4. Standard indicator reference and typical lessons learned (SMEs promotion)

Mid-term sub-targets corresponding to models in this reference

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<th>Model name</th>
<th>Corresponding mid-term sub-targets</th>
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<td>1-2-2 Capacity development for organizing/analyzing sector information</td>
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<td>2-1-1 Strengthening horizontal/vertical relationships among industries (strengthening value chain)</td>
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<td>Model (3) Strengthening local activities of businesses/cooperatives/economic groups (in particular, One Village One Product)</td>
<td>2-1-2 Strengthening local activities of businesses/cooperatives/economic groups</td>
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<td>Model (4) Improvement of institutional arrangements for supporting businesses/Capacity development of human resources</td>
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<td>2-2-3 Enhancement of technologies of enterprises (enhancement of quality management and productivity)</td>
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<td>Model (6) Enhancement of technologies of enterprises (in particular, enhancement of manufacturing technologies)</td>
<td>2-2-3 Enhancement of technologies of enterprises (enhancement of manufacturing technologies)</td>
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<td>2-4-2 Training of engineers/technicians</td>
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</tbody>
</table>
### JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)

**Model (1) "Capacity development for organizing/analyzing sector information"**

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<th>Country assistance policy</th>
<th>Mid-term objective</th>
<th>Indicators at a program goal level</th>
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<th>Methods/Policies for setting indicators</th>
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<th>Example of project purpose (image of projects)</th>
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<tbody>
<tr>
<td>1. Improvement of policies/institutions for SMEs promotion</td>
<td>1-2 Establishment of institutional arrangements for policy implementation</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes 2. The number of companies by size 3. Amount of exports 4. Amount of investments Others 5. The number of bankruptcies 6. The number of business start-ups</td>
<td>1-2-2 Capacity development for organizing/analyzing sector information</td>
<td>(Proposed model description) To improve industrial statistics in keeping with changes in the industrial structure in country, By/through... (output) Thereby contributing to... (impact) Indicator examples</td>
<td>Ways of thinking, points to remember, and important points in setting indicators</td>
<td>To... (outcome) By/through... (output) Thereby contributing to... (impact) Indicator examples</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the &quot;mid-term sub-targets&quot; from the perspectives of: 1) planning stages, and 2) management.</td>
<td>Examples of project purpose 1. Project on Industrial Statistics in Thailand (Term of Cooperation: June 2006 – June 2007)</td>
</tr>
</tbody>
</table>
### JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)

#### Model (2) "Strengthening horizontal/vertical relationships among industries (strengthening value chain)"

<table>
<thead>
<tr>
<th>Development strategic objective</th>
<th>Mid-term objective</th>
<th>Indicators at a program goal level</th>
<th>Mid-term sub-target</th>
<th>Overall goals/Project purposes and indicator examples</th>
<th>Methods/ Policies for setting indicators</th>
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<tbody>
<tr>
<td>Country assistance policy</td>
<td>Development thematic issue level to which the cooperation program corresponds</td>
<td>Connection with the target years or indicators in sector/regional development plans by the recipient country’s government</td>
<td>Level of thematic issue to solve in individual projects</td>
<td>To…. (outcome) By…through ….. (output) Thereby contributing to (impact) Indicator examples</td>
<td>Ways of thinking, points to remember and important points in setting indicators</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the “mid-term sub-targets” from the perspectives of: 1) planning stages, and 2) management.</td>
<td>Examples of project purpose (image of projects)</td>
<td>Project information with good practices to refer to</td>
</tr>
</tbody>
</table>

#### 2. Enhancement of competitiveness of businesses

**2.1 Promotion of collaboration among businesses/related organizations**

- **Industri al structure (by industry, by area)**
- 1. Output and sales volumes - Value added amount
- 2. The number of companies by size - The number of employees - Average salary
- 3. Amount of exports - Amount of imports - Amount of investments
- Others - The number of bankruptcies - The number of business start-ups

**2.1.1 Strengthening horizontal/vertical relationships among industries (strengthening value chain)**

- **Proposed model description**
- To increase opportunities for business negotiations and contracts with assembly manufacturers (such as cars, home electronics and parts), mainly foreign-affiliated ones, (outcome) By strengthening the business and technological capacity of local relevant SMEs in country and improving their competitiveness, (output) Thereby contributing to the strengthening of manufacturing supply chains and an increase in the local supply rate in country. (impact)

- **Standard indicator examples**
  1. Indicator examples of overall goal
     1. Local supply rate in assembly manufacturers/sector
     2. Increase of sales amount in cluster

- **Reference projects**
  1. Project for Automotive Supply Chain Development in Mexico (Term of Cooperation: October 2012 – October 2015)

**2.2 Davao Industry Cluster Capacity Enhancement Project in the Philippines (Term of Cooperation: November 2007 – June 2010)**
2. Indicator examples of project purpose
(1) Number of assessed local potential SMEs
(2) Number of cases of business negotiations with assembly manufacturers
(3) Number of contracts concluded with assembly manufacturers
(4) Number of use of supplier database
(5) Vitalization of cluster activities
(6) Creation of a support system

management. At the second step, the knowledge and skills learned in the classroom training are actually used in an industrial sector. At the second step, the Ministry of Trade and Industry and Japanese experts give advice to each cluster so that clusters can early solve various problems in the sector. (From the Reference Project 2 written on the right)

- As a result of the training in Japan, the cluster team members, who had paid attention only to markets in the Philippines, began to pay attention also to markets in Japan and in the world and make efforts to satisfy various strict conditions for export. In addition, during the training period, they had opportunities of conducting business negotiations with Japanese importers concerning banana, mango and wood and began to export them to Japan tentatively. In this way, trainees from the private sector participated in the training in Japan and visited Japanese companies' worksites, resulting in the beginning and expansion of business activities in both countries. (From the Reference Project 2 written on the right)

To establish a sustainable human resource development system for effectively developing human resources in the automobile and supporting industries in Thailand, by preparing training curriculums and training materials in three sectors (manufacturing technology (including management), production technology and mold), fostering the necessary number of Thai trainers, establishing qualifications for certifying skills in the automobile and supporting industries that are consistent with National Skill Development Promotion Act 2002, thereby contributing to improvement in the technical capacity in the industries.

