



ANNUAL GROUP REPORT MAY 2018 – APRIL 2019

BATC DEVELOPMENT BHD







COMMUNICATION ON PROGRESS 2018 - 2019





REMARKS BY GROUP EXECUTIVE CHAIRMAN



Dato' Seri Mohd Safie M. Jaffri Group Executive Chairman BATC Development Bhd

Energy security and independence are vital to national security and to the socio-economic development of any country. The rise and fall of a nation depends on the strength and sustainability of their energy resources. Unfortunately, the passionate pursuit of energy resources and the high level of dependence on fossil fuel have caused climate change and global warming which must be addressed immediately.

I call upon all leaders in the world to work towards a mutual agreement to coordinate and unify the clean energy and biofuel policies and ensure the market's stabilization in order to secure an efficient, economic and regular supply of clean energy and biofuel to the industry and consumers while securing a steady income to producers and a fair return on capital for those investing in this industry.

BIONAS is willing and able to issue investment to meet the demand of any country for biofuel or waste to energy projects in their respective countries. BIONAS takes proactive steps by collaborating our expertise and technology with any party to make climate action a reality.









ZURINA AMNAN Group Chief Executive Officer BATC Development Bhd

30th April 2019

To our stakeholders:

I am pleased to confirm that BATC Development Bhd reaffirms its support of the Ten Principles of the United Nations Global Compact in the areas of Human Rights, Labour, Environment and Anti-Corruption.

In this annual Communication on Progress, we describe our actions to continually improve the integration of the Global Compact and its principles into our business strategy, culture and daily operations. We also commit to share this information with our stakeholders using our primary channels of communication.

Sincerely yours,

Zurina Amnan







THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT

HUMAN RIGHT

- 1. Bionas support and respect the protection of internationally proclaimed human rights.
- 2. Bionas make sure that we are not complicit in human rights abuses.

LABOUR

- 1. Bionas uphold the freedom of association and the effective recognition of the right to collective bargaining.
- 2. Bionas eliminated all forms of forced and compulsory labour.
- 3. Bionas support the effective abolition of child labour.
- 4. Bionas eliminated all discrimination in respect of employment and occupation.

ENVIRONMENT

- 1. Bionas support a precautionary approach to environmental challenges.
- 2. Bionas undertake initiatives to promote greater environmental responsibility.
- 3. Bionas encourage the development and diffusion of environmentally friendly technologies.

ANTI-CORRUPTION

1. Bionas work against corruption in all its forms, including extortion and bribery.





INTRODUCTION

Bionas Agropolitan Technology Corridor Development Berhad or better known as BATC Development Berhad under its tradename "BIONAS" was incorporated in 2004 and the project launched in 2007 with the objective of promoting Jatropha Curcas planting for fuel production as well as to generate wealth creation within the Malaysian Economy.

The Company's main unique selling proposition lies in its technology, supply chain, branding control, its price leading position, and the relative low entry cost of producing Jatropha biofuels by outsourcing a major portion of its supply chain costs and risks to existing yet idle multi-million dollar refineries, third party nursery partners and partnering land owners and farmers.



BIONAS envisage developing new sustainable green economic activity which will enhance economic growth in rural areas and simultaneously eradicate poverty.

MISSION

To become the leading producer of sustainable third generation renewable which energy, is environmentally friendly, does not contribute to deforestation, does with food not compete production while at the same time providing and improving socio-economic value to local communities.







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DATO' SERI MOHD SAFI'E M. JAFFRI, GROUP EXECUTIVE CHAIRMAN

Dato' Seri Mohd Safi'e M Jaffri, Malaysian, is the Executive Chairman of Bionas Group of Companies. He is the Chairman of the Malaysia National Member Committee of the World Energy Council (WEC).

Prior to Bionas, he has acted in the capacity of Executive Chairman and Chief Executive of several national and notable organizations within the technology, investment and property development sectors in Malaysia and Singapore. These include chairmanships in public companies listed on the Main Board of Malaysia and the property development groups in Singapore.

His vision has led Bionas to take a leading position in the biofuel sectors globally. His unique concept and methodology in developing the Jatropha plantation has not only positioned the company in the global business arena but also contributed in poverty eradication amongst rural community as one of the principle of socioeconomic empowerment.

His investment into Nano-Emulsion and Polarization in biofuel production has created a revolutionary technology to the biofuel industry providing solution to the governments in any country to streamline and implement their National Biofuel Policy. His leadership has resulted in outstanding performance of the company in many countries with good increment in annual profits.

The Company is now a Member of the Climate Technology Centre Network (CTCN), UNEP and the Business Participant of the UN Global Compact (UNGC) and one of the Signatories for Caring for Climate (a joint initiatives of UNGC, UNFCCC and UNEP).

For his remarkable efforts in green and clean energy, he has been acclaimed with award and recognition from California Takshila University for excellent work in promoting energy independency and Appreciation Letter from the United Nations Environment Programme (UNEP).





ZURINA AMNAN, GROUP CEO

Zurina Amnan, Malaysian, is the Chief Executive Officer of BIONAS Group of Companies. She is the Secretary of the Malaysia National Member Committee of the World Energy Council (WEC).

Zurina has been key in mapping out the Group's core strategies. She leads the operational supply chain, and business and corporate relations of the Group.

The Company's investment into Nano-Emulsion and Polarization technology in biofuel production has created a revolutionary in energy sector towards bio-energy sustainability and security. The production cost has reduced tremendously and the use of multi-feedstock has resulted to biofuels are offered at very competitive price.

She spent many years to prove the technology by conducting various tests of performance and emission in various climate conditions in many countries. Her leadership quality has extended the company's global presence to more than 50 countries.

Her passion towards bioenergy is expressed through her offer for technological collaboration to any countries in the world to streamline and implement their National Biofuel Policy.







She became one of the Climate Change Leaders for her participation during the United Nations Environment Programme (UNEP) Governing Council Global Ministerial Environment Forum (GC/GMEF) 2011 in Nairobi. She was one of the speakers at the Jatropha World Summit 2008 in Bali Indonesia, the 1st Philippine International Bio Energy Conference 2012 in the Philippines, the World Biofuel Market Conference 2012 in Rotterdam, BIT's New Energy Forum 2012 in China, the 4th International Conference on Biofuel Standards 2013 organised by the U.S National Institute of Standard and Technology (NIST) in Washington DC, the World Science Forum 2013 in Brazil and ExpoNaval 2014 organised by Chilean Navy in Chile. and the World Energy Congress in Turkey.

She has received a letter of invitation from the UN Secretary General Ban Ki-moon to attend the UN Climate Summit 2014 in New York on 23 September 2014 of which she was also invited by the UN Global Compact to chair one of the Round Table Discussions of the UN Private Sector Forum.

For her remarkable efforts in green and clean energy, he has been acclaimed with award and recognition from California Takshila University for excellent work in promoting energy independency and Appreciation Letter from the United Nations Environment Programme (UNEP).





Letter from UN Secretary General Ban Ki-moon to Bionas Group Chief Executive Officer, Madam Zurina Amnan

9	
THE SECRETARY-GENERAL	L
	2 September 2014
Dear Ms. Amnan	ı,
It is with g host at United Na	reat pleasure that I invite you to the Climate Summit I will ations Headquarters in New York on 23 September 2014.
Climate ch time. Action toda	ange, and our response to it, will be the defining issue of our
Charter of the Un	ited Nations, from establishing the conditions for peace and
justice, to ensurin social progress ar economies and ou	1g dignity and equality for all people and nations, and promoting nd better standards of life for all. The health of our people, our ar planet depends upon it.
World lead	ers today have an unprecedented opportunity to reach a
sustainable prosp	ment and take actions on the ground that can put us on a path to erity. Governments have agreed to reach such a universal legal
agreement in 201: and private sector	5. It is up to leaders from all levels of government, civil society
This is the task be	fore us at the Summit in September.
This is the	first Summit I have hosted that brings together leaders from
world, vision and	ate sector and civil society. In our increasingly interconnected ambition must be advanced by a diverse and dynamic
public-private par means, and shift t	tnership. Together, we can leverage our strengths, multiply our he global climate trajectory. The Climate Summit will see the
largest gathering t political ambition	to date of world leaders to catalyse climate action and to raise for a meaningful global legal agreement by 2015.
	·
Ms. Zurina Amna	n
BATC Developme	ative Officer ent Bhd
I invite you	u to bring ambitious announcements and actions to the Summit
equity and securi	to seeing you in September as we endeavour to provide prosperity, ity for this and future generations.
	Yours sincerely,
	7 M D
	Ri Moor Ban
	BANKimoon





Bionas is a Business Participant of the UN Global Compact and one of the Signatories for Caring for Climate.

Caring for Climate March, 2014 Dear Dato' Seri Mohd Safie M. Jaffri, We wish to thank you and to recognize your vision and leadership in endorsing the Caring for Climate initiative. In addition to your valuable participation to the UN Global Compact, BATC Development Bhd is now part of the largest global business movement to address climate change, endorsed by over 350 companies from 60 countries. The climate change crisis has risen to the top of the international agenda with growing public concern. Companies, local governments and countries have already recognized and are capitalizing on the benefits of moving towards low carbon, climate resilient and green economy pathways. With Caring for Climate, the UN Global Compact, the UN Environment Programme (UNEP) and the secretariat of the UN Framework Convention on Climate Change (UNFCCC) seek to (i) mobilize businesses on a global scale to take a stand for a lowcarbon and climate resilient economy through their processes, products and services; as well as (ii) inform the climate change global policy agenda in order to contribute to progress in the intergovernmental climate change process. Caring for Climate offers ongoing engagement opportunities for signatories, in particular through events, publications and collaborative action platforms. Further information on upcoming engagement opportunities can be found on the initiative's website at www.caringforclimate.org. We welcome BATC Development Bhd to the Caring for Climate initiative and look forward to working with you. Sincerely. Georg Kell **Christiana Figueres** Sylvie Lemmet Executive Director Executive Secretary Director UN Global Compact Office UN Framework on Climate Change UNEP DTI Dato' Seri Mohd Safie M. Jaffri Group Executive Chairman BATC Development Bhd





Bionas becomes the first Private Sector Member to join the Climate Technology Centre and Network (CTCN).

