

**75<sup>th</sup>**

**Annual Report**

**of the**

**Coconut Industry Board**

**for year ended December 31, 2016**

## ***MISSION***

*To promote the interest of the Jamaican coconut industry and its stakeholders, by encouraging and facilitating the efficient production of coconuts, providing ongoing research support, developing marketing opportunities, locally and globally, and administering regulations for the purchase, sale, exportation and importation of coconut products and substitutes, in order to develop a profitable and sustainable industry.*

## ***VISION***

*To lead, facilitate and co-ordinate a vibrant and efficient coconut industry which will improve the socio-economic conditions of the coconut growers, processors, traders and other stakeholders who rely on the crop for a livelihood.*

Presented to  
The Minister of Industry, Commerce, Agriculture and Fisheries  
in pursuance of Section 27(1)  
of the Coconut Industry Control Act

## COMPOSITION OF BOARD FOR YEAR 2016

### MEMBERS

#### Nominated:

*From 1/1/2016 – 31/3/2016*

Mr. L. S. Green - Chairman  
Mrs. S. Gayle Morris  
Mr. J. S. Joyles  
Prof. W. McLaughlin

*Effective 31/3/2016*

Mr. C. Gentles - Chairman  
Mr. H. Davis  
Dr. C. Douglas  
Mr. H. Gentles

#### Elected:

Mr. S. Black  
Mrs. S. Ennis  
Mr. G. E. Marsh  
Hon. F. M. Phipps, Q.C., O.J.  
Hon. A. A. Pottinger, C.D.

### OFFICERS

#### General Manager:

Miss Y. E. Burns

#### Corporate Secretary:

Mrs. A. J. Chung-Campbell

#### Bankers:

National Commercial Bank Jamaica Limited

#### Auditors:

PriceWaterhouseCoopers

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## **THE COCONUT INDUSTRY BOARD**

### **INTRODUCTION**

The Coconut Industry Board was established under the Coconut Industry Control Act, Cap. 62, enacted in 1945 and consists of nine members, four of whom including the Chairman, are appointed by the Minister of Agriculture and Fisheries. The remaining five are elected by registered coconut growers and must themselves be registered coconut growers or the attorneys for such registered coconut growers or the managing directors or managers of companies which are registered coconut growers.

The Board promotes the interests and efficiency of the coconut industry, encourages the production of coconuts and regulates the purchase, sale and exportation of coconuts as well as the importation of coconut products and substitutes.

Allied functions are:

- (a) Keeping Government informed on the state of the industry and advising Government when any action is necessary.
- (b) Arranging for the issuing of licences to manufacturers of coconut products.
- (c) Arranging insurance of coconut trees against damage by windstorm.
- (d) Assisting growers to market their crop.
- (e) Carrying out research on the agricultural problems of the industry and advising growers on their agricultural problems.

The industry offers a wide range of employment for technical and skilled personnel.

**REPORT ON THE OPERATIONS OF**  
**THE COCONUT INDUSTRY BOARD**  
**CALENDAR YEAR 2016**

1. **BOARD MEMBERSHIP**

On March 31, 2016, the Minister of Industry, Commerce, Agriculture and Fisheries accepted the resignations of nominated members Mr. L. S. Green, Mr. J. S. Joyles, Prof. W. McLaughlin and Mrs. S. Gayle Morris.

The Minister appointed Messrs. Christopher Gentles – Chairman, Hugh Gentles, Homer Davis and Dr. Charles Douglas for the period March 31, 2016 to March 30, 2019.

There were two vacancies among the elected members of the Board in Year 2016, as Mr. Stephen Black of St. Thomas and the Hon. Frank M. Phipps, Q.C., O.J., of St. Mary, the growers' representatives, who automatically retired, were re-elected unopposed.

There were 31 Board and Committee meetings during the year and attendance of members was as follows:

	<b><u>ATTENDANCE</u></b>			
	<b><u>Possible</u></b>	<b><u>Actual</u></b>		<b><u>Ill/On Leave</u></b>
		<b><u>Board</u></b>	<b><u>Committee</u></b>	
Mr. L. S. Green	9	4	4	1
Mr. S. Black	23	15	6	2
Mr. J. S. Joyles	6	4	1	1
Mr. G. E. Marsh	31	21	10	-
Prof. W. McLaughlin	6	5	1	-
Hon. F. M. Phipps, Q.C., O.J.	28	21	6	1
Hon. A. A. Pottinger, C.D.	26	21	4	1
Mrs. S. Ennis	25	20	3	2
Mrs. S. Gayle Morris	5	4	-	1
Mr. C. Gentles	29	12	16	1
Mr. H. Davis	14	8	5	1
Dr. C. Douglas	16	11	5	-
Mr. H. Gentles	15	9	5	1

2. **PROFILE OF THE LOCAL COCONUT INDUSTRY**

The number of hectares in coconuts at 31 December, 2016 was calculated as 16,077 (31/12/15 - 15,989); the number of hectares in bearing coconuts at the same date was calculated as 14,892 (31/12/15 - 14,287).

At 31 December 2016, the total population of coconut trees was calculated as 3,568,760 (31/12/15 - 3,549,588). Of this number 3,309,930 were seven years old and over (31/12/15 - 3,254,258) and should have been in full bearing, but due to weather conditions and faulty agronomic practices, some of the plants were not bearing.



The number of farmers registered with the Board was as follows:

<u>Year</u>	<u>No. of Farmers</u>
2016	664
2015	697
2014	780
2013	891
2012	832

The majority of coconut farms was smaller than 10 hectares; coconut is essentially a small holder's crop.

### 3. PRODUCTION AND DISPOSAL

#### (i) Production

Coconut production during the year was calculated as 100.1 million nuts (Year 2015 adjusted due to drought conditions – 99.2 million nuts). The value of the Year 2016 production at the average price paid by the Board for Maypan and Malayan Dwarf jelly coconuts during the year, (\$47.00 per nut) was \$4.71 billion.

Coconut production during the year was again adversely affected by lack of fertilizer, improper agronomic practices and additional deaths of bearing coconut trees from lethal yellowing and other diseases.

#### (ii) Disposal

The major portion of the Year 2016 production was disposed of through bottlers of jelly coconut water, the Coconut Industry Board, higglers, producers of coconut oil and supermarkets.

The portion of the crop which was disposed of to and through the channels of the Board during Year 2016 and the four preceding years, was as follows:

	<u>N</u>	<u>U</u>	<u>T</u>	<u>S</u>	
	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>
	<u>'000</u>	<u>'000</u>	<u>'000</u>	<u>'000</u>	<u>'000</u>
St. Andrew	1	1	4	12	-
St. Elizabeth	136	103	105	113	191
St. Thomas	45	137	121	77	125
Portland	56	54	68	73	90
St. Mary	456	651	874	852	717
St. Catherine	322	135	49	-	6
	<u>1,016</u>	<u>1,081</u>	<u>1,221</u>	<u>1,127</u>	<u>1,129</u>
					<u>5,574</u>

### 4. THE COCONUT SHOP

The Board purchased 848,548 coconuts at a cost of \$41,219,069 during the year (852,896 at a cost of \$34,574,142 in Year 2015), for sale in its Coconut Shop at 18 Waterloo Road, Kingston 10.

This shop continued to be a significant market for the purchase/sale of growers' coconuts.

## 5. **EXPORT**

During the year, the Board exported seed coconuts to Florida in the United States of America.

The total number of seed coconuts exported during Year 2016 was 33,000 at a F.O.B. value of US\$108,500.

Export of seed coconuts during the five years ended 31 December, 2016, was as follows:

<u>Year</u>	<u>Number Exported</u>	<u>F.O.B. Value (US\$)</u>
2016	33,000	108,500
2015	47,850	149,100
2014	52,200	169,050
2013	21,000	64,600
2012	<u>30,000</u>	<u>95,500</u>
	<u>184,050</u>	<u>586,750</u>

## 6. **DISTRIBUTION OF SEEDLINGS**

Distribution of coconut seedlings was as follows:

	<u>2016</u>	<u>2015</u>
Old Planting Programme	18,029	29,524
New Planting Programme	15,113	20,774
Sales	2,422	3,530
Donations and Field Experiments	946	1,844
Replanting – the Board's Seed Gardens	-	394
Agricultural Shows	375	530
Lethal Yellowing Tree Felling Programme	<u>30</u>	<u>102</u>
	<u>36,915</u>	<u>56,698</u>

The Board discontinued emasculation and pollination activities at its Esher Seed Garden to produce adequate Malayan Dwarf seedlings for its growers.

At the Board's hybrid seed garden in Barton Isles, St. Elizabeth, a total of 164,770 seednuts was produced in Year 2016 (Year 2015 -121,160).

In addition, the Board continued to encourage farmers to plant coconut seedlings under the two planting programmes. Under the Old Planting Programme, weed control grant and fertilizer for 80% of the seedlings planted, the percentage which is expected to survive, are given free of cost to qualified farmers.

The old programme covers St. Thomas, Portland, St. Mary, St. Ann and St. Catherine, the traditional coconut growing areas.

Planting under the New Planting Programme which covers the non-traditional coconut growing areas, the western region of the island, also continued during the year.



To qualify under the programmes, a farmer must be registered with the Board and must have land which can accommodate at least 125 coconut seedlings. The demand for seedlings exceeded the supply in Year 2016.

A total of 33,142 coconut seedlings at a cost of \$9.5M, fertilizer and weed grant valued at \$3.8M were distributed to coconut farmers under the two planting programmes.

## 7. **WINDSTORM INSURANCE FUND**

### (i) **Liability**

The Fund continued to indemnify coconut growers against loss of bearing coconut trees to windstorm.

The liability for windstorm insurance damage during Year 2016 was \$73,284,347 (Year 2015 - \$71,056,179); the maximum coverage per tree remained at \$1,000.

The finances of the Windstorm Insurance Fund are kept separately from the funds of the Board and are treated as Trustee Funds.

### (ii) **Automatic Insurance and Voting Rights**

Coconut growers are again being reminded that they can earn automatic insurance and voting rights for the election of Board members, on coconuts sold to the Coconut Industry Board and licensed coconut dealers, including bottlers of coconut water, provided the sales are reported to the Board. We are reminding coconut growers that it is in their interest to ensure that all coconuts sold by them to the other entities, are reported to the Board.

Automatic insurance is earned at the rate of J\$65 for each 110 dry or jelly coconuts sold to the entities mentioned above.

### (iii) **Contractual Insurance**

Registered coconut growers can purchase contractual insurance from the Board for their properties whether or not they supply coconuts to the Board or to licensed coconut dealers.

This information is always given during the Annual Meeting of Coconut Growers and in spite of this, growers continue to express dissatisfaction after a hurricane, if they do not receive benefits.

An appeal is again being made to coconut growers to make provision for insuring their coconut trees against windstorm damage, from the sale of coconuts, either by purchasing insurance or by selling their coconuts to licensed coconut dealers or the Board to earn automatic insurance. However, the amount of insurance coverage a grower is likely to earn by way of automatic insurance alone, will never be adequate.

## 8. **RESEARCH**

The Research Department continues to work towards maintenance and improvement of the coconut industry in Jamaica, through constant monitoring and review of prevailing cultural practices, available germplasm and disease control interventions.

## **Botany/Plant Breeding**

The Botanist/Plant Breeder continued the search for high yielding, disease resistant varieties of coconut during Year 2016.

The following activities continued during the year:

- (a) **Monitoring of the Brazil Green Dwarf and its Hybrids (Brapan and Maybraz) for their potential to increase Local Coconut Production:** Fruit and Bunch Return data were collected during the year, in order to compare the newer hybrids with the Maypan. Table 1 shows the details.

**Table 1 Fruit & Bunch Return at New Hybrid Experiments**  
**Mean Nuts/Bunch**

Variety	Amity	Holland
Brazil Green Dwarf. x Panama Tall <sup>1</sup>	13.2	10.3
Malayan Yellow Dwarf x Brazil Green Dwarf <sup>2</sup>	10.9	10.8
Malayan Green Dwarf x Panama Tall <sup>3</sup>	9.1	9.1

**Figure 1 Pictorial Representation of Hybrids at Amity New Hybrid Experiment**



**Brapan at Amity**



**Maypan at Amity**

<sup>1</sup> Brapan

<sup>2</sup> Maybraz

<sup>3</sup> Maypan





**Maybraz at Amity**

- (b) **Monitoring of the Brazil Green Dwarf and Fifteen other Varieties introduced from the Ivory Coast, Africa, in 2009 for their potential to Local Coconut Production:** Seven thousand five hundred (7,500) seednuts were received from the genebank in the Ivory Coast in 2009. These were planted in three variety collections and have since come into bearing. A total of 615 seednuts has been reaped to date from nine (9) of the fifteen (15) varieties and set in local nurseries, in order to increase the respective local populations. Of these, 210 seedlings were obtained and set in one Observation Plot so far.

Table 2

## Ivory Coast Germplasm Collection 2009 Health Survey

Variety	Symbol	Plantain Garden		
		Number Alive	Number Planted	Percentage Survival
Aromatic Green Dwarf	AROD	21	30	70.0
Bay Bay Tall	BAYT	27	27	100.0
Brazil Green Dwarf	BGD	33	46	71.7
Catigan Green Dwarf	CATD	28	28	100.0
Gazelle Peninsula Tall	GPT	14	27	51.9
Kinabalan Green Dwarf	KIND	24	31	77.4
Laccadives Micro Tall	LMT	18	26	69.2
Palu Tall	PUT	3	15	20.0
Philipog Green Dwarf	PILD	11	31	35.4
Tacunan Green Dwarf	TACD	21	23	91.3
Tagnanan Tall	TAGT	12	26	46.2
Tahitian Red Dwarf	TRD	25	26	96.2
Tenga Tall	TGT	17	24	70.8
Ternate Brown Dwarf	TBD	20	26	76.9
Thailand Green Dwarf	THD	29	32	90.6
<b>Overall</b>		<b>303</b>	<b>418</b>	<b>72.5</b>

- (c) **Monitoring of the Varieties introduced from the Ivory Coast, Africa in 2012 for their potential to Local Coconut Production:** In 2012, a total of two thousand (2,000) seednuts representing three varieties was imported from the genebank at the National Centre for Scientific Research (CNRA) (Station Marc Delorme) in Ivory Coast, Africa. The consignment comprised five hundred (500) seednuts each of the Tagnanan Tall and Madang Brown Dwarf (first time introductions) as well as one thousand (1,000) seednuts of the Malayan Red Dwarf. Funding for this exercise was provided under the Common Fund for Commodities (CFC) Project. A total of 361 seedlings was obtained (246 Tagnanan Tall, 61 Madang Brown Dwarf and 54 Malayan Red Dwarf) and these were planted at Plantain Garden and Spring Garden Field Stations. Immature Vegetative Data were collected, as displayed in Table 3.