**HCA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)**

**Model (3) "Strengthening local activities of businesses/cooperatives/economic groups (in particular, One Village One Product)"**

<table>
<thead>
<tr>
<th>Development strategic objective</th>
<th>Mid-term objective</th>
<th>Indicators at a program goal level</th>
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<tbody>
<tr>
<td>Country assistance policy</td>
<td>Development thematic issue level to which the cooperation program corresponds</td>
<td>Connection with the target years or indicators in sector/regional development plans by the recipient country’s government</td>
<td>Level of thematic issue to solve in individual projects</td>
<td>To . . . (outcome) By through . . . (output) Thereby contributing to (impact) Indicator examples</td>
<td>Ways of thinking, points to remember and important points in setting indicators</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the &quot;mid-term sub-targets&quot; from the perspectives of: 1) planning stages, and 2) management.</td>
<td>Examples of project purpose</td>
<td>Project information with good practices to refer to</td>
</tr>
<tr>
<td>2. Enhancement of competitiveness of businesses</td>
<td>2-1 Promotion of collaboration among businesses/related organizations</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes 2. Value added amount 3. Number of companies by size 4. The number of employees 5. Average salary 6. Amount of exports 7. Amount of imports 8. Amount of investments</td>
<td>Others - The number of bankruptcies - The number of business start-ups</td>
<td>2-1-2 Strengthening local activities of businesses/cooperatives/economic groups (Proposed model description) To develop local specialties and improve the market access, (outcome) By supporting the local government's One Village One Product (OVOP) movement and discovering and using potential resources in the target area, (output) Thereby contributing to increases in the local producers' sales and incomes. (impact)</td>
<td></td>
<td>A number of cooperation programs have been provided in relation to the OVOP movement, but it is not appropriate to take uniform response and approach to promotion of local industries and MSMEs' needs in each country that has different circumstances. Even in Japan, there are various types of experiences in local industrial promotion, not only in the OVOP movement, tailored to the circumstances of each region. When cooperation is provided for this field, it is important to conduct research and analysis on the circumstances and characteristics of economy, society, and industry of the target country and region; focus on considering and planning a measure that suits the target country and region after Japanese experiences, etc., are examined as reference; and accordingly provide support for implementing the measure.</td>
<td>To improve the services provided by the One Village One Product (OVOP) program in the target province, By appropriately managing the OVOP program by the OVOP National Secretariat (ONS), having the outreach system function and strengthening the business support system in cooperation with the relevant government offices and donors, Thereby contributing to popularize OVOP as an effective approach for sustainable local development.</td>
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</tbody>
</table>
Necessity for selecting the most suitable approach taking into account the conditions in each country.

JICA has given cooperation in OVOP movements in many countries. As shown in Malawi, there are many cases where JICA focuses on the development of institutions and the development of organizations and human resources for activating the function of the institutions.

At the stage of planning, this project also placed importance on the development of institutions. However, as a result of overlooking the rural people’s educational level and business awareness and administrative officers’ capacity, it was found that the approach of developing institutions first might result in insufficient functioning of the system and loss of its substance. Therefore, it was necessary first to prove that OVOP can be realized with the participation of local people and that OVOP is effective.

With regard to the approach of starting OVOP with institutional development, it is necessary to clarify and confirm preconditions for the functioning of OVOP beforehand. If preconditions cannot be clarified, it is necessary to adopt an approach like village development whereby OVOP activities are carried out, repeating trial and error together with group members on site, and send information on the feasibility and effectiveness of OVOP at the on-site level and the policy level. It is necessary to adopt a step-by-step approach of developing parts in order of necessity based on accumulated experience in OVOP activities after the concerned parties’ deepening of understanding.

Given the reality of Laos, this becomes a direction of ‘One District One Product (ODOP)’, the Lao version of OVOP.

The approach adopted in Laos seems to be characterized by starting with the development of products and proving ODOP activities and have become an approach for supporting OVOP movement. As a result, it can be said that active movements for the

To prove that the project activities are effective for popularizing Laos’s One District One Product (ODOP) in Savannakhet Province and Saravan Province, by having the operational system for carrying out the pilot project function, improving the staff's and the concerned parties’ capacity, developing marketable products, and extracting lessons for popularizing Laos’s ODOP in Savannakhet Province and Saravan Province from the experience in the pilot project, thereby contributing to the popularization of ODOP in Savannakhet Province and Saravan Province.

To activate communities through business by the use of local resources, by establishing an application and approval system for promoting One Village One Product (OVOP) activities, strengthening the activities of the OVOP group, operating the monitoring follow-up system and making OVOP widely known in the target area, thereby contributing to the diversification of local farmers' livelihood means by the OVOP approach.

1. One District One Product Pilot Project in Savannakhet and Saravan Provinces in Laos (Term of Cooperation: November 2008 – November 2011)

2. One Village One Product Promotion Project in Ethiopia (Term of Cooperation: May 2010 – May 2014)
promotion of ODOP movement were drawn out at the central level and at the district on-site level and that a great impact was made on concerned Lao parties' change in consciousness.

