

HELP O Eco Green Ltd

No.01, First Floor, Municipal Shopping Complex, Talbot Town, Galle. T.P/Fax- 091-4380121/091-2226818 E-mail-helpoecogreen@sltnet.lk Web-www.helpoecogreen.com

BIOGAS PLANTS PROFILE

2004 ~2015

"HELPO Eco Green Ltd work as CEA Registered Consultants /Specialists"



HELP-O -"Winner of Earth Care Award-2012"



Executive Summery

HELP-O Eco Green Ltd is leading company in Sri Lanka to assist, planning & developing many environment friendly solutions in addressing waste management, alternative energy needs and sanitation through utilizing otherwise discarded waste materials to upgrade the green productivity.

The first program was begun in 2004 with Asia Foundation we could able to construct the biogas unit in "Karapitiya Hospital" because on that time they met a big problem that is there were no proper waste management program and because of that many massive problems were begun from this but finally in first time of the Asia we constructed a biogas unit in Hospital and problem were solved by the biogas unit and they have started to cultivate. Second program was community biogas program while on this time there were huge problem in Galle Municipal Area that is they could not able to manage the total waste generation and they dump it irregular way.

Another biogas construction program in "Gampaha Municipal area and also they had one of serious problem that is organic waste. We constructed 02 biogas units in their area that can dump 1000 KG per day and now from that unit they can generate energy and they use it. Now they expect to cultivate from organic fertilizer. And with the USAID support we could able to construct a biogas unit in Galle Municipal Council land for getting the biogas for their daily cooking purpose. With the support of various people we could able to implement many biogas programs in various places and various districts. HELP-O could able to consult to Cambodian Government about biogas construction.

At the moment we could implemented biogas units in Hospital Sector, Community Level, Private Sector, Hotel Sector, Government institutions in very success way. This is one of good and sustainable solution to waste problem and energy crisis. Through this program able to introduce renewable energy source for the various sectors in the country. We are implementing awareness programs for the beneficiaries through this we expect to aware them and implement proper program. HELPO Eco Green Ltd also upgraded the technology of the biogas. We are dreaming to expand the green & clean bio energy solutions while creating most favorable sensitive environment for all without harming to it.

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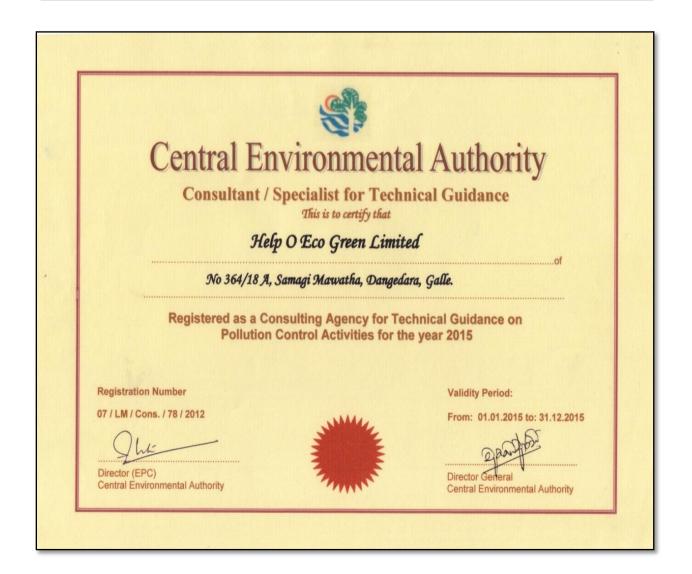
Daily Mirror F-Paper

Presenting Earth Care Award - 2012

The Earth Care Award - 2012 was presented to the Galle 'Help O Eco Green' Institute by the Indian Minister of Power and Energy, Dr. Veerappa recently.



This award was accepted by the Managing Director of Help O Care Institute, Chathura Welipitiya at a ceremony held at the Mayura Hotel, New Delhi.



