



HIGHLIGHTS

Policy Initiatives 03

\$700mn India-Dubai Energy Platform to launch...

Business & Markets 09

Helius CoRDe gets USD99mn for Scottish biomass CHP plant...

Finance & Investments 13

E.ON to invest €2.6bn in RE by 2013...

R & D - Technology 14

Sunderbans forest absorbs over 4 crore tonnes of CO₂ ...

Climate Change & Environment 15

Climate causes the earth to move: Study...

Published by

BIO-ENERGY COUNCIL OF INDIA

704-Shitiratna, Panchwati, Ellisbridge

Ahmedabad - 380006, India.

Tel : +91 79 66309332 Fax : +91 79 6630 9334

W : www.bioenergyindia.org

E : info@bioenergyindia.org

Supported by

Abellon CleanEnergy

W : www.abelloncleanenergy.com

E : abellon@abelloncleanenergy.com



Dear Readers,

While a lot has been written and said about the need for clean energy and green fuels, there is one more important sector which plays a key role in climate change and global warming. The agricultural sector and its related activities account for approx. 14% of global GHG emissions. This includes emissions from manufacturing and application of fertilizers, transportation, use of farming equipments, and other activities. Another fall out of global warming and climate change is the growing concern with food security. Thus, it is imperative that any attempt to correct the situation should include a focus on agricultural sector.

In countries like India, which have a predominantly agrarian economy, and are highly vulnerable to climate change, the role of agriculture becomes even more critical. Therefore, it is heartening to see projects such as CCAP (Climate Change Adaptation Plan), an initiative launched recently by NABARD, which aims to enhance the capacities of rural communities to adapt to climate change through soil conservation, development of watersheds, and increasing the underground water level leading to an increase in productivity.

While this is a good beginning, we at BECI are all for more action in this field. Let's join our hands to fight climate change and build a safer place for our future generations.

Best wishes,

Please post your feedback on
Bio-Energy Times @
<http://www.bioenergyindia.org/frmsendnewsfeedback.aspx>

Confidentiality & Disclaimer

This is a confidential document intended solely for internal circulation. This document may not be reproduced, cited or otherwise circulated in any form without the express written consent of Abellon CleanEnergy Ltd.

The information contained as a part of this document has been prepared using publicly available sources. We are in no way liable for any factual inaccuracies that may have inadvertently occurred.

Policy Initiatives

India

Workshop on sustainable bioenergy and trade opportunities organized in Kathmandu

www.thehimalayantimes.com/fullNews.php?headline=South+Asia+has+to+explore+export+potential+of+bio-energy%3A+SCCI+chief&NewsID=284671

The objectives of the workshop were to involve key stakeholders from the South and Southeast Asia in the process of setting standards on sustainability criteria for Bio-energy (ISO 13065), identify related regional needs and priorities; and make a substantial regional influence on the development of the new ISO 13065 standard.

\$700mn India-Dubai Energy Platform to launch

www.thehindubusinessline.com/industry-and-economy/economy/article1709235.ece

The partnership would stimulate research, development, marketing, deployment and maintenance of customized and cost-effective solutions in the green energy domain for the two countries.

MC authorized for SWM plant

www.articles.timesofindia.indiatimes.com/2011-04-25/ludhiana/29471239_1_solid-waste-management-jnnum-project

Manesar will be India's first eco-city soon

www.hindustantimes.com/Manesar-will-be-India-s-first-eco-city-soon/Article1-687763.aspx

India plans to tap carbon credit from agriculture

www.articles.timesofindia.indiatimes.com/2011-04-08/global-warming/29396349_1_carbon-credit-agriculture-cdm

India's National Bank for Agriculture and Rural Development launches climate change plan

www.commodityonline.com/crops-weather/India%E2%80%99s-NABARD-launches-climate-change-plan-2011-04-08-38018-3-1.html

The project will enhance the capacities of rural communities to adapt to climate change through soil conservation, development of watersheds, and increasing the underground water level.

