In the field of industrial development, JICA implements an array of assistance programs to support developing countries in establishing foundations for industrial development. Specifically, the areas of focus include trade and investment, tourism, support for small and medium-sized enterprises, stable electric power supply, mineral resources, renewable energy and energy conservation technologies. As illustrated by the fact that nearly 30% of JICA ODA loans are provided to the electric power sector, many of the industrial development projects require large-scale financing, making JICA’s Technical Cooperation and financial support all the more effective in this realm. The objective of these initiatives is to help empower local people to build an industrial foundation, increase employment opportunities and create an economically independent society through their own efforts. Below we will discuss the two pillars of the industrial promotion segment: Private Sector Development and Natural Resources and Energy.

Private-Sector Development
—Establishing a Globally Competitive Economy through the Vitality of the Private Sector—

The Global Financial Crisis of Today Means Assistance to Small and Medium-Sized Enterprises and Jumpstarting Trade and Investment Is All-the-More Important

**Topic Overview**

Private-sector development is a type of cooperation that contributes to the economic expansion of developing countries by leveraging the vitality of the private sector. With improved business performance in the private sector comes better living standards for the general public. At the same time, with increased national tax revenues, companies will be able to offer a higher level of service, encompassing education, healthcare and medical services as well as social welfare programs.

Private sector growth also helps to expand local employment opportunities and with this reduce poverty. Furthermore, development of local industries as well as greater trade and investment will promote nationwide economic activity. Enhancing the competitiveness of...
local industries to compete with the ever-intensifying international competition of today is a vital issue facing developing countries going forward.

**JICA’s Initiatives**

JICA’s private-sector development initiatives have so far focused on Southeast Asia and East Asia, both of which have witnessed extraordinary economic growth. The shift from a traditional government-led to a private sector-led economy is steadily finding way in these regions. With the recent upsurge in world trade, developing countries are seeking ways to adapt themselves to ever-growing globalization by seeking participation in international organizations such as the World Trade Organization (WTO) and Economic Partnership Agreement (EPA).

Today, as the world faces a global financial crisis, JICA is actively providing support conducive to private-sector development, targeting the fields of small and medium-sized enterprises, tourism, trade and investment.

**Trade and Investment**

Developing countries must accelerate trade and investment as well as develop national strengths to compete globally and cope with the economic challenges brought on by globalization. JICA provides assistance in the three core areas of Industrial Infrastructure Development, Organizational Strengthening and Expertise Development. The realm of Industrial Infrastructure Development includes institution-building that involves the formulation of related legislation for promoting trade and investment and other systems as well as the creation of other infrastructure necessary for a country’s industrial development. In line with this, JICA also supports the strengthening of organizations, such as trade and investment agencies, and corporate organizations as well as the development of expertise that cultivates human resources in the private sector and among government policymakers in target countries. From industrial policy to export promotion, JICA truly provides a wide range of support in the area of trade and investment.

JICA projects receiving the highest evaluation include the Project for Visionary Leaders for the Manufacturing (VLFM) Program (see page 116) and the Egyptian Export Promotion Project. Along with these, another JICA program that is in the limelight concerns industrial development assistance for Ethiopia. The program was initiated at the request of Prime Minister Meles Zenawi who was extremely impressed by Japan’s experience in assisting its Asian partners, as well as a JICA project previously implemented in Tunisia. The Study on the Master Plan for Quality/Productivity Improvement (see page 119). Plans call for a program that incorporates both the theme of quality control and productivity enhancement, much like the project in Tunisia, as well as an industrial policy dialogue much like the one jointly planned by Japan’s National Graduate Institute for Policy Studies and JICA (eight dialogues scheduled over a two-year span) which will encompass the experiences of Japan and other Asian countries.

**Tourism**

Until now, private-sector companies have dominated tourism in developing countries. The style of tourism that prevails here can be regarded as heteronomous, which has offered little return of profits to the local community. In an effort to help tourism benefit local inhabitants, JICA’s support in developing countries going forward.

Example

**Trade and Investment**

Laos

Preparatory Survey on Industrial Development

Because it is a landlocked nation, economic development in Laos has been slowed due largely to difficulties in the distribution of goods. Furthermore, because the country has few natural or human resources, industrialization has been delayed. The country’s National Socio-Economic Development Plan provides an outline of the basic principles for the five-year period from 2006. The plan, while following closely the ideas of socialism, lays the groundwork for the modernization and industrialization of Laos by introducing the principles of a market economy.