DESCRIPTION OF THE COMPANY

Help O Eco Green Ltd. is doing the consultancy for waste management in different sectors like Hospital, Hotel, industries etc. and Specialist in implementing biogas technology & waste water treatment. We are introducing environmental conservation methodologies to protect the environment. Our goals are lowering the carbon emission, turn the waste to a resource, improving sustainability and provide the energy source from wastage. We are providing service with the highly qualified technical staff under the supervision of construction engineer.

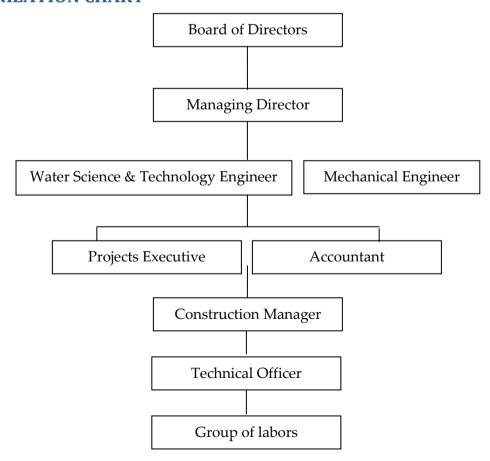
OUR VISION

"A World with Social Justice & Environmental Friendly Economic Development and Pioneers of the Eco Conservations"

OUR MISSION

"To Support Vulnerable Committees and The Organizations In Sri Lanka To Identify Their Needs, Consulting Their Issues and Advancing Professional Solutions Through Partnerships With The Stakeholders".

ORGANIZATION CHART



HELP-O Eco Green Ltd has many years' experience about biogas construction field. The first biogas unit we have implemented in Karapitiya Hospital in year 2004 from, that day we implemented biogas units in different sectors as follows:

- Domestic level
- Community level
- Hospital sector
- Forces camp
- Hotel sector & factories

- Schools
- Government offices
- Municipal Council & Urban Council
- Religious places
- Market places

The organization developed the technology and introduced new mechanism to increase the efficiency of biogas. HELP O Eco Green Ltd could able to expand the program to overseas. We consulted to construct biogas units in Cambodian government and generate the electricity through the biogas. The organization developed the technology and introduced new mechanism to increase the efficiency of biogas. HELP O Eco Green Ltd provides the technical guidance and instructions continue even we have planned to issue a methane analyze report and green certificate for the different sectors.

The company has been successfully constructed biogas units at MAS Holding – Koggala Zone, Sri Lankan Airline – Katunayake, Youth Centre – Maharagama and Nature Secret – Horana are few of places that carry on biogas units in a very successful way. Not even that the company has been implemented many biogas programs in above sectors and those are implementing properly with multi benefits. Company has well trained staff for the process. We have been upgraded the technology after several surveys conducted with Engineering university and experts.

WHAT IS BIOGAS?

Biogas is a gas whose primary elements are about 65% of methane (CH4) and about 35% of carbon dioxide (CO2). It is a product of the natural decomposition of any organic substance of animal or plant origin due to the activity of anaerobic (functioning in a non-oxygen environment) bacteria.

BIOGAS PLANT IS SOLUTION TO MANAGE

- Food waste / households, restaurants
- Sludge / waste water plant
- Industrial waste / slaughterhouses, mills, breweries
- Residues from bio-fuels
- Residues or products from agricultural sector/ manure and crops
- Biomass from the sea/algae
- Residues or products from industry/ rest fibers, sludge

MODEL OF BIOGAS PLANT



BENEFITS OF THE BIO GASS PROJECT

Under this project, we expect to convert the waste into resource by value adding to the waste. Through this integrated programme, you can get below mention outcomes.

