

Democratic Republic of the Congo

FY 2017 Ex-Post Evaluation of Grant Aid Project

“Project for Expansion of INPP Kinshasa Provincial Direction”

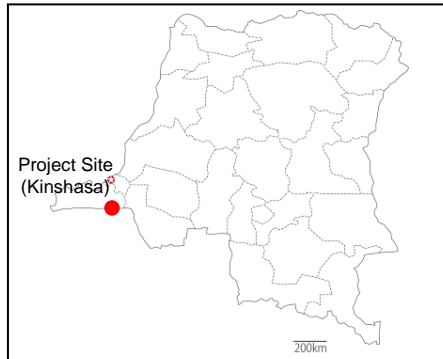
External Evaluator: Hajime Sonoda, Global Group 21 Japan, Inc.

## **0. Summary**

The Project for Expansion of INPP Kinshasa Provincial Direction (hereinafter referred to as “the Project”), a grant aid project, was implemented to improve vocational training functions through constructing training facilities and installing equipment at Kinshasa Provincial Direction of the National Institute of Professional Preparation (hereinafter referred to as INPP Kinshasa). The objective was to develop skilled human resources in response to the market needs and contribute to supply them in the labor market of the Democratic Republic of the Congo (hereinafter referred to as “the DRC”). Vocational training has been an important area in terms of policy and development needs in the DRC at both the time of planning and the time of ex-post evaluation; moreover, the Project was highly consistent with Japan’s ODA policy at the time of planning. Accordingly, the relevance of the Project is high. The Project cost was within budget, however, because the Project period was longer than planned, the efficiency of the Project was fair. Thanks to the construction of facilities and installation of equipment by the Project, such results have been obtained as; expansion and improvement of training, improvement of training environment, increase in efficiency of training, and physical improvements in offices for administration staff and instructors. Although there were some departments where the annual number of trainees did not reach the planned levels, improvements were realized in terms of the efficiency and effectiveness of practical training, and the trainees are satisfied with the facilities and equipment. Hence, it is deemed that training functions have improved at INPP Kinshasa. Moreover, most enterprises have high regard for the knowledge and skill levels of INPP trainees and think that their competence is relevant to their needs. Many enterprises also think that the INPP training has improved compared to five years ago. Therefore, the effectiveness and impact of the Project are high. Concerning the operation and maintenance of the Project, apart from some minor financial issues, there have been no problems regarding institutional and technical aspects as well as the operation and maintenance status. Therefore, the sustainability of the Project is high.

To sum up, the Project is evaluated as being highly satisfactory.

## 1. Project Description



Project Location



INPP Kinshasa (front entrance)

### 1.1 Background

Passing through a period of confusion and civil war after 1991, the DRC has experienced progress towards reconstruction and development following establishment of a provisional administration in 2004. The Kabila administration, which came to power in 2007, raised “improvement of employment and labor” as a priority issue and made it a key policy for economic development. In line with this policy, it regarded the training of human resources for industry as important. Based in the capital of Kinshasa, INPP was established with the objective of reinforcing the capacity for vocational training of citizens, and it has become the largest vocational training agency of the DRC having numerous centers all around the country. The Government of Japan implemented assistance comprising dispatch of experts and supply of equipment to INPP in the 1980s. However, since the end of the civil strife, INPP was confronted by numerous issues including insufficient capacity and aging of instructors, deterioration of equipment and facilities, limited capacity of facilities.

Against this background, the Government of the DRC issued a request to the Government of Japan asking for assistance aimed at strengthening the capacity of INPP to implement training. Consenting to this, the Government of Japan consigned JICA to implement the “Preparatory Study for Cooperation on Vocational Training Program in the DRC” (2009-2010), and the decision was made to implement the Vocational Training Program comprising 1) a technical cooperation project aimed at strengthening the pedagogical capacity of instructors, 2) grant aid aimed at construction of facilities and installing equipment at INPP Kinshasa, and 3) dispatch of a Technical and Vocational Education and Training (hereinafter referred to as “TVET”) Advisor (individual expert) with an aim of strengthening capacity at INPP headquarters. As the grant aid component of this program, the Project’s preparatory study was implemented from September 2010 to June 2011; the loan agreement was signed in June 2012; and the Project was commenced thereafter.

## 1.2 Project Outline

To improve the training functions of INPP Kinshasa by constructing training facilities and installing equipment, thereby contributing to development of skilled human resources in response to market needs and supply to the labor market.

G/A Grant Limit / Disbursed Amount		1,829 million yen/ 1,634 million yen
Exchange of Notes Date / Grant Agreement Date		June 2012 / June 2012
Executing Agency		Institut National de Préparation Professionnelle (INPP)
Project completion		November 2014
Project proponents	Main component	Dai Nippon Construction (civil works), Ogawa Seiki Co., Ltd. (equipment procurement)
	Consultant	Joint venture comprising Oriental Consultants Co., Ltd and the Overseas Vocational Training Association
Preparatory Study		August 2010 - June 2011
Related Projects		TVET Advisor (individual expert, dispatched intermittently during January 2010 - December 2014), “Project on Development of Capacity of Instructors at INPP” (technical cooperation, January 2011 - October 2014), “Project on Strengthening the Capacity of National Institute of Professional Preparation” (technical cooperation, 2015 - 2020)

## 2. Outline of the Evaluation Study

### 2.1 External Evaluator

Hajime Sonoda (Global Group 21 Japan, Inc.)

### 2.2 Duration of the Evaluation Study

This ex-post evaluation study was conducted with the following schedule.

Duration of the Study: August 2017 – December 2018

Duration of the Field Survey: January 25 - March 6, 2018, June 12 - June 21, 2018

The external evaluator for the Project also conducted the ex-post evaluation for “The Project on Development of Capacity of Instructors at INPP” (2011-2014, hereinafter referred to as the “Technical Cooperation Project”) – the technical cooperation project that was implemented in tandem with the Project. Because the implementing agency and related agencies for both projects overlapped, the evaluation was conducted together, however, separate ex-post evaluation reports have been made for each project. This report targets the Project (grant aid assistance).

### 3. Results of Evaluation (Overall Rating: A<sup>1</sup>)

#### 3.1 Relevance (Rating: ③<sup>2</sup>)

##### 3.1.1 Relevance to the Development Plan of the DRC

At the time of planning (2010-2011), the importance of vocational training for stabilizing the macro economy, building growth, improving access to social services, and supporting vulnerable members of society was stressed in *the Growth and Poverty Reduction Strategy Document* (DSCR 2006), which was the national development plan of the DRC. Moreover, “improvement of employment and labor” was included among “five priority issues” that the government had earmarked as important policies for growth of the economy.

