



CENTRE ON INTEGRATED
RURAL DEVELOPMENT FOR
ASIA AND THE PACIFIC

One Ocean, Three Approaches, Five Issues, Seven Solutions

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One Ocean: The Earthrise Picture

By Apollo 8 Astronaut William Anders on 24 December 1968

Galen Rowell - "The most influential environmental photograph ever taken"

"We set out to explore the moon and instead discovered the Earth" - Anders



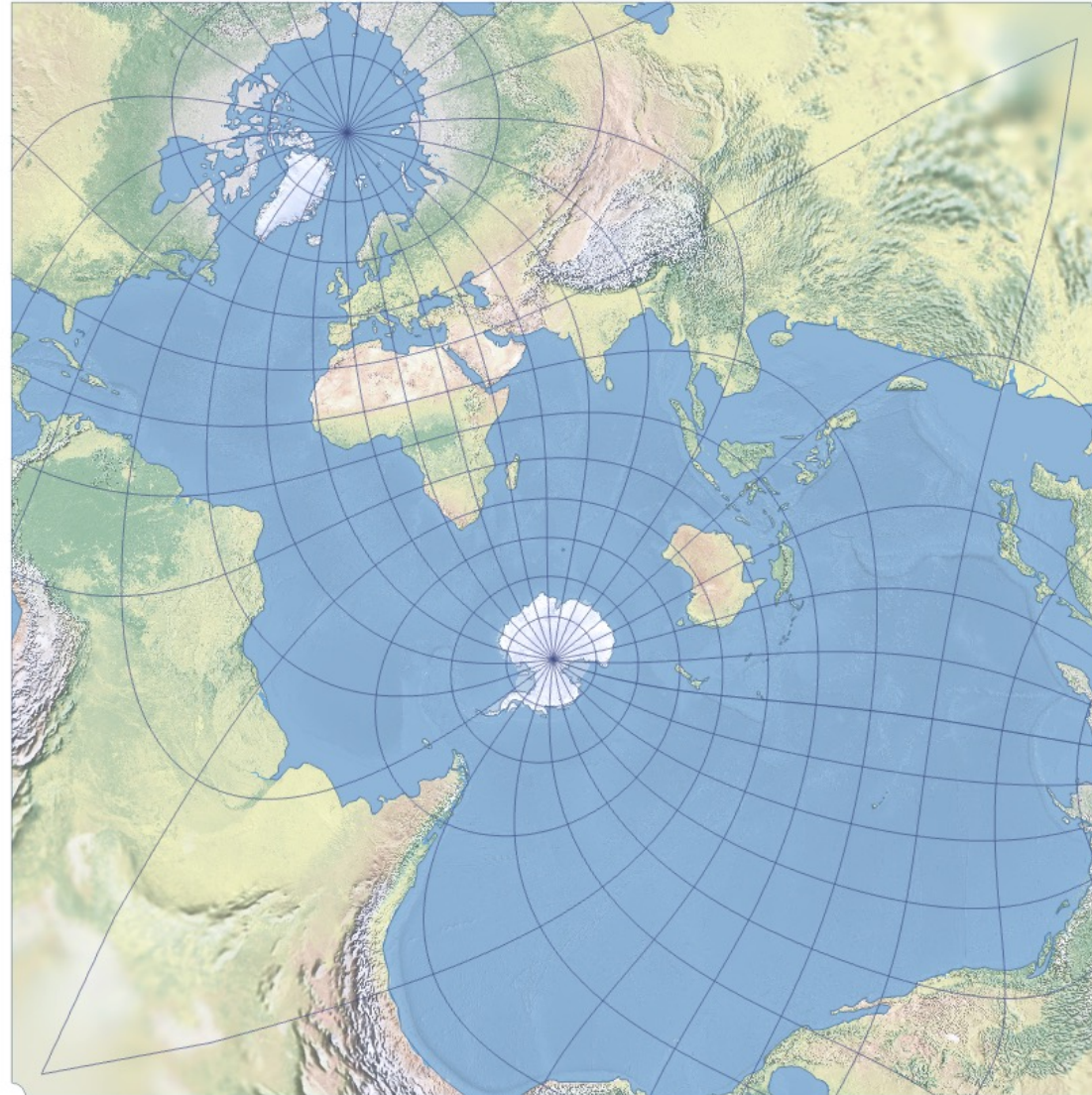
One Ocean: Our Whole Thinking Must Change