**Table 3**      **Immature Vegetative Data for IC 2012 Plots at Plantain Garden & Spring Garden**

	Variety	Symbol	Number Alive	Plant Height (cm)	Mean Girth Above Soil Level (cm)	Mean Number of Leaves
A. Plantain Garden						
	Tagnanan Tall	TAGT	56	199 [Range 70-317]	45 [Range 27-99]	7 [Range 3-12]
	Madang Brown Dwarf	MBD	12	184 [Range 137-302]	41 [Range 23-87]	7 [Range 4-12]
B. Spring Garden						
	Tagnanan Tall	TAGT	19	382 [Range 78-600]	57 [Range 10-114]	8 [Range 3-11]
	Malayan Red Dwarf	MRD	5	350 [Range 299-423]	69 [Range 30-91]	11 [Range 10-12]

- (d) **Introduced Varieties not previously tested in Jamaica:** The Board received 101 coconut seeds of a Tall variety as a gift from the Government of Thailand. These seeds were set at Barton Isles, St. Elizabeth, of which 73 germinated. These were planted in three field genebanks in order to assess their resistance/susceptibility to lethal yellowing disease, and a few were planted at the Hope Botanical Gardens in St. Andrew.

Immature Vegetative Data were collected on seedlings planted at all five locations. The results are illustrated in the following Table 4.

**Table 4**      **Immature Vegetative Data for Thailand Tall Seedlings Planted at all Sites**

Location	No. Planted	No. Alive	Mean Plant Height (cm)	Mean Girth at Soil Level (cm)	Mean No. of Leaves
Hope Royal Botanic Gardens, St. Andrew	10	6	173 [Range 55-258]	26 [Range 12-49]	6 [Range 3-8]
Esher Seed Garden, St. Mary	10	6	243 [Range 152-366]	46 [Range 28-76]	9 [Range 8-11]
Spring Garden Field Station, Portland	20	15	270 [Range 98-382]	34 [Range 10-53]	7 [Range 4-9]
Holding of Fettig at Wilmington, St. Thomas	20	13	175 [Range 144-221]	52 [Range 29-68]	6 [Range 4-9]
Holding of Parker at Brompton, St. Elizabeth	10	9	169 [Range 102-315]	35 [Range 18-64]	5 [Range 4-9]
<b>OVERALL</b>	<b>70</b>	<b>49</b>	<b>206</b> <b>[Range 55-382]</b>	<b>39</b> <b>[Range 10-76]</b>	<b>7</b> <b>[Range 3-9]</b>



- (e) **Replication of Coconut Germplasm at the Field Genebank in Plantain Garden, St. Thomas:** The coconut is described as a recalcitrant crop, meaning that the seednuts cannot be held for long periods of time without germination. Germplasm conservation is best carried out therefore in field genebanks, which need to be renewed by replication at intervals of about fifteen to twenty years. This was last carried out in the mid-nineties at the (now defunct) Field Genebank at Fair Prospect, with the progeny planted at Plantain Garden. Replication at Plantain Garden is now due, especially with the threat of lethal yellowing disease at this site. This exercise has commenced, with sib-pollination of the tall varieties and self-pollination of the dwarf varieties. A number of new field genebanks will be established from the progeny obtained.
- (f) **Assessment of Seednut and Seedling Production in the Board's Nurseries:** In 2016 a total of 151,340 seednuts was set in the nurseries and a total of 37,248 seedlings was obtained.

## **PINK COCONUT WATER - AMELIORATION OF ITS OCCURRENCE**

### **Background**

The appearance of pink coloration in coconut water sold by the Board at the Coconut Shop has been a problem since last year. Literature research was conducted in order to give insight into the factors contributing to its occurrence and their elimination [Fig. 2].

The decision was taken to eliminate from the collection pool those varieties having a high concentration of polyphenol oxidase (PPO). Investigation led to the identification of cultivars with pink husks in the tender nut as prime candidates.

### **Experiment conducted**

Coconut water from palms bearing nuts with pink colour in the husks of the tender nuts was tested for likelihood of pink coloration upon storage. Tender nuts from bunches seven and eight from a total of eight palms with this feature and three palms without were sampled. Coconut water samples were also collected from bunch nine on three palms with this feature and one palm without. All samples were frozen, thawed and held in the refrigerator for at least three days. The colour of the water was observed. Tender nuts from bunch nine<sup>4</sup> from three palms with this feature and one palm without were also sampled. All samples were frozen, thawed and held in the refrigerator for at least three days. No pink coloration was observed on any of the 35 samples tested. The experiment continues.

Anecdotal evidence suggests that the coloration only occurs when water from both types of coconut are mixed, rather than kept separate. This hypothesis is the next to be tested. In the meanwhile, efforts have been made to exclude the coconuts having pink husks from coconut water processing, and this has resulted in significant decline in reports of pink coconut water.

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<sup>4</sup> These are the coconuts from which water is usually extracted. They were selected from the heap of coconuts brought to the jelly house for processing.

## **Figure 2      Literature regarding Pink Coconut Water**

*Cord* 2007, 23 (2)67

### **Control of pink discoloration in coconut water**

B. Garcia<sup>1</sup>, D. B. Masa<sup>2</sup>, M.J. Rodriguez<sup>3</sup> and R. Rolle<sup>4</sup>

#### **Abstract**

The pink discoloration in coconut water is a result of the initial enzymatic action of polyphenol oxidase (PPO) on the phenolic substrates which are naturally present in the product. Activity of the enzyme is further enhanced by metal contamination such as copper and exposure of the product to high temperature during its processing and storage.

The optimum copper concentration to initiate pinking in coconut water was established at  $3.96 \times 10^{-4}$  mM. The PPO level was also shown to vary among coconut varieties and ages. When subjected to optimum conditions for enzymatic activity, the water from younger nuts (7-8 months old) went pink while mature nuts (9-10 months old) showed no discoloration. Application of food-grade resins to remove the phenolic substrates in coconut water was deemed as a possible solution to prevent the discoloration. Further testing in this area needs to be done.

**Key words:** Coconut water, Discoloration, Polyphenol oxidase.

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### **Plant Pathology and Molecular Biology**

**Lethal Yellowing Disease:** Lethal yellowing (LY) continues to be a devastating disease that affects coconut and more than 35 other palm species in the Americas. In Jamaica, LY disease remains active in the major coconut growing areas and continues to threaten the viability of the local coconut industry. The disease is destroying varieties and hybrids grown locally.

To date, lethal yellowing has destroyed millions of coconut palms in the Caribbean and Latin America. Many varieties and hybrids are susceptible to the disease. Research efforts focus on assessing the only resistant group of plants called 'Special' Malayan Dwarf Yellows. The disease is destroying trees in some areas in east Portland and efforts have been made to curtail the spread of the disease.

#### **Achievements (2016)**

Research and experience over the years have taught us how the disease can be reduced in affected areas. Reduction of the disease in these areas increases the income to the small coconut grower and provides incentive for expanding the coconut population. The planting scheme used by the growers will minimize or increase diseased trees in the lethal yellowing affected areas.



1. LY management strategies to reduce spread of the disease were promoted. These are:

- Planting several varieties and hybrids in one place (Figure 1)
- Removal of infected trees immediately
- Replacement of infected trees immediately
- Removal of alternate/alternative hosts
- Planting other susceptible palms as indicator plants in fields and around the boundary of fields

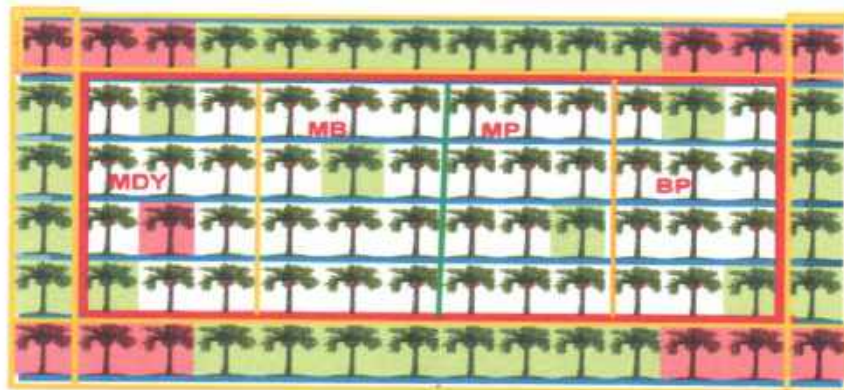


Figure 1 Multivarietal plantings with MDY (Malayan Dwarf Yellow), MB (Maybraz), MP (Maypan) and BP (Brapan)

**1. Production of 'Special' Malayan Dwarf Yellows (F<sub>1</sub>) at Barton Isles, St. Elizabeth**

The 'true to type' Malayan Dwarf Yellows at Barton Isles, St. Elizabeth, produced 1,187 seednuts to date. Seven hundred and one (701) seedlings representing 59% were germinated in nursery. Ninety six percent (96%) of the seedlings were distributed to farmers.

**2. Approximately two hundred and forty seven (247) 'Special' Malayan Dwarf Yellows were monitored in 2016 and none of these plants has succumbed to the LY disease.**

**3. An experimental plot (exposing the 'Special' Malayan Dwarf plants to the lethal yellowing disease) was established at the Hon. Frank M. Phipps' farm in Union, St. Mary in 2012.**

The experiment consists of 15 'Special' Malayan Dwarfs and 15 Malayan Dwarf Greens. The plants have not succumbed to the lethal yellowing disease to date.

**4. The experimental plots with the 'Special' Malayan Dwarf Yellows at Amity Hall, St. Thomas were monitored for pests and diseases in 2016 and found to be pest and disease free.**

5. The experimental plots with the 'Special' Malayan Dwarf Yellows at Rural Hill, Portland were monitored for pests and diseases in 2016 and found to be pest and disease free.

**Ambrosia Beetle:** On February 13, 2012, the Plant Pathologist identified Ambrosia beetle in Hayes, Clarendon. Two species were identified as *Xyleborus ferrugineus* and *Xyleborus volvulus*.

The Ambrosia beetle infestation in coconut trees damages the immature nuts (jellies), dry nuts (mature nuts) and the trunks. The beetle does not eat the trunk, dry nuts or jellies for survival. It uses these as media for the cultivation of fungal symbionts.

In the first case found in Hayes, Clarendon, the beetle seemed to be living in nutritional symbiosis with *Fusarium sp.* This fungus was isolated in the laboratory at Coconut Industry Board.

### **RESEARCH ACTIVITIES ON AMBROSIA BEETLE**

1. Continued identification of fungi *Fusarium sp* and *Nectria sp.* associated with coconut trunk and infested dry nuts, respectively.
2. The Ambrosia beetle was observed in thirteen areas in 2015. However, the spread of the beetle was successfully curtailed in 2016 in the following areas:

<b><u>St. Mary</u></b>	<b><u>Portland</u></b>	<b><u>St. Thomas</u></b>	<b><u>Other Parishes</u></b>
Pemberton Valley	Lennox	Nutts River	Hayes, Clarendon
Orange River	Rose Garden	Bachelors Hall	Ramble, Hanover
Highgate	Hopewell		
Crescent			
Harmony Hall			

3. Seminars on the Ambrosia beetle were conducted in areas in St. Mary, St. Thomas, St. Catherine, Portland, St. Elizabeth and Hanover by the Plant Pathologist, Dr. Wayne Myrie. Brochures were distributed to farmers in affected and non-affected areas and posters were placed at strategic locations.
4. Successful implementation of the control measures listed above in the Ambrosia beetle infested areas which contributed to the decrease of the Ambrosia beetle infestation in all the affected areas.

### **Increase Ambrosia and/or other Bark Beetle in the Nurseries of the Forestry Department:**

The Plant Pathologist was requested by the Plant Health Officer of the Forestry Department to visit the nurseries of the Forestry Department to identify bark beetle activities, collect samples and recommend control strategies. The bark beetle was observed in the Honduran Mahogany and West Indian Mahogany. The beetle was most prevalent in the Honduran Mahogany. The Cedar seedlings were not affected by the beetle.

**Plant Protection Manual for Coconut Production in Jamaica:** The Plant Protection Manual for coconut production in Jamaica was reviewed and finalized. The manual consisting of 32 pages was written by the Plant Pathologist on the 'Maladies' affecting coconut production in Jamaica. The manual provide the necessary information on the risk of maladies of coconut palms and how those risks can be minimized for successful production of coconuts.



**Tropicsafe – The 2020 Horizon Funding:** A consortium of scientists applied under the 2014-2020 Horizon 2020 - research and innovation framework programme for funding of research on insect-borne prokaryotic-associated diseases in tropical and subtropical perennial crops. **The proposal of the consortium was selected from among thirteen other proposals for funding by the EU. Jamaica (CIB) was granted 110, 000 Euros.** We are in the final phase before project inception.

#### **The project “Coconut Industry Development for the Caribbean”**

1. **Upgrading of the Nursery:** The Shade House was installed at the nursery in Spring Garden, Portland.
2. **Allocation for Integrated Pest Management (IPM) experiments:** Approximately US\$40,000 was recently committed to Jamaica from the project to implement IPM on three selected farms in the coconut growing areas.
3. **The Roadmap for the Coconut Project:** The road map was submitted to the International Trade Center (ITC) and Caribbean Agricultural Research and Development Institute (CARDI) and we await the visit of personnel from ITC for discussions on further implementation of project activities.
4. **Seminar/workshop on coconut niche products workshop in Port of Spain, Trinidad and Tobago, December 14-16, 2016:** Three farmers from Jamaica were invited by CARDI/ITC to attend a seminar/workshop in Port of Spain, Trinidad, to make PowerPoint presentations on coconut oil, coconut water and other coconut products. The ability to prepare and give a PowerPoint presentation on the topics mentioned above was the main criterion for farmers' selection. The Jamaican farmers were among other farmers from the region who were trained in the making of coconut oil, extraction and bottling of coconut water and the making of other products from the coconut.
5. **Jamaica assisted in the assessment of regional research and laboratory facilities (including Tissue Culture Laboratories).**
6. **Jamaica organized a 2-day Regional workshop for Field Technicians on May 24-25, 2016.**
7. **Jamaica assisted in coconut mapping and characterization exercise.**

#### **Other Coconut Diseases**

**Identification of the cause of deaths in the African Tall:** Fifteen coconut trees of African origin at Spring Garden were suspected to be infected with the lethal yellowing disease. However, molecular examinations of the samples detected no lethal yellowing phytoplasma in the tissues and having ruled out other diseases, it is now reasonable to assume that the trees were severely affected by the drought. External symptoms were premature nut fall, falling of most of the nuts, the death of the inflorescences, drying and drooping of some of the leaves. The trees looked unhealthy. The internal tissues showed no necrosis, however, sap flows were minimal.

**Identification of the cause of nut fall at Esher, St. Mary:** The trees were affected by the fungal pathogen *Phytophthora* sp. The Dwarfs were not self-pollinating because they are not 'true Dwarfs', resulting in the necessity for insect and sib-pollination.



## **The Molecular Laboratory**

**The use of PCRs to determine the presence of lethal yellowing Phytoplasma:** Fifteen samples were collected from Lecky farm, Rodney Hall, Rose Garden, Foster farm and Hart Hill. Their 'DNAs' were extracted using Doyle and Doyle (1991) procedures. The samples were analyzed using PCRs (Polymerase Chain Reaction). Some samples from Rodney Hall tested positive for lethal yellowing phytoplasma (lethal yellowing disease) (Figure 10). Samples from Spring Garden tested negative for the disease pathogen. The 'Special' Malayan Dwarf tested negative for the disease and the population remains lethal yellowing disease free.

## **Agronomy/Crop Physiology**

The Agronomist/Crop Physiologist focused on research aimed at improving germination among seednuts and by extension, an increase in production of saleable planting material.

