

**The Future Structure and Role of the Ministry of Industry and  
Technological Development in Egypt: Lessons from International  
Experiences**

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The restructuring of the Ministry of Industry and Technological Development (MITD) is a strategic objective that will enable the ministry to be better positioned and equipped to meet its goals with regard to the development of Egypt's industrial sector and to use it as a vehicle for growth, export orientation, and employment generation. The main focus of this report is to highlight the conclusions and recommendations of a set of eight country case studies commissioned independently of the authors of this report by the Industrial Modernization Center (IMC) and to identify best practices that could be applicable to the case of Egypt. These conclusions and recommendations relate mainly to the organizational structure and executive role of MITD and other ministries involved in industrial development.

The recommendations arising from this report are based on a preliminary assessment of the existing structure and role of MITD. Further detailed analysis needs to be undertaken to come up with a coherent set of recommendations about the future structure of MITD. Two considerations must be taken into account in this process. First, experience of other countries is a product of their unique historical, economic, social, political, and cultural experiences; the uniqueness of the Egyptian economy entails a lot of adaptation and modification to replicate any successful model from international experience. Second, and more importantly, MITD restructuring is part and parcel of Egypt's overall vision for industrial development. In other words, developing this national vision is a pre-requisite for restructuring MITD and positioning it in the framework of developing industrial policy at the macro level, as envisaged by the preparation of the White Paper due in June 2004.

The country case studies covered Germany, Ireland, Poland, Portugal, Russia, Spain, Tunisia, and the UK. It is worth noting at the outset that the criteria for choosing these countries are not clear and four of the studies were for countries in which there is no specific Ministry of Industry. In addition, there are reservations on the quality of the case studies as the analysis should have been more in-depth and coherent, providing the context and historical evolution of the ministry (or different ministries) involved in industrial development as well as detailed experience in the formulation of industrial policies.

It is acknowledged that there are a number of key challenges facing the achievement of growth rates in industrial activity capable of promoting Egypt's trajectory for employment and economic growth. These are: the development of a clear vision for industrial development and related policy; the adequacy of the institutional setup and coordination mechanisms between the relevant agencies; the existence of supporting policies for Small and Medium Enterprises (SMEs); the strength of outward as opposed to inward oriented strategies; the integration of industrial firms in international production chains; narrowing the technological gap that exists between Egyptian industrial firms and those of competitors; raising investment in Research and Development (R&D) and improving linkages between Science and Technology (S&T) and industry; as well as overcoming the mismatch between demand and supply in the

labor markets. Current impediments to the competitiveness of Egyptian industry can be identified on three levels: national, sectoral, as well as the enterprise level.

Impediments at the *national level* relate to shortcomings in the educational and vocational training systems, shortcomings in the Egyptian quality system, bureaucratic obstacles related to import and export procedures, high and multiple levels of taxation, institutional weaknesses in the investment and operational environment, lack of attention to the environmental aspects of industrial operation, absence of strong links between national R&D systems and the manufacturing sector, and problems of restructuring public sector enterprises, which suffer from accumulated losses, financial structure imbalances and surplus labor. At the *sectoral level*, absence of a sufficiently developed and diversified financial sector, the inadequate role played by business associations in serving the needs of their members, the scarce supply of sector-specific technical and marketing support services for industrial clusters, deficiency in quality and costs of goods from local suppliers for specific industry segments, and the absence of a support policy for SMEs are also hindering factors. At the *enterprise level*, competitiveness is impeded by the concentration of the product mixes in the low value-added segments of the market, inward orientation with little effort to enter new exports markets, poor managerial and organizational skills and absence of strategic planning, minimal attention to technological innovation and progress, absence of regular training and retraining schemes for various skills, inability to network internationally so as to secure cooperative agreements with large and small firms abroad in the realms of subcontracting, outsourcing, and other forms of alliances.

