



## SURVEY REPORT ON ABANDONMENT OF CANE LANDS 2001 - 2010



*Cane Land Abandoned/ in the Process of Abandonment*

### DISCLAIMER:

This Survey Report is meant for the Board of Directors of the Sugar Insurance Fund which attempts to bring light into the occupational changes in Land Use and Abandonment of Cane Lands during the period 2001 to 2010. This exercise has its own limitations and should not be extrapolated for any other purpose. Numerical figures and Statistical analyses pertain to data available at the Fund and collected by way of field surveys and interviews.



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## SURVEY REPORT ON ABANDONMENT OF CANE LANDS 2001 - 2010

### Overview:

This Survey is meant to probe into the extent, causes and trend towards abandonment of cane lands, an increasingly visible feature at times of on-going rapid changes, modernization and economic development. A matter of concern noted is the aggravation of abandonment of small-sized holdings by farmers over the past decade. The processes and vulnerability of these farmers to land abandonment is discussed in light of local economic conditions for agriculture and in the aftermath of the phased-out of the trading preferences provided by the ACP-EU Sugar Protocol. Further discussions are made on the results of a Survey exercise carried out by the Sugar Insurance Fund Board with the farmers. Our observations, findings and conclusions are summarized at Section 12 of this report.

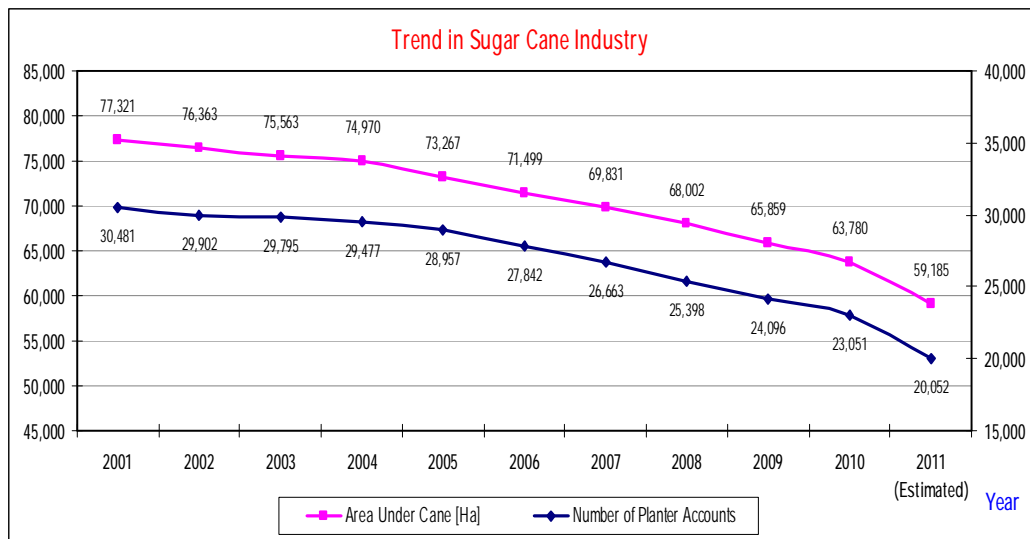
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### 1.0 INTRODUCTION:

- 1.1 In the past, sugar cane was the principal cash crop in cultivation for export with a preferential access to the European Union (EU) Sugar market at guaranteed prices. During the course of time, the mono-crop economy has experienced a diversification in the cultivation of other foodcrops, the opening of the country into other sectors (financial services, construction, tourism) and international trade with penetration into other competitive world market economies of the regional and international market.
- 1.2 The nature and extent of land use changes has been diverse to meet the changing economic pattern. Government policies regulating land ownership and rights of use have been adapted to meet the demand for land requirements for developments of the diversified economy. The last decade has been marked by a shift in our traditional cane-growing activity to other agricultural/non-agricultural and development activities by farmers.
- 1.3 In the context of industrialization and economic development, farmers have also begun to discontinue with the traditional crop cultivation leading to abandonment of these agricultural lands after decades of use. Despite the numerous incentives undertaken by Authorities to reduce cost of sugar production and restore the economic attractiveness of the cane-growing activity, Abandonment of Cane Lands has become a commonly observed and widespread fact in many parts of our island. This situation has become more prominent with the phasing-out of the trading preferences provided by the Sugar Protocol leading to a cut in sugar prices, making the cane growing activity a lesser attractive one.

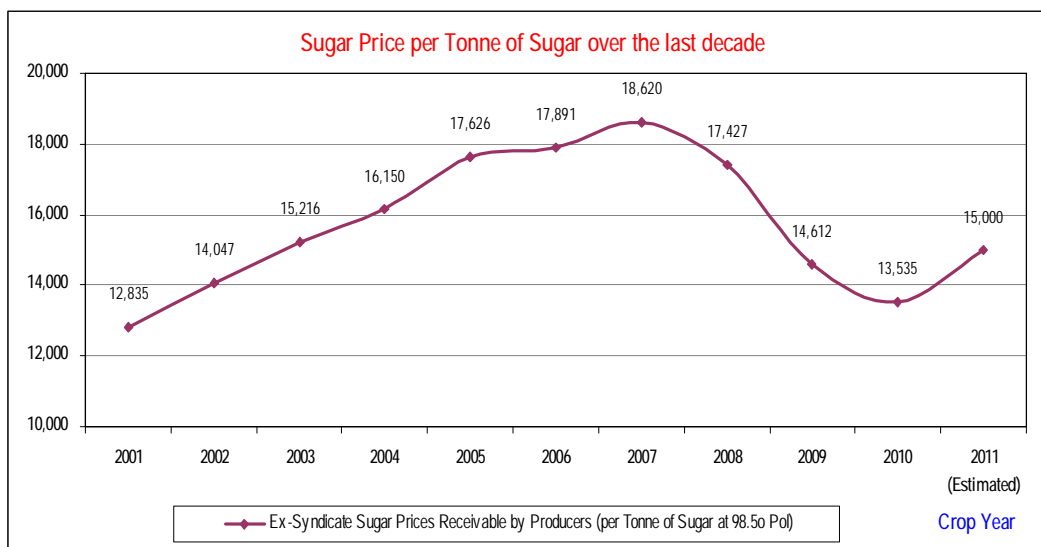
## 2.0 TREND IN SUGAR CANE INDUSTRY (2001 – 2010) :

- 2.1 Over the last decade, the Sugar Cane Industry has steadily experienced a decline in terms of area of land under cane cultivation and number of cane growers, out of which a high proportion being small planters, thereby indicating a lesser attractive economic activity at small scale.
- 2.2 Since 2001, the island-wide area under cane cultivation has substantially decreased from 77,321 Hectares (Ha) recorded in 2001 to 63,780 Ha in 2010, implying a loss of 13,541 Ha, i.e. 17.5%.
- 2.3 Since 2001, the number of cane growers moving out of cane activity has gradually increased. The number of accounts held by planters with the Sugar Insurance Fund Board (SIFB) fell from 30,481 in 2001 to 23,051 in 2010.
- 2.4 This fall in land under cane cultivation and the number of sugar producers over the period 2001 to 2010 with estimated figures for 2011 is shown graphically at Figure I below.



**Figure I – Trend in Sugar Industry (2001 – 2011)**

- 2.5 Following the changes in trading preferences within the ACP-EU Sugar Protocol, sugar price paid by the EU market have experienced a gradual drop of up to 36% with the first cut of 5% in 2006, a further 17% cut in 2008 and the full price cut effect in 2009 thus impacting on the revenue of producers. The Ex-Syndicate Sugar Prices receivable by producers per Tonne of Sugar at 98.5° Pol before charging Sugar Insurance Premium for 2001 to 2010 with estimated figures for 2011 are depicted as under:



**Figure II – Ex-Syndicate Sugar Prices (2001 – 2011)**

2.6 The on-going centralisation of the Sugar Cane Industry has also witnessed the cessation of 8 mills since 2001, from 14 mills to 6 mills in operation island-wide as at date with the likelihood of prospective closure of mills to render the industry more cost efficient.

### 3.0 SURVEY ON CHANGES IN LAND USE:

3.1 An island-wide field survey exercise with coverage of around 22,500 agricultural plots was initiated by the SIFB in early 2010 with the aim to identify the occupational changes in cane lands. For this exercise, Crop 2001 being the most favourable year of optimal sugar production following the replantation of cane lands after the severe drought of 1999 has been chosen as the base year of this Survey.

3.2 This Survey covers the period beginning as from Crop 2001 up to Crop 2010 and also includes the plots brought back to cane cultivation after 2001 and changed use over the period of study. For the sake of statistical analyses, it has been assumed that plots brought back to cane cultivation after 2001 and changed use thereafter have actually been under cane in the crop year 2001.

3.3 In 2001, 80,741 Ha of land (full plot extent<sup>1</sup>) were devoted to cane cultivation which has gradually been reduced to 67,787 Ha in 2010. This implies a net loss of 12,954 Ha of cane lands to other uses. Over the period of time in consideration, an additional 1,944 Ha of land were identified as being replanted after 2001 and changed use thereafter. This gives an aggregate of 14,898 Ha of cane lands constituting of 22,568 plots which have changed use over the last decade which represents a gross loss of 18% of the total area of land under cane cultivation since 2001.

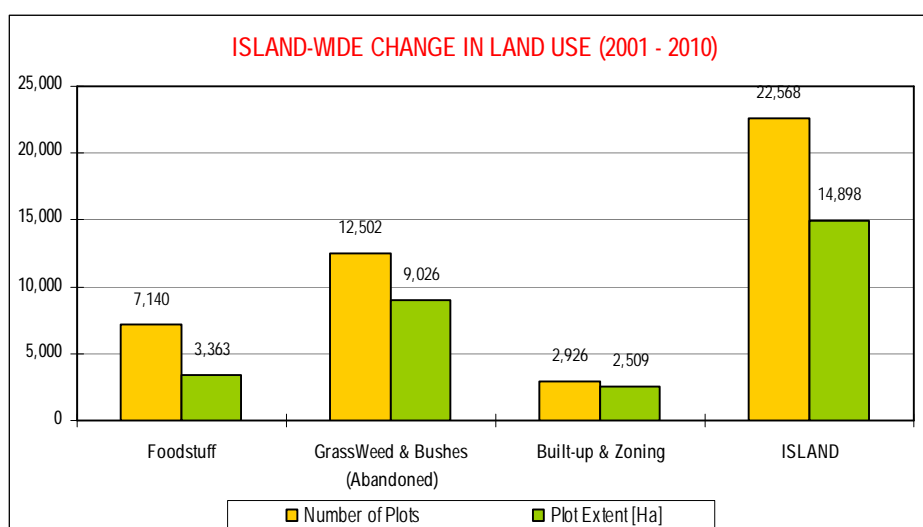
3.4 Prior to the Survey, the SIFB proceeded with the identification of a list of plots known to have been under cane as from Crop 2001 and no longer reported to be under cane for Crop 2010. The collection of data on fields was carried out throughout our routine post-registration and post-harvest field inspections.