JICA has so far cooperated with various countries in OVOP activities. It is necessary to utilize cooperation experience so far, including the efforts in Laos, for clarifying what kind of approach is effective under what conditions and what steps should be taken. When giving similar cooperation to other countries in the future, it is necessary to review the experience so far and draw out knowledge in order to take a more appropriate direction. (From the Reference Project 1 written on the right)
### JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)

**Model (4) "Improvement of institutional arrangements for supporting businesses/Capacity development of human resources"**

<table>
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<tr>
<th>Development strategic objective</th>
<th>Mid-term objective</th>
<th>Indicators at a program goal level</th>
<th>Mid-term sub-target</th>
<th>Overall goals/Project purposes and indicator examples</th>
<th>Methods/ Policies for setting indicators</th>
<th>Typical lessons learned</th>
<th>Example of project purpose (image of projects)</th>
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<tr>
<td>Country assistance policy</td>
<td>Development thematic issue level to which the cooperation program corresponds</td>
<td>Connection with the target years or indicators in sector/regional development plans by the recipient country’s government</td>
<td>Level of thematic issue to solve in individual projects</td>
<td>To . . . (outcome) By/through . . . (output) Thereby contributing to (impact) Indicator examples</td>
<td>Ways of thinking, points to remember, and important points in setting indicators</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the “mid-term sub-tasks” from the perspectives of: 1) planning stages, and 2) management.</td>
<td>Examples of project purpose</td>
<td>Project information with good practices to refer to</td>
</tr>
<tr>
<td>2. Enhancement of competitiveness of businesses</td>
<td>2-2 Strengthening managerial/technical capacities of businesses</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes - Value added amount 2. The number of companies by size - The number of employees - Average salary 3. Amount of exports - Amount of imports - Amount of investments Others - The number of bankruptcies - The number of business start-ups</td>
<td>2-2-1 Improvement of institutional arrangements for supporting businesses/ Capacity development of human resources</td>
<td>(Proposed model description) To make it possible to provide support service that satisfies the needs of the target SMEs, (outcome) By strengthening the analysis, diagnosis, and advice capacity, and capability in a certain area of human resources (such as consultants) of the agency that support the target SMEs, (output) Thereby contributing to the solution of the target SMEs’ business issues and the improvement of their productivity, quality, sales and profits (impact)</td>
<td>(Standard indicator examples) 1. Indicator examples of overall goal (Basic) (1) Productivity index of the target SMEs (increase in the index) (2) Increase in the SMEs’ sales 2. Indicator examples of project purposes (Basic) (1) Number of SMEs receiving support service from agencies supporting SMEs (2) Number of SMEs satisfied with support service from agencies supporting SMEs (3) Types (number) of support service (4) Certified consultants (number)</td>
<td>JICA has provided support mainly for public organizations. However, some public organizations in developing countries are facing issues such as lack of candidates with understanding of business and qualification of becoming advisors; and they sometimes cannot maintain or improve support services in a continuous manner. Therefore, it is not appropriate to uniformly regard public organizations as Business Development Service (BDS) providers. It should be noted that roles of private BDS providers will increase as the BDS market grows in the private sector of the target country. When considering which organization—private or public sector—should be used for support, it is important to clarify how the target country’s government is trying to identify the status of advisors for what types of enterprises they are using in the implementation of measures. It is extremely important to understand the existing consultant systems, capability and performance of consultants in the private sector, and needs of enterprises for consulting, and then discuss with the target country’s counterpart with regard to what types of personnel should fulfill the role, what system should be used to provide service to SMEs, and how human resources necessary for the service should be developed with the enhancement of the ability. Cooperation may not bring any effective results if the detail of the cooperation is decided without sufficiently considering the above points when the project is formulated, adopted, and designed. A number of support programs have been provided for the implementation of the SME management consultant system. It is also an area in which knowledge is well organized as it is obvious from the fact that various types of textbooks to become SME management consultants are available in Japan. The content of the Japanese</td>
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<td>To make the Small and Medium Industries Development Corporation (SMIDEC) possible to support SMEs effectively in management, marketing skill and financial support service through the fostering of SME counselors who can analyze SMEs’ problems and needs and give basic (not highly technical) advice to SMEs, By appropriately fostering SMIDEC staff members (SME counselors) and training instructors for SME counselors, Thereby contributing to a large amount of Malaysian SMEs’ acquisition of high productivity, high technical capacity and international competitiveness through the receipt of SMIDEC’s service.</td>
<td>Examples of project purpose</td>
<td>Project information with good practices to refer to</td>
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</table>
Textbooks can be used to prepare textbooks and other materials for training tailored to each country’s circumstances, so that efficient cooperation can be realized. As mentioned above, it is necessary to consider and grasp in advance how the target country is trying to develop a system and how and where the developed human resources will be utilized. In fact, although the implementation of the SME management consultant system appears to be attractive to relevant agencies in many developing countries, the system is not always fully utilized even after the system is implemented. The cooperation should be provided based on needs and opinions of administrative organizations and the private sector with sufficient consideration of how the system can become beneficial to SMEs’ management improvement, including consideration of how roles of the consultants can be clarified in the entire SME support system and how the system can be effectively used in combination with other SME support measures, including financing. (From “Thematic Guideline - Small and Medium Enterprises (SMEs) Promotion”)