23 April 2014 Re: Application for CTCN Membership Applicant Reference: N0011 CTCN Reference: 2014/Membership06/BATC Dev. Bhd. Dear Ms. Aminuddin, Thank you for your application for the CTCN membership. We have completed our assessment of your application. I am pleased to inform you that the BATC Development Bhd. has been granted the CTCN membership. As detailed in the information note, which can be accessed on our website at (http://www.unep.org/climatechange/ctcn/Portals/50212/Guideline_CTN_membership%20app lication.pdf), CTCN members are invited to play a meaningful role in information sharing and capacity building, to provide as appropriate, technical assistance in response to country requests (response projects), and participate in outreach and networking activities. I look forward to working in close collaboration with the BATC Development Bhd. toward serving the interests of the developing countries by providing high quality and diverse expertise in the transfer of climate technologies. Yours sincerely, 14 Jukka Uosukainen CTCN Director Ms. Norazlina Aminuddin BATC Development Bhd. No 87-1 1st Floor, Jalan Raja Mahmud Off Jalan Raja Abdullah Kampung Baru, 50300 Kuala Lumpur Malaysia **Climate Technology Centre and Network** UN City, Marmorvej 51, 2100 Copenhagen, Denmark UNEP CTCN webpage: www.unep.org/climatechange/ctcn Email: ctcn@unep.org





Bionas becomes the first Private Sector Member to join the Climate Technology Centre and Network (CTCN).



The Climate Technology Network (CTN) Membership Application Assessment (New Application)

	To be come	loted by offic	Application	Data			
Reference	NO01	1 Applicant	Organization	BATC Development Bhd			
Contact	Dato' Seri Mobd	Safie'M Jaffi	Contact	safie@bionas.com.my			
nerson	Ms Norazilna Am	buddin	email	porazilipa@bionas.com my			
Type of insti	tution	Private Secto	Thordentale biomasconning				
Country of B	egistration	Malaysia	or Ballization				
Date of rece	int of application	24 Eobruaru	2014 finitial sui	amission)/14 April 2014 (additional information)			
Accessment	due date	As the additi	anal informatio	an was provided on 14 April Jater than the			
Assessment	uue uate	assessment	due date the a	sessment neriod was extended			
Note		As the additi	onal informatio	in was provided			
Note		AS the adult	oral monthatic	araisal			
		1	ecnnical App				
	To be com	pleted by offi	cer completing	Part II Substantive assessment			
Recommend	lation	Grant memb	ership 🔀	Decline membership			
Thematic an	ea of expertise	Mitigation 2	2	Adaptation			
Mitigation s	ectors	Energy, Tran	sport (biofuel)				
Adaptation s	sectors	N/A					
Service area	s	Investment, Technology development and transfer, Collaboration in					
		innovation, Capacity building, Knowledge sharing					
Geographica	al scope	Asia, LAC, Africa					
		blending, sto transport ex The organiza for cultivatio The organiza generation a The financia 2011 and 20 The organiza CTCN code c 17 April 201	trais invested in borage and distrii tensively in Sou ution has establ on, processing a attion produces o and industrial ap I stability was d 12. attion commits t of conduct.	button of Jatropha based biofuel for industry and theast Asia and also in LAC and African countries. lished Joint Ventures in 40 countries internationally nd/or storage and distribution of the products. eight additives/biofuel products transport, power oplications with certified quality. emonstrated by statements for fiscal years 2010, o the mission of the CTCN and to abide by the			
Date of reco	mmendation	17 April 2014					
Recomment	aciun by	Tuko Nagata	, interni Netwo	nik wanager			
	- L	malate d b. 19	Final Decis				
Final dash-t-	lo be co	mpleted by th	ne Director of t	ne CICN of delegated officer			
rinal decisio	in	Grant memb	iersnip 🖂	Decline membership			
Comments	22.58						
Date of deci	sion	23 April 201	4				
Decision by		Jukka Uosuk	ainen, Director	CTCN			
Signature		9	uld .	lot.			





Speaker Invitation to Bionas Group Chief Executive Officer, Madam Zurina Amnan for World Energy Congress – Istanbul 2016

WORLD ENERGY CONGRESS	Istanbul 2016 Organising Committee World Energy Council Turkish Member Committee Cinnah Cad. No:67/15, 06680, Çankaya-Ankara, Turkey T (+ 90) 312 442 82 78 - 79 F (+90) 312 441 9610 www.wec2016istanbul.org.tr info@wec2016istanbul.org.tr World Energy Council 5 th Floor, 62 - 64 Cornhill, London EC3V 3NH, UK
Ms. Zurina Amnan Group CEO Bionas 15 - 3, Jalan Seri Rejang, Rampai Business Park South, Taman Sri Rampai, 53300 Setapak, Kuala Lumpur Malaysia	T (+44) 20 7734 5996 F (+44) 20 7734 5926 www.worldenergy.org
Dear Ms. Amnan,	
World Energy Cong	ress – Istanbul 2016
Speaker	nvitation
On behalf of both the Organising Committee for the 23' it is our great pleasure to invite you to speak at the ne October 2016.	^d World Energy Congress and the World Energy Council, ext Congress, to be held in Istanbul, Turkey from 9 – 13
Running since 1924, the triennial World Energy Congrand offers a unique platform for global energy leader strategies. The previous Congress in Daegu in 2013 arincluded more than 50 government ministers.	ess is the World Energy Council's global flagship event rs to challenge conventional thinking and explore new ttracted over 7,500 delegates from 123 countries and
Under the theme of "Embracing New Frontiers", the 2 critical transition in the energy industry and in a wo milestone for global dialogue and consensus building t Trilemma and deliver practical solutions into a better er	3 rd World Energy Congress takes place at a moment of orld of extraordinary change. This Congress will be a to ensure we collaboratively address the World Energy hergy future.
The Congress programme will include a number of pro days. We would be keen to discuss your possible spea your key contact and we would be happy to provide fur	ominent sessions and side events spread over the four king involvements in these events. Please let us know ther details.
A separate invitation will follow from the Turkish g transferable.	government. Please note that this invitation is non-
We sincerely hope you will accept this invitation to pa please do not hesitate to contact us directly. The key co kidd@worldenergy.org.	rticipate in the 2016 Congress. For further information ntact for speaking involvement is Mrs. Charlotte Kidd at
Sincerely yours,	
Junar Junar g.	UR
Hasan Murat Mercan Chairman Istanbul 2016 Organising Committee	Christoph W. Frei Secretary General World Energy Council





Bionas Group Executive Chairman, Dato' Seri Mohd Safi'e M. Jaffri appointed as Chairman of the Malaysia Member Committee of the World Energy Council



World Energy Council





Bionas Group Chief Executive Officer, Madam Zurina Amnan appointed as Secretary of the Malaysia Member Committee of the World Energy Council

WORLD ENERG COUNC Zurina Amnan Group CEO World Energy Council BATC DEVELOPMENT BERHAD (Company no. 653565-U) 62-64 Cornhill (Bionas Agropolitan Technology Corridor) London EC3V 3NH United Kingdom 15-3, Jalan Seri Rejang Rampai Business Park South T (+44) 20 7734 5996 Taman Sri Rampai, Setapak F (+44) 20 7734 5926 info@worldenergy.org 53300 Kuala Lumpur, Malaysia www.worldenergy.org @WECouncil 13 September 2016 Dear Ms. Zurina Amnan, We are delighted to learn that you have taken over the position of Secretary of the Malaysia Member Committee of the World Energy Council. The role which you are taking on is vital to the continuing success of the Council and we look forward to working in close collaboration with you over the years to come. We would be pleased to introduce ourselves over a call in the near future, to exchange views on the opportunities and challenges that lay ahead. Please contact Sophie Rose, Manager, Member Services at srose@worldenergy.org to advise when would be a convenient time to participate in such a call. We enclose an orientation pack that will serve as an introduction to the Council in the meantime. It would be helpful to the Council's London Office if you could provide us with a brief biography and a photo for our files. Please forward to Sophie Rose, Manager, Member Services at srose@worldenergy.org. Again, congratulations upon your appointment. Sincerely,

Dr. Christoph Frei Secretary General World Energy Council



BUSINESS OVERVIEW





Our core businesses are:

- a. Jatropha Plantation
- b. Production Of Bio-Fuel Additives through Nano-Emulsion & Polarization Technology.

All of our Crude Jatropha Oil (CJO) are use for our internal consumption and further processed as ingredients for our bio-fuel additives.





JATROPHA FEEDSTOCK FAST FACTS



JATROPHA CURCAS

PROPERTIES	JATROPHA
Climate Type:	Tropical
Seed Oil Content:	30% - 37%
Average Annual Yield / Hectare (1 st –3 rd Year):	6.0 Mt
Average Annual Yield / Hectare (4 th Year Onwards):	12.0 Mt
Lifespan:	50 Years
Harvest Period:	Monthly after 6 months
Crude Oil Price / Mt	USD 400
Byproducts	Seed Cakes i.e: Biomass Briquette



PRODUCT OVERVIEW



PRODUCT OVERVIEW:

The table below entails the products and its respective technology type and stages:

#	Products	Те	Technology & Stages			
		Stage 1	Stag	ge 2		
		Polarization	Nano-Emulsion	Nano-Emulsion & Polarization		
1	B20 (W) Bio-Petrol	-	Yes	-		
2	B20 (M) Bio-Petrol	Yes	-	-		
3	B20 (J) Bio-Diesel	-	-	Yes		
4	B25 Bio-Heavy Fuel	Yes	-	-		
5	Super Bio-Jet Fuel	Yes	-	-		
6	Bio Energy Emission Solution (BEES)	Yes	-	-		
7	Bio-Tablet Booster	Yes	-	-		
8	Bio-Superlube Additive	Yes	-	-		

<u>Polarization</u>

Generally and briefly describing, Polarization Technology allows for alignment of positive and negative ions of elements and this is achieved under high pressure and highly magnetic environment. This further allows for the elements to form stable bonds with each other. This technological breakthrough enables the production of new types of additives that when it is blended with fossil fuels and other elements creates a stable mix of a 2nd generation renewable fuels.

Nano-Emulsion

Nano-emulsion Technology is a chemical process of blending fossil fuel, bio-feedstocks and specific types of chemical which in-turn reacts and mix to form stable bonds with each other.



TECHNOLOGY & IMPLEMENTATION CONCEPT



The key success factor for Bionas lies in the application of its technology for the production of bio-fuel as well as the implementation concept in developing its plantations.

The applied technology and implementation concept is proven to be effective and has been the driving factor for the growth of the Company.

With this technology, Bionas managed to make minimum savings of US\$30 million on transesterification refinery and this saving is channelled back to the farmers by offering good price for their harvest.

