

The REDD+ Challenge: turning promise into progress

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Carbon-Plus Capital LLP

Expert Symposium to the REDD-plus Start Up Year 2020 International Seminar

20th January, 2020

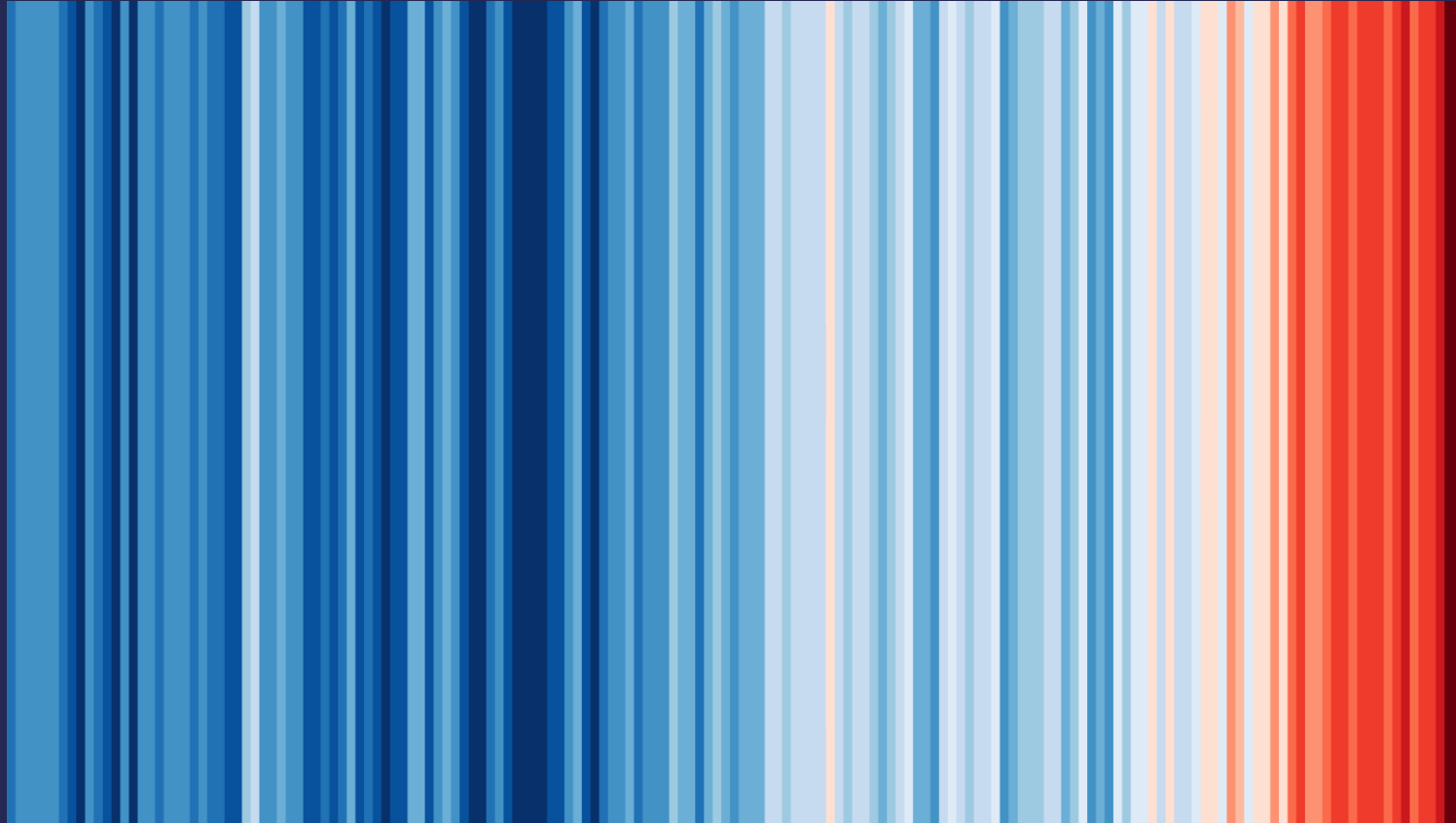
ITO Hall, Tokyo University

Organised by the REDD Research and Development Centre, Forestry and Forest Products Research Institute of Japan









United Nations
Framework Convention on
Climate Change



195 countries have joined the international agreement.
Negotiations focus on four key areas:

- signed 1992, Rio de Janeiro, Brazil
- effective 1994
- mitigating (reducing) greenhouse gas emissions
- adapting to climate change
- reporting of national emissions
- financing of climate action in developing countries

192 countries have signed the Kyoto Protocol extension period:

