

Country Name	<b>(I) The Project for Renovation of Viana Vocational Training Center</b>
Republic of Angola	<b>(II) The Project for Equipment Renovation of Viana Vocational Training Center <sup>1</sup></b>

## I. Project Outline

Background	As the peace agreement in 2002 notably added momentum, stable economic growth was a challenge to the development of Angola. The Government of Angola needed to redress its negative legacy and continued its socio-economic development. Revitalization of domestic industries and strengthening of technical vocational education and training (TVET) were urgently needed for the stable economic growth. However, a shortage of skilled workers was a chronic problem in the private sector. Especially, the indispensable skills for public works in the field of civil, mechanical, electrical, and telecommunication engineering were considered to be strengthened urgently as more than 7,000 foreign workers said to get domestically engaged. Under this circumstance, the Government of Angola addressed the need to promote knowledge and skills of the above mentioned engineering fields through enhancement of the vocational training service meeting to the Angolan market needs through the Viana Vocational Training Center (CENFOC: Centro Formação Profissional de Construção Civil de Viana).				
Objectives of the Project	To improve the quality of engineering education and training to meet the demand for labor market and industrial sector development by constructing facilities and procuring equipment for 3 newly opened training courses in CENFOC, thereby contributing to development of the skilled professionals for the industry of Angola.				
Contents of the Project	<ol style="list-style-type: none"> <li>1. Project Site: The Viana Vocational Training Center (CENFOC), Viana, Province of Luanda</li> <li>2. Japanese side <ul style="list-style-type: none"> <li>• Construction and provision of facilities and equipment for 3 newly opened training courses (Topography course, Building Construction course, and Metallic Structure course)</li> </ul> </li> <li>3. Angolan side: <ul style="list-style-type: none"> <li>• Removal of any obstacles on construction sites</li> <li>• Installation of fence around the construction site</li> <li>• Provision of electricity, water supply lines and other necessary utilities to the Project</li> <li>• Disposal of construction and demolition waste according to legal compliance</li> </ul> </li> </ol>				
Ex-Ante Evaluation	(I) 2010 (II) 2011	E/N Date G/A Date	(I) August 30, 2010 (II) December 1, 2011 (I) August 30, 2010 (II) December 5, 2011	Completion Date	(I) March 1, 2013 (II) August 30, 2013
Project Cost	(I) E/N Grant Limit/ G/N Grant Limit: 844 million yen, Actual Grant Amount: 778.4 million yen (II) E/N Grant Limit/ G/N Grant Limit: 220 million yen, Actual Grant Amount: 187.5 million yen				
Executing Agency	National Institute for Employment and Vocational Training (INEFOP)				
Contracted Agencies	(I) (Consultant) Fukunaga Architects-Engineers and Overseas Vocational Training Association, (Contractor) Dai Nippon Construction (II) (Consultant) Fukunaga Architects-Engineers and Overseas Vocational Training Association, (Supplier) Ogawa Seiki Co. Ltd.				

## II. Result of the Evaluation

*Field survey conducted in Jul/2016*

< Special perspectives considered in the ex-post evaluation >

- Two grant aid projects: (i) Project for Renovation of Viana Vocational Training Center and (ii) Project for Equipment Renovation of Viana Vocational Training Center were implemented for capacity development of CENFOC in terms of improvement of training facilities and equipment. As the two projects had a common project objective and same counterpart agency, this ex-post evaluation evaluated two grant aid projects jointly as one packaged project.
- The target year of effect indicators was set as 2016 in the ex-ante evaluation of the target projects. However, this ex-post evaluation made a judgment for degree of achievement of the effect indicators based on the available actual figures in 2015.

### 1 Relevance

<Consistency with the Development Policy of Angola at the time of ex-ante and ex-post evaluation>

This project was consistent with Angolan development policy of “to develop the technical vocational education and training (TVET) in the construction sector” as set forth in the policy documents including the Vocational Training Plan for Socio-Economic Development (2011) and the National Plan for Training in Angola (2013-2020).

<Consistency with the Development Needs of Angola at the time of ex-ante and ex-post evaluation>

This project met the development needs of Angola to educate and train the skilled works for the construction sector meeting the needs of the industry of Angola by improving the training facilities and equipment of CENFOC. At the time of ex-post evaluation, CENFOC has played an important role as an exclusive vocational training center in Angola which, the above mentioned development needs was still confirmed.

