



# THE PHILIPPINE ETHANOL INDUSTRY

Sugar Asia 2013  
Queen Sirikit National Convention Center  
Bangkok, Thailand  
28-29 May 2013



# OUTLINE

- Where is the Philippine Ethanol Industry in 2013?
- What are the constraints and drivers of growth?
- What is the future of the Industry?

# What took place prior to 2013?

- Mandated biofuels market, i.e. E10, B2
- Optimization of locally-produced bioethanol
- Reference Price for locally produced bioethanol

23 May 2013

## Asia Pacific Ethanol & Biofuels Report


**Southeast Asia**

**Philippines** – Softening US values have contributed to a slightly lower assessment of Philippines imports values, which have been set \$5/cu m lower at \$770-780/cu m. The spread between old crop and new crop US corn prices widened during the week. Old crop values remained relatively strong supported by increased demand from ethanol producers while new crop values have eased due to planting of a record 41.8 mln acres in the US in the week ending 19 Apr (1<sup>st</sup> graph). Philippines buyers are looking to pick up small cargoes around \$750-760/cu m CFR Batangas to bridge the gap until new crop US ethanol drives comparative prices lower but Thailand and Pakistan are fully committed. Only smaller producers like Vietnam with 5 - 10 mln L and Indonesia have product available.

Higher feedstock prices in the Philippines have resulted in an increase in the benchmark price for local production. Molasses prices rose 15.6% in Apr 13 to P=49.38/L, leading to a 4.8% increase in the Bioethanol Index price to P=49.38/L (2<sup>nd</sup> graph).

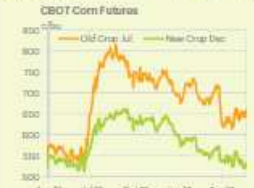
**Thailand** – Thai ethanol offers continue to be notionally assessed at \$830/cu m on the basis of domestic prices with only very limited volumes likely to be available for the remainder of the calendar year. Existing production is working near full capacity and cassava producers may struggle to meet their target of 38% of domestic consumption with just the current operating plants. Domestic demand is expected to rise to 3 mln L/day by year's end. The explosion in ethanol demand has impacted on feedstock availability with local molasses traders reporting that most sugar mills have sold out of molasses or are retaining it for their own ethanol production. This tightness in molasses availability comes despite a record cane harvest of over 100 mln mt. A small 2,000 mt cargo of molasses recently traded at \$147/mt FOB Laem Chabang and producers are counting on even higher values for Q3 and Q4 13, expecting the strong demand from ethanol producers to support values.

**Indonesia** – Indonesian ethanol imports for Feb 13 fell to just 3.6 mln L (3<sup>rd</sup> graph), down 67% on the previous month's result of 11.05 mln L and less than half the 7.7 mln L exported in Feb 12. However, cumulative exports for first two months of 2013 of 14.7 mln L are only marginally lower than the 14.9 mln L exported in Jan-Feb 12. More than 97% of Feb 13 exports were undenatured ethanol.




Thailand	720-830	Wk change
FOB Thailand GPC (\$/cu m)	720-830	-
Thai Gasohol 91 THB/L	35.48	0.40
Thai Gasohol 95 THB/L	37.93	0.40
Ref Price May THB/L	26.19	3.07
Ref Price May \$/cu m	889.07	96.47
Philippines \$/cu m		
Bioethanol Ref Price Mar	1200	43.64
CFR Batangas	770-780	(51.45)


**CBOT Corn Futures**





**Domestic Bioethanol Price Index**



**Indonesia - Ethanol Exports**



Conversion Cost (Php/liter)	Bioethanol Price Index (Php/liter)
22.29	48.07
22.29	48.09
22.29	45.57
22.29	46.61
22.29	47.18
22.29	46.71
22.29	47.10
22.29	49.38
22.29	49.12
22.29	49.65

# Where is the Philippine Ethanol Industry in 2013?

- High cost due to feedstock cost
- Only 4 plants (21 proposals 2006, 8 registered for investment incentives)

23 May 2013

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### Southeast Asia

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Higher feedstock prices in the Philippines have resulted in an increase in the benchmark price for local production. Molasses prices rose 15.6% in Apr 13 to PHP 6911/mt, leading to a 4.8% increase in the Bioethanol Index price to PHP 49.38/L (2<sup>nd</sup> graph).