In the DRC’s “*National Development Strategy 2017-2021*” (draft version at the time of ex-post evaluation), “human resources, employment, and social welfare” is raised as one of four development axes, and it is intended to endow people with the knowledge, technology, and capacity required to participate in a creative and dignified labor market and society. Moreover, concerning Sustainable Development Goal (SDG) 4: “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”, the DRC aims to “greatly increase the ratio of young people and adults who are endowed with technical and vocational skills and the other capacity required for employment, fulfilling and humane work and entrepreneurship” and to “achieve total and productive employment and fulfilling and humane work for all men and women including young and disabled persons, and realize equal pay for equal work” by 2030<sup>3</sup>.

Meanwhile, in 2014 the government enacted the *Basic Education Act* in which it prescribed the framework of the education system including general education and vocational training. According to INPP, numerous government ministries and offices are involved with vocational training and it has taken time to review vocational training policies and strategy and review the practical demarcation of roles of each relevant agency. While, in 2018, a bill to establish a national vocational certification committee (Commission Nationale de Certification Professionnelle) was proposed at the suggestion of INPP. Positioned under the direct jurisdiction of the Presidential Office and participated in by more than 10 government ministries and offices, this commission is responsible for establishing standard curriculums for vocational training, prescribing standards for instructors, facilities and equipment and so on. It seems likely that establishment of the commission will be approved sometime in 2018.

As such, relevancy of the Project to the development policies of the DRC was high both at the time of planning and ex-post evaluation.

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<sup>1</sup> A: Highly satisfactory; B: Satisfactory; C: Partially satisfactory; D: Unsatisfactory

<sup>2</sup> ③: High; ②: Fair; ①: Low

<sup>3</sup> SDGs National Report (Ministry of Planning, 2016)

### 3.1.2 Relevance to the Development Needs of the Democratic Republic of the Congo

At the time of planning, the unemployment rate in the DRC was in excess of 50% and was especially high among young people. The extreme levels of unemployment in cities with a high population growth rate were a factor behind deteriorating public order in the cities. Moreover, an important issue for the government was to help large numbers of internally displaced people and discharged soldiers produced by the civil strife in the country to return to society through vocational training. Therefore, it was indispensable to promote capacity building through vocational training to enable such people to participate in social and economic activities. INPP provided vocational training at institutes in the capital Kinshasa and regional areas. However, because it had been unable to recruit instructors during the age of civil strife, it faced a shortage of mid-career instructors. Moreover, training equipment was deteriorated, and the capacity of buildings was limited. These and other factors meant that it was unable to conduct high-quality vocational training, making it urgently necessary to address the capacity building of INPP. Since then, unemployment rates have continued to rise in urban areas, meaning that the importance of vocational training has been sustained through to the time of ex-post evaluation<sup>4</sup>. Accordingly, relevance of the Project to the development needs of the DRC has remained high both at the time of planning and at the time of ex-post evaluation.

### 3.1.3 Relevance to Japan's ODA Policy

At the time of planning, the Project was treated as a vocational training program within the priority sector of "Economic development" and the development issue of "Employment promotion" in the Government of Japan's Rolling Plans for the DRC. In the Yokohama Action Plan that was adopted at the 4<sup>th</sup> Tokyo International Conference on African Development in 2008<sup>5</sup>, it was stated that "training of human resources to support industrial sectors will be promoted through the expansion of technical education and vocational training institutions" within the "post basic education and advance education/research" field, so this project is consistent with this plan.

To sum up, this project was highly relevant to the country's development plan and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

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<sup>4</sup> According to the National Development Strategy 2017-2021 (draft at the time of ex-post evaluation), the unemployment rate in urban areas has increased from 28.4% in 2005 to 30.9% in 2012 and 46.8% in 2017.

<sup>5</sup> The Tokyo International Conference on African Development (TICAD) is a regularly staged initiative for African development co-hosted by the Government of Japan, the United Nations, the African Union, and the World Bank. TICAD I was staged in 1993, and conferences have been regularly held ever since.

### 3.2 Efficiency (Rating: ②)

#### 3.2.1 Outputs

In the Project, new training facilities for training departments and administration departments were constructed and training equipment was supplied for six departments, i.e. mechanical, automobile, electricity, electronics, welding / plating, and building / civil engineering, at INPP Kinshasa. The Project assistance targeted seven departments, which were these six departments plus the refrigeration / air conditioning department which was housed in the new training building. The planned and actual outputs of the Project are as shown in Table 1.

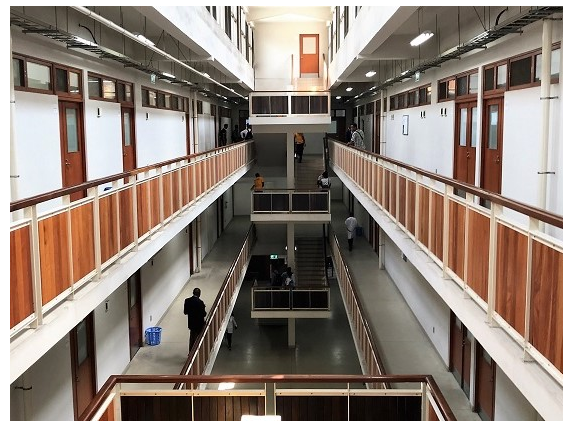
Table 1 Comparison of Planned and Actual Outputs

