture; Audit & Inspection Society of Iran	Members of National Inspection Board; Islamic Republic of Iran Customs Administration; Central Bank of the Islamic of Agriculture Jihad (including NPPO and IVO) Industries, Mines and Agriculture; Audit & Inspection Society of Iran	
	Targets L	Recommendations provided and Alignment procedures clear, practical, and understood by relevant beneficiaries	 Proceures aligned 	Inspection procedures aligned SOPs prepared and pilot implemented	
	Reform or project	Project	Reform	Project	
Period	2021				
	Priority	2 2	2	7	
	Activity	2.3.2 Assess the present inspection pro cedures and prepare recommendations on how to align inspection procedures with EU's risk-based approach.	2.3.3 Align inspection procedure with those of EU's	2.3.4 Provide support through coaching and guidance for implementation of aligned inspection procedures.	
	Operational objective		2.3 Align inspection procedures with new official control	and train and coach inspectors to implement these procedures	
	Strategic objective		2. Improve conformity assessment	procedures and attain their recognition at international level	

Leading implementing Supporting implementing partners	ds, Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); IFDA; Agriculture Jihad Commerce, Industries, he (ICCIMA)	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Industrial Industrial Parks Organization); IFDA; ng Agriculture Jihad Commerce, Industries, Mines and Agriculture (ICCIMA)	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial INSO; Ministry of Parks Organization); IFDA; Agriculture Jihad Commerce, Industries, Mines and Agriculture (ICCIMA)	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Industrial Parks Organization) and IVO); national quality associations	
Targets	Need for standards, TR, and role in fulfilling quality understood by participants. Participants able to access and use the tools.	 Pack prepared and translated A series of training held using the pack 	• Tool deployed among SMEs	 Service offerings compiled 	
Period Reform Reform or project		Project	Project and reform	Project	
Priority Pe		m	м	က	
Activity	3.1.1 Awareness workshop on standards, technical regulations and SPS measures and their relation with quality and importance in meeting market requirements. Train relevant associations, agencies representing SMEs and SMEs on the use of different existing tools.	3.1.2 Develop a training pack that can be used by different institutions to cascade training in different regions and priority sectors.	3.1.3 Explore with stakeholders the possible development of a specific tool for Iranian SMEs in Farsi for selected products with guidelines for compliance. Develop, pilot test and deploy the tool.	3.2.1 Identify present service offering of quality associations aimed at prompting and promoting a quality culture among SMEs.	
Operational objective	3.1 Train SMEs on updated information access to standards,	technical regulations and SPS measures using different existing tools. We may consider developing a specific tool in Farsi providing information on targeted market technical	selected number of products with guidelines for compliance	3.2 Train and coach SMEs through the national quality	associations in the
Strategic objective		3. Enhance enterprise	capacity to comply with foreign market technical requirements (standards, technical regulations and CPC masures)	(company)	

			Period		Reform		l eading implementing	Supporting implementing
Operational objective	Activity	Priority	2023 2023 2024	5052	or project	Targets	Leading imprementing parthers	oupporting implementing partners
3.2 Train and coach SMEs through the national quality associations in the implementation of quality tools to improve quality and productivity	3.2.3 Support national quality associations to conduct training and coaching activities based on improved materials and methods through selected pilots and models for replication.	က			Reform	 Training pilots held using new methodologies, contents, and tools 	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization)	ITPO; Vice Presidency for Science and Technology; INSO; Ministry of Agriculture Jihad (including NPPO and IVO); national quality associations
3.3 Train and coach SMEs to implement occupational health and safety management	3.3.1 Train a pool of trainers and potential advisers on ISO 45001.	က			Project	Trainers and advisers can cascade application of ISO 45001 to SMEs	Ministry of Labour and Social Affairs	Ministry of Industry, Mine and Trade; INSO; private certification bodies
system (ISO 45001) for better protection of workers	3.3.2 Train and coach enterprises for implementation of ISO 45001.	ဇ			Project	• SMEs implement ISO 45001	Ministry of Labour and Social Affairs	Ministry of Industry, Mine and Trade; INSO; private certification bodies
3.4 Train and coach selected SMEs to	3.4.1 Based on the specific need for SME-level support indicated in priority sector action plans, consult with sector stakeholders to develop training action plans. • Fresh fruits and vegetables (FFV), Good Agricultural Practices (GAP), GlobalG.A.P.; • Tourism — HACCP, ISO 22000; • Automotive ISO 9001, ISO/TS 16949; • Medicinal herbs Good Manufacturing Practices (GMP), HACCP, Good Agricultural and Collection Practices (GACP).	т			Project	 Action plans ready for implementation and agreed on 	ПРО	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; IFDA; Ministry of Cultural Heritage, Tourism and Handicraft; Ministry of Agriculture Jihad (NPPO and IVO); Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA); sector associations
requirements of specific markets	3.4.2 Select and train SMEs on technical requirements of selected target markets.	м			Reform	SMEs know the requirements to fulfil in target markets	ПРО	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; IFDA; Ministry of Cultural Heritage, Tourism and Handicraft; Ministry of Agriculture Jihad (NPPO and NO); Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA); sector associations

	Supporting Implementing partners	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; IFDA; Ministry of Cultural Heritage, Tourism and Handicraft; Ministry of Agriculture Jihad (NPPO and NO); Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA); sector associations	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; IFDA; Ministry of Cultural Heritage, Tourism and Handicraft, Ministry of Agriculture Jihad (NPPO and NO); Iran Chamber of Commerce, Industries, Mines and Agriculture (ICCIMA); sector associations	Ministry of Industry, Mine and Trade; Ministry of Health, Treatment and Medical Training; Vice Presidency for Science and Technology; INSO; Iran Chamber of Commerce, Industries, Mines and Agriculture; sector associations
	Leading Implementing partners	ITPO	ITPO	National Disaster Management Organization Of Iran (Ministry of Interior)
	Targets	• SMEs implement relevant QMS	 SMEs able to overcome financial constraints in apply QMS 	Traines and advisers ready to cascade training to othe institutions and SMEs
	Kerorm or project	Reform	Reform	Project
	5025			
Period	2024 2024			
Pe	2022			
	2021			
	Priority	ო	ო	ю
	Activity	3.4.3 Coach and provide assistance to implement market-relevant quality management system (QMS) readying the SMEs for certification.	3.4.4 Provide a matching grant for SMEs to improve quality and getting necessary market-relevant certification.	3.5.1 Train a pool of trainers and advisers on international standards related to risk management, business continuity management system, crisis management and innovation management.
	Operational objective	3.4 Train and coach selected SMEs to	requirements of specific markets	3.5 Build capacities of firms to improve their resilience in times of crisis (such as COVID-19) through the implementation of risk management, business continuity management system, crisis management and innovation management based on guidelines and requirements of international standards
0.00	Strategic objective		3. Enhance enterprise capacity to comply with foreign market technical requirements (standards, technical regulations and SPS measures)	

				Period				
Strategic objective	Operational objective	Activity	Priority 2021	2024 2023	Reform or project	Targets	Leading implementing partners	Supporting implementing partners
3. Enhance enterprise capacity to comply with foreign market.	3.5 Build capacities of firms to improve their resilience in times of crisis (such as COVID-19) through the implementation of risk management, business continuity management system, crisis management and innovation management based on guidelines and requirements of international standards	3.5.2 Train and coach enterprises in the selected sectors to implement risk management, business continuity management system, crisis management and innovation management in line with relevant international standards.	m		Reform	• Enterprises imple- ment related and relevant QMS	National Disaster Management Organization (Ministry of Interior)	Ministry of Industry, Mine and Trade; Ministry of Health and Medical Education; Vice Presidency for Science and Technology; INSO; Iran Chamber of Commerce, Industries, Mines and Agriculture; sector associations
rechnical requirements (standards, technical regulations and SPS measures)	3.6 Provide a matching grant for SMEs to	3.6.1 Define the mode of operation of a matching grant scheme for SMEs.	က		Project	 Procedures ready and finalized 	ПРО	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; Iran Chamber of Commerce, Industries, Mines and Agriculture
	inplove qually and get necessary market- relevant certification	3.6.2 Launch and promote the scheme to SMEs.			Reform	 SMEs apply and receive grants. 	ПРО	Ministry of Industry, Mine and Trade (Iran Small Industries and Industrial Parks Organization); INSO; Iran Chamber of Commerce, Industries, Mines and Agriculture

Entrepreneurship

Iran has a strong record of entrepreneurship and a vibrant ecosystem to support it. In addition to external challenges arising from sanctions, constraints are faced as a result of the complexity of the policy framework and lack of a strategy for entrepreneurship, regulators barriers for new firms, underdeveloped training and mentoring programmes, low quality of support programmes, little support for exporting, limited information and coordination among ecosystem players, and challenges related to access to finance and investment. A strategic response around a threefold approach is needed – aligning the policies and regulations to the

needs of start-ups and particularly leaving space for failure, increasing the practicality of the existing training on enterprise management and focusing on the soft skills provision, and to reshuffle and strengthen the current large entrepreneurship support ecosystem. The implementation of this strategy as part of the National Export Strategy (NES) of Iran will thus lead to increased innovation and diversification, specifically within the priority sectors of the NES, and increased integration of the highly educated youth in the economy, and will ultimately bring about more inclusive growth for the country.

Box 12: Definition of start-ups and similar enterprises

According to start up expert Eric Reis, a start-up is "a human institution designed to create a new product or service under conditions of extreme uncertainty". A start-up is thus a company typically in the early stages of its development. These entrepreneurial ventures are typically started by 1–3 founders who focus on capitalizing on a perceived market demand by developing a viable product, service or platform. These do not necessarily need to be tech driven. What sets start-ups apart from other small businesses is their ambition for growth. Most start-ups, especially tech-driven ones, are not focused on subsistence entrepreneurship. The usual tech entrepreneur is looking to build a scalable business. This is in contrast with more traditional MSMEs, whose main goal is often not necessarily growth and scalability, but building a stable business that generates enough revenue to pay salaries and allow for a decent standard of living.

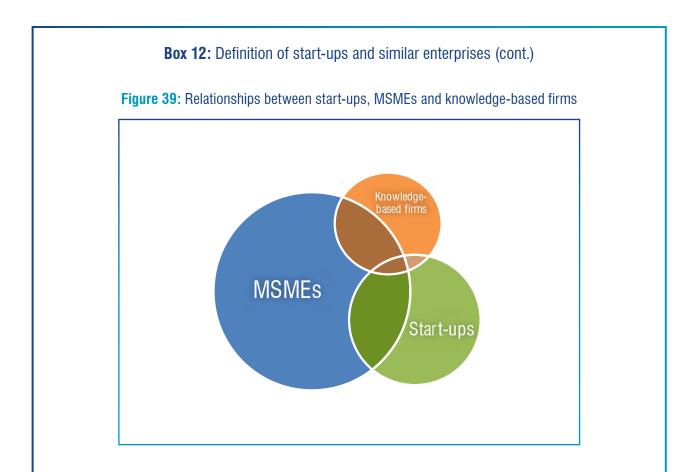
Since many start-ups are smaller firms at their beginning and many are concerned with the development of innovative products and services, there may be some overlap among start-ups, MSMEs and knowledge-based firms (Figure 39), though each has a distinct definition:

- MSMEs: MSMEs are generally mainly defined through the number of employees and their annual turnover.¹ Looking at Iran, there are different definitions of MSMEs published by different entities, which leads to a lot of uncertainty assessing the sector.² The Iran Small Industries and Industrial Parks Organization (ISIPO) mentions various factors that define MSMEs, such as staff, turnover and investment, but reduce their definition only to the number of employees. According to ISIPO, MSMEs are defined by having 11–149 employees. Companies with 10 or less employees are considered micro enterprises.³ According to this definition, start-ups usually fall into the definition of MSMEs, but not every MSME can be considered a start-up.
- Knowledge-based firms (KBF): According to an UNCTAD report from 2016: 'Knowledge-based products are goods and services that are complex, require in-house R&D and skilled employees to produce, are difficult to imitate by competitors, create considerable value-added, are differentiated from other similar products, and must be sold in the market or be at least in the pilot stage of production (services must already have brought in revenues) to be eligible for support.' Companies have to go through an application process to be recognized as KBF in Iran.

^{1.-} http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en.

^{2.-} http://agahgroup.com/smes-in-iran-a-brief-introduction/.

^{3.-} http://isipo.ir/index.jsp?fkeyid=&siteid=1&pageid=643.



BUILDING THE CONDITIONS TO SUPPORT ENTREPRENEURSHIP IN IRAN

Owing to its high-quality education and large young population, Iran has developed a vibrant entrepreneurship scene. In September 2018, the head of the Innovation Department of the Vice Presidency for Science and Technology, Hessam Zand-Hessami, announced that there are approximately 4,000 start-ups operating in Iran providing IT-based services alone.18 There is a growing community of young entrepreneurs in the country and start-ups and entrepreneurship is also entering university education through entities such as the Faculty of Entrepreneurship at the University of Tehran and start-up centres at well-known universities like Sharif and Amir Kabir in Tehran. In recent years, these universities also hosted a variety of start-up-related events such as Start-up Weekends and provided space for accelerators such as DMOND and Avatech. Ecosystem players mention that there are still very few role models of successful Iranian entrepreneurs and a lack of qualified mentors. The recent growth

of co-working spaces provides entrepreneurs with a much-needed network and access to a supportive community of like-minded people, which is complemented by regular networking events such as Hamfekr.