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# Where is the Philippine Ethanol Industry in 2013?

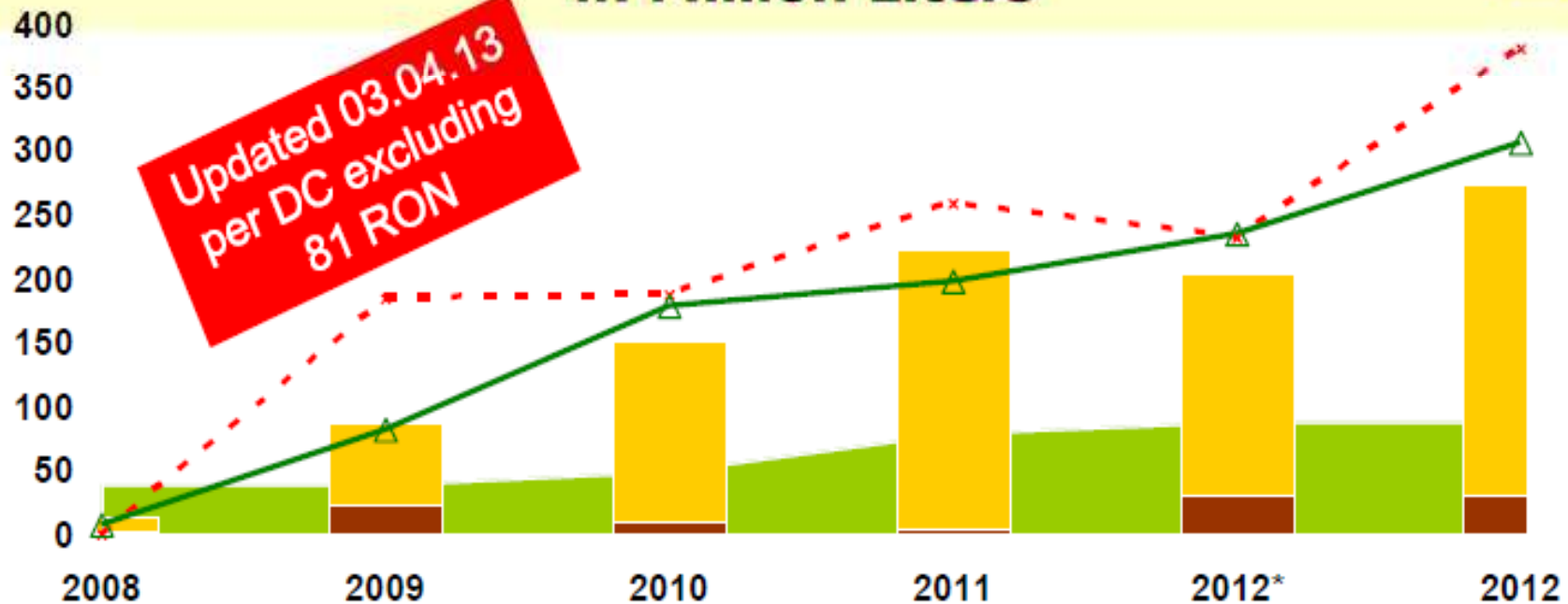
- 4 operational distilleries: 1 in Luzon, 1 in Leyte and 2 in Negros
- 133 million liters annual production capacity
- 3 distilleries use molasses feedstock
- Balance of mandated blend volume is imported, usually imported through Subic Free Port
- Main market is in Luzon