Based on the model of Japan's certified SME consultant system, training materials were prepared focusing on the parts necessary for the development of human resources for SMIDEC, a corporate consultation course was included in the training at the request of SMIDEC, and visiting advisory service was given to companies. This seems to lead to training effective for carrying out similar projects. SMIDEC’s earnest efforts not only to give loans and subsidies to SMEs but also to provide advisory service to them became widely known through the SMIDEC executives’ high interest in the project and the fact that the Minister of Economy, Trade and Industry mentioned the project in newspapers. In addition, the staff of SMIDEC had an opportunity for renewing their awareness as SME supporters. (From the Reference Project 1. written on the right)

To arrange the Ministry of Industry’s human resource development project for SMEs systematically, promote the foundation of the Ministry's SME human resource development center and promote the establishment of the system and the utilization of certified SME consultants. By establishing a project management and implementation system, improving committees, working groups and clinics related to the Ministry of Industry's development of human resources for SMEs, effectively introducing and utilizing experience in the establishment of an SME consultant system in Japan and Thailand, appropriately planning the SME human resource development center's role, function and implementation system, facilitating the Ministry of Industry's preparations (including a legal system and an authentication system) necessary
for the establishment of an appropriate SME consultant system, preparing, implementing, evaluating model training for consultants to establish an SME consultant system appropriately, planning an appropriate system for effectively using the SME consultant system and certified SME consultants and promoting the effective provision and dissemination of information on the SME consultant system to SMEs and communities, thereby contributing to the strengthening of the Ministry of Industry's human resource development function for SMEs.

To improve the capacity of the certified SME consultants who received guidance from Japanese experts and activate the SMEs for OJT in Bangkok, Chiang Mai and Surat Thani. By assessing the status of the SME consultants' activities in Thailand, improving the capacity of the SME consultants in Bangkok, Chiang Mai and Surat Thani, improving the quality management and productivity of the SMEs for OJT, strengthening the Thai Government's SME support agency staff's capacity to conduct basic diagnosis and give consultation and making suggestions about the standardization of certified SME consultants (diagnosis, management consulting system), thereby contributing to an increase in the competitiveness of SMEs (including Japanese-affiliated ones) in Thailand.

4. Project for SME Consultant Retraining in Thailand (Term of Cooperation: June 2010 – October 2010) (Information on the project is from the project summary sheet)
<table>
<thead>
<tr>
<th>Country assistance policy</th>
<th>Development thematic issue level to which the cooperation program corresponds</th>
<th>Mid-term objective</th>
<th>Development strategic objective</th>
<th>Indicators at a program goal level</th>
<th>Mid-term sub-target</th>
<th>Overall goals/Project purposes and indicator examples</th>
<th>Methods/ Policies for setting indicators</th>
<th>Typical lessons learned</th>
<th>Example of project purpose (image of projects)</th>
<th>Reference projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Enhancement of competitiveness of businesses</td>
<td>2-2 Strengthening managerial/technical capacities of businesses</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes 2. Value added amount 3. The number of employees 4. Average salary 5. Amount of imports 6. Amount of investments</td>
<td>2-2-3 Enhancement of technologies of enterprises (enhancement of quality management and productivity)</td>
<td>(Proposed model description) To make it possible to provide support service that satisfies the needs of the target SMEs, (outcomes) By strengthening the capacity of the agencies that support SMEs’ improvement of quality management and productivity, (output) Thereby contributing to the improvement of the target manufacturers’ productivity and quality. (impact)</td>
<td>(Standard indicator examples) 1. Indicator examples of overall goal (Basic) (1) Productivity index of the target SMEs (increase in the index) (2) Increase in the SMEs’ sales</td>
<td>(Japanese-affiliated firms operating businesses in the target country hold high expectations for JICA’s support to local SMEs regarding improvement of quality and productivity in raising high quality and reliable vendors to them. Some Japanese-affiliated firms desire the following: (1) Quick effects (to prevent missing opportunities because the circumstances may change if it takes time to develop instructors, etc.) and (2) Specific technical guidance based on the needs of the workplace (practical details used at enterprises, not textbook-oriented). Especially for the support provided to countries in which many Japanese-affiliated firms operate business, it is necessary to consider a quick and flexible support method. For example, by identifying a technical area required in actual business in addition to providing the basics for improving quality and productivity, as described in the above-mentioned sub-goal &quot;2-1-1 Reinforcement of horizontal- vertical industrial relations (Strengthening the value chains). In some countries, the term &quot;KAIZEN®&quot; is registered as a trademark by Kaizen Institute, a private corporation. The terms &quot;KAIZEN®&quot; and &quot;GEMBAKAIZEN®&quot; are registered trademarks of the corporation in Japan as well, and explanatory notes are required when the terms are used (From &quot;Thematic Guideline - Small and Medium Enterprises (SMEs) Promotion&quot;)</td>
<td>To establish the Kaizen Center's capability and system to disseminate the concept and practice of productivity and quality management as the main body for promoting productivity improvement movement through the provision of various services using Japanese-style productivity and quality management methods. By having the staff of the Kaizen Center learn skills enough to be able to provide consulting service according to needs and plan and manage training and workshops concerning productivity and quality control methods and having the Kaizen Center develop a method for sharing information with private and public agencies, create a network with such agencies and establish a system for managing itself to facilitate the target manufacturers' activities for improving productivity and quality, Thereby contributing to Egyptian manufacturers' beginning of activities for improving productivity and quality.</td>
<td>4. Productivity and Quality Improvement Center Project in Egypt (Term of Cooperation: October 2007 – April 2011)</td>
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**JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)**

**Model (5) "Enhancement of technologies of enterprises (in particular, enhancement of quality management and productivity)"**
Thereby contributing to the strengthening of the management methods of the SME owners participating in the training courses established by the project and improvement in the skills of business development service providers.