Nevertheless, considerable challenges remain. The 2018 Global Entrepreneurship Index, compiled by the Global Entrepreneurship and Development Institute, ranked Iran 72nd out of a total of 137 countries. Compared to 2017, Iran's position improved 13 places globally and three places regionally.19 The index considers a variety of different factors such as opportunity perception, start-up skills, human capital and cultural support. Iran ranks extremely low when looking at factors like opportunity perception (0.095) and risk acceptance (0.014). The Global Entrepreneurship Monitor's (GEM) study confirms the limitations of the Iranian entrepreneurship ecosystem in its current form compared to the average of other countries surveyed (Figure 40). Compared to the 54 surveyed economies, Iran ranks last in several indicators such as commercial and legal infrastructure, internal market dynamics and physical infrastructure.

 $^{18.-\} https://www.tehrantimes.com/news/432343/Starting-a-startup-a-way-for-success-in-your-own-business.$

^{19.-} https://financialtribune.com/articles/economy-domestic-economy/84312/iran-moves-up-13-places-in-global-entrepreneurship-index.

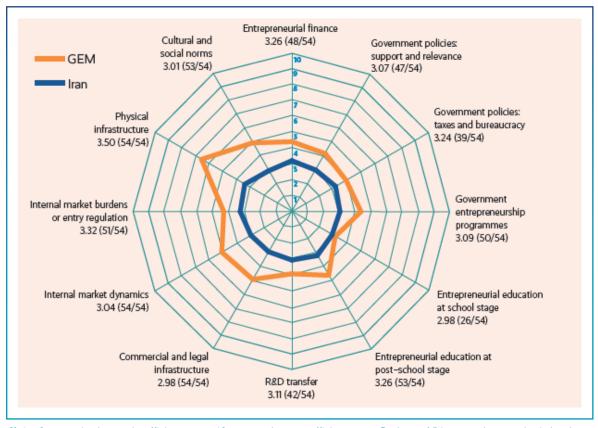


Figure 40: Rating of key entrepreneurial framework conditions based on the GEM methodology

Note: 0 = very inadequate insufficient status; 10 = very adequate sufficient status. Rank out of 54 surveyed economies in brackets. **Source:** Global Entrepreneurship Monitor, Global Report, 2019–20.

The perception towards entrepreneurship is ambivalent. Iranians see themselves as a nation of entrepreneurs, though many focus on traditional trade fields with relatively limited potential. These are businesses with low risk and shorter-term return on investment. Some employees do these types of work aside from their main job as a second source of income. Especially in the young generation, a lot of university educated people are at least part-time self-employed (in fields such as graphic design, engineering and web development, etc.), so there is a general understanding of what it means to work independently and without being part of a bigger corporate environment. With more than 90% of companies in Iran being MSMEs, entrepreneurs are a substantial part of the Iranian economy and identity.

Cultural factors may help to discourage entrepreneurship. Success in Iran is often measured through status (as determined by job title, number of staff overseen and perks, etc.), so traditional jobs with corporations, government organizations, international companies and private organizations or universities are still preferred by many. Families often do not understand why their children would want to build a start-up if they could land a

relatively safe job within a corporate or a governmental organization. Given the political and economic situation in the past, people usually do not plan long term and prefer short-term results to long-term benefits, which makes it hard to understand why start-up founders are willing to put a lot of effort into something where they are not sure about the outcome. However, efforts are being made to promote entrepreneurship as part of efforts towards economic diversification and improved resiliency. Entrepreneurship and start-ups are currently being promoted on national TV and radio, in universities and in schools.

Start-ups in Iran are mostly run by young people and men. In accelerators, the usual age of participants is 20–35, with most of them either students or recent graduates who do not yet have family obligations and often still live with their parents. Participants in Start-up Weekends have an average age of 28.²⁰ Although there is a slightly higher number of women working in the start-up sector in Iran than in many advanced economies, further work is needed to increase women's involvement in managerial roles, in both start-ups and MSMEs more generally. A lack of official statistics

^{20.-} http://techrasa.com/2015/07/21/infographic-startup-weekend-iran/.



complicates the study of this issue, though women tend to have few of the managerial or leadership roles in e-commerce and knowledge-based firms in Iran, for example. Only approximately 400 of the roughly 4,300 knowledge-based firms in the country (according to the Vice Presidency of Science and Technology) are managed by women. Looking at the broader MSME sector, a study found that, out of a sample of 1,492 export-oriented MSMEs in Iran, 84% of these were run by men and 16% were run by women.²¹ There is still a lack of support systems for female entrepreneurs and there are few role models on combining entrepreneurship and responsibilities. Looking at the work environment, it was mentioned that there is no concept of female leadership in start-ups, which makes it hard for women to run and grow companies, as they often have to fight the perception that a woman isn't able to run a tech or other innovative company.

Tehran is the centre of entrepreneurship, particularly in terms of tech entrepreneurship. Tehran is the economic centre of the country, which leads to a concentration of the workforce in this city. Many tech entrepreneurs move to Tehran from other cities in the country when looking for capital or applying to an accelerator. There are smaller ecosystems in some of the other large cities such as Shiraz, Esfahan, Mashhad and Tabriz,

and towns with universities with a strong tech focus, such as Quasvin. There are also activities to spread entrepreneurial knowledge in smaller places by organizing Start-up Weekends in smaller places like Birjand, Rasht and other cities. These events used to be organized by the Iranian Entrepreneurship Association, though in recent years there has been no cooperation with the international Start-up Weekends movement and these events are organized as individual events by universities and accelerators. When speaking about micro, small and medium-sized enterprises (MSMEs), however, there is a more even distribution all over the country, with industrial parks supporting them in the regions.

Informality is widespread among start-ups, as a lot of teams start and begin to generate revenue without officially registering the company. This is partly a result of the complex and time-consuming processes of registering the company and of dealing with tax and insurance. If entrepreneurs then see success, many teams register their companies to also get access to benefits. As most tech entrepreneurs want to create scalable businesses, they have to register their companies at some point to make sure they have access to the services they need. Relatedly, some founders shy away from scaling their businesses, as they want to avoid attracting too much attention, fearing overregulation.

^{21.-} https://www.livemint.com/industry/manufacturing/how-gender-parity-affects-performance-of-smes-1554840030789.html.

Mapping the entrepreneurship ecosystem

This strategy defines the "entrepreneurship ecosystem" as the structure that supports the launch and growth of successful start-ups. It is the combination of companies, institutions, other actors and events that provide entrepreneurs with capital, know-how, office space, education and mentors they need to create successful companies. Actors focused on supporting start-ups in particular include the government and public sector, industry associations and other groups, accelerators, start-up studios and company builders, events and conferences, co-working spaces and investors.

The creation of a number of successful firms helped to kick off the development of the entrepreneurial ecosystem that exists today. The rapid development of Iran's tech entrepreneurship ecosystem in particular started when companies like Digikala (founded in 2006) and Café Bazaar (founded in 2011) started operating and providing Iranian consumers with one of the first e-commerce platforms and access to mobile apps and in app purchases that were not possible before. The founders saw how e-commerce and apps were taking over the rest of the world and saw an opportunity in creating similar offers for the Iranian consumer as, due to sanctions, international players weren't targeting Iran as a market. Following these developments, venture capital firms were created, the first Start-up Weekend was hosted in 2012 and, by 2014, there were three start-up accelerators aiming to create growth opportunities for early stage teams and founders. Also, by 2014, mobile internet became more accessible and faster with the adoption of 3G in many parts of the country, which created a lot of opportunities for founders. All this resulted in an increased amount of investment, more opportunities for founders and an increased interest in start-ups as a creator of jobs and innovation.

In Iran, entrepreneurs have access to a wide variety of support. For start-up founders, this support is still largely focused on early stage, young and university educated entrepreneurs. There is also a strong focus on Tehran as an entrepreneurial hub with smaller ecosystems developing in other large towns such as Shiraz, Isfahan, Tabriz, Yazd and Mashhad. Support for more traditional MSMEs is more evenly distributed over the country and seems to be less targeted on specific types of founders or age groups. Key players in the current ecosystem can be divided into the following seven categories: government structure and initiatives, industry and other associations, accelerators, start-up studios and company builders, events and conferences, co-working spaces, and investors.

Government structure and initiatives

A number of parts of government are active in entrepreneurship and other innovative activities in Iran. According to a "Science, Technology & Innovation Policy Report" conducted by UNCTAD in 2016: 'Iran's innovation system is highly complex, with diverse actors operating at different levels and with varying degrees of horizontal and vertical linkages with different parts of the NIS.' Active ministries include:

- The Ministry of Industry, Mining and Trade (Iran Center for e-Commerce Development, Centre for Development of Technology and Advanced Industries, and Industrial Management Institute);
- Vice Presidency for Science and Technology (Centre for Innovation and Technology Cooperation);
- Ministry of Culture and Islamic Guidance (Information Technology and Digital Media Development Centre);
- Ministry of Science, Research and Technology (Iranian Research Organization for Science and Technology);
- Ministry of ICT (Information Technology Organization);
- Central Bank of the Islamic Republic of Iran.

Led by the Information Technology Organization, Iran Noafarin is the latest governmental initiative to support start-ups and is the first support initiative designed specifically to address start-up challenges. Noafarin also offers an online platform, which aims to enable growth and prosperity in this field by facilitating access to integrated information needed by key stakeholders in the field.

Its goals are to offer support for start-ups, pave the way for the development and growth of the innovation ecosystem, improve the evaluation of start-ups, improve statistics on the innovation ecosystem, provide emotional and economic security for start-ups for a limited time, and identify and enable opportunities of new firms. The main services provided through the initiative are related to financing, administrative barriers, participation in events, use of data and support for collaboration with other organizations (Table 17). Benefits for participating firms include insurance and tax exemptions, recognition of shared workspaces by the tax or social security organization, access to international experts for coaching, international law and international patents consultancies in innovation centres, and IT licences. It also establishes an Innovative Research and Technology Fund where accelerators or other funds can obtain early seed as a loan, and pay the start-ups as seed funds.

	Table 17. Support offered through the fran Noarann initiative
Type of support	Details Details
Financial	Offering continuous financial facilities to start-ups
Administrative	Offering start-ups insurance and tax support packages, which includes benefits such as internships and co-founders insurance for start-up teams, etc.
Events and network	Promoting the participation of entrepreneurs in business-related events such as exhibitions and entrepreneurship events, etc.
Data use	Providing support to entrepreneurs to use government data and integrate government services in a given context (so far, government-to-business and government-for-business (G4B) have been connected to the Noafarin platform, and the infrastructure needed to connect the innovators to various application programming interfaces (APIs) is being prepared).
Collaboration	Providing access to the services of other government agencies such as the platform of Innovation and Prosperity Fund, the platform of the Vice Presidency for Science and Technology, and the Knowledge-Based Companies platform, etc.

Table 17: Support offered through the Iran Noafarin initiative

Industry associations, chambers and trade promotion organizations

According to the Vice Presidency for Science and Technology, there are 37 technology parks, 196 incubation centres, 75 innovation centres, 40 accelerators, one innovation factory, and 25 technology and research funds in Iran that are supported through the ministry.

Other relevant organizations are the Iran Trade Promotion Organization (ITPO) and the Iran Small Industries and Industrial Parks Organization (ISIPO), as well as various international chambers of commerce that usually work with MSMEs as well and can provide relevant support for export-oriented teams.

Specific support is provided to companies that have been registered and recognized as knowledge-based firms, which produce goods or services that are complex, require in-house R&D, are differentiated and difficult to imitate, create considerable value added and are sold on the market. These incentives include smart mentorship, tax and export duty exemptions, prioritization in science and technology parks, facilitation in government tenders and procurement, low interest rate loans, public offerings and export support.

Accelerators

Accelerators in Iran typically offer services including seed investment, workspaces, educational content, mentoring and networking opportunities. As providers of early stage investment money, accelerators play an important role in the start-up ecosystem. While most accelerators do not have a specific focus on the kinds of firms they work with, there has been a recent growth of specialized accelerators. Some of these focus on areas such as financial technology (fintech), health tech, tourism, agriculture, religion and gaming.

Most accelerators are focused on early stage projects. A few even offer specialized programmes for idea stage teams. While most are located in Tehran, there are accelerators present in a number of large cities around the country (Table 18). Most are only active in one city, with exceptions such as DMOND, which has activities in four cities, and Axell, which has activities in three cities. There are no specific programmes focusing on start-ups in the growth phase. Start-ups leaving accelerators usually depend on investors and co-working spaces for follow-up support.

Table 18: Accelerators by city —

City	Number of accelerators	Names
Tehran	31	Avatech, TAC, Novintech, Setak, Sharif Accelerator, DMOND, Sarirland, TrigUP, Avagames, HardTech Accelerator, Shezan, Omid, Jahesh, Persis, Nopayar, Finnova, Samsung AUT Tech, Farabi, HostIran, Shafagh, Tetraco, InnoHouse, TECenter, SamakNet, Jumpa, MCI Hub, Sisoo Tech, Quantum, Karinovin Hamtech, Oxygen, and vInnoHub
Isfahan	3	Kaman Center, Axell, DMOND
Shiraz	3	Paresh, Know Run, Quantum
Karaj	1	Karaj Cultural Development Center
Hamedān	2	Hampayvand, Chabouk
Kermanshah	2	TIC, HighTechStars
Qom	1	TobTech

City	Number of accelerators	Names
Qazvin	2	Axell, SRC Accelerator
Gilan	1	Axell
Yazd	1	Pishgaman
Mashhad	1	Ferdowsi Accelerator
Ardebil	1	Javidan
Bushehr	1	DMOND
Tabriz	1	DMOND
Sistan and Baluchestan	1	Catalyzor
Total	52	

Stakeholders acknowledge the impact these accelerators had and have on the overall ecosystem by providing young entrepreneurs with a process to validate and further develop their ideas and start-ups. However, there are also concerns about the lack of experienced and professional mentors, experts and programme leaders, affecting the quality of the programmes carried out. Some see a growing lack of trust in accelerators as creators of success stories, as most of the programmes did not manage to fulfil their promises of generating growth and investment opportunities. The most successful local start-ups did not emerge out of accelerators.

