

World Sustainability Fund

Nigeria Introduction 120M USD Investment for Climate and SDGs



Creating The World We Need, Together



World Sustainability Fund

WHY

- ▶ 1. We have to solve the climate problem within 25 years.
- ▶ 2. We like to solve humanitarian problem at the same time:
 - ▶ Poverty, hunger, health, sanitation, equality, peace, ...
- ▶ 3. Because we like to live in prosperity and pass this through to the next generations



Create The World We Need Together

By transforming our lives, work, social structures & economics



World Sustainability Fund

Nigeria's climate objectives

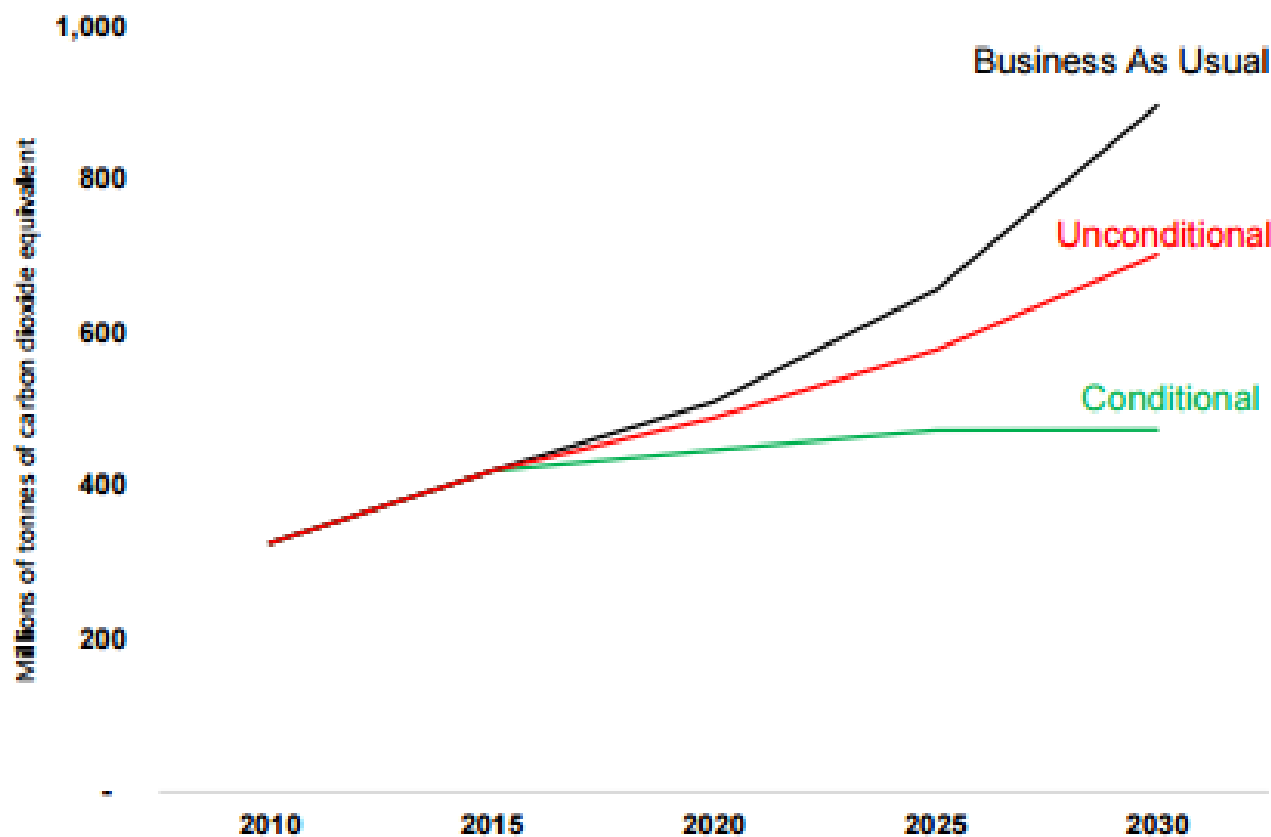
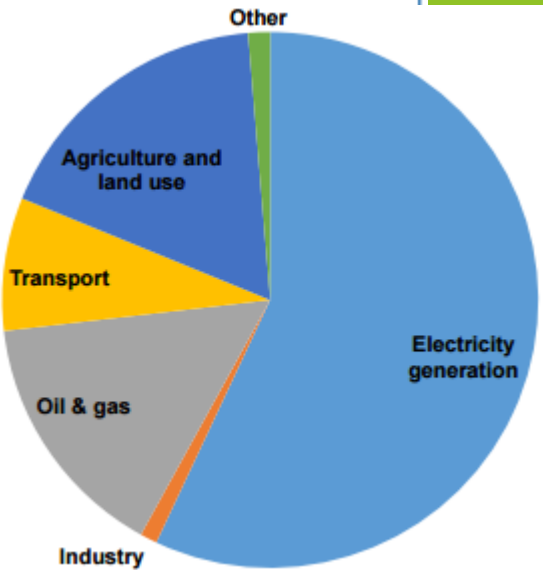


Table 2: Key mitigation measures

Measure	Potential GHG reduction (million tonnes per year in 2030)
Economy-wide energy efficiency	179
Efficient gas power stations	102
Work toward ending of gas flaring	64
Climate smart agriculture	74
Reduce transmission losses	26
Renewable energy	31



Nigeria's production & exports

GDP in 2012/2015 was composed of the following sectors:

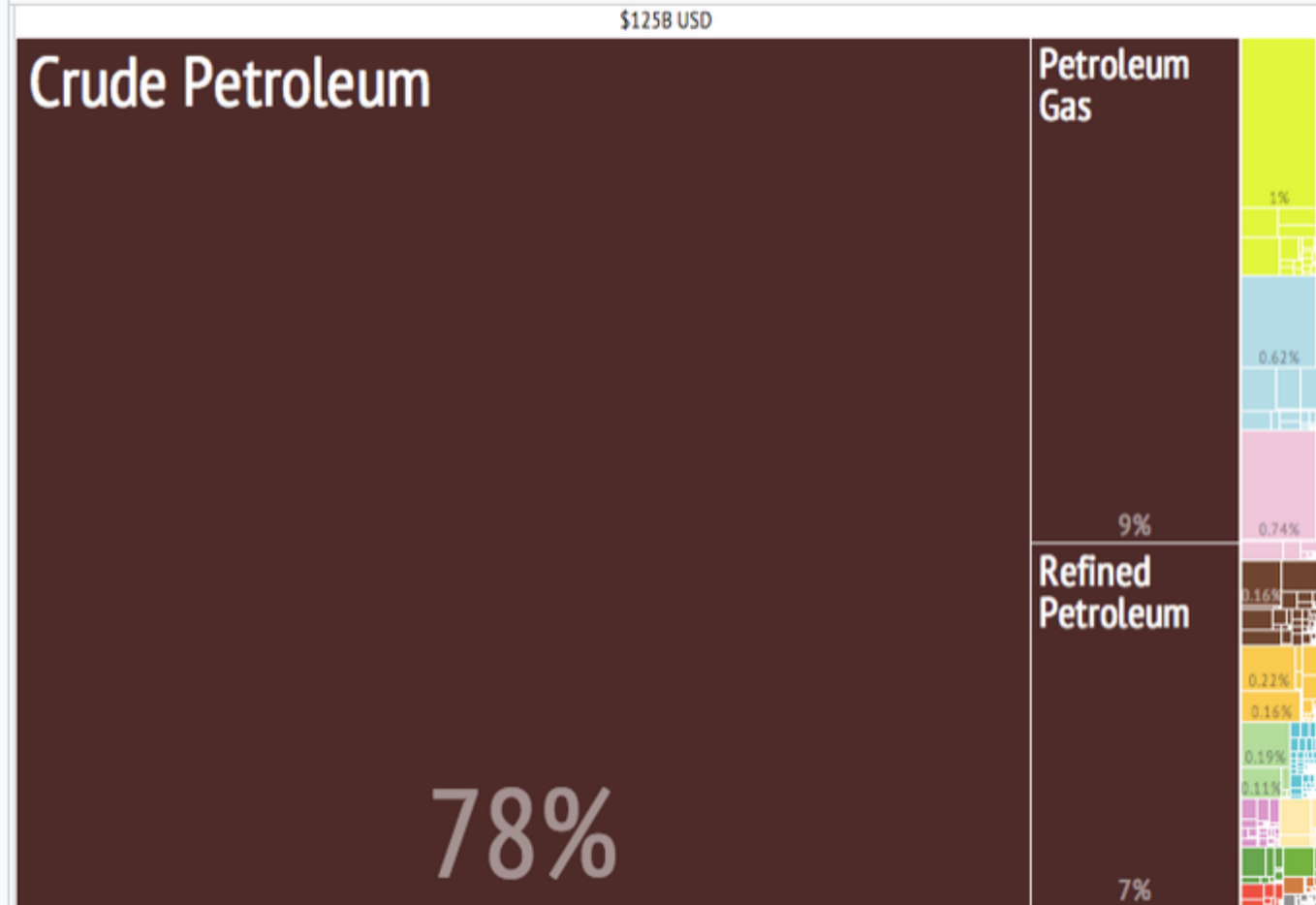
Agriculture 40%/18%

Services 30%/55%

Manufacturing 15%/16%

Oil 14%/ 8%

What did Nigeria export in 2011? 2.7% of the world's oil supply

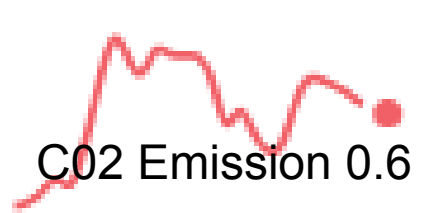


A proportional representation of Nigeria's exports.