India's Clean Revolution promises employment to 10.5mn as investments in energy efficiency and RE technologies soar

www.mydigitalfc.com/news/india%E2%80%99s-clean-revolution-promises-employment-105-million-135

North America

California to get 1/3rd of power from RE

www.montereyherald.com/state/ci_17833826?nclick_check=1

USDA grants \$3mn to Michigan University for bioenergy research

www.biofuels-news.com/industry_news.php?item_id=3525

The grant will be used

- To research woody biomass feedstock production systems on carbon sequestration in soils and biomass,
- To investigate three groups of highly mobile, grass-associated pests which can affect bioenergy crops and,
- To develop a cost-effective glycerol-based succinate fermentation process which can increase the sustainability of biodiesel production

Policy Initiatives

CEC grants \$1.9mn to AE Biofuels

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/ae-biofuels-gets-1-9m-grant-from-california-energy-commission.html

The grant will help the company to commercialize enzyme-based cellulosic ethanol production technology.

Clark Government to provide \$4.7mn for bioenergy project at Simon Fraser University

www.theprovince.com/life/Clark+announces+funding+Burnaby+Mountain+biomass+project/4657962/story.html

The project will eliminate 11,000 tonnes of GHG from atmosphere per year.

Europe

EBRD grants €80mn to Rokytne and Zorg Biogas AG's biogas facility

www.interfax.com.ua/eng/eco/67227/

The 20MW facility will use bagasse, waste corn and grass as a fuel.

UK gets \$985K grant for research on bio-based fuels and products from USDA

www.lex18.com/news/uk-gets-985k-grant-for-research-on-bio-based-fuels-and-products/

Bioenergy Italia invests US\$20mn in jatropha production in Moamba, Mozambique

www.macauhub.com.mo/en/2011/04/28/italian-company-invests-in-jatropha-production-in-mozambique/

The London Waste and Recycling Board grants £4mn to Orchid Environmental for WTE facility

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/orchid-environmental-gets-4m-for-london-waste-to-energy-plant.html

The plant will handle 160,000 tonnes of rubbish.

Biomass industry can lead Scottish economic recovery

www.guttridge.co.uk/news/2011/04/08/biomass-industry-can-lead-scottish-economic-recovery/

According to the Minister and Scottish National Party leader Alex Salmond, low carbon industries could create 130,000 jobs by 2020. SNP has already approved 42 different RE projects in the last four years.

UK Government to support World Bank's Partnership for Market Readiness

www.decc.gov.uk/en/content/cms/news/pn_036/pn_036.aspx

This will help developing countries to set up their own carbon trading systems to cut emissions. It will also allow more investment in green technologies across the world and help stimulate private sector low carbon investment opportunities.

Africa

Body calls for proper waste management in Africa

www.ghananewsagency.org/s_health/r_27528/health/body-calls-for-proper-waste-management-in-africa

Tunisia and France sign an agreement to develop RE

www.ae-africa.com/read_article.php?NID=2835

Under this agreement, the Tunisian Minister of Industry and Technology Abdelaziz, French Minister of Economy, Finance, and Industry-Eric Besson will establish institutional and technical co-operation for RE projects.

Policy Initiatives - GLOBAL

Namibia's GDP to reduce by 6% annually due to the impact of climate change on agriculture, fisheries and nature-based tourism

www.economist.com.na/index.php?option=com_content&view=article&id=23655:change-in-climate-conditions-could-reduce-gdp&catid=586:headlines&Itemid=70

Other Countries

Australian Government to put duties on imported US biodiesel

www.abc.net.au/rural/news/content/201104/s3194328.htm

Indonesia Chamber of Trade and Industry to develop biogas facility

www.tempointeractive.com/hg/nasional/2011/04/21/brk,20110421-329175.uk.html

The biogas in Lembang, Bali and West Kalimantan would help to increase rural welfare.