During 2016, several activities were undertaken, some were the continuation of experiments started in previous years, and others were new projects. In addition, some activities undertaken did not give conclusive results, due to external factors such as environmental conditions. For this annual review, a summary of research projects established in 2016, and results obtained on other experiments commencing in previous years are presented.

Over the years, the Coconut Industry Board has been faced with the very low germination percentages, and has undertaken several experiments to mitigate its effects on the industry. Results from experiments have shown that germination, under favourable conditions can increase to as much as 80%. In 2015 a series of experiments was done addressing the factors that caused poor germination. Based on this information, other experiments were done.

One such experiment was to determine germination time, rate, homogeneity, and synchrony among the three popular varieties (Brapan, Maypan and Malayan Green Dwarf) produced by the Board. The experiment sought to determine each variety's contribution to coconut diversity. This is considered a critical area in crop physiology as it helps "to predict the degree of success of an individual variety based on the capacity of the harvested seed to spread the germination through time" (over many generations).

This experiment was therefore designed to determine what percentages of those with early germination would be more likely to survive the threat with which it is faced compared to the intermediate or late growers. Another objective was to determine if germination time and rate will impact the quality and fruitfulness in future generations. To date, a great percentage of seednuts was considered late germinators, with a smaller number being intermediate. Also, the germination capacity in this experiment was 63% and 87% for Malayan Green Dwarf and Brapan, respectively. Germination capacity refers to the number of seednuts producing at least one leaf plus those which germinated but did not emit any leaf.

Approximately 100 of these seedlings were planted in the field to address the second objective relating to quality and fruitfulness in future generations. Data will be collected over the next four to six years.

Other observations included percentage mortality between germination and emergence, protrusion of shoot from the side or bottom of the seednut in the bed, mean time to complete germination and the coefficient of uniformity. Seedlings were also classified as early, intermediate or late germinators. A repeat of this experiment will be done in 2017.



### **Barton Isles' Soil Restoration**

The farm sits on six different types of soil, all of which range from slightly acidic to very strongly acidic, except one which is mildly alkaline. An acidic soil results in the unavailability of phosphates to the plants, which like any other crop, is of significant importance to the development of coconuts.

Coconuts require soils with pH 5.5-7.5. Soil maintenance and implementation of sound agronomic practices is essential for healthy palms and high yields. Steps were taken to apply lime at different periods over the past five years to help to counteract the natural acidic effects of the soil. Another factor contributing to the perennial problem of low production is the lack of topsoil as well as very low soil porosity. Porosity allows for the availability of water around the roots of the plants, improved absorption of nutrients and improved root development, all of which help to maintain a good soil structure. In an effort to remedy the problem, coconut fibre, lime and ash were spread throughout one section of the farm (Pond Pasture: February– March 2015) and subsequently incorporated into the soil.

One year later, the Board began to see differences in production in the treated area, and results are believed to be a combination of soil restoration project (incorporation of lime, ash, fertilizer and shredded coconut husk into the soil), the plants being allowed to self-pollinate, and the change of fertilizer from 12-4-28 to 11-22-22 (based on results obtained from soil tests).

### **Best Practices Manual**

A best practices manual for the nursery production was prepared during the period. Information is being provided on the selection of mother palms, pollen source, production of hybrid varieties, harvest and selection of seednuts, and finally the establishment of a nursery and caring for the seedlings.

### **Coconut Tissue Culture**

The Board in collaboration with the University of the West Indies (UWI) continues to establish protocols for the culture of elite germplasm.

The project has two main objectives: the development of a reliable embryo culture protocol for the culture of extracted embryos into mature plants and the development of a somatic embryogenesis protocol to enable the rapid multiplication of a desired cultivar.

Embryos placed in culture during period displayed varying germination rates - maximum 80% germination. Germinated embryos were kept in embryo culture or used to produce explants for callus culture.

Rooting was improved using 200uM-2mM NAA. The samples were pulsed in this auxin treatment then cultured as normal. Eighty three percent (83%) of these plants produced strong rooting systems in four months, reducing the time needed to produce mature plants for hardening. Eleven plants rooted in this fashion were ready to be hardened after five to eight months in culture.

Plants from these rooting studies were better adapted to hardening, with improved survival rate from 33% to 55%.

## **Results for Year 2016**

Seven seedlings were planted in the fields for trials in December 2016 in the parishes of St. Mary, St. Thomas and Portland. Data collection continues on these seedlings.

- Nineteen plants were hardened, fifteen of these plants are still alive, survival rate 80%
- Fifteen embryos were initiated into embryo culture
- Callus Culture
- Fifty embryos were initiated in callus culture using 2,4D and picloram

### **9. ADVISORY**

Throughout Year 2016, the Advisory Department continued its annual mandate to effectively achieve the goals of the Research Department. The Advisory Officers worked relentlessly to communicate information as well as offer technical support and act as a liaison between the Coconut Industry Board and new and existing coconut growers islandwide and to the public.

The lethal yellowing (LY) sensitization programme continued and was used as a means of informing and educating growers and other individuals of the spread of LY disease and measures that can be employed to restrict its spread. Officers of the department were also very active in assisting growers to remove and burn more than 3,407 diseased trees and also providing growers with seedlings for replacement.

During Year 2016, islandwide public awareness, education and outreach activities continued in areas of the island where LY disease was active. These were accomplished mainly by conducting regular farm visits, field days, staging of displays at agricultural shows and various commodity boards' expositions and other group assemblies. These initiatives were achieved by the use of different forms of communication, including multimedia presentations, displays, 4-H Achievement Days, brochures, practical demonstrations and individual discussions.

More than 3,827 regular farm visits were made to new, existing and potential growers in order to provide technical assistance, support and to circulate relevant information. The growers' problems and concerns were addressed individually or in groups, depending on the nature of the concerns and number of individuals with similar issues. More serious concerns or information/data gathered from farmers were likewise passed on to the Research Department for further investigations.

The Advisory Department was involved in the identification of Bark Beetle infested areas in St. Mary, Portland and Clarendon and collection of specimens so as to provide treatment for the trees.

Members of the International Trade Centre (ITC) visited the property of a coconut grower in St. Mary to view a coconut water processing plant. They held several seminars with coconut growers.

In order to improve and extend coconut production in Jamaica, the Advisory Department distributed over 30,493 seedlings to growers in Year 2016.

### **Other Advisory Activities**

- Field Days were conducted in the following areas: Hectors River in Portland, Wilmington in St. Thomas, Linstead in St. Catherine and Russell Pen in St. Mary.



- Displays mounted at events islandwide included:
  - ✓ Agricultural shows held at Denbigh in Clarendon, Hague in Trelawny, St. Mary Agricultural Show
  - ✓ Health Fair – Church of St. John the Evangelist, St. Andrew
- Participation in the following:
  - ✓ Jamaica Agricultural Society (JAS) Branch meetings held in Hectors River, Portland, Annual General Meeting in Denbigh, Clarendon
  - ✓ RADA Farmers' meeting in Linstead, St. Catherine
  - ✓ Tour of St. Mary Coconut Processors with CARDI/ICT
- Field trip to 18 Waterloo Road by students from Desiree's Summer Camp

10. **REMUNERATION**

- (i) The total remuneration of the three most senior executives for the Year 2016 was \$17,390,993.
- (ii) The total fees paid to the Chairman and the other Directors (Board Members) during the year, was \$3,071,860 and the total fees paid to non-directors for attending committee meetings of the Board during the year was \$46,370; these fees are in accordance with the guidelines established by the Public Enterprises Division of the Ministry of Finance and the Public Service and were approved by our portfolio Minister.

11. **FINANCE**

Audited financial statements for the Board and the Windstorm Insurance Fund, for the year ended December 31, 2016, are attached.

12. **ACKNOWLEDGEMENT**

The Board gratefully acknowledges the assistance provided by the following persons and local and overseas institutions: the Minister of Agriculture and Fisheries and the officers of that Ministry, the Molecular Biology Unit at the University of the West Indies (U.W.I.), the Common Fund for Commodities (C.F.C.), the Food and Agriculture Organisation (F.A.O.) of the United Nations, Rothamsted Experimental Station in the United Kingdom, the Centre for International Agronomic Research and Development (CIRAD), the International Coconut Genetic Resources Network/the International Plant Genetic Resources Institute (COGENT/IPGRI), Centro de Investigacion Cientifica de Yucatan (CICY) - Mexico, the Escuela Agricola Panamericana (Zamorano) - Honduras, and the University of Florida.

The Board expresses thanks to coconut growers for their support and to the staff of the Board for their dedication to duty.

By Order of the Board  
Christopher Gentles  
Chairman



## **Coconut Industry Board**

**Financial Statements  
31 December 2016**



# Coconut Industry Board

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31 December 2016

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**Independent auditor's report**  
*To the Members of Coconut Industry Board*

**Report on the audit of the financial statements**

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**Our opinion**

In our opinion, the financial statements give a true and fair view of the financial position of Coconut Industry Board (the Board) as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

**What we have audited**

The Board's financial statements comprise:

- the statement of financial position as at 31 December 2016;
- the statement of comprehensive income for the year then ended;
- the statement of changes in equity for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

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**Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Independence**

We are independent of the Board in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

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**Responsibilities of management for the financial statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Board's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Board or to cease operations, or has no realistic alternative but to do so.





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### **Auditor's responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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*PricewaterhouseCoopers*  
Chartered Accountants  
26 July 2017  
Kingston, Jamaica

# Coconut Industry Board

## Statement of Comprehensive Income

**Year ended 31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2016 \$'000	2015 \$'000
Revenue		138,625	132,548
Direct expenses		<u>(92,774)</u>	<u>(83,181)</u>
Gross Profit		45,851	49,367
Other operating income	5	60,131	55,742
Distribution expenses		(1,255)	(1,279)
Research and extension expenses		(54,865)	(56,119)
Administration expenses -			
Movement in retirement benefit obligations		(31,400)	(30,600)
Other		(105,422)	(94,770)
Other operating expenses		<u>(31,241)</u>	<u>(30,218)</u>
Operating Deficit		(118,201)	(107,877)
Share of profits of associated company, net of taxes	9	<u>276,970</u>	<u>182,567</u>
Net Surplus		158,769	74,690
Other Comprehensive Income			
Item that will not be reclassified to profit or loss -			
Re-measurement of post-employment benefit obligations		94,300	14,500
Item that may be subsequently reclassified to profit or loss -			
Fair value adjustments to available-for-sale financial assets		3,208	1,231
Share of other comprehensive income of associates accounted for using the equity method		<u>10,867</u>	<u>20,913</u>
Total Comprehensive Income for the Year		<u>267,144</u>	<u>111,334</u>

# Coconut Industry Board

## Statement of Financial Position

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2016 \$'000	2015 \$'000
<b>Non-Current Assets</b>			
Property, plant and equipment	8	65,376	61,134
Investment in associated company	9	2,906,798	3,146,809
Investments	10	90,660	111,104
Loans receivable	11	368,909	1,293
Deferred expenditure	12	6,115	4,470
		3,437,858	3,324,810
<b>Current Assets</b>			
Inventories	13	2,672	3,182
Biological assets	14	20,594	20,777
Receivables	15	42,171	32,902
Short-term investments	10	749,448	655,621
Coconut Windstorm Insurance Fund		-	793
Cash at bank and in hand	16	7,508	14,922
		822,393	728,197
<b>Current Liabilities</b>			
Payables	17	11,595	11,125
Coconut Windstorm Insurance Fund		11,716	-
		23,311	11,125
<b>Net Current Assets</b>		799,082	717,072
		<u>4,236,940</u>	<u>4,041,882</u>



# Coconut Industry Board

## Statement of Financial Position (Continued)

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

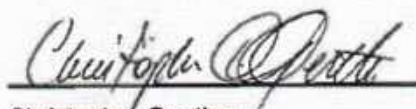
	Note	2016 \$'000	2015 \$'000
<b>Capital and Reserves</b>			
Capital surplus	18	605,216	647,111
Capital fund	19	428,472	317,135
Fair value reserve	20	8,892	8,664
Staff contingency fund	21	67,527	34,776
Coconut replanting fund	22	236,164	227,515
Reserves	23	<u>2,761,469</u>	<u>2,605,981</u>
<b>Total Capital and Reserves</b>		<b>4,107,740</b>	<b>3,841,182</b>
<b>Non-Current Liability</b>			
Post-employment benefits	24	<u>129,200</u>	<u>200,700</u>
		<u><b>4,236,940</b></u>	<u><b>4,041,882</b></u>

Approved for issue by the Board of Directors on July 25, 2017 and signed on its behalf by:



Granville Marsh

Director



Christopher Gentles

Director

# Coconut Industry Board

## Statement of Changes in Equity

Year ended 31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

	Note	Capital Surplus \$'000	Capital Fund \$'000	Fair Value Reserve \$'000	Staff Contingency Fund \$'000	Coconut Replanting Fund \$'000	Reserves \$'000	Total \$'000
Balance at 31 December 2014		648,913	292,258	8,661	41,851	212,148	2,526,821	3,730,652
Net surplus for the year		-	-	-	-	-	74,690	74,690
Other comprehensive income -								
Fair value adjustments to available-for-sale financial assets		-	-	3	929	296	3	1,231
Remeasurement of post-employment benefits		-	-	-	-	-	14,500	14,500
Other reserves		(1,802)	-	-	-	-	22,715	20,913
Transactions with owners		-	-	-	(804)	-	-	(804)
Total comprehensive income		(1,802)	-	3	125	296	111,908	110,530
Transfer to capital fund	19	-	24,877	-	-	-	(24,877)	-
Transfer to staff contingency fund	21	-	-	-	(7,200)	-	7,200	-
Transfer to coconut replanting fund	22	-	-	-	-	15,071	(15,071)	-
Balance at 31 December 2015		647,111	317,135	8,664	34,776	227,515	2,605,981	3,841,182
Net surplus for the year		-	-	-	-	-	158,769	158,769
Other comprehensive income -								
Fair value adjustments to available-for-sale financial assets		-	-	228	2,632	348	-	3,208
Remeasurement of post-employment benefits		-	-	-	-	-	94,300	94,300
Other reserves		(41,895)	-	-	-	-	52,762	10,867
Transactions with owners		-	-	-	-	-	(586)	(586)
Total comprehensive income		(41,895)	-	228	2,632	348	305,245	266,558
Transfer to capital fund	19	-	111,337	-	-	-	(111,337)	-
Transfer from staff contingency fund	21	-	-	-	30,119	-	(30,119)	-
Transfer to coconut replanting fund	22	-	-	-	-	8,300	(8,300)	-
Balance at 31 December 2016		605,216	428,472	8,892	67,527	236,163	2,761,470	4,107,740

# Coconut Industry Board

## Statement of Cash Flows

Year ended 31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2016 \$'000	2015 \$'000
<b>Cash Flows from Operating Activities</b>			
Net surplus		158,769	74,690
Adjusted for:			
Share of profits from associated company		(276,970)	(182,567)
Depreciation	8	12,808	10,661
Gain on disposal of property, plant and equipment		(2,564)	(2,054)
Write off of deferred expenditure	12	884	2,618
Interest income	5	(26,636)	(31,648)
Post-employment benefits		22,800	22,300
Foreign exchange gain	5	30,628	21,660
		<u>(80,281)</u>	<u>(84,340)</u>
Changes in operating assets and liabilities -			
Receivables		(9,269)	(7,140)
Inventories		(510)	(80)
Biological assets		(183)	(7,215)
Coconut Windstorm Insurance Fund		12,509	(2,886)
Payables		470	695
Cash (used in)/provided by operating activities		<u>(77,264)</u>	<u>(100,966)</u>
<b>Cash Flows from Investing Activities</b>			
Loans receivable		(367,616)	527
Purchase of property, plant and equipment	8	(17,086)	(14,402)
Proceeds from disposal of property, plant and equipment		2,600	3,581
Proceeds from disposal of investments		20,444	87,650
Deferred expenditure	12	(2,529)	(234)
Dividend received		527,848	155,250
Interest received		26,636	31,648
Cash provided by investing activities		<u>190,297</u>	<u>264,020</u>
Effect of exchange rate changes on cash and cash equivalents		<u>(26,620)</u>	<u>(18,828)</u>
Increase in cash and cash equivalents		86,413	144,226
Cash and cash equivalents at beginning of year		<u>670,543</u>	<u>526,317</u>
<b>Cash and Cash Equivalents at End of Year</b>		<u>756,956</u>	<u>670,543</u>
<b>Comprising:</b>			
Cash at bank and in hand	16	7,508	14,922
Short-term investments	10	749,448	655,621
		<u>756,956</u>	<u>670,543</u>



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 1. Identification and Principal Activities

The Coconut Industry Board ("The Board") is a body corporate established under the Coconut Industry Control Act, 1945. The Board consists of nine members, four of whom are appointed by the Minister of Agriculture and Fisheries; the remaining five are elected by registered coconut growers and must themselves be registered coconut growers or the attorneys for such registered coconut growers, or the managing directors or managers of companies which are registered coconut growers.