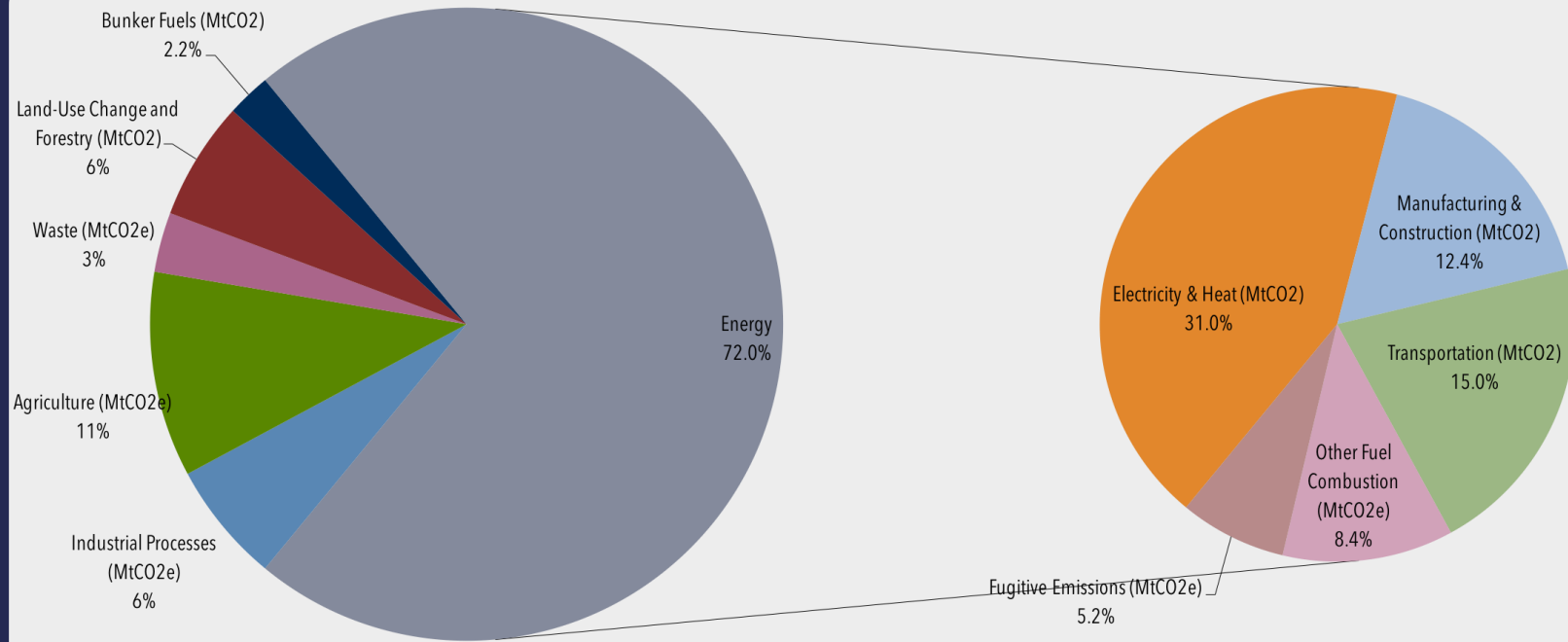
- Signed 11 December 1997, Kyoto, Japan
- Effective 2005
- first commitment period 2008-2012
- second commitment period, 2012-2020
- principle of common but differentiated responsibilities
- reduce and where necessary offset - three "flexibility mechanisms"



The Kyoto Protocol



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192 countries have signed the Kyoto Protocol extension period:

- first discussed, 2005, Montreal, Canada
- agreed methodological guidance, 2009, Bali, Indonesia
- agreed safeguards, 2010, Cancun, Mexico
- agreed results-based finance work programme, 2013, Warsaw
- policy approaches and positive incentives for the reduction of emissions of greenhouse gases

REDD+ describes countries' efforts to reduce emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries



- a market-based mechanism:
 - *Compliance Market*: access to ETSs in foreseeable future unclear
 - *Voluntary Market*: many projects under different standards
- Public Sector off-takers include Forest Carbon Partnership Facility – The Carbon Fund, UN-REDD, Norwegian Climate and Forests Initiative, Japan Joint Crediting Mechanism, but not yet Green Climate Fund
- Private Sector off-takers include banks, supermarkets, hotel groups, etc

Current compliance markets for carbon offsets

- *Governance, rules and standards:* determined and regulated by governments under the auspices of the UNFCCC, e.g. EU ETS, Tokyo ETS, California ETS
- *Eligible participants:* multilateral and bilateral agencies and firms operating in sectors governed by legal GHG emissions reduction targets
- *Tradeable types of offset:* Clean Development Mechanism; Joint Implementation
- *Target sectors:* power production, manufacturing, etc.

Current voluntary markets for carbon offsets

- *Governance, rules and standards:* determined by voluntary carbon programmes, e.g. Verra/Verified Carbon Standard, Gold Standard, etc.
- *Eligible participants:* multilateral and bilateral agencies, and firms operating in sectors not governed by legal GHG emissions reduction targets but responding to stakeholder pressure/demands
- *Tradeable types of offset:* Voluntary Emissions Reduction offsets, e.g. from cookstoves projects, from REDD+