Applied Technology For The Production of Bio-fuels



Give back to the farmers by offering the highest buy back price of feedstock





TECHNOLOGY & IMPLEMENTATION CONCEPT



Implementation Concept For Plantations







Implementation Concept For Bio-Fuel Additives



We acknowledged the fact that to build new infrastructures and replacement of engines and machineries specifically for bio-fuels are cost-intensive and impractical. We strive to find ways of conducting businesses using smart approaches and most of our R&D work centers on finding ways to minimize or eliminate the impracticalities.

Today, we have successfully formulated and synthesized a very stable mixture of bio-fuels with Nano Emulsion and Polarization Technology which requires blending & storage tanks to mix bio components and fossil fuels. Even though most of our additives are Jatropha based, we have the technology to formulate "Drop-In" additives derived from other types of feedstock such as used cooking oil, canola, cotton seed oil, algae etc.

As bio-fuels and renewable fuels are comparatively new to existing fossil, we do not wish to be seen as competitor to the oil majors. Instead we opt and prefer to **collaborate** with the oil majors, national oil and energy companies to further enhance their existing products and turning them into renewable fuels. We firmly believe that through collaboration with the oil majors we would be able to speed up the promotion and use of renewable energy, minimize or eliminate investments required for infrastructure setups and utilizing the oil majors' industry knowledge & experience, retailing, and supply chain. Through our technology, we believe this could also reduce the use of fossil thus prolonging the life of oil reserves.



BIONAS PRODUCTS REGISTRATION, CERTIFICATION & TEST REPORTS



The Company's products registration with U.S. Environmental Protection Agency (EPA).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460 JAN 2 9 2013 OFFICE OF AIR AND RADIATION Bio Oil National Corporation Ms. Zurina Amnan Group Chief Executive Officer 1525 Long Beach Blvd. Long Beach, CA 90813 Dear Ms. Amnan: Pursuant to your September 6, 2012 notifications, the following fuel additives have been registered per 40 CFR 79.23 (our internal identification number precedes the name): 267620001 Additive M30 Petrol 267620002 Additive B10 - B30 Bio-Diesel 267620003 Bio-Booster Tablet 267620004 Bio-Booster Liquid Note that per 40 CFR 79.21(f) you would be required to notify us in writing if certain information in your notification were to change. In addition, note, that with your notification, you have provided assurances that you will not represent, directly or indirectly, in any notice, circular, letter, or other written communication, or any written, oral or pictorial notice or other announcement in any publication or by radio or television, that registration constitutes endorsement, certification, or approval by any agency of the United States. Please call (202) 343-9648 if you have any questions. Sincerely, Byron J. Bunker Director **Compliance** Division Internet Address (URL)
 thtp://www.epa.gov
Recycled/Recyclable
 Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper





Certificate of Fuel Additive Registration from Department of Energy, Ministry of Energy, Philippines to Bionas Philippines Corporation



REPUBLIC OF THE PHILIPPINES DEPARTMENT OF ENERGY

Certificate of Fuel Additive Registration

This is to certify that the Department of Energy has duly registered **B30 & M30**, a Diesel/Gasoline Fuel Additive to **BIONAS PHILIPPINES CORPORATION** as Trader of said additive in accordance with the provisions of Section 27, Chapter 3 of R. A. 8749 otherwise known as "The Philippine Clean Air Act of 1999".

This Registration can be revoked anytime for non-compliance with the Department's reportorial requirements and failure to adhere with other conditions prescribed by the Department.

Issued this <u>31st</u> day of <u>October</u> 20<u>13</u>, at the Department of Energy, Energy Center, Fort Bonifacio, Taguig City, Metro Manila.

CARLOS JÉRICHO PETILLA

Secretarv

Control No. : CFAR 13-08-206/FCF-T





Permanent Registration for B30(M) Bio-Petrol and B30 Bio-Diesel issued by the Ministry of Energy, Philippines for Bionas Philippines Corporation



Republic of the Philippines DEPARTMENT OF ENERGY

Dr. Sharif Adzhar H. Sarahadil Chairman & CEO Bionas Philippines Corporation Bgy. East Poblacion, Salug Zamboanga del Norte

Dear Dr. Sarahadil:

This refers to your application for registration of B30 & M30 fuel additive which you intend to market to your clients.

In view of the substantial compliance and merits of your application, and without prejudice to other requirements of the Department of Energy pursuant to the provisions of Section 27, Chapter 3 of R. A. 8749 (*The Philippine Clean Air Act of 1999*), B30 & M30 fuel additive is hereby granted Permanent Registration under your company name with CFAR No. 13-08-206/FCF-T effective from the date of issuance indicated herein.

This Permanent Registration is subject to your compliance of the following conditions:

- Consistency with the guaranteed performance of the product;
- B30 & M30 should only be used as an additive and not for any other purposes; and,
- Submission of and full compliance with the quarterly reportorial requirements (Schedule VII-A).

Non-compliance to any of the above conditions shall automatically result to the revocation of said Permanent Registration.

This registration should not in any way be construed as an endorsement of the product nor be used for advertisement and commercial purposes.

	(LAD DU)
	HAN WAY -
	CARLOS JERICHO L. PETILLA
	Secretary
	IN REPLYING PLE OTE SOE-JLP-13006034
Energy Center, Merritt Rd., Fort Bonifacio, Ta	quig City. Metro Manila 1201 Philippines



Test result by PUSPAKOM (Malaysian Government Vehicle Inspection Agency) with 94% Emission Reduction.







Product: Bionas Bio-Booster Tablet
Emission Test on Commercial Bus
Before: 70% After : 4%





Test result in the Philippines with ZERO EMISSION, using Bionas B30(M) Bio-Petrol.

			TEST	'IMONIAL F	ORM		
Product's Name Date Driver's Name Vehicle ID Model Type of Engine Testimonial Ref:Number OBSERVATION DATA:		ict's Name : M30 BIO PETROL : January 29, 2014 's Name : Jessie M. Ticon le ID : 0287 : Barako Kawasaki of Engine : Motor - Kawasaki nonial Ref:Number : test bionas 01/30/2014 RVATION DATA:		Before 20;2/01/24 21:28 HC PPm 3164 C0 % 222		****** 20:2/0 24 21:28 HC PPm 3164 CO % 9.29	
NO.	PARAMETERS	INITIAL	AFTER	REMARKS	CO ₂ % O ₂ % NO PPm λ RPM T oil	7.0 11.2 1 1.64 0 37.1	CO ₂ × 7.8 O ₂ × 11.2 NO PP 1 λ 1.64 RPM 0 T oil 37.1
1	MILEAGE(KM)				A	fter	
2	FUEL QUANTITY (L)	3 liters			20;2/01/24 HC PPm CO %	23:12 42 [°] 0.00	****** *******************************
3	EMISSIONS (observation)	0.20	0.00	100% Emission Reduction	CO ₂ % O ₂ % NO PPm λ RPM	20.7 0 0.00 0	← 02 % 20.7 ← NO PPm 8 A 0.80 RPM 0 T oil 36 1

carbon result from the emission test. Thank you so much to the BIONAS Company.

Conducted At: LTO (Land Transportation Office), Tagbilaran City, Bohol, Philippines

VESSIE IM. TICON

Signature over Printed Name







				Results	Quality Specification
No.	Test	Method	Units	Sample 2 : Bionas Bio-Booster Tablet in Petrol Ron 95	Min/Max Limit
1	#Copper Corrosion	ASTM D 130	-	1a	N/A
3	#Sulphur	In House by XRF Method	wt %	ND (< 0.01)	N/A
4	#Lead, Pb	ASTM D5185	ppm	4.04	N/A
5	#Flash Point	ASTM D93	°C	38	N/A
6	#Density @ 15°C	In House by Gravimetric Method	g/ml	0.7652	N/A
7	#Pour Point	ASTM D97	°C	-27	N/A

Remark: -

ASTM : American Society For Testing and Materials #Test Method :Not accredited

Approved by

Name: Junaitun Alfarahim Jaafar Department : Laboratory Date: 27 June 2014

The above analysis is based solely on the sample submitted by customer.
The certificate shall not be reproduced except in full without the written approval of the laboratory.
End of Report







				Results	Quality Specification
No.	Test	Method	Method Units Sample 1 : Bionas Superlube Additive		Min/Max Limit
1	#Copper Corrosion	ASTM D 130	-	1a	N/A
	#Rust Test:			THE THE LETT OF	and the second
2	Distilled Water	ASTM D 665	PASS/FAIL	PASS	N/A
	Sea Water			PASS	N/A
3	#Kinematic Viscosity @ 40°	ASTM D445	cSt	84.56	N/A
4	#Kinematic Viscosity @ 100°C	ASTM D445	cSt	8.75	N/A
5	#Viscosity Index	ASTM D2270	-	72.00	N/A
6	#Total Acid Number	ASTM D664	mgKOH/g	0.66	N/A
7	#Total Base Number	ASTM D2896	mgKOH/g	3.21	N/A

Remark: -

ASTM : American Society For Testing and Materials #Test Method :Not accredited

Approved by

12m

Name: Junaitun Alfarahim Jaafar Department : Laboratory Date: 27 June 2014

The above analysis is based solely on the sample submitted by customer. The certificate shall not be reproduced except in full without the written approval of the laboratory.

- Continue -----





Tests conducted by Lloyd Aereo Boliviano S.A., Bolivia on Bionas Bio-Jet Fuel with 22% savings on Jetfuel consumption.



Test on Boeing 727-200 22% savings on fuel consumption 75% lower vibration 85% emission reduction 12 °C lower engine oil temperature









Super Bio-jetfuel Test Report by Refinacion, Bolivia









Tests conducted by Makassar State University, Makassar, Indonesia on Bionas Bio-Booster Tablet with 20-30% savings on fuel consumption.