The main functions of the Board are:

- (a) Keeping Government informed on the state of the industry and advising on any action that is necessary;
- (b) Assisting growers to market their crop;
- (c) Conducting research on the agricultural problems of the industry;
- (d) Advising growers on their agricultural problems.

The Board's registered office is located at 18 Waterloo Road, Kingston 10.

The Board is also responsible for the management of the Coconut Windstorm Insurance Fund which, at year end, has net assets of \$198,239,000 (2015 - \$186,476,000).

On 28 December 1995, the Board was granted tax exempt status, effective 1 January 1971.

### 2. Significant Accounting Policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

#### (a) Basis of preparation

These financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS), and have been prepared under the historical cost convention as modified by the revaluation of certain financial assets.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Board's accounting policies. Although these estimates are based on management's best knowledge of current events and actions, actual results could differ from those estimates. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in Note 4.

#### *New and amended standards and interpretations effective in the current year*

Certain amendments and clarifications to existing standards have been published that became effective during the current financial year. The Board has assessed the relevance of all such new amendments and clarifications and has put into effect the following, which are immediately relevant to its operations.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (a) Basis of preparation (continued)

##### *New and amended standards and interpretations effective in the current year (continued)*

- **Amendments to IAS 16, 'Property, plant and equipment' and IAS 38, 'Intangible assets', on depreciation and amortisation**, (effective for annual periods beginning on or after 1 January 2016). These amendments clarify that the use of revenue-based methods to calculate the depreciation of an asset is not appropriate because revenue generated by an activity that includes the use of an asset generally reflects factors other than the consumption of the economic benefits embodied in the asset. It was also clarified that revenue is generally presumed to be an inappropriate basis for measuring the consumption of the economic benefits embodied in an intangible asset. These amendments did not have any impact on the Board's financial statements.
- **Amendments to IAS 27, 'Separate financial statements' on equity accounting** (effective for annual periods beginning on or after 1 January 2016). These amendment will allow entities to use the equity method in their separate financial statements to measure investments in subsidiaries, joint ventures and associates. These amendments did not have any impact on the Board's financial statements.
- **Amendments to IAS 1, 'Presentation of financial statements' disclosure initiative** (effective for annual periods beginning on or after 1 January 2016). The amendments to IAS 1 Presentation of Financial Statements are made in the context of the IASB's Disclosure Initiative, which explores how financial statement disclosures can be improved. The amendments provide clarifications on a number of issues, including: materiality; disaggregation and subtotals; notes; disclosure of accounting policies; and OCI arising from investments accounted for under the equity method. These amendment did not have any significant impact on the Board's financial statements.
- **Annual Improvements 2014**, (effective for annual periods beginning on or after 1 January 2016). These amendments impact the following standards. IFRS 5 was amended to clarify that change in the manner of disposal (reclassification from "held for sale" to "held for distribution" or vice versa) does not constitute a change to a plan of sale or distribution, and does not have to be accounted for as such. The amendment to IFRS 7 adds guidance to help management determine whether the terms of an arrangement to service a financial asset which has been transferred constitute continuing involvement, for the purposes of disclosures required by IFRS 7. The amendment to IAS 19 clarifies that for post-employment benefit obligations, the decisions regarding discount rate, existence of deep market in high-quality corporate bonds, or which government bonds to use as a basis, should be based on the currency that the liabilities are denominated in, and not the country where they arise. The adoption of these amendments did not have any significant impact on the Board's financial statements.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (a) Basis of preparation (continued)

*Standards, amendments and interpretations to existing standards that are not yet effective and have not been early adopted by the Board*

At the date of authorisation of these financial statements a number of new standards and amendments to standards are effective for annual periods beginning after 1 January 2017, and have not been applied in preparing these financial statements. None of these is expected to have a significant effect on the financial statements of the Board, except the following set out below:

- **Amendments to IAS 7, Statement of cash flows on disclosure initiative** (effective for annual periods beginning on or after 1 January 2017). In January 2016, the IASB published amendments to IAS 7 to improve information about an entity's financing activities. These amendments are as part of the IASB initiative to improve presentation and disclosure in financial reports. The amendments require disclosure of information enabling users to evaluate changes in liabilities arising from financing activities including both cash and non-cash changes. The future adoption of these amendments will result in additional disclosure in the financial statements.
- **IFRS 9, 'Financial Instruments'**, (effective for annual periods beginning on or after 1 January 2018). This standard will replace IAS 39, 'Financial Instruments: Recognition and Measurement'. IFRS 9 addresses classification and measurement of financial assets and replaces the multiple classification and measurement models in IAS 39 with a single model that has only two classification categories: amortised cost and fair value. Classification of debt instruments under IFRS 9 is driven by the entity's business model for managing the financial assets and the contractual characteristics of the financial assets. All equity instruments are measured at fair value under IFRS 9. IFRS 9 removes also the requirement to separate embedded derivatives from financial asset hosts. It requires a hybrid contract to be classified in its entirety at either amortised cost or fair value. For financial liabilities, IFRS 9 retains most of the IAS 39 requirements, including amortised cost accounting for most financial liabilities and the requirement to separate embedded derivatives. The main change is where the fair value option is taken for financial liabilities, the part of a fair value change due to an entity's own credit risk is recorded in other comprehensive income rather than in profit or loss, unless this creates an accounting mismatch. Certain aspects of IFRS 9 are still under development and have not been finalised. The Board does not expect any significant impact from adoption of IFRS 9.
- **IFRS 15, 'Revenue from Contracts with Customers'**, (effective for the periods beginning on or after 1 January 2018). The new standard introduces the core principle that revenue must be recognised when the goods or services are transferred to the customer, at the transaction price. Any bundled goods or services that are distinct must be separately recognised, and any discounts or rebates on the contract price must generally be allocated to the separate elements. When the consideration varies for any reason, minimum amounts must be recognised if they are not at significant risk of reversal. Costs incurred to secure contracts with customers have to be capitalised and amortised over the period when the benefits of the contract are consumed. The Board is currently assessing the impact of future adoption of the new standard on its financial statements.
- **Amendment to IFRS 15, 'Revenue from contracts with customers'** (effective for accounting periods beginning on or after 1 January 2018). These amendments comprise clarifications of the guidance on identifying performance obligations, accounting for licences of intellectual property and the principal versus agent assessment (gross versus net revenue presentation). The IASB has also included additional practical expedients related to transition to the new revenue standard.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (a) Basis of preparation (continued)

*Standards, amendments and interpretations to existing standards that are not yet effective and have not been early adopted by the Board (continued)*

- **IFRS 16, 'Leases'**, (effective for annual periods beginning on or after 1 January 2019). In January 2016, the IASB published IFRS 16 which replaces the current guidance in IAS 17. Under IAS 17, lessees were required to make a distinction between a finance lease (on balance sheet) and an operating lease (off balance sheet). IFRS 16 now requires lessees to recognise a lease liability reflecting future lease payments and a 'right-of use asset' for virtually all lease contracts. There is an optional exemption for lessees for certain short-term leases and leases of low-value assets. The Board is assessing the impact of future adoption of the amendments on its financial statements.
- **IFRIC 22, 'Foreign currency transactions and advance consideration'** (effective for annual periods beginning on or after 1 January 2018) This IFRIC addresses foreign currency transactions or parts of transactions where there is consideration that is denominated or priced in a foreign currency. The interpretation provides guidance for when a single payment/receipt is made as well as for situations where multiple payments/receipts are made. The guidance aims to reduce diversity in practice. The Board is assessing the impact of future adoption of this interpretation on its financial statements.

There are no other IFRS or IFRIC interpretations that are not yet effective that would be expected to have a material impact on the Board.

#### (b) Foreign currency translation

##### ***Functional and presentation currency***

Items included in the financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Jamaican dollars, which is the functional and presentation currency.

##### ***Transactions and balances***

Foreign currency transactions are accounted for at the exchange rates prevailing at the dates of the transactions. At year end, monetary assets and liabilities denominated in foreign currency are translated using the closing exchange rate. Exchange differences arising from the settlement of transactions at rates different from those at the dates of the transactions and unrealised foreign exchange differences on unsettled foreign currency monetary assets and liabilities are recognised in the statement of comprehensive income.

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 2. Significant Accounting Policies (Continued)

#### (c) Property, plant and equipment

Property, plant and equipment are recorded at historical cost less accumulated depreciation. Depreciation is calculated on the straight line basis at such rates as will write off the carrying value of the assets over the period of their expected useful lives, which are as follows:

Freehold buildings	40 years
Research library stock and furniture, fixtures, equipment and fence improvement	5 – 10 years
Motor vehicles	5 years

Land is not depreciated.

Gains and losses on disposal of property, plant and equipment are determined by reference to their carrying amount and are taken into account in determining operating results.

Repairs and maintenance expenditure is charged to the statement of comprehensive income during the financial period in which it is incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to the Board. Major renovations are depreciated over the remaining useful life of the related asset.

#### (d) Impairment of non-current assets

Property, plant and equipment and other non-current assets are reviewed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the greater of the asset's net selling price and the value in use. For the purpose of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows.

#### (e) Investment in associates

An associate is an entity over which the Board has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. The Board's share of its associates' post-acquisition profits or losses is recognised in the income statement, and its share of post-acquisition movements in reserves is recognised in other reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Board's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Board does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

Investments in associates are accounted for using the equity method of accounting, and are initially recognised at cost.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (f) Financial instruments

A financial instrument is any contract that gives rise to both a financial asset in one entity and a financial liability or equity in another entity.

#### **Financial assets**

The Board's financial assets comprise investment securities, loans receivable, trade and other receivables, cash and short term investments, and balances due from related parties.

#### **Available-for-sale**

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories.

#### **Investment securities**

The Board classifies its investment securities as available-for-sale. Management determines the classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

Purchases and sales of investments are recognised on the trade date - the date that the Board commits to purchase or sell the asset. Investments are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Board has transferred substantially all risks and rewards of ownership.

Investments are initially recognised at fair value plus transaction costs and are subsequently carried at fair value.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (f) Financial instruments (continued)

Changes in the fair value of monetary securities denominated in a foreign currency and classified as available-for-sale are analysed between translation differences resulting from changes in amortised cost of the security and other changes in the carrying amount of the security. The translation differences are recognised in the net surplus and other comprehensive income. Other changes in the fair value of both monetary and non-monetary securities classified as available-for-sale are recognised in equity.

When securities classified as available-for-sale are sold or impaired, the fair value adjustments accumulated in the fair value reserve are included in the statement of comprehensive income as 'gains and losses on maturity and disposal of available-for-sale investment'. Interest on available-for-sale securities, calculated using the effective interest method, is recognised in the statement of comprehensive income.

The Board assesses at each year end whether there is objective evidence that a financial asset or a group of financial assets is impaired. A financial asset is considered impaired if its carrying amount exceeds its estimated recoverable amount. The recoverable amount of a financial asset carried at fair value is the present value of expected future cash flows discounted at the current market rate for a similar financial asset.

#### *Loans and receivables*

##### *Trade and other receivables*

Trade and other receivables are classified as loans and receivables and are carried at original invoice value less provision made for impairment of these receivables based on a review of all outstanding amounts at the year end. A provision for impairment of trade receivables is established when there is objective evidence that the Board will not be able to collect all amounts due according to the original terms of receivables. The amount of the provision is the difference between the carrying amount and the recoverable amount, the recoverable amount being the present value of expected cash flows, discounted at the original effective interest rate.

#### *Financial liabilities*

The Board's financial liabilities are initially measured at fair value, net of transactions costs and are subsequently measured at amortised cost using the effective interest method. At year end, financial liabilities comprised payables and amounts due to the Coconut Windstorm Insurance Fund.

#### *Payables*

These amounts represent liabilities for unpaid invoices at year end and are carried at cost, which is deemed to approximate amortised cost.

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 2. Significant Accounting Policies (Continued)

#### (g) Deferred expenditure

Expenditure incurred on seed garden projects is accumulated until the seed garden starts generating income, after which it is written off, as the revenue to which it relates is earned. The period for, and the corresponding rate of, the write off is as follows:

Year 5	-	25%
Year 6	-	30%
Year 7	-	45%

#### (h) Inventories

Inventories are stated at the lower of cost and net realisable value, cost being determined on the average cost basis. Net realisable value is the estimate of selling price in the ordinary course of business, less the cost of selling expenses.

#### (i) Biological assets

Biological assets represent seeds in nurseries and seed gardens and are stated at cost as no reliable measure for determining fair value has been identified. Cost is determined as the accumulated cost of germination.

#### (j) Cash and cash equivalents

Cash and cash equivalents are carried in the statement of financial position at cost, and comprise cash at bank and in hand, and short term investments.

#### (k) Post employment benefits

##### *Pension plan benefits*

The scheme is generally funded through payments to trustee-administered funds as determined by periodic actuarial calculations. A defined benefit plan is a pension plan that defines an amount of pension benefit to be provided, usually as a function of one or more factors such as age, years of service or compensation.

The asset or liability recognised in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at year end minus the fair value of plan assets. Any asset resulting from this calculation is limited to the present value of available refunds and reductions in future contributions to the fund. The defined benefit obligation is calculated annually by independent actuaries using the Projected Unit Credit Method. The present value of the defined benefit obligation is determined by estimating future cash outflows using interest rates on Government securities which have terms to maturity approximating the terms of the related liability.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in profit or loss.