<sup>1</sup> Plot extent refers to the total extent of plot whilst the area of land under cane meant for harvest is lower.

- 3.5 Information collected in the field survey provided detailed information on the present state of these formerly cane lands. The status of these lands was thus classified into (i) Foodstuffs, (ii) GrassWeed & Bushes (Abandoned) and (iii) Built-up & Zoning.
- 3.6 Change in Land Use into Foodstuff comprises of vegetation, fruits orchard, tea, tobacco and livestock breeding. Parts of such plots of land were also converted into Built-up areas such as residential, commercial, industrial and recreational areas. Built-up implies formerly cane-lands on which buildings (Residential/ Commercial or Industrial) have been erected or under construction or meant for large-scale development such as Housing, Commercial, Integrated Resort Scheme (IRS) and Real-Estate Scheme (RES). It also includes lands acquired by government for road infrastructure and other developments.
- 3.7 Zoning classification implies lands in specific areas, more particularly in village envelopes, which have been parceled out and left fallow or left fallow with a view to be parceled out for residential or commercial or industrial uses.
- 3.8 Ex-Cane Lands observed as waste/ fallow lands (Abandoned) are characterized by GrassWeed & Bushes or Shrubs with remaining stools of canes.
- 3.9 Over the period 2001 to 2010, 14,898 Ha of cane lands constituting 22,568 plots have been identified to have moved out of cane cultivation to other agricultural, non-agricultural, other development activities or Abandoned. Table 1 below shows the present status of these formerly cane lands. The change is also depicted at Figure III below.

**Table 1 – Island-wide Change in Land Use**

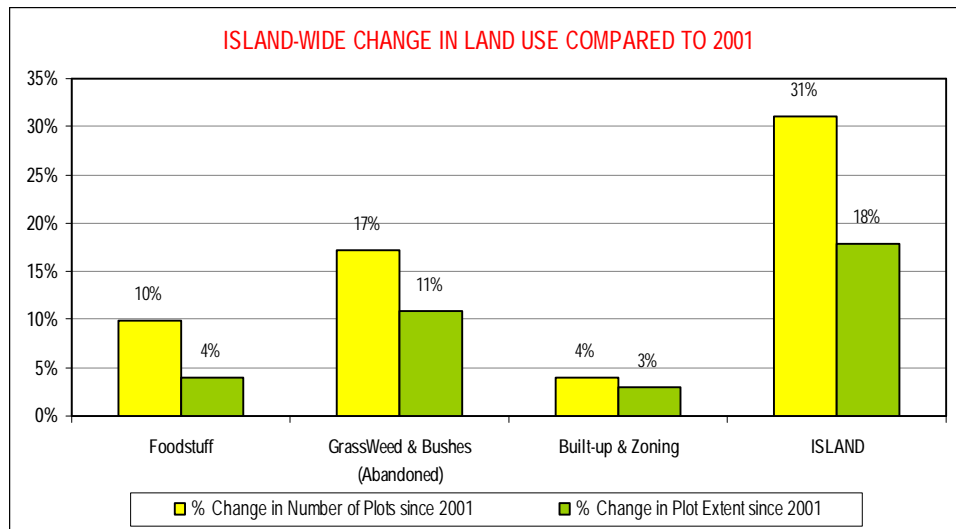
LAND USE CHANGE	Number of Plots	% Number of Plots	Plot Extent [Ha]	% Change in Extent
Foodstuff	7,140	32%	3,363	23%
GrassWeed & Bushes	12,502	55%	9,026	61%
Built-up & Zoning	2,926	13%	2,509	17%
ISLAND	22,568	100%	14,898	100%



**Figure III – Island-wide Change in Land Use**



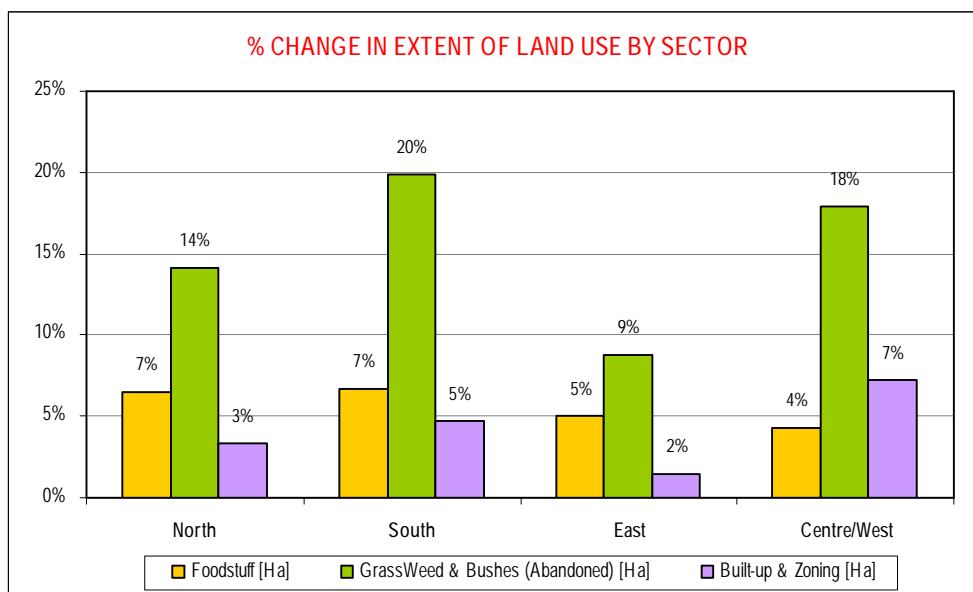
- 3.10 Out of 22,568 plots of land surveyed, 32% are presently under Foodstuff and 13% constitutes of Buildings (Residential, Commercial or Industrial) also including lands currently fallow but zoned residential, commercial etc... A further 55% of plots surveyed are currently in a state of fallow and waste lands under GrassWeed and Bushes. In terms of extent, 9,026 Ha of land formerly under cane are presently in an idle state.
- 3.11 Changes in land utilisation to other uses compared to total number of plots under cane and their corresponding extent of cane lands since 2001 is shown at Figure IV below:



**Figure IV- % Change in Land Use island-wide compared to 2001**

- 3.12 Hence, the 22,568 plots of land covered by this Survey having undergone change from cane growing activity represent some 31% of all plots of land which were under cane cultivation since 2001 at an island level. Out of the 31%, 10% of plots of land have moved into Foodstuffs, 17% is under GrassWeed & Bushes (Abandoned) and 4% into Built-up areas, also including fallow lands no more agricultural (now zoned residential/ commercial/ industrial etc...).
- 3.13 In terms of extent, the 22,568 plots making 14,898 Ha of land represents 18% of the island-wide area of land under cane since 2001. Out of the 18% land change, 4% is now under Foodstuffs and 3% Built-up areas (including fallow lands located in Residential/ Commercial/ Industrial zones). The difference, i.e. 11% has been identified as wastelands characterized by GrassWeed and Bushes (Abandoned) which has been left unoccupied by all categories of land owners.
- 3.14 Figure V below shows the distribution of the % change in extent of land use by sector for all plots surveyed. On a sector-wise basis, the % change in extent of land use to Foodstuffs is observed to be highest in the North & South sectors of the island, followed by East and Centre/West parts. On the contrary, the Centre/West parts has known significant housing, industrial and commercial developments areas.





**Figure V – % Change in Extent of Land Use by sector**

3.15 Waste/ Fallow lands under GrassWeed and Bushes are distributed mainly in the South and Centre/West sectors, followed by the North and Eastern parts of the island respectively which is the predominant feature of the Survey findings. This makes an aggregate extent of 9,026 Ha island-wide for all categories of cane growers, namely individual planters and metayers, and the corporate sector farmers. These lands are considered to be in an abandoned state, which is discussed further in the next section.

#### 4.0 LAND ABANDONMENT:

4.1 Abandonment of lands formerly under cane cultivation have been substantial over the period 2001 to 2010 with an 18% fall in extent of land under cane cultivation observed, out of which 7% have changed to other uses. The difference of 11% of land is wasteland or fallow land observed in a state of GrassWeed & Bushes at time of inspection which is considered as land being left abandoned by the cane growers.

4.2 These planters have been classified into the following categories of cane growers:

- Non-Corporate – which includes lands occupied solely or jointly by individual planters (freeholds and leaseholds), a group or an association of planters or heirs in the event of death of the grower (Succession)
- Corporate – which include lands owned by sugar estates (milling and non-milling companies), private companies, trusts or societies and state-owned entities.
- Unknown – lands for which the ownership information is unidentified since these lands were never registered for harvest with the SIFB; and could be both Non-Corporate and Corporate owners.

4.3 Abandonment of Land has been observed amongst Non-Corporate (Individual) being small and large-scale farmers and the corporate sector farmers. Table 2 below shows the classification of land abandonment by farmers into the type of land ownership. It is worth noting that these cane growers may not necessarily be the owners of these plots of land, but the in-house information available indicates that these planters were the last occupiers of these lands.

**Table 2 – Land Abandonment by Type of Land Ownership**

LAND ABANDONMENT BY TYPE OF LAND OWNERSHIP			
TYPE OF LAND OWNERSHIP	Number of Planters	Number of Plots	Plot Extent [Ha]
Corporate Cane Grower	68	1,300	3,274
Corporate Non-Cane Grower	65	442	575
Non-Corporate	7,586	9,875	4,506
Unknown Ownership	-	885	672
TOTAL FOR ALL	7,719	12,502	9,026

4.4 The Corporate Sector Cane Growers are primarily the sugar estates (milling and non-milling companies) and also include state-owned entities such as State Land Development Co. Ltd (SLDC), Tea Board & Rose-Belle Sugar Estate as well as Sugar Investment Trust (SIT) and Mauritius Sugar Industry and Research Institute (MSIRI).