Specification		1		2	3		4	
Additive Product	Bionas Tablet		Bionas Tabl	let 🛛	Bionas Tablet		Bionas Tablet	
Inspection Date	1/20/2015		1/31/2015		2/7/2015		2/24/2015	
Type of Engine	Diesel Engine		Diesel Engine		Gasoline Engine		Gasoline Engin	le
Engine Capacity	2800 CC		2500 CC 150		1500 CC		1500 CC	
Type of Pump	Injection pump inline		- 177 S. 14 M.					
Type of Governor	Governor Vacuum				- 494		- 100 C	
Fuel System	-		Common rial		Carburetor		Electronic Fuel Injection (EFI)	
Condition	car work without extra load		Long Distance Drive		car work without extra load		car work without extra load	
Inspection Items	Solar (Diesel Fuel)	Solar + Bionas Tablet	Solar (Diesel Fuel)	Solar + Bionas Tablet	Premium (Gasoline Fuel)	Premium + Bionas Tablet	Premium (Gasoline Fuel)	Premium + Bionas Tablet
Fuel Consumption	194 km= 14 L	194 km=14 L		Saving 20 - 30%	A. B. Will	Same without Bionas Tablet		Saving 20 - 30%
Power	-	+	-	+	-	+		+
Acceleration	-	+	Long ton -	+	19	+	-	+
Emission/Smoke	50%	18 - 37%	+	- 10 C	+	1 - 1 - 1	+	-
Engine Sound	+		+	A DOWNER OF THE OWNER	1		+	

Note:

A. Inspection result rest

- = Decline

+ = Increase

B. Conclusion

1. For diesel engine fuel consumption efficiency, it needs a treatment in the injection pump (manual)

2. For fuel system with carburetor, fuel consumption is the same without using bionas tablet.

Makassar, 3) March 2015 Head of Performance Test LUM Haruna HL. Expert of Automotive Engineering



Tests conducted by Makassar State University, Makassar, Indonesia on Bionas Super Bio-Diesel 20-30% savings on fuel consumption.



UNIVERSITAS NEGERI MAKASSAR TEST REPORT FOR BIONAS SUPER BIODIESEL ADDITIVE

Specification	1		2	
Additive Product	Super Bio Diesel		Super Bio Diesel	
Inspection Date	2/13/2015		2/15/2015	
Type of Engine	Diesel Engine		Diesel Engine/Heavy Duty	
Engine Capacity	2800 CC		4000 CC	
Type of Pump	Injection pump inline		Injection pump inline	
Type of Governor	Governor Vacuum		Industrial	
Fuel System	-		-	
Condition	car work with load (Climbing)		Constant	
Inspection Items	Solar (Diesel Fuel)	Solar + Super Bio Diesel	Solar (Diesel Fuel)	Solar + Super Bio Diesel
Fuel Consumption	150 km= 14 L	150 km=10 L	17L/hour	14L/hour
Power		+		Same without Super Bio Diese
Acceleration	- 100	+	-	+
Emission/Smoke	+	and - market	+	P.
Engine Sound	+	- Second	+	- 10 C

Note:

A. Inspection result rest

- = Decline

+ = Increase

B. Conclusions

1. For diesel engine/heavy equipment, fuel consumption is more efficient, but the power of engine is the same without using super bio diesel additive

Makassar, 3rdMarch 2015

Head of Performance Test,

Haruna HL. Expert of Automotive Engineering



BIONAS ACTIVITIES 2018 - 2019



STARTING with Malaysia 10 years ago, Bionas biofuel products today are sold in 52 countries around the world. The latest approval of the U.S. Environment Protection Agency (EPA) has also led to Bionas opening an operations office in the United States and sales are currently in 5 different U.S. States. List of all the countries that Bionas is represented:



- 1. Malaysia
- 2. Indonesia
- 3. Philippines
- 4. Thailand
- 5. Vietnam
- 6. Cambodia
- 7. China
- 8. Taiwan
- 9. Pakistan
- 10. Bangladesh
- 11. Kenya
- 12. Ethiopia
- 13. Sudan

- 14. Nigeria
- 15. Iran
- 16. Belgium
- 17. Switzerland
- 18. U.K
- 19. USA
- 20. Chile
- 20. Chile
- 21. Peru
- 22. Tunisia
- 23. Egypt
- 24. Saudi Arabia
- 25. Qatar
- 26. Austria

- 27. Germany
- 28. Turkey
- 29. Brunei
- 30. United Arab Emirates
- 31. Ghana
- 32. Chad
- 33. Uruguay
- 34. France
- 35. Poland
- 36. Myanmar
- 37. Hong Kong
- 38. South Korea
- 38. Soutr
- 39. Canada

- 40. Singapore
- 41. Brazil
- 42. Bolivia
- 43. Somalia
- 44. Ivory Coast
- 45. Mali
- 46. Sierra Leone
- 47. Guinea
- 48. Uganda
- 49. Libya
- 50. Burkina Faso
- 51. Rwanda
- 52. Burundi



BIONAS ACTIVITIES



Signing of Agreements with Next Media Services (NBS TV), Koome Island and Munyonyo Village Park



Kampala, Uganda, 2nd May 2018 - Signing of Agreements with Next Media Services (NBS TV) for creating a new TV channel - Green TV; Koome Island for Health Tourism, Waterfront and Underwater Resort; and Munyonyo Village Park for Housing and Mixed Development Project respectively.




Launching of the Uganda Jatropha Agropolitant Business Clusters and Bionas Property Development by the Minister of State for Finance, Ministry of Finance, Uganda



Kampala, Uganda, 2nd May 2018 - Launching of the Uganda Jatropha Agropolitant Business Clusters www.bionasuganda.com, and Bionas Property Development www.property.gedcgroup.com by the Honorable Anite Avelyn, Minister of State for Finance, Ministry of Finance, Uganda. Also present Honorable Ruth Nankabirwa, Government Chief Whip in the Ugandan Cabinet





Submission of Blueprint to the Vice President of Uganda



Kampala, Uganda, 4th May 2018 - Submission of Blueprint to Honorable Edward Ssekandi, the Vice President of Uganda for the 240 Blocks Jatropha Agropolitant Business Cluster development in Uganda.





Submission of Blueprint to the President of Uganda



Entebbe, Uganda, 7th May 2018 - Submission of Blueprint to President Yoweri Museveni for the 240 Blocks Jatropha Agropolitant Business Cluster development in Uganda.





"Business Opportunity in Nigeria, Sudan & Uganda"



Jakarta, Indonesia, 14 May 2018 - "Business Opportunity in Nigeria, Sudan & Uganda" Conference was held at Acacia Hotel & Resort, Jakarta. H.E. High Commissioner of Uganda and the Commissioner of Nigerian Community in Indonesia were Guests of Honour, both have delivered very informative and inspiring speech.





Signing for the Development of Medical Complex for Omdurman Ahlia University, Sudan



Khartoum, Sudan, 12th July 2018 - Signing for the Development of Medical Complex for Omdurman Ahlia University, Sudan, represented by the Vice Chancellor Prof. Karrar A. B. Elabbadi.





"Signing of Five (5) Agreements with White Nile State Government, Sudan"



Khartoum, Sudan, 13th July 2018 - Signing of five (5) Agreements for the Development and Infrastructure Projects in White Nile State. The State Minister of Finance signed the Agreements on behalf of White Nile State Government, and witnessed by the Governor of White Nile State, the Chief Minister of Central Government, and Government Officials. The five Agreements are the development of Green Industrial Park, State Government Centralised Administrative City (Green Smart City), Family Park & Event, four (4) Rest and Relaxations Areas and Roads Beautification.





Agreement Signing and Ground Breaking of 43-Storey NEC Tower in Kampala, Uganda



Kampala, Uganda, 17th July 2018 - Signing of Agreement and Ground Breaking of 43-Storey National Enterprise Corporation (NEC) Tower at the Project Site in Kampala City. NEC is the Commercial Arm of the Uganda Defence Forces. This 43-Storey NEC Tower will be constructed using IBS/Prefab Technology and expected to complete by end of next year.





Signing of Agreements for 9 Blocks Jatropha Agropolitant Business Cluster in Yumbe District, Uganda



Yumbe District, Uganda, 18th July 2018 - Signing of Agreements for 9 Blocks Jatropha Agropolitant Business Cluster in Yumbe District. The size for each Block is 30,000 acres.





Signing of Agreement for the Development of the "Nile Green Smart City" in Arua District, Uganda



Arua District, Uganda, 19th July 2018 - Signing of Agreement with the Mayor of Arua Municipal Council for the Development of the "Nile Green Smart City" in Arua District, Uganda.





Ground Breaking of Mixed Development Projects in Arua District, Uganda



Arua District, Uganda, 6th August 2018 - Ground Breaking of Mixed Development Projects in Arua District, by the District Chairman, Resident District Commissioner, the Mayor and other Government Officials. Bionas introduced the Project Management Company and Main Contractors for the Projects.





Ground Breaking of Mixed Development Projects in Koboko District, Uganda



Koboko District, Uganda, 7th August 2018 - Ground Breaking of Mixed Development Projects in Koboko District, by the District Chairman, Resident District Commissioner, the Mayor and other Government Officials. Bionas introduced the Project Management Company and Main Contractors for the Projects.





Ground Breaking of the 9 Blocks of Jatropha Agropolitant Business Clusters in Yumbe District, Uganda



Yumbe District, Uganda, 8th August 2018 - Ground Breaking of the 9 Blocks of Jatropha Agropolitant Business Clusters in Yumbe District, by the District Chairman, Chief Administrative Officer and other Government Officials. The Chairman for each 9 Blocks also present. Bionas introduced the Contractors for each 9 Blocks.





Signing of Agreements for another 13 Blocks of Jatropha Agropolitant Business Cluster in Yumbe District, Uganda



Yumbe District, Uganda, 9th August 2018 - Signing of Agreements for another 13 Blocks of Jatropha Agropolitant Business Cluster, making a total of 22 Blocks in Yumbe District. The size for all the 22 Blocks is 660,000 acres.





Bionas Group CEO speaks at BIOECONOMY DAY 2018



Kuala Lumpur, Malaysia, 26th September 2018 - Bionas Group CEO, Zurina Amnan was one of the panel speakers in Bioeconomy Day 2018, organised by Bioeconomy Development Corporation. Minister of Energy, Science, Technology, Environment and Climate Change has launched this event.



BIONAS ACTIVITIES



Joint Venture Agreement for Malaysia and Singapore



Kuala Lumpur, Malaysia, 24 January 2019 - Signing of Joint Venture Agreement for Processing, Blending, Storage, Marketing and Distribution of Bionas Biofuels and Clean Energy Products in Malaysia and Singapore.





Signing of Agreement for the Projects in Saudi Arabia



Kuala Lumpur, Malaysia, 29 January 2019 - Signing of Agreement for the Projects in Saudi Arabia. The Projects are Makkah Smart Food City, Makkah Haj & Umrah New City, Makkah Garden City, Jeddah Water Front and KSA Agropolitan Corridor.





The National Oil Corporation, Libya's visit to Bionas Malaysia



Kuala Lumpur, Malaysia, 25-28 February 2019 - A delegation from the National Oil Corporation (NOC) Libya has visited Bionas Malaysia for a proposed collaboration in biofuel and Jatropha Agropolitant Business Cluster development in Libya.





