Former PM Hon. Peter O’Neill and his National Planning Minister, Hon. Charles Abel, introduced in 2016 our National Strategy for Responsible Sustainable Development known as StaRS.

They have since then forgot about StaRS, in fact, they lost it... “Lost in Paradise”.

Your responsibility is to help us find StaRS.

We’ve got 12 locations starting here and ending where you find StaRS.

Go to it! Let’s find StaRS and implement it.

Read the clue on Card 1, find your next location and follow the trail till you find “The Lost Treasure”. 
LOST IN PARADISE

Where is StaRS?

PNG had StaRS

The national strategy for responsible sustainable development
LOST IN PARADISE

But where is StaRS?
Environmental Scientists suggest we need STRONG SUSTAINABILITY and SUSTAINABLE DEVELOPMENT
We need....
Ecocentric and Strong Sustainability Strategies for sustainable broad based and inclusive development in PNG

Where ECOLOGY MATTERS !!!

“PNG ... EM Mi Yah !”
There is a big difference in perception of our understanding of sustainable development

• WHY SO ….. because environmental science contrasts dramatically in world view and understanding of the term sustainable or sustainable development from that of economists

• Environmental scientists emphasise STRONG SUSTAINABILITY where ECOLOGY MATTERS

• Economists mean WEAK SUSTAINABILITY where Economists are ECOLOGY -DENIERS and ecology does not matter .. the laws and principles of ecology are ignored .. in fact broken .. assumptions that underlie traditional economic thinking are contrary to the laws of ecology / laws of Nature.
Total capital = Natural Capital + Man made capital + Social Capital + Human Capital

Economist = weak sustainability
Is when .... ?

Environmental Scientist = strong sustainability
Is when .... ?

WHAT DO YOU ACCEPT
Weak or strong???????
There is a big difference

• WHY SO ......

• SUSTAINABILITY may be the most important word in our language .. and also the most misused

• Sustainability and ecologically sustainable development (ESD as used by environmental scientists) and responsible sustainable development (RSD as used by Charles Abel and in StaRS) provides just what the world needs most NOW – a viable alternative way of being that celebrates the full spectrum of human potential and accepts the biophysical realities within which the human animal must function
Sustainable Development

• Some important principles:
  • Ecological sustainability... ECOLOGY MATTERS
  • Biodiversity conservation
  • Social equity
  • Economic justice
  • Participatory / inclusive democracy
  • Good governance
  • Strong leadership
  • Ecological / Earth wisdom
  • Environmental justice
  • Ecological justice
  • Peace, disarmament and non-violence
  • Reduced ecological footprint
  • 8 Rs rethink, reduce, reuse, recycle ..... 
  • Enoughness for all
IMPORTANT DOCUMENTS

- Rio Declaration
- Earth Charter
- New Delhi Statement
- Statement on Ecocentrism
- Sustainable Development Goals (SDGs)
IMPORTANT DOCUMENTS

- PNG National Constitution in particular National Goals and Directive Principles
- Vision 2050
- StaRS
- Medium Term Development Plan 3
- The PNG Mama Graun Tribal Charter
Most governments and individuals who commit themselves to sustainable development, including PNG, have got it all wrong. They are also committed to the capitalist system based on continuous growth, Earth exploitation, and anthropocentric values, and planetary management. They are committed to weak or “business as usual” sustainability.

(all the anthithesis of sustainable development);

BUT SCIENTISTS ARE WARNING ALL !!!@!@!@!
Scientists TWO RECENT WARNINGS TO HUMANITY

• Ripple et al (2017) 'World Scientists : warning to humanity: A second notice ( on environmental issues / impending ecological collapse”). Bioscience


• A week ago …
Sustainable Development

- The study of sustainable development focuses on fostering the transition to a sustainable future for Papua New Guinea involving:
  - A process which aims to create an ecologically and economically sustainable and socially equitable society.
  - Improving the quality of life whilst living within the carrying capacity of supporting ecosystems.
Sustainable Development

• Sustainable development is the central concept of our age.
• It is both a way of understanding the world and a method for solving global problems
• From Jeffrey Sachs in book “The Age of Sustainable Development”
Our development theory is also important. What does Charles Abel say about this?