In conducting a preparatory survey on industrial development plans in Laos, JICA followed the following five basic principles: 1) draw up a master concept of industrial development plans that combines intellectual support with equipment and infrastructure; 2) promote a moderate approach to industrialization maintaining the country’s agro-based industrial structure; 3) develop legislative systems promoting industrialization and other instruments to attract trade; 4) draw up an integrated plan for industrial parks; and 5) construct industrial parks geared to the country in line with the intentions of the government. Through earnest discussions with the Lao government, JICA also plans to extend a level of consideration toward the natural environment.

On-site inspection in Laos
countries aims to change the current style of tourism from one that is heter-onomous to one that is autonomous. JICA envisions that the administration, private tourism enterprises and the local residents can together develop a type of tourism that contributes to poverty reduction and in turn benefits local communities. JICA’s goal is to develop a sustainable tourism scheme that will aid in overall regional development.

Today, one of the many themes that must be addressed worldwide is the preservation of the global environment. In this regard, eco-tourism offers significant potential. For more information on JICA’s efforts in eco-tourism in the Dominican Republic, see below.

Other new JICA-led projects in the field of tourism include the Jericho Tourism Promotion Project (see below). Jericho is a city filled with tourism resources and enjoys relative stability politically. Through the project and further development of tourism, JICA wants the Jericho region to benefit both culturally and economically.

Promoting Small and Medium-Sized Enterprises

Many developing countries have been plagued not only by delays in the development of systems and policy to nurture small and medium-sized enterprises, but also by the shortage of technology and competent management resources established. Its mission is to engage the citizens in efforts to formulate the city’s tourism development concept and policies.

Example

Tourism
Palestinian Authority
Project for Sustainable Tourism Development in Jericho through Public-Private Partnership

Assisting Private–Public Cooperation to Promote Sustainable Tourism

Bethlehem, Jericho and East Jerusalem are just some of the famous historical sites among many other tourism resources within the Palestinian Authority. Before the second Intifada* occurred in September 2000, the tourism industry had accounted for 11% of the Palestinian Authority’s GDP. Particularly, the historic city of Jericho, which was established 10,000 years ago and is known as one of the oldest cities in the world, attracted between 230,000 and 250,000 tourists annually from 1998 to 2000. The area was so popular that hotel and other infrastructure building projects were planned. However, after the second Intifada occurred, the number of tourists fell to 1,200 in 2001, and remained stagnant in the following years, with 30,000 tourists in 2004, resulting in a precipitous drop in tourism revenue.

The year 2005 saw more tourists come back to Jericho, as a total of 100,000 tourists visited the city, but the city’s tourism has yet to be fully promoted with a number of issues to be addressed. These issues include under-utilized resources, encompassing cultural monuments, limited dissemination of information and underdeveloped products. In light of the above, the Palestinian Authority has turned to Japan for assistance in solving these tourism-related issues, and in 2009 JICA began its dispatch of tourism promotion experts.

During the first year of the project, the Jericho Heritage Tourism Committee (JHTC), in charge of promoting tourism through cooperation between the public and private sectors, was established. Its mission is to engage the citizens in efforts to formulate the city’s tourism development concept and policies.

* Intifada is commonly used to refer to the two Palestinian Arab uprisings against Israel’s military occupation. The first Intifada took place in December 1987. The word “Intifada” literally means “to shake off” in Arabic.

Example

Tourism
Dominican Republic
Eco-Tourism

Turning Existing Ecosystems into Sources of Eco-Tourism That Benefit Local Communities

The Dominican Republic, an island nation in the Caribbean Sea, is a popular international travel destination and attracts more visitors annually than any other Caribbean nation. The country’s tourism industry, however, still has a few standing issues that need to be resolved. For example, the impact on the natural environment from the mass development of beach resorts. Additionally, although tourists pour into the country in large numbers, most stay in all-inclusive resorts and rarely set foot outside to explore other areas in the country. As a result, local communities gain little to no profit from the tourist industry.

The Dominican Republic is located on the Island of Hispaniola, where the inherent ecosystem remains still largely untouched. The country is also home to a large number of national parks and nature preserves. Despite these plentiful resources, including scenic mountains, both natural and artificial lakes, creeks and bays, natural forest and historic towns which all give rise to excellent eco-tourism opportunities, these resources have yet to be suitably developed.