The Formulation of a national vision for industrial development necessitates the participation of all public and private stakeholders in the process so as to overcome weak or inexistent coordination mechanisms. In addition, involving all stakeholders will ensure commitment at the national level and that is why it is advisable (after framing the national vision) that roles and responsibilities should be subsumed within a higher authority (perhaps the Economic Ministerial Committee or the whole Cabinet), which will be in charge of orchestrating the process of industrial development and positioning it in the overall economic policy framework. This will ensure overall government commitment, which is expected to facilitate implementation. Furthermore, the future role of MITD is expected to shift from micro decision-making to broader macro oversight, in parallel with the shift in Egypt's planning process from the planning of projects to the planning of policies.

The role of the Industrial Modernization Center (IMC) needs to be carefully distinguished from the role of MITD to avoid duplication and ensure consistency. The four sub-programs of the Industrial Modernization Program (IMP) entail a crucial and influential role for IMC in the process of industrial development. Both MITD and IMC have to align and harmonize their scope of work and cooperation with a clear division of responsibility to ensure the existence of a basis for accountability in the future. As mentioned earlier, MITD restructuring will come after developing the national vision, which is being designed in collaboration with all stakeholders and will appear as the White Paper by June 2004.

The role and structure of MITD has to be assessed within the overall policy framework of four specific objectives: export growth, FDI promotion, technological development, and employment and human capital development. The related targets, policies, and action plans will have direct bearing on the success of any strategy for industrial development. Hence it is essential that MITD coordinates with all competent ministries and agencies that oversee and implement these policies and programs to help bring about the needed structural reforms in the business environment, human capital base, technology, infrastructure, export and FDI promotion, as well as environmental sustainability; all of which are needed to promote a healthy industrial sector. The report highlights Egypt's performance on these fronts, as well as best practices from the eight country studies.

The country case studies have shown that the structure of each ministry and its corresponding industrial restructuring efforts have evolved in the light of different institutional setups and historical context given political, economic, and social conditions prevalent over time. Nevertheless, certain structures and policy mechanisms in the case studies can be of relevance to MITD, given the specific configuration of Egypt's historical and institutional context.

In evaluating the strengths and weaknesses of the structures of different ministries involved in industrial development as inferred from the country case studies, four general remarks are drawn: *First*, four of the country case studies do not have a specific ministry responsible for industrial development and yet some can be considered successful performers such as Spain and Portugal. *Second*, the model of Ireland and the UK may be useful to further investigate the mandate and structure of certain units and agencies, such as the "Future Unit" in the UK Department (Ministry) of Trade and Industry (DTI), or the National Policy and Advisory Board for Enterprise, Trade, Science, Technology, and Innovation (FORFAS) which is an independent body that works closely with the Irish Department (Ministry) of Enterprise, Trade, and Employment. *Third*, the Tunisian model is also worthy of further detailed investigation due to the similarities between the Egyptian and Tunisian economy as well as having implemented a successful industrial modernization program. *Fourth*, the Portuguese Ministry of Economy has three main departments that have a focused role in the promotion of industrial growth; their organization and scope of activities may also be worthy of further consideration.

From the preliminary inspection of the organizational structure of MITD as well as available information on some of its affiliate organizations, a number of remarks are put forward. The remarks relate to the fact that some important policy areas are left unattended such as industrial policy formulation, analyzing drivers of competitiveness, technological development (prior to the launch of the Technology Centers initiatives), technical training and human resource development, and crisis management and exit policy for distressed sectors. In addition, it is not clear which division can be utilized to institute a built-in mechanism to review and monitor implementation of policies and adopt any needed corrective measures. Furthermore, there may be duplication in research activities as well as conducting technical and sectoral studies; there would also seem to be overlap between the activities of the Industrial Control Authority and the Egyptian

Organization for Standardization and Quality Control. The preliminary recommendations suggest the feasibility of having a centralized research department, as well as endorsing the activities of the Egyptian Accreditation Council due to its importance in the modernization process. In addition, for the two central departments under the Research and Investment Sector; the Research Central Department may be merged with the proposed new centralized research department, while the role and mandate of the Central Department for Following-up on Investment Activity is not clear. Its role could be either revised or the department could be reallocated within the new organizational structure to perform a different task.