Nigeria Statistics & Sustainable Needs

Statistics:

- Population 180 million
- Area 923.768 km²
- Language English
- Human Dev. Index 0.527
- GDP \$ 2,758 per capita
- Poverty rate 62%
- CO₂eq Emission 0.6
- Paris Agreement: Signed

Emissions per US\$ (real) GDP	0.873 kg CO ₂ e (2015) [0.491 kg CO ₂ e (2030)]	 CO ₂ Emission 0.6
GDP per capita (US\$)	2,950 (2014) 3,964 (2030; real 2015 US\$)	
Estimated emissions per capita	Current: around 2 tonnes CO ₂ e 2030 BAU: around 3.4 tonnes CO ₂ e 2030 Conditional: around 2 tonnes CO ₂ e	
Global Warming Potentials used	IPCC Fourth Assessment Report	
Cost Estimate Data	National Cost = \$142b; National Benefits = \$304b (World Bank report "Low Carbon Development Opportunities for Nigeria" (2013))	
Gases covered	CO ₂ , N ₂ O, CH ₄	
Emissions as % of global total	<1% (2010)	
Historical emissions (1850-2010)	2,564.02 million tonnes	

4P Model - Circular SDGs

impact model

P1. CO₂ Emission Reduction

P3. 10% ROI CDM Technology

The World We Need



2.3 B USD
per year +

P2. Healthy and Sound jobs
Direct SDG impact

P4. Development Progress
Sponsoring all 17 SDGs

1. Planet
2. People
3. Profit
4. Progress



CDMs creating values for SDGs



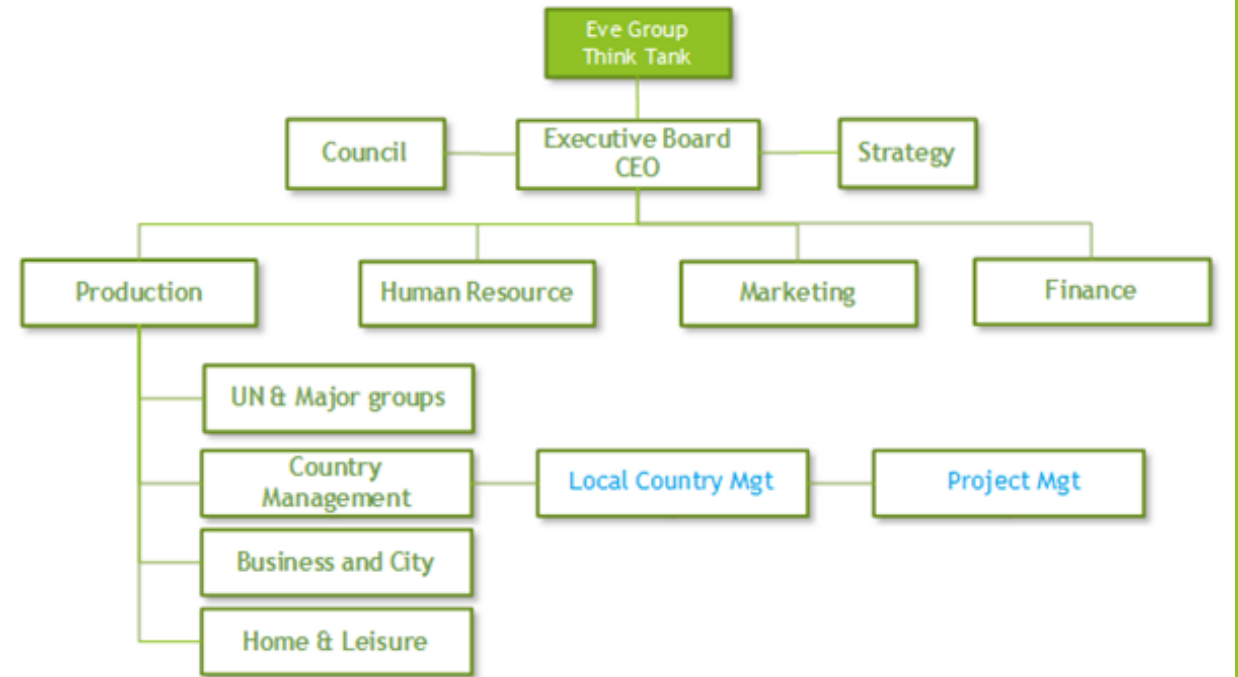
WSF What



World Sustainability Fund

WSF Board per June 2017

- ▶ [Emile van Essen](#) - President
- ▶ [Güniz Çulcu Van Cres](#) - Secretary
- ▶ [Harold N. Dhalganjansing](#) - Treasury
- ▶ [Nicolas Gros de Seta](#) - Marketing
- ▶ [Rambha Kumari](#) - Countries Management
- ▶ [Salwa Elsadik](#) - Legal, Project Expert
- ▶ [Daniëlle Simons](#) - Legal, Humanitarian Projects



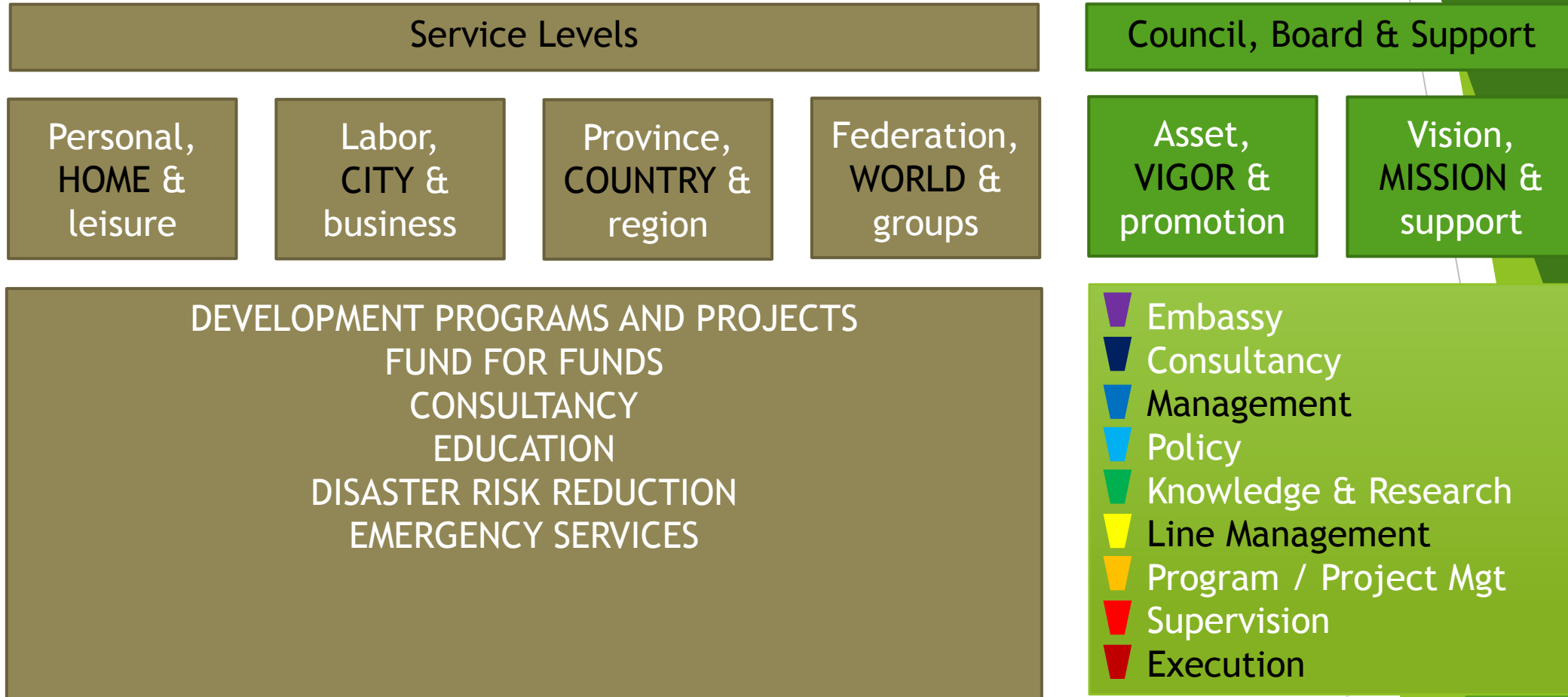
Welcome at WSF

Creating The World We Need Together



World Sustainability Fund

WSF - CDM & SDG ORGANIZATION



WSF - CDM & SDG ORGANIZATION

Service Levels

Personal,
HOME &
leisure

Labor,
CITY &
business

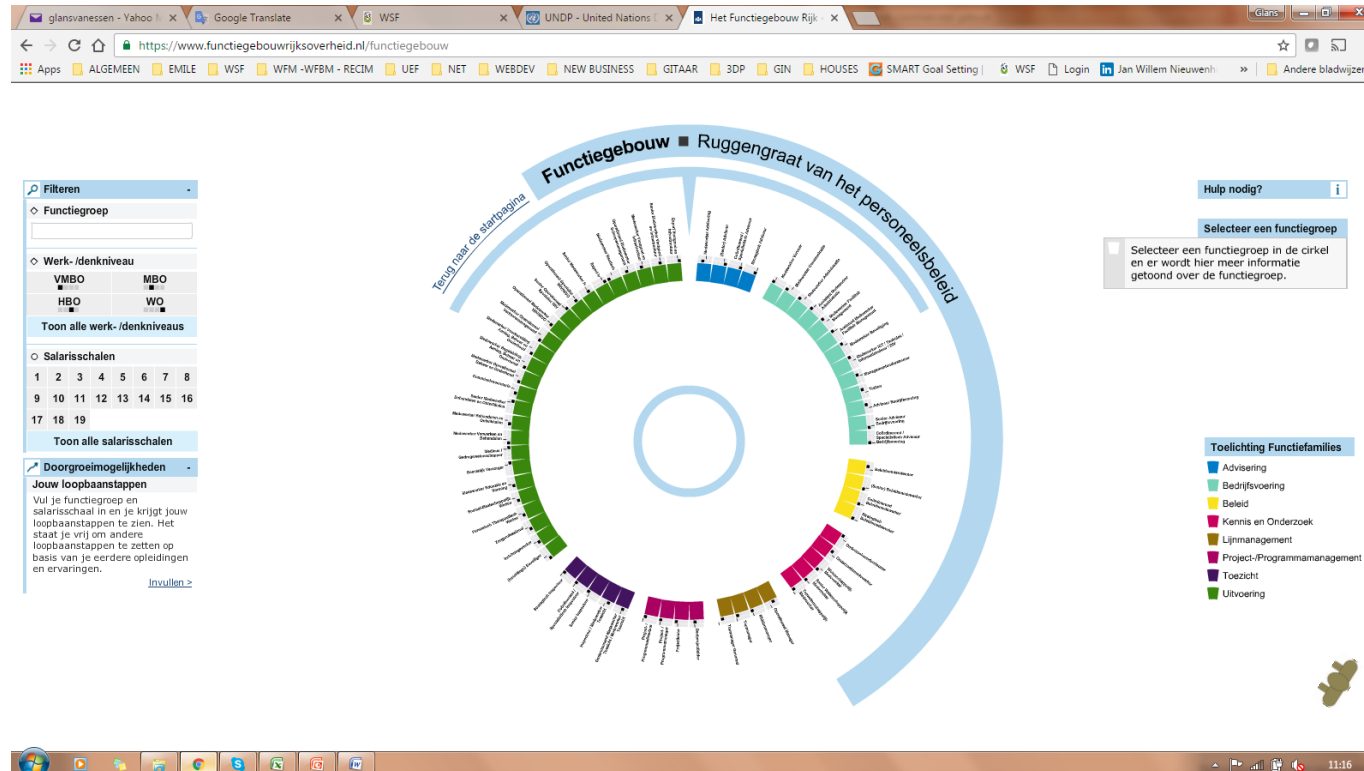
Province,
COUNTRY &
region

Federation,
WORLD &
groups

Council, Board & Support

Asset,
VIGOR &
promotion

Vision,
MISSION &
support



- Embassy
- Consultancy
- Management
- Policy
- Knowledge & Research
- Line Management
- Program / Project Mgt
- Supervision
- Execution

Table

Climate and Social Economic Solutions

- ▶ 1. The United Nations arranged technological green standards - CDM
- ▶ 2. And asked every country to write a green and social plan - INDC
- ▶ 3. Also they asked financial institutions to support - GEF & CDP
- ▶ 4. Then they delivered a global Agenda 2015-2030 - SDG
- ▶ 5. And asked everyone to support, so ...