JICA began efforts to introduce eco-tourism to the region based on the short- and long-term goals of diversifying tourism, protecting and conserving natural resources and contributing to the overall quality of life in local communities.
at actual production sites. This has meant that companies’ growth in these countries has been inhibited. In light of this, through its assistance programs JICA has worked to expand human resources at the government level responsible for promoting small and medium-sized enterprises as well as improve productivity at the corporate level. In regions where industry has yet to develop to a satisfactory extent, JICA has implemented local industry development programs under the theme “one village, one product” in an attempt to create employment and rectify regional disparities. In Africa, JICA is making efforts to introduce this scheme in 12 countries. Including Malawi, where the program has already taken root, JICA has also conducted research in Kenya, Nigeria and Ghana, with technical support from JICA.

**Example**

**Small and Medium-Sized Enterprises Tunisia**

**Study on the Master Plan for Quality/ Productivity Improvement**

Supporting the International Competitiveness of Local Products

Tunisia, located in North Africa along the Mediterranean Sea, lifted tariff barriers on industrial goods following its acceptance into the EU Free Economic Zone in January 2008. Soon thereafter, an influx of inexpensive yet quality products from the EU began to pour into the country. As a result, domestic industries that had long benefited from the country’s protectionist policies were under fire and needed to be upgraded. The immediate challenge facing the country was the cultivation of companies able to create goods that could compete with foreign imports.

In order to address this issue, a national quality control unit was established in 2005, with JICA coming in to assist this unit. JICA conducted research and undertook analysis covering quality control and production practices on the two leading industries in Tunisia, electronics and food processing, and drew up a master plan outlining the national policy, implementation system and instruction methods that would allow new practices to spread to many of the nation’s companies in the future. Each manual created for this master plan was drafted with the utmost care to respect the socio-cultural conditions of Tunisia. By introducing Japan’s practical methods of quality and productivity enhancement, JICA aims to help local Tunisian products retain their competitive edge after entering international markets.

![Example](image)

**Below:** Improvements made at an electronics/electrical machinery factory

**Above:** Conducting analysis of a food processing factory

**Example**

**Small and Medium-Sized Enterprises Mexico**

**The Project on Technology Transfer for Supporting Industry (Stamping Technology)**

Establishing a Domestic Supply Chain for High-Quality Components

Mexico has shifted its approach from a protectionist policy that favors domestic industry to a liberalization policy in an attempt to open its markets. However, the country’s many small and medium-sized enterprises, most of which are active in the components industry, did not have the competitive edge needed to withstand tough competition from foreign imports. Accordingly, while progress was made in transitioning to a market economy, many of these same companies failed, ultimately increasing unemployment and leading to social anxiety. For successive governments the primary focus of industrial policy was enhancing competitiveness and promoting micro, small and medium-sized enterprises as a means to assist the country’s supporting industries. Yet the truth of the matter was most of the components made domestically lacked the technologies, such as metal pressing technologies, to produce high-quality parts, and thus in the end, the country had to rely primarily on imports for its component needs.

In light of the country’s challenging situation, JICA, as a means to lift the technology standards of metal press in Mexico, has dispatched specialists in order to cultivate human resources who are capable of transferring technologies locally. At the same time, JICA conducted seminars to spread technology standards throughout the country.

Many major Japanese manufacturers in the automotive, electronics and telecommunication equipment industries have factories located in the country, but they have had to rely solely on imports to meet their component procurement needs. Accordingly, Japanese manufacturers would stand to benefit greatly from the ability to procure components from domestic sources in Mexico, which in turn would contribute to the creation of more employment opportunities locally, offsetting migrant workers moving to the United States, and promote micro, small and medium-sized enterprises.

![Example](image)

Lecture by an expert on pressing technologies

Counterparty explaining about the press lent through the project
Natural Resources and Energy
—Toward Stable Electric Power Supply through a Private-Sector-Led Public-Private Partnership—
Aiming to Leverage Japan’s Advanced Technologies

**Topic Overview**
Worldwide demand for energy continues to expand, even in Asia and other developing countries, where population growth and industrialization have lead to an insatiable need for energy. Against the backdrop of soaring oil and other energy prices and growing global environmental concerns, the energy problem is a major challenge facing the international community going forward.

In addition, liberalization of the electric power segment, even in developing countries, has resulted in the shift to private-sector-led supply initiatives as more and more countries are pushing for reform through public-private partnerships. At the same time, the significant potential offered by renewable energies has also garnered much attention. When operated at a certain scale, renewable energies can also lead to a reduction in greenhouse gases. From this perspective as well, it is hoped for that renewable energies will act as key drivers of energy resource diversification.

**JICA’s Initiatives**

**Electric Power and Energy**
The two key points to consider when providing assistance in the field of electric power and energy are 1) achieving sustainable economic growth through stable supplies of electric power, and 2) the promotion of electrification in rural areas.