<https://OceanGovernance.org>

- The concept of one ocean is crucial to everything we do
- 3 Oceans – Indian, Atlantic, Pacific
- 5 Oceans – Arctic, Southern, Indian, Atlantic, Pacific
- 7 Oceans – If you split Atlantic and Pacific in North and South
- But there is only one Ocean, just as we have only one Planet
- The Pacific alone is larger than the surface area of Mars
- Five moons can be placed side by side across in the Pacific
- Antipode just offshore of Chile and Peru is just offshore of Vietnam and China
- All the continents can fit in the Pacific which has 50% of all water on Earth

One Ocean: the Spilhaus Projection 1942

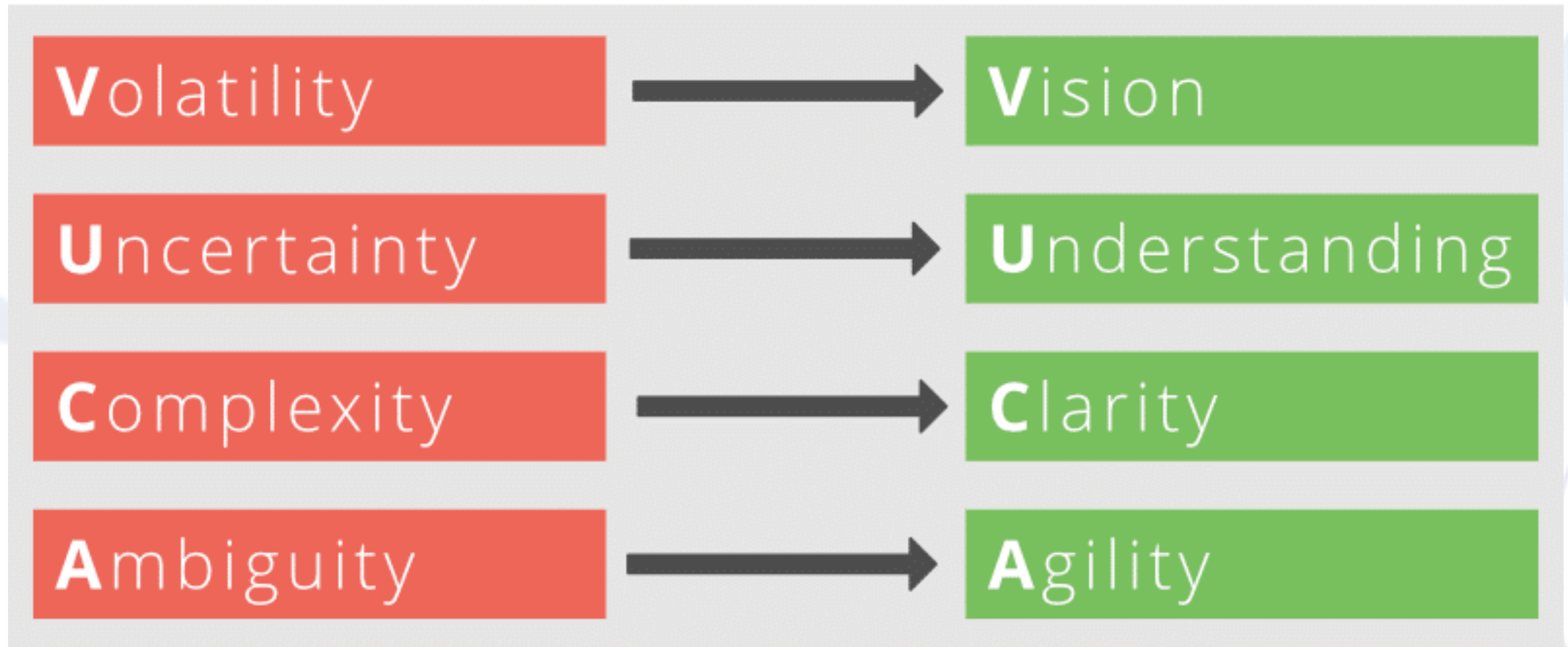
Athelstan Spilhaus (1911-98); Sea-Grant College 1963; Our New Age (1957-73)