Baseline



Intervention

\$



- Additionality
- Permanence
- Leakage

Result

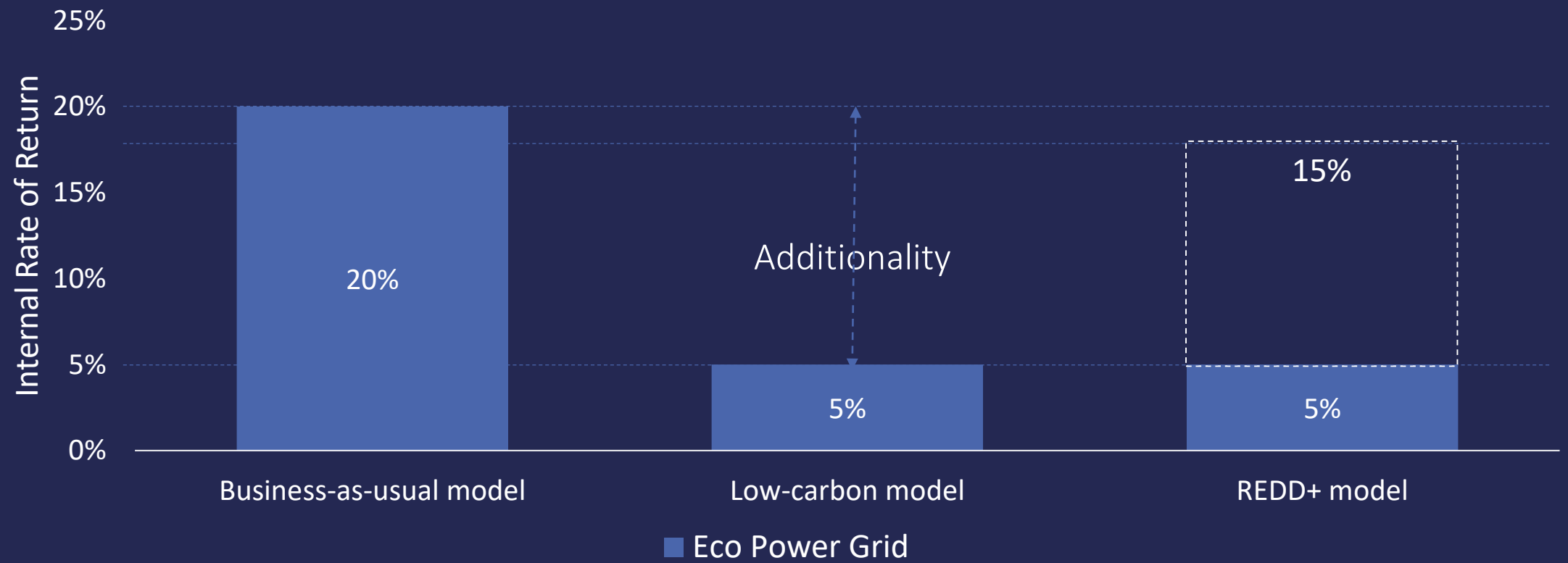


\$



Emissions
Reductions

Carbon Markets



The Niger Delta





- Niger River, Niger Delta, Nigeria
- June, July and August, 2016
- highest river level recorded in over 50 years of measurement
- 38 lives lost
- 9,000 homes destroyed
- 26,000 livestock lost

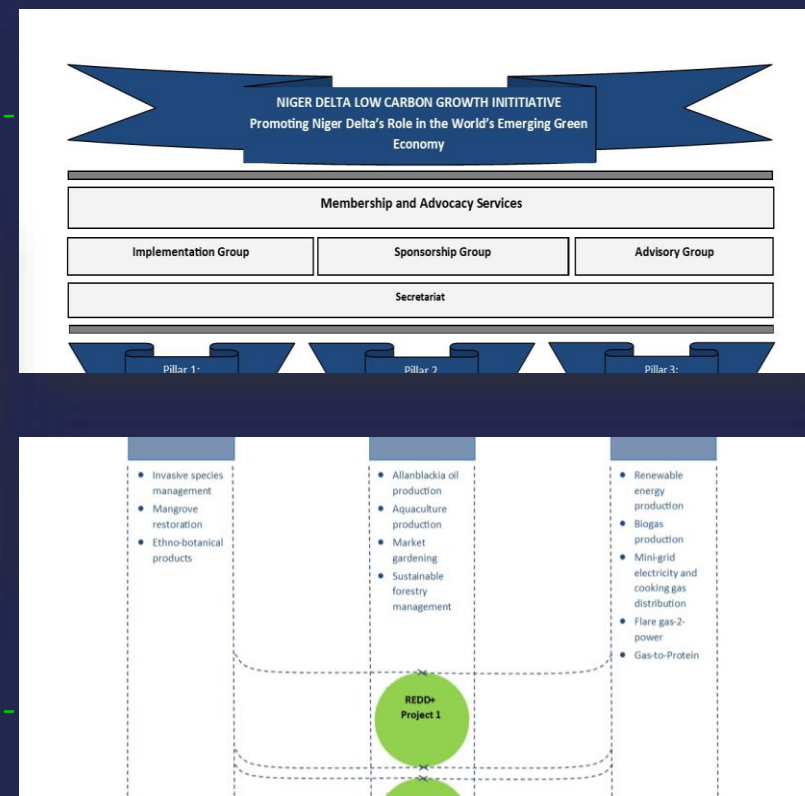
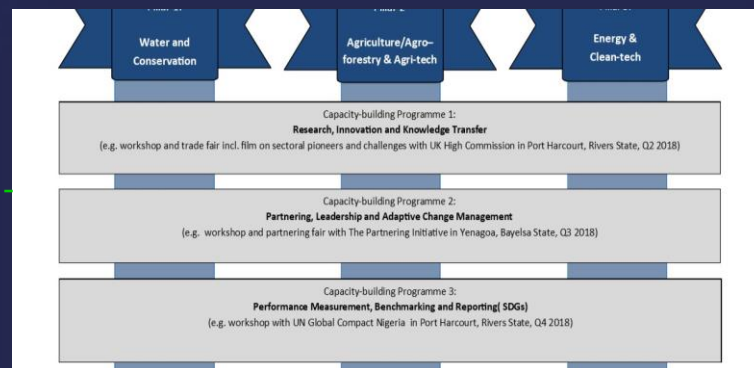
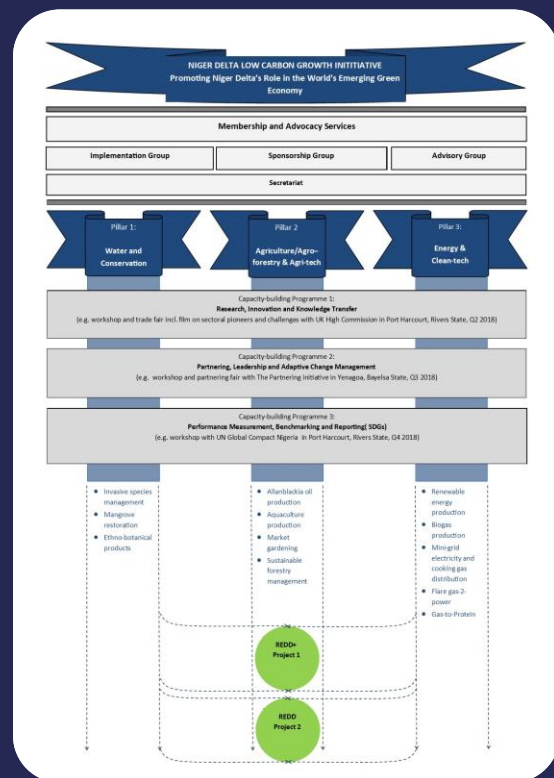