4.5 Whilst the corporate sector cane growers has witnessed a marked drop in land under cane cultivation, it is our understanding that such a change is meant to adapt the industry to the changing economic and agricultural environment. Change in Land Use by the Corporate Sector Cane Growers is primarily meant for agricultural diversification into other non-sugar products, financing of costs of industrialization and urbanization and payment of social costs by parceling and subdivision of land.

4.6 Waste/ Fallow lands observed by the Corporate Sector Cane Growers is, to our information, temporarily in an uncultivated or abandoned state as a result of strategic planning for the following purposes:

- (i) Crop Rotation programme by the Sugar Estates;
- (ii) Industrial Development projects such as IRS and RES;
- (iii) Parceling for Residential projects and construction of villas;
- (iv) Parceling to meet demands for Voluntary Retirement Schemes (VRS) packages for beneficiaries of sugar estate employees;
- (v) Agricultural diversification into flowering and other foodcrops such as rice, etc...;
- (vi) Experimental plantations (MSIRI).

It is also noted that the Corporate Sector has an obligation to cede around 2,000 Arpents to the Government for implementation of the Multi-Annual Adaptation Strategy. Change in Use/ Land abandonment at corporate level is therefore a temporary feature.

4.7 The Corporate Sector Non-Cane Growers includes the privately-owned companies in the Manufacturing, Construction, Tourism & Commerce sector lines of business; also socio-religious organizations and trusts and for which cane cultivation is not their main line of business operation. By virtue of acquisition of cane lands formerly owned by cane growers for development purposes, the Corporate entities have become short-term sugar producers. Survey findings of these lands show that the canes are often:

- (i) harvested, consigned to mill and thereafter plantations uprooted or burnt for clearing of land;
- (ii) neglected and left standing in fields;

Such cane growers would over the period of time leave the existing cane plantations in an abandoned state by improper husbandry and the lands remain unoccupied for such period of time until permits are secured from the appropriate authorities prior to the undertaking of development activities. We have noted that there are 65 such corporate sector farmers who reportedly have completely abandoned their lands.

4.8 Given the above, this Survey focuses on the abandonment of land by the Non-Corporate and Corporate Sector Non-Cane Growers and the underlying reasons thereof, which makes up a total extent of 5,081 Ha of land.

4.9 Land Abandonment by the Non-Corporate farmers is the matter of concern whereby Individual farmers have discontinued cane cultivation, mostly seen amongst the small-scale farmers. Out of 18% Change in Extent of Land Use since 2001 (para. 3.3), 5% representing 4,506 Ha of land island-wide are abandoned by the Individual (Non-Corporate) farmers for non-strategic reasons.

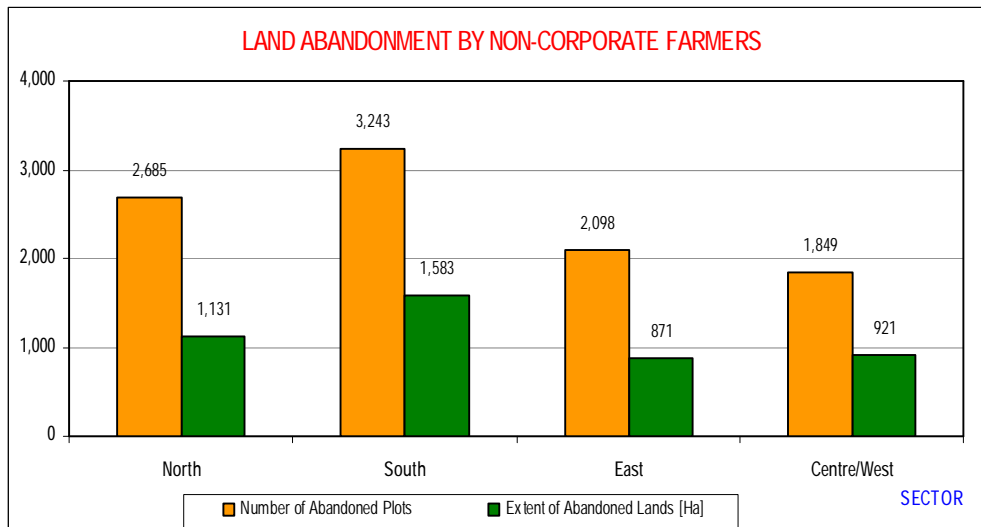
## 5.0 LAND ABANDONMENT BY NON-CORPORATE FARMERS:

### 5.1 Land Abandonment by Sector:

5.1.1 The 4,506 Ha of abandoned lands by the Non-Corporate farmers are noted across all sectors of the island as shown in Table 3 and Figure VI under:

**Table 3 – Land Abandonment by Non-Corporate Farmers by Sector**

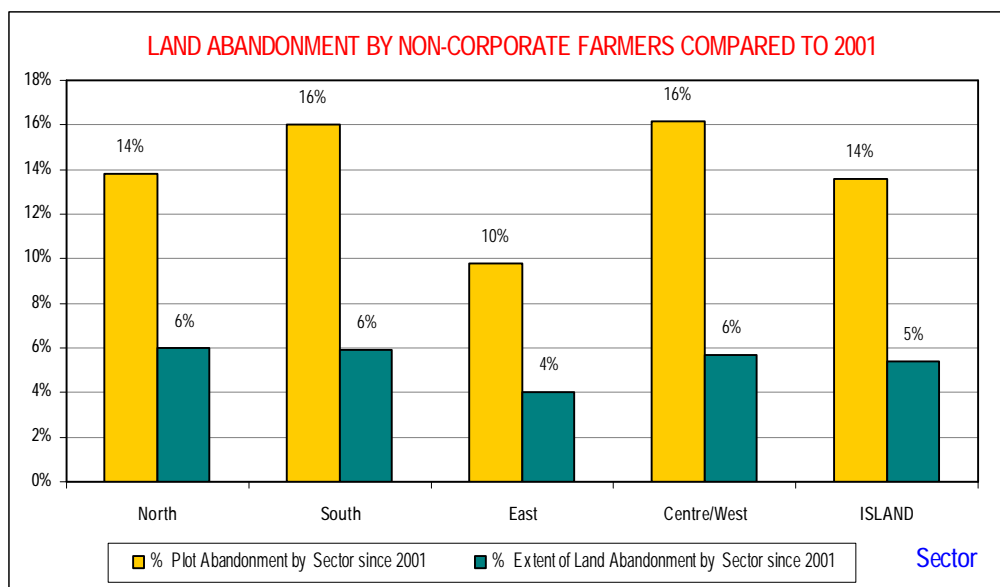
SECTOR	Number of Abandoned Plots	Abandoned Plot Extent [Ha]	% Extent Abandoned
North	2,685	1,131	25%
South	3,243	1,583	35%
East	2,098	871	19%
Centre/West	1,849	921	20%
ISLAND	9,875	4,506	100%



**Figure VI – Land Abandonment by Non-Corporate Farmers by Sector**

5.1.2 In terms of extent, the South has the highest extent of Land Abandonment, followed by the North, East and Centre/West parts of the island.

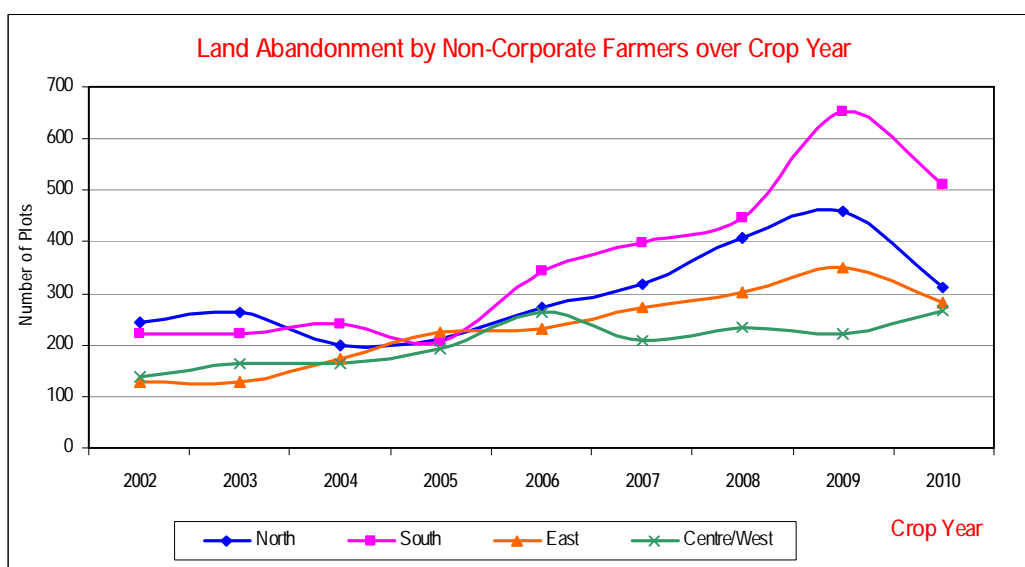
5.1.3 Figure VII below depicts the percentage of land abandonment by number of plots by sector since 2001 with the corresponding percentage of extent of land abandonment by sector since 2001.



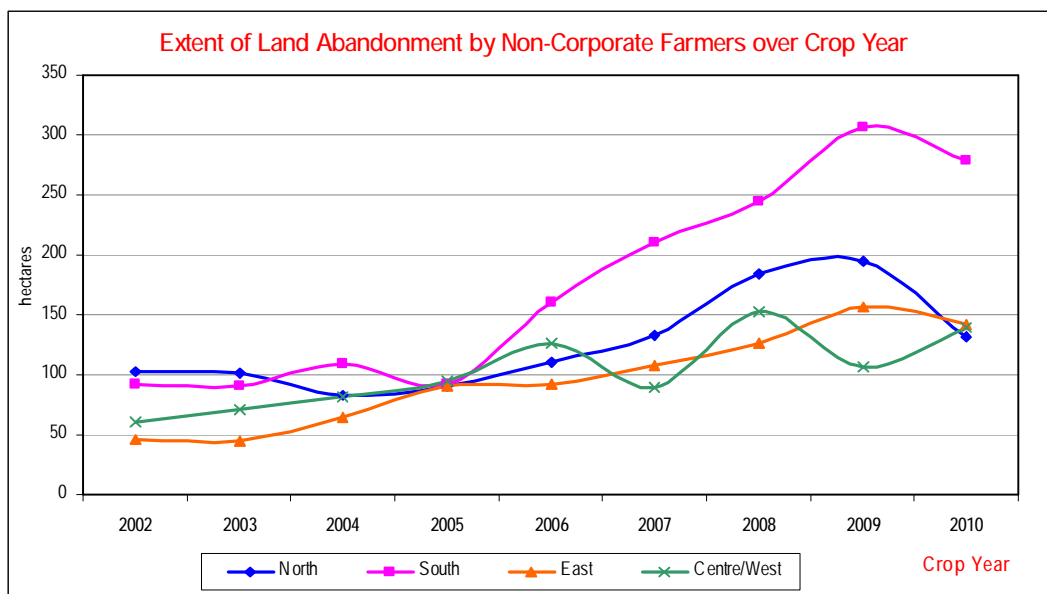
**Figure VII – Land Abandonment by Sector compared to 2001**

5.1.4 In comparison with all lands under cane since 2001 for each sector, the rate of land abandonment by the Non-Corporate farmers by sector appears greater for the Centre/West and South sectors (16%), 14% of lands in the North and 10% in the Eastern part of Mauritius.

