# Contents of the presentation in no particular order

- Flattening the pyramid
- Spellbee competition
- General knowledge
- The Inconvenient truth
- Rant
- Blank slide
- Story of Mr. Black and Ms. Green
- petchaktcha
- Censorship
- Opportunity
- EcoSlate Training



#### **Agricultural revolution**



#### Industrial revolution



#### **Technology revolution**





#### **Green Revolution**

What shape do you want it to be?

**Green Revolution** 

Opportunity and a Leveler.

#### And the award goes to....



QuickTime<sup>™</sup> and a TIFF (Uncompressed) decompressor are needed to see this picture.

- Inner peace
- Light within the heart
- Awakening
- •Green heart
- Kindness
- Compassion

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.



Esoteric Self-righteous Right and Wrong Presumptuous Opportunity Leveler Objective Not esoteric

#### Learning based on HISTORY

What is the capital city of "Burkina Faso"

- Who is the music director of "Slumdog millionaire"
- How many times did an American from Indian origin win the spellbee competition?
- What is "Sevruga"?
- When was the french revolution?
- Who was the last viceroy in India?
- Who produced "Inconvenient truth"
- Which is the largest mountain system?

#### Learning based on **OPPORTUNITY**

What is game design?

How is TRON the movie made?

How many litres of water does Coca cola need to make 1 litre of coca cola ?

What is a carbon footprint?

What is the technology behind facebook?

How many litres of water does Minute maid orange juice?

Where is the quote stated under from? "He doth bestride the narrow world like a COLLOSUS."

At what rate is the largest mountain system disappearing? When was the Telegraphic act last amended?

# **Blank Slide**

# How is CARBONOMICS viewing the background of this opportunity?

The polluting Developed country

#### The polluting Rich Individual

Yet to pollute Developing country

Yet to pollute poor Individual

The polluting Developed country

The polluting Rich Individual

This enabling mechanism is called "CDM - Clean Development mechanism" that derives the Carbon credit.

Yet to pollute Developing country

Yet to pollute poor Individual

The polluting corporate in a Developed country

The polluting corporate / Individual in a Developed and Developing country

To an efficient corporate in a Developing country

To the rural carbon efficient poor - villagers, farmers etc

Emissions parity (2 tonn per capita by 2100)

Distribution of wealth Wealth parity Distribution of opportunity **Opportunity parity Distinct direction** Unison of goal One citizen one world

#### Mr. BLACK v/s Ms. GREEN

(Or how Ms. GREEN will become the new SOCIO-ECONOMIC ORDER through an alliance, matrimony with Mr. BLACK)

#### Mr. BLACK

No one really knows as to exactly when and where BIG Mr. BLACK was born...in the 1700's

#### Mr. BLACK

... His growth was meteoric. Very quickly he became the ruler of GREAT BRITAIN (he is supposed to have played a significant role in making the queen and the church, mere figureheads ultimately)

People followed .....

Until as late as the end of the 20<sup>th</sup> CENTURY, his power and might expanded like tentacles, to engulf emerging economies such as China & India.

<u>Mr. BLACK</u> (Our Friend, Philosopher, Guide & Mentor) Let us discover the comfort of POWER, TRANSPORT, INDUSTRY, INFRASTRUCTURE. He even made AGRICULTURE more profitable.

He replaced the King with Democracy He replaced the Church with the Corporate People followed ..... <u>Mr. BLACK</u> (The new AVTAAR) He said "TRUST GROWTH and prosperity to bring with it class and refinement"

Mr. BLACK rechristened himself

#### MEET slick Mr. GDP

Now, you don't see the grease or the grime of the industrial revolution that accompanied the birth of Mr. BLACK.

"He doth bestride the narrow world like a COLLOSUS." Act I. Scene II, Julius Ceaser by william S

... And we mortal men have no choice but to pay obeisance to Mr. GDP



#### His word is Universal Law

#### GROW!

The current level or stock of greenhouse gasses in the atmosphere is equivalent to around 430 parts per million (ppm)  $CO_2$ ... compared with only 280ppm before the Industrial Revolution.