- cross-sector, multi-stakeholder partnership launched 2015
- 9 states, 2 pilot states – Bayelsa and Rivers
- regional population ~30m
- world's 3rd-largest mangrove ecosystem (10,000km²)
- Africa's largest upstream oil and gas development
- Project Idea Note for registration of REDD-plus Scheme 2016
- US\$ 500m+ project pipeline
- Project Design Document completion due 2020

THE **NIGER** Low Carbon **DELTA** Growth Initiative

A Multi-sector Partnership to Promote the Niger Delta's Role in the World's Emerging Green Economy





The REDD-plus carbon offset market – supply-side potential, opportunity and issues



“Politicians around the world have pointed to Ethiopia as an example of what can be done to reforest their own countries ...”

“During the recent UK election campaign, major political parties made expansive promises to plant millions more trees, and referred to Ethiopia's initiative.”

“The Labour Party pledged to plant two billion trees by 2040, the Conservative Party at least 30 million more trees every year, and the Green Party 700 million by 2030.”

*BBC Reality Check
20th December, 2019*

Kyoto Protocol, 2008-2020

- goal to control emissions of the main anthropogenic (human-emitted) greenhouse gases (GHGs) in ways that reflect underlying national differences in GHG emissions, wealth, and capacity to make the reductions
- top-down structure
- standards and targets set internationally for states to implement
- **requirement to incentivise, measure and report GHG emissions reductions against baselines and targets responsibility of Annex I country parties to UNFCCC only**

The Paris Agreement, 2021-

- goal to keep increase in global average temperature well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C
- bottom-up structure
- each country determines, plans, and reports on the contribution that it undertakes to mitigate global warming - no enforcement mechanism
- **requirement to incentivise, measure and report GHG emissions reductions against baselines and targets the responsibility of all country parties to UNFCCC**

Key issues – supply-side:

- Exposure of communities to market risk
- Institutional capacity including measurement
- Potential competition for emissions reductions between unconditional and conditional NDCs



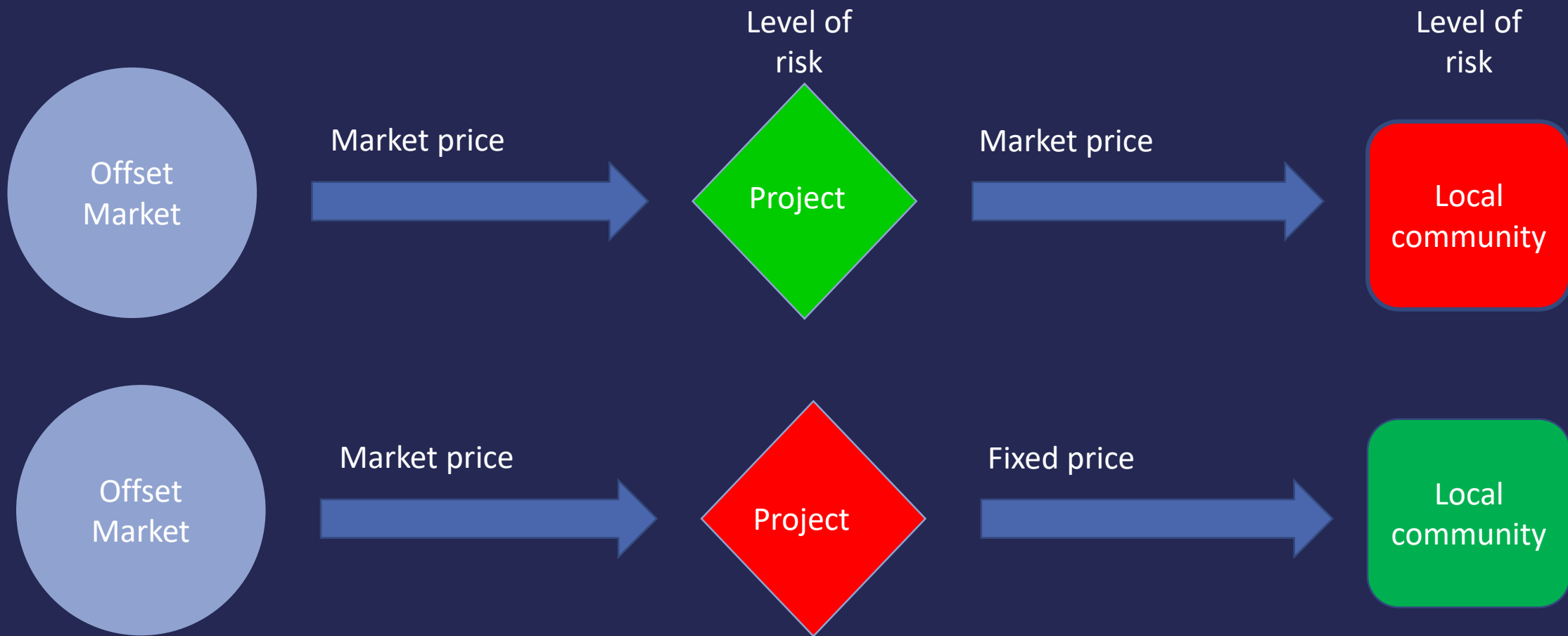
Jurisdictional and Nested REDD+ partnership
model

