

**1. Project Profile and Japan's ODA Loan**



Site Map: Portland Area



Site Photo: Coffee Bean Drying Equipment

**1.1 Background**

After achieving stable development with its Real Growth Ratio between 6-7% during the decades of 1950 and 1970, due to the effects of rising oil prices, stagnation of the key Bauxite industry, and an inflationary depression, the Jamaican economy stagnated, continuing to show negative growth in the years since 1973. When compared with 1973, the economy in 1980 had deteriorated drastically. The GDP had shrunk by 18% in real terms, the unemployment rate had risen from 20% to 28%, the current account deficit had risen from 79 million dollars (in 1974) to 375 million dollars (in 1981), and the foreign debt had climbed from 349 million dollars to 1.209 billion dollars.

The issue of the diversification of export commodities was an important one to Jamaica in facing this crisis. While the export of traditional export commodities such as bauxite, aluminum and bananas grew sluggishly, the export volume of coffee quadrupled between 1973 and 1982. The coffee produced in the Blue Mountain Region (it is now internationally renowned as "Blue Mountain Coffee") can only be harvested in mountainous regions (at an altitude of 2,000-4,500 feet), and therefore makes possible the efficient use of the abundant unused land in the mountains of Jamaica. Moreover, because technology requirements are low and because coffee is a labor intensive crop, it is seen as an unemployment countermeasure, making coffee an ideal export commodity for Jamaica. In 1982, coffee exports made up less than one percent of total exports, but because of the international popularity of Blue Mountain Coffee, it is now a valuable prospective source of foreign currency revenue.

Under this project, roughly 3,500 acres of coffee plantations with accompanying infrastructure, public utility access and housing was to be established in the roughly 15,500 acres of the Claverty Cottage and Shirley Castle regions (henceforth CCSC region) of the Portland area. This area on the plain to the north of the Blue Mountain range was considered a prime location for coffee cultivation. The northern coastal regions targeted by this project were also growing districts for important agricultural products such as sugar and bananas which had been struck by stagnant exports. As a result, agricultural laborers began to leave the area to find work in the capital of Kingston, which led to a myriad of social problems. Therefore, the rapid implementation of this project was vital.

## 1.2 Objectives

The objective of this project was to increase production capacity of Blue Mountain coffee by developing plantations and processing facilities, in order to increase the income and standard of living of farmers and agricultural laborers in the CCSC region and increase the foreign currency revenue due to coffee exports.

## 1.3 Project Scope

### 1.3.1 Development of Coffee Plantations

Sub-loans were to be provided to supply the necessary capital for the creation of new coffee plantations and the cultivation of coffee.

Land Area Planned for Development Broken Down by Developers :

Coffee Industry Development Company (CIDCO)	400 acres
Farmers	3,100 acres

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total 3,500 acres

Plantations directly managed by the CIDCI included a pilot farm.

### 1.3.2 Refurbishment and Improvement of Coffee Processing Facilities

- 1) The establishment of three pulperies for coffee beans harvested in the CCSC region.
- 2) The refurbishment and improvement of one existing finishing works that processes mostly Blue Mountain coffee outside of the CCSC region (Kingston).
- 3) The establishment of a new finishing facility necessary to meet the increase in coffee production in other regions.
- 4) The purchase of vehicles and equipment necessary for advising farmers on agriculture management in the CCSC region.

### 1.3.3 Improvement and Construction of Public Infrastructure

Basic public facilities such as trunk roads, farm roads, water utilities, and schools were to be constructed.

### 1.3.4 Consulting Services

- 1) The review of previous studies and carrying out supplementary surveys,
- 2) The preparation of an Implementation Plan (I/P),
- 3) The review of existing detailed design,
- 4) The preparation of bid documents,
- 5) The evaluation of bids,
- 6) Supervision of construction,
- 7) The preparation of a training program for farmers, and
- 8) Performing marketing research.