#### <u>GROW!</u>

Even if the annual flow of emissions did not increase beyond today's rate, the stock of GREENHOUSE gasses would reach double pre-industrial levels by 2050 – that is 550ppm  $CO_2e$  – and would continue to GROW thereafter.

#### GROW!

On current trends average global temperature will rise 2-3°C within the next 50 years or so. The Earth will be committed to several degrees more warming if emissions continue to grow.

#### SO WHAT?

# Warming will have many severe impacts, often mediated through water:

Melting glaciers will initially increase flood risk and then strongly reduce water supplies, eventually threatening one-sixth of the world's population, predominantly in the Indian sub-continent, parts of China, and the Andes in South America where measures are not in place. Rising sea levels will result in tens to hundreds of millions more people flooded each year with warming of 3 or 4°C. There will be serious risks and increasing pressures for coastal protection in South East Asia (Bangladesh and Vietnam), small islands in the Caribbean and the Pacific, and large coastal cities, such as Tokyo, New York, Cairo and London. According to one estimate, by the middle of the century, 200 million people may become permanently displaced due to rising sea levels, heavier floods, and more intense droughts.



#### Vulnerable Areas

Low-lying areas in Louisiana, Florida and southern Asia are especially vulnerable, and some coastal cities like New York and San Francisco also face threats along their shorelines.



Sources: PNAS; Martin Vermeer, Aalto University, Stefan Rahmstorf, Potsdam Institute for Climate Impact Research; NASA; CNES; Center for Remote Sensing of Ice Sheets. University of Kansas

Ecosystems will be particularly vulnerable to climate change, with around 15 - 40% of species potentially facing extinction after only 2°C of warming. And ocean acidification, a direct result of rising carbon dioxide levels, will have major effects on marine ecosystems, with possible adverse consequences on fish stocks. Declining crop yields, especially in Africa, could leave hundreds of millions without the ability to produce or purchase sufficient food. At mid to high latitudes, crop yields may increase for moderate temperature rises (2 - 3°C), but then decline with greater amounts of warming. At 4°C and above, global food production is likely to be seriously affected. In higher latitudes, cold-related deaths will decrease. But climate change will increase worldwide deaths from malnutrition and heat stress. Vector-borne diseases such as malaria and dengue fever could become more widespread if effective control

#### THE MAIN POINT

CO<sub>2</sub> emissions per head have been strongly linked with GDP per head. As a result since 1850, North America & Europe have produced about 70% of all carbon emissions due to energy production, while developing countries have accounted for less than a QUARTER!

#### ENTER Ms. GREEN

Conceived many decades ago, Ms Green was born in 1994 (United Nations Framework Convention on Climate Change), and took form in 2005 at the KYOTO PROTOCOL.



#### "Climate change is the defining challenge of our age"

- Ban Ki-Moon, CMP3, BALI, INDONESIA.

#### <u>Ms. GREEN</u>

#### "Policies that provide a <u>real or implicit price of carbon</u>...

create incentives for producers and consumers to significantly invest in low-GHG products, technologies and processes. Such policies could include economic instruments, government funding and regulation!"

- IPCC (Intergovernmental Panel on Climate Change)

#### <u>Ms. GREEN</u> (Carbon Credit)

A carbon credit is a generic term for any tradable certificate or permit representing the right to emit one ton of carbon dioxide equivalent ( $co_2$ -e).

One carbon credit is created by reducing one ton of  $co_2$ -e within the scenario of business as usual

#### <u>Ms. GREEN</u>

# "Carbon will be the world's biggest commodity market, it could become the worlds market overall"

- Louis Redshaw, Head, Environment Markets, Barclay Capital

#### CARBONOMICS

(The alliance/ Marriage between Mr. BLACK & Ms. GREEN)

The marriage was complete and Mr. BLACK wanted answers.