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Protected area
management,
restoration and
conservation



Local community

REDD-plus Scheme

Investor

Eco Nature Services

THE ECO
CONSERVATION & SYNERGY
FOUNDATION

the
CONSERVATION
foundation



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National-scale
activities



Subnational-scale
activities



Project-level –
scale activity



**Nested-jurisdictional
approach including
common protocols and
approaches to:**

- Incentivising action
- Measuring results including baselines and reference levels
- Reporting outcomes and impacts



Agriculture



Forestry



Other land uses



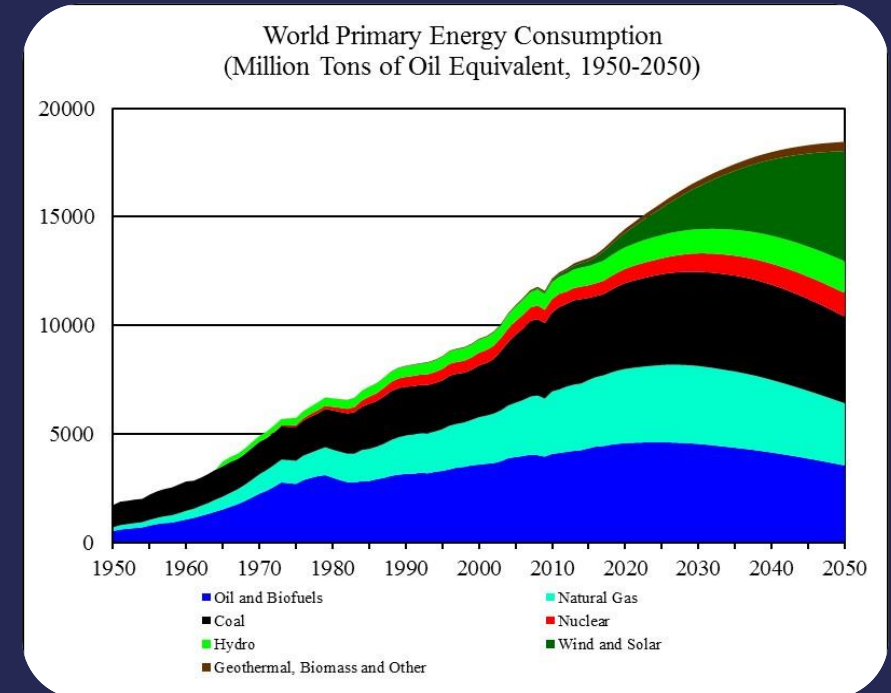
National Land-use Carbon Accounting Model and Environmental Data Analytics Service



The REDD-plus carbon offset market – demand-side potential, opportunity and issues

“If you look at today...85% of our energy is made from hydro carbons and 15% from an important and growing list of other things including renewable energy, solar and wind and biofuels...but as <the latter> grows so does the world <economy> grow and we need more energy...in 25 years’ time there really is a very strong chance that the amount of oil and gas that we’re using today will roughly be the same then.”