One Ocean: How Big Is The Ocean

- The ocean is 71% of the earth's surface but it offers 99% percent of the living space (biosphere)
- Sea:Land ratio is 60:40 in the Northern Hemisphere and 80:20 in the Southern Hemisphere.
- Average depth is 3733m (average elevation of land is 835m) and the deepest point is 11022m (Mount Everest is 8849m)
- The Mid-Oceanic Ridge is 64000km long (4 times longer than all the mountain ranges on land combined) and over 2000km wide
- 96.5% of all water on earth is in the ocean; ice on land 2%; groundwater 1.0%; rivers and lakes 0.2%; water in the atmosphere 0.1%

VUCA



ABCD of Challenges

Every Challenge Leads to Opportunities.

- **Aim**

- Equity
- Justice
- Peace

- **Combat**

- Death
- Disease
- Destruction

- **Balance**

- People
- Planet
- Profit

- **Dividend**

- Democracy
- Demography
- Demand

Approaches: 1. Advice

- Deaths of EMB and my father within 10 days of each other in February 2002
- December 2002 – tributes to EMB at UNESCO Paris
- Seven Pillars of Ocean and Environmental Governance was born
- Title stolen from Seven Pillars of Wisdom (T E Lawrence), unreadable like Brief History of Time (Stephen Hawking)
- Clients - Educational and research institutions, intergovernmental and non-governmental organisations
- I will talk to anyone who will listen to me.
- Advice is my vehicle for earning a living.

Approaches: 2. Advocacy

- “It is our moral duty to give” (Peter Singer) – at an individual level
- At national and international level, a voluntary and yet unfulfilled commitment 0.7% of GDP to ODA by OECD countries in 1970. This would work out over \$400 billion annually
- This compares with yet another unfulfilled \$100 billion annual Climate Commitment made at Copenhagen in 2009
- By contrast, NATO countries spend on an average 2.5% of their GDP on Defence
 - Servicing of SDGs; dealing with death, disease and destruction; Natural disaster mitigation
- “Universal Basic Income” – is another issue I am passionate about

Approaches: 3. Action

- This is where I give to good causes. I have consistently given 10% of my gross income away since 2002
- We can all help alleviate poverty, hunger, lack of education, shortage of water, lack of sanitation, provision of healthcare
- Small amounts can go a long way
- Contribute through volunteering – *pro bono* work
- If your net wealth is \$60,000 or Rs45 Lacs in top 1% and \$300,000 or Rs 2.25 crore puts us 0.1% richest in India
- To those that hunger, give bread. To those that have bread, give the hunger for justice
- Each one of us has to be an agent of change

Issues: 1. Why are we where we are?

Wants (greed) vs Needs – The Mahatma – Nothing is ever any good for us until we can – cut or dig or kill it – humans added burn to it. Our addiction to fossil fuels mean that we have gone up from 283ppm of CO₂ to 313 from 1800 to 1955 when I was born and within my own lifetime, that number has gone to 425. In addition, other pollutants in the form of fertilisers, pesticides, chemicals, heavy metals, industrial and municipal waste, plastics, etc, mean that humans have interfered inexorably with the biogeochemical (ocean) fluxes. And as a result, we have become LAW-less society - Landless Airless Waterless

Issues: 2. What are the existential issues facing us?

Existential issues: Covid (?) (marbles) < Climate Change (tennis ball) < Disruption of Nitrogen Cycle (baseball) < Loss of Biological Diversity (football)

Stern Review – Economics of Climate Change 2006

Kate Raworth – Doughnut Economics 2017

Dasgupta Review – Economics of Biodiversity 2021

Issues: 3. Why is the Ocean significant for our survival?

The Pacific alone is bigger than the surface of Mars and can accommodate all seven continents. Only about 5% the Ocean has been explored and mapped ("We know more about the backside of the Moon than the bottom of the Ocean"- Roger Revelle) and it, *inter alia*, absorbs 25% of Carbon Dioxide, generates 50-80% of Oxygen, is 70% of earth's surface, receives over 80% of land-based pollution, absorbs 90% of excess heat from emissions, carries 95% of world trade, contains 97% of earth's water and offers 99% of the biosphere (living space). Also, the so-called 'cloud' is actually in the ocean, given almost 99% of communication cables are laid under the ocean.