Plan	Actual
<p>&lt;Items by the Japanese side&gt;  <b>【Facilities】</b> Total floor area: 5,172.6m<sup>2</sup>            Training building: 3 floors (lecture room, refrigeration / air conditioning practical training room, electricity practical training room, electronics practical training room, common computer room, information space, multipurpose room, study and document room, etc.)            Administration building: (principal's office, secretariat, educational affairs, orientation, selection and placement service, pedagogy service, meeting room, budget and control service, inspectors' bureau, etc.)            Auxiliary building: 1 floor (electricity room, guard room)  <b>【Equipment】</b>            Equipment for the machinery, automobile, electricity, electronics, welding / plating, and building / civil engineering departments, common equipment, etc.  <b>【Consulting service】</b>            Detailed design and supervision of procurement and construction/installation of facilities and equipment</p>	<p>&lt;Items by the Japanese side&gt;  <b>【Facilities】</b> Almost as planned            (Partial changes to utilities and exterior finishing materials)   <b>【Equipment】</b> Almost as planned            (Partial changes to equipment specifications)   <b>【Consulting service】</b>            As planned</p>
<p>&lt;Items by the DRC side&gt;</p> <ul style="list-style-type: none"> <li>• Acquisition of construction permit for implementation of the Project</li> <li>• Dismantling and removal of existing structures and leveling of site for construction of new facilities</li> <li>• Interior renovation of existing facilities, and temporary transfer of functions</li> <li>• Securing of installation locations for equipment scheduled for installation in existing facilities</li> </ul>	<p>&lt;Items borne by the DRC side&gt;            As planned (Only minor changes, for example increase of concrete paved area, etc.)</p>

Sources: Materials provided by JICA and INPP

The three-floor training building and two-floor administration building were constructed on the soccer pitch inside the grounds of INPP Kinshasa. At this time, the existing building that contained part of the administration departments was removed. Roughly 80% of the Project cost was spent on the facilities construction. According to onsite observations and materials provided by JICA, there have been some minor changes to the utilities and exterior finishing materials (change from natural stone masonry to tile masonry, etc.)<sup>6</sup> of the buildings as well as to some of the equipment specifications. According to INPP, the quality of equipment and facilities was outstanding, and the types and quantities of equipment were also more or less appropriate<sup>7</sup>. On the other hand, concerning the facilities plan, inconveniences have been pointed out: specifically, the technical director's office and principal's office have no dedicated toilets, and the toilets in the training building are divided between men's toilets and women's toilets alternately on each floor (even though almost all trainees who use the training building are men). Improvements to these points were requested following the start of construction, however, it was not possible to make the changes at this time.

Meanwhile, in tandem with the Project (but outside the scope of the Project), INPP rebuilt existing facilities (financial affairs section, dormitory facilities, etc.) at its Kinshasa institute as a four-floor training building, which also contains the financial affairs section, beauty / sewing department, computer department and so on.



Administration building (front), Training building (rear)

Inside the training building

<sup>6</sup> This change was implemented according to the wishes on INPP because it had seen natural stone masonry on exterior walls at another project in the city naturally fell off after completion and it was concerned the same thing may happen again. Also, it wanted to save on future maintenance costs.

<sup>7</sup> However, because the number of trainees has declined, some equipment was not being fully utilized at the time of ex-post evaluation. For details, see section "3.2.1.1 (3) Annual number of trainees".

### 3.2.2 Inputs

#### 3.2.2.1 Project Cost

The total Project cost was planned as 1,858 million yen, comprising 1,829 million yen (including contingency cost of 156 million yen) on the Japanese side and 29 million yen on the DRC side. The actual total cost was 1,665 million yen (91% of the planned amount), comprising 1,634 million yen on the Japanese side and 31 million yen on the DRC side. Compared to the planned amount of 1,702 million yen leaving aside the contingency cost, the actual cost was 98%, which means that the Project cost was roughly as planned. The cost on the Japanese side was reduced as a result of competitive tender and even allowing for increase in the contract amount arising from the plan changes, it was still only 94% of the planned amount not including contingency cost. The cost on the DRC side was approximately 6% higher than the planned amount due to the addition of concrete paving inside the site grounds.

#### 3.2.2.2 Project Period

The Project including the detailed design and procurement was scheduled to last for approximately 26 months from signing of the grant agreement in September 2012 through to October 2014. In reality, the grant agreement was signed three months ahead of schedule in June 2012, but the Project was completed one month behind schedule in November 2014. Due to the impact of the aforementioned plan changes, the actual project period increased by two months and was 28 months in total (108% compared to the plan).

In the refrigeration / air conditioning department's practical training room that was included in the training building constructed in the Project, it had been planned to install training equipment supplied under the accompanying Technical Cooperation Project. In the Technical Cooperation Project, it had been planned to implement training for instructors using this training equipment. However, because the start of the Project was postponed due to the effects of the Great East Japan Earthquake<sup>8</sup>, installation of the equipment supplied in the Technical Cooperation Project was delayed and the training of instructors was implemented using only the existing training equipment.

To sum up, although the project cost was kept within the plan, the project period exceeded the plan. Therefore, efficiency of the Project is fair.

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<sup>8</sup> The preparatory study for the Project was completed in June 2011. However, due to the Great East Japan Earthquake that occurred in March that year, the grant agreement wasn't signed until June 2012, one year after completion of the preparatory study.



### **3.3 Effectiveness and Impacts<sup>9</sup> (Rating: :③)**

#### **3.3.1 Effectiveness**

##### **3.3.1.1 Quantitative Effects (Operation and Effectiveness Indicators)**

The objective of the Project was to improve the training functions of INPP Kinshasa, and the quantitative indicators of this were set as: 1) the number of available courses, 2) the maximum number of people who can be trained at a time, and 3) the annual number of trainees. The situation regarding achievement of these indicators is described in the following paragraphs.

##### **(1) Number of training courses that can be implemented**

It was anticipated that training courses which could not be conducted due to shortages of equipment, etc. would become available using the facilities and equipment provided in the Project. It was anticipated that seven training courses (auto electrics, generators, central air conditioning, auto air conditioning, milling machine, industrial design drawing, and grinding) would be made possible as a result of the Project, and all seven were realized. In addition, a structural calculation course and GIS (geographic information system) course making use of computers were newly opened in the building / civil engineering department. Accordingly, the number of available training courses was higher than planned.

However, at the time of ex-post evaluation, the auto air conditioning course has not been commenced because training of instructors under the “Project on Strengthening the Capacity of National Institute of Professional Preparation” (2015-2020) (hereinafter referred to as “the Follow-up Technical Cooperation Project”) has not been completed. Similarly, the industrial design drawing course has not been implemented due to a lack of applicants. Moreover, the total number of courses in the targeted departments at INPP Kinshasa has only increased from 34 in 2010 to 36 in 2018, not sufficient to reach the target of 41 courses that was projected at the time of planning. This has been due to the fact that some training courses have been consolidated due to a shortage of prospective trainees in certain fields.