**OUR COUNTRY. OUT TIME, OUR FUTURE!!!**

<table>
<thead>
<tr>
<th>Development path up to recent times</th>
<th>New Development path = StaRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>copycat</td>
<td>Good leadership</td>
</tr>
<tr>
<td>corruption</td>
<td>Good governance</td>
</tr>
<tr>
<td>poverty</td>
<td>Shared prosperity (enoughness for all)</td>
</tr>
<tr>
<td>conflict and violence</td>
<td>Peace and harmony</td>
</tr>
<tr>
<td>environmental destruction</td>
<td>Environmental protection</td>
</tr>
<tr>
<td>inequality</td>
<td>Equality / equity</td>
</tr>
<tr>
<td>over population</td>
<td>Stable population</td>
</tr>
</tbody>
</table>

HELP

PNG ...em mi yah!!
## Our vision is important … Vision 2050 iconic statement (in part)

<table>
<thead>
<tr>
<th>Unmodified 2009</th>
<th>Modified by First group of BSD students who graduated 2 months back!!!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be smart, fair, happy, wise, healthy</td>
<td>Be smart, fair, happy, wise, healthy</td>
</tr>
<tr>
<td></td>
<td>Be ecologically wise</td>
</tr>
<tr>
<td>… be in top 50 in HDI by 2050 (unlikely)</td>
<td>Maintain spirituality, cultural diversity, a sustaining environment</td>
</tr>
<tr>
<td></td>
<td>Ensure good governance, empowerment (marginalised groups, women), equality and equity</td>
</tr>
<tr>
<td></td>
<td>Have enoughness or well-being (not too-muchness, and a low ecological footprint</td>
</tr>
<tr>
<td></td>
<td>WILL RISE UP TOWARD TOP HALF OF HDI</td>
</tr>
<tr>
<td>LIVE UNSUSTAINABLY Those who think only of economic growth .. and accept status quo .. never look out the box ; never to take on a real challenge / sensible risk !!!</td>
<td>LIVE SUSTAINABLY Those who believe in the development revolution (Charles Abel) / sustainability revolution (environmental scientists)</td>
</tr>
</tbody>
</table>
## CONTRAST

<table>
<thead>
<tr>
<th>Environmental Scientist view And Ecological economist</th>
<th>Economist View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecocentric values</td>
<td>Anthropocentric values</td>
</tr>
<tr>
<td>Earth Wisdom World View</td>
<td>Planetary management world view</td>
</tr>
<tr>
<td>Recognition of biological limits and ecological constraints</td>
<td></td>
</tr>
<tr>
<td>Take planetary boundaries and ecological tipping points seriously</td>
<td>Deny planetary boundaries and ecological tipping points</td>
</tr>
<tr>
<td>Value ecosystem services and biodiversity - both ethical &amp; monetary</td>
<td>No or little value on ecosystem services &amp; biodiversity</td>
</tr>
<tr>
<td>Intrinsic values important</td>
<td>Mainly / only consider instrumental values</td>
</tr>
<tr>
<td>MORE</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Internalise all externalities</td>
<td>Often health and environmental effects are treated as externalities</td>
</tr>
<tr>
<td>Full cost pricing</td>
<td></td>
</tr>
<tr>
<td>Method of discounting the future – makes appropriate assumptions to ensure conservation</td>
<td>Wrong discounting leads to rapid exploitation and depletion (and pollution)</td>
</tr>
<tr>
<td>STRONG SUSTAINABILITY</td>
<td>WEAK SUSTAINABILITYYY</td>
</tr>
<tr>
<td>Emphasis on renewables</td>
<td>Still dependent on non-renewable; slow to uptake renewables</td>
</tr>
<tr>
<td>Emphasis of best practice / ethics / codes / standards</td>
<td>Profit is number one!</td>
</tr>
<tr>
<td>MORE</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>Ethics very important</td>
<td>No ethics – supply and demand and market forces decide</td>
</tr>
<tr>
<td>Governance a mixture of government</td>
<td>Minimise government regulation – leave it to the market.</td>
</tr>
<tr>
<td>regulations, Appropriate economic</td>
<td></td>
</tr>
<tr>
<td>instruments and community input /</td>
<td></td>
</tr>
<tr>
<td>involvement</td>
<td></td>
</tr>
<tr>
<td>Both inter and intragenerational equity</td>
<td>No equity – rely on “trickle down effect” which is often a myth.</td>
</tr>
<tr>
<td>Green and Ecological Economics</td>
<td>Traditional economics</td>
</tr>
<tr>
<td>GREEN DEVELOPMENT</td>
<td>BROWN DEVELOPMENT</td>
</tr>
</tbody>
</table>
There is a big difference