Start-up studios and company builders

Start-up studios are a recent trend in the Iranian start up ecosystem, and have emerged as a result of the lack of qualified and trained managers and teams to join all the accelerators. Compared to accelerators, they are not looking for teams with an idea or prototype, but develop the ideas themselves and then find teams to build products and start-ups around these. While there is no comprehensive list of start-up studios in Iran, examples include Ctrl+Tech, Idea Run, Health.io, and Quantum (Shiraz). Some of these also function as a vehicle to grow existing teams, but their focus is usually on creating new ventures or replicating successful start-ups from other markets.

Events and conferences

Since the beginning, events and conferences have played an important role in the development of the ecosystem, in helping entrepreneurs to get started and helping new firms to build connections. Start-up Weekend has played an especially big role in the early days to engage students and give them a first experience of what it means to be an entrepreneur. Due to the very clear framework and instructions how to host

these events, it was easy to replicate them in Iran and guarantee a certain quality and consistency even where the organizers were not experienced entrepreneurs. At one point, Iran was ranked 2nd in the number of Start-up Weekends organized per year in the world. In 2015, an average of three Start-up Weekends were hosted per month.²²

Networking events like Hamfekr created a place for entrepreneurs to meet and share their experiences. Conferences and fairs like the Web and Mobile Festival, International Electronic, Computer & E-Commerce Exhibition (ELECOMP), International Innovation & Technology Exhibition (INOTEX), and Silk Road Startup allow start-ups to showcase their businesses and create awareness for their solutions. Noavardgah is also another relatively famous event, which is focused on specific verticals and normally take place in collaboration with different research institutes like nanotechnology and biotechnology research institutes. These events are also relevant for the younger generation of students who get introduced to alternative career opportunities.

Co-working spaces

Professional co-working spaces are relatively new in Iran. Most accelerators have provided office space to their participants, and universities with a focus on entrepreneurship opened their spaces for entrepreneurs as well without providing too many additional services to their members. More recently, there has been a growth in professionally managed co-working spaces that do not only focus on start-ups, but also freelancers and individuals in need of office space. Among these professional co-working spaces are Blue White Coworking in Isfahan as well as Finnova and Zavie in Tehran (Table 19). They usually offer a variety of different memberships starting from flexible desks going up all the way to private offices. Besides workspace, they usually offer networking, events, access to workshops, and a variety of other services.

^{22.-} http://techrasa.com/2015/07/21/infographic-startup-weekend-iran/.

Table 19: Co-working spaces by city —

City	Example co-working spaces
Ahvaz	Startup House of Ahvaz
Golestan	Hiva Land
Isfahan	Poytek, Blue White
Karaj	Khane Startup
Kerman	Landima
Mashhad	Green Tech
North Khorasan, Bojnourd	Rise Up
Shiraz	Knowrun, Raykasb
Tabriz	Raykasb
Tehran	Zavie, Tivan, Ouspace, Servcorp, Raymon Media, Paradise Hub, Box, Finnova, Sarir, Samsung, Jumpa
Yazd	Sandbad, Fardad, Pishgaman

Investors

Investors are a key element to every start-up ecosystem, as they provide the needed capital for firms to grow. In the past few years, accelerators have been successful in providing early stage teams with seed capital for the first phase of operations. With very few exceptions, the capital is typically provided by local investment firms. This is mainly due to sanctions and the lack of streamlined investment processes for

international entities. Two exceptions are Turquoise Capital and Pomegranate Ventures, which are international companies with a focus on investing in the Iranian market. There are also Iranian venture capitalist (VC) firms like Sarava, who have international stakeholders. Barkat Ventures, the Iranian Technology Fund and AddVentures are some of the more active investors, and Rahnema and Sarava are some of the most experienced investors in the field, though many others are active as well (Table 20).

- **Table 20:** Active investors in Iran -

	Table 2017 total o militorio o militorio	A11
 Iratel Ventures Sarava Banian Digital NEXT Shenasa Pomegranate Iran Internet Group PPG Barkat Ventures Rahnema AddVentures Zarin City Investment Fund Pars Venture Group FANAP 	 Sabaldea Peyke Bartar Karayar Opatan Bahman Capital Smartup Ventures Turquoise Partners Iran Technology Development Fund Industrial Development of Iran Etebar Iran Investment Hasin Group Armani VC Shenasa VC 	 Griffon Capital HiTechFund Harkat Aval Armati VC Fund Amin Investment Madiran Manesh VC Matin Royesh VC Fund Persian Darou Alborz Research and Technology Fund Rayan Ventures Yazd Province Research and Development Fund

Corporate venture capital activities are limited, given the market's potential, but are also increasing. Large corporations are increasingly interested in establishing investment arms. Due to their access to markets as well as specific vertical expertise, they may have higher chances of success. Beyond just providing financial resources, they may be able to offer strategic support in exploring new markets and technologies, and outsourcing R&D activities, for example.

Business angels – who provide capital for a start-up in an early stage, usually in exchange for convertible debt or ownership equity – are not well organized in Iran. There are several successful managers who invest in some start-ups as individuals, reducing bureaucratic burdens. There are also some initiatives like the Karaya Group, which act as a club and bring together different business angels and provide them with various services like scouting and evaluation, etc.

CONSTRAINTS

The major constraints holding back the further development of Iran's entrepreneurship ecosystem are related to:

- The complexity of the policy framework and lack of an entrepreneurship strategy;
- Regulator barriers for new firms;
- Underdeveloped training and mentoring programmes:

- Low quality of support programmes;
- Little support for exporting;
- Limited information and coordination among ecosystem players;
- Challenges related to access to finance and investment.

These constraints add to the challenges resulting from sanctions (Box 13).

Box 13: Effects of sanctions on the entrepreneurship ecosystem

The re-imposed sanctions have had the greatest effects on Iranian entrepreneurship through effects on investment, exporting, access to digital tools and services, opportunities in entrepreneurial education and mentoring, and effects on labour markets.

- Investment: International investments have always been hard to secure in Iran, even after the Joint Comprehensive Plan of Action (JCPOA) and the easing of the sanctions. With no clear rules and regulations, contracts were hard to agree on and many potential investors were afraid to get involved without a legal system in place that protects them. With Iran being cut off from the international financial market, it was also almost impossible to transfer larger sums to Iran. One of the few funds investing in Iran is Pomegranate Ventures, based in Sweden.¹ Due to their investments in Iran, they are not allowed to collaborate with US citizens or companies based out of the United States, or with branches of these companies.
- Exporting: Under sanctions, it has been generally difficult for Iranian products to be sold on international platforms such as etsy.com, amazon.com and ebay.com. Limitations do not only concern physical products, but also digital products. In February 2019, millions of Iranian-made apps were removed from international app stores such as those run by Google and Apple.²
- Access to digital tools and services: Even before the re-imposition of sanctions, it was hard for Iranians to access certain digital tools and services. Often, access was limited to free versions of tools like Dropbox, Slack, Wordpress and Zendesk, which are essential tools for many start-ups. Since sanctions were re-imposed, even the free versions are not accessible anymore for people operating inside of Iran. For example, Slack shut down all communities originating from Iran without prior notice in December 2018. This isolates Iranian entrepreneurs even more, as they are not able to use the same tools as their peers around the world and have a hard time keeping up with the latest developments. It also makes it harder to access international communities online. Of course, there are more and more local solutions coming up to close this gap, but they lack the quality and reliability that established international products can provide. Also, they are only available in Iran. The Apple Store has banned Iranian applications and removed them from the store. Lots of start-ups faced difficulties offering iPhone operating system (iOS) versions and lost their customer base overnight. To circumvent the issue, local app stores for both iOS and Android and Iranian app developers have been created to replace the official Apple Store and Google Play Store.
- Entrepreneurial education: For a long time, entrepreneurial community building was supported by Start-up Weekend, an organization that is running three-day events to bring together people interested in entrepreneurship and start-ups to work on ideas and present first prototypes of start-ups at the end of a weekend. These types of events not only created a community inside Iran, but also connected the Iranian start-up ecosystem to communities around the world. International facilitators and mentors came to Iran, and Iranian experts travelled the region and facilitated Start-up Weekends in places like Afghanistan, the French Republic and Azerbaijan, building connections and networks beyond the borders of Iran and making Iran a visible player in the ecosystem. However, as a result of the sanctions, organizations headquartered in the United States and US citizens are not allowed to operate in Iran anymore. Besides this, Iranians have little access to international events such as Web Summit, Seedstars, TechCrunch and other world-renowned conferences. On top of the challenges for Iranians in getting necessary visas, the costs of travel for Iranians have increased with the depreciation of the Iranian currency. Similarly, concerns among potential mentors about their connections with Iran or travel there may discourage their involvement in supporting start-ups.
- Brain drain: Since the talks leading to the Joint Comprehensive Plan of Action (JCPOA) began, there was a lot of hope within the Iranian ecosystem. Young people living in the diaspora were exploring opportunities to move back to Iran, start businesses and help push the Iranian entrepreneurial ecosystem to the next level by sharing their experience. Successful entrepreneurs and investors were looking at investment opportunities. This trend reversed with the imposition of sanctions, and a number of accomplished and experienced entrepreneurs are leaving the country or at least looking at international opportunities.

^{1. –} See disclaimer on their website: https://www.pomegranateinvestment.com.

 $^{2.- \} https://twitter.com/aliscott/status/1101048976281927680, \ https://thinkprogress.org/google-play-iranian-apps-sanctions-2e7ba4b1649d/.$

There is not a coherent strategy for fostering entrepreneurship

Severity: • • ○

As mentioned in a report by UNCTAD in 2016, "Iran's innovation system is highly complex, with diverse actors operating at different levels and with varying degrees of horizontal and vertical linkages with different parts of the NIS", which makes it very hard for entrepreneurs to understand where they can get the support they need.

Some entrepreneurs complain that policy responsibilities are not always coordinated, resulting in conflicting rules and unclear responsibilities. Youth entrepreneurship, for example, is handled differently by different entities. Entrepreneurs and start-ups often have difficulty in determining who to turn to with their issues. A lack of clarity also reduces transparency and accountability.

A unified and easy-to-understand strategy for entrepreneurship is lacking, with only limited efforts made in this regard, such as the "Startup Representation Project" led by the Ministry of ICT.

While stakeholders agree on entrepreneurship's potential to be a driver of economic development, many entrepreneurs would like to see more government support to create a positive image of entrepreneurship. It is particularly important that key decision makers among public institutions are convinced of the value of entrepreneurship for the Iranian economy, both to diversify it and to increase its resilience.

Laws and regulations are outdated and not adapted to start-ups' needs

Severity: • • •

Entrepreneurship is discouraged by regulatory barriers to establishing new firms. Starting and running a business in Iran is still a very complicated and time-consuming process. According to some founders, it takes up to three months or longer to just register a company. As a result, many firms remain unregistered and without access to needed supports.

One of the biggest constraints faced is that there are not specific rules and regulations regarding start-ups. Founders have to work within an outdated legal and regulatory framework when running their companies, which can complicate tasks such as the development of compliant contracts. Limited clarity on relevant rules for any particular firm – such as on whether they qualify for treatment as "knowledge-based" or "innovative" enterprises – is a further source of confusion, including among administrators responsible for dealing with these businesses (such as on tax). Lack of awareness among regulators on common behaviours of new firms is an additional and related complication.

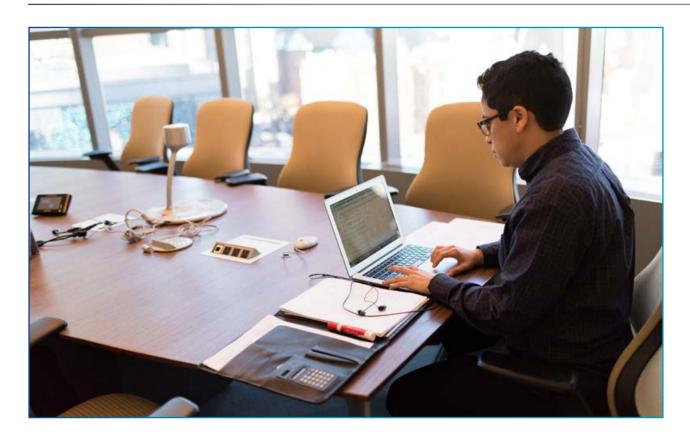
Entrepreneurship training and mentorship is underdeveloped

Severity: • • •

Many promising start-ups fail in their early stages due to a lack of business and management skills. Underdeveloped skills and challenges in finding suiTable talent also result in slow-growing companies and hinder firms from competing internationally. Formal education and targeted forms of support are underdeveloped.

The educational system in Iran is very focused on theoretical and technical skills. Internships, student jobs and volunteering are not typically very popular in Iran, which leads to graduates leaving university with little practical business and management skills. This leads to founders with very little experience in starting businesses.

A number of entrepreneurs have admitted to a lack of knowledge on leading teams, managing operations and business planning. A lot of start-up-related knowledge is only taught in Master of Business Administration (MBA) courses, but not for students of other fields. Specific courses for entrepreneurship are relatively new at universities; the Faculty of Entrepreneurship of the University of Tehran was only opened in 2007. While masters and doctoral programmes in entrepreneurship are available, these are often taught by people coming from within the university system with very little practical, up-to-date knowledge of building, running and growing start-ups. Start-up centres and incubators at other universities suffer from similar shortcomings. There is a significant need to bring university education and the start-up ecosystem closer together.