##### **(2) Maximum number of people who can be trained at a time**

Before the Project, INPP Kinshasa had no multipurpose assembly facilities. The multipurpose hall with sufficient capacity to conduct training for 120 persons at once was constructed in the Project. This hall can also be partitioned into two parts. According to INPP, this hall is used not only for training but also for various ceremonies implemented by INPP headquarters and INPP Kinshasa and it sometimes accommodates more people than the given capacity. Accordingly, the said indicator has been achieved as planned.

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<sup>9</sup> Sub-rating for Effectiveness is to be put with consideration of Impact.

### (3) Annual number of trainees

The Project facilities and equipment were planned based on forecast numbers of trainees in each of the targeted departments. It was projected that the annual number of trainees in the seven targeted departments would increase from 3,048 in 2010 to 4,380 in 2017. In reality, immediately following completion of the Project in 2015, the number of trainees reached 4,288, more than planned. However, it dropped to 3,016 in 2016, rising once more to 3,320 (76% of the planned number) in 2017 (see Figure 1 and Table 2). Out of the trainees enrolled in 2017, 69% (2,306) received job seeker training, 23% (769) received in-service training (employees dispatched by companies), and 7% (245) were received as practical trainees from other educational institutions (high schools, technical colleges, universities, etc. conducting TVET).

Changes in the number of trainees differed among training departments: numbers increased more than planned in the electricity department and electronics department, while numbers were far below the planned levels in the machinery department, building / civil engineering department, welding / plating department, and refrigeration / air conditioning department in 2017. The number of trainees in the machinery department in 2017 fell to approximately one third of the number in 2009. According to hearings with INPP and companies<sup>10</sup>, the following were given as reasons why the number of trainees in 2017 was less than planned.

- It is possible that demand and job offers fluctuated according to economic trends in Kinshasa. In particular, it is thought that the economic slowdown in the DRC from 2015 onwards was linked to the decline in the number of trainees toward 2016<sup>11</sup>. Moreover, it is thought that job seekers who were sensitive to such changes in the labor market concentrated in the sectors that were thought to offer higher employment opportunities (leading to the decline in the machinery field and increases in the electric and electronics fields, etc.).<sup>12</sup>
- The target number of trainees at the time of the preparatory survey was simply surmised by extrapolating from changes in the number of trainees from previous years. Hence, there was room for improvement regarding the technique used to forecast demand.

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<sup>10</sup> Hearings were implemented targeting Federation of Enterprises of Congo (FEC), National Federation of Craftsmen, Small and Medium Enterprises of Congo (FENAPEC), 6 enterprises (including one governmental organization) that utilize ongoing training at INPP, and 8 other enterprises.

<sup>11</sup> The GDP growth rate of DRC in 2013-2014 reached almost 9%. However, due to decline in the international prices of mineral resources, which account for the country's main exports, and sluggish investment brought about by political instability, the GDP growth rate fell to 6.9% in 2015 and 2.4% in 2016. Moreover, some of the enterprises interviewed were cutting back on new recruits, while others were cutting staff numbers.

<sup>12</sup> Machinery department, where the actual number of trainees has fallen significantly below the target, has the lowest ratio of job seekers training being about 25% (2015 to 2017), and it is deemed that the decrease in new jobs in the labor market has been remarkably reduced. While, in the mechanical and the refrigeration / air conditioning departments, the number of job seekers in training has been constantly decreasing since 2014.

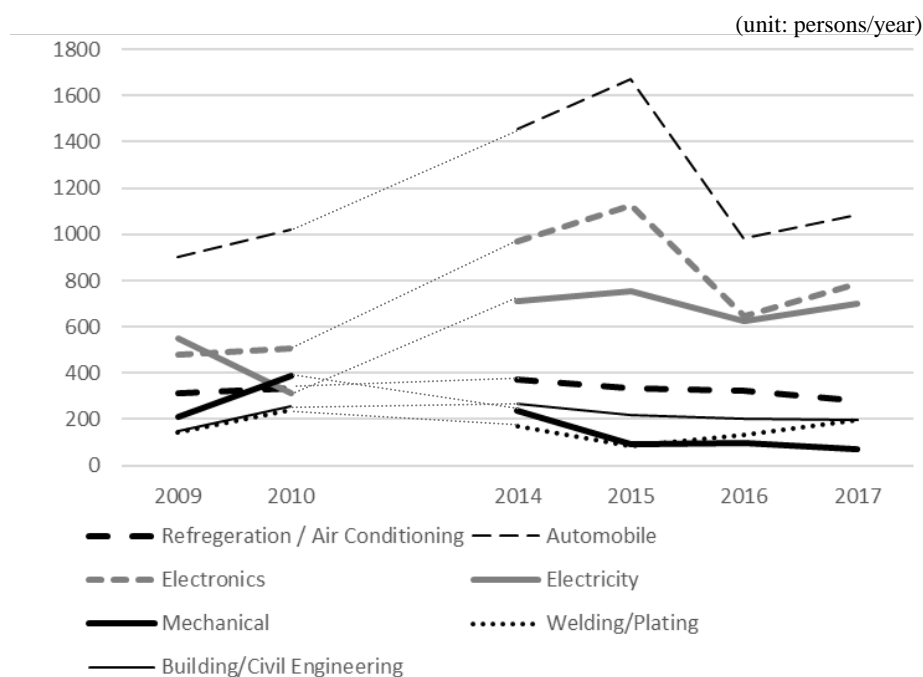
- Even if potential demand did exist, it was still necessary to try to stimulate demand through informing a wide range of job seekers about the detailed contents of training offered.
- In the automobile department, instructors were busy with the trainers' training under the Follow-up Technical Cooperation Project for some time. In addition, existing equipment was placed outdoors to allow for the renovation of the practical training room in preparation of installation of new equipment by the Follow-up Technical Cooperation Project. As a result, there were limitations in the number of sessions and capacity of training courses, and such fact was one of the factors for the decline of trainees during 2016 - 2017.

To sum up, leaving aside the case of the automobile department in which the Follow-up Technical Cooperation Project was implemented, the reason why the number of trainees did not reach the planned number in 2017 was because the number of applicants in each department did not grow as expected. Therefore, it was not because of constraints on the side of the Project facilities and equipment. However, this has meant that the Project facilities and equipment have not been adequately utilized in some training departments<sup>13</sup>.