WSF supports with massive capacity building

By connecting those points
For best practice samples
In every country within three years



WSF How



World Sustainability Fund

WSF Country Program Nigeria

ESTIMATE INITIAL CDM PROJECT INVESTMENT	Investment Million USD, or more	MtCO2eq Reduction / 10M USD	MW production/ 10M USD	% Return on Investment	Direct and indirect Labor
1 RENEWABLE ENERGY (WIND)	10	15	8		
2 RENEWABLE ENERGY (SOLAR)	10	3	2		
3 RENEWABLE ENERGY (HYDRO)	10	32	10		
4 RENEWABLE ENERGY (BIOMASS)	0	48	9		
5 ENERGY DISTRIBUTION	20				
6 ENERGY DEMAND, own generation	20	50	10	Consultancy based	
7 MANUFACTURING INDUSTRIES	0				
8 CHEM. INDUSTRIES, cement	0	138		Consultancy based	
9 TRANSPORT	10	45			
10 MINING, coal bed/mine methane	0	292	11	Consultancy based	
11 FUGITIVE EMISSIONS, ALSO SECTOR 11	0	214	5	Consultancy based	
12 WASTE HANDLING, Landfill gas	10	121	5		
13 AFFORESTATION	10	48/yr			
14 REFORESTATION	10	48/yr			
15 AGRICULTURE	10	24/yr			
TOTAL	120	436	70		

Sponsor Investment 1M USD initial, till 40% of 120M USD final.

Program under U.N. protocol



CDMs creating values for SDGs



WSF What



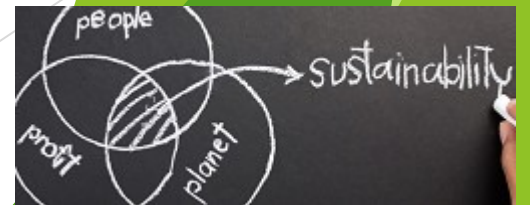
World Sustainability Fund

Consultancy Services

WSF Consultancy Services is a worldwide network extra-ordinary trained, skilled, and experienced consultants, with access to universal science and diplomacies.

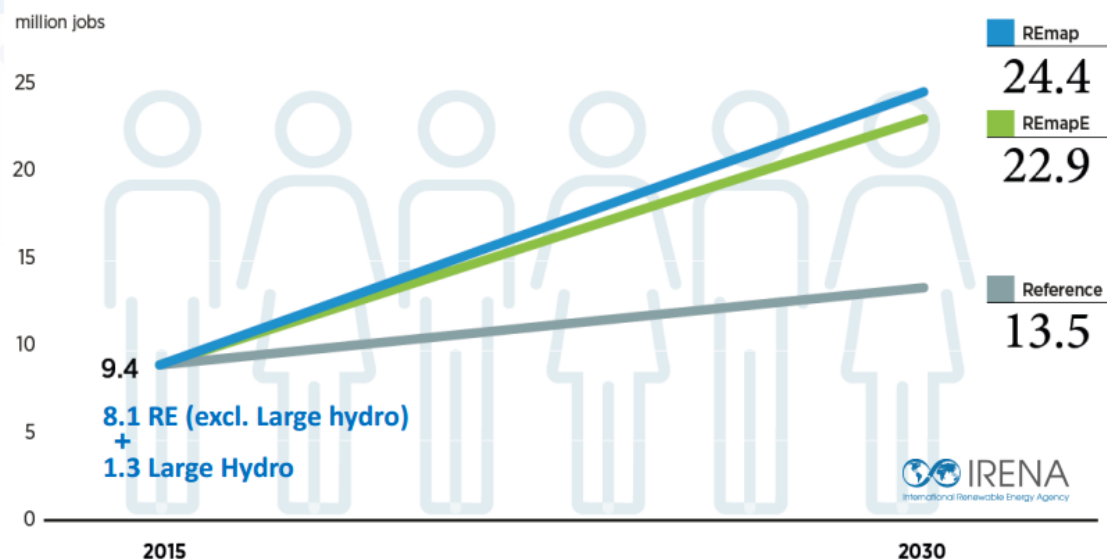
Country, City, and Business level:

- ▶ INDC - Intended Nationally Determined Contributions
CDM - Clean Development Mechanism
SDG - Sustainable Development Goals & Agenda
CSR - City, Rural, Corporate & Individual Social Responsibility
- ▶ ICT4S - Information & Communication Tech. for Sustainability
CFO - Carbon Footprint Offset



Renewable energy will create more jobs

The renewable energy sector could support up to 24 million jobs in 2030

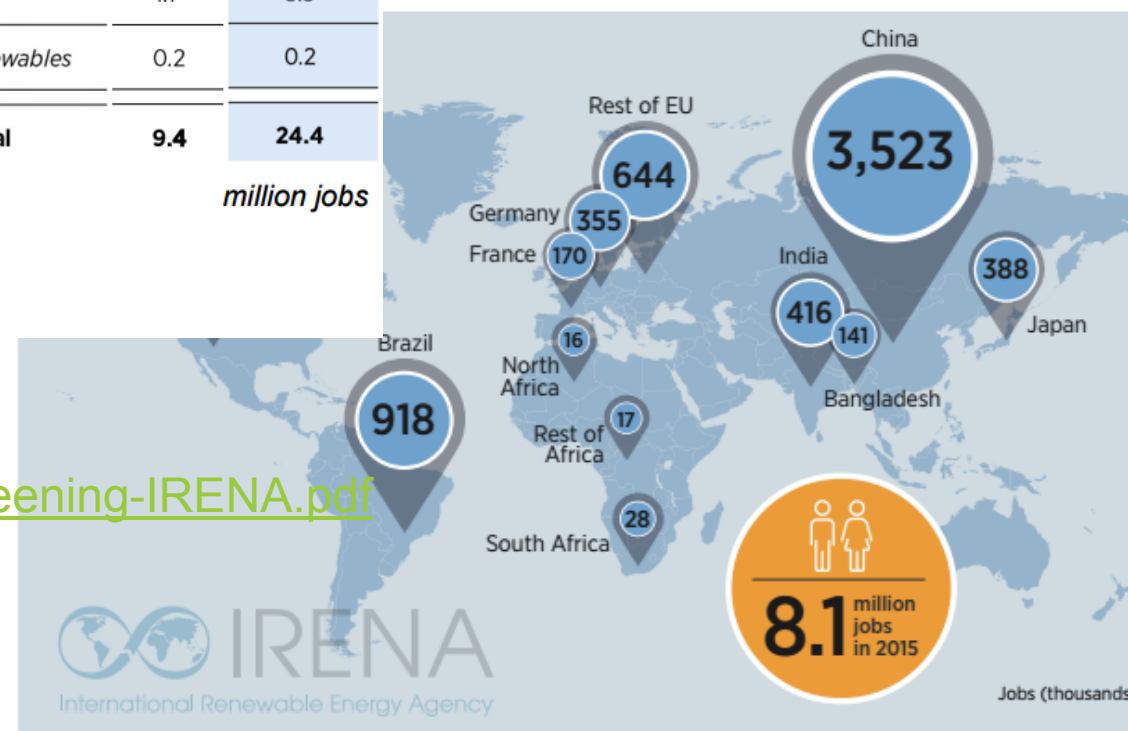


Source: IRENA (2016), Renewable Energy Benefits: Measuring The Economics.

	2015	REmap Case 2030
Bioenergy	2.9	9.0
Solar (including solar water heating)	3.7	6.4
Hydropower (small and large)	1.5	5.5
Wind	1.1	3.3
<i>Other renewables</i>	0.2	0.2
World total	9.4	24.4