## 1.4 Borrower / Executing Agency

The Government of Jamaica / Coffee Industry Board (CIB)  
Urban Development Corporation (UDC)  
National Planning Agency  
Ministry of Agriculture  
Agricultural Credit Bank  
Coffee industry Development Company

## 1.5 Outline of Loan Agreement

Loan Amount	5,941 million yen
Loan Disbursed Amount	5,482 million yen
Date of Exchange of Notes	June 1983
Date of Loan Agreement	April 1984
Teams and Conditions	
Interest Rate	4.25 %
Repayment Period (Grace Period)	25 years (including 7 year grace period)
Procurement	Partially Untied(General Untied for Sub-loans)
Final Disbursement Date	April 1997

## 2. Results and Evaluation

### 2.1 Relevance

After coming to power in 1980, the Seaga Administration focused its development strategy on fostering export industries, acquiring foreign reserves through diversification and increasing employment, in order to revive the Jamaican economy from nearly 25 years of stagnation. By focusing on Blue Mountain Coffee as a promising export commodity with a higher added value rather than on the major export commodities of bauxite and aluminum, this integrated rural development project was recognized as being in accord with the government's development plan at the time of appraisal.

Moreover, because of the continuing importance of export commodity diversification through the increase of Blue Mountain Coffee production and export, and the increase in income and employment opportunities for farmers, the relevance of this project is still maintained.

### 2.2 Efficiency

As explained below, due to natural disasters and economic crises, implementation of the project was not finally completed until 1997, lagging seven years behind projections. Likewise, the scope of the project was drastically revised: Most of the JBIC loan was used as sub loans to farmers (coffee producers), constructing and procuring materials and equipment of coffee bean processing facilities, as planned. Due to funding shortfalls improvement of public infrastructure which was aimed at rural development was cancelled..

#### 2.2.1 Project Scope and Implementing Schedule

##### a) Development of Coffee Plantations

In September of 1988, hurricane Gilbert annihilated two-thirds of the 600 acres of plantation that had already been developed in this project area. Recovery from the damage of the hurricane caused delay and the 3,500 acres were not completely developed until August of 1995, five years later than the projected completion date of 1990.

The terms of the sub-loans offered to coffee producers were as follows: interest was set at 9.5% for producers with under 5 acres of land and 11.5% for producers with over 5 acres of land, and the repayment period was set at 12 years with a 4 year grace period. Farmers were loaned up to 60% of operational budget, to allow for the purchase of materials and equipment, and for the establishment of a coffee plantation.

The breakdown for the number of farms that received loans is shown below. According to this chart, small- and mid-size producers were the majority of the recipients of the loans, with the largest number of borrowers being small-scale producers with less than 2~5 acres, followed by mid-sized producers with between 5 and 20 acres.

Out of a total of 3,500 acres of planned development, 1,600 acres were allocated to small- and mid-sized producers with less than 20 acres of land, 1,500 acres to large-scale producers with over 20 acres of land, and 400 acres to the CIDCO to create a pilot farm. The provision of sub-loans progressed almost exactly as outlined in the plan, and a total 3,504 acres were developed under sub-loans.

Table 1: Plan and Actual Results of sub-loans

<b>Plantation Size</b>	<b>Number of Farms Receiving Loans</b>	<b>Number of Loans</b>	<b>Planned Development (in Acres)</b>	<b>Actual Development (in Acres)</b>
a) 2-5 acres	239	247	500	768
b) 5-20 acres	109	111	1,100	901
c) more than 20 acres	33	47	1,500	1,530
d) CIDCO (Pilot Farm)		1	400	303
Total	381	406	3,500	3,504

Source: CIB

#### b) Refurbishment and Improvement of Coffee Processing Facilities

The establishment of a new finishing facility in the CCSC region was completed in 1997, 10 years later than the projected completion date. Construction of this facility was commenced in April of 1986, but the damage sustained from the hurricane in September of that year and the effects of the financial crisis in 1991 forced an extension of the implementation period.

As for improvement of the existing Kingston finishing facility, expansion of the coffee bean drying facility capacity began in 1986 and was finished the next year. However replacement of superannuated equipment was cancelled. It was planned to be started after the completion of the new finishing facility in the CCSC region because replacement of absolute equipment causes a shut down of a part of the operation. After the hurricane struck, project strategy was reviewed in the light of the fact that 1) the damage sustained by coffee plantations from the hurricane caused drastic reductions in the coffee crop yields, and 2) the lack of local budget caused by allocation to the rehabilitation of other damaged facilities.

Of the three planned pulperies facilities that were to be constructed, one was cancelled, and the remaining two were completed in 1997, 10 years after the originally projected completion date, due to efforts to meet Jamaica's new wastewater treatment regulations. In addition, all material and equipment were procured in 1987 and some was stored while others were used in existing pulperies. As of 1997, when the new pulperies were completed, 15% of the stored equipment was in an unusable condition.