Department of Environment and Natural Resources to provide P1mn to Metro Manila

www.malaya.com.ph/apr25/news9.html

The fund will enhance waste segregation to minimize the volume of garbage.

China drafts special law on climate change

www.news.xinhuanet.com/english2010/china/2011-04/27/c_13847244.htm

According to the plan, China will reduce energy consumption per unit of GDP by 16% and lower CO₂ emission per unit of GDP by 17% in the next 5 years.

India

S M Environmental Technologies to set up 8 MW biomass project in Pachhar, Rajasthan

www.biomass-power.industry-focus.net/index.php/rajasthan-biomass-projects/111-s-m-environmental-technologies-to-set-up-8-mw-biomass-project.html

The project has a 40TPH boiler which will use agricultural wastes, mainly mustard residues from surrounding area of the plant.

Herbalife and Samarthanam initiate Waste Management Program

www.prlog.org/11412262-herbalife-initiates-waste-management-program.html

Through this initiative Samarthanam will recycle waste and manufacture eco-friendly daily use products from newspapers, magazines, tetra packs, old furniture, shampoo bottles and carton boxes waste supplied by Herbalife.

Mysore Zoo to implement SWM system

www.articles.timesofindia.indiatimes.com/2011-04-11/mysore/29405889_1_bio-gas-solid-waste-mysore-zoo

The plant will process about 1.5 tonnes of cattle dung everyday to generate 80-90 cubic meter of fuel.

North America

Construction of \$20mn biomass co-gen facility at Point Tupper

www.capecretonpost.com/Business/2011-04-01/article-2391953/Construction-begins-on-Point-Tupper-biomass-cogeneration-facility/1

The facility will use waste wood burned to produce electricity.

Lillooet & Korea biomass Ltd sign agreement to build \$16mn pellet mill in Lillooet

www.lillooetnews.net/article/20110427/LILLOOET0101/304279987/-1/lillooet/pellet-plant-coming-to-lillooet

The pellet mill will produce 100,000 tonnes of pellets per year.

Viridis Energy LLC to supply 166,000 metric tonnes of pellets through 2014 to European customers

www.biomassmagazine.com/articles/5436/viridis-energy-seizes-pellet-industry-opportunities

Bunge Alimentos SA to construct biodiesel plant in Brazil

www.bloomberg.com/news/2011-04-26/bunge-receives-permit-to-build-biodiesel-production-facility-in-brazil.html

The plant will produce 4,14,800 liters of biodiesel/day primarily from soybean oil.

POET corn oil to supply up to 60mn gallons biodiesel production annually

www.renewableenergyworld.com/rea/partner/poet-7042/news/article/2011/04/poet-corn-oil-to-supply-up-to-60-million-gallons-biodiesel-production-annually

ADM to acquire soybean crushing facility

www.foodingredientsfirst.com/news/ADM-to-Acquire-Soybean-Crushing-Facility-Form-Partnership-for-Biodiesel-Business-In-Missouri.html

Archer Daniels Midland Company will also form a partnership with Prairie Pride for a biodiesel facility which will produce biodiesel from soybean in Deerfield.

Aerojet to develop biodiesel plants

www.sustainablebusinessoregon.com/national/2011/04/aerojet-developing-mobile-biodiesel.html

Business & Markets

Dominion Virginia to turn three 63MW coal-fired plants to biomass

www.bloomberg.com/news/2011-04-01/dominion-virginia-power-plans-to-convert-three-coal-fired.html

It will boost Virginia's economy by as much as \$350mn in the next 3 decades and reduce carbon emissions.

Construction of 9.8MW, \$45mn AD facility at Kawartha

www.communitypress.ca/ArticleDisplay.aspx?e=3071326

Waste Management begins e-waste recycling service in New York

www.wasteage.com/news/waste-management-e-waste-20110407/

\$20mn material recovery facility in Philadelphia

www.prnewswire.com/news-releases/waste-management-celebrates-grand-opening-of-philadelphia-material-recovery-facility-119588594.html

The 60,000-square-foot single-stream facility would process more than 20,000 tons of recyclable newspaper, cardboard, aluminum, glass, and plastic each month.