million jobs

EMPLOYMENT IN SELECTED COUNTRIES AND REGIONS

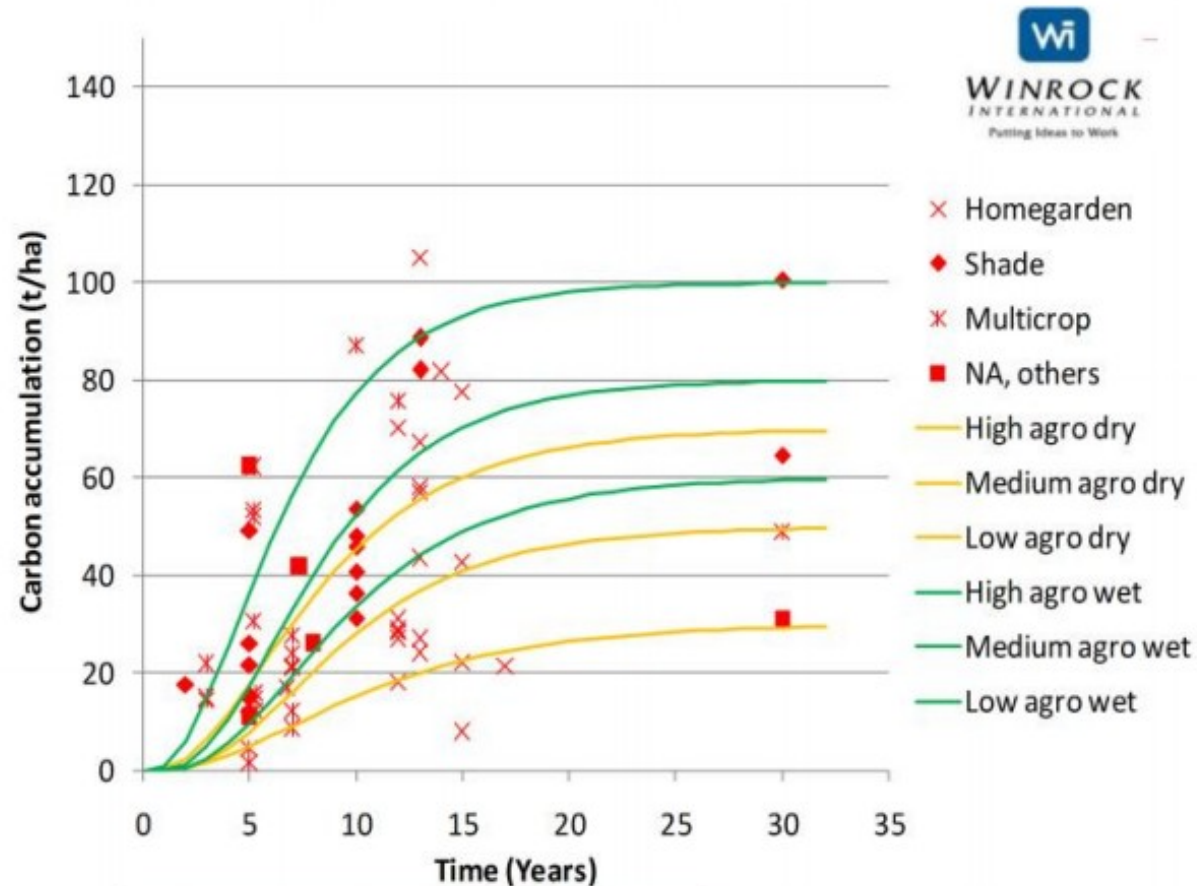


<http://www.unevoc.unesco.org/wysd/ppt/WYSD16-Greening-IRENA.pdf>



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Agroforestry



This shows the data points of 200 research results



WSF Country Manager - Green Ambassador



Elijah Akwataghibe

Director, Business Development & IT
Nigeria | Oil & Energy

1st

Current World Sustainability Fund, Insight Oil & Gas Consultants Limited
Previous Shell Petroleum Development Company (SPDC) Ltd, Cranfield University School of Management
Education Cranfield University - Cranfield School of Management

Send a message

Endorse

500+
connections



NIGERIA BROCHURE

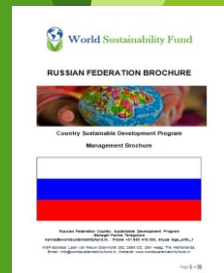
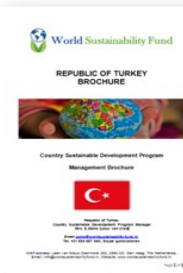
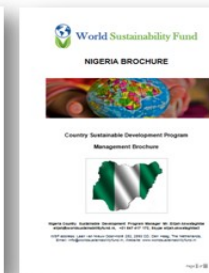
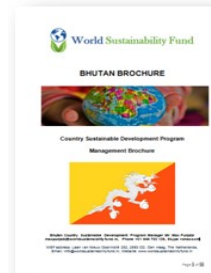


Country Sustainable Development Program Management Brochure

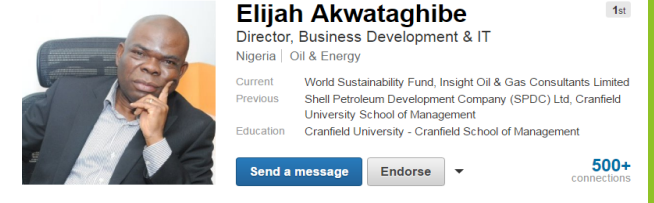


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Email: info@worldsustainabilityfund.nl, Website: www.worldsustainabilityfund.nl

Page 1 of 1



WSF Nigeria Team



Board

- ▶ 1. Elijah Akwataghibe - President, Country Manager, Green Ambassador, SDG
- ▶ 2. David Okwor / Eric ... - ? Secretary, HR, Promotion, Mission
- ▶ 3. Adebola Adewumi - ? Treasurer, Assets, Support, Vision
- ▶ 4. John Onwuteaka - ? CDM Projects Leader, WSF Country & Region Delegate
- ▶ 5. Emile van Essen - SDG Leader, WSF HQ Delegate, WSF Founder
- ▶ Donald - Financial
- ▶ Dominic - HRM
- ▶ Vivian Ori - Legal,
- ▶ Iboro - Private investors
- ▶ David - Project management
- ▶ Babasola - SDG

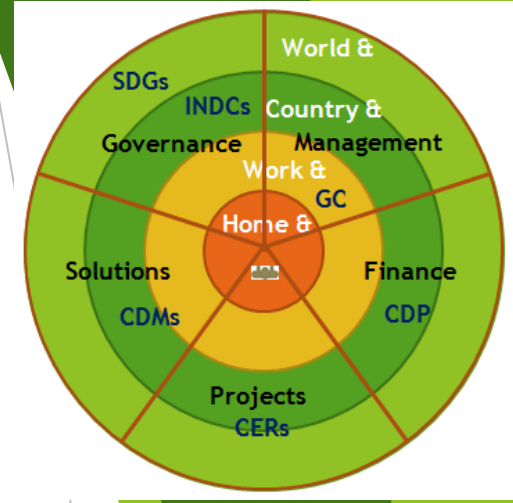
WSF Nigeria Projects Consortium

- ▶ Government
 - Commitment Letter, Start support
- ▶ Management (WSF Team)
 - Managing the capacity building, mgt
- ▶ Technology Owners
 - Delivering science, technology, support
- ▶ Sponsors-Investors
 - Sponsor-Invest first 1M USD and up to 40%
- ▶ Sample Project Owners
 - Experience, staff, education, logistics
- ▶ Project Locations Owners
 - Location, local gov/soc/bus. network
- ▶ Local Project Staff
 - Mgt, Production, Sales, Education, ...

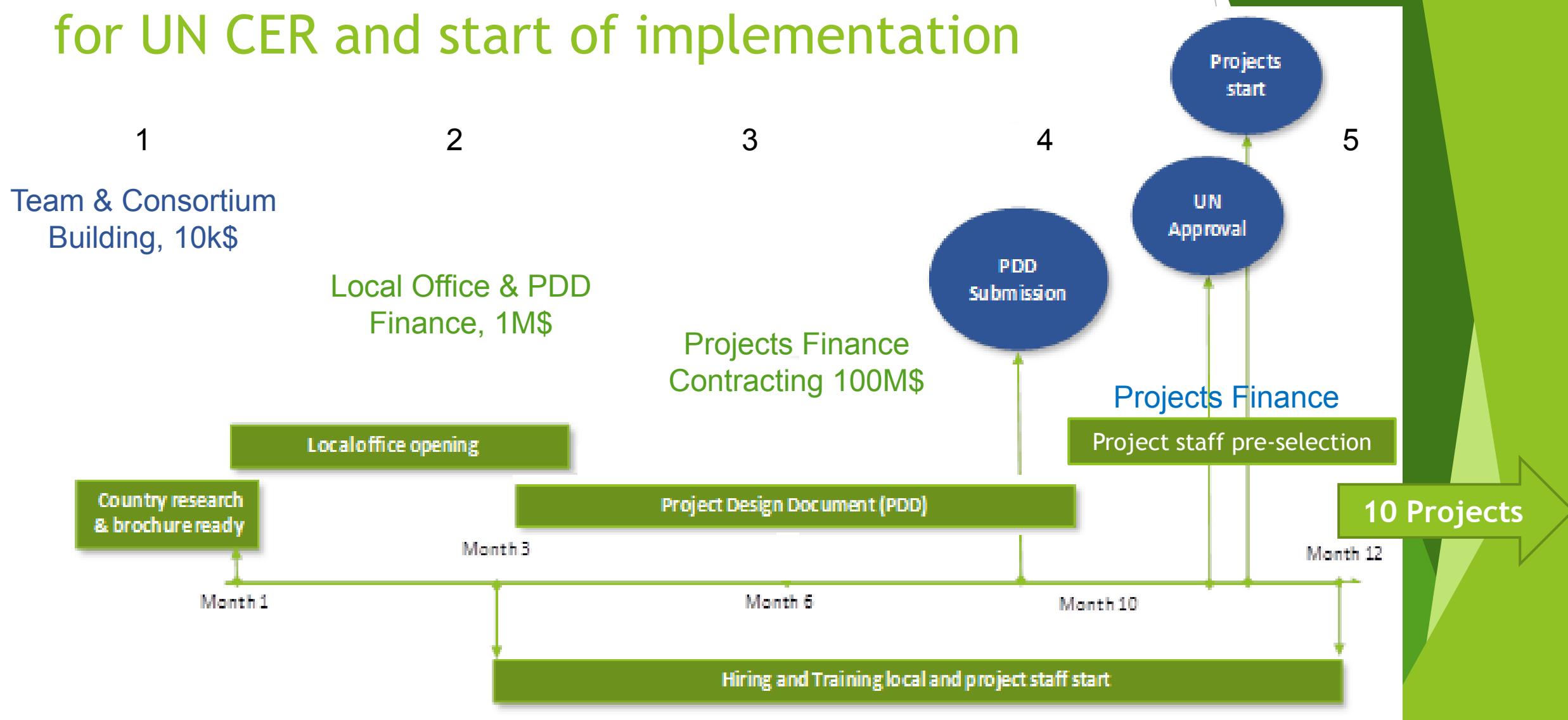
- ▶ Suppliers, Logistics, Production support
- ▶ Product Sales, Logistics, After-Sales support

Sources:

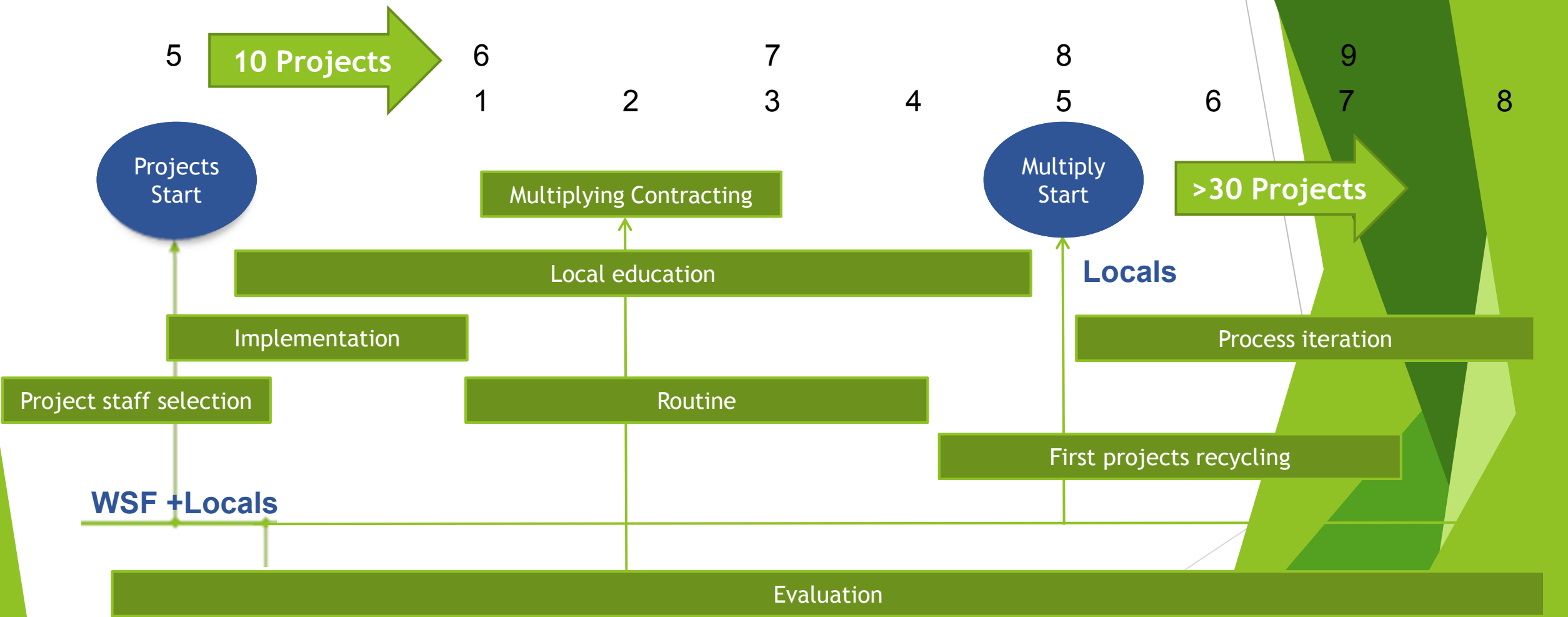
- ▶ Gov., Uni., NGOs, Multimedia
- ▶ Own network relations
- ▶ UNDP, UNEP, UNGC, UNFCCC, CDM Pipeline, ...
- ▶ LinkedIn (over 600 CDM Nigeria links)



Overview initial Project Design Document for UN CER and start of implementation



Projects implementation, routine, evaluation, and multiplying

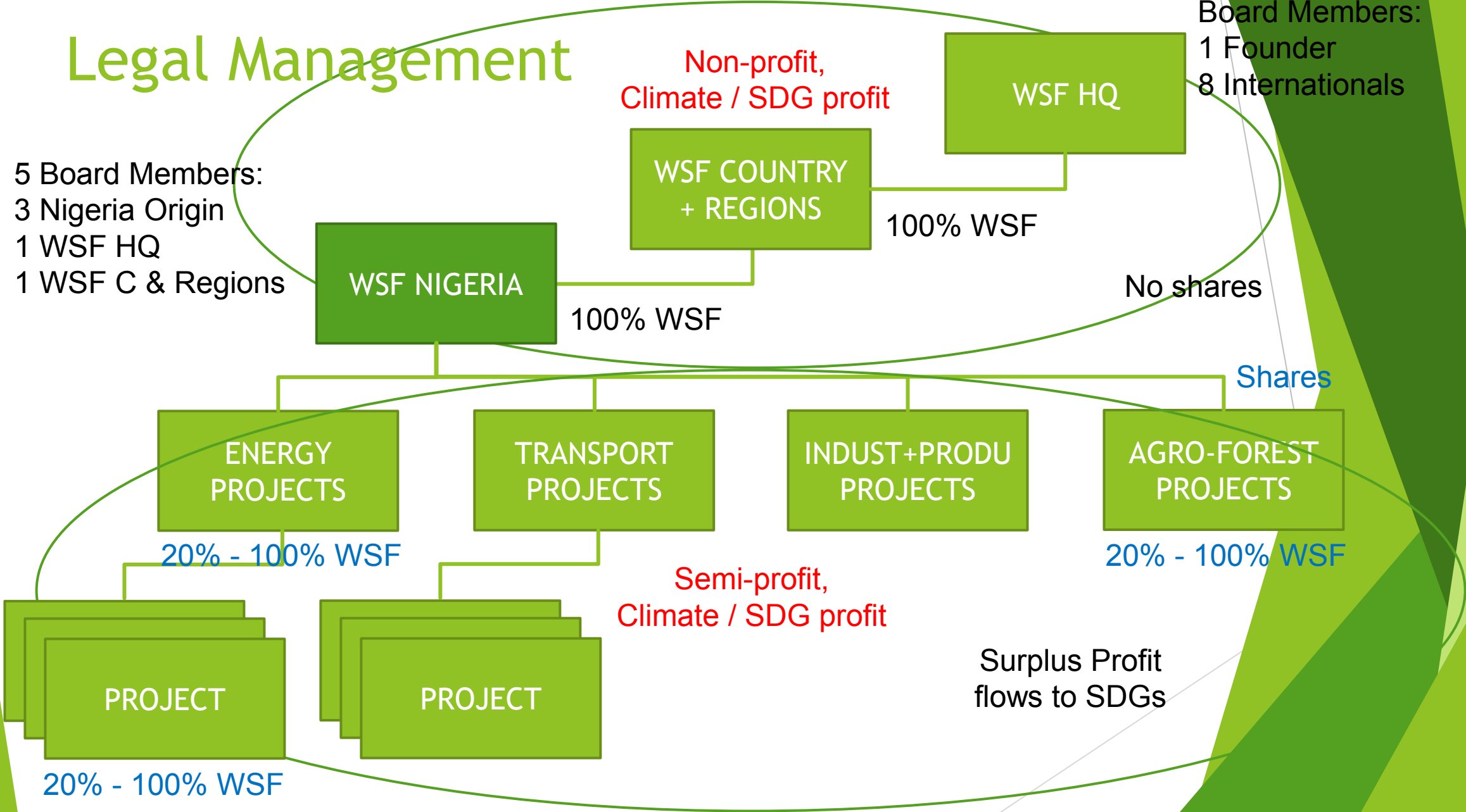


Creating
The World We Need
Together

Legal Management

5 Board Members:
3 Nigeria Origin
1 WSF HQ
1 WSF C & Regions

Board Members:
1 Founder
8 Internationals



Sponsor-Investment Participation (SIP) offer

on Country Program or Project level

Up to 80% of Shares for SIP

20% of shares for SIP 1	20% of shares for SIP 2	20% of shares for SIP 3	20% of shares for SIP 4	20% of shares for WSF
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Investing up to 40% of Funds only

Pre-Dev. WSF	10% \$ SIP 1	10% \$ SIP 2	10% \$ SIP 3	10% \$ SIP 4	60% to 100% \$, U.N. related loan institutions
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Initial investment 1% only

Pre-Dev. Funds	1% PDD Funds	100% of Funds
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Payback 100% and interest up to 10%, Surplus to SDGs



GEF - Process for Funding, see .ppt

GEF WHAT: Program, Enabling Activity, Projects (Full-sized >\$2M, Medium-sized <\$2M)

GEF HOW:

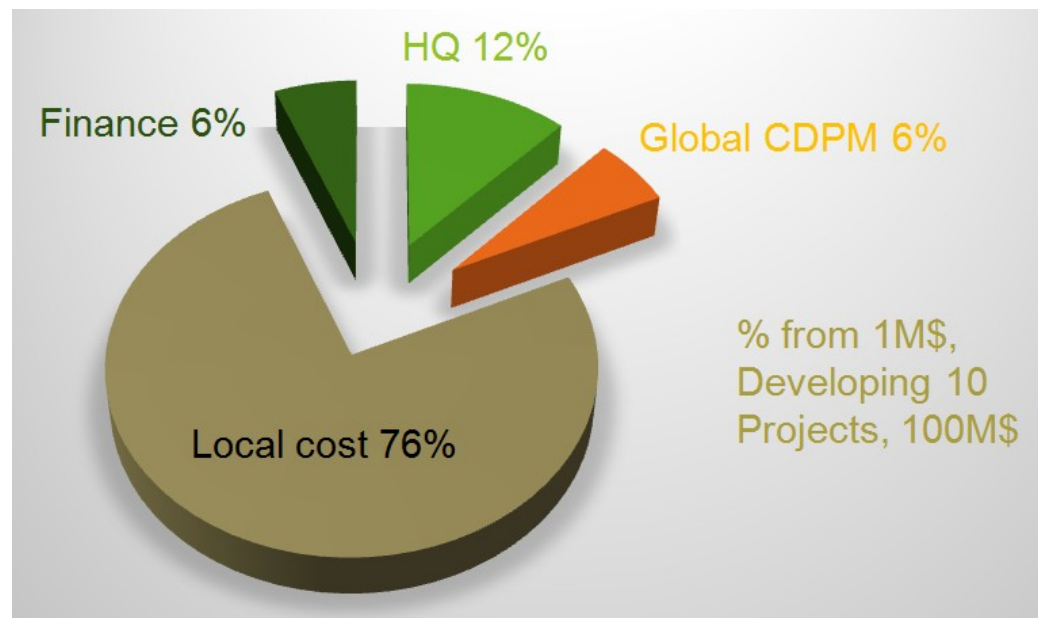
GEF WHY: Environmental Development

1. We Check 2. We inform OFP 3. OFP decides 4. OFP fill template & send to GEF

1. Funding Check: Eligibility Check (Country GEF or WB ratification, Country Needs (INDC), GEF area (CDM sectors), Only for the agreed incremental costs, must involve the public in project design and implementation)- [Public_Involvement_Policy-2012.pdf](#).
2. We inform OFP
3. The [Operational Focal Point](#) (OFP) decides which GEF [Partner Agencies](#) would be best suited to support WSF (the “organization which develop and implement the project idea”).
4. OFP will fill the Template Form which is both appointing WSF as well as the source of funds and the GEF Agencies - [templates](#), [Endorsement Template](#).