The overall number of trainees at INPP Kinshasa increased by a factor of 2.5 in eight years from 3,030 in 2009 to 7,471 in 2017. There were large increases in departments not targeted in the Project, namely, the computer department, sewing / beauty department, hotel / cooking department, language department. According to INPP, there are so many applications that some prospective trainees have to be put on a waiting list in the electronics, computers, and sewing / beauty departments, and the auto electrics course in the automobile department. However, the number of applicants for other training departments and courses are within the available capacity and all applicants are able to receive training. Incidentally, the new training building that was constructed by INPP simultaneously with the Project is utilized for training in the computers and sewing / beauty departments.

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<sup>13</sup> Concerning the machinery department in which the number of trainees was far lower than planned, INPP is working to increase the number of trainees through receiving many ongoing trainees from Congo National Railways and so on.



Source: Prepared based on INPP materials

Figure 1 Changes in the Annual Number of Trainees in the Project Target Departments

Table 2 Changes in the Annual Number of Trainees at INPP Kinshasa

Unit: persons/year

	2009	2010	...	2014	2015	2016	2017	2017 Target	Real / Target
Refrigeration / Air Conditioning	315	334	...	374	336	326	283	480	59%
Automobile	900	1018	...	1458	1673	981	1085	1140	95%
Electronics	478	504	...	971	1128	648	789	660	120%
Electricity	548	312	...	710	752	627	698	420	166%
Mechanical	213	386	...	240	94	98	69	600	12%
Welding/Plating	145	238	...	172	86	131	197	420	47%
Building/Civil Engineering	149	256	...	268	219	205	199	660	30%
<b>Sub-Total</b>	<b>2748</b>	<b>3048</b>	...	<b>4193</b>	<b>4288</b>	<b>3016</b>	<b>3320</b>	<b>4380</b>	<b>76%</b>
Others	282	-	...	2889	3741	3210	3716	-	-
<b>Total</b>	<b>3030</b>	-	...	<b>7082</b>	<b>8029</b>	<b>6226</b>	<b>7036</b>	-	-

Source: Prepared based on INPP materials



Practical training in the mechanical department (left) and the refrigeration / air conditioning department (right, doing examination)



Practical training equipment in the automobile department (left)  
Practical training equipment in the electronics department (right)

### 3.3.1.2 Qualitative Effects (Other Effects)

According to hearing with INPP Kinshasa, the following effects contributing to improved training functions have been identified.

- Improvement of the training environment: The departments targeted in the Project had been faced with various problems, for example, shortages in the number of classrooms and classroom area, lack of practical training space, insufficient lighting and ventilation, noise and vibrations from practical training equipment in adjacent departments. Following the Project, these problems were entirely resolved in the refrigeration / air conditioning department, electricity department, and electronics department thanks to their accommodation in the new training building. Meanwhile, the automobile, welding / plating, and building / civil engineering departments have benefited from additional classrooms and practical training space freed up by relocation of the said three

departments and administration department to the new building.

- Improvement of training contents through installation of training equipment: The departments targeted in the Project previously used old equipment that was limited in variety and quantities, which meant that some practical training was restricted to explanations using models and audiovisual materials or study tour at external enterprises. Thanks to the installation of training equipment in the target departments by the Project, the practical training was improved in terms of efficiency and effectiveness. The following effects have been reported by each department<sup>14</sup>.
  - ✧ Mechanical department: Because the variety and quantities of equipment were increased, it is possible to conduct practical training using various types of equipment with small groups working on each piece of equipment. Training periods have thus been shortened.
  - ✧ Automobile department: It has become possible to conduct practical training in engine disassembly and assembly, which was previously limited to explanations based on photographs. With the provision of ample tools, it has become possible to conduct efficient practical training.
  - ✧ Electricity department: Thanks to the increased quantity of equipment, the time spent by trainees waiting to do practical training has been greatly shortened.
  - ✧ Electronics department: It has become possible to conduct practical training using state-of-the-art equipment and high-quality equipment that is compatible with the latest technological trends.
  - ✧ Welding / plating department: Thanks to a major increase in quantities of equipment, the practical training has become more efficient. With increased types of equipment made available, it has become possible to conduct practical training in technologies that were previously taught only as theory.
  - ✧ Building / civil engineering department: It is no longer necessary to borrow surveying equipment from outside companies, and it has become possible to efficiently conduct practical training.
  - ✧ Refrigeration / air conditioning department: Previously, only equipment in actual use was used, however, thanks to the introduction of training equipment, it has

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<sup>14</sup> The training equipment in the refrigeration / air conditioning department was procured in the technical cooperation project and installed in the training building that was constructed in the Project, but it is given as a synergistic effect here. In the automobile department, equipment has been provided through the Project and through the technical cooperation project, but the effects of that are not included here. Moreover, since it was still scheduled for additional equipment to be supplied to the automobile department under the follow-up technical cooperation project, it was pointed out that equipment is still inadequate at the time of ex-post evaluation.

become possible for trainees to acquire deeper understanding of theory while conducting simulations. Concerning industrial air conditioning, it has become possible to conduct appropriate training over a short period without having to consign practical training to outside companies.

- Enhanced efficiency of training in small groups: Because the number of classrooms has increased, the number of trainees per class has decreased in all the target departments. The new training building was planned assuming 30 trainees per class, however, following the Project, the number of trainees per class has been lower than 30 in all the target departments except for the crowded automobile department. As a result, it has become easier to conduct practical training, more time is available to perform practical training, and there are greater opportunities to offer individual guidance to trainees.
- Improvement of the administration department and instructors' rooms: Whereas rooms in the administration departments were very cramped before the Project, they now have adequate size. The instructors' rooms for the refrigeration / air conditioning department, electricity department, and electronics department, which have entered the new training building, have become larger. Generally, sufficient space to accommodate increased instructors has been secured, and counseling services of educational affairs office for prospective applicants, trainees and job seekers have been improved. On the other hand, new issues have emerged for example, the financial affairs section of the administration department is inconveniently situated in a separated building<sup>15</sup>, the educational affairs office has no space for conducting individual counselling.
- Satisfaction of trainees: According to a telephone survey with ex-trainees<sup>16</sup>, 90% responded that the training was "very appropriate" or "appropriate"; 87% said that the physical environment was "very good" or "good"; and 86% responded that the training equipment was "very good" or "good", indicating a high level of satisfaction. Moreover, according to hearing with the current trainees of INPP, satisfaction of trainees with the facilities and equipment was high. INPP Kinshasa is regarded as the only vocational training institution in the city that can conduct proper practical training, and it attracts a lot of trainees who are considering advancing to colleges that cannot offer sufficient practical training, and graduates of such colleges who seek better practical training.