- WHY SO ......
- Environmental scientists emphasise the 3 E's, G and P
- Ecological sustainability, social sustainability (equity), economic sustainability, institutional sustainability (good governance) and personal sustanabilty (or personal integrity)
- Economists mean inclusive economic growth!!
- ie is what economic sustainability seems to be about ..... tasol
- Though also sometimes mention good governance and social sustainability.. but rarely ecological sustainability!!
There is a big difference

- Environmental scientists emphasise
- 17 SUSTAINABLE DEVELOPMENT GOALS or SDGs
- In PNG we were in process of localising the SDGs to match all government policies, StaRS, and our MEDIUM TERM DEVELOPMENT PLAN 2018-2022 & 2010-2030 NATIONAL DEVELOPMENT STRATEGY

- Or are we..?? Is StaRS still our road map ?? (or is it : the old approach of INCLUSIVE ECONOMIC GROWTH???)

- I am very worried !!
The PNG Update theme for 2019 is DEVELOPMENT and DIVERSITY

- One aspect is
- Issues related to ...
- and strategies for ..../
- Sustainable, broad based and inclusive development
- BUT
- What sort of development embraces these ????
PNG in our National Constitution (1975) affirmed what we now call sustainable development. We reaffirmed these at Rio in 1992, in 1994 we adopted our own National Sustainable Development Strategy, Vision 2050 in 2009 and in 2014 we endorsed our new National Strategy for Responsible Sustainable Development or now StaRS.
We endorsed/ adopted / acknowledged
• The Rio Declaration (1992),
• Earth Charter (2000),
• New Delhi Statement of Principles (2002),
• Millennium Development Goals (2000),
• Sustainable Development Goals (2015),
The then Minister for National Planning and Monitoring Mr Charles Abel

Reaffirmed seven components of the “new development path”

rejecting seven characteristics of the current development path.
He adopted the core principles of ecological or responsible sustainable development being

- economic sustainability,
- social sustainability
- ecological sustainability,
- good governance
- personal sustainability.
PNG reaffirmed the 5 Ps of UNDP:

- Planet,
- people,
- partnership/participation,
- peace
- prosperity / p' enoughness.
Some of our leaders committed themselves to strong sustainability where 'ecology matters'.
Some of our leaders committed themselves to strong sustainability where 'ecology matters'.
But in 2019 we stand “post APEC' embracing very weak sustainability where ecological and social sustainability and good governance are largely ignored and personal sustainability and personal integrity largely forgotten.

APEC was a lost opportunity never focusing on the key issues of strong sustainability but on so-called inclusive economic growth.
The MTDP3 'down emphasises' the SDGs and ecological considerations. It relegated environment back to being mainly linked to climate change, and economic thinking and still gives little value to equity and ethics, ignores natural values and adopts economic policies where ecology does not matter. Important issues of institutional sustainability and good governance remained swept under the carpet.
Government policy continues to contradict much that the former Minister for National Planning (now Deputy Prime Minister) strongly advocated.