- 1. Introduce more efficient way of organic waste management
- 2. Reduce LP gas cost
- 3. Alternate energy source
- 4. Increase the healthy environment of the place
- 5. To promote organic cultivation within the place
- 6. Decrease the diseases affected by the waste
- 7. Minimize the waste generation & irregular dumping
- 8. To waste becomes a resources
- 9. Minimize the methane gas emission to air
- 10. Minimize the soil, water & air pollution

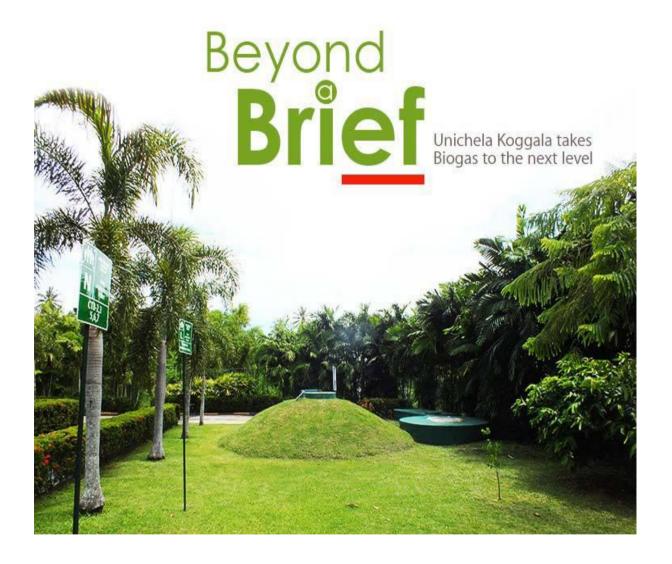
Industrial Sector

MAS Holding - Koggala Unichela Garment Factory

Place – MAS Koggala Unichela Factory Location – Koggala Southern Province

Year of implemented - 2013 Capacity of Biogas - 22m3

Contact No - Mr. Sampath Ponnamperuma Engineer 077-2650688



In their 'Beyond a Brief' campaign, Unichela Koggala structured all their activities striving for excellence under 4 pillars;

Product

People

Process

Planet

Having a strong commitment towards 'investing in the environment to protect the planet', they identified food waste as a key focus area and selected a sustainable solution in the form of a biogas plant. The Sustainability team at Unichela investigated the existing food disposal methods in relation to end results, transport and cost. They also looked into

Water availability

Water quality testing

Ground water level

The feasibility study for the project was carried out by the MAS team with the support of Chathura Welivitiya from Helpo Eco Green. With this information the MAS team was able to draw the conclusion that a fully functional biogas unit can safely be installed in Koggala.





Biogas technology in Sri Lanka is still adapting to the local market requirements. Different models and processes are available in the market targeting different aspects of operations; some focus on gas generation and others provide excellent food waste disposal solutions.

Since the introduction of biogas into the MAS energy mix in 2012, many facilities have been interested in converting their food waste in to a fuel. Our first biogas plant at Asialine was designed focusing on high gas yield to replace LPG whereas the newly commissioned unit at Unichela Koggala provides an ideal solution for food waste disposal with the added benefit of gas generation.

The Unichela team is planning an organic gardening project using the fertilizer produced through the biogas plant, The excess fertilizer will be distributed among the employees who are keen on organic farming.

Future Learn Drive More

Sampath Ponnamperuma from the Unichela team will be happy to guide those who are interested in coming to grips with this technology. For more information on the project and to learn how this technology can benefit your SBU operation's environmental footprint, please contact Sampath on SanjeewaPo@masholdings.com



