

AFRICA GLOBE REGIONAL MEETING:

WATERBODIES RESEARCH

DAY 2- ELBI BREDEKAMP: ENVIROWORKS/ENVIROCARE

DATE: 22 MARCH 2022

TIME: 19H00

VIA ZOOM



WELCOME AND THANKS MARK FOR THE INVITE 😊!



A WISE MAN ONCE SAID....

Thousands have **lived without love, not one without water.**" -H. Auden.

"When the well's dry, we know the worth of water." – Benjamin Franklin



WELCOME
AND THANKS FOR THE INVITE!

HOPE I CAN KEEP
YOUR ATTENTION
FOR A WHILE!!! 😊

[The Human Attention Span
\[INFOGRAPHIC\] | Wyzowl
https://www.wyzowl.
com/human-attention-span/](https://www.wyzowl.com/human-attention-span/)

Consider this: The average human attention span is now shorter than a goldfish's. A recent study found that the average human attention span has fallen from 12 seconds in 2000 to **eight seconds** today. It is reported that goldfish have a 9-second attention span. 06 Jul 2021

AGENDA

- ...BIT OF BACKGROUND-ELBI AND ENVIROWORKS
- ...BIT OF BACKGROUND...ENVIROCARE
- HOW CAN WE FIT IN, CONTRIBUTE AND POSSIBLY PARTNER WITH THE GLOBE PROGRAM?
- WHAT DID WE DO UP TO NOW?
- POSSIBLE USE OF EXISTING C.A.R .MODEL
- FOLLOW THIS SAME SCHOOL OF THOUGHT WITH OUR RIVERS- ROLL OUT TO AFRICA AND THE WORLD??
- ENVISAGED PROTOCOL OF WHAT, HOW AND WHEN WE WILL MEASURE RIVER HEALTH INDICATORS
- CHALLENGES
- ANY QUESTIONS /COMMENTS?
- THANKS AND GOOD BYE!



.....BIT OF BACKGROUND-ELBI AND ENVIROWORKS

Established in 2002- thus 20 years ago...born from a passion for Nature and a firm belief that ***we do not inherit the earth from our ancestors; instead, we borrow it from our children.***

Environmental Legislation and Regulations - 1998

Reason and framework wherein Enviroworks operate- we carry out the environmental impact assessments. Diverse and Dynamic Competent Team!

Enviroworks harmonize Development with Nature.

Our motto : **TODAY'S IMPACT IS TOMORROW'S LEGACY.**

- ✓ Service Sector Award at the African SMME Awards, which was hosted by the Africa Growth Institute,
- ✓ 2012 Overall Winner for the Free State Province of the SEDA Small Business Stars, which was hosted by the Small Enterprise Development Agency.



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ENVIROWORKS, AS A DEDICATED PART OF THE **SHE GROUP**, IS THE TRUSTED ONE-STOP TURNKEY SOLUTION FOR ENVIRONMENTAL LEGAL COMPLIANCE

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WHAT SERVICES DO WE OFFER?

- 1 ENVIRONMENTAL RISK ASSESSMENT STUDIES (ERA)
- 2 ENVIRONMENTAL LEGISLATION SERVICES
- 3 WATER MANAGEMENT
- 4 GEOHYDROLOGICAL SPECIALIST SERVICES
- 5 GEOTECHNICAL SPECIALIST SERVICES
- 6 ECOLOGICAL SPECIALIST SERVICES
- 7 GREENHOUSE GAS (GHG) MANAGEMENT
- 8 WASTE MANAGEMENT SERVICES
- 9 ENVIRONMENTAL TRAINING
- 10 SOIL AND AGRICULTURAL SPECIALIST SERVICES
- 11 GIS SPECIALIST SERVICES, MODELLING AND MAPPING
- 12 MINING SPECIALIST SERVICES
- 13 AIR QUALITY SPECIALIST SERVICES
- 14 VISUAL SPECIALIST SERVICES
- 15 ECONOMIC AND SOCIAL SPECIALIST SERVICES
- 16 HERITAGE SPECIALIST SERVICES