JICA has implemented a large number of ODA loans and Technical Assistance in the power sector, and going forward, JICA is going to further its assistance programs getting underway in these countries as well. While in Asia, JICA’s efforts place emphasis, in particular, on localized industrial development, through the same “one village, one product” model, with projects already underway in Viet Nam, Laos and Indonesia.

Thus far, JICA has largely implemented Technical Assistance and metal molding technology guidance programs as a means to support small and medium-sized enterprises, but the recent trend has shown that there is an increasing need for consulting concerning the overall management practices of small and medium-sized enterprises as well as quality control and productivity enhancement methods. Furthermore, more and more assistance programs are implemented at the request of developing countries who want to develop the human resources capable of guiding the owners of small and medium-sized enterprises in efforts to hone business management skills.

Through the integration of its organization, JICA is now able to provide ODA loans to meet the capital needs of small and medium-sized enterprises that find it increasingly difficult to secure the necessary capital to support their business in developing countries. Going forward, JICA will look to leverage the synergy effects of combining Technical Cooperation with funding assistance in the aim of developing more effective assistance methods.

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**Example**

**Energy Conservation**

**Energy Conservation Assistance Program in Iran**
Leveraging Oil Shock Experiences to Propose Energy Conservation Technologies Tailored to the Needs of Iran

The development of industry and the increase in automobiles has lead to a rapid increase in energy consumption in Iran, as aggregate energy consumption has reached 44% of output. This represents a large concern for the national economy of Iran, which depends on oil exports for over 75% of its foreign currency income. In order to streamline energy use in its industrial sector, which accounts for 25% of total energy consumption, the government established an energy conservation training center.

To ensure that the newly established training center functioned properly, JICA provided guidance on factory analysis technologies for cement factories and steel mills as well as seminars on heat management for lecturers at the center. At the time, much like Japan, Iran was largely unaware of the importance of data collected on factory energy consumption. Beginning with actual measurements and data analysis, JICA worked together with counterparties to compare data with similar facilities in Japan for a formal evaluation, later creating a report on how and what improvements could be made.

Although assistance provided to the energy conservation training center ended in March 2007, the center has progressed to the point where it is now able to conduct training programs independently. Through the success of this project, JICA was able to reaffirm that the experiences of Japan in achieving a 30% reduction in energy use over a 10-year period following the oil shock were also effective in promoting similar methods in Iran today. Recently, JICA received a new request from Iran for promoting energy conservation techniques in buildings. JICA is currently preparing for the start of this assistance program.
The importance of sharing both very favorable reviews, as they saw first-hand the importance of sharing both information and experiences with one another. Furthermore, representatives from the government of Japan also spoke about Japan’s electric power sector structural reform transition. In the end, the forum became an opportunity for participating countries to think together about efforts for reforming the electric power sector in each country.

**Natural Resources and Energy Conservation**

Under Natural Resources and Energy Conservation, JICA conducts the following efforts in the three fields of mining, renewable energies, and energy conversation.

1) Mining (Resources)

JICA develops information resources as well as master plans for the sustainable development of mineral resources. Efforts are also made to promote the greater international competitiveness of developing countries.

2) Renewable Energies

With preservation of the global environment in mind, JICA is conducting development studies on development plans for photovoltaic systems and small-scale hydroelectric power stations as an independent power source model for rural electrification. Also, a new Grant Aid scheme, the Program Grant Aid for Environmental and Climate Change*, was created. Currently efforts are moving forward under this new program for photovoltaic power generation in target countries. Specifically, JICA has developed plans for solar power projects in countries participating in the Cool Earth Partnership, starting with power supply efforts in several countries in the Oceania region where photovoltaic arrays will be linked to local power grids. While in Kenya, Indonesia and Central and South America, JICA is also engaging in efforts in geothermal power development.

3) Energy Conservation

JICA’s development of energy management technicians represents another key program among its energy conservation assistance projects leveraging Japanese technologies. Thus far, JICA has helped to train energy management technicians able to manage heat and electric power use in Thailand, Turkey and Poland. After a series of JICA assistance projects in Turkey, newly trained technicians were soon able to operate independently, and they are now able to serve as a conduit for technician training in third countries. Overall, JICA has achieved many positive results because of the energy management technician training program.

Additionally, with the launch of New JICA, the ODA loan program scheme is expected to be even more instrumental with enhanced effectiveness in assistance programs. JICA is currently implementing the Two Step Loan*, which focuses on the field of energy conservation, in India. JICA hopes to achieve synergistic effects from combining Technical Cooperation and funding assistance programs by implementing the Two Step Loan in other countries going forward. New JICA can also form links with the private sector much more smoothly. Looking ahead, JICA has high expectations when it comes to sharing beneficial Japanese technologies with many more countries around the world.