# What are the constraints and drivers of growth?



## Bioethanol Demand vs Supply in Million Liters



Production Capacity Production Imports Demand Ethanol per E10 Sold

# What are the constraints and drivers of growth?



# What are the constraints and drivers of growth?

ITEM	BIOETHANOL PRODUCERS	PROJECT LOCATION	Feedstock	PRODUCTION CAPACITY per YEAR in Million liters	STORAGE CAPACITY in MILLION liters	REMARKS
1	San Carlos Bioenergy, Inc.	San Carlos City, Negros Occ.	Sugarcane	40	3	Operational
2	Leyte Agri Corp.	Ormoc City, Leyte	Molasses	9	0.75	Operational
3	Roxol Bioenergy Corporation	La Carlota, Negros Occidental	Molasses	30	12	Operational
4	Green Future Innovations, Inc.	San Mariano, Isabela	Sugarcane	54	7	Operational
		<b>TOTAL</b>		<b>133</b>	<b>22.75</b>	



# What are the constraints and drivers of growth?

ITEM	BIOETHANOL PRODUCERS	PROJECT LOCATION	PRODUCTION CAPACITY per YEAR in Million liters	Feedstock	REMARKS
<b>REGISTRATION WITH NOTICE TO PROCEED</b>					
1	<b>Cavite Biofuels Producers Inc.</b>	<b>Magallanes, Cavite</b>	<b>34.4</b>	<b>Sugarcane</b>	<b>for construction</b>