With respect to the functional responsibilities of MITD departments and its affiliate organizations, the conclusions drawn from the country case studies relate generally to best practices for specific departments/organizations in the realm of industrial development. Generality could not be avoided for two aforementioned reasons: First, the information contained in the country case studies are mostly descriptive and shallow; second, the specificity of the Egyptian economy and the institutional setup impacting on industrial development require further detailed assessment before making specific recommendations to improve the current status.

From the country case studies, success stories can be found in Spain, specifically the General Directorate for SME Policy in the Ministry of Economy, and Portugal where three agencies affiliated to the Ministry of Economy (namely: Investments, Trade and Tourism “ICEP”; Institute to Support Small and Medium Sized Enterprises and Investment “IAPMEI”; and the National Institute for Engineering and Industrial Technology “INETI”) have played significant roles in promoting industrial growth through technological development, supporting drivers of competitiveness, FDI promotion, information provision, and providing financial support.

In the case of Ireland, besides the scope of activities of the various divisions of the Irish Department (Ministry) of Enterprise, Trade, and Employment which are worthy of further detailed investigation, four independent governmental and quasi-governmental agencies have contributed to the success story of Ireland’s industrial development. These are Enterprise Ireland, Industrial Development Authority (IDA), the Irish Training and Employment Authority (FAS), and the National Policy and Advisory Board for Enterprise, Trade, Science, Technology, and Innovation in Ireland (FORFAS). FORFAS, in particular, plays a very important role in the development of Ireland’s industrial policy.

In the UK, the model of the Central Directorate in DTI can be a highly relevant model for creating supporting agencies for industrial modernization. The activities and responsibilities of its three constituting units (Competitiveness Unit, Future Unit, Enterprise Unit) are crucial at the level of strategic planning for the industrial sector.

In the case of Egypt, government agencies in general suffer from a number of impediments ranging from an inadequate incentive system, to low productivity. In this continuum, the set of impediments include lack of a merit-base system of promotion, low wages and salaries, inadequate performance evaluation, lack of a competitive recruitment

process, overlapping responsibilities and lack of communications skills in workers, and finally a highly cumbersome structure of procedures and administrative requirements. MITD departments and affiliate organizations also suffer from some or all of those impediments. As mentioned earlier, available information provide evidence of overlap and duplication of activities, which means that the restructuring plan should be devised very carefully after detailed assessment of the strengths and weaknesses of each department. Moreover, it should be stressed that restructuring will only be possible after developing a national vision for the future of the Egyptian industrial sector. This national vision will define the boundaries of MITD scope of activities and responsibilities. Only then would it be possible to look at the organizational structure of MITD and formulate the mission statements and strategic objectives of each sector (with reshuffling or merging some departments if needed) with two key goals in mind: First, clarity and specificity of the new organizational structure to avoid duplication and overlap, while at the same time drawing distinct lines of responsibility to maintain the basis for accountability. Second, all the elements of industrial policy should be effectively covered by the scope of responsibilities of the various departments after restructuring.

Finally, some conclusions are drawn from the country case studies with respect to successful initiatives under specific policy objectives. The points addressed relate to four specific ingredients. *First*, the efficiency of the policy making mechanism which is the process whereby specific important problems are identified, studied and researched to identify the possible alternative initiatives/solutions and the advantages and disadvantages of each, relating it to the general industrial or economic policy framework, and then raising it to the appropriate authority for final approval and subsequent implementation. *Second*, developing a private/public partnership approach, which ensures that private sector stakeholders are effectively involved as full and equal partners in the process of industrial policy formulation. *Third*, the importance of the government's role in knowledge diffusion and information dissemination is emphasized by providing examples from the country case studies about best practices in this respect. *Fourth*, supporting macroeconomic and institutional support policies are key ingredients in the overall development strategies of countries with successful industrialization experiences.

In this respect, some conclusions are drawn from the experiences of the sample countries which provides further evidence that the success of industrial development and modernization depends on the interplay between various factors that are conditioned by policy making in different institutions. This entails the existence of an overall vision for a country's development plan, and more specifically for industrial development with support and commitment of all stakeholders.