Issues: 4. Where in nature can we find simple solutions

- “The solutions are staring us in the face” – Greta Thunberg
- Just as we need ‘Trillion New Trees (TNT)’ on land, Mangroves, Seagrass and Corals are our triple insurance against an imminent climate catastrophe
- The Great Green Wall from Dakar to Djibouti
- 14trees.org

Issues: 5. How must our narratives change?

- The Ocean is too big to fail.
- The Ocean is too big to fix.
- The Ocean is too big to ignore.



Solutions: 1. Science and Technology

- It is all about seeking knowledge and acquiring wisdom
- Double edged sword – it creates problems, but it also provides solutions.
- Science is about imagination (Einstein) and dreams (D H Lawrence) –
- imagine, think, create
- Elisabeth Mann Borgese - Utopians of today are realists of tomorrow. Realists of today are dead tomorrow

Solutions: 2. Geopolitical Economy

- Whose resources and who benefits?
- Carbon trail from production to consumption to waste recycling and residue
- Privatisation of profits and socialisation of costs must be avoided
- Transboundary nature of impacts is increasingly evident – pollution, disasters and epidemics are all global
- Hermann Daly - Economy is a wholly owned subsidiary of the environment, not the reverse

Solutions: 3. Institutions and Organisations

- Democratic institution, VOTE not VETO
- UN and EU
- Winston Churchill - Democracy is the worst form of government except all the others that we have tried
- Moving out of FILE (Bureaucracy) and moving into LIFE (Governance) – less government and more governance
- The beauty of democracy is that it somehow creates an ecosystem of checks and balances. At least, it ought to.

Solutions: 4. Legislation and Implementation

- Don't legislate what you can't implement
- Continuous development, periodic review and uniform application of the rule of law
- *Jus cogens* (peremptory norms) – pollution is a crime against environment just as genocide is a crime against humanity
- Exhortative principles – do the right thing because it is the right thing to do
- Shift from crime and punishment – polluter pays principle (*sic utere tuo*) – to preventing crime to be committed in the first place – precautionary principle (*primum non nocere*)
- Moving from being LAW-less to LAW-full

Solutions: 5. Role of Civil Society

- What is civil society? We are all part of civil society
- Stakeholders - Women and Youth – Women of 50% of the world and the youth will reside in that world in the future
- We all talk of rights but what about responsibility?
- Corporate Social Responsibility is all very good but what about Individual social responsibility
- Principle 10, Rio Declaration – AGENDA 21 – UNCED 1992 - Environmental issues are best handled by participation of all concerned citizens

Solutions: 6. Financial Initiatives

- How do you get the money to do the right things you want to do?
- PPP – Public Private Partnership
- PFI – Private Finance Initiative
- FDI – Foreign Direct Investment
- The World Bank Group – IBRD, IDA, IFA, ICSID, MIGA
- Regional Development Banks – ADB, AfDB, IADB, EBRD
- Enterprises do “stuff” to make money. Environmentalists need money to do “stuff”.

Solutions: 7. Education and Awareness

- My central pillar – each one of us belongs to at least one of the seven pillars and can adopt it as their central pillar
- Education both formal and informal – from age 8 to 80 – curiosity
- In or mid-career training – CPD - LLL – every professional needs to be trained, especially politicians
- Facilitation of stakeholder dialogues
- Public speaking engagements
- It's a gift that does not diminish on giving. Indeed, it is a gift that keeps giving
- Baba Dioum – In the end, we will protect only what we love, love only what we understand and understand only what we are taught

Final thoughts

- You can't always get what you want. But if you try sometime, you'll find. You get what you need – Mick Jagger Rolling Stones
- Our whole thinking (and narratives) must change.
- And the change must come from within.
- And each one of us must be that agent of change
- Do the right thing because it is the right thing to do
- PIN Diagram – Position (intransigent), Issues (common), Needs (same)
- Honesty of purpose and Clarity of purpose
- The young boy, the beach and the starfish

Top 10 Solutions to Reverse Climate Change

- Refrigerant Management.
- Wind Turbines (Onshore) ...
- Reduced Food Waste. ...
- Adoption of a Plant-Rich Diet. ...
- Tropical Forest Restoration. ...
- Educating Girls. ...
- Family Planning. ...
- Solar Farms.
- Silvopasture
- Rooftop Solar

Ocean & Environmental Governance

**It is not the end of the problem but
the solutions must begin somewhere**



Thanks for listening



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