July 2014 The plant taking in 30 kg of March food waste per day. In return the plant generates 10 cubic 2013 2014 meters of biogas per week and Construction begins Initial is in route to generating 180 aiming for a 2014 feeding cubic meters every month for a daily input of 90 kg of food commissioning. begins. waste. The current daily gas generation is sufficient to fuel a single burner for 30 minutes every day. In addition to this, the biogas plant also generates a After all, sustainability means running the global considerable amount of liquid and solid organic environment – Earth Inc. – like a corporation, with fertilizer. depreciation and maintenance accounts. In Helpo Eco Green team and other words, keeping the asset whole, rather than Dr. Chithral Ambewattha undermining your natural capital and if you want from the University of Ruhuna are supporting the creativity, take a zero off your budget. If you want Unichela team to ensure sustainability, take off two zeros! In the 21st century, the system is operating smoothly. I think the LEADERS will be those who will improve the quality of life, fight poverty and introduce more SUSTGING Dility... Ranjan Madugalle | General Manager | Unichela Koggala





Sri Lankan Airline – Katunayake

Place – Sri Lankan Airline - Katunayake

Location – Katunayake

Year of implemented - 2012 Capacity of Biogas - 35m3

Contact No - Mr. Rasika Gamage Engineer 077-7725436 / 071-0212803









SriLankan Champions





Joining the World Environment Day activities, SrlLankan Airlines held its Environment Day on 5th June 2013, with Chanaka Olagama, HSD, as the Chief Guest.

Highlighting the airline's active contribution in preserving the environment, energy and optimising natural resources, a Bio Gas Plant and Solar Tubes were launched. The guests and the students, who participated were taken on field visits to show the Bio Gas Plant, which supplies gas for the SriLankan Airlines' main canteen and to the Engine Module shop, which is entirely lit using Solar Tubes. The Bio Gas Plant was an initiative of the Go Green Team and implemented by Properties and Facilities Department, through the external contractor, HELPO Eco Green Ltd. This project saves Rs. 810,000 per annum. The Solar Tubes too were a successful initiative by the Go Green Team and were implemented by Properties and Facilities Department through the external contractor, Sunpower Systems (Pvt) Ltd. the Annual savings of this project is Rs. I million.

Chanaka Olagama, HSD, emphasised the benefits the



environment friendly energy initiatives. Rasika Gamage, Facilities Manager gave an introduction to the initiatives taken by the Go Green Team to stabilise SriLankan Airlines as an energy efficient entity.

Awareness presentations were delivered on Bio Gas production process and food preservation. Chatura Welivita, Managing Director - HELPO Eco Green Ltd., presented the Bio Gas concept and the Project, highlighting the planet and the pocket-friendly nature of the scheme. The presentation on food preservation was done by Deepal Samarakoon, Hygiene and Quality Assurance Executive, SriLankan Catering, where the significance of food preservation was stressed on.

In addition to these, a demonstration was conducted by Sampath Silva, Facilities Technical Foreman of Properties and Facilities Department on How to make your own energy efficient LED bulb for Rs. 150. Students were gifted with a required component pack for them to make it by themselves.

Vice President of HELPO Eco Green Ltd. Amarasinghe Kudagalara, Presidential Coordinating Director (Special Investigations), members of the Senior Management including Major General P. Chandrawansa, Head of Group Security Logistics & Administration and Privantha Rose, Head of Engineering and SriLankan staff were present at this occasion. This programme was definitely a memorable occasion for the students from