Joint Venture Agreement for Libya



Kuala Lumpur, Malaysia, 28 February 2019 - Signing of Joint Venture Agreement for Jatropha Agropolitant Business Cluster development in Libya. This project comprises of Jatropha plantation, press mill for crude Jatropha oil and Biomass briquette and pallet production, bio-additive and biofuel production, waste to energy plant, food industrial park, neighbourhood centres, education and medical facilities and commercial centres.



BIONAS ACTION PLAN







POVERTY ERADICA- TION	MULTI FEEDSTOCK	ALTERNATIVE FUEL	NO FURTHER INVESTMENT ON INFRASTRUCTURE	TECHNOLOGY TRANSFER	BENEFITS TO CONSUMERS	REAL TIME RESULTS & BEYOND
Human capital and socio- economic develop ment for poverty eradicati on & food security	Non-food multifeedst ock produced by greenbelt countries, Great Green Wall & Waste/Garb age	The raw material/ renewable fuel to produce clean energy are easily accessible in many countries	Collaboration with oil & gas industries for the production of clean energy using their existing infrastructure and network	Nano – Emulsion, Polarization & Bio – digester Technology Transfer to all countries as solution to climate change	Consumers save up to 30% on daily fuel consumption and less maintenance. Clean energy for health and better life	Emission reduction up to 97% and savings on fuel consumpti on up to 30%





The pertaining issues in many countries in the world in relation to energy include:

- 1. The uncertainty and high price of fossil fuels due to tight oil produce/supply.
- 2. Oil dependencies from other nations.
- 3. The need to create new alternative energy sources.
- 4. The creation of new economy and creation of employment.

For these reasons, Bionas decided to capture the opportunity to offer reasonable solutions which will cover all of the pertaining issues in the world through a systematic expansion and competitive strategy – the Road Map to "World Go Green".

- Human capital and socio-economic development for poverty eradication & food security
- Non-food multifeedstock produced by greenbelt countries, Great Green Wall & Waste/Garbage
- The raw material/ renewable fuel to produce clean energy are easily accessible in many countries
- Collaboration with oil & gas industries for the production of clean energy using their existing infrastructure and network
- Nano Emulsion, Polarization & Bio digester Technology Transfer to all countries as solution to climate change
- Consumers save up to 30% on daily fuel consumption and less maintenance. Clean energy for health and better life
- Emission reduction up to 97% and savings on fuel consumption up to 30%
- Achieving Global Clean Energy (Sustainability and Security)
- Practical Model to Lead Global Climate Change Efforts post COP21, Paris 2015



SOLUTION TO WORLD ENERGY TRILEMMA:



ENERGY SECURITY

No further investment on

blending & storage facilities.

- The raw materials are easily

accessible in many countries.

- Technology Transfer is offered

- Biofuel is sold at the same

price of fossil fuels with

higher profits to stakeholders.

to all countries.

Infrastructure. Use of existing

BIONAS' NANO-EMULSION & POLARIZATION TECHNOLOGY

ENVIRONMENTAL SUSTAINABILITY

- No deforestation.
- producing - No Refinery carbon emission.
- Bionas B30 (M) Bio-Gasoline test with Zero % of CO.
- Bionas Bio-Tablet test with 94% reduced emission.
- Bionas Bio-Jetfuel test with 85% reduced emission.

ENERGY SECURITY



- * Earth to Engine –
- Integrated Business Model
- * Excellent Track Records
- Successfully Commercialised Sustainable
 - Jatropha Agronomy Programme
- * Unique and Strong Commerciality in bio-refining
 - * Strong Buy-In From Oil Majors
- * Increase Oil Independence Reduced Import of Fossil Fuel
- * Lower Fuel Cost With Higher Returns & Profits to Stakeholders
 - * Carbon Sinks and Reduce Tailpipe Emission

ENVIRONMENTAL SUSTAINABILITY

ENERGY EQUITY

ENERGY EQUITY

- Jatropha planting program FREE Seeds with Guaranteed Buy Back at Good Price \rightarrow Sustainable Feedstock Supply.
- Press Mills and Additive Processing Centres installed at plantation areas \rightarrow New Economic Growth In Rural Areas.
- Bionas Gas Stations installed near plantation areas \rightarrow The accessibility and affordability of energy supply.





The climate change issue is being positively addresses by this Green Economy Development Plan with a structured planting of Jatropha trees on a very large scale. Jatropha produces crude oil that is then extracted and blended with BIONAS additive into a Standard Fuel for production of CLEAN ENERGY.

The Green Economy proceed from production of Clean Energy is then spread out and shared with the PEOPLE of the country and to further carry out secondary and spin-off development to the benefit of all. The project is proposed to be implemented through a Design, Built, Operate and Transfer for a concession period of 25 years.

To lead and implement the following Green Economy Development projects in line with KSA Vision 2030 :

- a. World Clean Energy Hub
- b. KSA Agropolitan Technology Corridor Development
- c. Neom Centre of Excellence Tower
- d. Green Sea Port Development at Neom City
- e. Green Airport Development at Neom City
- f. Green Administrative Center, Neom City
- g. Makkah Umrah & Haj New City
- h. Makkah Smart Food City
- i. Makkah Garden City
- j. Jeddah Water Front City
- k. Makkah Heritage District
- I. Riyadh Financial Center
- m. Jeddah Financial Center
- n. Neom Financial Center
- o. Riyadh Recreational and Beautification Development
- p. Waste to Energy (WTE) Project
- q. National Affordable Housing Program





INTEGRATED DEVELOPMENT GREAT GREEN WALL OF AFRICA AND KSA AGROPOLITAN CORRIDOR







INTEGRATED AGROPOLITAN PROJECT WITH INTEGRATED TRANSPORTATION SYSTEM







INTEGRATED AGROPOLITAN PROJECT WITH INTEGRATED TRANSPORTATION SYSTEM







TRANSPORTATION DEVELOPMENT PROPOSAL



	ROUTE	DISTANCE IN KM
1	TRANS AGROPOLITAN LOGISTIC NAJRAN – RIYADH – TABUK (ALONG KSA AGROPOLITAN) 	2,100
2	INTER CITY EXPRESS RAIL • RIYADH CITY – JEDDAH (WEST)	888
3	INTER CITY EXPRESS RAIL • RIYADH CITY – DAMMAN (EAST)	419
4	INTER CITY EXPRESS RAIL & GOODS RAIL LINK • NAJRAN (AGRO) – RIYADH – JEDDAH	545
5	INTER CITY EXPRESS RAIL • MADINAH – BURAYDAH (AGRO)	580
6	INTER CITY EXPRESS RAIL • MADINAH – TABUK – NEOM CITY – NEOM ISLAND RESORT – SHAM EL SHEIKH (EGYPT)	956





PLANNED RAIL NETWORK







PROJECTS DEVELOPMENT PROPOSAL







PROJECTS DEVELOPMENT PROPOSAL



LEGEND:

3

7

PROPERTY & COMMERCIAL DEVELOPMENT

- 2 Makkah Umrah & Hajj New City (MUHC)
 - Makkah Smart Food City
- 4 Makkah Heritage District
- 5 Makkah Garden City
- 6 Jeddah Waterfront
 - Jeddah Agro Port

LOGISTIC & TRANSPORTATION DEVELOPMENT

- 8 Jeddah (Hajj Terminal) MUHC Express Rail Link
- 9 Express Rail Link (ERL) Stations
- 10 Makkah MUHC Arafat Mass Rail Transit (MRT)
- 11 Arafat Minna Travelator
- 12 MUHC Monorail
- 13 Integrated Transportation Terminal @MUHC
- 14 Integrated Transportation Terminal @Makkah Central
- 15 ERLStation @Jeddah HajTerminal





PROPOSED MASS RAPID TRANSIT (MRT) & TRAVELATOR FOR MAKKAH - ARAFAH





WORLD CLEAN ENERGY HUB, KSA



The 21st Conference of the Parties (COP21) of the UNFCCC marked the turning point when governments around the world agreed to proactively address greenhouse gas emissions through mitigation and, importantly, by adapting their economies away from fossil fuels. The pre-existing plan to provide \$100 billion per year to developing countries for these purposes was extended through 2025.

The Development of World Clean Energy Hub (WCE Hub) in KSA is to assist the goals laid out by the Paris Agreement COP21. WCE Hub will function as the Center of Administration and Implementation of Paris Agreement on COP21. The Center shall provide real-time reporting on key performance indicators, Technology Transfer, Training and Certification for Compliance and Conformity to Paris Agreement that has laid out goals of reducing the greenhouse gas emissions and thus limit the global temperature increase. Mandatory use of clean energy and renewable fuels will be enforced in WCE Hub.

In assisting member countries, the Clean Energy programs to be undertaken by WCE Hub will be implemented through proposed Turnkey – Design, Finance, Built, Operate and Transfer within the agreed concession period. Three Towers with the state of art facilities will be developed in Neom, Jeddah and Riyadh, to implement and deliver the Climate Change programs for the world.

1. The Agropolitan Tower, Neom, KSA

The Tower shall be a new iconic landmark tower in Neom, KSA that represents the Agropolitan Business Cluster Development. The tower is to accommodate all blocks participating in the Agropolitan Business Cluster Development of KSA involved in the program. It will also include Bionas' Management team to ensure smooth development and implementation of this mega Climate Change programs.



The Agropolitan Tower, Neom, KSA



WORLD CLEAN ENERGY HUB, KSA



2. <u>The Clean Energy Technology Tower,</u> <u>Jeddah, KSA</u>

It is anticipated that this Tower will be the tallest twin tower in the world and developed to place all the stakeholders of Paris Agreement under the UN platform. Specially constructed to setting up new benchmark for green building and incorporating intelligent building systems. It will be the HUB for sustainable green economy and climate change mitigation. All countries adhering to the COP 21 agenda will be placed here to ensure successful and smooth implementation. It is also expected that 400 Oil companies from 200 countries will work here to actively participate in this UN Climate Change Programs. Technology transfer of Nano Emulsion and Polarization Technology will be offered to all the 400 oil companies to produce the bio- additives for diesel, gasoline, heavy fuel oil, jetfuel, coal and lubricant.

3. The World Clean Energy Tower, Riyadh, KSA

The tower is named the World Clean Energy (WCE) Tower suited for the development of Clean Energy in line with the UN's efforts to ensure clean energy production. The Tower will be the green smart building and is expected to be the Hub of operation of 14 OPEC member countries and non-OPEC countries, as well as the international and local oil and gas companies specializing in the production of clean energy.