*Lord Browne
Ex-Chief Executive Officer, BP
The World Turned Upside Down
BBC Radio 4*



Key issues – demand-side:

- Quality management – going beyond compliance
- Access to markets – costs of registration and “over-the-counter” trading
- Indecision on Article 6 rulebook



Business Synergy Model

THE NIGER Low Carbon
DELTA Growth Initiative

*A Multi-sector Partnership to Promote the Niger Delta's
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Developing public sector offtake markets

- Multilateral agencies, e.g. Forest Carbon Partnership Facility's The Carbon Fund, potentially The Green Climate Fund
- Bilateral agencies, Japan's Joint Crediting Mechanism, Norway's International Climate and Forest initiative – NOK 3B / USD XB per year
- National and Regional Emissions Trading Schemes continued and developed as voluntary measures under The Paris Agreement, either individually or under a unified Sustainable Development Mechanism based on ITMOs

Developing private sector offtake market

- Industry associations, e.g. CORSIA
- Corporates, e.g. banks, supermarkets, etc. including consumer offsetting programmes, e.g.
 - Shell Drivers' Offset Scheme
 - Alibaba/Ant Financial Services, "Ant Forest – "UN Champions of the Earth, 2019"
- Individual consumers, e.g. through support for NGO project developers, community-forestry schemes, etc

UK Drivers' Carbon Offset Scheme



- 71% of people in the UK would like to reduce their CO₂ footprints
- part of planned global nature-based solutions investment of \$300 million
- drivers automatically take part in the offsetting programme every time they scan their Shell Go+ app or card with fuel purchase
- Available to join free of charge - similar service available to business customers
- Supports UK government's target of net-zero emissions by 2050.
- Works with Forestry and Land Scotland –carbon credits generation through regeneration of 1 million trees - approximately £5 million investment
- Launched in Netherlands April 2019 - one in five Shell customers now driving carbon neutral
- Also supporting nature-based solutions in Spain, Netherlands, Malaysia

https://youtu.be/Y_dnell4Xjc





Capture and
processing of
flare gas







The REDD+ Market – investment potential, opportunities and issues



**“Business Roundtable
redefines the Purpose of a
Corporation to Promote ‘An
Economy That Serves All
Americans’”**

*Press Release
Business Roundtable
An association of chief executive officers of America’s
leading companies
19th August, 2019*



Key issues - investment:

- Pre-seed financing – “Valley of Death”
- Pricing investment risk
- Alignment with existing private investment principles and protocols