#### C) Construction of Public Infrastructure

Of the public infrastructure originally outlined in the plan, the road construction component was completed between seven and eight years late, but otherwise was completed as projected. On the other hand, public facilities such as housing and schools were ultimately not constructed. This was because of the lack of funds outlined below, and also change of the lifestyle of agricultural laborers during the process of project implementation, stated by executing agency. That is to say that because the necessary public infrastructure was entirely lacking in the CCSC region at the time of appraisal, this project included a component for the improvement of infrastructure based upon the results of a needs assessment survey conducted by

the Urban Development Corporation (UDC) in 1982. Actually, however, a large number of entrants into the coffee business were investors living in towns rather than small- and mid-sized farm owners, and it was common for them to hire farmers with no land to cultivate the coffee. Even most of these landless farmers lived with their families in towns and preferred to commute to CCSC by car. Consequently, the expected community was not formulated.

### 2.2.2 Project Cost

In actual project costs in yen, expenditures were held to 800 million yen, roughly 1/6<sup>th</sup> of the projected cost. The major reason for this was the drastic drop in the value of the Jamaican Dollar (The Jamaican Dollar fell from US\$1= J\$3.958 in 1984 to US\$1= J\$31.947 in 1994, roughly 1/10<sup>th</sup> of its original value). On the other hand, the construction of coffee processing facilities cost 8.4 billion yen, considerably higher than the projected cost of 3.7 billion yen. The main reason for this disparity was the steep rise in the cost of imported equipment and materials. Also, consulting fees doubled because the delay of the implementation required the extension of contract period for technical support.

Table 2: Planned and Actual Project Cost by Component

Unit : Millions of Yen

Project Component	Plan (Portion Covered by Yen Loans)	Actual (Portion Covered by Yen Loans)	Difference (Portion Covered by Yen Loans)	Reason
Coffee Plantation Development	5,277 (1,723)	846 (482)	▲4,431 (▲1,241)	JM\$ Devaluation
Coffee Processing Facility Establishment and Refurbishment	3,668 2,203	8,487 (4,175)	4,819 ( 1,972)	Price Increases
Construction of Public Infrastructure	3,188 (918)	1,589 (373)	▲1,599 (▲545)	Downsized
Consulting Service	207 (192)	523 (452)	316 (260)	Extension of contract period
Contingency	2,494 (905)	—	—	—
Total	14,834 (5,941)	11,445 (5,482)	▲3,389 (▲459)	

Note:▲=minus

Source: CIB

### 2.2.3 Project Implementation System

This project was implemented with the following Executing Agency

Executing Agency	Sphere of Influence
Ministry of Agriculture	Overall Coordination
CIB (Coffee Industry Board)	Development of Coffee Plantations, Establishment and Refurbishment of Coffee Processing Facilities
UDC (Urban Development Corporation)	Construction of Public Infrastructure
NPA (National Planning Agency)	Project Administration (counterpart to the consulting service)
ACB (Agricultural Credit Bank, presently the Development Bank of Jamaica)	Development of Coffee Plantations (conducted financial management on behalf of the government)

Executing Agency	Sphere of Influence
CIDCO (Coffee Industry Development Company *Has since merged with CIB	Development of Coffee Plantations (conducted loan business and technical support of farmers on behalf of the CIB.)

After acquiring CIDCO in 1992, CIB attempted to reorganize and integrate the project implementation organization's function, but this was a burden too large for the CIB to undertake alone. In order to assure the smooth implementation of this project, the active support of the Ministry of Agriculture, UDC, NPA, and other governmental organizations was necessary.

## 2.3 Effectiveness

### 2.3.1 Production Volume of Blue Mountain Coffee

#### 2.3.1.1. Production Volume of Coffee in CCSC

The coffee field development program was implemented as planned, and upon completion of the project, 3,500 acres had been developed. However, due to flooding in the Portland area in January of 1998, in 1999 the cultivated land area dropped by 36% to 2,250 acres.