DETAILED LIST OF SERVICES BELOW



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works

www.enviroworks.co.za



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M.D
Francois (Tokkie) du Toit



DIRECTOR STRATEGY
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Elbi Bredenkamp

OPERATIONS & PROJECT MANAGER
BUSINESS DEVELOPER

SPECIALISTS /
BUSINESS DEVELOPERS



Elana Mostert

SPECIALIST FIELDS

ECOLOGICAL



Gerhard Schoeman

ENVIRONMENTAL
OFFICER



Liketso Tsotsetsi

AIR QUALITY



Jan-Louis Jordaan

ENVIRONMENTAL
SPECIALIST AND
ECOLOGIST



Rolene Lubbe

GEO-HYDROLOGIST



Michael Leach

SOCIAL IMPACT
ASSESSMENT



Megan Smith

ECOLOGICAL



Divan van Rooyen

ENVIRONMENTAL
SPECIALIST AND
AQUATIC SPECIALIST



Christoff du Plessis

VISUAL / GIS

**ADMINISTRATION AND
FINANCIAL DEPARTMENT**



**FINANCIAL
MANAGER**
Evert Grobbelaar



**OFFICE ADMIN
AND FINANCE**
Lizette Stenekamp



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enviuro
consciousness

...BIT OF BACKGROUND....

enviro Care



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enviro works

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CORE VALUES:

- To **CARE** for the environment with a charitable motive
- To **GIVE** back to the earth
- To **EDUCATE** all communities towards treating the Environment with respect
- To **AWAKEN A PASSION & RESPONSIBILITY**
- To **CREATE AWARENESS** that *“Today’s impact is tomorrow’s legacy”* via workshops with communities
- To **GREEN** the earth by planting of trees, thereby reducing our Carbon Footprint
- To **TEACH** today’s children about the secrets of Mother Earth’s many hidden treasures via **FIELD EXCURSIONS**
- To **ENJOY** the fruits of Mother Earth by introducing sustainable **VEGETABLE GARDENS** at schools and communities



HOW CAN WE FIT IN, CONTRIBUTE AND POSSIBLY PARTNER WITH THE GLOBE PROGRAM?

The waterbodies research will be an effort to get the Africa Region working with the rest of the GLOBE communities to add valuable current water body data to the existing pool of data.

It will also be an opportunity to partner with entities like EnviroWorks and include their project schools in the GLOBE program.





WHAT DID WE DO UP TO NOW?

RIVER CLEAN-UP CAMPAIGN & DATA COLLECTION + TRAINING AND AWARENESS- STARTED A FEW YEARS AGO.....

THANKS TO MY ENVIROWORKS COLLEAGUES MICHAEL AND ELANA!!



ONE SWALLOW DOES NOT MAKE A SUMMER:

- ENGAGED WITH MOSSELBANK RIVER CONSERVANCY TEAM NEARBY FISANTEKRAAL
- Started in 2017 with 5 members- now 17 and have big plans going forward.
- In 2019 community clean-ups collected 3.4tons of waste, which excludes daily litter runs by the team on the river.
- Committed and willing to increase awareness on environmental topics in the community.
- Goal is to involve more children into the programme and reconnect them to nature.

DECIDED WE WANT TO DO A LITTLE BIT MORE: WE WANT TO CONTRIBUTE TO RIVER HEALTH AND CLEAN WATER AVAILIBILTY TO ALL.....

- ✓ COMMUNITIES AND SCHOOLS CAN ASSIST
- ✓ TAKE OWNERSHIP OF THEIR ENVIRONMENT
- ✓ **YOU CAN ONLY MANAGE WHAT YOU MEASURE**
- ✓ DECIDED TO TEAM UP WITH GOVERNMENT
- ✓ GOVERNMENT INVOLVEMENT: PUBLIC PRIVATE ENTERPRISE- NOT FORMAL AGREEMENT, BUT LETTER OF INTENT WAS SIGNED



RE: LETTER OF INTENT BETWEEN ENVIROWORKS (PTY) LTD ENVIRONMENTAL CONSULTING AND DEPARTMENT OF WATER AND SANITATION (WESTERN CAPE PROVINCE AND NATIONAL DEPARTMENT)

1 IMMEDIATE OBJECTIVE

Through this letter the parties manifest their intention, established by common agreement, to work together in the key areas of activity described below.