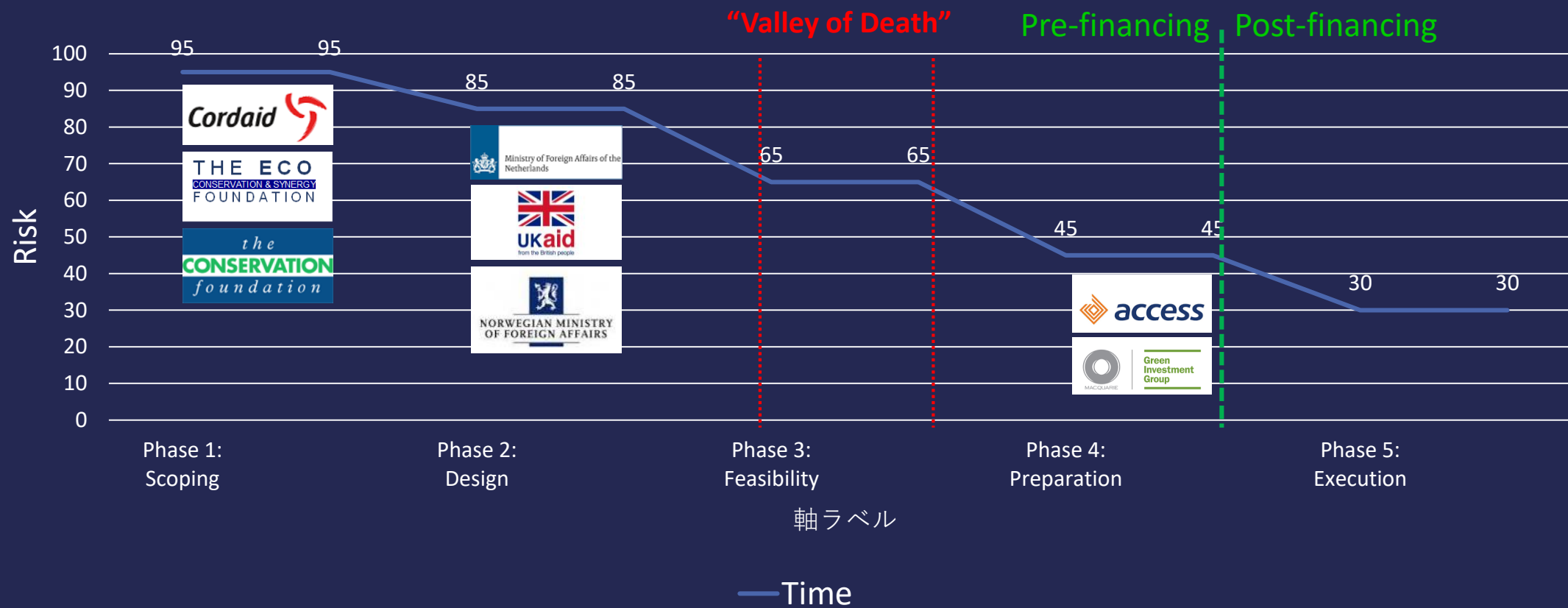
Blended Finance Model

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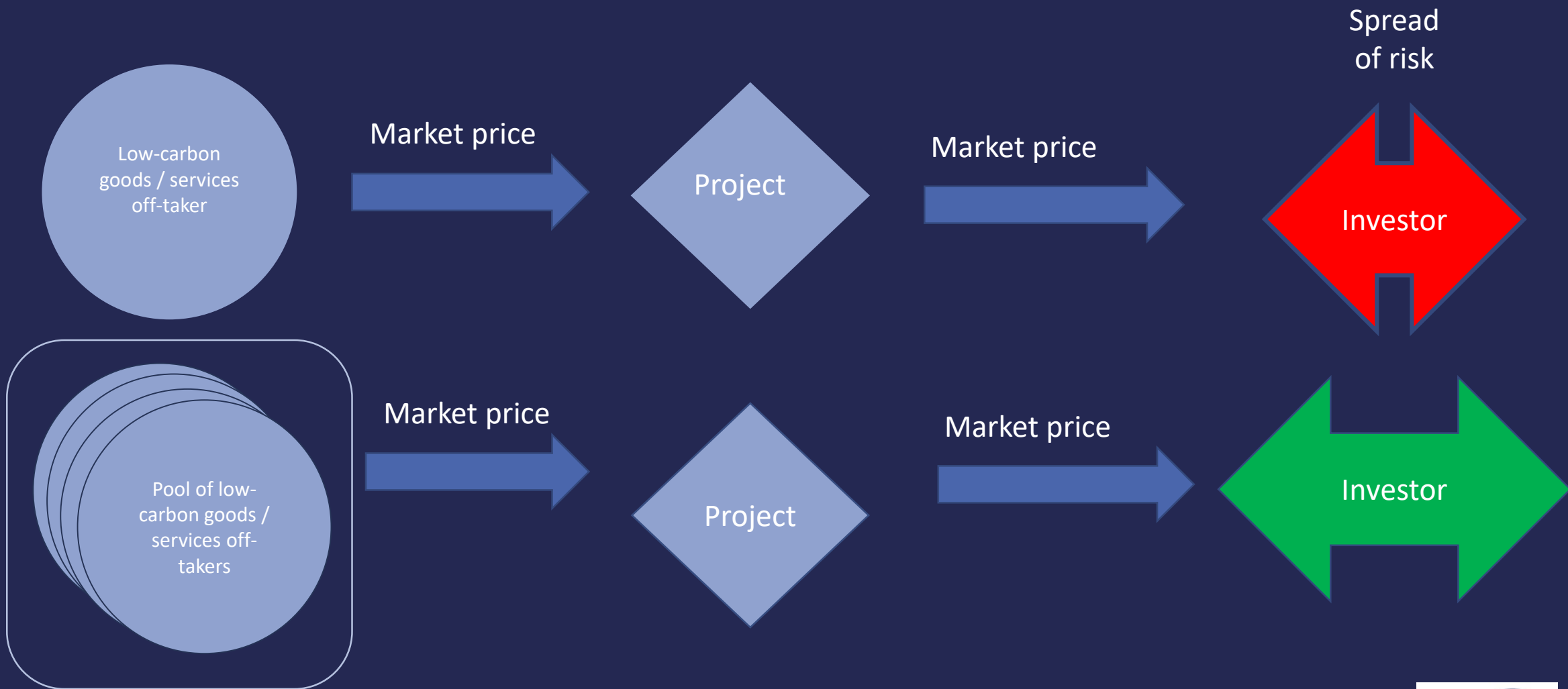
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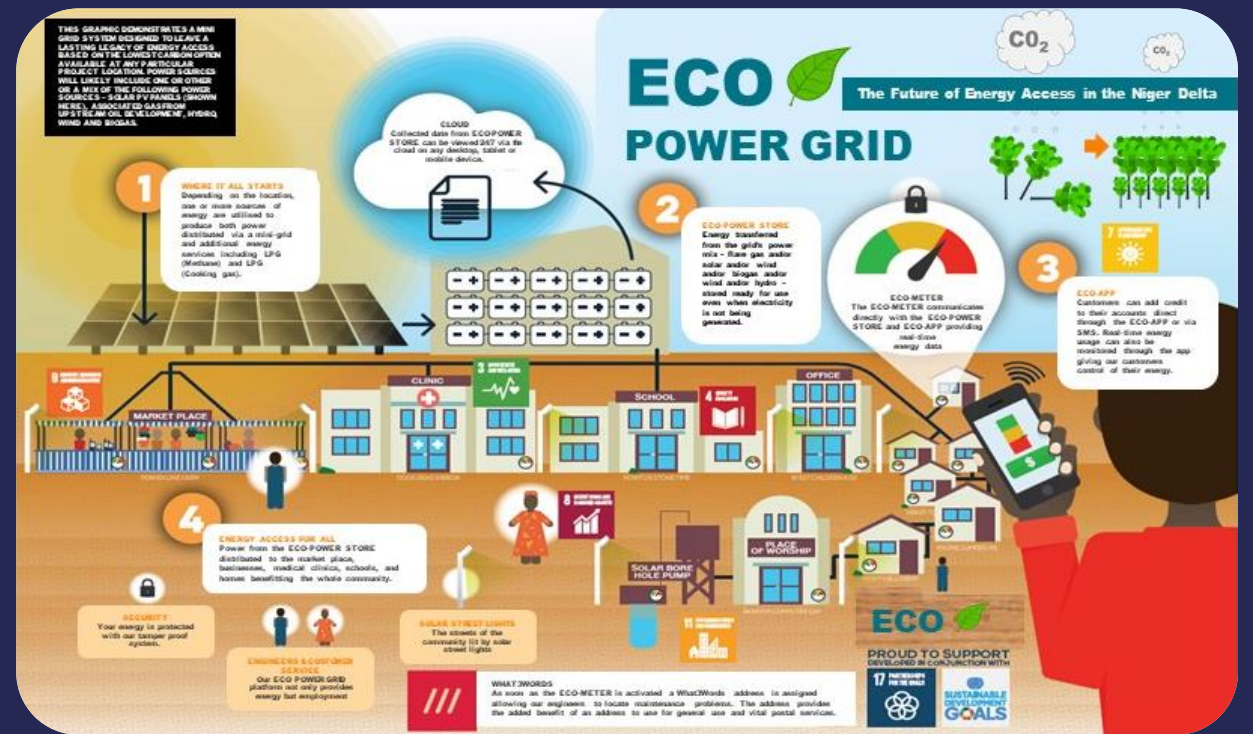