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<sup>15</sup> The financial affairs section of the administration department is located in the new training building that INPP constructed separately from the Project.

<sup>16</sup> The telephone survey with 590 ex-trainees (between 6-14 months following completion) of the automobile department, refrigeration / air conditioning department, mechanical department, electricity department, electronics department, welding / plating department, and building / civil engineering department. The targets were randomly selected from each training department based on lists at INPP Kinshasa.

Moreover, instructors at INPP Kinshasa have a reputation for carefully teaching trainees until they can acquire skills. On the other hand, some respondents said that the training fee is high and that it is troublesome having to pay monthly fees by bank transfer.



Training in a lecture room



Instructors' room  
(refrigeration / air conditioning department)

### 3.3.2 Impacts

#### 3.3.2.1 Intended Impacts

As the main impact, the Project was expected to “develop skilled human resources in response to market needs and contribute to supply them in the labor market of the DRC”.

As was described in section “3.3.1.1 (3) Annual number of trainees”, the number of trainees in the target departments of INPP Kinshasa increased from 2,748 in 2010 to 3,320 in 2017. As was mentioned before, it is thought that the number of trainees is greatly impacted by trends in the economy and labor market in Kinshasa, so it is not always possible to discern a consistent trend of increase, while, the number reached a peak of 4,288 in 2015. Accordingly, it is thought that the Project has contributed to increasing the number of skilled human resources trained by INPP Kinshasa.

Meanwhile, as is described below, enterprises generally hold the skilled human resources supplied by INPP in high regard and think that the INPP training is consistent with market needs.

- According to hearings with INPP and related enterprises, the enterprises on the whole have a high regard for and are satisfied with INPP. INPP Kinshasa’s reputation for good quality training has even reached small enterprises that have never utilized INPP (and do not pay contribution)<sup>17</sup>, and it is recognized as the only vocational training institution in Kinshasa that offers sound practical training. Moreover, it is widely known that JICA cooperates with INPP Kinshasa, and this further boosts its reputation for reliability.

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<sup>17</sup> INPP is operated primarily on contributions from enterprises that are levied under legislation.



- According to a telephone survey with enterprises<sup>18</sup>, 91% of the enterprises responded that recruited INPP trainees had appropriate knowledge and skills, while 91% answered that “the INPP training is relevant to the needs of the enterprise”. 57% of the enterprises responded that the INPP training had improved a lot compared to five years ago, while 35% said that it had improved slightly, and 12% said that it had remained the same. Accordingly, the majority of the enterprises answered that the INPP training had improved following implementation of the Project.

In this way, it is deemed that the quality of training at INPP Kinshasa has improved, that it has become more relevant to market needs, and that the quality of skilled human resources graduating from the institute has been enhanced. It is thought that these improvements are synergistic effects realized as a result of the Project, which resulted in the construction of facilities and installation of equipment, the Technical Cooperation Project that strengthened the capacity of instructors at the same time as the Project, and the dispatch of an individual expert (TVET advisor) to support capacity building and promote links with industry primarily at the INPP headquarters, which supervises the local INPP institutes throughout the country and administers the entire organization.

On the other hand, numerous respondents in the hearings with enterprises voiced needs for training in new technologies that are gradually spreading through industry, for example, multiple packaged air conditioning systems in buildings, automatic control of industrial air conditioning systems, common rail fuel injection systems in diesel engines. Though the INPP side is also aware of such needs, it cannot respond immediately because doing so entails the introduction of cutting-edge practical training equipment and continuous capacity building of instructors.<sup>19</sup> INPP grasps training needs through listening to requests from individual enterprises and monitoring the numbers of applicants for courses. However, it only partially grasps market needs, since it has no systems for directly gauging training needs among companies that do not pay contributions (mostly small and medium enterprises), self-employed persons and new job seekers and reflect them on the training plan.

### 3.3.2.2 Other Positive and Negative Impacts

According to the interviews with INPP, enterprises, current trainees, and ex-trainees, the fact that INPP’s capacity has been strengthened in hard and soft terms through JICA’s Vocational

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<sup>18</sup> In the telephone survey with enterprises, a total of 150 enterprises were randomly sampled. These comprised 50 enterprises selected from a list of enterprises that had utilized in-service training of INPP in the automobile department and refrigeration / air conditioning department and another 100 enterprises selected from the register of FEC.

<sup>19</sup> INPP, which is supposed to provide wide-ranging training to workers all over the country, seems to have no clear criteria for determining how far it needs to respond to high-level demands from small numbers of enterprises. It seems to be responding to each situation on a case-by-case basis.

Training Program is widely recognized not only in industrial circles but also among the general public in the DRC, and this has contributed to INPP receiving a good reputation and the improved trust of enterprises. In particular, the new training facilities and equipment provided in the Project are attracting attention. According to INPP, these improvements have led to increased number of in-service training and greater financial contributions from companies.<sup>20</sup> Moreover, the latent capacity of INPP to act as a receptacle for assistance is noticed, and it is possible that it has led to the formation of new aid undertakings by JICA and other donors.<sup>21</sup> The Director of INPP has expressed deep satisfaction at the JICA's Vocational Training Program including the Project for the role it has played in driving INPP's major progress since 2011.<sup>22</sup>

The Project entailed no resettlement of residents or land acquisition, and no negative environmental impacts have been observed.<sup>23</sup>

To sum up, as a result of the construction of facilities and installation of equipment by the Project, the contents of training have been expanded and enhanced, the training environment has been improved, efficiency has been increased, and improvements have been made to the administration department and instructors' rooms. Therefore, the project purpose of improving training functions at INPP Kinshasa has been almost achieved. The trainees, too, have a high level of satisfaction with the facilities and equipment. However, there have been some departments where the annual number of trainees has not reached planned targets. Most enterprises highly regard the knowledge and skills of INPP trainees and feel that they are relevant to their needs. Many enterprises think that the training at INPP has improved compared to five years ago. Judging

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<sup>20</sup> Between 2014-2016, revenue from the contributions by enterprises increased by more than 30% (see section 3.4.3. Financial Aspects of Operation and Maintenance).