##### *Other post-employment benefits*

The Board provides other post-employment benefits from a supplemental account. This account is funded by investment income arising from investments that have been allocated to this account. The method of accounting and the frequency of valuations are similar to the pension plan benefits described above.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 2. Significant Accounting Policies (Continued)

#### (I) Income recognition

##### *Revenue*

Revenue comprises the fair value of the consideration received or receivable for the sale of goods in the ordinary course of the Board's activities. Revenue is shown net of General Consumption Tax, returns, rebates and discounts and after eliminating sales within the Board.

Sales are recognised when the Board sells a product to the customer. Retail sales are usually by cash only. The Board sells coconut seedlings, coconuts and coconut-based products such as coconut water, oil and pastries.

##### *Interest income*

Interest income is recognised in the statement of comprehensive income on a time-proportion basis using the effective interest method.

##### *Dividend income*

Dividend income in the statement of comprehensive income is recognised when the right to receive payment is established.

### 3. Financial Risk Management

The Board's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Board's overall financial risk management efforts seek to minimise potential adverse effects on the Board's financial performance arising mainly from market risk.

The Board's risk management policies are designed to identify and analyse these risks, to set appropriate risk limits and controls, and to monitor the risks and adherence to limits by means of reliable and up-to-date information systems. The Board periodically reviews its risk management policies and systems to reflect changes in markets, products and emerging best practice.

The members of the Board are ultimately responsible for the establishment and oversight of the risk management framework. The Board has established a Finance Committee for managing and monitoring financial risks, as well as to manage the Board's assets and liabilities and the overall financial structure. The Finance Committee is also primarily responsible for the funding and liquidity risks of the Board.

There has been no change to the Board's exposure to financial risk or the manner in which such risks are managed.

#### (a) Market risk

The Board experiences exposure to market risk, which is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks mainly arise from changes in foreign currency exchange rates and interest rates. Market risk is monitored by the Board which reviews the price movement of financial assets.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 3. Financial Risk Management (Continued)

#### (a) Market risk (continued)

##### *Currency risk*

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

The Board is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises primarily from the Board's cash and investments holdings.

The Board manages its foreign exchange risk by closely monitoring currency positions and seeking to maximise foreign currency earnings.

The table below summarises the Board's exposure to foreign currency exchange rate risk at year end.

	Jamaican J\$'000	US\$ J\$'000	Total J\$'000
	<b>2016</b>		
<b>Financial Assets</b>			
Non-current investments	-	38,634	38,634
Loans receivable	890	368,019	368,909
Receivables	4,067	-	4,067
Short-term investments	198,380	603,094	801,474
Cash at bank and in hand	5,749	1,759	7,508
<b>Total financial assets</b>	<b>209,086</b>	<b>1,011,506</b>	<b>1,220,592</b>
<b>Financial Liabilities</b>			
Payables	11,595	-	11,595
Coconut Windstorm Insurance Fund	11,716	-	11,716
<b>Total financial liabilities</b>	<b>23,311</b>	<b>-</b>	<b>23,311</b>
<b>Net financial position</b>	<b>185,775</b>	<b>1,011,506</b>	<b>1,197,281</b>

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 3. Financial Risk Management (Continued)

#### (a) Market risk (continued)

##### *Currency risk (continued)*

	Jamaican J\$'000	US\$ J\$'000	Total J\$'000
	<b>2015</b>		
<b>Financial Assets</b>			
Non-current investments	21,196	89,908	111,104
Loans receivables	1,293	-	1,293
Receivables	1,943	-	1,943
Coconut Windstorm Insurance Fund	793	-	793
Short-term investments	221,438	434,183	655,621
Cash at bank and in hand	7,320	7,602	14,922
<b>Total financial assets</b>	<b>253,983</b>	<b>531,693</b>	<b>785,676</b>
<b>Financial Liability</b>			
Payables	11,125	-	11,125
<b>Total financial liabilities</b>	<b>11,125</b>	<b>-</b>	<b>11,125</b>
<b>Net financial position</b>	<b>242,858</b>	<b>531,693</b>	<b>774,551</b>

##### *Foreign currency sensitivity*

The sensitivity analysis represents outstanding foreign currency denominated monetary items and adjusts their translation at the year-end for changes in foreign currency rates. The change in currency rate below represents management's assessment of the possible change in foreign exchange rates. The sensitivity of the net surplus is attributable to the Board's cash and cash equivalents and investments.

If at 31 December 2016, the Jamaican dollar strengthened/weakened by 1 %/(6%) (2015 – 1 %/(8%)) against the US dollar, with all other variables held constant, net surplus would have (decreased)/increased by approximately (\$10,115,000)/\$60,690,000 (2015 – (\$5,317,000)/\$42,535,000). The percentage represents management's assessment of the possible range of changes in the rate of exchange to the US dollar.

##### *Interest rate risk*

Interest rate risk is the risk that the value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

Fixed interest rate instruments expose the Board to fair value interest risk on its financial assets. Floating rate instruments expose the Board to cash flow interest risk. The Board's interest rate risk policy requires it to manage interest rate risk by maintaining a balanced investment portfolio.

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 3. Financial Risk Management (Continued)

#### (a) Market risk (continued)

##### *Interest rate risk (continued)*

The following table summarises the Board's exposure to interest rate risk on its financial assets. It includes the Board's financial instruments at carrying amounts, categorised by the earlier of contractual repricing or maturity dates. The Board has no interest bearing liabilities.

	Within 1 Month \$'000	1 to 3 Months \$'000	3 to 12 Months \$'000	1 to 5 Years \$'000	Over 5 Years \$'000	Non- Interest Bearing \$'000	Total \$'000
<b>2016</b>							
Non-current investments	-	-	-	38,634	-	-	38,634
Loans receivable	-	-	-	368,325	584	-	368,909
Receivables	-	-	-	-	-	4,067	4,067
Short-term investments	518,129	228,965	51,788	-	-	2,592	801,474
Cash at bank and in hand	-	-	-	-	-	7,508	7,508
<b>Total financial assets</b>	<b>518,129</b>	<b>228,965</b>	<b>51,788</b>	<b>406,959</b>	<b>584</b>	<b>14,167</b>	<b>1,220,592</b>

	Within 1 Month \$'000	1 to 3 Months \$'000	3 to 12 Months \$'000	1 to 5 Years \$'000	Over 5 Years \$'000	Non- Interest Bearing \$'000	Total \$'000
<b>2015</b>							
Non-current investments	-	-	61,316	49,788	-	-	111,104
Loans receivable	-	-	-	553	740	-	1,293
Receivables	-	-	-	-	-	1,943	1,943
Coconut Windstorm Insurance Fund	-	-	-	-	-	793	793
Short-term investments	346,203	280,989	27,629	-	-	800	655,621
Cash at bank and in hand	-	-	-	-	-	14,922	14,922
<b>Total financial assets</b>	<b>346,203</b>	<b>280,989</b>	<b>88,945</b>	<b>50,341</b>	<b>740</b>	<b>18,458</b>	<b>785,676</b>



# Coconut Industry Board

Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

## 3. Financial Risk Management (Continued)

### (a) Market risk (continued)

#### *Interest rate risk (continued)*

#### *Interest rate sensitivity*

The following table indicates the sensitivity to a reasonably possible change in interest rates, with all other variables held constant, on the Board's net surplus and equity.

The sensitivity of the profit or loss is the effect of the assumed changes in interest rates on net income based on the floating rate non-trading financial assets and financial liabilities. The sensitivity of equity is calculated by revaluing fixed rate available-for-sale financial assets for the effects of the assumed changes in interest rates. The correlation of variables will have a significant effect in determining the ultimate impact on market risk, but to demonstrate the impact due to changes in variable, variables had to be on an individual basis. It should be noted that movements in these variables are non-linear.

	Effect on Net Surplus 2016 \$'000	Effect on Equity 2016 \$'000	Effect on Net Surplus 2015 \$'000	Effect on Equity 2015 \$'000
<b>United States dollar:</b>				
<b>Change in basis points:</b>				
-100% (2015: -100%)	-	427	-	682
+50% (2015: +100%)	-	(854)	-	(1,038)
<b>Jamaican dollar:</b>				
<b>Change in basis points:</b>				
-100% (2015: -150%)	(50)	21	(50)	29
+100% (2015: +100%)	50	(23)	125	(23)

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 3. Financial Risk Management (Continued)

#### (a) Market risk (continued)

##### *Interest rate risk (continued)*

The following tables summarises the weighted average interest rate on the Board's financial assets.

	Jamaica %	US\$ %
	<b>2016</b>	
Non-current investments	-	5.94
Loans receivable	7.00	3.00
Short-term investments	5.60	1.79
Cash at bank and in hand	0.75	0.15
	<b>2015</b>	
Non-current investments	7.63	5.32
Loans receivable	7.00	-
Short-term investments	6.07	2.02
Cash at bank and in hand	0.75	0.15

#### (b) Credit risk

The Board takes on exposure to credit risk, which is the risk that its counterparties will cause a financial loss for the Board by failing to discharge their contractual obligations. Credit exposures arise principally from the Board's investment activities. The Board structures the levels of credit risk it undertakes by placing limits on the amount of risk accepted in relation to a single counterparty.

The Board establishes an allowance for impairment that represents its estimate of incurred losses in respect of investments, loans and receivables. The Board addresses impairment assessment in two areas: individually assessed allowances and collectively assessed allowances.

The Board limits its exposure to credit risk by investing mainly in liquid securities, with counterparties that have high credit quality and Government of Jamaica securities. Accordingly, management does not expect any counterparty to fail to meet its obligations. At year end, all investment securities are either held directly with the Government of Jamaica or secured by instruments issued by the Government of Jamaica.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 3. Financial Risk Management (Continued)

#### (b) Credit risk (continued)

Maximum exposure to credit risk:

	2016 \$'000	2015 \$'000
Investment securities-		
Non-current investments	38,634	111,104
Short-term investments	801,474	655,621
Loans receivable	368,909	1,293
Receivables	4,067	1,943
Coconut Windstorm Insurance Fund	-	793
Cash at bank and in hand	7,508	14,922
	<u>1,220,592</u>	<u>785,676</u>

#### (c) Liquidity risk

Liquidity risk is the risk that the Board is unable to meet its payment obligations associated with its financial liabilities when they fall due. Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions. Liquidity risk is not usually significant for the Board.

#### *Liquidity risk management process*

The Board's liquidity management process includes:

- (i) Monitoring future cash flows and liquidity on a daily basis. This incorporates an assessment of expected cash flows and the availability of high grade collateral which could be used to secure funding if required;
- (ii) Maintaining a portfolio of highly marketable and diverse assets that can easily be liquidated as protection against any unforeseen interruption to cash flows and
- (iii) Optimising cash returns on investments.

#### *Financial liabilities and assets held for managing liquidity risk*

Financial liabilities are due within three months. The Board has sufficient financial assets to cover financial liabilities that arise in the course of normal operations.

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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### 3. Financial Risk Management (Continued)

#### (d) Capital management

The Board's objectives when managing capital are to safeguard the Board's ability to continue as a going concern in order to conduct research on the agricultural problems in the industry and to provide assistance to coconut growers to market their crops. There were no changes to the Board's approach to capital management during the year.

#### (e) Fair value estimation

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The carrying values of loans receivable, receivables less impairment provision, short-term investments, balances with Coconut Windstorm Insurance Fund and payables are assumed to approximate their fair values due to the short-term maturity of these instruments.

The Board's available for sale investments are measured at fair value subsequent to initial recognition, and are classified as Level 2 fair value instruments. Level 2 fair value measurements are those derived from inputs other than quoted prices that are observable for the instrument, either directly (i.e., as prices) or indirectly (i.e., derived from prices). Indicative prices are obtained from regular, publicly available quotes by reputable dealers and brokers; and

There were no transfers between levels during the year, and there are no Level 3 instruments.

### 4. Critical Accounting Judgements and Key Sources of Estimation Uncertainty

Judgements and estimates are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

#### (a) Critical judgements in applying the Board's accounting policies

In the process of applying the Board's accounting policies, management has made no judgements which it believes presents a significant risk of material misstatement to the amounts recognised in the financial statements.

#### (b) Key sources of estimation uncertainty

The Board makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

##### *Post-employment benefits*

The cost of these benefits and the present value of the future obligations depend on a number of factors that are determined by actuaries using a number of assumptions. The assumptions used in determining the net periodic cost or income for retirement benefits include the expected long-term rate of return on the relevant plan assets, the discount rate, and, in the case of health benefits, the expected rate of increase in health costs. Any changes in these assumptions will impact the net periodic cost or income recorded for retirement benefits and may affect planned funding of the pension plan. The expected return on plan assets assumption is determined on a uniform basis, considering long-term historical returns, asset allocation and future estimates of long-term investment returns.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 5. Other Operating Income

	2016 \$'000	2015 \$'000
Interest income	26,636	31,648
Miscellaneous income	2,867	2,434
Foreign exchange gain	30,628	21,660
	<u>60,131</u>	<u>55,742</u>

### 6. Expenses by Nature

Total direct, administration and other operating expenses:

	2016 \$'000	2015 \$'000
Auditor's remuneration		
Current year	2,189	1,391
Prior year under accrual	610	-
Cost of inventories recognised as expense	92,576	83,031
Cost of nursery and seeds garden operation	16,750	8,804
Depreciation (Note 8)	12,808	10,661
Field works experiment	2,042	1,806
Insurance	549	1,041
Lethal yellowing research costs	335	538
Motor vehicle expenses	19,748	21,498
Repairs and maintenance	8,360	7,917
Seedling planting programme	15,781	23,331
Special projects	2,446	2,022
Staff costs (Note 7)	111,842	110,115
Subsidy on seedlings	385	513
Telephone, postage and telegram	1,533	1,332
Travelling	7,109	5,767
Utilities	5,268	5,885
Other expenses	16,626	10,514
	<u>316,957</u>	<u>296,166</u>

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 7. Staff Costs

	2016 \$'000	2015 \$'000
Wages and salaries	66,791	63,823
Statutory contributions	5,479	5,401
Pension costs (Note 24)	15,500	15,500
Other retirement benefits (Note 24)	15,900	15,100
Other	8,172	10,291
	<u>111,842</u>	<u>110,115</u>

### 8. Property, Plant and Equipment

	2016							
	Freehold Land	Freehold Buildings	Research Library Stock	Furniture Fixtures & Equipment	Motor Vehicles	Irrigation Equipment	Fence Improvement	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Cost -								
At 1 January 2016	7,121	21,536	1,116	32,054	71,854	2,087	164	135,932
Additions	-	446	-	812	14,894	934	-	17,086
Disposals	-	-	-	(817)	(6,605)	-	-	(7,422)
At 31 December 2016	7,121	21,982	1,116	32,049	80,143	3,021	164	145,596
Accumulated Depreciation -								
At 1 January 2016	-	6,414	1,082	24,696	40,648	1,857	101	74,798
Charge for the year	-	552	9	1,697	10,550	-	-	12,808
Relieved on disposals	-	-	-	(781)	(6,605)	-	-	(7,386)
At 31 December 2016	-	6,966	1,091	25,612	44,593	1,857	101	80,220
Net Book Value -								
At 31 December 2016	7,121	15,016	25	6,437	35,550	1,164	63	65,376



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 8. Property, Plant and Equipment (Continued)

	2015							
	Freehold Land	Freehold Buildings	Research Library Stock	Furniture Fixtures & Equipment	Motor Vehicles	Irrigation Equipment	Fence Improvement	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Cost -								
At 1 January 2015	7,121	21,536	1,116	33,149	65,864	2,087	164	131,037
Additions	-	-	-	1,047	13,355	-	-	14,402
Disposals	-	-	-	(2,142)	(7,365)	-	-	(9,507)
At 31 December 2015	7,121	21,536	1,116	32,054	71,854	2,087	164	135,932
Accumulated Depreciation -								
At 1 January 2015	-	5,865	1,070	23,061	40,163	1,857	101	72,117
Charge for the year	-	549	12	2,250	7,850	-	-	10,661
Relieved on disposals	-	-	-	(615)	(7,365)	-	-	(7,980)
At 31 December 2015	-	6,414	1,082	24,696	40,648	1,857	101	74,798
Net Book Value -								
At 31 December 2015	7,121	15,122	34	7,358	31,206	230	63	61,134

### 9. Investment in Associated Company

	2016	2015
	\$'000	\$'000
At the beginning of the year	3,146,809	3,098,579
Share of profits	276,970	182,567
Dividends received	(527,848)	(155,250)
Movement in other reserves (i)	10,867	20,913
At end of year	2,906,798	3,146,809

(i) Movement in other reserves is broken down as follows:

	2016	2015
	\$'000	\$'000
Re-measurement of post-employment benefit obligations	52,762	22,715
Unrealised fair value gains on other available for sale investments	(41,895)	(1,802)
	10,867	20,913

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 9. Investment in Associated Company (Continued)

Seprod Limited has share capital consisting solely of ordinary shares, these are held directly by the Board; the Company is incorporated and domiciled in Jamaica and is listed on the Jamaica Stock Exchange. The carrying values of this investment in associates and the values indicated by prices quoted on the Jamaica Stock Exchange ("JSE Indicative Value") as at 31 December were as follows:

	2016 \$'000	2015 \$'000
Seprod Limited -		
163,420,345 (2015 – 163,420,345) stock units	<u>4,869,926</u>	<u>3,359,922</u>

This investment represents 31.65% of the issued share capital of Seprod Limited. There are no contingent liabilities relating to the Board's interest in Seprod Limited.