The total production volume was largely increased from the time of appraisal. However, due to delay in the plantation schedule and damage from the hurricane in 1988 and from the flooding in 1998, a production of Blue Mountain Coffee is still under the estimation. The total production volume and yield per acre in 1995, 11 years from the beginning of plantation were estimated at 3.5million lbs and 1,000 lbs respectively. However, these in 2000 were still at 1.35 million lbs

Table 3: CCSC Region Blue Mountain Coffee" Field Area/Production(Dry Beans)

	At the time of appraisal	Planned	1996 (Project Completed)	1997	1998	1999	2000
Cultivated Area (in Acres)	1,730	3,500	3,502	3,000	2,500	2,254	2,690
Production Volume (in million of lbs*)	0.3	3.5	1.2	1.73	1.44	1.19	1.35
Yield by Area (lbs/acre)	n.a.	1,000	343	576	576	528	502

Source: CIB

Note)\* 1,000lbs = 454Kg

#### 2.3.1.2. The Operation of Coffee Processing Facilities

At the time of appraisal, the highest yield was projected for 1994, and in order to process this yield, construction of three of new pulperly facilities with processing capacity of 15,000boxes a year (1Box=approx 27kg) , enabling a total of 45,000boxes, was planned. To cover the total of 141,400Box(approx. 134 mil lbs) including that from other area, the plan called for upgrading the existing finishing facility for husked coffee in Kingston to a processing capacity of 5,000,000 lbs, and establishing a new finishing facility in the CCSC region that could process 8,000,000 lbs. of coffee a year.

As explained previously, there were modifications to the project wherein the number of new facilities to be constructed was lowered and the upgrading of equipment in existing finishing facilities was cancelled, but the actual processing capacity was achieved nearly as

planned by upgrading the existing facilities processing capacity to 700 million lbs. According to CIB, processing capacity is not fully used due to the drop in coffee crop yields in recent years.

### 2.3.2. The Economic Internal Rate of Return

At the time of appraisal, an internal rate of return was 14.5% based on foreign reserve acquisition as a benefit derived from the project. In this report, however, the rate was not obtained due to lack of data on operations and maintenance costs.

## 2.4 Impact

### 2.4.1 Creation of Employment Opportunities

According to reports from CIB, this project created 10,650 new employment opportunities, equivalent to 20% of the total employment of 50,000 before project commencement.

### 2.4.2 Improving the Income of and Standard of Living for Farmers

Because there is no data to demonstrate what affect this program had in improving the income of agricultural laborers, it is difficult to evaluate this project on a micro-economic level. It is considered that the contribution to the improvement of the standard of living in the CCSC region was likely limited as a result of the cancellation of a large part of the improvement and construction of public infrastructure, which were deemed necessary to integrated community development.

### 2.4.3 Affect on Exports and the Acquisition of Foreign Currency

#### a) Exports of Blue Mountain Coffee

Export Volume of Jamaican Coffee is detailed in the following chart. Coffee exports made up only 2.5% of total exports from Jamaica in 2000, but it is clear that coffee exports are growing in both actual export value and share against total exports. There was no data to express the share of Blue Mountain coffee against the total exported coffee volume, nor the contribution from this project, but by considering the share of Blue Mountain Coffee against the total production cost, obtained by its production volume and production costs, it can be inferred that Blue Mountain Coffee made up the majority of the total exported coffee. Because of the severe economic situation in Jamaica, Blue Mountain Coffee is an important source of foreign reserve. Consequently, it can be said that the project contributed to the earning of foreign reserves, which was expected to be much higher if natural disasters did not occur.

Table 4 : Total Value of Exports and the Value of Coffee Exports

	1995	1996	1997	1998	1999	2000
Value of Coffee Exports (in millions of US\$) <sup>1</sup>	28.2	32.2	34.7	17.4	25	33
Total Value of Exports ((in millions of US\$) <sup>1</sup>	1,430.3	1,387.2	1,387.3	1,290.3	1,247.3	1,293.1
Percentage (%)	1.97	2.33	2.50	1.35	1.98	2.56
(Reference)Share of total production cost of Blue Mountain Coffee <sup>2</sup> (%)	68.67	74.25	81.65	75.42	79.08	83.77