#### "Where do you begin?" asks Mr. BLACK to Ms. GREEN

"From the beginning (Demand), the end (Supply) and the middle (the balance)" replied Ms. GREEN

#### Mr. BLACK "Can you do this soon enough?"

#### Ms. GREEN

"Harnessing the recent technology revolution is the key"

#### Mr. BLACK

"What about the markets that the corporate need to impress?, What about the governments that the corporate need to respond to?"

#### Ms. GREEN

"Creating standards that measure, track and report"

#### Mr. BLACK

"Where will the demand and supply meet?"

#### Ms. GREEN

"at a common place online, a portfolio manager, a trading platform "

#### Mr. BLACK

"One can achieve nothing without peoples participation"

#### Ms. GREEN

"That's where I started, an outreach called www.no2co2.in"

#### Mr. BLACK

"Where is the Human resource coming from?"



Mentored by



# The EcoSlate Approach



Lifecycle Thinking based curriculums

•An Ecological Life Cycle based approach a cradle-to-grave perspective. •Not just environmental science, but creating a space for interplay between the social, economic and environmenal considerations of today and the ability to evaluate between these choices in a manner that is objective, precise, measurable and verifiable.

# Life Cycle Thinking



Investigating and evaluating environmental impacts of a given product or service at each stage of manufacture, use, and disposal.

# The EcoSlate School Program

Grades	Production	Consumption	Disposal
5th			$\checkmark$
	Waste Management		
6 <sup>th</sup>	$\checkmark$	$\checkmark$	$\checkmark$
	Waste as a Resource		
7 <sup>th</sup>	~	$\checkmark$	$\checkmark$
	Life Cycle Thinking (LCT)		
8 <sup>th</sup>	$\checkmark$	$\checkmark$	
	Sustainability through LCT		
9 <sup>th</sup>	$\checkmark$	$\checkmark$	$\checkmark$
	Carbon Footprint Calculation (Homes)		
10 <sup>th</sup>	$\checkmark$	$\checkmark$	$\checkmark$
	Energy Audit (Homes)		
11 <sup>th</sup>	$\checkmark$	$\checkmark$	$\checkmark$
	Carbon Footprint Calculation (Schools)		
12 <sup>th</sup>	~	$\checkmark$	$\checkmark$
	Energy Audit (School)		

**Learning** the concepts of Life Cycle Thinking

**Applying** the concepts of Life Cycle Thinking

# The EcoSlate Outcome

Not all students who go through EcoSlate will opt for a 'Green Career'

But all will carry with them Ecological Life Cycle and Sustainability thinking into their chosen professions, whatever it might be.



# The EcoSlate Outcome

The EcoSlate programs gradually build-up on both technical and social concepts all the way from middle school, to when the students finish their formal education and take their place in society as young adults.

- **The Launch Pad:** Application of conceptual ideas to real-world situations getting the students future-ready.
- **The Life Skill:** Developing certain skill-sets and attitudes, rather than knowledge of theoretical concepts.
- **The Life Path:** Stays with the student from middle school all the way up to career selection.



# The EcoSlate: College and Internship Program

# **EcoSlate College and Internship Program**

#### **Mechanisms:**

- will be deployed through colleges and universities.
- unlike the EcoSlate School Program, student will be able to individually opt for the the EcoSlate College and Internship Program.

# EcoSlate College and Internship Program (currently being formalised)

**Concepts:** Integration of the concepts learned thus far with the socio-economic and geo-political considerations of the real world.

#### Tools:

- •group discussions around specific issues.
- •engagement in on-ground campaigns, events.
- Internships in the organisations under the
- Carbonomics umbrella.
- Online Diploma program

•Consulting for Corporate education and transformation (Ecoslate will play a role in training the corporate)

- •IT to pick scale and speed
- Market solution for Investors
- Carbon finance to increase supply

(Ecoslate will play a role by training in the rural space as the supply is being encouraged)

•Certification body for green products and service

Outreach

### Welcome to the GREEN RUSH!



#### Our state of readiness



#### **Institutional Mentor / Partner**



#### "You must be the change you wish to see in this world" Mohandas Gandhi

Countdown to the year 2050: 470 months