

Editors Column

Welcome to our sixth and final edition of The Crystal Newsletter for the year 2015. In this edition we look at the Glass for Africa Recycling Launch, and talk about a Biodiversity Risk & Opportunity Assessment (BROA) Workshop where presentations were made by Black Crystal. We also have an article on the innovative Harare Municipality on-line platform and the new £20 million research programme to deepen understanding of Africa's changing climate. We also present the good news announced recently in the new budget: of the reduction of the Environmental Management Agency cost of undertaking an Environmental Impact Assessment. Lastly we discuss the imminent National Tree Planting Day 2015 and hope that you will be planting a tree or two.

We welcome your comments and environmental contributions which you may kindly send to The Editors on:

infor@blackcrystal.co.zw

Thank you and happy reading!!!



**The Black Crystal Team would like to Wishes
You and your family
A Very Merry Christmas And A Prosperous 2016**

Black Crystal Consulting is one of Zimbabwe's leading reputable companies offering a quality service in environmental and socioeconomic consultancy services. Black Crystal Consulting believes in **caring for the environment beyond today** to ensure that biodiversity is maintained and that natural resources are not depleted for the next generation to come.

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Glass for Africa Glass Recycling Project Launch

The environmental-value of an approach to **reduce reuse and recycle** needs no explanation. However, the viability of establishing a profitable recycling business model requires high-tech, high-skill and high-investments; but, unfortunately generates low returns. This is because the recycling production cycle necessitates **down-cycling** which involves investments in time and machinery to first of all break-up waste before rebuilding it. Additionally the end product's value is usually less for instance when plastic bottles are recycled the plastics produced are of less quality and so are fit for only one-time use. The challenges of profitability of **reduce reuse and recycle** cycle however, doesn't take away the importance of reusing waste.



It is with this understanding that Black Crystal Consulting conceptualized a business model to break this cycle and promote a low-tech, low-skill, low-investment and moderate return business model for reusing waste, specifically glass. From the initial business model a project idea was developed: to **up-skill, upload and up-cycle**. The primary objective of the project is to empower young women living in precarious conditions (polluted environments and unsustainable livelihoods) in order to reduce poverty using recycled bottles to make products suitable for sale within the community and to corporate entities and retailers. A secondary objective is to contribute towards improving the local environment by reducing the number of glass bottles littering the area and thrown into landfill sites. In early 2015 the funding for the project was generously provided by the Embassy of the Netherlands.



The Netherlands Embassy, Shingirirai Trust, Black Crystal and Glass for Africa

Black Crystal then collaborated with the Shingirirai Trust which was established out of the needs and challenges being faced by women in the high density areas of Tafara, Mabvuku and Caledonia Farm of Harare. The Trust was set up at the request of the community to provide training, peer support and networking in life skills, nutrition and parenting. All of its beneficiaries are young women who have one to four of their own children and often bear responsibilities for the older and younger members of their extended families. The resultant “Glass for Africa”, a Community Based Organisation, to implement the project was established in April 2015. The Trust selected 19 young mothers (between 18–25 years), with a basic education and an appreciation for crafts to participate in the project.

Firstly they were provided with up-skilling of the women in business management: glass bank marketing and management (upload) and awareness raising and product exhibition, office and workshop management, quality assurance, managing conflict, product development and pricing in order to create a viable business. The management training was conducted by Mr Nachamba of Nachamba Associates (Chartered Certified Accountants). Then the ladies were trained by Mr Chaka and Mr Forbes, two skilled artists and craftsmen, who have acquired and mastered the skill of preparing, cutting and sandblasting glasses of various glass recycled products including drinking glasses, vases, candle holders, decanters, water jugs and decorative objects made from old/waste bottles and glass (up-cycle). The equipment used at the workshops was purchased specifically for the project.