5.1.5 Figures VIII and IX below show a progressive increase in the pattern of land abandonment observed over the island for each sector and the corresponding extent over the past decade.



**Figure VIII – Pattern of Land Abandonment by Sector**



**Figure IX – Pattern of Extent of Land Abandonment by Sector**

5.1.6 Since 2001, Land abandonment island-wide by the Non-Corporate farmers has occurred at an average rate of 1,097 plots per year, which implies an average extent of 500 Ha of land island-wide. Table 4 below shows the average rate of land abandonment by sector per year over the last decade.

**Table 4 – Rate of Land Abandonment per year**

SECTOR	RATE OF LAND ABANDONMENT PER YEAR	
	Number of Plots	Extent [Ha]
North	298	126
South	360	176
East	233	97
Centre/West	205	102
ISLAND	1,097	500

5.1.7 It is noted that the rate of land abandonment by the Non-Corporate farmers has been highest for the South sector, followed by the North, East and Centre/West parts respectively. The pattern of land abandonment coincides with the fall in sugar prices experienced after 2005.

5.1.8 The striking feature observable is the amplification in the pattern of land abandonment for the Southern sector after 2005 which is attributable to land under cane cultivation parceled out for agricultural purposes by SIT Land Holdings Ltd.

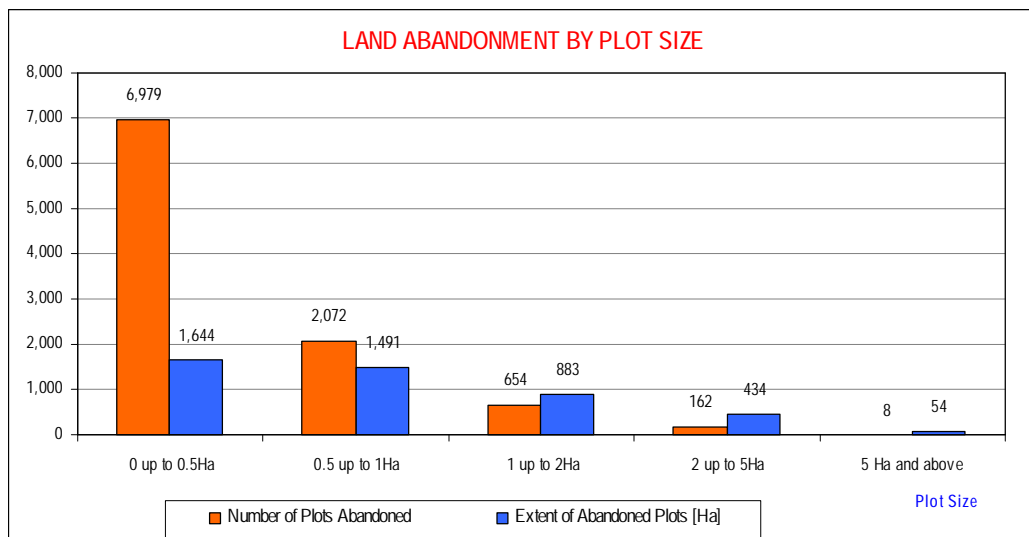
## 5.2 Land Abandonment by Size of Holdings:

5.2.1 Table 5 below shows the breakdown of abandoned plots in groups of plot sizes, the spread of which is depicted at Figure X below.

**Table 5 – Breakdown of Abandoned Lands by Plot Size**

Plot Size	Number of Plots Abandoned	% Number of Plots	Extent of Abandoned Plots [Ha]	% Extent of Abandoned Plots
0 up to 0.5 Ha	6,979	70.7%	1,644	36.5%
0.5 up to 1 Ha	2,072	21.0%	1,491	33.1%
1 up to 2 Ha	654	6.6%	883	19.6%
2 up to 5 Ha	162	1.6%	434	9.6%
5 Ha and above	8	0.1%	54	1.2%
ISLAND	9,875	100%	4,506	100%

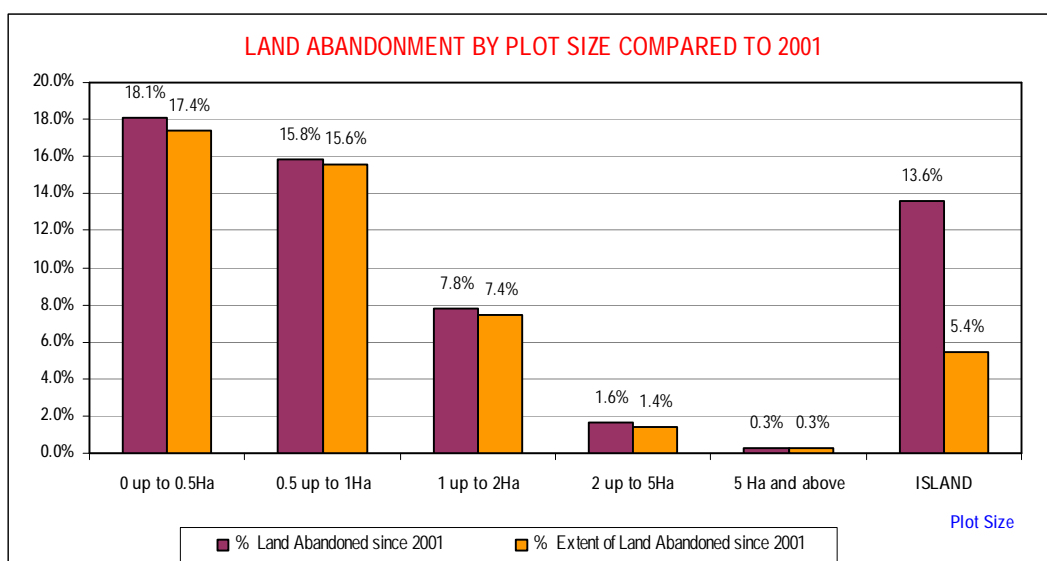
5.2.2 Further analysis relative with sizes of cane lands abandoned reveals that 70.7% of small-sized plots of up to 0.5 Ha (1.2 Arpents) and a further 21% of plots of sizes up to 1.0 Ha island-wide has been more vulnerable to abandonment. Small-sized plots up to 1 Ha of land make an area of 3,135 Ha of land in an idle state.



**Figure X – Spread of Abandoned Lands by Plot Size**

5.2.3 Moreover, it is also seen from Figure XI below that relative to 2001, these rate of abandonment of these small-sized plots are higher than medium and large-sized plots above 1 Ha.





**Figure XI – Land Abandonment by Plot Size compared to 2001**

5.2.4 18.1% of plots of land of size greater than 0 and up to 0.5 Ha belonging to the Non-Corporate Sector planters which were under cane cultivation in 2001 are now in a fallow state. Similarly, 15.8% of plots of sizes of 0.5 Ha up to 1 Ha of land which were under cane cultivation in 2001 are now fallow.

## 6.0 MAP SHOWING DISTRIBUTION OF CHANGE IN USE/ ABANDONMENT OF CANE LANDS:

6.1 A map sketching the widespread distribution of change in use of cane lands by the Non-Corporate Sector to other agricultural and development purposes including abandoned plots of land is attached at Annex 1. Abandonment of land appears more clustered in village envelopes and their peripheries.

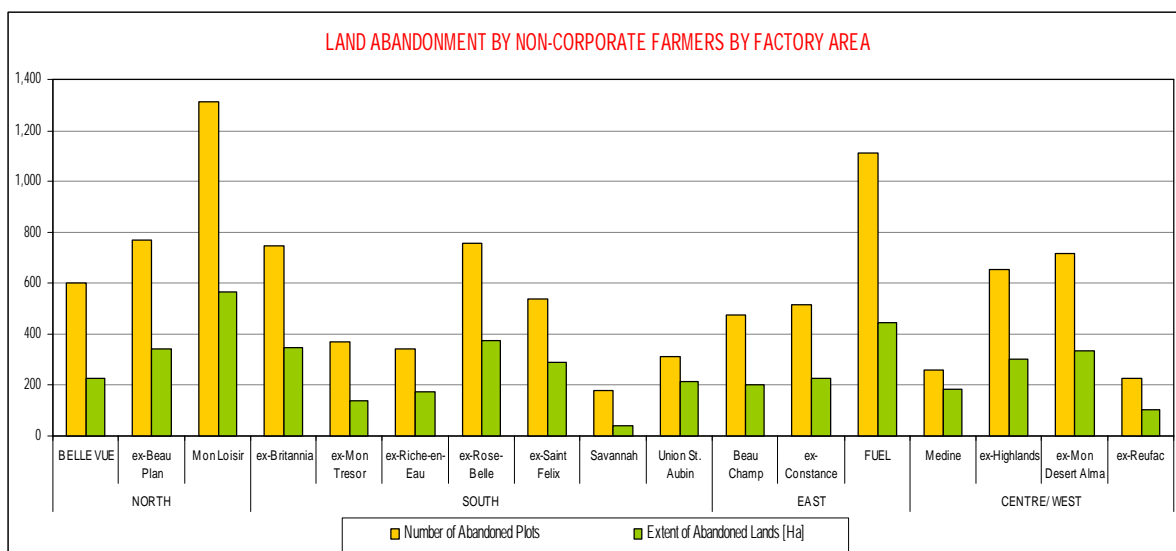
6.2 A shift into other agricultural (non-sugar) cultivation is predominant in all three factory areas of the North, namely Belle-Vue, Beau-Plan and Mon Loisir. On a factory area basis, change in use to foodstuffs is more pronounced in FUEL for the East, followed by Mon-Desert Alma in the Centre/West parts of the island.