Few successful entrepreneurs and new firms have been produced in Iran that can serve as mentors or examples. This is partly a result of Iran's start-up ecosystem still being young, with very few people who went through a full circle of starting, building, growing and selling a company who can share their experiences and know-how. In addition, Iran's isolation internationally makes it challenging to access expert knowledge from other countries. The few training sessions that happen are often either very general or not adapted to the Iranian context, which make lessons hard to implement in practice.

In general, there is a lack of knowledge and expertise for teams that are beyond the first validation stage, who need access to more specific knowledge around marketing, sales, team management and growth.

Support programmes do not provide needed services

Severity: • • ○

There are many different entities and programmes for founders at different stages of their entrepreneurial journey, such as Start-up Weekends, events at universities and start-up accelerators with programmes that last from a weekend to six months. Unfortunately, these

programmes fail to produce the expected outcomes, producing few successful start-ups. As a result, there is shrinking trust in programmes such as accelerators and incubators.

Few accelerators and other support programmes are run by experienced entrepreneurs. Also, there is a lack of experienced mentors who can share their experience and really support entrepreneurs on their journey. Accelerators and similar programmes also often lack the network and access to investors who could invest in the graduating teams. Overall, the ecosystem lacks coordinated efforts to provide founders with the necessary support at different stages of their journey.

Furthermore, much of the current ecosystem in Iran - including Start-up Weekends, accelerators and incubators – is focused on stage entrepreneurs who are in a phase of validating their idea or acquiring their first customers. In very developed ecosystems, this is usually not a problem, as there are lots of resources that founders can refer to and usually they have a board, investors and advisors who can support them in their later phases. This is not the case in Iran, where founders often feel left alone once they leave an acceleration programme and have little or no guidance at all on how to successfully navigate the next stage of their development. There has been a recent growth of coworking spaces that at least provide teams with affordable office space and a community of like-minded people, but often can't help with tailored advice. As a result, start-ups are unaware of the necessary steps they need to take to change from an early phase into a growth phase.



There is a lack of support for new exporters

Severity: • • ○

New firms often face additional challenges when seeking to expand into international markets. While there is interest from government and the private sector in fostering the growth of export-oriented start-ups, few have been successful in succeeding in new markets. A few of the more well-known start-ups (including Aparat and Café Bazaar) have apparently tried to enter international markets, but did not perform well. Challenges related to international payments and navigating sanctions make the situation particularly complex. However, there is a lack of knowledge about market potential and market needs, marketing strategies and the legal requirements for exporting.

None of the current accelerator programmes offers specific support for firms that want to launch internationally or expand to other countries. The "Export Corridor" initiative helps MSMEs with exporting, but is only available to companies registered as knowledgebased firms. Services offered by export support companies are underused by start-ups. As a result, there is a very strong focus among these firms on the domestic market.

There is little information on or collaboration between support programmes

Severity: • • o

There is no go-to place for entrepreneurs and other ecosystem players to get an overview of active accelerators, co-working spaces, investors and other support organizations and their offers. Founders and ecosystem players often have to rely on personal connections or individual research to get the information they need. Limited solutions, such as the online platform ictstartups.ir, have little visibility or relevance.

Furthermore, there is no readily accessible and comprehensive assessment of the national entrepreneurial environment, though various players have assessed different parts of the environment. This makes it more challenging for firms to identify and access support matching their needs, creates unnecessary and inefficient duplications and overlaps, complicates the formation of potentially useful collaborations, and hinders efforts to improve services offered.

In fact, there is very little collaboration and communication between the different ecosystem players, which leads to a lot of players offering very similar programmes competing for the same founders, mentors and training resources. Often, these programmes face similar challenges, such as lack of access to qualified mentors, trainers, investment opportunities and access to validated and approved templates for legal documents; everyone is trying to solve these issues on their own. If they happen, collaborations are limited to individuals connecting with each other. This lack of collaboration is a result of mistrust within the ecosystem and the fear of losing competitive advantages when sharing too much with other players, as most of the accelerators are focusing on a relatively small group of similar teams. The ecosystem and relationships within it are highly complex (Figure 41).



Figure 41: Entrepreneurship ecosystem in Iran

Note: Green circles represent accelerators, pink circles represent investors, and blue circles and squares represent start-ups. Some investors are missing from this figure, but it generally illustrates the ecosystem and the relationships between different players.

Source: https://ecmonitor.ir/images/Startup _ Ecosystem _ Map-10th _ Edition.PNG.

Access to finance and investment is limited

Severity: • • •

Access to finance is a challenge for firm growth. It is relatively easy for start-ups to get access to early stage funding, which is usually provided and accessible as part of accelerator programmes, helping firms to cover initial set-up costs and a few months of operating costs. On leaving the pre-seed phase, however, many have trouble accessing financing.

Many venture capitalists operating in Iran have become less active, are looking to invest in later stage companies where risks are lower, or offer terms that heavily limit growth for start-ups. Bank loans typically have very high interest rates and may require collateral

typically not available to start-ups. Alternative means of funding, such as crowdfunding and crowdinvesting, aren't present in the ecosystem. Bootstrapping –financing growth by relying on revenues generated by the business – isn't very popular with founders, as the general perception is still that you can only be successful as a founder if you raise money. Founders are generally aware that there is money provided through government entities, but they are often afraid to take this money, as they do not want to risk giving official bodies too much access to their business. When financing is available, there is also a lack of "smart money" provided by investors with relevant industry knowledge, networks and investment experience.

Access to international investors has been almost entirely ended with the re-imposition of sanctions. The few entities responsible for attracting international investment (such as Invest in Iran and the Center of Investment and Consultancy Services) tend to be focused on investments in traditional sectors, with little attention paid to attracting investment in start-ups. International investors have had trouble identifying a clear, easy-to-understand and validated process or

framework to invest in Iranian start-ups. At the same time, local start-ups lack knowledge and opportunities to connect with international investors and provide them with the needed market insights for them to make a good assessment of the investment opportunities. The lack of an exit scenario in Iran (like initial public offering, or IPO) is another challenge closely connected to investment repatriation challenges related to exit.

THE WAY FORWARD

Owing to its high-quality education and large young population, Iran has developed a vibrant entrepreneurship scene in the past years. The rapid development of Iran's tech entrepreneurship ecosystem started approximately 10 years ago when companies like Digikala and Café Bazaar came into operation and provided Iranian consumers with one of the first e-commerce platforms and access to mobile apps and in app purchases that were not possible before. By 2014, mobile internet became more accessible and faster with the adoption of 3G in many parts of the country, which created a lot of opportunities for founders.

This entrepreneurship scene is, however, fairly new and faces an environment that has struggled to keep pace with its rapid evolution. Even if entrepreneurs have access to a wide variety of support, it is still largely focused on early stage, young and university educated entrepreneurs. There is also a strong focus on Tehran as an entrepreneurial hub, with smaller ecosystems developing in other large towns such as Shiraz, Isfahan, Tabriz, Yazd and Mashhad. In addition, although the government does recognize and support start-ups as a means to increase resilience and diversification, it sometimes fails to understand their potential value and needs.

These latest developments call for a strategic response around a threefold approach – aligning the policies and regulations with the needs of start-ups and particularly leave space for failure, increase the practicality of the existing training on enterprise management and focus on the soft skills provision, and to reshuffle and strengthen the current large entrepreneurship support ecosystem. In addition, sector-specific aspects of entrepreneurship are addressed in the NES sector strategies (Table 21).

Table 21:	Entrepreneurshi	p in the NES	sector strategies -
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Sector	Relevant activities
Medicinal herbs	2.2.3. Support the creation of firms targeting mechanization of planting, weeding and harvesting machines 2.4.3. Support rangeland monitoring through the development of digital application using GPS monitoring and databases 3.2.2. Support new firms around touristic products in rehabilitation and health tourism built around Iranian medicine.
Fruits and vegetables	2.1.5. Support entrepreneurship through coaching and connection with successful entrepreneurs2.1.6. Create innovation and training management centres
Petrochemicals	2.1.1. Hold consultations with petrochemicals firms and other sector stakeholders on product market regulation and related issues 2.2.1. Foster connections between special zones and the rest of the economy 2.2.2. Support the growth of productive regions of downstream petrochemical activity through a cluster policy 2.3.1. Work in collaboration with firms to develop needed technical and business skills
Auto parts	2.1.1. Review and reform administrative procedures involved in the establishment and registration of new auto parts firms 2.1.2. Review competition policy affecting the sector 2.1.3. Build on existing supports to establish a business incubator focused on supporting innovative new firms in the auto parts sector with an export orientation 2.1.4. Set up an MSME and entrepreneur mentorship programme for the sector
Information and communications technology	2.1.3. Develop national or international awards for local developers by an institution to keep them in Iran 2.3.3. Establish an Iranian ICT nomad network that would use the capacities and connections of expats 2.4.1. Orient the creation of new entrepreneurship support ecosystem in the late-stage MSME/start-up incubation 2.4.2. Develop strict eligibility criteria for accelerator-type facilities to be certified 2.4.3. Integrate export concepts in the early stage of start-up/SME incubation 2.5.1. Bring winners of local start-up/SME awards to regional awards for innovative solutions 3.1.2. Develop a ranking for export maturity of a company in order to classify existing MSMEs/start-ups and have a better understanding on which to focus export sensitization activities 3.2.1. Focus investments into innovative spinoffs of globally successful solutions 3.2.4. Involve angel investment groups to support the ICT sector
Tourism	3.1.3. Creation of a crowdfunding platform or trust funds for the financing of community-based tourism (CBT) projects in Iran 3.1.4. Improve access to existing competitive loans to support the creation of MSMEs for sport material and equipment rental (creation of a one-stop service for MSMEs)

Vision and strategic objectives

In line with the strategic approach presented above, the vision for the entrepreneurship roadmap is "fostering resilience and innovation through a vibrant entrepreneurship scene", which was discussed with and agreed

to by stakeholders in the entrepreneurship ecosystem. The roadmap's plan of action will respond to this vision by addressing constraints and leveraging opportunities in a comprehensive and strategic manner. To this end, particular efforts will be made to realize the following three strategic and operational objectives (Table 22).

Table 22: Entrepreneurship strategic and operational objectives -

Align the policy and legal frameworks to the needs of entrepreneurs	Build the practical and soft skills required for entrepreneurship	Improve the efficiency of the entrepreneurship ecosystem
1.1. Align the policies with the needs of the entrepreneurs and increase efficiency of the current support 1.2. Streamline administrative and legal processes for entrepreneurs	2.1. Foster collaboration between the entrepreneurship ecosystem and the education sphere 2.2. Increase international knowledge transfer on entrepreneurship 2.3. Increase the practicality of the existent entrepreneurship offer 2.4. Improve management capacities of the teams in the entrepreneurship ecosystem	3.1. Strengthen the support to late-stage entrepreneurs 3.2. Enable early support for start-ups to export their services 3.3. Increase flows of investment towards Iranian start-ups 3.4. Improve networking and collaboration among start-ups

Strategic Objective 1: Align the policy and legal frameworks to the needs of entrepreneurs

The first strategic objective focuses on the policy and legal frameworks relevant to entrepreneurship support in Iran. The diagnostic has shed light on a very complex support system and fragmented policies relevant to entrepreneurship support. The strategy will thus focus on aligning the policies and policymakers' understanding with the needs of entrepreneurs in Iran, as well as building a clearer picture of the effectiveness of the current support system. The second focus will be to streamline the legal procedures relevant to entrepreneurs, specifically related to company registration, bankruptcy and liquidation, financing and tax. In the short term, this will be done by increasing transparency on the current processes, while initiating the required reforms in parallel.

Strategic Objective 2: Build the practical and soft skills required for entrepreneurship

The second strategic objective is focusing on upgrading the entrepreneurship and entrepreneurship support skills. The current lack of practical business skills and limited access to international best practices requires focus on the education and international collaboration approaches. The first operational objective will be to increase the collaboration of the entrepreneurship ecosystem with the public education to ensure it keeps pace with its rapid developments and needs. The second is to bring as much as possible international exposure through exchanges and interaction with foreign business leaders or entrepreneurship support programmes. Another key objective is to increase the

practicality of current business management curricula, ensuring exchanges or traineeships within start-ups. The last key objective is to improve management capacities within various entrepreneurship support programmes such as accelerators and incubators to better capture their results and impacts.

Strategic Objective 3: Improve the efficiency of the entrepreneurship ecosystem

The third strategic objective focuses on increasing efficiency of the current support framework. The strategy will first strive to reorient the current support towards late-stage start-ups, which need specific support to scale their operations and reach long-term success. Specific emphasis will be to build capacities and interest in exporting from early in the conception process to the idea scaling stages. Ensuring alternative investment options within the current context will also be key for Iranian entrepreneurs. Finally, the objective will also focus on increasing the collaborative culture and shared experiences among Iranian start-ups, which might allow them to exchange best practices, scale their operations and overall increase their chances for success.

PLAN OF ACTION

To achieve the vision and strategic objectives discussed, a robust, actionable and realistic strategic plan of action (PoA) is required. This is provided below, and constitutes the heart of this strategy. The PoA is structured along the three strategic objectives described above and their operational objectives, with information on the priority, timing, type, targets, and lead and supporting implementing partners for each activity.