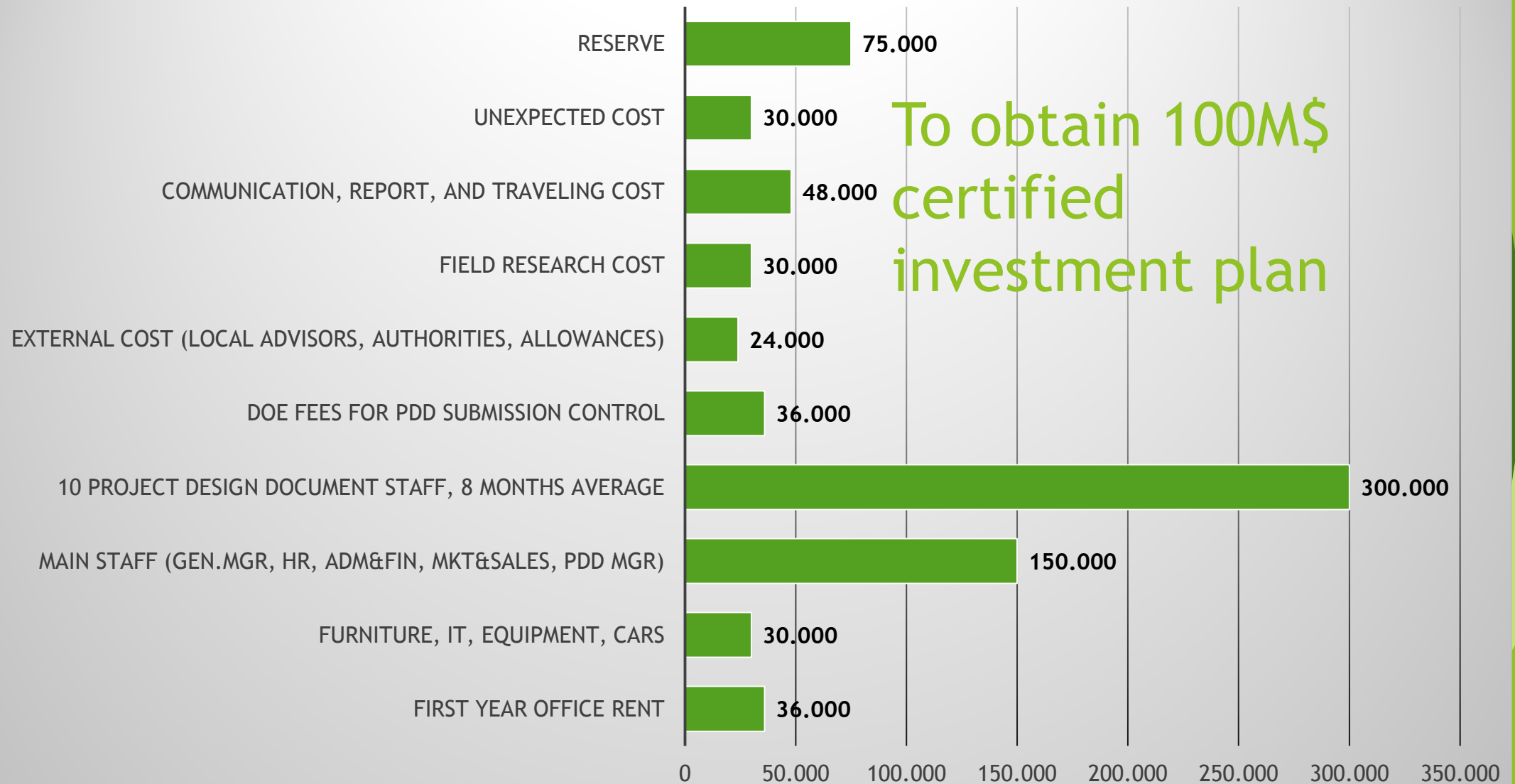
NIGERIA PDD Cost 1M\$ for 100M\$ investment



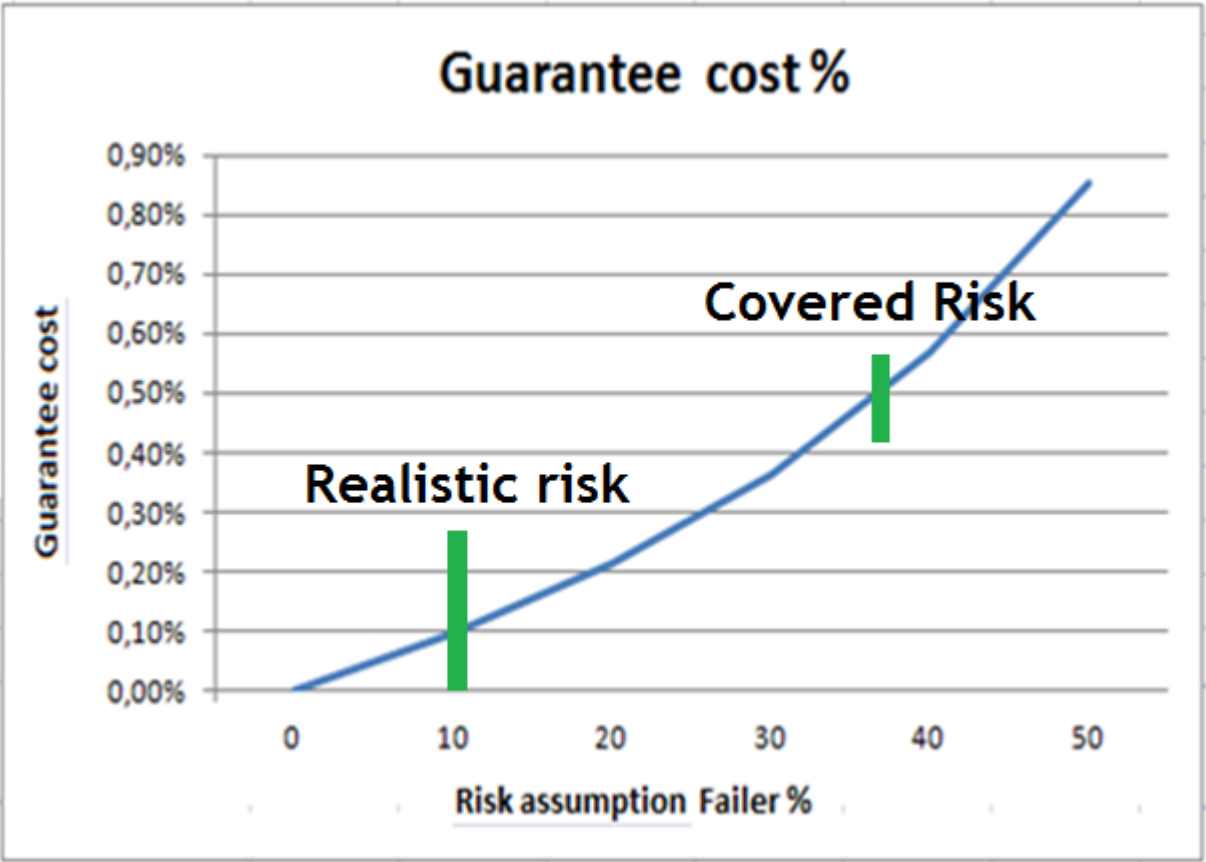
BREAKDOWN OF FIRST YEAR COST CDPM - COUNTRY OFFICE		GLOBAL AVERAGE PRISING	
Based on Countries open and financed.			
Overall Costs, estimation			1.000.000
Head Quarter		120.000	
Global Country Management		60.000	
Country Management		759.000	
Interest and cost on sponsorship loan		60.000	
Head Quarter			120.000
Cost of CDPM and Organization development		6.000	
Country Toolkit, Brochure, and First finance		30.000	
First year Org. support (Mgt, Legal, Fin, IT, Mkg,)		18.000	
First year HQ Country Manager support		12.000	
First year support CDM technology specialists		30.000	
First year traveling costs		12.000	
First year reserves		12.000	
Global Country Management			60.000
Staff, Monitoring, Report, Support, facility mgt.		24.000	
UNFCCC, DOE, UNDP & global partnership mgt.		18.000	
Region mgr contibution and traveling		12.000	
First year reserves		6.000	



Country Management Costs, USD



Financial risk - Initial investment 1M\$



► Coverage by project investment

Cost of initial cost guarantee						
Initial cost	Project cost	Risk assumption	Guarantee cost		Guarantee	
M\$	B\$	Failer %	Cost, M\$	per M\$	cost %	
200	23,5	0	-	23.500	0,00%	
200	23,5	10	20	21.150	0,09%	
200	23,5	20	40	18.800	0,21%	
200	23,5	30	60	16.450	0,36%	
200	23,5	40	80	14.100	0,57%	
200	23,5	50	100	11.750	0,85%	

WSF Internal Risk Guarantee + [World Bank MIGA](#)
Initial Risk + Project Risk

Sign the Sponsor-Investor Agreement Benefits

- ▶ 3% ROI on initial investment
- ▶ First right of Co-investment up to 40% investment for 80% shares, up to 10% ROI
- ▶ World Bank MIGA risk guarantee 90% local risks
- ▶ Participation in WSF events
- ▶ Contribute to the biggest challenges of the era: saving humanity & climate
- ▶ Recognition of sponsor/investor within WSF both online and offline
- ▶ Opportunity to use the WSF logo for company climate and social involvement
- ▶ Advice & support in promoting sustainability in company
- ▶ WSF responsible person to support to investor with information & updates