<sup>21</sup> JICA has assisted the construction of facilities and installation of equipment at INPP Lubumbashi in the grant aid project "Project for Expansion of INPP Katanga Provincial Direction in Lubumbashi" (2015). Also, the Government of Japan is aiding three local institutes utilizing the Grant Assistance for Grassroots Human Security Projects (rehabilitation of the training building at Kisangani Institute, 2011, approximately 9,100,000 yen) and utilization of counterpart funds (construction of the training building at Goma Institute, 2012, approximately \$460,000, construction of the training building at Mbuji-Mayi Institute, 2015, approximately \$2,000,000). In addition, at the time of ex-post evaluation, France is building facilities and implementing training at INPP headquarters and local institutes; China is building facilities; Egypt and the African Development Bank are constructing facilities; and the World Bank is examining the formation of new aid programs including the supply of equipment. It is anticipated that such construction and installation of facilities and equipment can generate synergy with the capacity building of instructors in the Project at local institutes.

<sup>22</sup> According to ADIAC (Agence d'Information d'Afrique Centrale), which is a private media agency based in DRC, in a survey targeting 1,000 persons including 300 company representatives between January - June 2018, INPP received the highest rating of any public corporation in DRC. This is largely thanks to the management skill of INPP Director Mr. Chikuya, who has advanced the construction and installation of facilities and equipment and capacity building of instructors at INPP Kinshasa and local institutes while accepting assistance from JICA and other donors. (<http://www.adiac-congo.com/content/sondage-les-points-premier-semester-2018-ces-mandataires-publics-qui-ont-marque-lopinion>)

<sup>23</sup> Concerning gender, only 2% of trainees at the target departments in the Project are women, however, there are more women in other departments such as beauty / sewing, hotels / cooking, and computers, and women account for 30% of trainees overall. INPP is considering measures to increase women's participation in courses on technical subjects including the courses held by the target departments of the Project.

overall, effectiveness and impacts of the Project are high.

### **3.4 Sustainability (Rating: ③)**

#### **3.4.1 Institutional Aspect of Operation and Maintenance**

As of December 2016, INPP has 36 training centers and 1,406 employees (of which 906 are technical staff such as instructors or practical training assistants) throughout the country. These figures represent major increases compared to 11 centers and approximately 300 employees in 2009.

The number of employees at INPP Kinshasa increased from 198 in October 2010 to 302 at the time of ex-post evaluation (January 2018), with the number of technical employees increasing from 150 to 240. Moreover, in 2018, it newly established a photovoltaics department and greatly strengthened its personnel setup in the trainee counseling office while receiving support under the follow-up technical cooperation project.<sup>24</sup> The setup for capacity building of instructors, whereby core-trainers train the instructors, has remained unchanged since the time of planning, while, INPP intends to advance the assignment of core-trainers to nucleus local institutes in line with the construction and installation of facilities and equipment at those centers. Moreover, to enhance the effectiveness of training and improve the efficiency of training administration at INPP Kinshasa, it is setting capacity levels (reducing class sizes) and advancing the standardization of training periods and timetables. The cleaning of facilities, which had been conducted by the cleaning and maintenance section of the protocol department of INPP Kinshasa, is now outsourced. The instructors and practical training assistants implement operation and maintenance of the equipment including the training equipment. All of the Project equipment is controlled based on the equipment ledger kept in the inventory control section, and support for the strengthening of equipment control is conducted in the Follow-up Technical Cooperation Project.

Summing up, sustainability of the Project is high in terms of institutional aspects.

#### **3.4.2 Technical Aspect of Operation and Maintenance**

The retention rate of INPP employees is high and almost all of the instructors of target departments are in continuous service. In the background to this, INPP salary levels are set higher than at other vocational training institutions, while it offers generous welfare and benefits as a government agency.

Equipment operation and maintenance is implemented by instructors and practical training assistants. There is no technical problem because the instructors are in the position to teach

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<sup>24</sup> The advisory bureau (Bureau de Conseillers) functions as an education affairs section offering careers and study advice to trainees and prospective trainees, as well as supporting employment and entrepreneurship through arranging company visits and conducting seminars, and conducting follow-up of ex-trainees through telephone surveys and company visits (obtaining feedback information from ex-trainees and companies).

equipment operation and maintenance. The capacity building of instructors was advanced through the Technical Cooperation Project implemented in tandem with the Project and the Follow-up Technical Cooperation Project. In particular, training of instructors in “basic and common skills” has contributed greatly to the capacity building of instructors, and it is reported that instructors have become able to conduct simple repairs of equipment outside of their specialist fields.

In summary, sustainability is high in terms of technical aspects.

### 3.4.3 Financial Aspect of Operation and Maintenance

INPP kept positive financial balance during 2014-2016 and its financial scale has increased by 31% during this period (Table 3). INPP is operated primarily on contributions from enterprises that are levied under legislation. Enterprise contributions account for 90% of INPP’s revenue, while revenue from the government budget accounts for less than 0.5%. According to INPP, the number of enterprises that pay contributions is increasing because they now place greater trust in INPP and appeals for finance have been strengthened. Revenue from contributions increased by more than 30% between 2014 and 2016. According to INPP, JICA’s support including the Project and the new buildings of INPP Kinshasa have been widely known to enterprises, and the resulting increased trust among enterprises has contributed to the increased revenue.

Around 80% of INPP expenditure is spent on personnel expenses and other expenditure including welfare expenses, although there is also a high need for investment into construction and installation of facilities and equipment at local institutes. The amount of investment during 2015-2016 accounted for 12% of overall expenditure. Accordingly, INPP is striving to obtain donor support as a source of external finance (see Note 21). Training of instructors is implemented based on the budget of INPP headquarters. While bringing instructors from regional institutes to Kinshasa for training incurs major costs, it is being implemented a little at a time.

Table 3 INPP Financial Results

(Unit:1,000,000 Congo Francs)

	2014	2015	2016
<b>Revenue</b>	<b>30,652</b>	<b>33,973</b>	<b>39,617</b>
Enterprise contributions	27,236	30,992	36,307
Training charges, state budget, others	3,416	2,981	3,311
<b>Expenditure</b>	<b>30,559</b>	<b>33,525</b>	<b>39,381</b>
Personnel expenses	10,402	13,064	15,908
Maintenance costs	1,193	1,354	1,369
Investment	3,343	4,019	5,557
Others (including welfare)	15,621	15,089	16,546
<b>Balance</b>	<b>92</b>	<b>448</b>	<b>236</b>

Source: Prepared by the evaluator based on materials provided by INPP

Note: 1,000 Congo francs is approximately 71 yen (July 2018).