2	<b>Canlaon Alcogreen Agro Industrial Corp.</b>	<b>Bago City, Negros Occ</b>	<b>45</b>	<b>Sugarcane</b>	<b>for construction</b>
3	<b>Universal Robina Corporation</b>	<b>Brgy. Tamisu, Bais, Negros Oriental</b>	<b>30</b>	<b>Molasses</b>	<b>pending</b>
		<b>TOTAL</b>	<b>109.4</b>		

# What are the constraints and drivers of growth?

## REGIONAL DISTRIBUTION OF OIL DOWNSTREAM FACILITIES as of Feb 2012

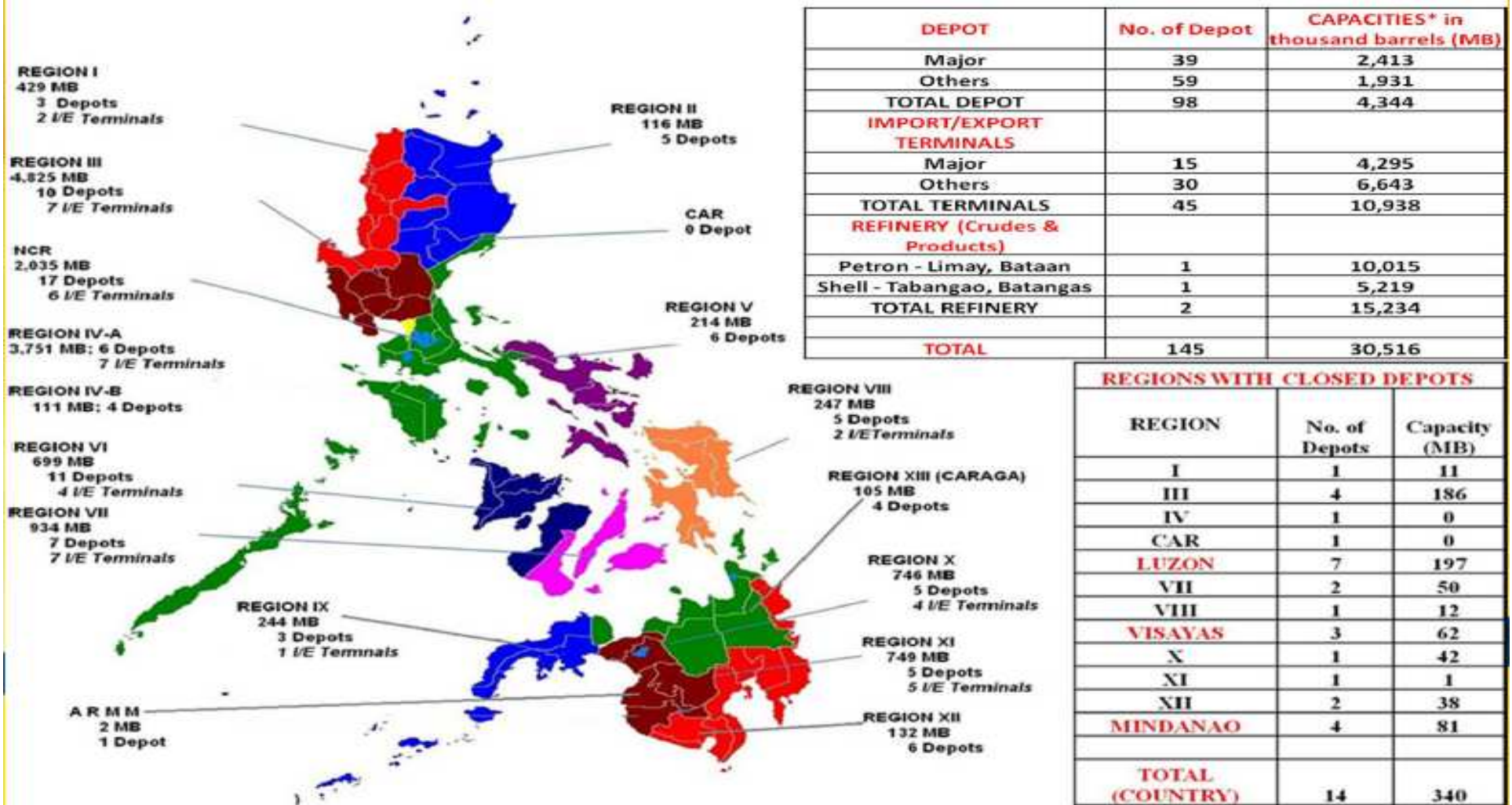
DEPOT	Depot	thousand barrels (MB)	million liters	Required** in
Major	39	2,413	384	61
Others	59	1,931	307	49
<b>TOTAL DEPOT</b>	<b>98</b>	<b>4,344</b>	<b>691</b>	<b>110</b>
<b>IMPORT/EXPORT TERMINALS</b>				
Major	15	4,295	683	109
Others	30	6,643	1,056	168
<b>TOTAL TERMINALS</b>	<b>45</b>	<b>10,938</b>	<b>1,739</b>	<b>276</b>
<b>REFINERY (Crudes &amp; Products)</b>				
Petron - Limay, Bataan	1	10,015	1,592	253
Shell - Tabangao, Batangas	1	5,219	830	132
<b>TOTAL REFINERY</b>	<b>2</b>	<b>15,234</b>	<b>2,422</b>	<b>385</b>
<b>TOTAL</b>	<b>145</b>	<b>30,516</b>	<b>4,852</b>	<b>771</b>