The Clean Energy Technology Tower, Jeddah, KSA



The World Clean Energy Tower, Riyadh, KSA



WORLD CLEAN ENERGY HUB, KSA



The main source of funding for these activities will come from the World Bank as well as local banks and the USD100 billion per year for developing countries agreed by the Government around the World under COP21 where the pre-existing plan should be extended through 2025. Countries that have implemented Green Initiatives with certification can claim for Carbon Credit.

WCE Tower will serve as the One-Stop-Centre for Waste to Energy Program with the latest technology of Waste to Energy complete with financial package of Design, Finance, Built, Operate and Transfer to be offered to all cities in the world. Participating Cities will house their representatives in WCE Tower for training, technology transfer and project implementation.

WCE Hub in KSA will be supported by the new Financial Centre Towers as the headquarters of KSA Green Economy Investment Council. The Council will function as an "Investment Hub" that decides and advises all investments related to green economy. The Hub will receive foreign and domestic direct investments and will mobilize them to green projects in KSA, and across Africa and Asia.

NEOM Centre of Excellence Tower will be developed to serve as a center for Desertification Technology Research Development. It will function as a center for an integrated education for technology transfer and Train the Trainers program, training and development for techno-planters program and exhibition for the development of KSA Agropolitan Corridor and research & development for desertification technology.



KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



This development is the planting of Jatropha trees in a structured environment for the production of Crude Jatropha Oil (CJO). The CJO is then processed into biofuel products such as Bio-Diesel, Bio-Gasoline, Bio-Jet Fuel, Bio-Heavy Fuel and Bio-Energy Emission Solution (Coal Enhancer). These products have been certified by the Climate Technology Centre & Network (CTCN) a United Nation accreditation body for green products. This helps the country respond to the world "Go Green" initiatives as agreed in COP21.

In a structured environment, Planters are grouped together in the location. They will be given a plot of land to stay and another plot is provided for planting Jatropha trees. The Jatropha fruit harvested will be sold to Press Mill or at the Collection Centre. In Press Mill, Jatropha fruit is processed into Crude Jatropha Oil (CJO) and Seedcake. The CJO is then processed and blended with regular fuel to produce BioFuel. In addition to managing the Jatropha plantation, they will be encouraged to either grow vegetable, fruit, cattle, goat or chicken for the purpose of National Food Security program.

Anticipating the concentration of people at the site, and the area is developed to become a new community with economic activities. Therefore, the community's economic and social needs should also be developed and addressed such as Housing, Road, Health, School, Commercial Center, Industrial area, Administration and Facilities, Public Amenities and Infrastructure where mandatory use of clean energy and renewable fuels will be enforced.

Development brief :

- From Tabuk to Najran covering the Eastern Corridor
- 70 Blocks of 15km by 30km
- Total Number of Jatropha Trees : 5.6 billion trees
- Food Production
 - Meat and Poultry
 - 11.8 million metric ton of meat per month
 - Fish and Aquatic products
 - Fruit and Vegetable
- Clean Energy Production
 - Production of 102K barrel per day of CJO for the production of biofuel additives capable of producing 1.5 million barrel per day of refined petroleum products
- Entrepreneur development
 - Expected to create 700,000 Techno Planters as Entrepreneur
- Creation of Jobs
- Employment to be created : 3.5 million
- Environment
 - 1 tree planted is equivalent to 10kg/year carbon emission reduction. With 5.6 billion trees planted, it will reduce carbon emission of 56 million MT per year



KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



70 BLOCKS KSA AGROPOLITAN CORRIDOR





KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



PROPOSED PARCEL OF DEVELOPMENT OF JATROPHA AGROPOLITAN BLOCKS



ABATTIOR

FOOD PROCESSING FACTORY


KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



PROPOSED PARCEL OF DEVELOPMENT OF JATROPHA AGROPOLITAN BLOCKS



TYPICAL BLOCK LAYOUT PLAN (BLOCK 1 – 5)



KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



PROPOSED MASTER PLAN OF JATROPHA AGROPOLITAN BUSINESS CLUSTER





KSA AGROPOLITAN TECHNOLOGY CORRIDOR DEVELOPMENT



✤ Blocks Development Components

	PARTICULARS	AGROPOLITAN BLOCK	KSA AGROPOLITAN	
		Size: 15 km x 30 km Area: 450 km² / 45,000 ha Block: 1 Block	Size: 15 km x 2,100 km Area: 31,500 km ² (3,150,000 ha) Blocks : 70 Blocks	
	Jatropha Plantation Area	Area: 40,000 ha (88.9%)	Area: 2,800,000 ha (88.9%)	
1	Jobs Created - Techno Planters - Support	10,000 ppl <u>50,000 ppl</u> <u>60,000 ppl</u>	700,000 ppl <u>3,500,000 ppl</u> <u>4,200,000 ppl</u>	
2	 Housing Techno Planters (0.5 ha/1.24 ac plot each) Support 	Area: 2,688 ha (6.0%) 5,000 units <u>25,000 units</u> <u>30,000 units</u>	Area: 188,160 ha (6.0%) 350,000 units <u>1,750,000 units</u> <u>2,100,000 units</u>	
3	Facilities	Area: 1,203 ha (2.7%)	Area: 84,210 ha (2.7%)	
4	Infrastructure & Amenities	Area: 1,110 ha (2.5%)	Area: 77,700 ha (2.5%)	
5	 Industry (External) Processing & Blending Plant Waste To Energy (WTE) Complex Food Processing Hub & Industrial Park 	Area: 125 ha	Area: 1,750 ha	
6	Workforce & PopulationTechno PlantersSupport	10,000 ppl <u>50,000 ppl</u> <u>60,000 ppl</u>	700,000 ppl <u>3,500,000 ppl</u> <u>4,200,000 ppl</u>	
	- Population (Estimated)	150,000 ppl	10,500,000 ppl	



NEOM CENTRE OF EXCELLENCE (NCE)



The United Nations Convention to Combat Desertification (UNCCD) in countries experiencing serious drought and/or desertification, especially in Africa is a correction to combat desertification and mitigate the effects of drought through national action programs.

The Centre of Excellence for Desertification Technology Research Development Complex, Neom City, Saudi Arabia shall be established to complement the Sustainable Green Economy and Climate Mitigation program undertaken by the World Clean Energy Hub (WCE Hub) when it serves as a National Action Program to complement UNCCD.

The Centre will gather among the best scientists from around the world and will serve as a Centre for an integrated education for Technology Transfer and Train the Trainers Program, training, research and development (R&D) for techno-planters program and exhibition for the development of KSA Agropolitan Technology Corridor as well as R&D for desertification technology. Countries from all over the world will participate the UN program in this facility that is in line with the UN combat to Climate Change.

The Neom Centre of Excellence (NCE) Tower

The Tower is a 43-storey with an estimated floor area of 850,000 sq ft with state of the art facilities such as high-tech laboratory, conference hall, Grade A Office Space. Teaching and Training Centre, latest IT functional Technology, and recreational facilities.

The Tower shall adhere to Green Building Index (GBI) standard compliance.

An Expo centre will be located next to the NCE Tower to showcase all the building components of the Agropolitant Businesses Corridor Development activities such as machineries, structural buildings, sample housing, Agropolitan Master Plan, etc.



Neom Centre Of Excellence (NCE) Tower



GREEN SEA PORT DEVELOPMENT, NEOM



International trade, especially seaborne trade, has traditionally been the lifeblood of KSA. The spin-off of the Agropolitan will require upgrading and preparing efficient Sea Port. Sea Port would finally be privatised to ensure maximum efficiency. In less than ten years from now when the belt had all the intercontinental Highway and Train network completed, agricultural and other produce from this region will be serviced by all the major ports available including an Agriculture Port (to be developed). The Inland Free Trade Zones (FTZ) will be part of this to efficiently export produce from KSA to the rest of the world.

Green Sea Port City Development, Policy & Mandatory Blending

New Green Sea Port City will comprise of the following components:

- 1. Main Sea Port Terminals and Fuelling Stations
- 2. Biofuel Processing, Blending and Storage Infrastructure & Facilities
- 3. New Industrial Areas

The Priority Program on this development is the use of biofuels for the marine shipping International sector. The Maritime (IMO), United Nations Organization Regulation 13 on NOx Emission Control Areas (NECA), under the International Convention for the Prevention of Pollution from Ships comes into effect from 1 January 2016, bringing in stricter controls on emissions of SOx, NOx and PM.

Bionas produces B25 Bio-Heavy Fuel via Polarization Technology which provides energy efficient and environmentally friendly. This will enable KSA to comply and enforce the above mentioned Regulation to the global shipping lines using KSA water. KSA will be the production hub for clean energy (B25 Bio-Heavy Fuel) as the solution for the local and international shipping industry to comply with NECA regulation.





Green Sea Port Development, Neom



GREEN AIRPORT DEVELOPMENT, NEOM



The Kingdom Saudi Arabia central location in Arab Peninsular region makes her an ideal gateway to the rest of Africa, Europe and Asia. Air cargo facilities should be well-developed in servicing the new business activities generated from the Agropolitan Technology Corridor developments.

Green Airport City Development, Policy & Mandatory Blending

New Green Airport City will comprise of the following components:

- 1. New Airport Terminals and Fuelling Stations
- 2. Super Bio-Jet Fuel Processing, Blending and Storage Infrastructures & Facilities
- 3. New Airport Management Building
- 4. New Hotel and Commercial Centre

The Priority Program on this development is the use of biofuel for the Aviation Industry. Bionas produces Super Bio-Jet Fuel via Polarization Technology. This will enable KSA to comply and enforce Carbon Offsetting Scheme For International Aviation (CORSIA) of the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA); and Intergovernmental Panel on Climate Change (IPCC)'s Regulations on carbon emission by aviation industry, through the use of Bionas Super Bio-Jet Fuel as solution for airlines and aircrafts entering the country's airspace.



Green Airport Development, Neom



GREEN ADMINISTRATIVE CENTER, NEOM CITY



The project aims to create a new Central Government Administrative City (Green Smart City) with a distinctive, attractive and sustainable environment where mandatory use of clean energy and renewable fuels will be enforced.

The main sources of air pollution are emissions from the industries and motor vehicles. The Green Administrative City will comply with the Regulations for Emissions from Vehicles and Engines by the United State Environmental Protection Agency (U.S EPA) and the World Health Organization Air Quality Guidelines (WHO AQGs).