#### Summarised financial information for associate

Set out below is the summarised information for Seprod Limited which is accounted for using the equity method.

#### Summarised statement of financial position

	2016 \$'000	2015 \$'000
Current assets	7,362,980	6,420,288
Non-current assets	<u>10,063,326</u>	<u>9,085,470</u>
	<u>17,426,306</u>	<u>15,505,758</u>
Current liabilities	(6,660,515)	(3,516,447)
Non-current liabilities	<u>(1,580,493)</u>	<u>(2,045,595)</u>
	<u>(8,241,008)</u>	<u>(5,562,042)</u>
Net Asset	<u>9,185,298</u>	<u>9,943,716</u>



# Coconut Industry Board

Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

## 9. Investment in Associated Company (Continued)

### Summarised statement of comprehensive income

	2016 \$'000	2015 \$'000
Revenue	15,781,917	13,777,863
Other income	1,051,619	760,629
	<u>16,833,536</u>	<u>14,538,492</u>
Direct expenses	(12,291,448)	(11,114,536)
Selling, administrative and other operating expenses	(2,981,533)	(2,529,844)
<b>Operating Profit</b>	<u>1,560,555</u>	<u>894,112</u>
Finance costs	(374,631)	(290,054)
<b>Profit before Taxation</b>	<u>1,185,924</u>	<u>604,058</u>
Taxation	(310,715)	(281,317)
<b>Net Profit</b>	<u>875,209</u>	<u>322,741</u>
Other comprehensive income	34,340	320,241
<b>Total Comprehensive Income</b>	<u>909,549</u>	<u>642,982</u>

### Reconciliation of summarised financial information

	2016 \$'000	2015 \$'000
<b>Opening net assets</b>		
1 January	9,943,716	9,791,313
Profit for the period	875,209	322,741
Other comprehensive income	34,340	320,241
Dividends paid	(1,667,967)	(490,579)
<b>Closing net assets</b>	<u>9,185,298</u>	<u>9,943,716</u>
<b>Carrying value - interest in associate – 31.65%</b>	<u>2,906,768</u>	<u>3,146,809</u>

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 10. Investments

	2016 \$'000	2015 \$'000
Non-current assets -		
Government of Jamaica securities	25,874	59,226
Corporate bonds	64,786	51,878
	<u>90,660</u>	<u>111,104</u>
Current assets -		
Reverse repurchase agreements	749,448	655,621
	<u>840,108</u>	<u>766,725</u>

(a) Interest receivable on investments amounted to \$2,591,000 (2015 - \$3,239,000). The effective weighted average interest rates on investments are 5.63% (2015 - 7.63%) and 2.04% (2015 - 5.32%) on Jamaican dollar and United States dollar investments respectively.

(b) Investments have been allocated as follows:

	2016 \$'000	2015 \$'000
Capital Fund (Note 19)	321,126	303,056
Coconut Replanting Fund (Note 22)	227,081	219,636
Staff Contingency Fund (Note 21)	167,799	154,991
Coconut Industry Board	124,102	89,042
	<u>840,108</u>	<u>766,725</u>

(c) Short-term investments

Short-term investments comprise Government of Jamaica Local Registered Stock held under participation agreements/reverse repurchase agreements which mature in less than 90 days. Due to the short-term nature of the instruments, they are regarded as cash equivalents for the purposes of the statement of cash flows. Interest receivable on short term investments amounted to \$2,109,000 (2015 - \$2,186,000).



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 10. Investments (Continued)

#### (c) Short-term investments (continued)

Short-term investments have been allocated as follows:

#### Capital Fund

	2016 \$'000	2015 \$'000
Barita Investments Limited	118,688	116,880
First Caribbean International Bank Jamaica Limited	11,348	18,594
Jamaica Money Market Brokers Limited	77,130	71,347
NCB Capital Markets Limited	113,315	95,260
Interest receivable	645	957
	<u>321,126</u>	<u>303,038</u>

#### Coconut Replanting Fund

	2016 \$'000	2015 \$'000
Barita Investments Limited	35,679	34,203
Proven Wealth Limited	1,979	3,364
Jamaica Money Market Brokers Limited	109,788	93,543
NCB Capital Markets Limited	72,919	35,064
Scotia Investments Limited	3,517	2,246
First Caribbean International Securities Limited	2,337	1,911
Interest receivable	862	980
	<u>227,081</u>	<u>171,311</u>

#### Staff Contingency Fund

	2016 \$'000	2015 \$'000
Barita Investments Limited	34,371	44,734
Proven Wealth Limited	9,859	9,428
Jamaica Money Market Brokers Limited	3,561	3,470
NCB Capital Markets Limited	88,733	54,202
Scotia Investments Limited	2,422	2,328
First Caribbean International Securities Limited	2,193	2,117
Interest receivable	786	1,082
	<u>141,925</u>	<u>117,361</u>

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 10. Investments (Continued)

#### (c) Short-term investments (continued)

##### Coconut Industry Board

	2016 \$'000	2015 \$'000
Barita Investments Limited	-	800
Jamaica Money Market Brokers Limited	13,344	12,355
NCB Capital Markets Limited	97,699	50,535
Interest receivable	299	221
	<u>111,342</u>	<u>63,911</u>
Total short-term investments	<u>801,474</u>	<u>655,621</u>

### 11. Loans Receivable

Loans were disbursed from:

	2016 \$'000	2015 \$'000
The Board's working capital		
(i) Related party loan	368,018	-
(ii) Computer revolving loan	307	553
Capital Fund	584	740
	<u>368,909</u>	<u>1,293</u>

- (i) On 22 November 2016, the Board lent US\$2,886,855 to Seprod Limited, an associated company. The principal is repayable at the maturity date, 28 November 2018. The loan attracts an interest rate of 3% per annum, which is payable quarterly.
- (ii) The Board holds first lien on mortgage loans made to employees. The balance is repayable up to the time of retirement. The weighted average interest rate is 7%.

### 12. Deferred Expenditure

Comprising expenditure incurred on seed garden projects:

	2016 \$'000	2015 \$'000
Balance as at the beginning of the year	4,470	6,854
Additions during the year	2,529	234
Write-offs during the year	(884)	(2,618)
Balance as at the end of the year	<u>6,115</u>	<u>4,470</u>



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 13. Inventories

	2016 \$'000	2015 \$'000
Bags, pesticides, weedicides and miscellaneous items	2,672	3,182

### 14. Biological Assets

	2016 \$'000	2015 \$'000
Seeds in nurseries	20,594	20,777

### 15. Receivables

	2016 \$'000	2015 \$'000
Withholding tax	34,693	28,795
GCT recoverable	1,195	1,195
Prepayments	2,217	968
Staff loans	791	346
Other	3,275	1,598
	42,171	32,902

### 16. Cash at Bank and in Hand

	2016 \$'000	2015 \$'000
Cash at bank	7,384	14,766
Petty cash	124	156
	7,508	14,922

### 17. Payables

	2016 \$'000	2015 \$'000
Accruals	7,514	6,324
Other	4,081	4,801
	11,595	11,125

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 18. Capital Surplus

	2016 \$'000	2015 \$'000
Capital distribution received	6,158	6,158
Coconut Lethal Yellowing Fund	702	702
Copra Production Acceleration Fund	3,750	3,750
Donation of equipment	1,790	1,790
Donation of motor vehicle	5	5
Gain on disposal of stock units	14,018	14,018
Share of reserves of associated company	578,790	620,685
Surplus on disposal of premises	3	3
	<u>605,216</u>	<u>647,111</u>

### 19. Capital Fund

- (a) Effective 1 January 1993, a Capital Fund was established by the Board for the purpose of holding proceeds from the sale of shares and income from capital distributions. The income arising from investments allocated to the Capital Fund, less any authorised expenditure is transferred to this account on an annual basis.

This balance is represented by:

	2016 \$'000	2015 \$'000
Non-current investment	-	18
Short term investments (Note 10)	321,126	303,038
	<u>321,126</u>	<u>303,056</u>
Investment in associate	94,799	3,554
Loans receivable (Note 11)	584	740
Receivables -		
Withholding tax recoverable	11,963	9,785
	<u>428,472</u>	<u>317,135</u>

- (b) Transfer from income and expenditure account

	2016 \$'000	2015 \$'000
Interest and investment income	32,439	24,877
Add: Authorised income	78,898	-
	<u>111,337</u>	<u>24,877</u>



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 20. Fair Value Reserve

	2016 \$'000	2015 \$'000
Balance at beginning of year	8,664	8,661
Unrealised gain on investments	228	3
Balance at end of year	8,892	8,664

### 21. Staff Contingency Fund

- (a) This fund was established in 1996 with money the Board received from a surplus, determined by qualified actuary, in the Seprod et al pension scheme, to which the Coconut Industry Board and its employees have been contributors from its inception. The fund which was originally intended to be used to supplement the pension of a specified category of Board's employees was renamed to reflect its true purpose of providing assistance to staff in certain circumstances. Income arising from investment of this fund, less any authorised expenditure, is transferred to this account on an annual basis.

	2016 \$'000	2015 \$'000
Non-current investment	25,874	37,630
Short term investments (Note 10)	141,925	117,361
	167,799	154,991
Receivables -		
Withholding tax recoverable	11,130	9,285
Supplementary Fund - Pension and health benefits	38,698	24,500
	217,627	188,776
Less: Post-employment benefits	(150,100)	(154,000)
	67,527	34,776

- (b) Transfer from income and expenditure account

	2016 \$'000	2015 \$'000
Interest and investment income	9,643	11,219
Less:		
(Decrease)/increase in post-employment benefit obligation	(13,900)	15,100
Authorised expenditure	34,376	(33,519)
	30,119	(7,200)

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 22. Coconut Replanting Fund

- (a) This fund was established in 2003 for the purpose of ensuring that adequate financing will be available for coconut replanting programmes which are crucial to the survival of the local coconut industry. Income arising from the investments allocated to this fund less authorised expenditure, which includes amounts expended for coconut seedlings, fertilizer and weed control grants to farmers participating in the programmes, is credited to this account.

This balance is represented by:

	2016 \$'000	2015 \$'000
Non-current investment	-	48,325
Short term investments (Note 10)	227,081	171,311
	<u>227,081</u>	<u>219,636</u>
Receivables -		
Withholding tax recoverable	9,083	7,879
	<u>236,164</u>	<u>227,515</u>

- (b) Transfer to income and expenditure account

	2016 \$'000	2015 \$'000
Interest and investment income	16,621	15,071
Less: Authorised expenditure	(8,321)	-
	<u>8,300</u>	<u>15,071</u>

### 23. Reserve

- (a) The reserve account include general reserves of \$20,000 (2015:\$20,000). These balances below represents the surplus on operations of the Coconut Industry Clearing House, which was transferred to the Coconut Industry Board in 1945.

- (b) Accumulated surplus is represented as follows:

	2016 \$'000	2015 \$'000
The Board	159,852	65,235
Associated company	2,601,617	2,540,746
	<u>2,761,469</u>	<u>2,605,981</u>



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits

	2016 \$'000	2015 \$'000
Amounts recognised in the statement of financial position -		
Pension plan benefits	20,900	(46,700)
Other post-employment obligation	(150,100)	(154,000)
	<u>(129,200)</u>	<u>(200,700)</u>
Amounts recognised in profit or loss -		
Pension plan benefits	15,500	15,500
Other post-employment benefits	<u>15,900</u>	<u>15,100</u>
Amounts recognised in other comprehensive income -		
Pension plan benefits	(80,400)	(29,600)
Other postemployment benefits	<u>(13,900)</u>	<u>15,100</u>

#### *Pension plan benefits*

The Board participates in the Seprod et al Scheme, a benefit based pension scheme operated by Seprod Limited and approved organisations. The scheme provides benefits to members based on average earnings for the final 2 years of service. Employees are required to contribute 5% of pensionable salary; the Board makes contributions at rates recommended by independent actuaries, which is currently set at 5% of pensionable salary. The scheme is valued by independent actuaries annually using the Projected Unit Credit Method. The latest actuarial valuation was carried out as at 31 December 2016.

The amounts recognised in the statement of financial position were determined as follows:

	2016 \$'000	2015 \$'000
Fair value of plan assets	(336,400)	(280,700)
Present value of funded obligations	<u>315,500</u>	<u>327,400</u>
(Asset)/liability in the statement of financial position	<u>(20,900)</u>	<u>46,700</u>

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits (Continued)

#### *Pension plan benefits (continued)*

The amounts recognised in the statement of comprehensive income were as follows:

	2016 \$'000	2015 \$'000
Current service cost	10,600	8,600
Interest cost	28,500	27,500
Interest income on plan assets	(23,600)	(20,600)
Included in staff costs (Note 7)	<u>15,500</u>	<u>15,500</u>

The movement in the defined benefit asset during the year was as follows:

	2016 \$'000	2015 \$'000
At beginning of year	46,700	63,400
Amounts recognised in profit or loss in the statement of comprehensive income	15,500	15,500
Amounts recognised in other comprehensive income	(80,400)	(29,600)
Contributions paid	(2,700)	(2,600)
Liability at end of year	<u>(20,900)</u>	<u>46,700</u>

The movement in the fair value of plan assets during the year was as follows:

	2016 \$'000	2015 \$'000
At beginning of year	280,700	220,200
Interest income on plan assets	23,600	20,600
Re-measurement recognised on obligation	38,300	45,800
Contributions	7,500	7,300
Benefits paid	(13,700)	(13,200)
At end of year	<u>336,400</u>	<u>280,700</u>



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits (Continued)

#### *Pension plan benefits (continued)*

The movement in the present value of the defined benefit obligation during the year was as follows:

	2016 \$'000	2015 \$'000
At beginning of year	327,400	283,600
Current service cost	13,300	11,300
Interest cost	28,500	27,500
Re-measurement gains on obligation	(42,100)	16,100
Benefits paid	(13,700)	(13,200)
Voluntary contribution	2,100	2,100
At end of year	<u>315,500</u>	<u>327,400</u>

As at the last valuation date, 31 December 2016, the present value of the defined benefit obligation was comprised of approximately \$220,100,000 relating to active employees, \$95,400,000 relating to members in retirement.