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3 PARTIES IN THIS AGREEMENT:

1. DEPARTMENT OF WATER AND SANITATION (DWS)- GOVERNMENT

- PRIORITISE RIVERS, GIVE SASS TRAINING TO TEACHERS AND KIDS, KEEP DATABASE, MARKETING

2. ENVIROWORKS- PRIVATE COMPANY

- USE DWS PRIORITISED RIVERS, IDENTIFY SCHOOLS/COMMUNITIES IN CLOSE PROXIMITY
- WRITE PROTOCOL OF WHAT, HOW AND WHEN TO MEASURE RIVER HEALTH
- INFORMATION TO DWS DATABASE FOR THEIR ACTION
- PROVIDE TRAINING IN THE USE OF THE WATER KITS
- EARLY WARNING SIGNS OF WATER QUALITY TO ENABLE EARLY ACTION TO ENSURE CLEAN WATER/LESS ILLNESSES FROM DRINKING BAD QUALITY WATER

3. CHECKERS (OR ANY OTHER FOOD SPONSOR)

- SPONSOR THE DAY WITH WATER/DRINKS AND SOMETHING TO EAT FOR THE KIDS/TEACHERS/COMMUNITY



MODEL ON WHICH WE ARE THINKING TO BUILD IT: EXISTING C.A.R .MODEL..A

BIT MORE ON THIS: <https://car.birdmap.africa/>

CO-ORDINATED AVIFAUNAL ROADCOUNTS

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Participate ▾

- Create a Card
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- View Routes (By Precinct)

CAR Routes:

Map Satellite

Keetmanshoop Kgalagadi Transfrontier Park Mahikeng Pretoria Midrand Mbabane Eswatini

Upington Kimberley Lesotho Durban

Springbok Richards



Bird Counting is a census of birds performed annually by volunteer birdwatchers.

Purpose = to provide population data for use in science, especially conservation biology, by determining findings about our natural habitats and the birds that use them.

If repeated at regular intervals, the counts allow us to track changes in bird population.

Twice a year, in midsummer (the last Saturday in January) and midwinter (the last Saturday in July), road counts are carried out using this standardised method. **A standardised method** allows one to make comparisons between counts.

Routes have been grouped into clusters called precincts. Local Precinct Organisers play a vital role in organising counts in their areas. Currently there are 42 precincts in eight provinces.



FOLLOW THIS SAME SCHOOL OF THOUGHT WITH OUR RIVERS- ROLL OUT TO AFRICA AND THE WORLD??

- DIVIDE RIVERS INTO MANAGEBLE STRETCHES
- HAVE DATABASE AVAILABLE
- ANYONE CAN CHOOSE A STRECTCH IN THEIR CLOSE PROXIMITY- ADOPT A RIVER CONCEPT
- MAYBE TWICE A YEAR TO START WITH
- MANY EXISTING SIMILAR RIVER PROJECTS- CHALLENGE TO GET THIS INFORMATION OUT THERE- GOVERNMENT CAN EMBARK ON A BIG AWARENESS CAMPAIGN

IT MUST BE VERY USER FRIENDLY AND CHEAP- ANYONE IN REMOTE AREA MUST BE ABLE TO DO THE MEASUREMENTS AND TO SEND THE DATA TO THE DATABASE (APP/CELLPHONE/WATER KITS/MINI SASS?)



CURRENT IDEA OF ENVISAGED PROTOCOL OF WHAT, HOW AND WHEN WE WILL MEASURE RIVER HEALTH INDICATORS-

1. USE THE I WATER LAB KIT <http://Www.ilabwater.co.za>

The iLab- established in 2019 -main objective of creating affordable and easy to use tools for the testing of water quality.