Some of the product range, new products are being designed

The project was officially launched in November 2015 courtesy of Lafarge Cement (Zimbabwe) Ltd to which we are very appreciative of their support. The cocktail event was a celebration of true empowerment, true assistance and true cooperation for environmental protection and livelihood support as first envisaged by Black Crystal Consulting “Glass for Africa” is the pilot model of such future empowerment programme encouraged to be adopted across the country and the world over:

True Assistance – The funding for the project to buy the necessary equipment and technical training was

generously provided by the Embassy of the Netherlands in Zimbabwe.

True Empowerment –The aim of the project is not just a result in glass waste reduction and environmental protection, but to also uplift the lives of disadvantaged women in Zimbabwe. The ladies received technical, quality control and business management training.

True Cooperation – The idea was initiated by Black Crystal Consulting, a leading Zimbabwe environmental company who worked alongside the Shingirirai Trust. Further, the Environmental Management Agency pledged to work and support where possible, “Glass for Africa’ in their new venture. This is True Corporation!

Amongst those people that attended included Mrs Chasi Director General and Ms Magwaza from the Environment Management Agency, Ms Gaudencia Hwenjere Embassy of the Netherlands, Ms Peacocke Chairman of Shingirirai Board of Trustees, Directors and staff from Black Crystal Consulting, Ministry of Women Affairs, Genders and Development, City of Harare, The Business Council for Sustainable Development of Zimbabwe, Miracle Missions, Zimbabwe Agricultural Show, Mabvuku Paper Tech and various Mabvuku/ Tafara school heads. In her key note address, Mrs Chasi stated the benefits of recycling and why communities and businesses should invest in waste management. The audience were shown a video documentary that had been filmed of the project. It was heartening to see how low income ladies and their families are going to benefit from this exciting project.



Mrs Chasi with the Glass for Africa team

Please like the “Glass for Africa” Facebook page and watch out for a video taken of the project that will soon be available on You Tube. Should you wish to purchase any of the products or assist in marketing and selling the products please kindly contact the “Glass for Africa” Project

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Biodiversity Risk & Opportunity Assessment (BROA)

Recently two members of Black Crystal attended a training workshop on BROA, an internationally accredited programme that is run by the Earth-watch Institute. Hosted by a local agro-industrial firm Rift Valley Corporation, the programme seeks to investigate the biodiversity elements of corporate activities identifying where firms can learn from the environmental setting of their operations. This is not the usual impact assessment that takes note of the negative consequences, but taking a WIDER perspective of the setting of the firm in its regional landscape the programme looks for risks (both ways) as well as potential opportunities to enhance the company's objectives. All too often the environment is viewed by top executives at Board meetings as a threat to profit margins. In this scheme, consultants work with company employees to enhance the positives and find viable alternatives and new opportunities. Looking outside the box it is possible to find solutions to issues such as timber extraction, siltation of water supplies and insect/fungal threats to mono-plantations. Working from a regional perspective companies can enhance their community, out-grower and government relationships.

Black Crystal will seek further accreditation with the Earth-watch Institute so as to be able to provide local expertise in achieving this international standard, something that is increasingly important on the arena of international trade.

Bird Friendly Energy Infrastructure

In times of ever-increasing global demand for energy, developing new and expanding existing renewable energy technologies are key when striving towards a low carbon future. Yet energy cannot be truly sustainable and nature-friendly unless it fully takes biodiversity and, more specifically, migratory birds into consideration. With the theme "Energy – make it bird-friendly!" World Migratory Bird Day (celebrated in May 2015) aimed to highlight the importance of deploying energy technologies in a way that prevents, minimizes and mitigates impacts on migratory birds and their habitats.

Every year, millions of migratory birds struggle with the massive expansion of various means of generating and distributing energy: collisions and electrocution due to power lines as well as barrier effects from energy

infrastructure are causing mortality and displacement. In addition, the birds suffer effects from habitat loss and degradation and other disturbances from the deployment of hydropower, bio-energy, ocean, solar, wind and geothermal energy technologies. Sustainable renewable energy production is expected to have positive effects on migratory birds by mitigating climate change and its impacts. However, if certain energy technologies are deployed without proper planning, design and risk assessment, they can pose a grave threat to migratory bird species.