Expected contributions to the plan for the year ended 31 December 2017 amount to approximately \$1,461,000.

The distribution of plan assets was as follows:

	2016 %	2015 %
Quoted equities	32.9	38.3
Real estate	7.4	10.9
Government of Jamaica securities	29.8	35.9
Repurchase agreements	11.8	-
Promissory notes	5.9	-
Corporate bonds	4.6	5.9
Other	<u>7.6</u>	<u>9.0</u>
	<u>100.0</u>	<u>100</u>

# Coconut Industry Board

Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

## 24. Post-employment Benefits (Continued)

### *Pension plan benefits (continued)*

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is:

	Impact on Post-employment obligations		
	Change in Assumption	Increase in Assumption	Decrease in Assumption
		\$'000	\$'000
Discount rate	1%	(31,300)	38,400
Future salary increases	1%	8,100	(7,400)
Pension increase	1%	29,300	(30,400)

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous period.

### *Other post-employment benefits*

In addition to pension benefits described above, the Board provides supplementary pension benefits and retiree medical insurance benefits. The Board decided, on 27 February 2001, that members employed prior to 1995 who retire with at least 15 years of service with the Board, will receive benefits calculated as 2% x annual salary at retirement x service with the Board (subject to a maximum of two-thirds of the employee's final annual salary), less the annual pension payable from the Seprod Fund. The method of accounting and the frequency of valuations are similar to those used for the defined benefit pension scheme described above. The liability recognised in the statement of financial position was determined as follows:

	2016 \$'000	2015 \$'000
Present value of unfunded obligations	150,100	154,000

The Board has earmarked certain investments for the purpose of funding the obligation arising from these benefits. These investments are allocated to the Staff Contingency Fund as disclosed in Notes 10 and 21 of the financial statements.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits (Continued)

#### *Other post-employment benefits (continued)*

The movement in the present value of the defined benefit obligation during the year was as follows:

	2016 \$'000	2015 \$'000
At beginning of year	154,000	129,500
Current service cost	2,800	2,700
Interest cost	13,100	12,300
Past service cost	-	100
Benefits paid	(5,900)	(5,700)
Re-measurement recognised on obligation	(13,900)	15,100
At end of year	<u>150,100</u>	<u>154,000</u>

The amounts recognised in the statement of comprehensive income are as follows:

	2016 \$'000	2015 \$'000
Current service cost	2,800	2,700
Interest cost	13,100	12,300
Past service cost	-	100
Included in staff costs (Note 7)	<u>15,900</u>	<u>15,100</u>

As at the last valuation date, 31 December 2016, the present value of the defined benefit obligation was comprised of approximately \$366,000,000 relating to active employees, \$122,500,000 relating to members in retirement.

The effects of a 1% movement in the post-employment health care cost were as follows:

Impact on Post-employment obligations		
Change in Assumption	Increase in Assumption	Decrease in Assumption
	\$'000	\$'000
Discount rate	1% 8,600	(3,500)
Future salary increases	1% 400	(400)
Medical cost increase	1% 9,500	(8,600)

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits (Continued)

#### *Other post-employment benefits (continued)*

#### *Principal actuarial assumptions used in valuing post-employment benefits*

The principal actuarial assumptions used were as follows:

	2016	2015
Discount rate	9.00%	8.50%
Future salary increases	6.00%	5.00%
Future pension increases	2.50%	3.50%
Medical cost trend rate	8.50%	7.50%

#### **Risks associated with pension plans and post-employment plans**

Through its defined benefit pension plans and post-employment medical plans, the Board is exposed to a number of risks, the most significant of which are detailed below:

##### **Asset volatility**

The plan liabilities are calculated using a discount rate set with reference to Government of Jamaica bond yields; if plan assets underperform this yield, this will create a deficit.

As the plan matures, the Board intends to reduce the level of investment risk by investing more in assets that better match the liabilities. The Government bonds represent investments in Government of Jamaica securities.

The Board believes that due to the long-term nature of the plan liabilities, a level of continuing equity investment is an appropriate element of the Board's long term strategy to manage the plans efficiently. See below for more details on the Board's asset-liability matching strategy.

##### **Changes in bond yields**

A decrease in Government of Jamaica bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.

##### **Inflation risk**

Higher inflation will lead to higher liabilities. The majority of the plan's assets are either unaffected by fixed interest bonds, meaning that an increase in inflation will reduce the surplus or create a deficit.

##### **Life expectancy**

The majority of the plan's obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plan's liabilities. This is particularly significant, where inflationary increases result in higher sensitivity to changes in life expectancy.



# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 24. Post-employment Benefits (Continued)

#### Risks associated with pension plans and post-employment plans (continued)

The responsibility for the management of the assets of the Fund is vested in the Board of Trustees and NCB Insurance Company Limited representatives who are the fund and investment managers. They ensure that the investment positions are managed within an asset-liability matching (ALM) framework that has been developed to achieve long-term investments that are in line with the obligations under the pension fund. Within this framework, the Fund's ALM objective is to match assets to the pension obligations by investing in long-term fixed interest securities with maturities that match the benefit payments as they fall due. The Fund actively monitors how the duration and the expected yield of the investments are matching the expected cash outflows arising from the pension obligations. The Fund has not changed the processes used to manage its risks from previous periods. The Fund does not use derivatives to manage its risk. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets. A large portion of assets in 2016 consists of bonds, equities and real estate.

Funding levels are monitored on an annual basis and the current agreed contribution rate is 5% of pensionable salaries. The next triennial valuation is due to be completed as at 31 August 2017. The Company considers that the contribution rates set at the last valuation date to be sufficient to prevent a deficit and that regular contributions, which are based on service costs, will not increase significantly.

The weighted average duration of the defined benefit obligation is 13 years for the pension fund and 13 years for the post-employment medical benefits.

### 25. Related Party Balances and Transactions

#### (a) Year-end balances arising from transactions with related parties:

	2016 \$'000	2015 \$'000
Loans receivable -		
Directors	<u>490</u>	<u>569</u>
Receivables -		
Coconut Windstorm Insurance Fund	<u>-</u>	<u>793</u>
Payables -		
Coconut Windstorm Insurance Fund	<u>11,716</u>	<u>-</u>

The loan amounting to \$490,000 is to be repaid by deductions of \$50,000 from the payment for each delivery of coconut oil to the Board. The loan is interest free.

# Coconut Industry Board

## Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

### 25. Related Party Balances and Transactions (Continued)

The following transactions were carried out with related parties:

#### (b) Purchases of goods/services:

	2016 \$'000	2015 \$'000
Purchases of goods - Directors	<u>35,367</u>	<u>35,420</u>
Insurance expense - Coconut Windstorm Insurance Fund	<u>817</u>	<u>768</u>

#### (c) Sales of services:

	2016 \$'000	2015 \$'000
Cess Income - Seprod Limited (Associated company)	<u>6,575</u>	<u>5,611</u>

#### (d) Other transactions:

	2016 \$'000	2015 \$'000
Dividends received - Seprod Limited (Associated company)	<u>527,848</u>	<u>155,250</u>

#### (e) Key management compensation:

	2016 \$'000	2015 \$'000
Salaries and other short-term employee benefits	17,391	16,483
Statutory contributions	1,062	1,031
Pension benefits	<u>686</u>	<u>639</u>
	<u>19,139</u>	<u>18,153</u>
Directors' emoluments – Fees	<u>3,072</u>	<u>1,991</u>





## **Independent auditor's report**

*To the Members of Coconut Windstorm Insurance Fund*

### **Report on the audit of the financial statements**

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#### **Our opinion**

In our opinion, the financial statements give a true and fair view of the financial position, of Coconut Windstorm Insurance Fund (the Fund) as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards.

#### **What we have audited**

The Fund's financial statements comprise:

- the statement of financial position as at 31 December 2016;
- the statement of comprehensive income for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies.

#### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Independence**

We are independent of the Fund in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

#### **Responsibilities of management for the financial statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Fund's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Fund or to cease operations, or has no realistic alternative but to do so.

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L.A. McKnight P.E. Williams A.K. Jain B.L. Scott B.J. Denning G.A. Reece P.A. Williams R.S. Nathan C.I. Bell-Wisdom D.D. Dodd G.K. Moore



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### **Auditor's responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Fund's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Fund to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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*PricewaterhouseCoopers*  
Chartered Accountants  
26 July 2017  
Kingston, Jamaica



**Coconut Industry Board****Coconut Windstorm Insurance Fund****Statement of Comprehensive Income****Year ended 31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

	2016 \$'000	2015 \$'000
<b>Income</b>		
Contractual insurance premiums	3,233	3,207
Interest	9,026	10,337
	<u>12,259</u>	<u>13,544</u>
<b>Expenditure</b>		
Audit fees	220	155
Telephone, postage and telegrams	80	74
Salaries and management fees	100	100
Stationery and general expenses	96	94
	<u>496</u>	<u>423</u>
<b>Net Surplus, being Total Comprehensive Income</b>	11,763	13,121
Accumulated fund at beginning of year	186,476	173,355
<b>Accumulated Fund</b>	<u>198,239</u>	<u>186,476</u>

**Coconut Industry Board**  
**Coconut Windstorm Insurance Fund**  
**Statement of Financial Position**  
**31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

	Note	2016 \$'000	2015 \$'000
<b>Current Assets</b>			
Sundry debtors	4	13,317	10,971
Short term investments	6	173,109	174,929
Coconut Industry Board		11,715	-
Cash at bank		99	1,370
		<u>198,240</u>	<u>187,270</u>
<b>Current Liabilities</b>			
Payables		1	1
Coconut Industry Board		-	793
<b>Net Current Assets</b>		<u>198,239</u>	<u>186,476</u>
<b>Accumulated Fund</b>		<u>198,239</u>	<u>186,476</u>

Approved for issue by the Board of Directors on July 25, 2017 and signed on its behalf by:

  
 Granville Marsh

Director

  
 Christopher Gentles

Director



**Coconut Industry Board****Coconut Windstorm Insurance Fund****Statement of Cash Flows****Year ended 31 December 2016****(expressed in Jamaican dollars unless otherwise indicated)**

	2016 \$'000	2015 \$'000
<b>Cash Flows from Operating Activities</b>		
Net surplus	11,763	13,121
Adjusted for:		
Interest income	<u>(9,025)</u>	<u>(10,337)</u>
	2,738	2,784
Changes in operating assets and liabilities		
Sundry debtors	(2,346)	(2,532)
Provided (to)/by Coconut Industry Board	<u>(12,508)</u>	<u>2,866</u>
Net cash (used in)/provided by operating activities	<u>(12,116)</u>	<u>3,138</u>
<b>Cash Flows from Investing Activities</b>		
Interest received	<u>9,025</u>	<u>10,337</u>
Cash provided by investing activities	<u>9,025</u>	<u>10,337</u>
(Decrease)/Increase in cash and cash equivalents	(3,091)	13,475
Cash and cash equivalents at beginning of year	<u>176,299</u>	<u>162,824</u>
<b>Cash and Cash Equivalents at End of Year</b>	<u><b>173,208</b></u>	<u><b>176,299</b></u>
<b>Comprising:</b>		
Cash at bank and in hand	99	1,370
Short-term investments	<u>173,109</u>	<u>174,929</u>
	<u><b>173,208</b></u>	<u><b>176,299</b></u>

**Coconut Industry Board**  
**Coconut Windstorm Insurance Fund**  
**Notes to the Financial Statements**  
**31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

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**1. General**

The Coconut Windstorm Insurance Fund ("The Fund") was established pursuant to the Coconut Insurance Act, for the operation by the Coconut Industry Board ("The Board") of a scheme for the automatic insurance and contractual insurance of coconut trees against the risk of windstorm damage. Provisions relating to qualification for, and determination and payment of benefits are contained in the Coconut Windstorm Insurance Regulations, 1949.

All moneys forming part of the fund are to be invested, in such manner as the Board may decide, in public securities of Jamaica or of any Commonwealth country, or in any securities which are lawful for the investment of trustee funds, or placed on deposit in such bank or banks as the Board may direct.

The Board may effect such reinsurance in respect of the whole or any part of the potential liability incurred by the Fund at such rates and upon such conditions as it thinks fit.

**2. Significant Accounting Policies**

The principle accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

**(a) Basis of preparation**

These financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs), and have been prepared under the historical cost convention as modified by the revaluation of certain financial assets.

The preparation of financial statements in conformity with IFRSs requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Board's accounting policies. Although these estimates are based on management's best knowledge of current events and actions, actual results could differ from those estimates. At 31 December 2016, in the opinion of the Board, there are no significant estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities of the fund within the next year.

**Standards, interpretations and amendments to published standards effective in the current year**

At the date of authorisation of these financial statements, certain new and amended standards and interpretations to existing standards have been published that became effective during the current financial year. The Board has assessed the relevance of all such new standards, interpretations and amendments and has determined that none are relevant to the Fund's operations.



# Coconut Industry Board

## Coconut Windstorm Insurance Fund

### Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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## 2. Significant Accounting Policies (Continued)

### (a) Basis of preparation (continued)

#### ***Standards, interpretations and amendments to published standards that are not yet effective***

The Board has concluded that the following standards which are published but not yet effective, are relevant to the Fund's operations, and will impact the Fund's accounting policies and financial disclosures as discussed below. These pronouncements are effective for annual periods beginning on or after the dates noted, and will be applied by the Fund as of those dates, unless otherwise noted.

- IFRS 9, 'Financial instruments', addresses the classification, measurement and recognition of financial assets and financial liabilities. The complete version of IFRS 9 was issued in July 2016. It replaces the guidance in IAS 39 that relates to the classification and measurement of financial instruments. IFRS 9 retains but simplifies the mixed measurement model and establishes three primary measurement categories for financial assets: amortised cost, fair value through other comprehensive income (OCI) and fair value through profit or loss. The basis of classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset. Investments in equity instruments are required to be measured at fair value through profit or loss with the irrevocable option at inception to present changes in fair value in OCI not recycling. There is now a new expected credit losses model that replaces the incurred loss impairment model used in IAS 39. For financial liabilities there were no changes to classification and measurement except for the recognition of changes in own credit risk in other comprehensive income, for liabilities designated at fair value through profit or loss. IFRS 9 relaxes the requirements for hedge effectiveness by replacing the bright line hedge effectiveness tests. It requires an economic relationship between the hedged item and hedging instrument and for the 'hedged ratio' to be the same as the one management actually use for risk management purposes. Contemporaneous documentation is still required but is different to that currently prepared under IAS 39. The standard is effective for accounting periods beginning on or after 1 January 2018. Early adoption is permitted. The Board is yet to assess IFRS 9's full impact on the Fund.
- IFRS 15, 'Revenue from contracts with customers' deals with revenue recognition and establishes principles for reporting useful information to users of financial statements about the nature, amount, timing and uncertainty of revenue and cash flows arising from an entity's contracts with customers. Revenue is recognised when a customer obtains control of a good or service and thus has the ability to direct the use and obtain the benefits from the good or service. The standard replaces IAS 18 'Revenue' and IAS 11 'Construction contracts' and related interpretations. The standard is effective for annual periods beginning on or after 1 January 2017 and earlier application is permitted. The Board is in the process of assessing the impact of IFRS 15 on the Fund.