Minuwangoda Nalanda Boys' and Girls' Schools

Members of the Go Green

Pradeepa Kekulawala Supervising Head/Advisor

Capt. Anushad Liyanagoda Championing Planet-friendly Flights

Buddhika Hewawasam Championing Workplace Conservation and Waste

Management Rasika Gamage Championing Energy Conservation

and Optimisation Sanduni Thudugala Executive Green Projects /Event

Coordinator

Dhanushka De Silva Flight Ops Executive, Aviation Fuel

Twitter



4 | August 2013 Srilankan Airlines

Nature's Secret Company - Horana

Place - Nature's Beauty Creation Company

Location - Horana - 2012 Year of implemented Capacity of Biogas - 22m3

Contact No - Ms. Chathurika Priyadarshani Chemist 0777-878391

Monitoring Bio gas consumption of NBC Ltd Date flow meter reading used quantity of Bio gas(m3) 16/09/2013 12.555 17/09/2013 0.950 13.505 18/09/2013 14.278 0.773 23/09/2013 18.375 4.097 26/09/2013 22.295 3.920 28/09/2013 6.980 29.275 30/09/2013 4.280 33.555 1/10/2013 35.565 2.010 2/10/2013 38.786 3.221 3/10/2013 42.410 3.624 4/10/2013 46.540 4.130 5/10/2013 4.970 51.510 8/10/2013 59.085 7.575 9/10/2013 62.165 3.080 21.646 21/10/2013 83.811 23/10/2013 85.615 2.502 24/10/2013 88.114 1.801 90.250 2.136 25/10/2013 28/10/2013 93.116 2.866 29/10/2013 95.231 2.115 30/10/2013 98.120 2.889 100.212 31/10/2013 2.092 01/11/2013 104.750 4.538 3.050 04/11/2013 107.800 4.623 05/11/2013 112.423 06/11/2013 6.187 118.610 07/11/2013 124.920 6.310 08/11/2013 129.230 4.310 11/11/2013 132.420 3.190 12/11/2013 135.350 2.930 13/11/2013 138.760 3.410

Chathurika Priyadarshani ISO chemist. Nature's Beauty Creations Ltd. P.O. Box 1, Millewa, Horana, Sri Lanka PH: +94-3422-61100

Thank You

FX: +94-3422-53300
EM: iso@nbc.lk WEB: www.naturessecrets.lk
Sri Lankas Largest and only natural herbal cosmetic producer with ISO and GMP certified ultra modern production facility

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Youth Centre - Maharagama

Place – Youth Council – Maharagama

Location – Maharagama

Year of implemented - 2013 Capacity of Biogas - 22m3









H.E Ambassador of France visited to Youth council biogas unit

Hill garden Tea Factory – Baddegama

Place – Hill Garden Tea Factory

Location – Baddegama

Year of implemented - 2012 Capacity of Biogas - 35m3

Contact No - Mr. Thusara Factory Manager - 077-2178788









Evergreen Tea Factory – Talgaswala Galle

Place – Evergreen Tea Factory -

Location – Talgaswala

Year of implemented - 2012 Capacity of Biogas - 35m3

Contact No - Mr. Lasantha de Silva – 072-7000500









For more details - Video Documentary

Evergreen Tea Factory - Galle Haritha Piyawara by HelpoEcogreen

Navy Camp – dockyard - Trincomalee

Place – Trincomalee Navy Camp - dockyard

Location – Trincomalee

Year of implemented - 2010 Capacity of Biogas - 65m3

Contact No - Dr Duminda - 0772517160









Kalpitiya Navy Camp - Ellueankulama

Place – Kalpitiya Navy Camp

Location – Elluwankulama

Year of implemented - 2014 Capacity of Biogas - 45m3

Contact No - Dr Duminda - 0772517160









For more details - Video Documentary

The Island's

<u>HELP – O hand in setting-up standards for bio-gas plants</u> www.island.lk/index.php?page_cat=article-details&page...code...

Karapitiya Hospital

Place – Karapitiya Teaching Hospital

Location – Karapitiya

Year of implemented - 2004 Capacity of Biogas - 22m3

Contact No - Dr Sheltan Perera - Director 0773742688









Fonterra Brands Lanka (Private) Limited



Place – Fonterra Brands Lanka (Private) Limited

Location – Delgoda Road, Biyagama

Year of implemented - 2004 Capacity of Biogas - 22m3

Contact No - General <u>+94 11 2468546</u> (ext 597),

Fax <u>+94 11 2468551</u>



MAS Unichela - Panadura



Place – MAS Unichela Panadura Factory

Location – No.124, Horana Road, Panadura, Sri Lanka

Year of implemented - 2016 Capacity of Biogas - 35m3

Contact No - Mr. Janaka Priyadarshana -

Hiadaramany (Pvt.) Ltd. - Kahathuduwa



Place – Hiadaramani (Pvt.) Ltd.