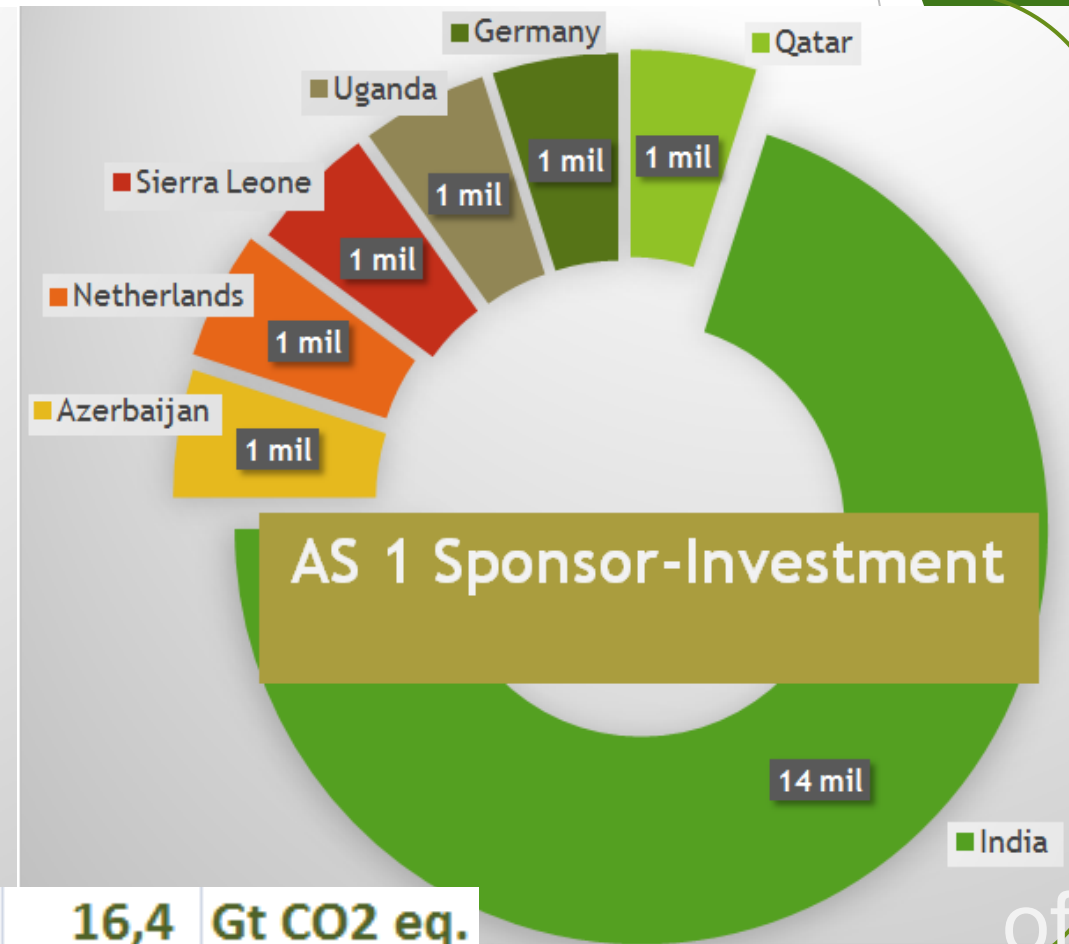
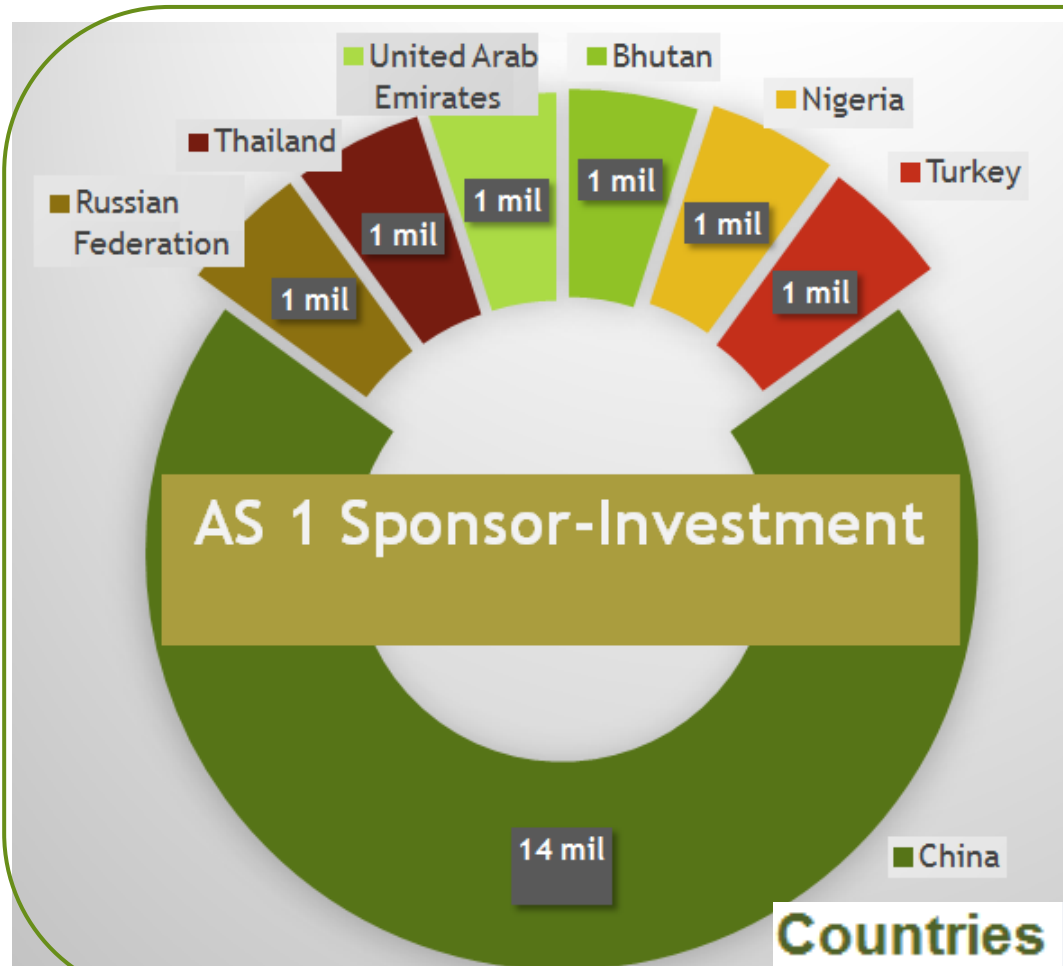


CER Buyers

Top 20 buyers	Projects
Vitol	310
EcoSecurities	305
EDF Trading	298
Tricorona Carbon Asset Management Sweden	251
Carbon Resource Management	215
Government of Sweden	197
RWE	178
CAMCO	148
Noble Carbon	118
Bunge Emissions Group	111
Climate Bridge	107
Mitsubishi	103
Arreon Carbon UK	101
Gazprom Marketing & Trading	98
AgCert	96
Mercuria Energy Trading	94
Kommunalkredit	93
Danish Ministry of Climate & Energy	87
Endesa	81
Deutsche Bank	76

40 M\$ SPONSOR-INVESTMENT

3rd offer



Countries	16,4	Gt CO2 eq.
Global	49,4	Gt CO2 eq.
	33%	

+ 45%
of global
population

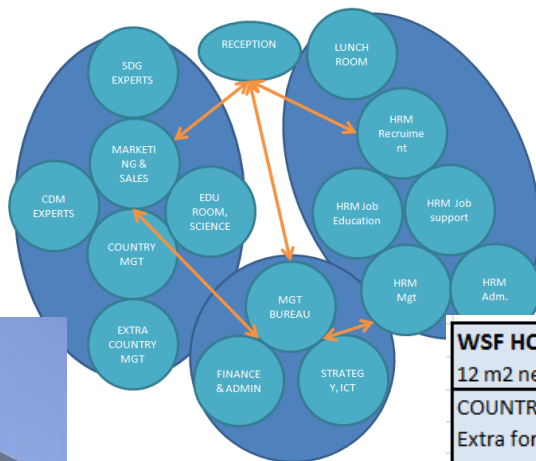


Next step WSF Heart Quarters

- Policy branding
- Education & Management
- Global Capacity Building

CDMs & SDGs

The Hague, NL

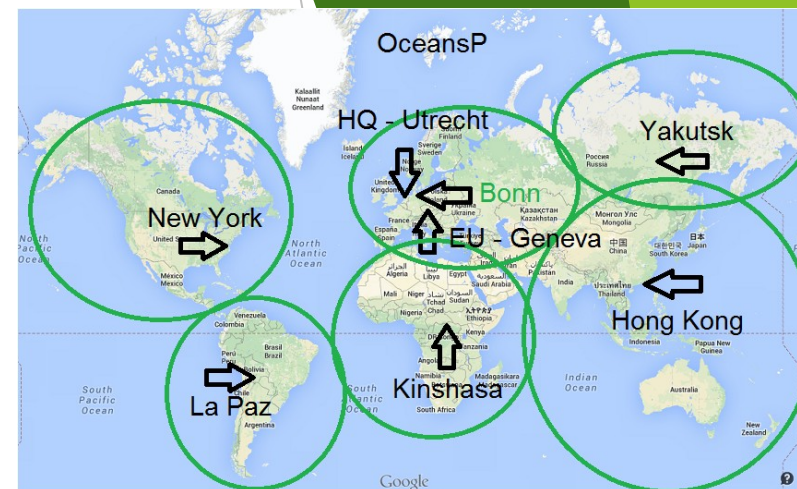


[Laan van Nieuw-Oost-Indië 131](#)

2593 BM Den Haag

8.853 m² · Units vanaf 493 m²

COG Makelaars B.V.