<sup>1</sup>Source: CIB

<sup>2</sup>The production cost per ton of Blue Mountain Coffee times the production volume, divided by the total production cost (The production cost per ton of Blue Mountain Coffee times the production volume, plus the production cost per ton of "Lowland" Coffee times the production volume) Source : Jamaican Ministry of Agriculture

b) Blue Mountain Coffee's Share of Total Coffee Production Volume

The volume of Blue Mountain Coffee and other coffee processed in the pulperies managed by the CIB are shown in Chart 3, which indicates the meteoric increase in volume of Blue Mountain Coffee over the past 10 years. In 1997/1998, the producer's price of a box of Blue Mountain Coffee was JM\$1,700 (US\$48), roughly twice the producer's price of a box of other coffee (JM\$900/US\$25.7/box). According to the CIB, because the high suitability of the Blue Mountain region to coffee production makes it possible to produce a high-quality coffee, Blue Mountain coffee has become popular around the world. For this reason, as world coffee prices stagnate, the CIB has been able to maintain a high retail price by shifting production to Blue Mountain Coffee from other coffee.

Table 5: Processing Volume of Blue Mountain Coffee and the other

(Unit: Box  $\doteq$  60lbs  $\doteq$  27kg)

	1987/88	1989/90	1991/92	1993/94	1994/95	1995/96	1996/97	1997/98
Blue Mountain	59,024	19,848	75,243	114,205	196,807	230,846	279,947	251,680
Other	322,587	190,071	288,818	121,313	248,954	206,703	172,488	225,346
Share of Blue Mountain	15.5%	9.5%	20.7%	48.5%	44.2%	52.8%	61.9%	52.8%

Source: CIB

#### 2.4.4 Environmental Impact

At the present, no ecological problems have been reported. The CIB is conducting a wide range of programs in order to protect the environment. For example, solid waste (such as coffee bean husks) from the pulperies or finishing factory are compressed and used as an organic fertilizer. Waste water is processed through filtration, a settlement tank and an aerobic tank engineering. Treated water quality meets with the standard of Natural Resources Conservation Agency of Jamaica

### 2.5 Sustainability

#### 2.5.1 Coffee Plantations

Individual farmers bear the responsibility of operation and maintenance of the coffee plantations created by this project. The majority of farmers cultivated and managed their plantations well, but a small number of plantations were abandoned because the plantation sustained damage by natural disasters twice or the access roads became unusable.

#### 2.5.2 Collection Ratio of Sub Loans

Sub loans were provided through a plan wherein the Agricultural Credit Bank (ACB) (At present the Development Bank of Jamaica, or DBJ) loaned funds to the CIB, which then loaned the fund to farmers. Because some loan repayments from farmers fell into arrears, such debts were assumed to be capitalized by the government.

#### 2.5.3 Coffee Processing Facilities

Facilities and vehicles are being maintained and managed by the CIB. According to a CIB report in 1999, five staff members and five workers were deployed to the Clarendon factory and one staff member and two workers were deployed to the Albany factory to maintain and manage operations. These staff members are undergoing various training, and are conducting regular maintenance of the facilities according to regulations. At the time of this evaluation, there were no specific problems.

#### **2.5.4 Financial Performance of the CIB**

There has been a shortfall of operating revenue for the CIB over the past few years, and as of the end of 1998, it had accumulated a debt of JM\$1.604 billion. The liquid assets ratio is dropping rapidly, and at present is 25%.

Owing accumulated debt over years, CIB is not profitable to manage development projects. The financial standing has deteriorated drastically since 1997. The total operating deficit for 1996 through 1998 was JM\$2 billion. It is considered that to sustain CIB and associated groups operations, stable profitability and restructuring of loan credits are necessary.

Under such financial conditions, in 1999 the CIB reorganized itself into two divisions, "Regulatory" and "Commercial". The Commercial Division is to act as a coffee broker, processing, improving, and marketing products. The Regulatory Division will monitor projects to ensure quality, act to promote the spread of coffee cultivation, research the control of epidemics, and issue quality certificates for Blue Mountain Coffee. The Commercial Division is targeted for privatization, but as of the present no progress has been made towards that goal.

### **3. Lessons Learned**

In cases where projects are implemented in regions prone to natural disasters, or in projects targeting agricultural crops easily affected by weather, the study of possible countermeasures against risks should be assumed prior to the implementation of a project. In addition, in projects such as this one, with multiple components managed by multiple organizations, it is necessary to establish an implementation system so that strong authority is delegated to the organization which is expected to take the initiative during project implementation.