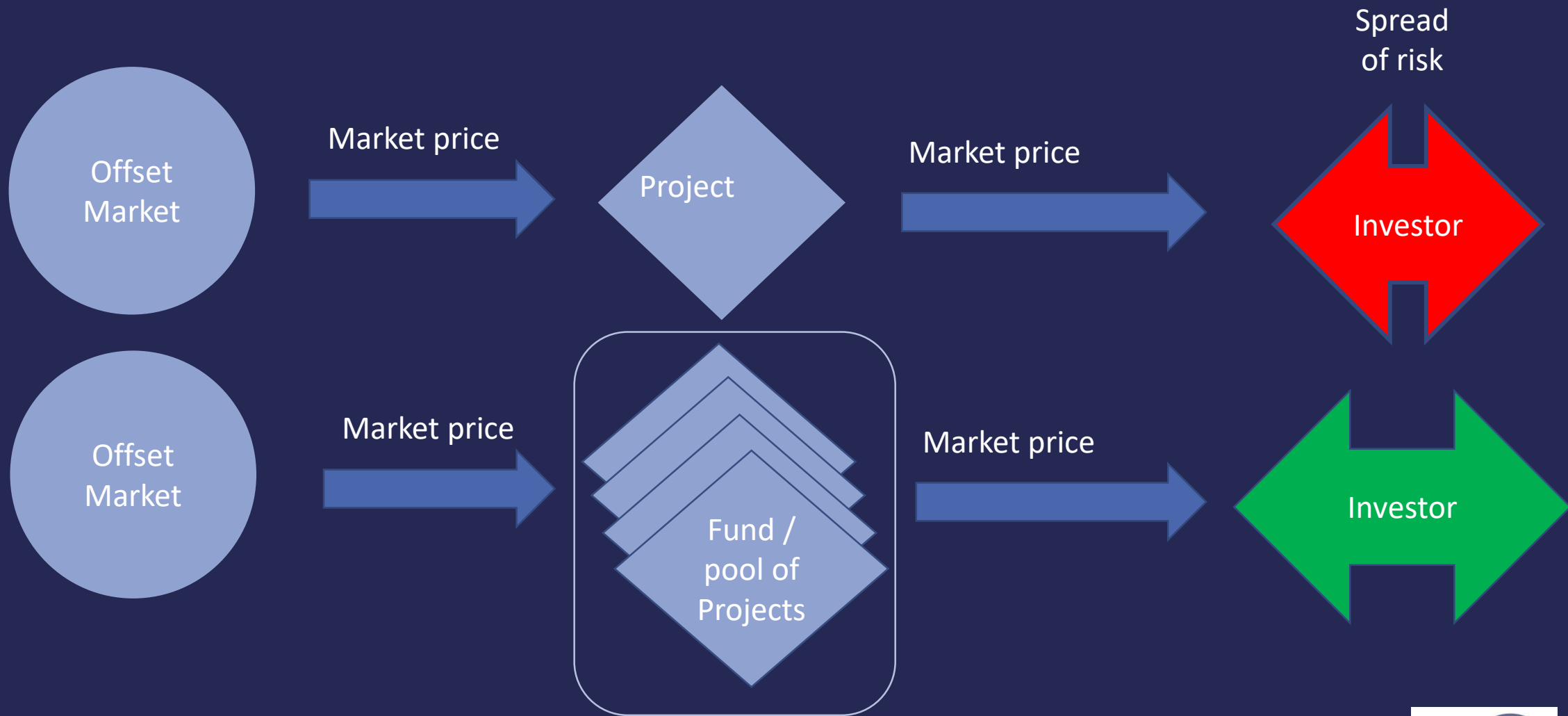


Swamp rice
piloting growing
and processing











REDD+ emissions
reduction
production and
trading





“Rewilding habitats and reforestation may be easier in the future as the world is already becoming a wilder place in many areas...the global population will grow from 7.7 billion to 10 billion by 2050, but by then nearly 70% of us will live in cities and have abandoned rural areas, making them ripe for restoration.”

Mark Maslin

Professor of Earth System Science, University College London

Simon Lewis

Professor Global Change Science, University of Leeds and University College London

The last 100 years?

- shrinkage of forests
- adoption of coal as an energy source and later oil and gas
- geopolitics based centralised energy distribution
- the age of dead forest carbon economics?



The next 100 years?

- expansion of forests for biodiversity and ecosystems services
- widespread adoption of renewable energy and net zero emissions
- geopolitics based on decentralised energy distribution
- the age of living-forest carbon economics





Thank you / Arigato