<Consistency with Japan’s ODA Policy at the time of ex-ante evaluation>

This project was consistent with Japan’s ODA policy for Angola (2010) to take the vocational training as one of priority areas.

<Evaluation Result>

In light of the above, the relevance of the project is high.

<sup>1</sup> There are two target projects for this ex-post evaluation: (i) Project for Renovation of Viana Vocational Training Center and (ii) Project for Equipment Renovation of Viana Vocational Training Center.

## 2 Effectiveness/Impact

### <Effectiveness>

The project partially achieved its objective. After the project completion, the three courses such as (i) Metal Structure Course, (ii) Building Construction Course, and (iii) Topography Course were established in CENFOC in 2015. For the preparation of establishment of three courses, JICA dispatched Japanese expert to CENFOC from 2012 to 2014 under the technical cooperation scheme to support CENFOC to develop the training curriculum and training materials, to guide the operation and maintenance of the courses, etc. in addition to improvement of training facilities and equipment by this project. In 2015, CENFOC had their first graduates of the three courses. Regarding number of trainees who completed each course in 2015, they were 21 in the Metal Structure Course (target achievement rate 88%), 37 in the Building Construction Course (target achievement rate 154%), and 15 in the Topography Course (target achievement rate 31%). The training facilities and equipment provided by the project were utilized for the implementation of training programs in the three courses.

The main reason for low achievement in annual number of trainees who completed the Topography Course was that the needs of the Topography Course were less than expected. Due to the recent economic deterioration in Angola caused by collapse in oil prices, a large number of private companies in construction sector have evacuated from Angolan market. Under such situation, the demand for human resources related to the topography area became smaller. Also, it may be because the Topography Course of CENFOC has not been well-known among the universities.

In addition, some trainees gave up attending the course due to lack of means of transportation to CENFOC. Also, unstable power supply condition affected the implementation of the Metal Structure Course. CENFOC frequently generates the power by their in-house power generators, particularly for the Metal Structure Course that consumes the electricity the most in order to supplement the unstable power supply from the electricity company. However, as the in-house power generation requires high running cost, the training hours for the Metal Structure Course are regulated sometimes. Regarding the electricity issue, INEFOP entered negotiations with ENDE Viana (National Enterprise for Distribution of Electricity in Viana) to resolve a power supply shortage in CENFOC, and it is expected that a power supply condition in CENFOC will be resolved by August 2016. While CENFOC doesn't have any effective measures to cope with the challenges such as lack of means of transportation and high tuition fees so far.

On the other hand, after the implementation of the project, CENFOC was able to improve its quality of engineering education and training to meet the demand for labor market and industrial sector development. CENFOC was able to provide a full scale of new 3 training courses for one year period since 2015, and organized approximately 900 hours training per course on Building Construction Course and Metal Structure Course as well as 110 hours for Topography Course using the facilities and equipment provided by the project. According to the interviewed three major private construction companies, they recognized that the contents, level of knowledge and skills provided in the newly opened 3 courses meet to some extent the demand for labor market and industrial sector in Angola. Some of the interviewed private construction companies had a positive impression on the graduates of 3 courses for their knowledge and skills.

### <Impact>

The project has a positive impact on creating the employment opportunities for trainees of CENFOC but it is quite limited due to the fluctuating economic situation in Angola since 2014, in particular a sharp decline in 2016<sup>2</sup>. According to INEFOP and CENFOC, in 2015, 16 out of 73 graduates from the 3 target courses participated in internship programs and all of them got employment either in the private or the public sector after their internship. Namely, 21.9% of the graduates from the 3 target courses have been employed more than the number of graduates with employment from all the 20 courses of CENFOC of 15%<sup>3</sup>. The contributing factor for this success is that CENFOC has been making great efforts to have a close relationship with private companies for the opportunity of internship. On the other hand, according to CENFOC, only one graduate from the Building Construction Course has participated in the internship program due to the current stagnant economy adversely affecting the labor demand in the country and the limited employment opportunities for the graduated in the labor market dominated by Chinese construction companies preferably seeking Chinese workers.

After the project completion in 2013, CENFOC organized special training programs and seminars such as survey and design course and management course designed for private construction companies for seven sessions and total 131 persons from private companies participated to the above training sessions by using the training facilities and equipment provided by the project. This is also a positive impact of the project.

No negative impact on the natural environment was observed and no land acquisition and resettlement of people was associated with the project.

### <Evaluation Result>

In light of the above, a certain effect of the project has been observed. Therefore, the effectiveness/impact of the project is fair.