When expanding energy production, transition to wildlife-friendly methods is a key step to protect life on the planet. The conservation of migratory birds needs to be considered in all phases of energy development at multiple levels: locally, nationally and internationally. Therefore, concerted conservation actions by governments, nature conservation organizations, scientists and the energy sector as well as the general public are necessary. This way the benefits of sustainable energy can be realized without the risk of harming migratory birds and their habitats.

Harare Municipality Services Online Platform



Harare Municipality Services

A new online platform called Harare Municipality Services (HMS) that promotes better service delivery through transparency, crowd-sourced data, and reporting efficiency has been developed by concerned Harare residents. The website, which anyone can access, offers residents a simple way to log a report on municipal service delivery in Harare across 11 categories for instance water supply issues. Critical to the functionality is that each report is geo-tagged, and visible on a map of Harare. The result is a real-time, accurate, resident-driven and highly visual

representation of service issues. The information you provide gets to your councilor and tracks any responses building a better relationship between residents and elected officials.

Richard Owen, a groundwater professional who was worried about the rapid depletion of groundwater, which he attributes to the failure of council to pipe water to residents, took the lead in developing the back end of the site with help from his son. He was initially spurred to create a user-generated map that reflected the state of the city's water supply. HMS uses the Ushahidi platform which was developed in Kenya after the 2007 election violence. Ushahidi means 'witness' in Swahili, and the open source platform has been used to great effect in countless situations such as after the Christchurch earthquake in New Zealand, a severe snow storm in Washington DC, a wifi-signal map in India, and a map of blood donation points after the brutal mall attacks in Nairobi last year. "Building Harare Municipality Services was pretty straightforward," says Owen, "but it will only be useful if residents participate."

Former Chair of Combined Harare Residents' Association Mike Davies has had a key role to play in the final vision of HMS in that it encompasses numerous other service delivery categories to paint a complete picture of where we stand in areas such as roads, waste, and sewerage. Member of Parliament for Harare West, Ms Jessie Majome, has taken some time to explore the tool and is very positive about its potential. "It's brilliant and could help bridge the yawning gap between council and residents – a gap which I find occupies much of my time as an MP when I should be working on parliamentary issues," she said. "As MP, I want an alerts function to help keep me abreast of the constituency's issues," added Majome.

Log your report at:
<https://hararemunicipalityservices.crowdmap.com>

Source: Harare News

New £20 million research programme to deepen understanding of Africa's changing climate

Research to understand Africa's changing climate

A new UK government-funded initiative will put £20 million (\$30 million) behind leading-edge research to better understand Africa's changing climate and the use of climate change information in decision-making across the continent.

An all-African research group secure funding from the **Future Climate for Africa (FCFA)** UK programme which is supporting 5 major research projects to develop better climate information for Africa and to test how the new information could be used in decision-making. FCFA is a joint programme of the UK's Department for International Development (DfID) and Natural Environment Research Council (NERC). Led by the Climate System Analysis Group at the University of Cape Town, the FRACTAL project is focussed specifically on climate risks and decision making in cities within their regional dependencies.



The FRACTAL team, University of Cape Town, South Africa

Africa's climate is one of the least-researched and poorly understood in the world, but looks set to change significantly in the decades ahead. The Intergovernmental Panel on Climate Change concluded that temperatures could warm up to 6°C on the continent this century, and vast areas could experience more intense drought or rainfall than known before. A pilot phase of FCFA in 2013-14 investigated the degree to which existing climate information is used in policy and investment decisions. Not only are there gaps in climate information, but researchers found that climate information is poorly presented and understood. Governments and businesses struggle to apply the information in their decision-making processes. The FCFA programme will tackle these challenges by strengthening climate information and making it more relevant and usable for decision-makers.

The results of the pilot phase can be viewed on www.futureclimateafrica.org or take a virtual tour through the results on www.cdkn.org/future-climate-africa. Governments and the private sector currently plough USD 70 billion into infrastructure investments in Africa each year. There are major questions over whether these investments will be resilient to the climate of the future. For example, health, education and social support systems, finance for households and businesses and local planning decisions all have the potential to be 'climate-proofed' so they function well in future climate conditions. FCFA focuses on the uses of climate information relevant to the

medium term (over the next 5-40 years) as this is the lifespan of many development projects being designed today.