Location – Kahathuduwa

Year of implemented - 2016 Capacity of Biogas - 80m3

Contact No - Mr. Priyantha Gamage

The other Biogas units constructed				
Name	Area	Contact	Size	
International Buddhist Centre	Kaluwella Galle	Ven.Kanumuldeniye Chandrawimala Thero. 091 2222337 091 4428272	12 m ³	
2. Karapitiya Hospital	Galle	Director 0912232250	22m ³	
3. Gampaha Municipal Council	Gampaha	033-2222275 033-2234390 (Hon Mayaor) 071 7925455-Mr.Raman	22m ³	
4. Beliatta Aurvedic Hospital	Belliatta, Hambantota	0412251164	35m ³	
5. Hareesha Hotel	Yakkalamulla	072-5237662- Mr.Reg De Silva(Manager) Tel.091 5630573 Fax.091 5678556	22m ³	
6. Jungle Beach Hotel	Trincomalee	Mr.Shiwa 077 2020529	22m³	
7. Ulagalla Resort	Anuradhapura		18m³	
8. Oversees Hotel	Sisilagama, Hambantota		22m ³	
9. Ampitiya PS Biogas unit	Ampitiya		22m ³	
10. Gampola Slaughter house biogas unit	Gampola	Hon chairman / 081- 2352275 Environment officer Or Secretary 081-5674649	22m ³	
11. Gampola PS Biogas unit	Gampola	Hon chairman- 081-2352275 Environment officer Or Secretary-081-5674649 075 6941840-Mr.Bandara uggampola@yahoo.com	22m ³	
12. Andaradeniya Tea Factory	Batuwangala, Nelluwa		65m ³	
13. Cambodian government biogas units	Nompen, Kambodia			
14. Negombo Community biogas unit	Dombosko village, Negombo		22m³	

15. Jaffna Muttuthambi school biogas unit	Jaffna		22m³
16. Dilmah Conservation –	Moratuwa		15m ³
17. Siyako Yoghurt company	Trincomalle	0772411959	15m ³
18. Trincomalee Naval base biogas unit	Trincomalle		65m ³
19. Ganga ehala Korale PS Biogas unit	Ampitiya		22m³
20. Matara Convent Biogas unit	Matara	071 1648431 Sis.Sandamali Kurera	22m³
21. Don Bosco Church Biogas unit	Negambo	077 9762848 Farther Dickson	22m ³
22. Galle Dakshina Navy base biogas unit	Galle	Tel. 2232180/2234587 Fax. 2245954	22m³
23. Samantha Hotel biogas unit Galle	Galle		18m³
24. Moragoda Community biogas unit Galle	Galle		22m³
25. Ruhunu Hospital PVT- Galle	Galle	Mr.Nilufer/ leonilu@yahoo.com 0772370324-	44m³
26. Villuda inn hotel biogas unit	Pannipitiya		22m ³
27. Udugama Base Hospital Biogas unit	Udugama	071-8418305 – Dr.Karunarathne	22m³
28. Mathale Hospital Biogas unit	Mathale	066-2223627 Dr.Arjuna-Director 071- 8308011- Dr.Wwasanthi	22m³
29. Sambodhi Home Biogas unit	Magalle, Galle	091 22 26 423 077 97 01 252	22m ³
30. Constructed 20 domestic biogas units			
31. Fonterra Brands Lanka (Private) Limited	100, Delgoda Road, Biyagama 11650, Sri Lanka	General <u>+94 11 2468546</u> (ext 597), Fax <u>+94 11 2468551</u>	50 m ³

Additional details of company follow the link

Eco Gas Documentary

Help O Sri Lanka

Helpo Ecogreen Won the Earth Care Award 2012

Evergreen Tea Factory - Galle Haritha Piyawara by HelpoEcogreen