Table 1: Employment Opportunities for Graduates of Target 3 Courses (2015)

Course	Total number of graduates(a)	No. of graduates with Internship	No. of graduates employed. (b) (b/a%)
Metal structure	21	10	10 (47.6%)
Building Construction	37	1	1 (2.7%)
Topography	15	5	5 (33.3%)
Total	73	16	16 (21.9%)

Source: CENFOC

Table 2: Training for Private Sectors by CENFOC

	2013	2014	2015
Number of special training programs and seminars designed for private construction companies at CENFOC	3	2	2
Number of CENFOC trainees from private companies	49	44	38

Source: CENFOC

<sup>2</sup> In 2016, the GDP growth rate declined to -7.8% in the 2<sup>nd</sup> quarter and slightly recovered to -4.9% in the 3<sup>rd</sup> quarter.

<sup>3</sup> For the period from 2009 to 2015, the total number of graduates from the 20 training courses of CENFOC was 907 and the total number of graduated who were employed was 138.

## Quantitative Effects

Course	Baseline 2009 Baseline year	Target 2016 (3 Year After Completion) Target value	Actual 2013 Completion Year	Actual 2014 1 Year After Completion	Actual 2015 2 Year After Completion
<b>Indicator 1</b> Number of training course	0	3	N.A.	N.A.	3
<b>Indicator 2</b> Annual number of trainees who completed each course					
(i) Metal Structure Course	0	24 (24 x 1 batch/year)	N.A.	N.A.	21
(ii) Building Construction Course	0	24 (24 x 1 batch/year)	N.A.	N.A.	37
(iii) Topography Course	0	48 (24 x 2 batch/year)	N.A.	N.A.	15

Source: CENFOC

Note 1: The target 3 courses are composed of 2 semesters. 1st semester starts in February and ends in May/June, and 2nd semester starts in July and ends in November.

Note 2: The data for 2016 were unable to be obtained in July 2016 at the survey of ex-post evaluation.

Note 3: N.A. means that three courses were not formally established in 2013 and 2014.

## 3 Efficiency

### <(i) Project for Renovation of Viana Vocational Training Center>

The project cost was within the plan (ratio against the plan: 92%), the project period was longer than the plan (ratio against the plan 152%) because it required long time for the import and tax-exempt procedure in implementation with agencies concerned. Therefore, the efficiency of the project is fair.

### <(ii) Project for Equipment Renovation of Viana Vocational Training Center>

The project cost was within the plan (ratio against the plan: 85%), the project period was longer than the plan (ratio against the plan 150%) because it required long time for the import and tax-exempt procedure in implementation with agencies concerned. The efficiency of the project is fair.

## 4 Sustainability

### <Institutional Aspect>

CENFOC under INEFOP is a responsible agency for the operation and maintenance (O&M) of the facilities and equipment provided by the project. In particular, Properties and Pedagogical Coordination Section of CENFOC is directly in charge of O&M of the project facilities. The number of staff in Properties and Pedagogical Coordination Section is sufficient. However, due to a limited budget, CENFOC has a problem in shortage of instructors for the target 3 courses. In order to cope with this issue, INEFOP has been making an endeavor to allocate sufficient number of trained staff through enhancing the capacity of human resources with some training programs coordinated by INEFOP. There are 20 instructors in CENFOC, in which 5 instructors were assigned for the target 3 courses (2 for the Metal Structure Course, 2 for the Building Construction Course, and 1 for the Topography Course). According to CENFOC, although the current number of instructors allocated for the target 3 courses was not sufficient, CENFOC can manage to conduct the 3 courses under the limited number of instructors.

### <Technical Aspect>

CENFOC has a periodic training program for the staff in order to maintain and update their technical knowledge and skills on academic subjects including how to use the machines as well as O&M of the project facilities and equipment. This training program was planned by INEFOP, and implemented by CENFFOR (Public Training Center for TOT). Considering a merit of trainings to obtain skills and knowledge in Portuguese language, the instructors of CENFOC received the technical transfer by the Brazilian experts on the related areas through participation in the training program in Brazil, which is a Portuguese speaking country as Angola, under the JICA's technical cooperation program (dispatch of expert). CENFOC recognizes that there are some shortcomings in academic and teaching skills and knowledge of instructors such as how to use welding machine or resistance as well as the guillotine and the lathe in the course of metal structure course, and in O&M skills and knowledge of staff such as including daily check-up, preventive and periodic maintenance, etc. However, they expect that the above challenges will be overcome through continuous training and gaining experiences.