Dow and OPX Biotechnologies to produce biobased acrylic acid

www.biorefiningmagazine.com/articles/5438/dow-opx-biotechnologies-enter-biobased-acrylic-acid-agreement

Europe

Helius CoRDe gets USD99mn for Scottish biomass CHP plant

www.cleantech.strategyyeye.com/article/uDVkfwfDE/2011/04/15/helius_corde_gets_usd99m_for_scottish_biomass_chp_plant/

The plant will use biomass co-products from the malt whisky manufacturing process and animal feed protein supplement to generate up to 7.2MW of electricity.

GdF to build €100mn biopower plants in Bulgaria

www.bioenergy-news.com/index.php?/Industry-News?item_id=3436

Italy's Novaol to start 198,000 ton biodiesel plant

www.af.reuters.com/article/energyOilNews/idAFLEDE73L09L20110422

Novozymes partner M&G to construct world's largest cellulosic ethanol plant in 2012

www.foodingredientsfirst.com/news/business/Novozymes-Partner-to-Open-Worlds-Largest-Cellulosic-Ethanol-Plant-in-2012.html

The plant will produce 13mn gallons of ethanol per year from biomass.

Mossi & Ghisolfi to build bioethanol plant in Italy

www.bloomberg.com/news/2011-04-12/construction-begins-on-first-commercial-cellulosic-ethanol-plant-in-italy.html

The plant will produce 13mn gallons/year of bioethanol.

Rokitnyanskiy sugar mill to construct 20MW biogas plant

www.theopenpress.com/index.php?a=press&id=102990

The plant will convert sugar plant wastes into biogas and electricity.

Construction of €44.75mn biogas plant in Norway

www.bioenergy-news.com/index.php?/Industry-News?item_id=3490

The plant will treat 50,000 tonnes a year of food waste. It will also produce approximately 27,000 tonnes a year of biofertilizer.

Business & Markets

A biogas plant fueled by farm and animal waste at Homeleaze Farm, near Fairford

www.wiltsglosstandard.co.uk/news/8948856.Fairford_to_be_powered_by_manure/#

The biogas is processed and supplied to a power plant which generates electricity that is then transferred to the National Grid. The process also creates a liquid bi-product which is a useful fertiliser and will be used on neighbouring arable farmland.

Tauron to convert coal-fired plant to biomass

www.wbj.pl/article-54019-tauron-to-convert-coal-fired-plant-to-biomass.html

Weltec develops 500KW biogas plant in Latvia

www.bioenergy-news.com/index.php?/Industry-News?item_id=3465

RWE to convert 1GW UK coal plant to biomass

www.rechargenews.com/energy/biofuels/article251762.ece

European RE usage doubles in a decade

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/european-renewable-energy-usage-doubles-in-a-decade.html

Lord Henley to open £10mn, 2.1MW AD plant in Driffield

www.edie.net/news/news_story.asp?id=19752&channel=0&title=Lord+Henley+opens+new+AD+plant

Africa

African Development Bank hosts seminar on "Biomass and Bio energy Development in Africa" in Tunis

www.allafrica.com/stories/201104210484.html

Rwanda: Eastern province to promote use of biogas

www.allafrica.com/stories/201104150776.html

Other Countries

China 250MW biomass venture aims to raise up to \$100mn

www.reuters.com/article/2011/04/05/us-china-carbon-deal-idUSTRE7343DH20110405

Bangkok-based RE company to construct P46mn biopower facility

www.philstar.com/Article.aspx?articleId=678026&publicationSubCategoryId=200

Swine growers of South Cotabato to build 3.5MW biogas plant

www.mindanews.com/main/2011/04/26/swine-growers-in-gensan-south-cot-eye-3-5-mw-biogas-plant/

The plant will process wastes from a number of local swine farms.