6.3 The Centre/West sector has witnessed a significant number of built-up areas and development zones. Most of the lands have been parcelled for housing projects, commercial or industrial uses.

### 6.4 Land Abandonment:

6.4.1 As previously highlighted, the South sector has experienced the highest rate of land abandonment. It is also observed that this occurrence is mostly concentrated in the ex-factory areas of St Felix, Britannia and Rose Belle.

6.4.2 Amongst all factory areas, Mon Loisir has been more vulnerable to abandonment island-wide which constitute mostly of small holdings up to 2 Ha of land. Clustering of plots is seen predominantly in the area of St Antoine, whereby it has been noted over the past years most cane fields of this region have been subject to accidental/ criminal fires.



**Figure XII – Land Abandonment by Factory Area**

## 7.0 HOUSEHOLD SURVEY:

7.1 The SIFB has further embarked on a household survey exercise at an island-wide level to collect information on the reasons for land abandonment by the former cane growers and their interests in the rehabilitation of their abandoned lands.

7.2 Our field staff has been deployed to conduct interviewing sessions with the planters. To that effect, a structured questionnaire (Annex 2) was designed to record the responses captured.

7.3 The survey questionnaire incorporated the following items of information:

- (i) Planters' Personal information (Name/ Age/ Address/ SIFB account number/ Occupation) and Abandoned Plot references.
- (ii) Likely reasons for Land Abandonment which includes:
  - Social & Personal constraints relating to the age and health conditions of the farmer, other employment opportunities and lack of time, proximity of farm to planter's residence.
  - Economic reasons & Structural factors comprising of financial problems, low income, inheritance patterns and other succession constraints and local economic development that provides alternative work opportunities leading to labour unavailability and lack of time for agricultural activities.
  - Physical characteristics & Environmental aspects of the properties referring to the productivity of land and quality of soil, small-sized holdings, climatic conditions prevailing in different regions of the country, access to irrigation facilities and physical aspects of the land, such as mountainous, rockiness and sloppiness; and other factors affecting cane cultivation.
- (iii) Planters' interests in the replantation of their fields with Sugar Cane, or interests in other agricultural (non-sugar) activities and the need for technical assistance by Service Providing Institutions.
- (iv) Planters' interests in leasing their fields for agricultural use, and assistance required with the leasing procedures.

7.4 Out of 7,719 accounts of planters who reportedly have an abandoned plot of land, we have targeted the Corporate Sector Non-Cane Growers and Non-Corporate Sector farmers in a sample of 7,651 households for the interviewing exercise. These planters have been further classified as small/ large-scale growers and tabled hereunder:

**Table 6 – Type of Planters Sampled for Survey**

Planter Type	Number of Planters Sampled		TOTAL
	Small	Large	
Non-Corporate	7,560	26	7,586
Corporate – Non-Cane Growers	50	15	65
TOTAL	7,610	41	7,651

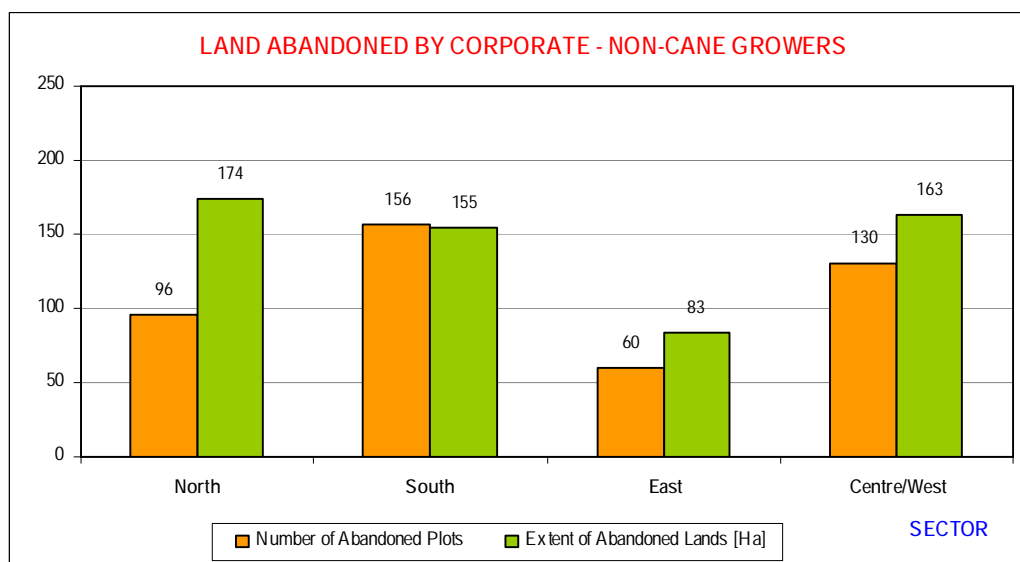
Note: The definition of a Small planter applied is defined by the Small Planters Welfare Fund Act as:

*"Small Planter" means a planter who is registered with the Fund as a planter growing sugar-cane, tea, tobacco or food-crops, including fruit and ornamentals, on his land or on leased land, on an extent not exceeding 10 Ha.*

- 7.5 The planters sampled include those who are still in business, but reportedly have an abandoned plot of land. The planters excluded from the Household Survey are the Corporate Sector Cane Growers, comprising mainly of sugar estates (milling and non-milling companies) and unknown planters who at no point in time registered their plots with the SIFB for harvest. Since abandonment by Corporate Sector cane growers is temporary and meant for strategic planning, a separate study might be welcomed.
- 7.6 The response rate for the survey stands at 91% with a participation of 6,917 households of the Non-Corporate Sector and all 65 of the Corporate Sector Non-Cane Growers. This initiative was widely appreciated amongst the planter community. The respondents were mostly the planters themselves or their representatives, family members and neighbours for those who are abroad at time of survey or have emigrated.
- 7.7 669 planters representing 9% of planters sampled were untraceable at time of survey. All available leads pursued to contact them led to no avail because of the unavailability of planter at time of Survey, inadequate or inaccurate address information, lack of knowledge by neighbours of their whereabouts, death of owner with no data on inheritors.

## 8.0 ANALYSIS OF SURVEY DATA: CORPORATE – NON-CANE GROWERS

8.1 The 65 Corporate Sector farmers for whom cane cultivation is not their main line of business make up a total extent of 575 Ha. These cane growers are by default sugar producers for short-term periods. The distribution of lands by sector is shown underneath:



**Figure XIII – Land Abandonment by Corporate – Non-Cane Growers**

8.2 A Survey carried out with these growers indicate that the lands have been acquired for construction and development purposes in the long run for forthcoming projects such as IRS/ RES projects and Residential, Commercial & Industrial Complexes. These lands are therefore considered to be non-recoverable for the Sugar Industry.

8.3 Nonetheless, 13 of them have expressed their interest in the rehabilitation of their lands for agricultural use for short periods until the lands will be requisitioned for development purposes.

8.4 However, 6 of them are also interested in the replantation of Sugar Cane on their lands with technical assistance being provided by the Service Providing Institutions.

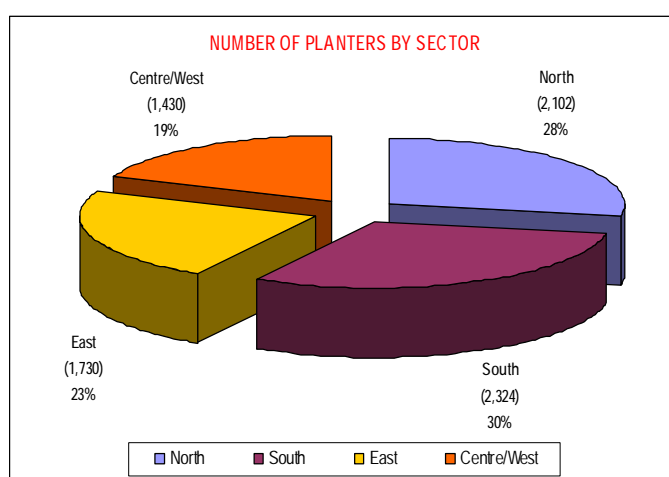
## 9.0 ANALYSIS OF SURVEY DATA: NON-CORPORATE FARMERS

9.1 The 4,506 Ha of abandoned lands reported by the Non-Corporate Sector concern a total of 7,586 active and inactive planters. Out of 7,586 planters, 6,150 ex-planters have fully abandoned all plots in their possession. The remaining 1,435 planters still have a positive area under cane in their accounts for 2010 (still in business), but reportedly have one or more of their plots in a fallow state (Table 7).

**Table 7 – Distribution of Planters Abandoning Land Occupation by Sector**

SECTOR	Number of Planters		TOTAL
	Not in Business	Still in Business	
North	1,670	432	2,102
South	1,899	425	2,324
East	1,345	385	1,730
Centre/West	1,237	193	1,430
TOTAL	6,150	1,435	7,586

9.2 Figure XIV below show the distribution of the number of planters abandoning land occupation over the period 2001 to 2010 by sector. 30% of planters abandoning land occupation are those of the South sector of the island, followed by North, East and Centre/West sectors.



**Figure XIV – Distribution of Planters Abandoning Land Occupation by Sector**

9.3 The distribution of abandoned plots amongst households grouped by total size of all holdings in their respective accounts is shown below:

**Table 8 – Distribution of Plots among Households by Total Size of All Holdings**

Total Size of All Holdings	Number of Planters	Number of Plots Abandoned	Extent of Abandoned Plots [Ha]
0 up to 0.5 Ha	5,453	6,979	1,644
0.5 up to 1 Ha	1,555	2,072	1,491
1 up to 2 Ha	453	654	883
2 up to 5 Ha	119	162	434
5 Ha and above	6	8	54
ISLAND	7,586	9,875	4,506

9.4 From Table 8 above, it can be deduced that 72% of households have abandoned lands of up to 0.5 Ha (1.2A) and a further 20.5% of farmers with lands up to 1 Ha (2.37A). Only 7.5% of households have medium and large-sized abandoned plots with more than 1 Ha of land.

9.5 Agricultural land is highly fragmented. The number of abandoned plots owned by the households range from 1 to 28, with an average of 1.3 plots per household. Table 9 below shows the distribution of abandoned fields by the number of holdings per household.