Operational	Activity	Priority	Period	Reform	Targets	Leading	Supporting implementing
objective	·		5055 5055 5055 5055	or project		partners	partners
1.1. Align the	1.1.1. Initiate a joint effort of all relevant entities in the government to review current policies and create a streamlined approach to support start-ups and new policies that specifically target young entrepreneurs with clear objectives and responsibilities.	2		Project	• Policy review is completed	Vice Presidency of Science and Technology (VPST)	Ministry of Industry, Mine and Trade (MoIMT) Information Technology & Digital Media Development Center (ITDMD) Information Technology Organization (ITO) Ministry of ICT (MoICT)
the needs of the entrepreneurs and increase efficiency of the current support	1.1.2. Conduct a comprehensive assessment of the national entrepreneurial environment to understand which services are offered where, how they are connected to each other and how they support entrepreneurs. There is also a need to get a better overview at which stages they support entrepreneurs.	က		Project	Entrepreneurship ecosystem mapping and gap analysis completed	VPST	ITPO; Iranian Research Organization for Science and Technology (IROST); Industrial Management Institute (IMI)
	1.1.3. Develop strict eligibility criteria for accelerator-type facilities to be certified. Establish a periodic re-certification scheme for accelerators, requiring them to demonstrate a sufficient amount of success stories to remain active.	-		Reform	New accelerator certification scheme in place	VPST	IROST; IMI
	1.1.4. Create an entrepreneurship support database for the whole country to help identify gaps and opportunities for collaboration between different support organizations.	5		Project	 Entrepreneurship support online database in place 	VPST	IROST, IMI, ITO
1.2. Streamline administrative and legal	1.2.1. Set up an office that supports and consults start-ups during the whole legal process of setting up and running their company. This would include the process of setting up a company and helping founders with advice for contracts and other legal documents. Complement the office with an online platform that provides answers and instructions for the most common questions and gives an overview of all support organizations and special support for which founders can apply.	-		Project	 Legal and administrative support office in place Online platform with guidelines and FAQ in place, connected to the support office 	VPST	IROST; IMI; ITO
processes for entrepreneurs	1.2.2. Reach an agreement of all involved entities on standardized processes for start-ups within the current legal framework, which are then transformed into general guidelines on how to treat start-ups within the existing legal system and communicated to all entities involved and the founders. These guidelines should be made available to all founders, not only those who qualify as a knowledge-based company.	-		Project	Standardized process with guidelines in place Guidelines communicated to all founders	VPST	IROST; IMI; ITO; Innovation and Prosperity Fund

				Period			2 dibaa	
Strategic objective	Operational objective	Activity	Priority	2024	Reform or project	Targets	implementing partners	Supporting implementing partners
1. Align the policy and legal frameworks to	1.2. Streamline administrative and legal	1.2.3. Develop a new set of laws and regulations that are specifically targeted at start-ups and young companies, including registration requirements, rules on bankruptcy and liquidation, financing and tax.	2		Reform	 New set of laws and regulations developed and adopted 	VPST	IROST; IMI; ITO; Innovation and Prosperity Fund
the needs of entrepreneurs	processes for entrepreneurs	1.2.4. Based on the new regulation developed, create a onestop shop online business registration system.	2		Project	 One-stop shop registration system created 	VPST	IROST; IMI; ITO; Innovation and Prosperity Fund
	2.1. Foster collaboration	2.1.1. Establish a stronger collaboration between the leading start-ups, accelerators and universities in creating courses that focus on up-to-date skills needed when running or working with a start-up.	1		Project	 New partnership agreement in place with all leading universities 	Ministry of Health and Medical Education	VPST; IROST; IMI
	between the entrepreneurship ecosystem and the education	2.1.2. Conduct an assessment of the education and content currently related to entrepreneurship within Iran and the quality of these trainings to identify gaps in both topics and quality.	2		Project	Entrepreneurship course gap assess- ment conducted	MoE	VPST; IROST; IMI
2. Build the	sphere	2.1.3. Establish a joint taskforce to create localized content and access to this specific knowledge based on the assessment.	5		Project	• Taskforce on course content development in place	MoE	VPST; IROST; IMI
practical and soft skills required for entrepreneurship	2.2. Increase international knowledge	2.2.1. Invite international trainers to host sessions in Iran, sending ecosystem players and start-ups to specific conferences	-		Project	At least two internationals brought per year At least two national players sent out per year	Centre for Innovation and Technology Cooperation	IROST; IMI; ITO; Innovation and Prosperity Fund
	national uniterpreneurship	2.2.2. Support local initiatives such as user groups to expand their reach and knowledge and give local experts the ability to attend international train the trainer seminars or get international certificates for specific topics such as Scrum, 23 etc.	-		Project	 At least one initiative supported per year on the international level 	VPST	IROST; IMI
	2.3. Increase the practicality of the existent entrepreneurship offer	2.3.1. Universities to focus on creating courses and events that allow students to acquire practical skills and experiences.	-		Project	Review existing entrepreneurship courses completed Each new course with practical aspect	MoE	VPST; IROST; IMI

23.- Scrum is a framework that can be used for team collaboration on products. For more information, visit https://www.scrum.org/resources/what-is-scrum.

				Period			Pading	
Strategic objective	Operational objective	Activity	Priority	2024 2023 2023 2027	Reform or project	Targets	implementing partners	Supporting implementing partners
	2.3. Increase the practicality	2.3.2. Public institutes to offer investment-readiness programmes on a large scale in order to teach young entrepreneurs basic business skills.	-		Project	 Yearly investment readiness pro- grammes in place 	MoE	VPST; IROST; IMI
2. Build the practical and	of the existent entrepreneurship offer	2.3.3. Encourage and support the leading start-ups to run in-house internship and traineeship programmes that allow students and recent graduates to build relevant skills needed in today's job market.	2		Project	 New financial incentive for internship and traineeship in place 	VPST	IROST; IMI
soft skills required for entrepreneur- ship	2.4. Improve management capacities of the teams in the entrepreneurship ecosystem	2.4.1. Offer trainings and mentoring for the teams running entrepreneurship support programmes with a focus on how to plan, structure and run programmes, and how to best support entrepreneurs on their journey. This would be less about special technical skills and more about how to create an ecosystem that provides entrepreneurs with all they need to succeed. Bring all the different stakeholders to a Table to discuss potential collaborations and joined efforts to better support entrepreneurs and streamline opportunities.	2		Project	 Entrepreneurship support manage- ment training programme in place 	MoE	VPST; IROST; IMI
	3.1. Strengthen the support for late-stage entrepreneurs	3.1.1. Develop peer-to-peer mentoring programmes or part-time post-acceleration programmes that help founders navigate the post-accelerator phase of preparing investment materials, talking to investors, hiring, streamlining processes, scaling the business and setting more ambitious goals. These programmes could also give founders access to experienced founders, coaches and mentors from other countries who have been working in similar sectors and can give advice from an international perspective.	က		Project	 Peer-to-peer men- toring programmes in place 	VPST	IROST; IMI
3. Improve the efficiency of the entrepreneur-		3.1.2. Orient the creation of the new entrepreneurship support ecosystem in the late-stage MSME/start-up incubation.	2		Project	 Promotional campaign carried out 	VPST	IROST; IMI
ship ecosystem	3.2. Enable early support for startups to export their services	3.2.1. Establish a trade accelerator to create a centralized place where start-ups can get access to specialized trainings, mentoring and legal support to successfully enter international markets. The goal of this accelerator should be to unify all existing offers and complement their offers. Connect to respective international chambers of commerce to create collaborations and get them engaged as experts for specific countries. Given the very different needs of start-ups wanting to export, focus on individual coaching and consulting services compared to a traditional programme.	2		Project	• Trade accelerator created	ITPO	VPST; IROST; IMI; ITC

				Period				Leading	
Strategic objective	Uperational objective	Activity	Priority	2022 2023	5052 5054	Ketorm or project	Targets	implementing partners	Supporting implementing partners
		3.3.1. Run specific events and conferences for investors, corporates and everyone interested in investing to provide them with the information they need to make smart investments from which everyone benefits.	2			Project	 Investment targeting events carried out yearly 	Centre for Innovation and Technology Cooperation	IROST; IMI; ITO; Innovation and Prosperity Fund
		3.3.2. Create incentives to make early stage investment more attractive.	2			Reform	Flexible investment conditions in place for early stage start-ups	VPST	IROST; IMI; ITO; Innovation and Prosperity Fund
	3.3. Increase flows of investment	3.3.3. Develop training modules for start-ups on different ways of investment and where they get access to which kind of funding, and when it is needed. Since there also needs to be a shift in mindset that you can only be a successful start-up if you raise investment, showcase teams that succeeded without outside funding.	-			Project	Investment training modules inte- grated into leading entrepreneurship programmes	VPST	IROST; IMI; accelerators
3. Improve the	towards Iranian start-ups	3.3.4. Target national corporate venture capital and state-owned enterprises (SOEs) as potential investors in specific sectors such as auto parts and petrochemicals.	2			Project	 Investment promotion campaign carried out 	Centre for Innovation and Technology Cooperation	IROST; IMI; ITO; Innovation and Prosperity Fund
efficiency of the entrepreneur- ship ecosystem		3.3.5. Target the Iranian diaspora, as they usually have a general understanding of the Iranian ecosystem and even funds in the country, which would make it much easier to facilitate the investment process.	2			Project	Diaspora network mobilized and community created	Centre for Innovation and Technology Cooperation	IROST; IMI; ITO; Innovation and Prosperity Fund
		3.3.6. Provide Iranian start-ups with opportunities to pitch on the international level, which would allow them to get attention from international investors, but also practise pitching in front of an international audience and adapt their pitch and product to the needs of international investors.	က			Project	• At least one inter- national investment attendance for a subset of key Iranian start-ups	Centre for Innovation and Technology Cooperation	IROST; IMI; ITO; Innovation and Prosperity Fund
	3.4. Improve networking and	3.4.1. Create regular opportunities for founders at all stages of their entrepreneurial journey to present their ventures to the general public. This could be through a specific TV/radio/press format.	က			Project	TV show created about entrepreneurship Regular press presence of success stories	VPST	IROST; IMI; ITO; Innovation and Prosperity Fund
	among start-ups	3.4.2. Establish a start-up collaboration through a taskforce, with sessions around specific topics. Ahead of this taskforce, there should be an assessment on an individual level to better understand the specific roadblocks and fears that lead to this lack of collaboration.	က			Project	Start-up taskforce established	VPST	IROST; IMI; Iranian ICT Guild Organization; National Union of Virtual Businesses



CONCLUSION

Iran faces significant economic uncertainty. While much of this is the result of external or uncontrollable factors – specifically the re-imposed US-led sanctions and the consequences of the COVID-19 pandemic – it remains possible, and indeed essential, for domestic reforms to be pursued to manage uncertainty by enhancing coordination and competitiveness. Trade is a potential driver of goals, stated as part of Iran's national development agenda, already plays a critical role in Iran's economy and has the potential to make greater contributions to economic development. In the short term, focus will be needed on understanding opportunities in international markets. In the longer term, improvements to the fundamentals of export competitiveness will set the stage for further trade-led growth and diversification.

The NES supports these goals by leveraging Iran's strengths arising from its natural resource endowment, strategic location, favourable demographics and attractiveness to investment, as well as by addressing constraints related to the business environment, innovation and Iran's human capital potential.

In particular, actions on the six priority sectors (medicinal herbs, fruits and vegetables, petrochemicals, auto parts, information and communications technology, and tourism) and four trade support functions (trade information and promotion, quality management, entrepreneurship, and trade policy) define priorities for sparking more inclusive, sustainable and resilient tradeled growth.





ANNEXES

Annex I

KEY COMPETITIVENESS CONSTRAINTS

The deeper issues outlined in this document give rise to more proximate issues affecting export competitiveness. Key constraints arising in these and other policy areas affect exporting potential. The following constraints and their impacts are organized by the stage of competitiveness they predominantly affect: the access to inputs and resources, firms' operations and production, or market entry. They are also organized by the level at which they arise: enterprise performance (orange), the business environment and entrepreneurship (grey), or the national and legal framework (blue). The severity of each constraint is evaluated using a three-point scale.²⁴

Access to inputs and resources

Information on raw material suppliers and prospective buyers is not adequately reaching businesses

The lack of access to and use of price information hinders firms in setting prices, and finding competitive suppliers and attractive markets. This occurs because often industry managers lack access to price information. In recent years, the annual publication *Compass* has carried information on raw material suppliers and inter-industry relations. A survey of 56 industrial managers found, however, that none of them was aware that such information existed, and they did not know how to access it.²⁵

Relevant policy area: Business environment and MSME sector

Severity: • • •

Limited potential for productivity growth and quality improvements owed to the use of outdated equipment and machinery

Many firms, particularly MSMEs, use outdated equipment and machinery in production. Firm access to and use of the latest machinery has been constrained by a number of factors, including:

- A shortage of funds;
- The very lengthy process for allocation of loans;
- The high cost of imported technology (i.e. machinery and tools, know-how and R&D facilities);
- The low profitability of industrial MSMEs in Iran, which restrains investment in technology modernization; and
- Lack of knowledge of entrepreneurs regarding the importance of technology improvement on productivity and profitability.

Additionally, no particular programme or policy regarding technology upgrading in industrial MSMEs exists in the country, with the exception of ISO programmes.

Relevant policy area: Investment Severity: ● ● ○

The relatively small size of firms constrains their export potential due to their low capacity to access resources and investment capital

Iran's private sector has relatively few medium-sized enterprises. While official data is not available, it has been estimated that approximately 80% of Iranian businesses are family run, which tend to be small. Family run businesses, which account for approximately 60%

^{24.—} Following Hausmann, Rodrik and Velasco's (2004) approach to identifying binding constraints to economic growth, the severity of constraints is evaluated here with consideration of their direct impacts, as well as their tractability. Specifically, the impacts of these constraints are considered in terms of their immediacy, depth (i.e. the scale of negative effects on affected sectors) and breadth (i.e. the extent of the areas of the economy affected). Consideration of constraints' tractability encompasses the complexity of the challenges and capacities to address them. Evaluation of constraints' severity is, therefore, context-specific. This approach manages the practicalities of prioritizing multiple issues with limited resources and incomplete information on the relationships between constraints. Hausmann, R., Rodrik, D. and Velasco, A. (2004). "Growth diagnostics", in Stiglitz, J. and Serra, N., eds., *The Washington Consensus Reconsidered: Towards a New Global Governance*, Oxford University Press, Oxford.