# Coconut Industry Board

## Coconut Windstorm Insurance Fund

### Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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## 2. Significant Accounting Policies (Continued)

### (b) Foreign currency translation

#### *Functional and presentation currency*

Items included in the financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Jamaican dollars, which is the functional and presentation currency.

#### *Transactions and balances*

Foreign currency transactions are accounted for at the exchange rates prevailing at the dates of the transactions. At year end, monetary assets and liabilities denominated in foreign currency are translated using the closing exchange rate. Exchange differences arising from the settlement of transactions at rates different from those at the dates of the transactions and unrealised foreign exchange differences on unsettled foreign currency monetary assets and liabilities are recognised in the statement of comprehensive income.

### (c) Financial instruments

A financial instrument is any contract that gives rise to both a financial asset in one entity and a financial liability or equity in another entity.

#### *Financial assets*

The Fund's financial assets comprise cash and short term investments, and balances due from Coconut Industry Board.

#### *Investment securities*

The Fund's investment securities are classified as available-for-sale. The Board's management determines the classification of its investments at the time of purchase and re-evaluates such designation on a regular basis.

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. Purchases and sales of investments are recognised on the trade date - the date that the Fund commits to purchase or sell the asset. Investments are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Fund has transferred substantially all risks and rewards of ownership.

Investments are initially recognised at fair value plus transaction costs and are subsequently carried at fair value.



# Coconut Industry Board

## Coconut Windstorm Insurance Fund

### Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

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## 2. Significant Accounting Policies (Continued)

### (c) Financial Instruments (continued)

Changes in the fair value of monetary securities denominated in a foreign currency and classified as available-for-sale are analysed between translation differences resulting from changes in amortised cost of the security and other changes in the carrying amount of the security. The translation differences are recognised in the net surplus and other comprehensive income. Other changes in the fair value of both monetary and non-monetary securities classified as available-for-sale are recognised in equity.

When securities classified as available-for-sale are sold or impaired, the fair value adjustments accumulated in the fair value reserve are included in the statement of comprehensive income as 'gains and losses on maturity and disposal of available-for-sale investment'. Interest on available-for-sale securities, calculated using the effective interest method, is recognised in the statement of comprehensive income.

The Board assesses for the Fund at each year end whether there is objective evidence that a financial asset or a group of financial assets is impaired. A financial asset is considered impaired if its carrying amount exceeds its estimated recoverable amount. The recoverable amount of a financial asset carried at fair value is the present value of expected future cash flows discounted at the current market rate for a similar financial asset.

#### *Loans and receivables*

##### *Trade and other receivables*

Trade and other receivables are classified as loans and receivables and are carried at original invoice value less provision made for impairment of these receivables based on a review of all outstanding amounts at the year end. A provision for impairment of trade receivables is established when there is objective evidence that the Fund will not be able to collect all amounts due according to the original terms of receivables. The amount of the provision is the difference between the carrying amount and the recoverable amount, the recoverable amount being the present value of expected cash flows, discounted at the original effective interest rate.

##### *Cash at bank*

Cash at bank is carried at cost and classified as loans and receivables.

#### *Financial liabilities*

The Fund's financial liabilities are initially measured at fair value, net of transactions costs and are subsequently measured at amortised cost using the effective interest method. At year end, there were no financial liabilities. Financial liabilities in the prior year comprised amounts due to Coconut Industry Board.

### (d) Income recognition

Income comprises the fair value of the consideration received or receivable for the provision of services in the ordinary course of the Fund's activities. Income is shown net of General Consumption Tax.

# Coconut Industry Board

## Coconut Windstorm Insurance Fund

### Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

## 2. Significant Accounting Policies (Continued)

### (d) Income recognition (continued)

#### *Contractual Insurance Premiums*

Contractual Insurance premiums written are recognised on a pro-rated basis over the life of the policies written.

#### *Interest income*

Interest income is recognized in the income statement on a time-proportion basis using the effective interest method

## 3. Financial Risk Management

The Fund's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk, which is managed by the Board. The Board's overall financial risk management efforts seek to minimise potential adverse effects on the Fund's financial performance arising mainly from market risk.

The Board's risk management policies are designed to identify and analyse these risks, to set appropriate risk limits and controls, and to monitor the risks and adherence to limits by means of reliable and up-to-date information systems. The Board periodically reviews its risk management policies and systems to reflect changes in markets, products and emerging best practice.

The members of the Board are ultimately responsible for the establishment and oversight of the risk management framework. The Board has established a Finance Committee for managing and monitoring financial risks, as well as to manage the Board's and the Fund's assets and liabilities and the overall financial structure. The Finance Committee is also primarily responsible for the funding and liquidity risks of the Board.

There has been no change to the Fund's exposure to financial risk or the manner in which such risks are managed.

### (a) Market risk

The Fund experiences exposure to market risk, which is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risks mainly arise from changes in foreign currency exchange rates and interest rates. Market risk is monitored by the Board which reviews the price movement of financial assets.

#### *Currency risk*

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

The Fund is exposed to foreign exchange risk arising from US dollar investments. The Fund manages its foreign exchange risk by closely monitoring currency positions and seeking to maximise foreign currency earnings. The Fund exposure to foreign currency exchange rate risk at year end was \$18,452,000 (2015 - Nil).



**Coconut Industry Board**  
**Coconut Windstorm Insurance Fund**  
**Notes to the Financial Statements**  
**31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

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**3. Financial Risk Management (Continued)**

**(a) Market risk (continued)**

***Foreign currency sensitivity***

The sensitivity analysis represents outstanding foreign currency denominated monetary items and adjusts their translation at the year-end for changes in foreign currency rates. The change in currency rate below represents management's assessment of the possible change in foreign exchange rates. The sensitivity of the net surplus is attributable to the Board's cash and cash equivalents and investments.

If at 31 December 2016, the Jamaican dollar strengthened/weakened by 1 %/(6%) (2015 – 1%(8%) against the US dollar, with all other variables held constant, net surplus would have (decreased)/increased by approximately (\$185,000)/\$1,110,000 (2015 – Nil). The percentage represents management's assessment of the possible range of changes in the rate of exchange to the US dollar.

***Interest rate risk***

Interest rate risk is the risk that the value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

Fixed interest rate instruments expose the Fund to fair value interest risk on its financial assets. Floating rate instruments expose the Board to cash flow interest risk. The Board's interest rate risk policy requires it to manage interest rate risk by maintaining a balanced investment portfolio for the Fund.

There is no significant exposure to interest rate risk on short-term investments, as these investments have a short term to maturity and are constantly re-invested at current market rates.

**(b) Credit risk**

The Fund takes on exposure to credit risk, which is the risk that its counterparties will cause a financial loss for the Fund by failing to discharge their contractual obligations. Credit exposures arise principally from the Fund's investment activities. The Board structures the levels of credit risk it undertakes for the Fund by placing limits on the amount of risk accepted in relation to a single counterparty.

The Board establishes an allowance for impairment that represents its estimate of incurred losses in respect of investments, loans and receivables. The Board addresses impairment assessment in two areas: individually assessed allowances and collectively assessed allowances.

The Board limits the exposure of the Fund to credit risk by investing mainly in liquid securities, with counterparties that have high credit quality and Government of Jamaica securities. Accordingly, management does not expect any counterparty to fail to meet its obligations.

**(c) Liquidity risk**

Liquidity risk is the risk that the Fund is unable to meet its payment obligations associated with its financial liabilities when they fall due. Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions. Liquidity risk is not usually significant for the Fund, except in instances of natural disasters affecting insured trees.

**Coconut Industry Board**  
**Coconut Windstorm Insurance Fund**  
**Notes to the Financial Statements**  
**31 December 2016**

(expressed in Jamaican dollars unless otherwise indicated)

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**3. Financial Risk Management (Continued)**

**(c) Liquidity risk (continued)**

*Liquidity risk management process*

The Board's liquidity management process for the Fund includes:

- (i) Monitoring future cash flows and liquidity on a daily basis. This incorporates an assessment of expected cash flows and the availability of high grade collateral which could be used to secure funding if required;
- (ii) Maintaining a portfolio of highly marketable and diverse assets that can easily be liquidated as protection against any unforeseen interruption to cash flows and;
- (iii) Optimising cash returns on investments.

Due to the nature of its activities, the Fund has no significant levels of financial liabilities and has significant financial assets to cover such financial liabilities that do arise in the course of normal operations.

**(d) Capital management**

The Board's objectives when managing capital for the Fund are to safeguard the Fund's ability to continue as a going concern in order to maintain sufficient surplus to cover potential windstorm damage to insured trees (Note 5).

**(e) Fair value estimation**

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The carrying values of cash at bank, short-term investments, due to/due from Coconut Industry Board and payables are assumed to approximate their fair values due to the short-term maturity of these instruments.

**4. Sundry Debtors**

	2016 \$'000	2015 \$'000
Withholding tax	<u>13,316</u>	<u>10,971</u>

**5. Contingent Liabilities**

During the year, the potential liability of the Fund for coconut windstorm damage was \$73,284,000 (2015 - \$71,058,000).



# Coconut Industry Board

## Coconut Windstorm Insurance Fund

### Notes to the Financial Statements

31 December 2016

(expressed in Jamaican dollars unless otherwise indicated)

#### 6. Short-term Investments

	Cost		Interest receivable		Total	
	2016 \$'000	2015 \$'000	2016 \$'000	2015 \$'000	2016 \$'000	2015 \$'000
Government securities	<u>172,592</u>	<u>174,118</u>	<u>517</u>	<u>811</u>	<u>173,109</u>	<u>174,929</u>

These investments are reverse repurchase agreements which mature in less than 90 days, and are regarded as cash equivalents.

#### 7. Related Party Transactions

##### (a) Year-end balances arising from transactions with related parties

	2016 \$'000	2015 \$'000
Receivables -		
Coconut Industry Board	<u>11,716</u>	<u>-</u>
Payables -		
Coconut Industry Board	<u>-</u>	<u>793</u>

##### (b) Sales of services

	2016 \$'000	2015 \$'000
Premium income -		
Coconut Industry Board	817	768
Directors	<u>2,416</u>	<u>2,439</u>
	<u>3,233</u>	<u>3,207</u>

**TABLE I****COCONUT PRODUCTION & CONSUMPTION****PRODUCTION**

	<u>2016</u>		<u>2015</u>	
	<u>1,000 Nuts</u>	<u>%</u>	<u>1,000 Nuts</u>	<u>%</u>
<b>Parish</b>				
St. Thomas	45	4.5	135	12.7
Portland	56	5.6	53	4.9
St. Mary	456	45.2	649	60.7
St. Catherine	318	31.6	133	12.4
St. Elizabeth	131	13.0	98	9.2
Others	<u>1</u>	<u>0.1</u>	<u>1</u>	<u>0.1</u>
	<u>1,007</u>	<u>100.0</u>	<u>1,069</u>	<u>100.0</u>
Dry & Water Coconuts (est.)	<u>98,158</u>		<u>79,708</u>	
	<u>99,165</u>		<u>80,777</u>	

**CONSUMPTION**

Seed Coconuts - Local	122	0.1	173	0.2
Seed Coconuts - Export	33	-	46	0.1
Dry and Water Coconuts	<u>99,010</u>	<u>99.9</u>	<u>80,558</u>	<u>99.7</u>
	<u>99,165</u>	<u>100.0</u>	<u>80,777</u>	<u>100.0</u>



**TABLE II**

**DISPOSAL OF COCONUTS DELIVERED  
BY GROWERS**

	<b><u>2016</u></b> <b><u>Units</u></b>	Adjusted <b><u>2015</u></b> <b><u>Units</u></b>
Exported as seed	303	418
Used locally for seed, jelly coconuts, etc.	<u>15,206</u>	<u>28,815</u>
	<u>15,509</u>	<u>29,233</u>

**TABLE III**

**UNITS OF COCONUTS DELIVERED BY GROWERS IN 2016**

<b><u>Units of Coconuts In Groups of</u></b>				<b><u>Growers</u></b>		<b><u>Units Delivered</u></b>	
				<b><u>No.</u></b>	<b><u>%</u></b>	<b><u>No.</u></b>	<b><u>%</u></b>
	1 and up to	20		32	39.6	257	1.7
Over	20	"	50	13	16.1	373	2.4
"	50	"	100	15	18.5	1,070	6.9
"	100	"	200	9	11.1	1,306	8.4
"	200	"	500	7	8.6	1,962	12.6
"	500	"	1,000	3	3.7	2,207	14.2
"	1,000	"	5,000	1	1.2	1,221	7.9
"	5,000			1	1.2	7,113	45.9
				<u>81</u>	<u>100.0</u>	<u>15,509</u>	<u>100.0</u>

**Note**

One unit = 110 nuts

**TABLE IV****SEE ITEM 12 - REMUNERATION****DIRECTORS' COMPENSATION - 2016**

<b>Name</b>	<b>Position of Director</b>	<b>Fees</b>	<b>Motor Vehicle Upkeep/ Travelling or Value of Assignment of Motor Vehicle</b>	<b>Honoraria</b>	<b>All Other Compensations including Non-cash Benefits as Applicable</b>	<b>Total</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Christopher Gentles	Board Chairman	382,500	92,322.00		80,000	554,822.00
Leonard Green*	Board Chairman	90,500	90,104.00		30,000	210,604.00
Shelley-Ann Gayle Morris*	Board Member	30,000	13,664.00			43,664.00
Hugh Gentles	Board Member	112,050	93,906.00			205,956.00
James Joyles*	Board Member	33,500	13,664.00			47,164.00
Granville Marsh	Board Member	228,300	80,706.00			309,006.00
Wayne McLaughlin*	Board Member	43,500	17,080.00			60,580.00
Frank Phipps	Board Member	215,600	85,318.00			300,918.00
Alaric Pottinger	Board Member	197,600	154,665.80			352,265.80
Stephen Black	Board Member	152,500	72,237.20			224,737.20
Homer Davis	Board Member	99,000	140,248.00			239,248.00
Charles Douglas	Board Member	140,850	56,196.00			197,046.00
Sandra Ennis	Board Member	186,600	139,249.00			325,849.00
<b>TOTAL</b>		<b>1,912,500</b>	<b>1,049,360.00</b>		<b>110,000</b>	<b>3,071,860.00</b>
Raymond Mattis (Govt.Rep.)		7,000	39,370.00			46,370.00
		<b>1,919,500</b>	<b>1,088,730.00</b>		<b>110,000</b>	<b>3,118,230.00</b>

\*These members served from January 1, 2016 to March 31, 2016