The components of the Project are as follows:

- 1. Government Palace
- 2. Green Technology Convention Complex
- 3. Ministries Complex
- 4. Governors Complex
- 5. Embassies Enclave
- 6. Grand Promenade
- 7. Housing and Residential
- 8. Commercial Centres
- 9. Golf Course with Sports Complex
- 10. Education Facility
- 11. Health Facility
- 12. Transportation Terminal
- 13. Green Park
- 14. Security and Safety Facility

ICT will be used to enhance quality, performance and interactivity of urban services, to reduce costs and resources consumption and to increase contact between government officials and citizens. Smart City applications are developed to manage urban flows and allow for real-time responses.



Green Administrative Center, Neom City



MAKKAH UMRAH & HAJ NEW CITY



KSA Vision 2030 has adopted the Haj and Umrah sectors as an opportunity to diversify income sources through the services rendered to pilgrims to contribute towards driving many sectors of the economy, and the hotel real estate sector is ranked first. An ambitious plan has been developed to increase Umrah pilgrims. Makkah receives 8 million visitors each year (2018) for Haj and Umrah.

KSA is seen raising this figure to 15 million by 2020 and 30 million by 2030 with a steady increase in Haj pilgrims. The growth rate of nearly 30% per year for Umrah pilgrims will mean an increase in demand, taking into account that such growth may not lead to an occupancy of more than 90% of the current capacity in Makkah for pilgrims and Umrah except during the Haj season.

This proposal is to address the issues of accommodation and transportation on the influx of pilgrims with the total development of 91,800 of Service Apartments and 61,200 Hotel Rooms on a 1,000 hectares of land within a 30 km radius of the Holy Haram Grand Mosque. The Planners in designing the development have taken into account that the occupancy rate is relatively high throughout the year.

The project will comprise of the following components of which mandatory use of clean energy and renewable fuels will be enforced:

- 1. Staff Quarters / Apartment consists of 3 Apartment Blocks
- Block Cluster consists of 3 Apartment Blocks, 1 Hotel Block and Commercial Podium
- 3. Commercial & Administration District
- 4. Mosque
- 5. Hospital
- 6. Waterfront & Public Amenities
- 7. Transportation Terminal
- 8. New Walkalator
- 9. New Train Line of ERL, MRT and Monorail connectivity
- 10. Vehicle Bridge
- 11. Pedestrian Bridge
- 12. Storm water Reserve
- 13. Waste to Energy (WTE) Complex



Makkah Umrah & Haj New City



MAKKAH SMART FOOD CITY



Makkah Holy City is the best location in the region to establish World Standard Halal Hub under 'Makkah Smart Food City' with the 'Green Industrial Park' and 'Food Market' projects in the Kingdom of Saudi Arabia ('KSA'). This is a country in the region that upholds the Islamic Shari'a Law governing all aspects of national legal jurisdiction and is directly related to Haj and Umrah traffic and programs (30 million annual visitor expectations).

With His Majesty consent and blessing to establish the Halal Hub and Food Market under 'Makkah Smart Food City' in Makkah Holy City, Kingdom of Saudi Arabia, making this proposal viable and promising. His Majesty government, Holy Makkah Municipality has allocated a large development area for 'Makkah Smart Food City' with 3,300,000 msq (851 acre) of land.

The Project will comprise of the following components:

- 1. Makkah Food Market
- 2. Abattior (Slaughter House and Waste Water Treatment Plant)
- 3. Factories
- 4. Logistic (Cold Room, Packaging, and R&D)
- 5. Administrative Centre
- 6. Banking, Hotel & Leisure and Shopping Mall
- 7. Convention Centre
- 8. Housing and Residential
- 9. Healthcare Facility
- 10. Education Facility
- 11. Commercial Business
- 12. Transportation Terminal
- 13. Sports and Recreational Complex and Water Theme Park
- 14. Public Facility, Security and Safety Facility



Makkah Smart Food City

The Makkah Smart Food City is the Garden City of a mixed-use development that incorporates innovative approaches to energy conservation and environmental sustainability where mandatory use of clean energy and renewable fuels will be enforced.

The Makkah Food Bank program will be introduced where stocks of food, usually basic provisions and non-perishable items, are supplied free of charge to the needy.



MAKKAH GARDEN CITY



The proposed new "Makkah Garden City" in conjunction with the proposed Makkah Smart Food City is located on 1000 acres of land in Makkah City of 1.9 million people. It is located 30 km South-West proposed Makkah Smart Food City and 30 km East Jeddah Town.

"Makkah Garden City of Tomorrow" will be the place for people to live and raise families, while enjoying high quality of life. A region that has an economic opportunity for all individuals. It will reduce Haj and Umrah traffic congestion with 30 million annual visitor expectations. It is marketed to other world destinations for Muslim and Non-Muslim communities other than the proposed Makkah Smart Food City.

The proposed Makkah Garden City will be linked to the township of Makkah and Jeddah, a well – planned city with integrated Information Technology (IT) infrastructure and network, Building Automation Systems (BAS), and sustainable design & environment.

The Garden City of Medinat Zayed, will create a unique opportunity to redefine the planning and development of the new and old fabric of Makkah. It will be a 'garden oasis' sanctuary for the region.

It is envisaged that with the creation of layers of 'connectivity' with the new fabric of the Garden City; the residents will feel comfortable and can move smoothly between old and new environments.

The Project will comprise of the following components where mandatory use of clean energy and renewable fuels will be enforced:

- 1. Administrative Centre
- 2. Banking, Hotel & Leisure and Shopping Mall
- 3. Housing and Residential
- 4. Healthcare Facility
- 5. Education Facility
- 6. Commercial Business
- 7. Transportation Terminal
- 8. Sports and Recreational Complex
- 9. Public Facility
- 10. Security and Safety Facility



Makkah Garden City



JEDDAH WATER FRONT



The proposed new "Jeddah Water Front" in conjunction with the proposed Makkah Smart Food City and Makkah Garden City is located on 450 acres of land. It is located 30 km East-West of Jeddah City and 30 km from the proposed Makkah Garden City. "Jeddah Water Front" will be the place for people to live and raise families, while enjoying high quality of life. This is Smart Entertainment City.

It will be linked to the cities of Makkah and Jeddah, and the proposed Makkah Garden City and Makkah Smart Food City, a city designed with an integrated Information Technology (IT) infrastructure and network, Building Automation Systems (BAS), and sustainable design and environment. It will be a 'garden oasis' sanctuary for the region, comfortable and can move smoothly between old and new environments.

The site is marketed as a local and world destination for Muslim and Non-Muslim communities. This is the first "Smart Entertainment City" in the Kingdom of Saudi Arabia. It is also will be linked to Haj and Umrah traffic and programs (30 million annual visitor expectations). The proposed Theme Park and Water Park in the development of Jeddah Water Front are expected to be a fun and exciting place where visitors immerse themselves in high-tech, state-of-the-art, 'Space Station'.

Most important for attractions:

- 1. They must complement the attractions in Jeddah and Makkah, not to compete with it.
- 2. They should be relative to target demographics and target attendance numbers.
- 3. They will respect local trends, culture and neighboring icon brands.
- 4. Mandatory use of clean energy and renewable fuels will be enforced.

The proposed Jeddah Water Front is in conjunction with the Mission and Vision of the Kingdom of Saudi Arabia towards 2030 which makes this proposal viable and promising success. The Project will comprise of the following components:

- 1. Water Sports, Recreational Complex and Theme & Water Parks
- 2. Green Sea Port
- 3. Convention Centre and Shopping Mall
- 4. 8-storey Office Tower
- 5. 20-storey Hotel Tower
- 6. Commercial Business District
- 7. Housing and Residential
- 8. Healthcare Facility
- 9. Education Facility
- 10. Mosque, Public Facilities and Transportation Terminal



Jeddah Water Front



MAKKAH HERITAGE DISTRICT



Emir of Makkah, Prince Khalid Al Faisal has agreed with the plans for a new heritage district around Makkah Gate to the west of the Holy City. The new heritage district will be constructed on an area of 69.3 ha, and was discussed during the Emir meeting with City officials including Mayor Osama Al Bar on Sunday 9 August 2015.

The heritage district is being targeted at numerous pilgrims and tourist who visit Makkah annually. The new neighbourhood concept will be built according to Makkah's heritage architectural style in harmony with the Holy City's other districts.

The architectural concept shall fulfill the idea of sustainable development. This approach is inspired by technology climate control with traditional principles. Location and temperature in extreme climates, there is a need for a responsive architecture and urban planning. It minimizes heat and converts all renewable energy to the population for sustainable clean environment.

The Project will comprise of the following components where mandatory use of clean energy and renewable fuels will be enforced:

- 1. Heritage Village
- 2. Central Plaza
- 3. Museum
- 4. Commercial Centre
- 5. Hotel
- 6. Mosque
- 7. General Services
- 8. Villa and Apartments
- 9. Madrasah
- 10. Water Features



Makkah Heritage District



INTERNATIONAL FINANCIAL CENTRES IN RIYADH, JEDDAH AND NEOM CITY



BATC as the owner of 'Bionas' brand intends to mobilize and invest around USD 872 billion, with an average of USD 124 billion a year in the Scheduled KSA biofuels/renewable fuels and related Industries over the next 5-10 years effective 2019 - under 25 years Built, Operate and Transfer (BOT) arrangement.

It is expected that this Capital Expenditure will result in additional GDP and is expected to increase the export of Saudi-based refined biofuel/renewable fuel products. The main contributors to additional GDP growth are the Integrated Agropolitan (255 Jatropha Biofuels Block Ranches), Green Economy related projects and related Industrial Building Systems/Modular Construction [IBSMC] industry.

Project Brief	Block	Phase 1	Phase 2	Total
Number of Blocks	1	70	185	255
Plantation Area in	40,000	2,800,000	7,400,000	10,200,000
Hectares				
Development Area in	5,000	350,000	925,000	1,275,000
Hectares				
Total Development	45,000	3,150,000	8,325,000	11,475,000
Area in Hectares				
Number of Techno	10,000	700,000	1,850,000	2,550,000
Planters				
Number of Jatropha	80,000,000	5,600,000,000	14,800,000,000	20,400,000,000
Trees Planted				

INTERNATIONAL FINANCIAL CENTRE (IFC)

The Proposed International Financial Centre (IFC) is a dedicated Financial Services Platform essential for the mobilisation of Quality FDI and Quality DDI and achieving Vision 2030. There is a need for this platform to achieve seamless absorption in this long-term investment.