In this project, CEFOF, the implementing agency, provides service for a consideration to gain profits while receiving subsidies from the competent Ministry of Scientific Research and Technology (note: now under the jurisdiction of the Ministry of Education) to make up for a shortage of funds necessary for the management of the agency. In addition, because the target group is limited to SMEs whose capacity to pay is low, high profits from the service cannot be expected at least during the project period. Although the goal of this project is to improve CEFOF’s capacity, it is difficult to carry out technical cooperation activities unless sufficient financial resources are secured for managing the agency soundly. Therefore, in the case of such a project, it is essential to consult fully with the government agency concerning necessary financial resources and the method to secure them before the project is carried out. (From the Reference Project 2 written on the right)

This project aims to make CEFOF the core center in South America for productivity improvement. In this project, however, partly because preliminary measures are insufficient for carrying out activities within the Central American region, the partner government’s commitment in the region-wide project has not resulted in actual activities. The implementation of a region-wide project requires not only the implementing agency’s sufficient capacity but also the partner government’s policy and strong commitment. At present, CEFOF has been changing the organizational form into a department of the National Technological University (UTN), and the project is coming to a crucial point as to whether it can be carried out to enable the Personnel Training Center for Industrial Development of Central America (CEFOF) to carry out activities for improving Costa Rican companies’ productivity and improve the level. By establishing a system for managing the project, improving the counterpart’s technical level related to “production management,” “quality management,” “business management” and “productivity measurement,” carrying out consulting service systematically and improving information and promotion service. Thereby contributing to the strengthening of productivity improvement activities through CEFOF in Costa Rica and in the Central America Region.

To improve the capacity to provide extension and support service related to quality and productivity improvement in the priority sectors (electrical/electronic sector, mechanical sector, packaging sector) of UGPQ (National Quality Program Unit), CETIME (Mechanical and Electrical Industries Technical Center) and PACKTEC (Packaging Technical Center), By arranging the Tunisian Government's organizations and systems related to the quality and productivity improvement support, creating a system for continuously fostering consultants within UGPQ, CETIME and PACKTEC, all of which provide consulting service related to SMEs’ quality and productivity improvement activities and improving the capacity to send information on quality and productivity improvement activities mainly by UGPQ. Thereby contributing to the extension of quality and productivity improvement activities among the SMEs in the priority sectors.

To enable the Personnel Training Center for Industrial Development of Central America (CEFOF) to carry out activities for improving Costa Rican companies’ productivity and improve the level. By establishing a system for managing the project, improving the counterpart’s technical level related to “production management,” “quality management,” “business management” and “productivity measurement,” carrying out consulting service systematically and improving information and promotion service. Thereby contributing to the strengthening of productivity improvement activities through CEFOF in Costa Rica and in the Central America Region.

1. Project on Quality/Productivity Improvement in Tunisia (Term of Cooperation: October 2009 - September 2012)

To promote this, the partner government must be aware of the advantages of the region-wide project and have a strong will. From such a viewpoint, it is necessary to design the project to construct foundations for the region-wide project firmly during the project period, looking ahead to the future after the end of the period.

(From the Reference Project 2, written on the right)

<table>
<thead>
<tr>
<th></th>
<th>To establish a system for sustainably popularizing quality and productivity improvement (Kaizen) among private companies, By establishing an organization and a system for the popularization of quality and productivity improvement (Kaizen) by positioning the Ethiopian KAIZEN Institute (EKI) as the core agency, operating EKI’s system whereby large and medium enterprises (LMEs) develop human resources that popularize quality and productivity improvement (Kaizen) and, with regard to micro and small enterprises (MSEs), create a model of system that EKI fosters Technical and Vocational Education and Training (TVET) Trainer's Trainers (TTrTs), Thereby contributing to an increase in the number of private companies that carry out quality and productivity improvement (Kaizen).</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Project on Capacity Building for Dissemination of quality and Productivity Improvement (KAIZEN) Project in Ethiopia (Term of Cooperation: November 2011 – October 2014)</td>
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## JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)