Because of rounding off, the total value may not agree with the sum of the values of each item.

The scale of finances at INPP Kinshasa increased to 135% between 2013 and 2016. Since this institute is not in a position to directly levy contributions from enterprises, roughly half of its revenue comes from allocations from the headquarters largely obtained from enterprises contributions, while the remainder is obtained from training charges and others. INPP Kinshasa is striving to boost revenue through selling products made by trainees in practical training at low prices and leasing in the open time some of the facilities (multipurpose hall, etc.) that were constructed under the Project. Maintenance costs at INPP Kinshasa increased to 158% between 2013 and 2016. No major financial constraints can be observed regarding the operation and maintenance of facilities and equipment. However, according to the director of INPP Kinshasa, there are lingering financial constraints that are impacting the implementation of instructor training and stocking of spare parts.

Summing up, there are some minor issues regarding sustainability in terms of the financial aspects.

#### 3.4.4 Current Status of Operation and Maintenance

According to site inspection, the facilities constructed in the Project are in good condition. Since “5S” has become established after being introduced in the technical cooperation project<sup>25</sup>, all facilities at INPP Kinshasa, not just the Project facilities, are used in good condition. In the training building, users had been asked to remove shoes when entering the building at the suggestion of the expert, however, this practice was discontinued because shoes were being stolen.

In the mechanical department, where numerous machine tools have been procured, as a problem arose due to heating of a milling machine motor, the instructors carried out emergency repairs. It is planned to resolve the issue through changing the position of the motor so that heat does not accumulate. Also, trouble is being experienced importing some spare parts. Otherwise, equipment is in good condition and appropriately operated and no problems are reported concerning the acquisition of spare parts in the other departments.

Accordingly, the operation and maintenance situation regarding facilities and equipment is generally good.

To sum up, apart from some minor issues in regard to financial aspects of the operation and maintenance of the Project, there are no problems regarding institutional and technical aspects and the current status of the operation and maintenance system. Therefore, sustainability of the Project effects is high.

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<sup>25</sup> 5S refers to five words that express behaviors and conditions that need to be thoroughly followed in workplace management. They are: Sort (Seiri), Set in Order (Seiton), Shine (Seisou), Standardize (Seiketsu) and Sustain (Shitsuke).

## **4. Conclusions, Recommendations and Lessons Learned**

### **4.1 Conclusions**

The Project, a grant aid project, was implemented to improve vocational training functions through constructing training facilities and installing equipment at INPP Kinshasa. The objective was to develop skilled human resources in response to the market needs and contribute to supply them in the labor market of the DRC. Vocational training has been an important area in terms of policy and development needs in the DRC at both the time of planning and the time of ex-post evaluation; moreover, the Project was highly consistent with Japan's ODA policy at the time of planning. Accordingly, the relevance of the Project is high. The Project cost was within budget, however, because the Project period was longer than planned, the efficiency of the Project was fair. Thanks to the construction of facilities and installation of equipment by the Project, such results have been obtained as; expansion and improvement of training, improvement of training environment, increase in efficiency of training, and physical improvements in offices for administration staff and instructors. Although there were some departments where the annual number of trainees did not reach the planned levels, improvements were realized in terms of the efficiency and effectiveness of practical training, and the trainees are satisfied with the facilities and equipment. Hence, it is deemed that training functions have improved at INPP Kinshasa. Moreover, most enterprises have high regard for the knowledge and skill levels of INPP trainees and think that their competence is relevant to their needs. Many enterprises also think that the INPP training has improved compared to five years ago. Therefore, the effectiveness and impact of the Project are high. Concerning the operation and maintenance of the Project, apart from some minor financial issues, there have been no problems regarding institutional and technical aspects as well as the operation and maintenance status. Therefore, the sustainability of the Project is high.

To sum up, the Project is evaluated as being highly satisfactory.

### **4.2 Recommendations**

#### **4.2.1 Recommendations for the Implementing Agency**

##### Comprehensive and systematic assessment of training needs

INPP gauges training needs through listening to wishes expressed by individual companies and analyzing trends of increase or decrease in numbers of applicants for training courses. However, as may be gathered from the fact that the number of trainees was far lower than expected in some of the target departments of the Project, it is difficult to quantitatively analyze training needs by these methods alone. In addition, concerning specific new technologies that are requested by a minority of companies, not enough examination is conducted to determine how far training needs exist and whether such training should be provided from the perspective of cost effectiveness. Furthermore, since there is no system for reflecting the training needs of companies

that do not pay contributions (mostly small and medium-sized enterprises), self-employed persons and job seekers, the current assessment of training needs remains partial.

Accordingly, it is necessary for INPP to implement a comprehensive and systematic survey on training needs among not only enterprises that pay contributions, but also enterprises that do not pay contributions, self-employed persons, general job seekers, and students of education institutions that are interested in INPP's practical training. It may also be a good idea to widen the scope of survey to include needs and cost effectiveness of training on the new technologies requested from some companies, the training costs that companies and job seekers can afford (willingness to pay), alternative training opportunities to INPP and their costs, the feasibility of inviting external lecturers to INPP. Specifically, it is suggested that survey first be conducted on specific training departments in Kinshasa and that a standard survey method be developed based on that experience.

#### 4.2.2 Recommendations for JICA

JICA should examine support for implementing the abovementioned recommendations over the possible scope via the Follow-up Technical Cooperation Project. In addition, it should examine the necessity and feasibility of other technical cooperation for assisting implementation of the above recommendations.

### 4.3 Lessons Learned

#### Usefulness of Program Approach

JICA developed the Vocational Training Program under which the Project was implemented in tandem with dispatch of an individual expert (TVET Advisor) and the Technical Cooperation Project. First the individual expert was dispatched to plan and assist in implementation of the Project and the Technical Cooperation Project, and she played an important role in strengthening operational capacity of INPP, cooperating with industrial circles, and promoting the local deployment of the vocational training. The Technical Cooperation Project served to enhance the capacity of instructors primarily at INPP Kinshasa. It is thought that these comprehensive initiatives generated synergy that produced the Project impacts. Also, after being dispatched in 2010, the individual expert became the key figure in cooperation and coordination between the technical cooperation and grant aid, while also participated as a consultant in the program preparatory survey (2009-2010). It is thought that the high degree of continuity in the work left to beneficial results.

END