Proposed IFC Goals

As a platform to access domestic regional and global investments; intermediate domestic direct investment; market the unrestrictive KSA capital account; market the 100% door to foreign ownership; zero percent tax rates on income and profits for 25 years; globally compliant regulatory environment; dedicated green products regional securities exchange associated with global capital markets; as well as the free labour market within the IFC platform.



INTERNATIONAL FINANCIAL CENTRES IN RIYADH, JEDDAH AND NEOM CITY



IFC and BATC

In the initial stage of development, IFC will anchor financial services for all activities related to BATC. IFC will accommodate a Cluster of significant Financial Service providers specialize in Equity Securities Market, Debt/Securities Market, Derivative Market, Foreign Exchange Market, Money Market, Insurance Publication, Commodity Markets, Syndicated Bank Facilities, Commercial Bank Services and Investment Bank Services; both nationally and internationally. IFC will also serve as the KSA Domestic Business Anchor - including all other than BATC business Community.

Key IFC Participants

Some key participants of the IFC Platform will include financial intermediaries such as banks and brokers; Institutional investors such as investment managers, pension funds, insurers, hedge funds; and Issuers such as governments and companies.

Key IFC Responsibilities

Some Key IFC responsibilities in order to promote and ensure liquidity, the IFC shall:

- 1. Promote and manage FDI, Credit Rating, and increase the Market Capitalizations of Stock Exchange through new listings and new issues, the development of new financial products and new windows.
- 2. Bring in FDI, which will promote DDI by attracting foreign investors, creating new investment opportunities and supporting the construction as well as food security industries.
- 3. Increase private sector credit through the creation of new capital projects, privatization of government projects and public housing while attracting Foreign Banks.
- 4. Increase consumer credit by increasing the number of Bankable Population through the provision of more jobs.
- 5. Boost KSA Securities Exchange Market Capitalization through listing companies, introducing new MTN Products, and establishing New Market [Green Regional Exchange].
- 6. Dedicated Rated Mortgage Facilities Companies.
- 7. Optimize the growth of the Financial Sector through the development of a one-stop centre for businesses led by the KSA Investment Authority, corporatization of all aspects of administration, adoption of latest technologies in every aspect of operations and development of the Free Economic Zones.
- 8. Network with other Financial Centres.

IFC Business Opportunities:

There are several advantages for setting up business in IFC:

- 1. No tax for a certain period of time
- 2. No limit on capital and profit repatriation
- 3. No currency exchange control



INTERNATIONAL FINANCIAL CENTRES IN RIYADH, JEDDAH AND NEOM CITY



- 4. No restriction on investment and profit flows
- 5. 100% Foreign Ownership
- 6. Regulatory environment.
 - a. IFC's regulatory body the International Financial Services Authority [IFSA] shall provide international regulatory standards recognized by UK's Financial Services Authority [FSA] and the US Federal Reserve.
 - b. IFC shall also be a member of the International Organizations of Securities Commissions [IOSCO].
- 7. Common Law Framework.
 - a. The IFC shall have civil and commercial laws and an independent judicial system. These laws shall govern the place.
 - b. The IFC courts shall deal with all disputes while ensuring fair adjudications.

IFC Structure

It is recommended that BATC and a Leading Financial Institution jointly manage IFC through SPV to act as the management team that provides business focus through services to BATC Projects and services to BATC Community including Project Developers. A Council comprising various stakeholders will govern IFC activities.

IFC INDICATIVE STRUCTURE





RIYADH RECREATIONAL & BEAUTIFICATION DEVELOPMENT



The proposed Riyadh Recreational and Beautification Development will comprise the following components where mandatory use of clean energy and renewal fuels will be enforced:

- 1. Entertainment Park
- 2. Sports Boulevard
- 3. Arts Centre
- 4. A Tree Line Oasis
- 5. Medical Tourism Health Farm & Medical Centre
- 6. Riyadh Zero (0) Waste City

Design Concept

The development will adopt the concept of new 'Oasis and Garden Sanctuary' where all activities, public transport, pedestrian and space layers emit from it. This mixed development incorporates innovative approaches to energy conservation and environmental sustainability. This concept has Central Park as the core of development. The component of the Humid Tropic Biome is the natural environment of tropical rainforest produced from within. Another component is the roofless biome where an open area with a variety of plants and animals from the existing region will be placed.

Sustainability Concept

The development will create a full-scale Garden City connected with a series of cool connecting shaded plazas and pedestrian paths and a city linked by canopies and nodes that generate energy. The goal is to implement a full scale of environmental strategy and integrate it into overall recreation and beautification planning. The goal is the low environmental impact in all aspects of development with various strategies to achieve a comprehensive sustainable city based on green international standards. Landscape in the city and plants planted in the countryside will be irrigated with grey water and treated waste water produced by the urban water treatment plant.

A TREE LINE OASIS

• Road with effective Landscape Treatment

The goal of development is to overcome the effects of climate change and soil degradation. It should be environmental friendly in terms of providing shades, reducing wind storm and heat waves.

- Landscape Road Features
 - 1. The Identity of the Landscape

Identity of the landscape of various cultural landscapes are defined through the plants selections and characteristics. There are three main cultural landscapes to be enhanced along the highways that emanate from the desert to the fields; the residential settlement; and ultimately the urban centre.



RIYADH RECREATIONAL & BEAUTIFICATION DEVELOPMENT



2. Safe and comfort

The highways provide designated lanes for vehicles, bicyclists and pedestrians for safety. The designated bicycle trails and pedestrian walkways at the designated width are set aside from the vehicle to provide comfort and avoid conflicts. The trees provide shades and canopied avenues; the shrubs on road shoulder serve as a safety barrier to the pedestrian walkway.

3. Well connected to various green spaces and public institutions.

Bicycle trails and pedestrian walkways at various road hierarchies need to be linked and interconnected to a variety of open space hierarchies and public institutions with minimal conflict with vehicles.

4. Combine infrastructure and trench utility.

Often, infrastructure along the roads and associated utilities that come along with them do not allow complicated landscapes to occur. This is due to the numerous utility trench built under the ground limiting the space for planting trees and pedestrian paths. Coordination between landscape architects and engineers is important for identifying multiple utility lines and determining trench routes at the earliest level to provide more space for the landscape.



Riyadh Recreational & Beautification Development



WASTE TO ENERGY (WTE) PROJECT



Modern energy services are crucial to human well-being and to a country's economic development; and yet globally 1.2 billion people are without access to electricity. It gets even more complicated when we do not want to just provide electricity but also trying to tackle climate change at the same time – and prevent global temperatures from rising more than 2C. To satisfy both goals, nations around the world would also need to improve their energy efficiency and bolster the amount of clean energy they use.

Hydropower generators produce electricity, but hydropower does have environmental impacts. Although hydropower generators do not directly produce emissions of air pollutants, dams, reservoirs, and the operation of hydropower electric generators can affect the environment. A dam that creates a reservoir (or a dam that diverts water to a run-of-river hydropower plant) may obstruct fish migration. A reservoir and dam can also change natural water temperatures, water chemistry, river flow characteristics, and silt loads. All of these changes can affect the ecology and the physical characteristics of the river. These changes may have negative impacts on native plants and on animals in and around the river.

Most cities around the world were using incineration (thermal treatment) in handling their garbage/municipal solid waste (WSW). Waste incineration systems produce a wide variety of pollutants which are detrimental to human health. Such systems are expensive and do not control the toxic emissions from chemically complex MSW. Even new incinerators release toxic metals, dioxins and acid gases.

Bionas' Waste to Energy (WTE Plant) Technology is a Bio-Digester, a series of biological processes in which microorganisms break down biodegradable material in the absence of oxygen. One of the end products is biogas, which is combusted to generate electricity, or can be processed into renewable natural gas and transportation fuels. Environmental friendly with no pollutants.

The amount of electricity produced from a 1000 tons waste per day is 288 to 480 MWh sufficient to supply electricity to 96,000 to 160,000 houses at 3 kWh per house.

Our Bio-Digester technology is equipped with Pyrolysis Plant and Distillation Plant that produce other products such as syngas, carbon black, fuel oil, non-standard diesel, non-standard gasoline and carbohydrate.

The investment for this technology is less expensive when compared to other existing technologies, with a very attractive return of investment. Our WTE Plants are installed at more than 20 countries worldwide.



WASTE TO ENERGY (WTE) PROJECT



Bionas offers Private Funding Initiative (PFI) to any countries to implement the Waste to Energy (WTE Plant) projects provided that their governments and/or its electricity companies provide guarantee to purchase the electricity from Bionas as the Independent Power Producer (IPP) at a gratifying tariff.

The time to act is now and the place to act is in the cities of the world. Cities only have not to take preventative measure, they must plan to offset the worst. The technologies are there. The solutions exist. But turning the huge unmet needs into market demand requires the right mix of political will and commitment, well-founded policies and strategies, an enabling business environment and capacity development.



WTE Process Flow



Standard Building Design / Layout



NATIONAL AFFORDABLE HOUSING PROGRAM



As part of our Agropolitan Development, we have planned for housing needs for support workers as well as for the public. We plan to build 31,000 affordable houses per Block to meet the needs at reasonable prices.

255 Blocks of Agropolitan Business Corridor Development, a total of 7.9 million houses will be built to sufficiently accomodate the appropriate location which is in line with KSA's Housing Ministry to provide quality affordable homes to the people of KSA.

Our Agropolitan Development will create more than 15 million job opportunities with a high impact on the KSA economy that will drastically reduce unemployment rate and affordability to purchase own houses.

Our affordable housing units will vary in size and type but on average as an example for medium asset 3 Bedroom apartment of 1000 sq. ft in size the price is less than USD 100,000.00.

Our goal is to complete the Affordable Housing Scheme in 3 phases spacing up to 8 years that will contribute to USD 637 Billion which will boost the KSA Construction industry, creating more job opportunities to local contractors.

Our affordable housing projects will be built using the latest green construction technology of Industrial Building System (IBS) which will offer low carbon emission, efficient, good quality and fast construction practices. The prefab building materials will be manufactured locally on the second year.

Mandatory use of clean energy and renewable fuels will be enforced in this Program.



National Affordable Housing Program



BEHIND THE SUCCESS





'We must understand the need of the people, they are not capable to invest on anything but they have some lands for food crops. Give them the seeds, buy back at the right price, good price! Process the seeds in front of their eyes and produce the oil and additive locally for their benefits! This is the only way to bring them out of misery.' – ZURINA AMNAN