**Table 9 – Distribution of Plots among Households by Number of Holdings**

Number of Holdings	Number of Planters	Number of Plots Abandoned	Extent of Abandoned Plots [Ha]
1	6,165	6,165	2,712
2	991	1,982	861
3	261	783	418
4	87	348	162
5	31	155	68
>5	51	442	285
<b>TOTAL</b>	<b>7,586</b>	<b>9,875</b>	<b>4,506</b>

9.6 It is observed from Table 9 that 78% of households possess one abandoned agricultural field, 13% with two fields abandoned, 3.4% with 3 abandoned fields and the rest more than 3 plots of land in an idle state.

9.7 Only 3.7% of respondents stated as having access to irrigation facilities to their fields. The remaining farmers in this category either have no irrigation facilities or have not specified the availability of irrigation facilities.

9.8 The general agro-climatic conditions affecting the abandoned plots of land are Dry for plots found in the North & West sectors, Humid for the East & South-West regions and Super-Humid for the Centre and South-East regions.

9.9 The results of the household survey for the Non-Corporate sector farmers are summarized in Table 10 below and have been suitably grouped into different classifications for further analyses and discussions:



**Table 10 – Analysis of Household Survey data**

ANALYSIS OF HOUSEHOLD SURVEY DATA FOR NON-CORPORATE SECTOR FARMERS						PLANTERS	% PLANTERS	PLOTS	EXTENT [Ha]
1.0	Planters whose lease have expired and not renewed by owners of land/ planters (including land returned to owner upon death of planter)					692	9%	1,085	596
2.0	Planters having sold their plots (no information available on new owners)					436	6%	550	270
	TOTAL					1,128	15%	1,635	865
3.0	INDIVIDUAL & JOINT FARMERS								
3.1	Planters having building construction projects (Residential/ Commercial) with no intention to rehabilitate their abandoned lands for agricultural uses					330	4%	429	192
3.2	Planters having no construction projects (or no short-term construction projects) and interested to carry out an agricultural activity					2,361	31%	3,028	1,413
	<i>(377 planters interested to lease their lands for such agricultural activities)</i>								
		Type of Replantation	Planters	Plots	Extent [Ha]				
		SugarCane	1,216	1,543	708				
		Foodstuffs/ Livestock & Flowers	620	773	332				
		Both	525	712	372				
3.3	Planters having no construction projects and not interested in any agricultural activity					1,265	17%	1,573	783
	TOTAL					3,956	52%	5,030	2,387
4.0	SUCCESSION/ PLANTERS DECEASED/ DIVISION IN KIND EFFECTED or IN PROGRESS								
4.1	Heirs having building construction projects in the short term with no interest in the rehabilitation or lease of abandoned lands for agricultural activities					231	3%	276	71
4.2	Heirs having no construction projects (or no short-term construction projects) with interest to rehabilitate their abandoned lands for agricultural activities					523	7%	684	246
	<i>(46 planters interested to lease their lands for such agricultural activities)</i>								
		Type of Replantation	Planters	Plots	Extent [Ha]				
		SugarCane	252	317	123				
		Foodstuffs/ Livestock & Flowers	180	236	70				
		Both	91	131	53				
4.3	Heirs having no construction projects and no interest in the rehabilitation of their lands for agricultural activities					1,079	14%	1,447	539
	TOTAL					1,833	24%	2,407	856
5.0	Planters unable to contact/ untraceable					669	9%	803	397
	TOTAL FOR ALL					7,586	100%	9,875	4,506
	Response Rate for Survey					91%			

#### 9.10 Expiry of Land Lease/ Transfer of Land Ownership (15%):

- 9.10.1 Such cases involve 1,128 accounts of planters, representing 15% (1,128 out of 7,586) of total planters surveyed. 9% of the respondents in this category (692 out of 7,586) stated that the lands were taken on lease for cane cultivation, which upon expiry has not been renewed by the lessor or the lessee. This also includes cases whereby the lands have been returned to their owners upon the death of the planters. The land owners include individual land owners and corporate land owners.
- 9.10.2 A further 6% of respondents declared having sold their plots for numerous reasons which amongst others include financial distress, financing tertiary education of their siblings, sale by licitation or sold by heirs.
- 9.10.3 These lands are still in an idle state representing an aggregate of 865 Ha of land island-wide. Due to unavailability of the contact details on the actual/ new land owners to this office, no further information could be gathered.

#### 9.11 Succession (24%):

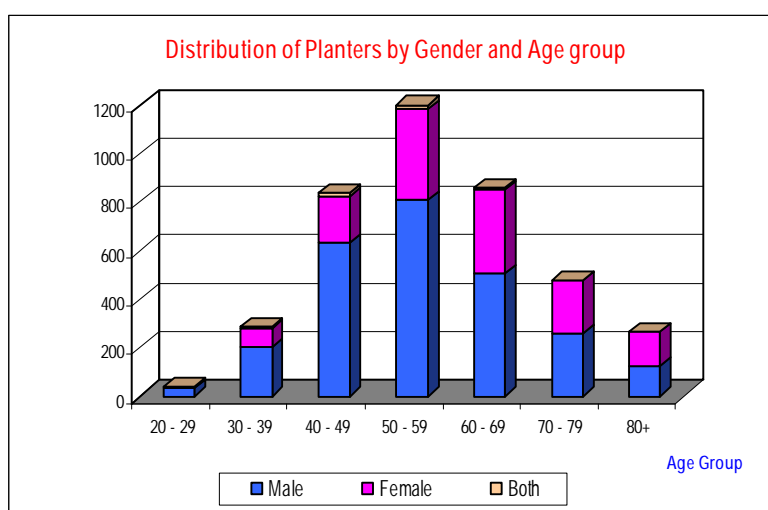
- 9.11.1 All accounts of Succession type have been grouped with those planters reported as deceased by the respondents and for which division in kind of the plots in lite is in progress or division in kind already effected.
- 9.11.2 The respondents are mainly the heir(s) of the deceased planters or their next of kin and the responses may not necessarily be applicable to all heirs of the succession.
- 9.11.3 The primary reason for abandonment is a lack of agreement amongst heirs regarding the continuation of the activity on the plots of land.
- 9.11.4 Such cases of succession type involve 1,833 cases which represents 24% of planters surveyed. 3% of respondents (231 cases) have indicated as having building construction projects on their divided/ to be divided lots of land in the near future or the shorter-term. The majority are currently awaiting the necessary permits.
- 9.11.5 The majority of respondents in this category (1,079 cases representing 14% of total planters surveyed) have indicated no interest in carrying out any activity or the rehabilitation of their lands due to succession problems and constraints regarding the inheritance pattern.
- 9.11.6 7% of respondents (523 cases) have expressed an interest in the rehabilitation of their lands for agricultural use. 46 of them also seems to be interested in leasing their divided plots or whole plot for agricultural purposes, subject to the consentment of all heirs involved.

### 9.12 Individual & Joint Farmers (52%):

This category involves the majority of planters interviewed (3,956 out of 7,586) which represents 52% of all participants in the survey exercise. The respondents were mainly the planters themselves or their representatives or next of kin.

#### 9.12.1 Demographic Profile:

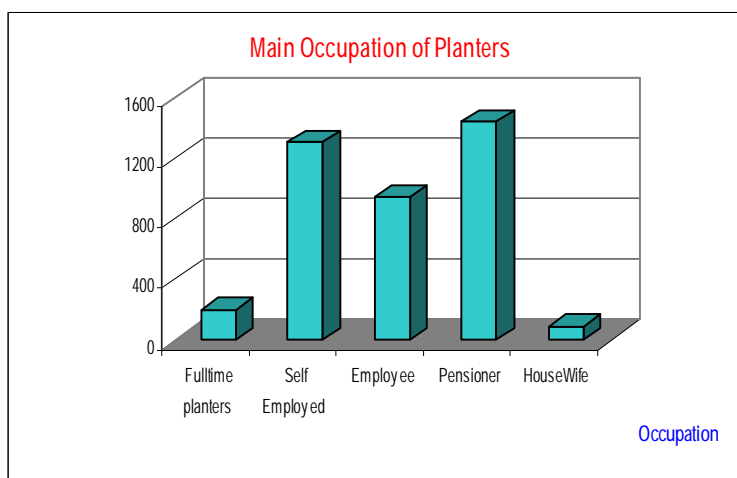
The demographic profile of the individual planters is shown below. The gender of planters registered as joint owners such as husband and wife, partnerships and associations of planters is shown as "Both".



**Figure XV – Distribution of Planters by Gender and Age Group**

#### 9.12.2 Occupation:

The main (actual) occupation of the cane growers is distributed as under:



**Figure XVI – Main Occupation of Planters**

- 9.12.3 It is interesting to note that 31% of farmers (2,361 such planters) are interested in getting back to agricultural business; out of which 1,216 in cane cultivation only, subject to institutional assistance such as derocking, irrigation, bulldozing and land preparation facilities being provided. 377 of these ex-planters are also interested in leasing their lands for such activities.
- 9.12.4 We further note that out of 2,361 planters at 9.12.3 above who are interested in the rehabilitation of their lands, 1,787 have outright expressed their interest in being contacted and assisted for this purpose by other organizations. It is our understanding that planters who have not expressed the requirement for assistance prefer to rehabilitate their abandoned fields by their own means.
- 9.12.5 23% of planters (1,595 such planters)) are no longer interested in any agricultural activity on their lands; out of which 330 stated as having building construction plans in the near future. It appears that for the difference of 1,265 planters, it would require more efforts in convincing them to go back in agriculture. But however, 105 of them are prepared to lease their lands for agricultural business, subject to assistance being provided with the legal procedures.

#### 9.13 Planters Still in Business (1,435 planters):

Active planters represent 19% of total planters in this Household Survey which are spread in all categories of farmers shown in Table 10. 1,037 of 1,435 active planters were contacted with the remaining being unreachable at time of the Survey. Most of these active planters carry out cane cultivation on a part-time basis. As shown in Figure XVI above, the proportion of full-time planters is little and for whom sugar proceeds represent an important source of revenue to their households. The main reasons for reportedly having an abandoned plot(s) in their accounts and the lack of interest or inability for rehabilitation include:

- (i) building construction projects in the near future on these plots;
- (ii) land divided amongst heirs or being parceled for residential purposes;
- (iii) plot(s) taken on lease which have not been renewed by the individual land owners;
- (iv) plot(s) have been sold;
- (v) plot(s) too far from residence; and unwillingness to rent out land to other farmers;
- (vi) plot(s) situated along hillsides (Marginal Lands) with low productivity;
- (vii) plot(s) being too rocky for sugar cane cultivation;
- (viii) plot(s) are frequently affected by accidental/ criminal fires, wild animals, pests, etc...
- (ix) plot(s) highly exposed to geomorphic damage due to landslides, flood and soil erosion;
- (x) Plot(s) are subject to disputed ownership;
- (xi) Plot(s) returned to Sugar estates (Metayer Lands) and State Entities (SLDC, Land Use, Tea Board) upon expiry of land lease.