### Comparison of Original Plan and Actual Scope

Item	Plan	Actual
<p>1. Project Scope</p> <p>1) Development of Plantations</p> <p>2) Refurbishing and Establishment of Coffee Processing Facilities</p> <p>a) Establishment of New Finishing Facilities</p> <p>b) Refurbishment of Finishing Facilities</p> <p>c) Establishment of a new pulper</p> <p>d) Purchase of Equipment and Vehicles</p> <p>3) Upgrading and Establishment of Public Infrastructure</p> <p>a) Improvement of Existing Roads</p> <p>b) Construction of New Roads</p> <p>c) Construction of Farming Roads</p> <p>d) Construction of Access Roads</p> <p>e) Construction of Drinking Water Infrastructure</p> <p>f) Stringing of Electrical Wires</p> <p>g) Construction of a Middle School</p> <p>h) Construction of a Police Station</p> <p>i) Construction of a Community Center</p> <p>j) Construction of a Library</p> <p>k) Construction of a Medical Clinic</p> <p>l) Construction of Housing for Farmers</p> <p>4) Consulting Services</p>	<p>1) 3,500 acres</p> <p>2) Refurbishing and Establishment of Coffee Processing Facilities</p> <p>a) 1 Facility</p> <p>b) Improved drying line to process 7.0M lbs/year, Replace Other Equipment</p> <p>c) 3 Facilities</p> <p>d) 15 automobiles, 10 work vehicles, 2 tractors, and other agricultural equipment.</p> <p>3) Upgrading and Establishment of Public Infrastructure</p> <p>a) 16 miles</p> <p>b) 14 miles</p> <p>c) 10.5 miles</p> <p>d) 22.5 miles</p> <p>e) 2 Facilities</p> <p>f) 30 miles</p> <p>g) 1 School</p> <p>h) 1 Station</p> <p>i) 2 Centers</p> <p>j) 1 Library</p> <p>k) 1 Clinic</p> <p>l) 300 Homes</p>	<p>1. Implemented as planned</p> <p>2-a) Implemented as planned</p> <p>2-b) Replacement of Equipment was Cancelled</p> <p>2-c) 1 Facility</p> <p>2-d) Implemented as planned</p> <p>3-a) Implemented as planned</p> <p>3-b) Lessened to 5.8 miles</p> <p>3-c) Extended to 14.3 miles</p> <p>3-d)~3-1) Cancelled</p>
<p>2. Implementation Schedule</p> <p>1) Consultant L/A</p> <p>2) Selection of a Consultant</p> <p>3) Technical Assistance</p> <p>(1) D/D Support</p> <p>(2) Implementation Support</p>	<p>November, 1983</p> <p>November, 1983-February, 1984</p> <p>April, 1984-December, 1994</p> <p>April, 1984-September, 1990</p>	<p>April, 1984</p> <p>October, 1984</p> <p>October, 1984-March, 1997</p> <p>October, 1984-March, 1997</p>

Item	Plan	Actual
4) Development and Maintenance of Coffee Plantations (1) Development (2) Maintenance	April, 1984-March, 1990 July, 1984-September, 1990	October, 1984-August, 1995 December, 1984-February, 1997
5) Refurbishing and Establishment of Coffee Processing Facilities (1) Refurbishing and Establishment of Finishing Facilities (2) Establishment of Pulperies (3) Procurement of Vehicles	August, 1985-July, 1987 October, 1986-March, 1988 August, 1984-November, 1984 April, 1987-June, 1987	April, 1986-March, 1997 February 1996-(March, 1997) March, 1986-February, 1997
6) Upgrade and Establishment of Public Infrastructure (1) Improvement of Public Roads (2) Construction of Roads and Bridges (3) Construction of Farm Roads (4) Construction of Public Infrastructure (5) Housing	October, 1984-September, 1985 May, 1985-September, 1986 October, 1984-March, 1989 May, 1985-March, 1986 October, 1986-July, 1987 October, 1984-December, 1988	April, 1987-March, 1997 September, 1984-September, 1997 April, 1985-August, 1995 Cancelled Cancelled
3. Project Cost Foreign Currency Local Currency  Total ODA Loan Portion Exchange Rate	5,424 million Yen 9,410 million yen  14,834 million yen 5,941 million yen JM\$ 1 = 130 yen	3,504 million yen 7,941 million yen  11,445 million yen 5,482 million yen JM\$ 1 = 6.46 yen (Weighted Average for the Implementation Period)