### Model (6) "Enhancement of technologies of enterprises (in particular, enhancement of manufacturing technologies)"

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<th>Development strategic objective</th>
<th>Mid-term objective</th>
<th>Indicators at a program goal level</th>
<th>Mid-term sub-target</th>
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<th>Methods/ Policies for setting indicators</th>
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<th>Example of project purpose (image of projects)</th>
<th>Reference projects</th>
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<tr>
<td>Country assistance policy</td>
<td>Development thematic issue level to which the cooperation program corresponds</td>
<td>Connection with the target years or indicators in sector/regional development plans by the recipient country’s government</td>
<td>Level of thematic issue to solve in individual projects</td>
<td>To . . . (outcome) By/through . . . (output) Thereby contributing to (impact) Indicator examples</td>
<td>Ways of thinking, points to remember, and important points in setting indicators</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the “mid-term sub-targets” from the perspectives of: (1) planning stages, and (2) management.</td>
<td>To enable the Center for Engineering and Industrial Development (CIDESI) to provide proper technical service to small and medium pressing companies, By strengthening the project management and the advisory department of CIDESI, improving the counterpart agency’s pressign, by advising giving technical advisory service to the model companies and giving training systematically, Thereby contributing to improvement in the technical capacity of the small and medium pressing companies around Querétaro Province.</td>
<td>5. Project on Technology Transfer for Supporting Industry (Stamping Technology) in Mexico (Term of Cooperation: October 2006 – October 2009)</td>
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<tr>
<td>2. Enhancement of competitiveness of businesses</td>
<td>2-2 Strengthening managerial/technical capacities of businesses</td>
<td>Industrial structure (by industry, by area)</td>
<td>2-2-3 Enhancement of technologies of enterprises (enhancement of manufacturing technologies)</td>
<td>Proposed model description</td>
<td>JICA’s experience suggests that in our future cooperation, we should not be providing support solely to public organizations (counterparts) but should be considering partnership with private sector and academia-industry cooperation including collaboration with Japanese firms in the target country and other organizations such as technical colleges and universities. This is important in a sense that public organizations can grasp technology actually required by enterprises even after project completion and they can achieve division of roles and cooperation with other research, technical, and educational institutions. With regard to supporting enterprises requiring advanced technology, it is confirmed that there are cases where the counterpart organization could not deliver the same level of technical assistance to the enterprises as during the project period, after the project completion. In case of Indonesia, there is a report saying that the counterpart organization could not maintain or develop the level of technical assistance to the enterprises; partly because the counterpart organization could not increase personnel due to government policy. This suggests that the objective of technical assistance to the counterpart organization was not achieved. It is important to create an enduring system for human resources development of the counterpart organizations and a sustainable framework including cooperation with universities and private enterprises. Furthermore, it is necessary to thoroughly consider the roles of the public organizations, enterprises to be targeted, the level of technology, etc., when cooperation is provided, because there is even a dispute as to whether public organizations can provide guidance to private enterprises of a certain level or more. (From &quot;Thematic Guideline - Small and Medium Enterprises (SMEs) Promotion&quot;)</td>
<td>Examples of project purpose</td>
<td>1. Supporting Industry Center in Thailand (Term of Cooperation: November 1999 – October 2004)</td>
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</table>
2. Indicator examples of project purposes (Basic)

(1) A decrease in the product defective rate of the model companies and a decrease in the number of complaints from customer assembly companies
(2) Improvement in the productivity indicators (such as production volume per hour) of the model companies
(3) Improvement in the level of technical service satisfaction of companies having technology with the technical research, guidance and promotion agency
(4) An increase in the number of companies that receive technical service from the technical research, guidance and promotion agency.

When setting project objectives, it is important to define the target group (not only direct target but final target) and the proper technical level to be transferred through the project. To do so, it is important to make accurate information on the project objectives and the overall goal widely known among the parties concerned by conducting a detailed survey on the target group's needs before the beginning of cooperation under the project.

(From the Reference Project 1. written on the right)

To introduce a model program for improvement of welding technology and provide training for trainers,

To introduce a model of skill standards for welding coordinators, preparing a model of training curriculum for welding coordinators providing training for trainers of welding coordinators, having experts suggest a draft action plan for the development of welding technology in Indonesia and providing training for trainers of welders,

Thereby contributing to the establishment of basics of welding technology in Indonesia.

To enable the Metals Industry Research and Development Center (MIRDC) to provide training and technical support concerning plastic molding technology,

By strengthening the project management system, operating and maintaining the machinery and equipment appropriately, improving the counterpart's technical capacity, provide training in plastic molding technology systematically and providing the technical support service of MIRDC of the Department of Science and Technology systematically,

Thereby contributing to improvement in the technical level of engineers and skilled workers in the molding industry in the Philippines.

To improve the technical service of the Metal Industries Development Center (MIDC) for small and medium casting enterprises.

By strengthening the management system for the implementation of the project, preparing and maintaining facilities and machinery necessary for the improvement of casting technology, training the counterpart (C/P), providing prototype manufacturing service systematically, providing technical promotion service systematically and providing information service systematically,

Thereby contributing to enabling small and medium casting enterprises to produce castings at the level required by assembly industries in Indonesia.

2. Project for Welding Technique Improvement in Indonesia (Term of Cooperation: November 2010 – September 2012)

2. Project for Welding Technique Improvement in Indonesia (Term of Cooperation: November 2010 – September 2012)

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<th>Development thematic issue level to which the cooperation program corresponds</th>
<th>Mid-term objective</th>
<th>Mid-term sub-objective</th>
<th>Indicators at a program goal level</th>
<th>Overall goals/Project purposes and indicator examples</th>
<th>Typical lessons learned</th>
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<tr>
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<td>(Standard indicator examples) (Proposed model description)</td>
<td>JICA has only limited experiences in this kind of support, but in the example of Colombia, there was an indication that the three-year support period was too limited in time to verify the effectiveness of the model from the completion of training to the follow-up stage through the arrangement leading to employment and business start-up. It requires a certain period of time from the acquisition of management skills and know-how in training to the actual business start-up, including a preparatory period. A long-term support is required, including the establishment of the model. JICA does not have a lot of support experiences for this field, and it is necessary to find examples and resources in Japan. On another note, incubation (new business support) is generally considered targeting high-tech companies due to the image of many science parks established between the 1980s and 1990s. Even in developing countries, the definition and recognition of incubation differs depending on the country, and attention is required. From &quot;Thematic Guideline: Small and Medium Enterprises (SMEs) Promotion&quot;)</td>
<td>1. Project for the Support of Entrepreneurship and Employment for the Household of Demobilized Ex-Combatants and Recipient Communities in Colombia (Term of Cooperation: February 2008 – March 2012)</td>
</tr>
<tr>
<td>2. Enhancement of competitiveness of businesses</td>
<td>2-4 Development of business/technical human resources</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes - Value added amount 2. The number of companies by size 3. The number of employees - Average salary 4. Amount of exports - Amount of imports 5. Amount of investments Others - The number of bankruptcies - The number of business start-ups</td>
<td>2-4-1 Training entrepreneurs/business human resources/acquisition of know-how</td>
<td>(Proposed model description) To promote individuals or groups' starting a business or finding a job, outcome) By holding training for individuals or groups so that they can acquire business knowledge and know-how according to market needs, (output) Thereby contributing to an increase in opportunities for individuals or groups aiming to starting a business or finding a job to create employment or income (impact)</td>
<td>Methods/ Policies for setting indicators Ways of thinking, points to remember, and important points in setting indicators Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the &quot;mid-term sub-targets&quot; from the perspectives of: 1) planning stages, and 2) management.</td>
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<td>(Standard indicator examples) 1. Indicator examples of overall goal (Basic) (1) Increasing number of employed persons (2) Increasing amount of income 2. Indicator examples of project purposes (Basic) (1) Number of individuals' or groups' business start-ups (2) Number of employed individuals or groups</td>
<td>To promote surrendered soldiers' family members' and recipient communities' starting a business or finding a job by establish models that provide support to surrendered soldiers' families and recipient communities with support in starting businesses and finding a job in Bogota City and strengthens partnerships with related institutions, Thereby contributing to an increase in opportunities of surrendered soldiers' family members' and recipient communities' creating a job and income and the promotion of social and economic rehabilitation of surrendered soldiers and their families.</td>
<td>2. Micro-enterprise Support Project for Women in Rural Areas in Honduras (Term of Cooperation: November 2003 – October 2008)</td>
</tr>
</tbody>
</table>

**JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion) Model (7) "Training entrepreneurs/business human resources/acquisition of know-how"**

- **Mid-term objective**: Development of business/technical human resources
- **Mid-term sub-objective**: Industrial structure (by industry, by area)
  - Output and sales volumes
  - Value added amount
  - The number of companies by size
  - The number of employees
  - Average salary
  - Amount of exports
  - Amount of imports
  - Amount of investments
- **Indicators at a program goal level**: Training entrepreneurs/business human resources/acquisition of know-how
  - (Proposed model description)
  - To promote individuals or groups' starting a business or finding a job (outcome)
  - By holding training for individuals or groups so that they can acquire business knowledge and know-how according to market needs (output)
  - Thereby contributing to an increase in opportunities for individuals or groups aiming to starting a business or finding a job to create employment or income (impact)
- **Typical lessons learned**: JICA has only limited experiences in this kind of support, but in the example of Colombia, there was an indication that the three-year support period was too limited in time to verify the effectiveness of the model from the completion of training to the follow-up stage through the arrangement leading to employment and business start-up. It requires a certain period of time from the acquisition of management skills and know-how in training to the actual business start-up, including a preparatory period. A long-term support is required, including the establishment of the model. JICA does not have a lot of support experiences for this field, and it is necessary to find examples and resources in Japan. On another note, incubation (new business support) is generally considered targeting high-tech companies due to the image of many science parks established between the 1980s and 1990s. Even in developing countries, the definition and recognition of incubation differs depending on the country, and attention is required. From "Thematic Guideline: Small and Medium Enterprises (SMEs) Promotion")

**Reference projects**
the realization of the project objective. (From the Reference Project 2. written on the right)

making advice service available to those women after the start of small-scale businesses, and compiling project results into a guideline and a collection of cases, Thereby contributing to improvement in the life of the women living in poverty covered by the project and the implementation of projects for supporting those women to start businesses by the use of the experience and results of the project in other districts.

- Consideration for the education level of the target group
  To manage a business, it is necessary to acquire knowledge on various matters, such as market analysis, accounting and product management. The group's results greatly differ, depending on the education level. It is necessary to plan project flexibly – for example, conducting a baseline survey beforehand and setting a longer training period according to the situation of the group. (From the Reference Project 2. written on the right)

To give participants from Cambodia, Laos, Myanmar, Vietnam and the Philippines (CLMVP) opportunities of acquiring ICT technology and knowledge for starting a business, By acquiring the skill to use the Internet, websites and other ICTs, devising e-strategies concerning the existing business and the start of a business in the future and learning through study tours to pioneer ICT enterprises, Thereby contributing to CLMVP’s achievement and maintenance of competitive predominance in the international information economy.

- Visualization of internal and external changes in female groups by the use of empowerment indicators
  In this project, empowerment indicators are used for visualizing how internal and external changes in women were caused by entrepreneurship activities. This can be said to be an epoch-making attempt, making a proposal for empowerment-related projects. However, because it took a lot of time to collect qualitative data, there is room for considering how to collect information efficiently. (From the Reference Project 2. written on the right)

To improve government officers’ ability for strengthening the system for promoting female entrepreneurs’ activities in Saudi Arabia, By assessing the basic system for supporting female entrepreneurs and the situation of female entrepreneurs in Japan and understanding the management systems and methods of organizations that provide technical support, training and seminars to female entrepreneurs in Japan, Thereby contributing to the strengthening of the system for promoting female entrepreneurs’ activities in Saudi Arabia, including SOHO (Small Office/Home Office).