### <Financial Aspect>

CENFOC received about 76-78 million Angola kwanzas (AOA) per year in 2013 and 2014 for the O&M budget, but it dropped to 36 million AOA in 2015. CENFOC has not received sufficient budget allocation for proper O&M of the project facilities and equipment because of shortage of financial resources in the country in general. After the economic crises in Angola in 2014, the annual budget to CENFOC was reduced by half. In 2015, although the original budget was 76.5 million AOA, the actual budget allocated was 36.3 million AOA which was lower than the actual expenditure of 36.5 million AOA. On the other hand, CENFOC has been developing activities by its own efforts to gain external revenue such as implementation of training courses for private companies, sales of products developed by CENFOC as well as technical consulting services and it appears positive results on financial condition in despite of unavailable data of their own revenue.

### <Current Status of Operation and Maintenance>

In general, the project facilities and equipment have been utilized and maintained in good condition by monthly regular maintenance. However, the office room and 2nd class room are not always utilized due to noise caused by the training course without sound insulation such as soundproof door, window, and walls and artificial ventilation system in the training rooms which leads to opening windows and doors. Countermeasures against those issues had not been considered at the time of the Basic Design Study for the project. In addition, there is an issue on shortage of spare parts and consumables due to limited budget.

#### <Evaluation Result>

In light of the above, problems have been observed in terms of the institutional, technical, financial, and current status of operation and maintenance aspects of the executing agency. Therefore, the sustainability of the project effect is fair.

#### 5 Summary of the Evaluation

The project objectives were partially achieved. After the project completion, the three courses such as (i) Metal Structure Course, (ii) Building Construction Course, and (iii) Topography Course were established in CENFOC in 2015. The annual number of trainees who completed each target course fully or mostly met their respective target values except for the Topography Course. The reason for its non-achievement was decrease in demand for the engineers in this field caused by the recent economic deterioration in Angola. Also, it may be because the Topography Course of CENFOC has not been well-known among the universities. On the other hand, the project has positive impacts on creating the employment opportunities for trainees of CENFOC to some extent. In addition, private companies were benefited by the project in terms of receiving special training programs and seminars organized by CENFOC. For sustainability, problems have been observed in terms of the institutional, technical, financial, and current status of operation and maintenance aspects of the executing agency due to shortage of staff, spare parts and consumables which were caused by shortage of budget. Regarding efficiency, the project period was longer than the plan because it required long time for the import and tax-exempt procedure in implementation with agencies concerned.

Considering all of the above points, this project is evaluated to be partially satisfactory.

### III. Recommendations & Lessons Learned

Recommendations to executing agency:

[For CENFOC]

#### (1) Diversification of revenues:

- Projects could not fully reach target value of “Annual number of trainees who completed each course” set for the project effect indicator due to principally lack of the budget allocation from the central government to CENFOC. In order to guarantee sufficient number of training courses as well as the effectiveness of 3 newly opened courses and its sustainability, it is indispensable for INEFOP and CENFOC to diversify and to increase their own revenue sources.

#### (2) Employment of trainees

- As it was shown in the ex-post evaluation result that participating to the internship program led to high rate of employment, CENFOC should make continued efforts to create a large number of internship opportunities in cooperation with private companies in construction/industrial sector in Angola in order to promote more employment opportunities for trainees of 3 newly opened courses.
- Marketing (publicity work) of these 3 new courses targeting for young people should be greatly increased and expanded through appealing that these courses (trainers and curriculum content) have been supported by Japan and Brazil in order to increase their interest in enrolling.

Lessons learned for JICA:

- Since Angola is a Portuguese speaking country and the equipment are labeled in Japanese or English, operation itself is a challenge. It is considered that these would be overcome with user manuals in Portuguese language. In addition, there have been still a room to improve the technical capacity of the CENFOC's instructors, in particular, techniques and skills of metal structure, such as how to use welding machine. Therefore, users' manual in Portuguese is essential and it may be preferable to assess technical level of the persons in charge of utilize equipment installed by the project and to consider a follow-up cooperation in accordance with necessity in order to ensure the expected project effects and their sustainability.
- As it required long time for the import and tax-exempt procedure in implementation with agencies concerned, JICA had to coordinate with relevant Ministries with time to spare and clarify up-dated import/tax-exempt procedure.



Viana Vocational Training Center



Equipment