^{25.–} UNIDO (2003). Strategy Document to Enhance the Contribution of an Efficient and Competitive Small and Medium-Sized Enterprise Sector to Industrial and Economic Development in the Islamic Republic of Iran, United Nations Industrial Development Organization, Vienna.

of employment, are relatively common due to low levels of trust in legal and other institutions.²⁶

This "missing middle" not only limits competition in the domestic market, but also reduces exporting potential. The small size of many firms can act as a barrier to exporting where they lack the financial resources, skills and other strengths needed to begin exporting. Smaller firms also have fewer opportunities to apply economies of scale, such as the possibility to purchase inputs in bulk or to invest in specialized equipment.

Relevant policy area: Investment Severity: ● ● ○

Many firms' strategies are not properly adapted to exporting or innovation

Entrepreneurship and management skills in Iran need to be developed further to increase firm competitiveness and capacities to adopt new technologies and production practices and pursue innovation.²⁷ Many of the smallest firms, which are often family or singleworker firms, lack adequate training and management skills.²⁸

Relevant policy area: Innovation Severity: ● ●

The capacity of available entrepreneurship and business education programmes is limited

Entrepreneurship-focused education has been expanding since the introduction of the KARAD Plan under the Third Economic and Social Development Programme (2000–05). However, a number of internal challenges are faced, including students who come unprepared in terms of problem-solving and critical-thinking skills, entrepreneurship being treated as a distinct subject rather than being integrated in courses of study, the lack of experienced professionals among faculty members, poor integration of technology, and weak research on entrepreneurship education. Many programmes have short lifespans, limiting their ability to adapt and evolve, to develop institutional expertise and to build alumni networks.²⁹

Relevant policy area: Business environment and MSME sector

Severity: • • •

Education and economic outcomes hampered by slow uptake of the education system on new teaching methods and technologies

Training and teaching resources at the level of tertiary education require extensive capacity building to bring them up to speed with contemporary teaching methods. The current methods and applications are mostly based on textbook learning. Content memorization learning fails to stimulate creative and analytical thinking, and limits the practical use of the assimilated information.

The use of technology in teaching also remains scarce. According to a study carried out by the Islamic Azad University of Fariman, many classrooms are equipped with computers that are never used, because many teachers have little experience to use these technologies and only a few of them speak English (limiting their use of the internet and other technologies).³⁰

There is a certain resistance of the teaching staff to integrate new methods and changes in general. A possible explanation to this inflexibility is the lack of motivation and desire to serve connected to the limited social benefits allocated to teaching staff in the areas of housing, social security, retirement, health insurance, transportation, loans and scholarships. The low participation of teachers in decision-making and educational programmes is another possible explanation for this lack of commitment to their role.

As a result of the limited use of practical training and up-to-date technologies, the knowledge acquired by young graduates is not easily transferred in their work environment once they integrate into the job market. Employers require adaptation periods for their new staff due to this lack of preparedness. In turn, poor preparation for labour market needs is linked to broader negative economic outcomes, including low productivity, high unemployment and underemployment, and skill mismatches.

Relevant policy area: Human capital and labour use Severity: ● ○ ○

The TVET system is misaligned with the youth and firms' interests

Reforms may be needed to improve the quality levels of the TVET system. While Iran performs relatively well in some aspects of education and training (it is, for example, ranked 57th globally in terms of average years

^{26.-} Coville, T. (n.d.). "The family business in Iran since the Islamic Revolution as a mode of coordination".

^{27.–} UNCTAD (2016). Science, Technology & Innovation Policy Review: Islamic Republic of Iran, United Nations Conference on Trade and Development, Geneva.

^{28.–} Ibid.

^{29. –} Karimi, S., Chizari, M., Biemans, H.J.A. and Mulder, M. (2010). "Entrepreneurship education in Iranian higher education: The current state and challenges", European Journal of Scientific Research, 48.

^{30.-} Mohammad Reza Yousefi (2014). "Challenges of the Educational System of Iran and Solutions to Address These Challenges", Islamic Azad University of Fariman, Iran.

of schooling), the quality of its vocational education system is ranked 96th.³¹

The government is making efforts to reinforce the system, through the integration of stronger science and technology components to the courses, and by promoting research-oriented education.³² Although the 2011 Fundamental Reform Document of Education contains specific recommendations as to the TVET, encouraging the development of a comprehensive TVET system at all levels of the education system, a lot remains to be done to strengthen and advertise this education path as a viable and more hands-on alternative to higher education. Quality insurance systems of the TVET institutions need to be given greater attention, especially on the capacity building of teachers and trainers in line with the job market's emerging needs. As they stand, TVET programmes are not well aligned with employer needs

As a result, the TVET education pathway is not the preferred option for young Iranians, preferring to orient themselves towards university education. Only a minority of students in secondary level actually select this path, representing a mere 14.6% of the total number.³³ The predominance of high-level education and the bad reputation of vocational training among society are factors limiting the interest of youth in the TVET education option. Nevertheless, the employment opportunities offered by the Iranian economy are mostly located in the areas of agriculture and manufacturing, which both rely on vocational training graduates.

Relevant policy area: Human capital and labour use Severity: ● ● ●

Links should be strengthened with private sector employers to improve the relevancy of education

Since the reduction of restrictions on private sector education providers in 1988, there has been considerable growth. In 2005–14, the number of private higher education institutions increased from 50 to 354. However, while Iran has a relatively well-educated population, at 37%, the unemployment rate for university graduates is above the national average. This has been attributed in part to the inconsistency of higher education with the needs of employers. Improvements needed to the quality of education include adapting



curricula, textbooks, and teaching styles and tools to meet current and future needs.³⁶

Relevant policy area: Human capital and labour use Severity: ● ○ ○

Outdated and burdensome labour market regulations limit firms' flexibility and reduce their competitiveness

A key characteristic attributed to MSMEs is flexibility and, hence, the ability to adjust to market conditions. In Iran, burdensome regulations do not enable MSMEs to operate in this manner, but rather impose stringent limitations on them. A case in point is the Iranian labour market regulations, particularly the law on hiring employees, which requires firms to obtain official approval from the Labour Organization to be able to fire employees. Moreover, the absence of laws on part-time employment forces industrial executives to hire full-time workers, increasing their costs and reducing their competitiveness.

Strong employment protections require firms to concede significant and burdensome benefits to employees. For example, in small firms with a staff of 10–49 persons, the employee will benefit from the following:

Journal of Fundamental and Applied Life Sciences, Vol. 4.

^{31.-} World Economic Forum (2018). Global Competitiveness Report 2018, World Economic Forum, Geneva.

^{32.-} Three key relevant policies are the General Employment Policy, the National Master Plan for Science and Education, and the Fundamental Reform Document of Education.

^{33.-} TVET country profile of Iran (November 2018). UNESCO.

^{34.} Habibi, N. (2015). "Iran's overeducation crisis: Causes and ramifications", *Middle East Brief*, No. 89, Brandeis University, Crown Canter for Middle East Studies.

^{35.–} Hosseini, M., Kalantari, K. and Eskandari, F. (2008). "The Role of Iranian Higher Agricultural Education System on Entrepreneurial Success of Its Graduates: Some Policy Implications for Entrepreneurship Education", *American-Eurasian Journal of Agriculture & Environment*, 3(3), 394–402.

36.– Yousefi, R. (2014). "Challenges to the Educational System of Iran and Solutions to Address these Challenges (in the Outlook of 1404", *Indian*

- The employer cannot unilaterally fire the worker;
- The salary defined by law must be paid on a monthly basis;
- Workers remain eligible for pay during all official and unofficial holidays;
- The worker is entitled to 30 days of vacation per vear:
- The worker is entitled to receive a bonus equivalent to 30 days of work;
- A worker will be entitled to all legal benefits during 26 days of official holiday(s);
- The cost of firing will be equivalent to three months of salary that the employer will have to pay;
- The employer must account for 20% of employer's insurance; and
- The employer must account for 3% of the workers' salaries to relevant organizations.

Excessive regulation of labour markets can discourage employment, reduce productivity and motivate informality. Restrictions increase the human resource cost and introduce a considerable amount of rigidity in the commercial operations of small firms. In a research exercise undertaken at IMI, the direct and indirect labour costs in Iran were estimated at 5.5 times the amount of direct salary. If considering the hourly wage in Iran to be \$1, and supposing that the employer will have to incur \$5.5 hourly labour cost, the cost of the workforce is comparatively much higher in Iran than in the United Mexican States (\$1.50), the Czechia, the Arab Republic of Egypt, the Republic of Indonesia, and China (amounting to \$1.91, \$1.40, \$0.41 and \$0.30 respectively).

Relevant policy area: Business environment and MSME sector

Severity: • • •

Youth empowerment and employability are not consistently addressed by national policies

Youth development has been often overlooked in national policies. This is partially explained by the lack of clear mandates provided to institutions responsible for youth policy and planning, which complicates the design, implementation and monitoring of youth policies.³⁷ Another root cause is the frequent changes in decision-making staff in key ministries and public agencies, which have resulted in less clear and consistent direction on youth economic empowerment. Policies developed by preceding government official have often been neglected or abandoned by following governments.

The lack of effective and consistent policies on youth hinders Iran from taking advantage of the demographic window of opportunity presented by its young population, which can benefit economic development through the increased savings of the relatively large working age population, opportunities for human capital development among the young, and the low dependency ratio. Instead, the youth (15–24) unemployment rate is considerably high and has been increasing since 2015, to 28% in 2017. Notably, young women are particularly affected by unemployment.

Relevant policy area: Human capital and labour use Severity: • o o

Firms' operations and production

Investment promotion activities are inadequately and insufficiently supported

Investment promotion plays an important role in increasing investment flows and directing investment into high-potential sectors and activities. In Iran, the efforts dedicated towards investment policy and promotion are limited due to the multiple responsibilities of the Organization for Investment Economic and Technical Assistance, which is responsible for investment promotion, but also involved in transfers and repatriation of foreign investments, as well as the arrangement of negotiations related to international investment agreements. In most countries, these activities tend to be most effective when handled by a dedicated investment promotion agency.

Relevant policy area: Investment Severity: ● ○ ○

Subsidized competition from state-owned firms is a hurdle for MSME growth

The intensity of local competition in Iran ranked 125th out of 138 economies in 2017, according to the World Economic Forum's Global Competitiveness Index.³⁸ The Iranian commodity market is characterized by a predomination of large firms, which are state-owned and subsidized by the government. Through their lobbying, they draw on a vast network of relations and can easily solve any problem in the market. In addition, as they monopolize the markets, they exert considerable influence in their own favour. They can manipulate prices by controlling production or storage/stock levels, thus governing the rules-of-the-market game. Smaller firms do not wield comparable economic power, and are thus left at the mercy of the larger enterprises. Managers see the larger firms as occupying

^{37.-} Abbasi-Shavazi, Mohammad & Sadeghi, Rasoul & Hosseini-Chavoshi, Meimanat & Torabi, Fatemeh & Mahmoudiani, Serajeddin & Torkashvand, Mohammad (2013). "Demographic and Socio-economic Status of Youth in I.R. Iran", United Nations Population Fund (UNFPA), Tehran.

^{38.-} World Economic Forum (2018). Global Competitiveness Report 2017-2018, World Economic Forum, Geneva.

significantly anti-competitive positions in many cases, and antitrust and anti-monopoly policies as very weak or ineffective.

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Competition between MSMEs and the informal sector exacerbates competitiveness loss of MSMEs caused by burdensome and costly regulations

While its hidden nature makes it difficult to measure the informal economy, its output has been estimated to be 22.2% of GDP in 2008/09. In the long term, informality in Iran appears to be the result of excessive government intervention in markets, while short-term trends are driven by economic pressures as predicted by the dual labour market theory.³⁹

Small informal firms' tend to have limited productivity and potential to expand and export, in addition to posing unfair competition for formal firms that pay taxes and comply with costly regulations. Informal employment is a challenge to the effectiveness of labour market policy and regulation, and often leads to workers lacking the protections and benefits of formal work.

Relevant policy area: Business environment and MSME sector

Severity: ● o o

Financial institutions' offerings are insufficiently tailored to serve the needs of MSMEs

Financial institutions in Iran have not yet adapted their offering to MSMEs. Commercial and specialized banks that would lend money to MSMEs are absent and loan criteria for firms of all sizes are similar. Apart from providing loans to larger firms, the Bank of Industry and Mine is also the sole financial institution that allocates special funds to small industries, although the amount of funds is very limited. Further, banks offer services with very high interest rates and require collateral that MSMEs rarely have available. The collateral policy of Iranian banks is geared predominantly towards fixed asset mortgages (in the form of land or buildings). Since smaller firms are not able to make fixed asset mortgages, they do not qualify for loans. Although a law prohibits banks from securing their loans with nonindustrial assets, the banks still insist on this form of security. Banks do not offer more advanced services such as equity in the form of venture capital, angel investments and private equity. Their administrative costs are also high. 40 Moreover, while credit guarantee schemes have been established, they have not always been easy for MSMEs to access, and there is a need for a backup guarantee institution, a comprehensive evaluation mechanism and risk-sharing mechanisms. 41

As a result of these difficulties, smaller firms have to turn to the more expensive unofficial financial markets. The average interest rate in these markets is twice that of the official rate of 17%. Interest rates for short-term loans can be as high as 48%, and they vary according to the firm's credit background and the loan period.