- Importance of social training to support for women’s entrepreneurship
  Although it is clear that technical training and corporate training are necessary for supporting entrepreneurship, it seems impossible to give multiple viewpoints to women organized for the first time and women restricted in their activities and make their organizations sustainable unless social training also is introduced. (From the Reference Project 2. written on the right)
## JICA standard indicator reference and typical lessons learned in technical cooperation projects (SMEs promotion)

### Model (8) "Training of engineers/technicians"

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<td>Level of thematic issue to solve in individual projects</td>
<td>To . . . (outcome) By/through . . . (output) Thereby contributing to (impact) Indicator examples</td>
<td>Ways of thinking points to remember, and important points in setting indicators</td>
<td>Write in lessons and risks to be necessarily used or reflected in implementing projects corresponding to the &quot;mid-term sub-targets&quot; from the perspectives of: 1) planning stages, and 2) management.</td>
<td>Examples of project purpose</td>
<td>Project information with good practices to refer to</td>
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<tr>
<td>2. Enhancement of competitiveness of businesses</td>
<td>2-4 Development of business/technical human resources</td>
<td>Industrial structure (by industry, by area) 1. Output and sales volumes 2. The number of companies by size 3. The number of employees 4. Average salary 5. Amount of exports 6. Amount of imports 7. Amount of investments Others 1. The number of bankruptcies 2. The number of business start-ups</td>
<td>2-4-2 Training of engineers/technicians</td>
<td>(Proposed model description) To improve the function of training teachers engaged in ▲△ technology at the teachers training center in ○△ country, (outcome) By preparing a ▲△ technology curriculum according to the industrial world's needs to train industrial high school teachers at the center, (output) Thereby contributing to industrial high schools' supply of high-quality labor power, (impact)</td>
<td>▲△</td>
<td>• Development of engineers and technicians require improvement of curriculums tailored to the needs of domestic and international enterprises. This means providing education and training that helps engineers and technicians acquire knowledge and skills required by enterprises, thus contributing to their employment. Furthermore, by proactively developing human resources who can be employed locally by Japanese and other foreign firms, or work for local enterprises that can form partnership with those foreign firms, attractive investment environment can be developed and thus, bring positive cycle of promoting investment and encouraging local supporting industries. • For example, in Mexico, input from the plastic industry is reflected on a curriculum of plastic courses in industrial high schools on one hand, and on the other, internship program is utilized to develop human resources that match the needs of enterprises. This program benefits both the local enterprises and the educational institutions. Consequently, it is necessary to develop human resources based on the needs of enterprises and the issues to be responded to. On the other hand, it is absolutely important to develop human resources form the overall perspective of industrial promotion that is not affected by temporary corporate needs and with an eye toward the future of the country. When this kind of support is provided, it is important to make a balanced discussion with relevant organizations from the standpoint of specific needs of enterprises and overall needs required of the target industry, so that support for human resources development can be promoted with the solid concept and target. (From &quot;Thematic Guideline - Small and</td>
<td>To improve the function of training teachers engaged in plastic injection molding technology at the National Center for Actualization of Industrial Technical Education (CNAD), By enabling the instructors of CNAD to teach industrial high school teachers plastic injection molding technology, preparing a curriculum in the technology according to the plastic industry's needs so that CNAD can train industrial high school teachers, managing CNAD's the training course on the technology efficiently at CNAD, preparing and improving the injection molding technology part (subject and practice) of the training course to be established newly at the model industrial high school according to the plastic industry's needs and establishing a joint committee as the linkage of CNAD with the model industrial high school and the plastic industry, Thereby contributing to industrial high schools' supply of high-quality labor power to the plastic industry in Mexico.</td>
<td>2. Project for Human Resource Development in the Technology of Plastic Transformation in Mexico (Term of Cooperation: October 2010 – October 2014)</td>
</tr>
</tbody>
</table>
1. Trainer examples of overall goal (Basic)
   (1) Number of trainees in the industrial high school teachers training course on ▲△ technology at the teachers training center in ▲△country.
   (2) Technical level of the trainees in the industrial high school teachers training course on ▲△ technology at the teacher training center (equivalent to level 1 or 2 of Japan’s skill test)
   (3) Number of graduates of the ▲△ technology courses at industrial high schools
   (4) Number of industrial high schools which have a ▲△ technology course
   (5) Number of persons employed in the industrial world after graduating from a ▲△ technology course at an industrial high school
   (6) Technical level of graduates from ▲△ technology courses at industrial high schools (equivalent to level 3 of Japan’s skill test)

2. Indicator examples of project purposes (Basic)
   (1) Ministry of Education’s approval of the curriculum improved according to the industrial needs’ for the industrial high school teacher training course on ▲△ technology at the teacher training center in Country ▲△; preparation of teaching materials; number of trainees
   (2) Number of CTPs (teacher training center’s instructors) trained under the project
   (3) Number of model industrial high school teachers receiving training at the teacher training center


   To strengthen the implementation system related to the introduction of demand-driven Technical Vocational Education and Training (TVET) through the strengthening of the organization of the TVET implementing agency, human resource development and trials of education and training based on demand-driven TVET.
   By establishing the Council for Technical and Vocational Education and Training (COTVET), acquiring the TVET’s organizational and policy management capabilities, accumulating lessons for the creation of a TVET system through demand-driven TVET in the sector of mechanical engineering at the trial school and establishing environments for the implementation of demand-driven TVET in other sectors.
   Thereby contributing to an increase...
counterpart into the preconditions for the beginning of the project and fully considering the creation of an implementation system on the Japanese side on the assumption of input resources. (From the Reference Project 3. written on the right)

To establish a teacher training system at the Teacher Training Center (TTC), which was founded as an institution attached to the Izmir Mazhar Zorlu Anatolian Technical High School, by strengthening TTC's teacher training planning ability, its ability to offer the teacher training course and its function of establishing a long-term management plan, thereby contributing to the effective provision of vocational education and training on industrial automation technologies at the technical and industrial vocational high schools.

4. Project on Strengthening the Program of Expanding Industrial Automation Technologies Department in Turkey (Term of Cooperation: August 2007 – September 2010)