Our leaders who voice concern on climate change but now embrace energy policy which maintain support for non-renewables including coal,
we see many environmental permits being approved for dubious projects, environmental and conservation awareness is not important, equity, ethics and PNG values and ways are ignored in public policy,

important government policies and regulations on environment, public health, sanitation matters and OHS standards are neither complied with nor enforced.
The public cares little about a green and clean and healthy environment, particularly in towns and cities.
For development assistance and trade PNG continues to rely on countries with excessive affluence, unfair trade, appalling environmental stewardship and with very large ecological footprints, deniers of climate change and the importance of conserving and protecting our biodiversity and whose hypocrisy in weapons production and treating refugees and “outsiders” edges on crimes against humanity.
• From Captain Paul Watson of Ship Sea Shepherd

• Quote

• We either learn to live in harmony with other species in accordance with the basic laws of ecology or we go extinct

• Some laws are diversity, independence and finite resources, .. if we ignore these our life support systems will crash

• Note that other living things can live in a world without us, but we can not live in a world without them,
So eco and eco become interlinked

- Economists must stop being ECO-DENIERS
- Start recognise the laws of Nature
- Recognise that ECOLOGY MATTERS
- Then we may all have a sustainable future
In one course of mine that I have taught to final semester students in the BSD program – to be known as SUSTAINABILITY SOLUTIONS

- I focus on LEARNING AND DOING and included is the new transdisciplinary discipline called SUSTAINABILITY SCIENCE
- Like Environmental Science it is about our Earth and human activities and their interface. It deals with incomplete knowledge, uncertainty and complexity. It is clearly value laden. It is a design science and action orientated focused on solving the big problems facing humanity and Earth and in PNG today.
Sustainability Dscience continued)

- It is about developing new methodologies and approaches whereby the scientific method is coupled with ethics and social science solutions.

- It is a new scientific paradigm.

- The aim is to understand and embrace a new science and use it to take responsible actions for sustainability solutions.
We must bring about a substantial change in our thinking, our values, our personal behaviour, our social and ecological way of doing things, and new economics that is green and ecological. All must be based on Earth care, “earth repair” and “earth wisdom”, on ecocentric values, strong sustainability values and sustainable economics. We must respect and comply with the laws of Ecology. We need reduce our ecological footprint.

Globally we have breached important planetary boundaries and now approach ecological tipping points eg with carbon cycle and climate change; and with rapid biodiversity loss.

No civilization has survived the ongoing destruction of its natural support system. Nor will ours!!
• We must passionately commit ourselves to achieve personal, social, economic, ecological and institutional sustainability

• This is the only way we can achieve the PNG Vision 2050.

• The principles of ecological sustainability, social equity, intergenerational equity, economic justice, environmental justice, ecological justice, inclusiveness, participation, empowerment, transparency, ecological wisdom, and peace and non-violence ARE ALL important.

• .. the 17 SDGs, the 5Ps of people, planet, peace, partnership and p'enoughness

• We can do it and do it the PNG way.
• All Papua New Guineans and all living things deserve and can have a sustainable future
• StaRS found

• BSD and ESG students

• StaRS has been found...
Hon James Marape

our 1993 ESG graduate Hon James Marape has found / rediscovered StaRS

- Our PM Hon James Marape stated as reported in PC on Tuesday 30 July p5
- An integral part of our plan (or) [is] achieving long term sustainable development
- Our good PM accepts our national responsible sustainable development strategy (lost be now found).
We must now commit ourselves to assist our Government to re-instate StaRS

• lost but now found again in Paradise
Where is our sustainable development policy.

Where is StaRS?
FOUND in PARADISE !!!

- ESG students found the Treasure = STARS
- PM Hon James Marape has found STARS
- So let us implement it and ensure PNG has a
  - SUSTAINASBLE FUTURE
- ""PNG … EM MI YAH ""
For more information and/or copy of this powerpoint contact

- Professor David Mowbray
- Adjunct Professor of Environmental Science and Sustainable Development
- ESG BSD UPNG

- Text / phone
- (675) 73803547
- Or (675) 73800050 or in OZ +612450326701
- Email
- Davidlindsay.mowbray@gmail.com Or davidmowbray@upng.ac.pg
Be wise like the owl in tree above my office –

achieve Earth Wisdom