* Implemented as a new Grant Aid scheme in fiscal 2008 with the objective of helping to address greenhouse gas reduction (mitigation measures) and support efforts to adjust to climate change (adaptation measures).

* Scheme where ODA loan funds provided to develop- ment finance organizations of the borrowing nation are used to provide loans to small and medium-sized enterprises located in the borrowing nation.
What Is Aid for Trade (AfT)?
The idea of AfT refers to assistance provided to developing countries that helps them strengthen the supply-side capacity and trade-related infrastructure, so that they can benefit from trade expansion and reduce poverty.

Underlying the notion is that in the 1990s, the growing membership of developing countries in the World Trade Organization (WTO) propelled interest in development issues in developing countries to the forefront.

Since the Seattle WTO ministerial meeting, the WTO has placed more attention not only on free trade negotiations, but also on development issues at the meetings. Because of this movement, both at the Doha Round (multilateral trade negotiations) and the 6th Ministerial Conference held in Hong Kong, WTO members recognized that free trade would have a negative impact on developing countries. As a result, AfT has been promoted to improve supply capacity in developing countries, as a means to mitigate the negative impacts.

AfT is based on the idea that building supply-side capacity and trade-related infrastructure in developing countries will enable these countries to realize trade profits, and consequently, realize economic growth through these trade profits. Representative examples of AfT include infrastructure development that reduces the cost of supply, and capacity development that promotes trade and investment. More specific fields included in AfT can be found below.

- Trade Policy and Regulations
- Trade Development
- Trade-Related Infrastructure
- Building Productive Capacity
- Trade-Related Adjustment
- Other Trade-Related Needs

JICA-Led AfT Support
With this background, JICA is also working on assistance programs for AfT. As an example, about 76% of all ODA loan projects are devoted to AfT. Asia and Africa are the main areas of AfT-related assistance (Figure 1). Assistance provided to Asian countries accounts for upwards of 81% of all AfT-related ODA loan projects, and 46% of AfT-related Technical Cooperation/Grant Aid projects. On the other hand, assistance provided to African countries occupies 14% of all AfT-related ODA loan projects, and 23% of AfT-related Technical Assistance/Grant Aid projects. For comparison within the ASEAN region alone, about half of all AfT-related Technical Cooperation projects are conducted in CLMV countries (Cambodia, Laos, Myanmar and Vietnam). ODA loan projects in this region have largely been concentrated in Vietnam, but some were also extended to Cambodia. This shows JICA’s approach to help minimize regional disparities and improve integration among ASEAN countries through trade expansion (Figure 2). Moreover, by looking at the different areas of assistance provided in the ASEAN region, it is clear that JICA focuses mostly on the development of economic infrastructure, showing that JICA aims to promote overall economic growth through infrastructure development in the region that will benefit every individual (Figure 3).

The WTO designated 2009 as the year of global review of AfT, hosting a global review meeting to review the progress of AfT on July 6 and 7 in Geneva. State Secretary for Foreign Affairs Shintaro Ito attended the high-level forum representing Japan. JICA representatives also participated in sectional meetings and delivered a presentation on JICA’s efforts and overall contributions in AfT. Prior to the global review meeting, JICA also took part in a number of regional meetings. Specifically, JICA actively participated in the ASEAN regional meeting held in Cambodia, through a presentation on its contribution and policy covering AfT in the ASEAN region. At the global review meeting, AfT monitoring and strategies for donor coordination, among other things, have been discussed.
In 2008, nearly 76% of JICA’s ODA loan projects was devoted to AfT.

Asia and Africa have become principal focused regions for aid projects, with Asia accounting for 81% of all AfT-related ODA loan projects and 46% of all AfT-related Technical Cooperation Grant Aid programs.

Africa accounts for 14% of all AfT-related ODA loan projects and 23% of all AfT-related Technical Cooperation Grant Aid projects.

Over half of all AfT-related Technical Cooperation projects in the ASEAN region take place in CLMV countries (Cambodia, Laos, Myanmar and Viet Nam).

ODA loan projects have begun in Viet Nam and Cambodia, showing the direction of aid projects headed toward addressing disparities among ASEAN nations through expanded trade and greater regional integration.

Economic infrastructure development represents the principal field of aid projects in the ASEAN region, showing that JICA aims to promote overall economic growth through infrastructure development in the region that will benefit every individual.

Note: Data in the above charts are rounded off. The totals may not match the sums of each item added together.