The FCFA is supporting 5 major research projects to develop better climate information for Africa and to test how the new information could be used in decision-making. Dr Tim Wheeler, DFID's Deputy Chief Scientific Adviser, said: "We know that climate change will alter significantly the risks faced by African societies over the coming decades. That's why DFID is delighted to work with the NERC to address this challenge through jointly funding the FCFA programme. FCFA will not only improve the climate information available to African decision-makers, but it also aims to work with both scientists and stakeholders across the continent to ensure that information is better tailored to users' needs and to strengthen the skills of users in the interpretation and use of climate information. The programme will also make a significant contribution to training African climate scientists. That way, African researchers can support decision-makers as they invest in infrastructure and development programmes in Africa in the future."

NERC Chief Executive Duncan Wingham said: "Supporting science that helps society manage the effects of environmental change is one of NERC's key strategic objectives. We are delighted to be investing in Future Climate for Africa, which will provide African governments, business and other stakeholders with the information they need to make decisions that increase resilience and reduce climate risk. The programme will safeguard economic development and contribute to the fight against poverty in the long term."

Source: www.futureclimateafrica.org

National Tree Planting Day 2015

The National Tree-Planting Day is the Forestry Commission's flagship event. The day was declared by President Robert Mugabe (then Prime Minister of the Republic of Zimbabwe) in 1980 and since then, the day has become an important part of Zimbabwe's calendar.

The purpose of this day from the beginning was to motivate the nation to plant and conserve trees, to enlighten the nation on the importance of forest and woodland resources, to enhance biodiversity and to enhance household food security. Since the beginning of the tree planting day, over 50 million trees have been planted in Zimbabwe. People are benefitting from these trees now

where they are harvesting for timber, firewood, poles and others are harvesting fruits from their orchards which is contributing to better livelihoods for communities. In 2015, the Forestry Commission targets to plant 10 million trees across Zimbabwe.

The first Saturday of December (National Tree Planting Day) is the launch of the tree-planting season. Every year a tree is chosen to become the tree of the year and for this year, the tree is Velvet wild medlar / Africa medlar. Its botanical name is *Vangueria infausta* while its Shona and Ndebele names are Munzviru or umbizo respectively.



This species is one of South Africa's more popular veld fruits, and can be enjoyed while walking. This is a deciduous shrub or small tree that varies in height from 3-7 m, depending on the habitat. It can be single or multi-stemmed, but usually the latter. The bark is greyish to yellowish brown, smooth and peeling in irregular small strips. The branchlets are covered with short, woolly hairs, especially when young. The leaves are single, oppositely arranged, as is typical of this family. The leaves are light green in color, covered with soft, velvety short hairs and even more so when young. The margin of the leaf is entire. The shape of the leaf is elliptic to ovate with the net veining conspicuous below. When older, the leaves often appear twisted and are rough to the touch. Soft, velvety, acorn-shaped buds appear either before or simultaneously with the new leaves around September to October.

Antelope graze the leaves. Bush-babies, monkeys, baboons, squirrels and bush-pigs eat the fruit when ripe. Butterflies and flies visit the flowers. One often finds elongated, papillate galls on the leaves that are caused by insects. The fruit is mostly eaten raw but in some parts it is stored as dried fruit to be used in time of food scarcity. It is

said that mampoer, a strong alcoholic drink or brandy can be distilled from it or fermented to make beer. If mixed with a little water and sugar it produces an acceptable substitute for apple sauce.



The fruit juice can also be used for flavoring purposes by squeezing it out in water, discarding the seed and skins. This is done often for flavoring porridge. According to Betsie Rood (1994) vinegar can be produced from the fruit. This plant has medicinal value as well. An infusion of the roots and leaves has been used to treat malaria, chest ailments like pneumonia, as a purgative and to treat ringworms. An infusion of the leaves is used for the relief of toothache. For the treatment of swelling of the limbs the affected parts are bathed in a decoction of the pounded leaves and small twigs, especially in children.