## 10.0 DRIVERS OF LAND ABANDONMENT:

We have further looked into the responses of the Individual and Joint Farmers at paragraph 9.12 above with respect to their reasons for abandoning land use (other than Succession Problems) which is tabled below in decreasing order of significance:

**Table 11 – Reasons for Land Abandonment**

REASONS FOR LAND ABANDONMENT	% RESPONSES
Low Rate of Return	16.8%
Increase in Fertilisers, Herbicides & Labour Wages	15.0%
Labour Unavailability	14.6%
Transport Constraints	11.6%
Financial Constraints	9.3%
Lack of Institutional assistance	7.5%
Plots Too far from residence / Moved to an area far from the plot location	6.7%
Aspects of Land Quality - Rocky, Sloppy, Mountaineous, Hollow, Marchy	5.8%
Age & Health Constraints	4.8%
Plot frequently affected by Fire	3.1%
Plot frequently affected by Flood, Accumulations of Water & Landslides	2.5%
Plot Situated along hillsides & Difficult access to plots	1.3%
Plot frequently affected by Wild Animals, Pests & Diseases	1.1%
<b>TOTAL FOR ALL</b>	<b>100%</b>

- 10.1 A combination of economic and social factors is involved in the decline in the level of agricultural production and rising trend towards abandonment of agricultural land in recent years.
- 10.2 By far the most frequently cited factor influencing the cessation of cane cultivation among farmers and abandonment of cultivated cane land are the unfavourable economic conditions, that is, the low rate of return from sugarcane cultivation or other foodcrops.
- 10.3 Over the years, there has been a gradual decline in the revenue to planters from sugar proceeds, which has also been accompanied by a consequent rise in input expenses incurred for cultivation i.e. production costs (e.g. chemical fertilisers, herbicides, land preparation, labour wages, transportation costs for virgin cane plantations and ratoon maintenance). These reasons accounted for almost 32% of all reasons listed for not farming, followed in importance by structural factors of labour shortage and constraints on transportation of canes to mill, resulting in financials constraints on the farmer during the harvest period.
- 10.4 In economic terms, scarcity of labour and transport unavailability drives up labour wages and transportation costs, burdening the financial hardship of the planter.

- 10.5 The above factors coupled with the fragmented nature of landholdings for the small planters have considerably reduced the economies of scale for sugar cane cultivation, which also discourages farmers to continue with the traditional crop cultivation. It is also purported that neglected cane plantations or lack of proper husbandry amongst current small scale cane growers is attributable to the rise in these variable costs of production.
- 10.6 It is also perceived amongst the planter community that there is insufficient assistance offered by Service Providing Institutions.
- 10.7 The Social and personal factors at the detriment of the planter for not occupying their lands relate to (i) their age and health conditions and (ii) their farms being located too far from their place of residence and difficult access to their farms. It is also seen from Figure XV above that the planter community is an ageing population, with 73% of them aged between age 40 and 70 years.
- 10.8 The Physical and Environmental reasons among the least cited reasons behind leaving their lands uncultivated which include mainly (i) plots being frequently affected / damaged by fire incidences, flood, pests and diseases, wild animals, accumulation of water, resulting in additional costs or losses incurred by the planters; and (ii) the aspects of land quality as being rocky, sloppy, hollow and mountaineous lands. Sugar Cane plantations were mostly damaged by Rats, Monkeys, Pigs and Boars, as cited by the respondents.
- 10.9 Though less cited, the physical and environmental factors are of significance in land abandonment for a small group of planters. Out of 3,956 Individual & Joint Farmers, 26% have abandoned their plots due to these physical aspects. 28% of planters stated that their plots are frequently affected/ damaged by fire incidences, flood, etc....

## 11.0 PROCESS OF CHANGE TO LAND ABANDONMENT:

- 11.1 Land Abandonment can take place by an immediate discontinuation of the agricultural activity either by death or retirement of the farmer due to age factor, followed by a lack of interest by heirs or next of kin to continue with the activity. Such cane fields are left unattended, and which becomes invaded by grassweed and bushes over the years.
- 11.2 However, land abandonment can also occur progressively starting with a deteriorating level of husbandry over the years prior to complete abandonment. This process of change has been observed among most of the abandoned plots by the Non-Corporate farmers covered in this survey. The determinants of the cultural practices of a farmer have been used as proxies for abandonment, namely:
- (i) Improper fertilisation
  - (ii) Competitive weeds
  - (iii) Gappiness
- 11.3 Husbandry information retrieved on all the plots prior to being reported as abandoned reveals that typically, during the latest years under cane, the canes are normally low yielding old ratoons and the farmer is often adversely reported on account of increasing levels of competitive weediness and gappiness. Lack of proper husbandry reduces the productivity of the land affecting the yield which remains low until the land is ultimately abandoned.
- 11.4 The process of change often begins with competitive weediness and gaps in the fields which are not uprooted and replanted. Plantations affected by adverse climatic conditions or wild animals are not replanted. Year after year, the level of gaps increases and the area concerned becomes invaded by shrubs. There is degeneration in the maintenance of the plot i.e. the land and plantations are progressively reported to be in a Neglected state. The cultivation disappears with high levels of gappiness and the land becomes dominated by bushes, ending in a fallow state.



**Figure XVII – Neglected Cane Plantations**

- 11.5 As at end 2010, some 6.7% of accounts of small planters were reported as being in a Neglected state with an estimated extent of 1,200 Ha of land island-wide. Having regards to the non-renewal of cane plantations and deteriorating levels of husbandry, it may be inferred that the 1,200 Ha of land would be more vulnerable to move out of cane growing business in the future.



## 12.0 SURVEY CONCLUSIONS:

- 12.1 Over the last decade, there had been a widespread change in use of cane lands to other agricultural (non-sugar) and development activities, accentuated by land abandoned amongst the cane growers. The island-wide area of land devoted to sugarcane cultivation has reduced from 80,741 Ha in 2001 to 67,787 Ha in 2010, accompanied by a reduction in the number of accounts held by planters with the SIFB from 30,481 in 2001 to 23,051 in 2010.
- 12.2 Since 2001, 14,898 Ha of land constituting 22,568 plots of cultivated cane lands have moved out of cane growing activity. This implies a 31% loss in the number of cane lands to other uses representing 18% change in area of land under cane relative to 2001.
- 12.3 Out of 18% change in area of land under cane since 2001, 4% are presently under foodstuffs and 3% into Built-up areas (Residential, Commercial and Industrial) and Zoning regions. 11% representing 9,026 Ha of land are identified as wastelands, characterized by GrassWeed and Bushes which has been left unoccupied (Abandoned).
- 12.4 Change in extent of Land Use is highest in the South and Centre/West parts of the island, followed by the North and Eastern parts respectively. As identified by the Survey, the 9,026 Ha of waste/ fallow lands is considered to be abandoned by all categories of cane growers namely (i) Non-Corporate Sector; (ii) Corporate Sector Cane Growers; (iii) Corporate Sector Non-Cane Growers and (iv) Unknown Ownership.
- 12.5 Land Abandonment by the Non-Corporate Sector stands at 4,506 Ha and that by the Corporate Sector – Non-Cane Growers is 575 Ha. For the Corporate Sector Cane Growers, decrease in land under cane cultivation is due to change in use; whereas lesser extent are left fallow (temporary abandonment) for strategic planning purposes such as Crop Rotation, etc...
- 12.6 Land Abandonment by the Non-Corporate farmers is distributed highly in the South and North sectors, followed by Centre/West and Eastern parts respectively. A sector-wise comparison compared to 2001 demonstrates that the rate of land abandonment is higher in the South & Centre/West parts compared with the North and East parts. This feature is largely attributable to formerly-owned SIT Lands in the factory areas of Britannia and Mon Tresor for the Southern sector. However, the average rate of land abandonment island-wide since 2001 is 1,097 plots per year or 500 Ha of land per year.
- 12.7 The abandoned lands is mostly concentrated among highly fragmented plots of sizes 0 – 1 Ha (81%), making a total extent of 3,135 Ha out of 4,506 Ha (70%) belonging to individual land owners who are more vulnerable to abandonment of their holdings. Abandonment of land is also seen to be more clustered in village envelopes and their peripheries.
- 12.8 A Survey carried out with 65 Corporate-Non-Cane Growers indicate that cane lands have been acquired mainly for large-scale development projects such as IRS and RES. However, 13 of them have expressed their interest in the rehabilitation of their lands for agricultural use for short periods of time until the lands will be requisitioned for development purposes.
- 12.9 A household survey carried out with a sample of 7,586 Non-Corporate farmers who reportedly have an abandoned plot of land reveals that:
- (i) 9% of planters were cultivating on leased lands, which upon expiry have not been renewed by owners of land and/ or planters themselves. A further 6% of respondents stated that the

plots were sold. These lands are unoccupied by the new/ actual land owners, which makes an extent of 865 Ha island-wide.

- (ii) Out of 24% of planters classified under Succession, only 7% of heirs have expressed an interest in the rehabilitation/ lease of their lands for agricultural purposes subject to the consentment of all heirs to the Succession. The difference i.e. 17% has indicated no interest in carrying out any agricultural activity on their lands due to building construction projects in the near future or succession problems.
  - (iii) Out of 52% of individual and joint planters interviewed, 31% are interested in the rehabilitation of their lands for agricultural use, subject to institutional assistance being provided such as derocking, irrigation, bulldozing and land preparation. 377 ex-planters are also interested in the leasing of their lands for agricultural use with legal assistance being provided with the leasing formalities.
  - (iv) 9% of planters were untraceable at time of Survey. A total of 38% of planters who participated in the household survey have expressed an interest to go back into agricultural business.
- 12.10 The main factors driving the phenomenon of land abandonment (mostly cited by the individual cane growers) are the low rate of return from sugar production, which is primarily explained by a gradual decline in the revenue to planters from sugar proceeds accompanied by a consequent rise in costs of production (i.e. intrants such as fertilizers and herbicides), labour and transportation costs and constraints.
- 12.11 The planters' community is an ageing population and the social and personal factors which are detrimental to the cane growing activity relate to (i) their age and health conditions and (ii) farms located too far from their places of residence. Moreover, the younger generation called upon to inherit the land have a lack of interest in the activity, which becomes more unattractive in view of the cane lands being far from their places of residence.
- 12.12 It is also perceived by the planter community that there is insufficient assistance offered by Service Providing Institutions.
- 12.13 The cultural practices of farmers provide an indication on the trend towards eventual abandonment of their fields. From this study, it is also concluded that land abandonment is a process which is observed as being a progressively deteriorating level of husbandry whereby the plots are under low-yielding old ratoons and in a neglected state prior to complete abandonment. It is worth noting that at present, there are 6.7% of current cane growers making some 1,200 Ha of land under cane plantations which has been reported as Neglected. From this trend, it appears that these planters would potentially move out of business to other activities or to the ultimate abandonment of their lands in the near future.