Relevant policy area: Financial sector Severity: • • •

Limited support is provided to R&D and technology transfer to spur innovation

Science, technology and innovation priority issues include:

- The need to improve coherence with other policy areas;
- Overlapping responsibilities among key bodies;
- The lack of effective targets and incentives for R&D, in priority areas and generally;
- · Weaknesses in policy implementation capacities;
- Underdeveloped linkages with foreign firms;
- An intellectual property rights (IPR) system that is not fully credible or effective;
- The need for a strategy supporting the growth of a knowledge-based economy in both traditional and emerging sectors.⁴²

Weak institutional support partially explains the limited R&D activities and technology transfer taking place in Iran despite its well-developed system of higher education. Innovation, an important aspect of productivity and competitiveness, remains limited, though its importance is being acknowledged by policymakers (i.e. Vision 2025 plan). Total R&D expenditure and the number of researchers are relatively low in Iran. International collaboration in research is underdeveloped, though the development of international linkages is complicated by sanctions and Iran's international isolation.

Relevant policy area: Innovation Severity: • • ∘

39.– Khandan, A. & Nili, M. (2014). "Government interventions and the size of the informal economy: The case of Iran (1971–2007)", *Journal of Economic Policy Reform*, 17(1), 71–90.

^{40.-} Ibid

^{41.–} Aboojafari, R., Daliri, A., Taghizadeh-Hesary, F., Mohammad Mokhtari, M., and Ekhtiari, M. (2019), "The Role of Credit Guarantee Schemes in the Development of Small and Medium-Sized Enterprises with an Emphasis on Knowledge-Based Enterprises", *ADBI Working Paper Series*, No. 930.

^{42.–} UNCTAD (2016). Science, Technology & Innovation Policy Review: Islamic Republic of Iran, United Nations Conference on Trade and Development, Geneva.

Barriers remain for a greater expansion of ICT use among MSMEs and their involvement in e-commerce activities

ICT use has the potential to help firms to improve internal performance and lower the costs of external communications and transaction costs. Iran has made significant improvements to its ICT infrastructure. In 2017, 60.4% of the population used the internet, slightly above the 57.9% average among upper-middle income countries.

However, in spite of the ICT sector's growth, many small firms still face barriers in adopting ICT. In the construction industry, for example, barriers to ICT use include poor infrastructure, lack of workers with digital skills and insufficient incentives for training, lack of comfort with and trust in ICT, software challenges, complicated administrative processes and weak data backup systems.⁴³

Moreover, while Iran performed relatively well in UNCTAD's business-to-consumer (B2C) E-commerce Index 2018, ranking 49th out of 151 countries, MSMEs are often hindered in participating in e-commerce activities by a combination of:

- Internal factors, such as insufficient information and skills, incompatibility with firm structures and processes, high initial costs, and resistance to change;
- External factors, such as customers' resistance, lack of supporting legal framework, lack of needed skills, and international sanctions and barriers to payment.⁴⁴

Relevant policy area: Innovation Severity: ● ● ○

Start-ups have a limited number of well-performing incubator/accelerator programmes to support them

Technology and other parks have been established to foster investment and provide some of the benefits of clustering. While some of these parks specialize, others group a wide spectrum of companies. For instance, the Persian Gulf Science and Technology Park (also known as the Knowledge Village) was set up in 2008. The park nurtures companies in all of the following fields: information, communications and electronic technology; nanotechnology; biotechnology; oil, gas and petrochemical; maritime industry; agriculture and

the date palm industry; fishing industry and aquatic species; and the food industry.⁴⁵

While there has been an increase in the number of support schemes, the quality of services offered has not necessarily improved. Entrepreneurs indicate that few of the incubators provide effective support in the areas they require.

Relevant policy area: Innovation

Severity: • • ∘

Significant administrative burdens discourage the establishment of new firms

High costs to establishing new firms also discourage entrepreneurship and distort firm entry, with negative consequences for competition, while contributing to higher levels of informality. In Iran, the process of registration (and dissolution) of firms can be extremely time-consuming, especially for MSMEs, and usually takes at least three months. It takes more than 70 days to register a firm (72 for men and 73 for women), while the MENA average was 20.5 days for men and 21.2 days for women. According to the World Bank's Ease of Doing Business, Iran's international ranking of the ease of starting a business was 173rd out of 185, tied with protecting minority investors for the worst-performing category for Iran.

The registration regulations are also very restrictive regarding the board of directors of a new company. In Iran, corporations have to be managed by at least a three-person board of directors. The members of the board must be partners in the firm. Therefore, to start a company, there must be at least three partners. 46 Companies must be registered as a corporation in the Organization of Business Registration, in order to secure loans or to participate in tenders.

Relevant policy area: Business environment and MSME sector

Severity: • • •

Trade laws have not kept pace with new developments and economic considerations

The trade law and other laws in Iran have not evolved with time. The outdated nature of these laws and their incompatibility with new economic considerations makes them inherently unfavourable for MSMEs. For instance, nowhere in Iran's trade law is reference made to the internet, fax or new communication tools. The law does not refer to the use of computer and information

^{43.–} Alaghbandrad, A., Asnaashari, E., and Preece, C. (2012). "Problems and barriers of ICT utilization on Iranian construction sites: Case study on the successful use of ICT in remote construction sites", *Journal of Information Technology in Construction*, March.

^{44.-} Sherafati, M. and Bidabad, B. (2014). "Barriers to E-Commerce in SMEs of Iran", Journal of Applied Science and Agriculture, Vol. 9, Iss. 6.

^{45.-} UNESCO, higher education report.

^{46.-} Ibid.



technologies in the administration of firms, and regards only their traditional systems as being relevant.

Relevant policy area: Business environment and MSME sector

Severity: • • •

Detailed and actionable information on trade-related laws is not easily available, caused by a highly fragmented regulatory framework

Iranian rules governing companies and their operations are scattered in various different laws, and have not been consolidated under a single company law. The lack of a company law has created a lot of problems for MSMEs. All in all, the existing trade law bogs down Iranian MSMEs in a web of legal considerations and, as these firms lack the requisite legal expertise or cannot afford a commercial lawyer, they become tied down in a complex legal web.⁴⁷

Relevant policy area: Business environment and MSME sector

Severity: • o o

No specialized tax regime exists for small firms or start-ups, rendering additional costs and administrative burden to them

In Iran, the tax system places significant administrative burdens on individuals and firms. Compared with the average among Middle East and North African countries, tax compliance requires more procedures and a greater time commitment in Iran.⁴⁸

Small firms have to comply with all legal stipulations and provisions concerning tax matters. The tax laws

do not differentiate between large and small firms, and their provisions are, to a large extent, drafted with a view to taxing the operations of large companies. Compliance with these laws are extremely costly for small firms that have to prepare legal documents and make tax payments accordingly. Their documents are usually rejected and the amount of tax is decided on by tax officers and, therefore, lacks an accurate basis.⁴⁹

Relevant policy area: Business environment and MSME sector

Severity: ● o o

Regulatory barriers and constraints discourage foreign investment

FDI can play an important role in building capacities and competitiveness for export-led growth. In addition to capital inflows, FDI can improve productive potential and support diversification and innovation through technology transfers, strengthened international linkages and trade, improvements to human capital, enhanced competition and spurred enterprise development. However, FDI has accounted for a relatively small share of total investment in Iran, and is largely concentrated in the oil and gas sectors as a result of barriers and constraints in the Iranian business environment, which discourage and raise costs for investors. Foreign investment is also subject to additional constraints related to the transfer of foreign capital, firm ownership structure and dispute settlement.

Relevant policy area: Investment Severity: ● • ○

^{47.-} Ibid.

^{48.-} World Bank (2019). Doing Business, World Bank, Washington, D.C.

^{49.-}

Weaknesses in the legal framework for bankruptcy raise the costs of entrepreneurship and risk-taking

Iran's bankruptcy framework is in need of updating, having not been reformed since the original adoption of the commercial law. Particularly weak aspects are the reorganization proceedings and creditor participation, with limited protections on the involvement of creditors in approving decisions and on securing repayment.

As a consequence, the cost of resolving insolvency is significantly high, averaging 15% of the debtor's estate, which is somewhat higher than the 13.8% in MENA countries and also above the 9.3% in Organisation for Economic Co-operation and Development (OECD) high-income countries.⁵⁰

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Lack of an entrepreneurship strategy and comprehensive assessment of the national entrepreneurship environment

The unique contexts faced by MSMEs, including the proportionately higher costs they face in regulatory compliance, mean that they often require special consideration in policymaking.⁵¹ For example, firms of all sizes have to comply with more than 50 laws in the context of the trade law, placing greater relative burdens on the managers of smaller firms. The lack of a dedicated legal framework on MSMEs impedes the development of consistent approaches towards the sector in policymaking.

Support for MSME development and exporting is complicated by the lack of a national strategy in Iran. The development of coherent policies on MSMEs is further hindered by the lack of a single official definition of these firms; various ministries have definitions including firms with less than 100, 50 or 10 employees. Scattered and incomplete data on MSMEs further complicates the design and implementation of strategies targeting this sector.

Relevant policy area: Business environment and MSME sector

Severity: ● ○ ○

Economic growth neglects environmental sustainability considerations

Adequate consideration of environmental sustainability alongside growth has not been made. Major challenges include those related to the oil sector, as well as urban air pollution from vehicles, industrial

and other sources. As a result, 49.6% of the population is exposed to fine particulate matter (PM2.5) pollution levels exceeding the World Health Organization (WHO) Interim Target-1 value of 35 micrograms per cubic metre.

Additionally, an adequate management of water resources is needed to address general and regional scarcity, particularly as climate change threatens to increase vulnerabilities. Agriculture accounts for more than half of water consumption in Iran, though industry is also a large source of demand. It is estimated that 42 billion cubic metres (BCM) is withdrawn annually legally, with another 4.7 BCM withdrawn illegally through wells and water pumps. The need to address water scarcity is acknowledged by the government in the Sixth Development Plan, which targets a reduction in consumption of poTable water by 30%, along with the production of 30% of required poTable water through desalination.

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Inequality persists in spite of social spending

Inequality can threaten growth by increasing financial vulnerabilities and exacerbating social instability. Poverty can affect growth where it impairs the full development and use of an economy's human capital. Despite significant levels of social spending, Iran has experienced somewhat persistent inequality. High rates of unemployment and persistent inflation pose additional risks for the poor, despite decreases in poverty rates in the country.

Relevant policy area: Human capital and labour use Severity: ● ● ○

Market entry

SMEs have limited capacities to connect with international buyers

Despite making up the majority of firms in Iran, MSMEs account for only 10% of exports. In addition to limited resources and competitiveness, smaller firms face information constraints on complying with technical and administrative requirements, as well as limited knowledge of potential markets. These include details on foreign business practices and language or cultural differences.⁵²

In many cases, the small size of firms can act as a barrier to the development of specialized knowledge

^{50.-} World Bank (2018). Doing Business, World Bank, Washington, D.C.

^{51.–} European Commission (2007). Models to Reduce the Disproportionate Regulatory Burden on SMEs, Report of the Expert Group, European Commission, Brussels.

^{52.–} Kabiri, F. and Mokshapathy, S. (2012). "A survey on export barriers faced by small and medium sized enterprises in Iran", *Indian Journal of Innovations and Developments*, Vol. 1, Iss. 7, July.

and skills related to exporting and accessing international markets.⁵³ Despite their use of more advanced technologies and employment of higher-skilled workers than traditional MSMEs, smaller firms providing intermediate goods to large industries usually lack international marketing capabilities.⁵⁴

Relevant policy area: Business environment and MSME sector

Severity: ● o o

Few export promotion services explicitly target MSMEs and start-ups

While a range of institutions are involved in trade support activities in Iran – including ministries and agencies involved in trade policy development and implementation, domestic chambers of commerce, joint international chambers of commerce, private sector associations and institutions offering trade financing assistance – few offer services (including export financing) targeting MSMEs and start-ups in particular. One of the organizations specifically targeting MSMEs is the Iran Small Industries and Industrial Parks Organization (ISIPRO), which has a broad focus on small business development beyond trade. The lack of targeted services affects MSMEs and start-ups directly and limits the potential of these organizations to develop expertise and design services matching these firms' particular needs.

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Distribution channels and logistic services for exports remain underdeveloped

Both exporting and non-exporting firms state that distribution systems and logistics services in Iran pose constraints to exporting.⁵⁵ While domestic distribution systems are somewhat well developed, distribution and logistics for exports face additional challenges. Iran is ranked 64th internationally in the World Bank's Logistics Performance Index, but it is ranked lower, at 79th, in international shipments, which measures the ease of arranging competitively priced shipments.

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Administrative burdens and delays in the export clearance process remain challenging

The time and financial costs of export clearance procedures can add significantly to the costs of exporting, discouraging firms from selling internationally and reducing their competitiveness. Border compliance takes an average of 101 hours, for example, well above the 58-hour MENA average. Nevertheless, Iran performs better than its neighbours do in some aspects of customs procedures, such as the time and cost of documentary compliance for imports and exports. Iran scores relatively well in comparison with the Middle East and North Africa and upper-middle income country averages in the World Bank's Logistics Performance Index; it is weakest in the customs component, which measures the efficiency of customs and border management clearance.⁵⁶

Administrative burdens and delays in the export clearance process are being ameliorated, but remain challenging. Improvements have been made recently in the development of the national single window. Among other reforms being pursued, the Customs Law amendments in parliament would introduce e-processes, supply chain management and restricting the release of goods from bonded warehouses to licensed brokers to counter smuggling. 57

Relevant policy area: Business environment and MSME sector

Severity: • • ∘

Special zones have limited linkages to domestic firms

Development of free trade zones (FTZs) and special economic zones (SEZs) began in Iran in the late 1980s, with these two types of sites offering investors different tax, visa, regulatory and other incentives. There are now seven FTZs near coastal and border areas and 23 SEZs around the country, hosting significant domestic and foreign investment.