The iLab water test kit is **designed for non-scientific field operatives to do a basic screening of the water quality and to solve the problem of contaminated water.**



EPA verified tests. Login DATA Dashboard available.

The iLab water test kit - indicate ewage, industrial or agricultural contamination. Determine presence or absence of chemicals and bacteria that can be harmful for human and animal consumption. Helps the user make an informed decision on the way forward.

Bacterial components

The kit includes the following two tests for microbial bacteria in water: E. coli / Coliform Count Plate & Faecal Coliform test

Chemical contaminants

The chemical test strip (testing levels of pH, Nitrate, Nitrite, Lead, Copper, Iron, Fluoride and Chlorine). Test can also give an indication of the alkalinity and hardness of the water. It also includes Phosphate test.



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mini SASS

mLab South Africa Tools

Everyone

Add to wishlist

Secondly: Anyone can learn how to collect a miniSASS sample on a river. Once you have collected a sample you look for the different bug groups and score whether they were found. The score then tells you the health class of the river, ranging across five categories from natural to very poor.

Get your community, school or family and friends involved in monitoring a selection of your streams and rivers. In this way a map of river health across Southern Africa will develop. Communities can use the information and knowledge to illustrate the plight of their rivers, connect with other miniSASS samplers and investigate pollution sources.

NOTE: miniSASS does NOT measure the contamination of the water by bacteria and viruses and thus does not tell us if the river water is fit to drink. The current version works online and therefore users should be connected while using the app.



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CHALLENGES:

- ✚ CHALLENGE IS STILL WHERE TO KEEP THE DATABASE AND WHO WILL MAN THIS AND WHO WILL DO SOMETHING WITH THIS INFORMATION?
- ✚ HOW TO GET EXISTING GROUPS ALREADY GATHERING INFORMATION ON -BOARD TO USE THE STANDARDISED PROTOCOL (STILL TO BE DEVELOPED)- HUGE MARKETING AND AWARENESS CAMPAIGN NECESSARY.....START SMALL AND EAT THE ELEPHANT BITE BY BITE
- ✚ REMOTE AREAS MIGHT HAVE CHALLENGES- DATA CONNECTION, HOW TO GET TEST KITS TO THEM ETC..STANDARDISED PROTOCOL MUST MAKE PROVISION FOR THIS.



IN CONCLUSION:

THIS GROUND -TRUTHING/VERIFICATION DATA COLLECTION FOR RIVER QUALITY AND HEALTH INFORMATION CAN BE SUPPLEMENTARY AND VERY WORTHWHILE IN MANAGING AND PROTECTING OUR VALUABLE WATER RESOURCES AND GET OUR COMMUNITIES AND SCHOOLS BACK TO NATURE- TAKING OWNERSHIP OF THEIR ENVIRONMENT!

WE AT ENVIROWORKS WILL BE THRILLED IF WE CAN CO-WORK WITH THE GLOBAL PROGRAM TO MAKE A MEANINGFUL CONTRIBUTION TO OUR OVERALL RIVER HEALTH IN AFRICA AND MOVE ABROAD.

PLEASE LET US KNOW YOUR THOUGHTS ON HOW WE CAN CONTRIBUTE AND POSSIBLY PARTNER?



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THIS WORK IS A CALL FOR US, AT ENVIROWORKS, AS OUR SLOGAN SAYS:

“In the end we did not inherit the earth from our ancestors, we borrowed it from our children.....”

GHANDI THAT echoed OUR SLOGAN.....

“The earth, the air, the land, and the water are not an inheritance from our forefathers but on loan from our children. So we have to handover to them at least as it was handed over to us.” – Gandhi

ANY QUESTIONS /COMMENTS?

I THANK YOU AGAIN FOR THE OPPORTUNITY TO TAKE PART IN THIS MEETING!!





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