\*\* Conversion, li/bbl : 158.984

Note : Exclude non-operational depots and I/E Terminal

Source : DOE updated Feb 2012

# What are the constraints and drivers of growth?



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## Cane Farmers

60,000 farmers  
422,384 hectares of sugarcane plantations  
57 TC/Ha

## Sugar Processors

28 Sugar Mills + 14 Sugar Refineries  
66% capacity utilization of mills

## Bioethanol Producers

4 Bioethanol Distilleries  
25% Production capacity of mandated market

**86% of farms are 10 hectares & below in area!**

# What are the constraints and drivers of growth?

**21 proposals, why only 4 built plant?**

- Delayed implementation
- Low tariff @ 1%
- Policy reversal

**Continue full implementation of biofuels law**

**Bioethanol Producers**

**4 Bioethanol Distilleries**

**25% Production capacity of mandated market**

# What are the constraints and drivers of growth?

**Produced only for local and US exports**

- Improve Mill Utilization
- Generate power for the grid (biomass power)

**Take advantage of Renewable Energy Law**

## **Sugar Processors**

**28 Sugar Mills + 14 Sugar Refineries**

**66% capacity utilization of mills**

# What are the constraints and drivers of growth?

**All cane plantations were distributed to CARP beneficiaries**

- Block farming
- Address productivity issues

## **Cane Farmers**

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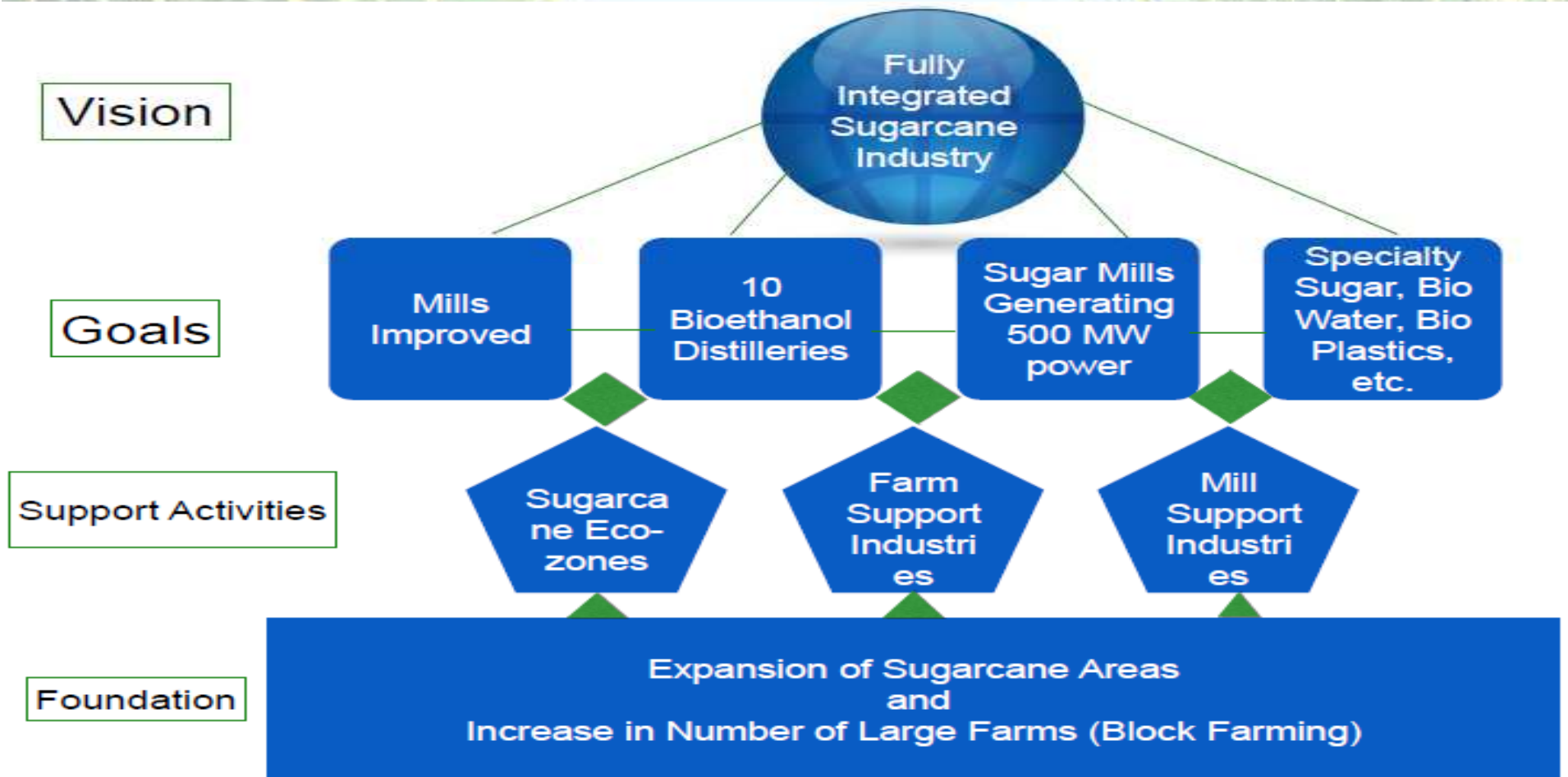
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**86% of farms are 10 hectares & below in area!**



# What is the future of the Industry?



Source: Sugar Regulatory Administration

# MARAMING SALAMAT



Green Future Innovations, Inc.  
Roxol Bioenergy, Inc.  
San Carlos Bioenergy, Inc.  
Universal Robina Corporation

Unit 1207 Security Bank Centre 6776 Ayala Avenue, Makati City 1229 ☎ 632.752.0050 📠 632.892.9238