Global Industry Analysts, Inc.: Global Biogas Plants Market to Reach \$8.98bn by 2017

www.sfgate.com/cgi-bin/article.cgi?f=/g/a/2011/04/06/prweb8271906.DTL

China's Huaneng Group sets a goal of meeting 15% of energy consumption with clean power by 2020

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/china%e2%80%99s-huaneng-gears-towards-25-renewables-by-2015.html

IEA: Biofuels to represent 27% of fuel supply by 2050

www.biodieselmagazine.com/articles/7745/iea-biofuels-to-represent-27-percent-of-fuel-supply-by-2050

Finance & Investments

India

Carbon Credit Capital to invest \$100mn for RE projects in India

www.vccircle.com/500/news/news-roundup-carbon-credit-capital-to-launch-100m-india-fund

Columbia Law School to facilitate green investment in India

www.mydigitalfc.com/knowledge/columbia-law-school-facilitate-green-investment-india-873

The centre for climate change law at Columbia Law School has received a \$485,000 grant from Sujana Group, an Indian producer of steel, power and energy, to facilitate US investment in the clean energy sector in India.

Matrix Partners to invest \$15.72mn in Soham Renewable Energy

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/matrix-partners-tipped-to-invest-15m-in-indian-renewable-energy.html

CLP Power to invest Rs 1,800 crore

www.business-standard.com/india/news/clp-power-to-invest-rs-1800-cr/433610/

Through this investment, the company will produce 200-300MW capacity in RE by 2012.

North America

SAIL Capital Partners to invest in clean technology and sustainable industries in Louisiana

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/sail-pools-capital-for-louisiana-cleantech-fund.html

SAIL will work with Governmental and non-Governmental organizations to drive economic development and transformation in Louisiana.

Europe

E.ON to invest €2.6bn in RE by 2013

www.renewableenergyfocus.com/view/17118/eon-to-invest-26bn-in-renewable-energy-by-2013/

Holmen to invest \$174mn in British biofuel boiler plant

www.bloomberg.com/news/2011-04-04/holmen-to-invest-174-million-in-british-biofuel-boiler-plant.html

The plant will produce 325GWh of electricity and 420GWh of thermal energy a year.

CO₂Sense to invest £3mn in RE and low carbon projects in UK

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/energy-efficiency/co2sense-to-invest-3m-in-yorkshire-low-carbon.html

Helius Energy invests £60.5mn in Scottish biomass project.

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/biofuel-biomass/helius-energy-closes-60-5m-in-financing-for-scottish-biomass-project.html

Africa

Industrial Development Corp. to invest R102bn in mineral processing and RE

www.ae-africa.com/read_article.php?NID=2887

Other Countries

Renewable Energy Investment Trends in Emerging Nations: Global Investments in RE to reach \$896bn by 2020

www.globalsolartechology.com/solar/index.php?option=com_content&view=article&id=7449:research-and-markets-renewable-energy-investment-trends-in-emerging-nations-global-investments-in-renewable-energy-are-expected-to-reach-896-billion-by-2020-&catid=8:india-news&Itemid=29

India

Sunderbans forest absorbs over 4 crore tonnes of CO₂
www.thehindu.com/sci-tech/energy-and-environment/article1769326.ece?homepage=true

North America

Researchers at Iowa university develop biodiesel, ethanol plant simulator
www.domesticfuel.com/2011/04/20/iowa-state-develops-biodiesel-ethanol-plant-simulator/

Renewable and Sustainable Energy Journal: Alumina nanoparticles can improve the performance of biodiesel
www.eurekalert.org/pub_releases/2011-04/aiop-nib040711.php

Scientists at University of Minnesota create biofuel from CO₂ and bacteria
<http://greenbuildingelements.com/2011/03/31/scientists-create-attractive-biofuel-from-co2-and-bacteria/>

Ukrainian scientists to study fodder potatoes for biofuel production
<http://www.interfax.com.ua/eng/main/67506/>

Prairie Skies Biomass Co-op to produce biofuels in Minnesota
http://www.biofuels-news.com/industry_news.php?item_id=3532

The plant will use grasses, alfalfa, wheat straw, corn stover and short rotation willow to produce 300 tonnes a day of biofuel.