These zones can end up operating as enclaves with backwards linkages benefitting the domestic firms and facilitating technology transfer. Although the zones were located in Iran with consideration of their proximity to major centres of economic activity, the development of these linkages and the success of FTZs and SEZs has been threatened by the decoupled polices in these areas and the rest of the economy. Internal challenges in these zones also include unclear objectives, governance challenges and resource constraints.⁵⁸

^{53.-} Coville, T. (2012). "Les PME iraniennes : un potential à l'explortation inexploité?", Revue Tiers Monde, No. 211.

^{54.-} Ibid

^{55.-} Ibid.

^{56.-} World Bank (2019). Logistics Performance Index, World Bank, Washington, D.C.

^{57.-} IMF staff report (2018).

^{58.–} Hakimian, H. (2009). Iran's Free Trade and Special Economic Zones: Challenges and Opportunities, paper presented at the Conference on Iranian Economy at a Crossroads: Domestic and Global Challenges, University of Southern California, 18–19 September 2009.

Iranian firms that are not supplying to foreign firms in special zones have missed opportunities for indirect exporting. Technology transfer has been inhibited due to the weak linkages between domestic and foreign firms. Technology transfer is also limited by the weak capacities of the subsidiaries of foreign firms, which tend to have capabilities focused on assembling and manufacturing.⁵⁹

Relevant policy area: Investment Severity: ● ○ ○

The lack of enabling multilateral and bilateral trade policies reduces market access and competitiveness of Iranian exporters in foreign markets

Bilateral and regional trade agreements are particularly important in clarifying and improving Iran's rules for trade, as it does not benefit from WTO membership. The lack of bilateral and multilateral trade agreements reduces market access and domestic competition among Iranian firms. Moreover, it decreases the competitiveness of Iranian exports in foreign markets, as evidenced by the significantly higher level of tariffs applied to Iran's exports by its trading partners, which averaged 8.9% in 2014 (compared to a global average of 2.9%). Meanwhile, domestic import tariffs averaged 20.9% in 2017/18 and restrictions on service trade (the 4th highest in the world) work to protect inefficient enterprises.

Relevant policy area: Business environment and MSME sector

Severity: ● o o

Lack of support and investment is provided to develop a national branding strategy

Interviews with private sector representatives reveal that, although the importance of an effective branding strategy for Iran is acknowledged amongst the companies, there was, at the time of the interviews, a significant lack of support for and investment in developing a branding strategy for Iran.

The national branding could have a particular impact on services sectors exports such as tourism or ICT. A clear example of this can be seen from a comparison between Iran and one of its neighbouring countries, the United Arab Emirates, which shows that, while the United Arab Emirates' capital investment in tourism in 2015 was \$7.4 billion, Iran's only reached \$3.3 billion (World Travel & Tourism Council, 2016).⁶⁰

Relevant policy area: Business environment and MSME sector

Severity: • ○ ○

Currency repatriation requirements discourage and complicate exports

Since November 2018, Iranian exporters are required to repatriate their hard currency earnings through the central bank's Integrated System for Hard Currency Transactions (NIMA), in order to provide importers with access to foreign currency.

Firms with annual exports of less than €1 million are exempted from these rules and those with greater export values are required to submit increasingly large shares of this revenue to the NIMA system. Reforms to these requirements were announced in February 2019 with the intention of encouraging improved compliance with prioritization in the allocation and supply of foreign exchange.

This requirement risks discouraging and complicating exporting. NIMA exchange rates are below free market levels, lowering returns for exporters. Iranian firms have also complained that their foreign customers are unfamiliar with the system, complicating payment.

Relevant policy area: Business environment and MSME sector

Severity: • • •

Regulatory and institutional challenges exist in quality management institutions

Increasing and diversifying the markets reached by Iran's agricultural exports will require improved compliance with sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) requirements. Currently, firms face challenges in complying with mandatory requirements and voluntary standards, given the high number of mandatory rules and dealing with regulatory agencies with overlapping areas of responsibility.⁶¹

Quality management systems are essential in supporting exporting, particularly in supporting product and market diversification. The National Accreditation Center of Iran is not yet a signatory of the Mutual Recognition Agreement of the International Laboratory Accreditation Cooperation (ILAC MRA), which translates into a lack of recognition of test and calibration laboratories. Thus, imports tested by accreditation laboratories in the EU are subject to retesting at the borders.

Relevant policy area: Business environment and MSME sector

Severity: ● o o

^{59.—} Salim, A., Razavi, M.R. and Afshari-Mofrad, M. (2015). "Foreign direct investment and technology spillover in Iran: The role of technological capabilities of subsidiaries", *Technological Forecasting & Social Change*, Vol. 122.

^{60.-} Challenges of Branding Iran: Perspectives of Iranian Tourism Suppliers, Masood Khodadadi, 2019.

^{61.–} Ardakani, Z. (2012), "Quantifying the trade effects of SPS and TBT agreements on export of pistachios from Iran", World Applied Sciences Journal, Vol. 12, No. 5.

Annex II: Securing implementation of the National Export Strategy

Realizing the goals of the NES will require that the actions under the NES are elaborated on and implemented. The execution and impact of these actions on export development is significantly based on the ability of stakeholders to plan these actions so as to generate a multiplying effect in the country. In order words, apparently separate actions need to be synchronized so as to reinforce each other and create sustainable positive effects for export development and increase the effectiveness of the NES plan of action.

Indeed, the NES is not the strategy of any specific institution and, to ensure its success, it is necessary to create the adequate environment and framework to enable its implementation. The following section presents some of the key success conditions considered primordial for the strategy to be effectively implemented and achieve self-sustainability and long-lasting benefits for Iran.

High-level endorsement is the most important step towards implementation of the NES. In the absence of such official endorsement, the NES will not be able to mobilize the national and international support required to effectively structure and enable export development.

Establishing NES governance structures

A key success criterion for success of the NES is the country's ability to coordinate activities, monitor progress and mobilize resources for the implementation of the NES. It is recommended that the country establishes a specific high-level and public—private committee that acts in an advisory and endorsement capacity to the government over issues related to Iran's National Export Strategy or affecting export competitiveness overall.

The main functions of the future NES high-level council are to:

 Coordinate and monitor the implementation of the National Export Strategy by the government, its agencies and private sector organizations;



- Identify and recommend allocation of resources necessary for the implementation of the National Export Strategy; and
- Assess the effectiveness and the impact of the National Export Strategy.

The NES high-level council should be supported by a NES executive secretariat to complete the daily operational work related to implementation management of the NES. The core responsibilities of the executive secretariat should be to:

- Formulate projects proposals, including budgets for implementation of activities of the NES;
- Prepare communication plans and material to promote the NES;
- Develop annual and biannual work plan for approval by the council;
- Collect information from project implementation and prepare regular monitoring reports to be submitted to the council;

- Plan the council and specialized sub-councils NES monitoring and evaluation meetings;
- Execute the council's secretariat work;
- Ensure implementation of the council resolutions;
- Collect, centralize and preserve all archives and documentation of the council and the NES;
- Advocate in favour of the NES to public and private partners; and
- Execute any other tasks given required by the council

Factors affecting successful implementation management

The following pillars should be seen as key operative conditions to undertake efficient management of the implementation of the NES:

- Monitoring implementation for effective resource allocation: A key role of the high-level council and its executive secretariat is to monitor the implementation of the NES. Effective exploitation of reports and data will ensure that progress is evaluated in line with the expected results and allocated resources. Monitoring will permit effective allocations and reallocation based on expected and achieved results. This critical work will facilitate effective implementation of the activities and enable the NES to achieve its strategic objectives, contributing to its overall success.
- Sensitization of implementing institutions to build ownership: The key implementing institutions detailed in the various plans of action (PoAs) of the sector and cross-sector strategies need to be informed of the content of the strategies and the implications for their future programming. This sensitization is essential to build further ownership, and it provides institutions with the opportunity to review the PoAs in order to confirm the activities they can implement immediately, in the medium and long term. Such a programming approach will permit better resources allocation within the responsible agencies. This allocation can be formalized by integrating the activity of the NES in the programme planning of the institution. While the financial dimension is often required, the human resource element is no less important.
- Private sector support and participation: The private sector should benefit from the NES implementation through improved productive capacities, reduced costs of doing business, facilitated administrative procedures and enhanced access to finance, etc. However, the private sector clearly

expressed, during the strategy design process, its willingness to contribute, directly or in partnership with public institutions, to the implementation of the NES. Their implementation efforts can range from providing business intelligence to institutions to contributing to development projects, establishing processing and transformation units, and advocacy, etc. In brief, the private sector's practical knowledge of business operations is essential to ensure that the activities of the NES are effectively implemented and targeted.

- Financial resource mobilization for implementation: While resource mobilization is only part of the solution, it plays a crucial and indispensable role in supporting the strategy implementation. An integrated resource mobilization plan should be elaborated as soon as the strategy is adopted. Resource mobilization involves planning the sequencing of communications with donors, project design, project proposals/application and resources collection and management. This should facilitate, leverage and strengthen the impact of diverse sources of finance to support sustainable and inclusive implementation, including national resources, development aid and private investment.
 - » National resources through direct budget support: Government will need to validate a defined minimum budget support toward the implementation of the NES. The direct project support for activities of the NES will demonstrate the government's commitment to the initiatives.
 - » Alignment of donors' support and interventions with the NES: The majority of international development partners already acknowledged that the NES provides them with the proper implementation plan and framework as well as favourable conditions for operation (i.e. political endorsement, private sector buy-in and improved collaboration with national institutions and iPhone operating systems). The next step consists of capitalizing on the significant momentum gained as part of the NES design process and leveraging it for a smooth and efficient implementation.

The NES plan of action should serve the NES coordinating council as well as the national institutions to improve communication and facilitate the negotiation, planning, coordination and evaluation of commitments made in the context of development aid, in particular through the development of programmes and project proposals aligned with the strategy's priorities.



- » National and foreign investment: Investment flow could serve as a valuable drive for export development. However, it requires to be targeted at specific prospects in order to benefit the priority sectors' development. Export-related opportunities (based on the competitiveness and potential growth of key sector value chain segments) should be the subject of investment targeting and promotion initiatives.
- Communication plan: Targeted communication is required to inform and mobilize partners from the public and private sectors. Hence, the current communication plan needs to be extended in order to continue promoting the NES and preserve the momentum and support for its implementation. Informing the national public and implementing agencies serves to build confidence and thrust in support of the NES.

Strengthening implementation management capacities

In the absence of an enabled and capacitated management framework, strategy implementation can often be fragmented, thereby limiting the capacity of countries to effectively execute the strategy and achieve trade development targets. Simply put, successful implementation can make the difference between a strategy that gathers dust and one that drives tangible development impact on the ground.

The ability and competence of the NES executive secretariat need to be sufficient to ensure effective management of the NES implementation. The executive secretariat should have knowledge of monitoring frameworks, resources mobilization and programming,

communication and advocacy, etc. Without such skills, the council will not be in a strong position to assume the responsibility of ensuring the implementation of the NES. In this situation, the above-described key success factors would have only limited effects toward the implementation of the NES. It is thereafter important to provide the executive secretariat with the appropriate tools and capacities to manage the NES efficiently.

ITC's intervention will aim to capacitate the executive secretariat so as to guarantee that initiatives implemented are aligned to the priorities of the stakeholders as defined in the strategy. This should ensure that the implementation plans are used, and seen as the reference roadmaps by industry operators, institutions and industry support organizations, development partners and funding providers. Executive secretariat staff will be trained to examine, among other things, interdependences and reduce fragmentation of activities to enable beneficiaries to make full use of any sector development and trade-related assistance.

Additionally, ITC will provide technical support in implementation progress monitoring and review to ensure that the action plans are reviewed, evaluated and audited according to schedule and that lessons, experiences and best practices are capitalized on and duly promoted. This will aim at maintaining the coherence between institutional and private operators and favour the joint identification of priorities in terms of available resources. This will also help to keep promoting the NES to the authorities in order to encourage them to honour the commitments made in respect of the NES implementation.

Finally, ITC will provide technical support to build the executive secretariat's capacity to properly plan resource requirements, and develop, maintain and update an integrated resource mobilization plan.

Annex III: Sector selection methodology

With limited resources available for sector support, prioritization helps to focus efforts under the strategy where they can have the greatest impact. Some sectors are already poised for rapid improvements with technical support. These first movers can help related sectors gain ground for a collective scaling up.

The NES priority sector selection exercise demanded focus on a number of quantitative and qualitative analytical parameters. It also required attention to the specific political, developmental and diplomatic contexts in the country as well as the region. In Iran, this was achieved through a mix of consultations and research.

The ITC export potential indicator analysis was the starting point in a decision-making process and needed to be complemented with further research and stakeholder consultations. The export potential indicator identifies products already competitively exported with good prospects of export success (in specific target markets). In addition to the effects of sanctions on export markets and products, quantitative and qualitative data involved in the analysis included:

- Current/past export performance;
- Global import demand;
- Market access conditions (e.g. tariffs and distances):
- Percentage of unused potential (per specific markets);
- Stability of export revenue (qualitative); and
- SME presence in the sector (qualitative).

In addition to the export potential indicators, additional indicators assessed whether the products meet certain policy and socioeconomic objectives. These factors included:

- Prioritization of the sector within the government's development agenda;
- Potential for attracting investment/technology upgrading and value addition;
- Current state and anticipated improvements in important trade support functions;
- Geographical positioning vis-à-vis prominent markets relevant for stability in export revenues;
- Environmental sustainability;

- Gender employment and entrepreneurship;
- Youth integration in productive economic activities;
- Potential for diaspora involvement;
- · Potential for import substitution; and
- · Links with other priority sector value chains.

Sectors not selected in this strategy are not, however, implied to not be priorities, and comprehensive approaches to improving export prospects through work on the trade support functions will ensure that the scope of the NES goes beyond the priority sectors.



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