# ANNEX 1

Map Showing Distribution of  
Change in Use/ Abandonment  
of Cane Lands

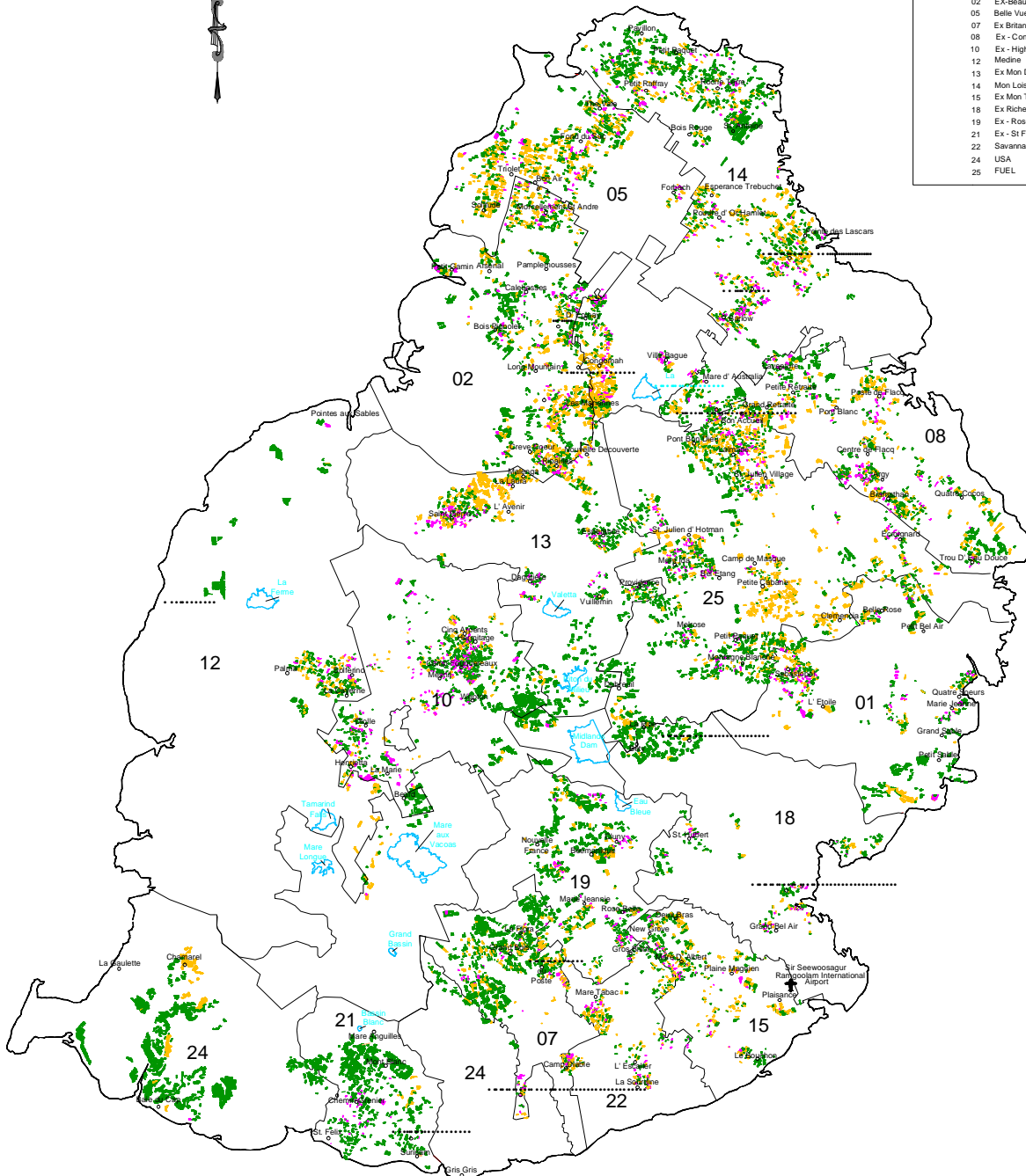
Title: Change in Use / Abandonment of Land

Source: Sugar Insurance Fund Board

Scale: 1:125000

Date: September 2011

- Legend:
- Grass weed / Bushes
  - Built-Up / Zoning (formerly land under cane cultivation)
  - Foodstuff
  - Factory Area delimitation
- 01 Beau Champ
  - 02 Ex-Beau Plan
  - 05 Belle Vue
  - 07 Ex Britannia
  - 08 Ex - Constance
  - 10 Ex - Highlands
  - 12 Medine
  - 13 Ex Mon Desert Alma
  - 14 Mon Loair
  - 15 Ex Mon Tresor Mon Desert
  - 18 Ex Riche En Eau
  - 19 Ex - Rose Belle
  - 21 Ex - St Felix
  - 22 Savannah
  - 24 USA
  - 25 FUEL



# ANNEX 2

## Survey Questionnaire

**SURVEY QUESTIONNAIRE**

Account Number:                      XX-XXXXX                      Abandoned Plots:                      .....                      Plot Name:                      .....

.....

.....

Fill in this questionnaire by ticking the appropriate answers (✓)

<b>1.0</b>	<b>PLANTER'S PERSONAL INFORMATION:</b>			
1.1	NAME OF PLANTER:	.....		
1.2	PLANTER'S ADDRESS:	.....		
1.3	TELEPHONE NUMBER:	.....		
1.4	AGE (LAST BIRTHDAY):	..... YEARS		
1.5	GENDER:	MALE	<input type="checkbox"/>	FEMALE
			<input type="checkbox"/>	
1.6	OCCUPATION:			
(i)	Full-time Planter:	<input type="checkbox"/>		
(ii)	Self-Employed:	<input type="checkbox"/>		
(iii)	Employee:	<input type="checkbox"/>		
(iv)	Pensioner:	<input type="checkbox"/>		

<b>2.0</b>	<b>REASONS FOR CHANGE IN USE/ ABANDONMENT OF LAND [Multiple Answers Possible]:</b>			
2.1	<u><b>SOCIAL &amp; PERSONAL:</b></u>			
2.1.1	Age & Health Constraints	<input type="checkbox"/>		
2.1.2	Ownership of Property -Lease expired	<input type="checkbox"/>		
2.1.3	Succession Problems	<input type="checkbox"/>		
2.1.4	Accessibility of plots to farmer's residence:	<input type="checkbox"/>		
(i)	Too far from residence	<input type="checkbox"/>		
(ii)	Plots situated along hillsides	<input type="checkbox"/>		
(iii)	Difficult access to Plots	<input type="checkbox"/>		
2.1.5	Moved to an area far from the plot(s) location:	<input type="checkbox"/>		
2.2	<u><b>ECONOMIC &amp; STRUCTURAL:</b></u>			
2.2.1	Financial Constraints	<input type="checkbox"/>		
2.2.2	Low Rate of Return	<input type="checkbox"/>		
2.2.3	Transport Constraints	<input type="checkbox"/>		
2.2.4	Labour Unavailability	<input type="checkbox"/>		
2.2.5	Increase in Fertilisers, Herbicides & Labour Wages	<input type="checkbox"/>		
2.2.6	Lack of Institutional assistance	<input type="checkbox"/>		
2.3	<u><b>PHYSICAL &amp; ENVIRONMENTAL:</b></u>			
2.3.1	Productivity of Land - Cane Yield (Tonnes of Cane per Arpent):			
(i)	< 15	<input type="checkbox"/>		
(ii)	16 - 25	<input type="checkbox"/>		
(iii)	26 - 35	<input type="checkbox"/>		
(iv)	36 +	<input type="checkbox"/>		
2.3.2	Access to Irrigation facilities:			
	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

2.3.3	Aspects of Land Quality:		
(i)	Rocky		
(ii)	Sloppy		
(iii)	Other [Please specify]		.....
2.3.4	Plots frequently affected by:		
(i)	Flood		
(ii)	Landslides		
(iii)	Fire		
(iv)	Pests & Diseases		
(v)	Others [Please specify]		.....
2.3.5	Climatic Conditions:		
(i)	Dry		
(ii)	Humid		
(iii)	Super-Humid		
2.4	<u>OTHERS: (PLEASE SPECIFY)</u>		
	.....		

<b>3.0</b>	<b>REHABILITATION OF ABANDONED LANDS:</b>					
3.1	Do you have any building construction projects on your Abandoned plot (s) in the near future?					
		YES			NO	
3.2	If No to 3.1, are you interested in the replantation of your Abandoned plot(s)?					
		YES			NO	
3.3	If Yes to 3.2, Please state what agricultural activity you intend to carry out on your land:					
(i)	Sugar Cane					
(ii)	Foodcrops					
(iii)	Fruits					
(iv)	Animal Farming					
(v)	Flowers					
(vi)	Others [Please Specify]					.....
3.4	Do you require technical assistance such as derocking facilities, bulldozing, irrigation, land preparation in the rehabilitation of your Abandoned plot(s)?					
		YES			NO	
3.5	Are you interested to lease your Abandoned Land(s) for agricultural use?					
		YES			NO	
3.6	If Yes to 3.5, do you wish to be assisted in the leasing procedures and other formalities?					
		YES			NO	
3.7	Do you wish to be contacted by other organisations to further assist you with regards to 3.2 to 3.6 above?					
		YES			NO	

<b>4.0</b>	<b>GENERAL REMARKS:</b>

Name of Interviewing Officer: .....	Name of Respondent:.....
Officer Code:.....	Relationship of Respondent with Planter:.....
Signature:.....	Respondent's Signature:.....

Punched in Insurance on ..... by Officer.....
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