Construction of bioenergy center at Utah State University
<http://www.biodieselmagazine.com/articles/7703/utah-state-university-approves-bioenergy-center>

The center will research plants for food, feed, fiber and reclamation and also conversion of crop into biofuels.

Department of Energy's Bioenergy Science Center: Poplar trees used to generate 2nd generation biofuels

<http://www.highlandernews.org/news/poplar-trees-useful-in-biofuel-development-1.2140271>

Europe

Ampair launches transportable RE pods

www.newenergyworldnetwork.com/renewable-energy-news/by-technology/solar/ampair-launches-transportable-renewable-energy-pods.html

The RE ponds are wind and solar-powered units for remote, off grid locations where power supply is needed for short periods.

Africa

Production of biodiesel from Jatropha at Beira, Mozambique

www.macauhub.com.mo/en/2011/04/21/jatropha-oil-produced-in-chimoio-to-be-transformed-into-biodiesel-at-a-future-factory-at-port-of-beira-mozambique/

The Democratic Republic of Congo to produce RE from rubber trees

www.ae-africa.com/read_article.php?NID=2878

Climate Change & Environment

India

Climate causes the earth to move: Study

www.heraldsun.com.au/news/breaking-news/climate-causes-the-earth-to-move-study/story-e6frf7jx-1226038393371

A team of scientists based in Australia, France, and Germany has established a link between monsoons in India over the past 10mn years and the motion of the Indian plate. The scientists have found that as monsoons in the area increased the plate moved by almost 1cm a year.

National Bank for Agriculture and Rural Development pilots climate change adaptation plan in Ahmednagar

www.dnaindia.com/mumbai/report_nabard-pilots-climate-change-adaptation-plan_1528903

North America

Climate change could hit Western US water supply

www.tgdaily.com/sustainability-features/55562-climate-change-could-hit-western-us-water-supply

Scientists study effects of climate change on small island states in Belize

www.7newsbelize.com/sstory.php?nid=19533

Europe

Scotland to launch £25mn climate change research "super institute"

www.businessgreen.com/bg/news/2040635/scotland-host-climate-change-research-super-institute

Abbreviations Used

mn - Million | bn - Billion | RE - Renewable Energy | BTL - Biomass-To-Liquid | CDM - Clean Development Mechanism | CCS - Carbon Capture & Storage | BCAP - Biomass Crop Assistance Program | MSW - Municipal Solid Waste | AD - Anaerobic Digestion | WTE - Waste - to - Energy

बनाना गोल्ड BANANA GOLD

- Supports Vigorous Growth
- Promotes Healthier Fruiting
- Improves Colour & Texture
- Yields Stronger Plants
- Controls Insects & Diseases

Banana Gold is an organic manure ideally suited for banana plants. It contains all essential macro & micro nutrients needed for healthy & sustained growth of banana plants. Banana Gold also contains soil beneficial bacteria that protect the plant and also promote availability of nutrients to plant over a longer period of time.



Suitable for all types of crops such as cotton, groundnut, cumin, potatoes, cereals, vegetables and other crops as well as all types of greenhouse applications

- Enriches soil quality
- Mobilizes nutrients and enhances beneficial microbial activity in the soil
- Reduces toxic effects in the soil due to minimized usage of chemical inputs
- Improves flavor, quality and product life of all the crops



A Quality Product From **Abellon Agrisciences**

CUSTOMER CARE NO. : 89800 77877