Source: www.forestry.co.zw

The Paris Pledge for Action

The Paris Pledge for Action is an initiative endorsed by the French presidency of COP21 who is inviting all organizations, businesses, regions, cities, and investors to add their name to the Paris Pledge for Action. It is a unique opportunity for non-state actors to have their climate leadership recognized in the context of COP21, and to show their support for the ambition of the agreement that should be reached in Paris. Organizations pledge their support to implement the results of the agreement immediately, but also to achieve and exceed the ambition of the agreement that results from COP21. The text of the Paris Pledge for Action is embargoed until Tuesday 15 December 2015. It is being shared directly with organizations, businesses, regions, cities and investors, and not publically, under the embargo. If you would like to receive an electronic copy of the Pledge text please email info@parispledgeforaction.org. The call was initiated by The French COP21 Presidency



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

Embargoed: 11 December 2015, 11:59pm CET

PARIS PLEDGE FOR ACTION

As cities, regions, businesses, investors, civil society groups, trade unions and other signatories, coming from every sector of society and every corner of the world, we realize that dangerous climate change threatens our ability and the ability of future generations to live and thrive in a peaceful and prosperous world. We also realize that taking strong action to reduce emissions can not only reduce the risks of climate change but also deliver better growth and sustainable development.

As a result, we the undersigned, affirm our strong commitment to a safe and stable climate in which temperature rise is limited to under 2 degrees Celsius.

In support of this, we welcome the adoption of a new, universal climate agreement at COP 21 in Paris, which is a critical step on the path to solving climate change. We pledge our support to ensuring that the level of ambition set by the agreement is met or exceeded.

We will do this by taking concrete steps now, and without waiting for the entry into force of the agreement in 2020, both individually and cooperatively, to reduce greenhouse gas emissions to a safe level and build resilience against those changes already occurring.

We will look back at this moment as our turning point, when the transition to a low-emission and climate resilient economy became inevitable, irreversible and irresistible. We must, we can and, together, we will solve climate change.

Join the Paris Pledge for Action at:
www.parispledgeforaction.org

For further information or queries please email info@parispledgeforaction.org or visit the Paris Pledge for Action website www.parispledgeforaction.org

Legislation Corner - EMA Levies

The current statutory fee for submission of Environmental Impact Assessment (EIA) documents is currently pegged at 1.5% of the project start-up costs and the fees are payable upfront in terms of the provisions of Statutory Instruments 3 of 2011.. As part of improving the Ease and Cost of Doing Business, Cabinet has approved the following Environment Impact Assessment fees on a sliding scale and staggered payment as indicated in the table below:

Environmental Impact Assessment Fees Adjustments

Project Category	Current EIA Fees	Proposed Sliding Scale Fee	Level Of Environmental and Social and Example of Projects	Staggered Payment terms of EIA (% project costs)		
				Upon EIA submission	Upon Implementation	During implementation
A	1.5% of Project Cost	US\$210.00	Small scale projects with minimal impact: small scale mining, small scale infrastructural development projects, SMEs etc	100%	Nil	Nil
B	1.5% of Project Cost	0.8% of the project cost	Moderate impacts e.g. Tourism infrastructure, commercial brick moulding, housing development etc	0.26%	0.26%	0.28%
C	1.5% of Project Cost	1% of the project cost	High negative impacts e.g. commercial entities, manmade lakes etc	0.33%	0.33%	0.34%
D	1.5% of Project Cost	1.2% of the project cost	Extremely High negative impacts e.g mining, ore processing, chemicals plants, tanneries, oil and gas exploitation. Impact can continue after decommissioning e.g. acid mine drainage	0.40%	0.40%	0.40%
E	1.5% of Project Cost	The maximum payable EIA fee shall be US\$2 million	EIA fee cap for all the categories from B to D	20%	20%	60%

Source: Ministries of Water