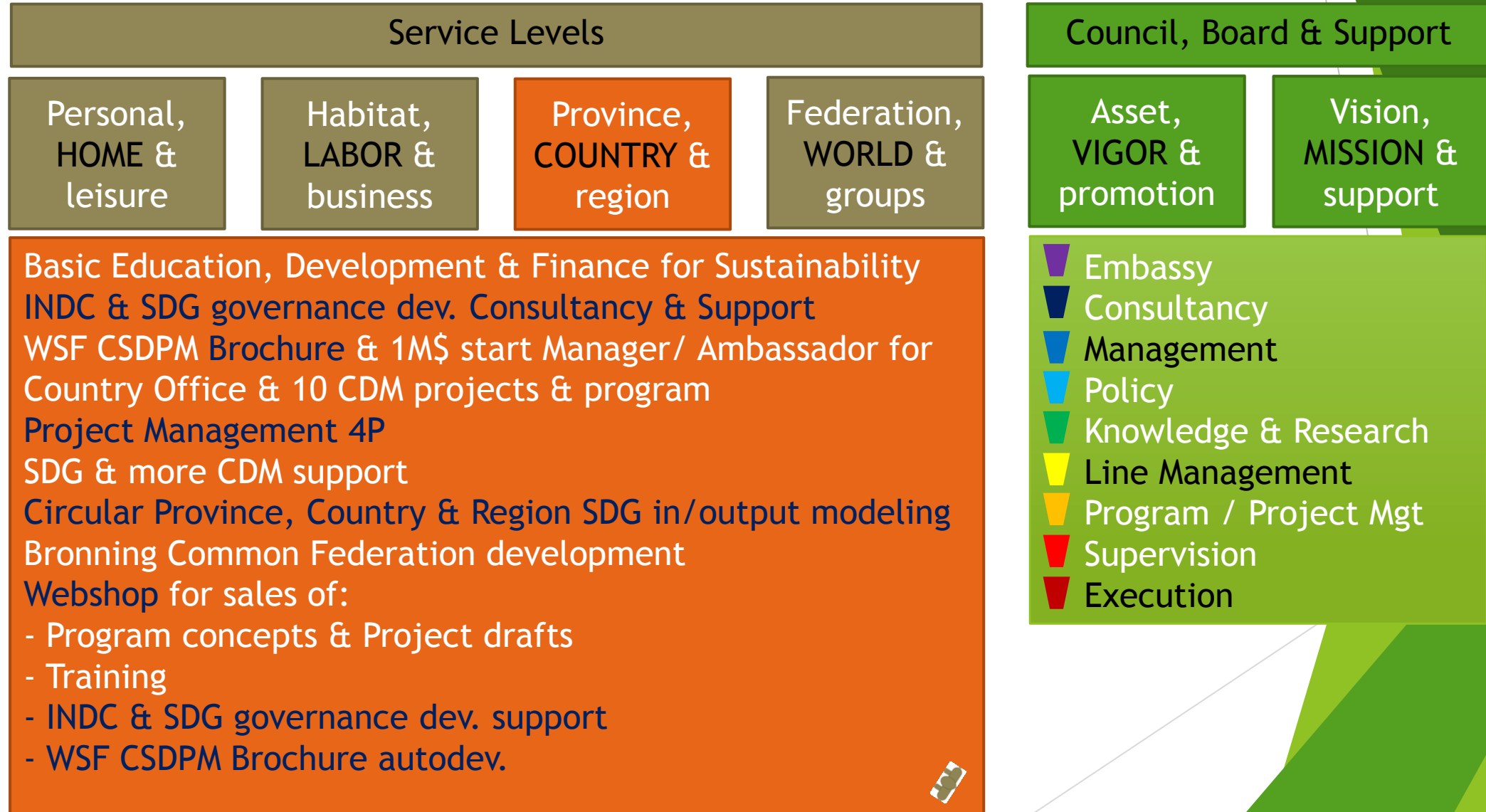


WSF HQ + CM, in FTE	ON	OCTOBER 2016			MARCH 2017		
12 m2 netto/1	OFFICE	STAFF	PLACES	m2	STAFF	PLACES	m2
COUNTRY MGT	40%	43	17	206	90	36	432
Extra for big countries	40%	6	2	29	24	10	288
SDG EXPERTS	60%	11	7	79	24	14	288
CDM EXPERTS	60%	11	7	79	24	14	288
PROJECT	46%	71	33	394	162	75	1296
FACILITIES + RECEPTION	100%	3	3	36	6	6	72
MGT BUREAU	80%	5	4	48	8	6	77
MARKETING & SALES	60%	4	2	29	6	4	43
FINANCE & ADMIN	70%	4	3	34	6	4	50
STRATEGY, ICT	70%	4	3	34	6	4	50
HRM Recruitment	80%	7	6	67	6	5	58
HRM Job support	90%	4	4	43	8	7	86
HRM Job education	90%	5	5	54	9	8	97
HRM Admin.	80%	4	3	38	9	7	86
HRM Mgt	70%	4	3	34	5	4	42
2 EDUCATION ROOMS	Flex wall	2 of 10x10m	17	200		17	200
LUNCH ROOM		1,25 m2/1	7	84		14	169
HQ GENERAL	79%	44	58	701	69	86	1031
TOTAL	59%	115	91	1094	231	161	2327



World Sustainability Fund

WSF - CDM & SDG ORGANIZATION



WSF Country Program Nigeria

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Sponsor Investment 1M USD initial, till 40% of 120M USD final.



CDMs creating values for SDGs



Program under U.N. protocol

WSF What



World Sustainability Fund

RENEWABLE ENERGY (WIND) 10M USD - 15MT CO2

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumu- lated 2030 ktCO2e
9570	Bundled wind power project Cape Verde	Cape Verde	Santiago & S	Wind	Wind	ACM2	1-apr-13	1198
5846	Taiba N'diaye Wind Energy project, Senegal	Senegal	Thiès	Wind	Wind	ACM2	1-sep-13	4637

Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW
TÜV-Nord	28	Sweden (Government of Sweden)	GSS Consultoria Sustentável	76,9	1140	3016,1
DNV	30	Ireland (ESBI)	ESBI			



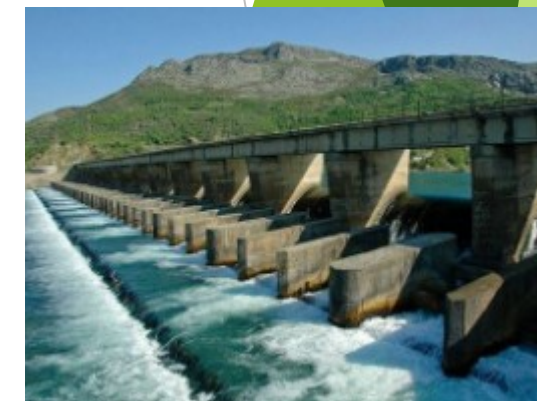
RENEWABLE ENERGY (SOLAR) 10M USD - 3MT CO2

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e
10151	Zina Solar PV power plant project	Burkina Faso	Mouhoun	Solar	Solar PV	ACM2	15-sep-15	132
Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW		
SGS	6	n.a.	n.a.					



RENEWABLE ENERGY (HYDRO) 10M USD - 32MT CO2

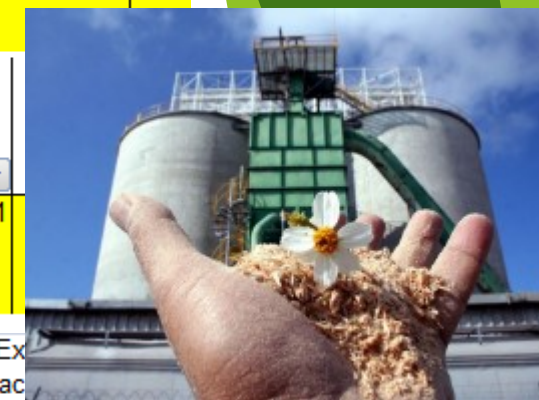
Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e
7726	Kainji Hydropower Rehabilitation Project, Nigeria	Nigeria	Niger	Hydro	Existing dam	ACM2	1-jan-13	8735
Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW		
AENOR	38	Sweden (IBRD+Government of Sweden), Belgium (Electrabel), Italy (ENEL), Germany	Triple E systems	115,9	133	442,3		



RENEWABLE ENERGY (BIOMASS) 0M USD - 48MT CO2

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e	v
8747	Lafarge WAPCO Partial Substitution of Alternative Fuels in Cement Facilities Project in Nigeria	Nigeria	Ogun	Biomass energy	Forest residues: sawmill waste	ACM3	1-jan-13	2999	ERM
	Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2			
	ERM CVS	38	France (Lafarge)	Carbon Limits	20,1	121			

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e	v
5645	Afam Combined Cycle Gas Turbine Power Project	Nigeria	Rivers	Fossil fuel switch	New natural gas plant	AM29	1-nov-12	5502	
	Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW		
	DNV	37	n.a.	Carbon Counts	325,0	591	500,0		



ENERGY DISTRIBUTION 20M USD

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e	V
9391	OML58 IPP Gas Fired Generation Project	Nigeria	Rivers	EE supply side	Single cycle to combined cycle	AM29	1-nov-15	2650	RINA
Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW			
RINA	4	n.a.	n.a.	419,0	1581	979,0			



ENERGY DEMAND 20M USD - 50MT CO2

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e	V
2711	Efficient Fuel Wood Stoves for Nigeria	Nigeria	Many	EE households	Stoves	AMS-II.G.	12-okt-09	313	TÜV-
Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW			
TÜV-Nord	17	Germany (Atmosfair+Lernen-Helfen-Leben)	Atmosfair	15,6	499				



MANUFACTURING INDUSTRIES 0M USD - ...MT CO2

Ref.	Title	Region	Sub-region	Host country
5578	Installation of natural gas based combined cooling heating and power (CCHP) systems in DLF Building 8 in Gurgaon, India	Asia & Pacific	Southern Asia	India
2220	MEN Energy Efficiency Improvement Project	Asia & Pacific	Southeast Asia	Indonesia

Province / State	Type	Sub-type	Methodology	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW
Haryana	EE supply side	Cogeneration	AMS-II.H.	7,0	889	1253,0
West Java	EE supply side	Cogeneration	AMS-II.H.	14,3	466	1466,4



CHEM. INDUSTRIES, Cement 0M USD - 138MT CO2/10M USD

Ref.	Title	Host country	Type	Sub-type	Methodology
7251	N2O reduction project at Fertial's nitric acid plant	Algeria	N2O	Nitric acid	AM34
7252	N2O reduction project at Fertial's nitric acid plant	Algeria	N2O	Nitric acid	AM34
490	Catalytic N2O destruction project in the tail gas of	Egypt	N2O	Nitric acid	AM28
7606	Reduction of N2O emissions from the new nitric a	Egypt	N2O	Nitric acid	ACM19
8668	N2O and NOX Abatement Project at KIMA Ferti	Egypt	N2O	Nitric acid	AM28
9032	N2O and NOX Abatement Project at Delta-ASM	Egypt	N2O	Nitric acid	AM28
10111	CO2 production from biomass in Mauritius for use	Mauritius	CO2 usage	CO2 replacement	AMS-III.J.
9620	Anaerobic digestion and heat generation at Sugar	Uganda	Methane avoidance	Waste water	AMS-III.H.+AMS-I.C.
10313	Production of biodiesel from non-food oil seeds	Uganda	Transport	Biodiesel for transport	ACM17



Ref.	1st period ktCO2e/yr	2nd period ktCO2e/yr	yrs.	Credit start	Expected accumu- lated 2030	Grid emission factor tCO2e/MWh	Automatic additionality	Supported by CDM Loan	Invest- ment MUS\$	Invest-ment US\$/tCO2
7251	320	1274	10	1-nov-12	3204	0,4370	Foil		2,2	7
7252	320		10	1-nov-12	3204				2,4	7
490	1066		7	15-sep-06	25297					
7606	252		7	1-jul-14	4154					
8668	121		10	1-jan-14	1207					
9032	190		7	1-jan-14	3232					
10111	11		10	9-mei-16	113					
9620	47		7	6-nov-13	806					
10313	40		10	17-okt-19	401					

Ref.	Title	Host country	Type	Sub-type	1st period ktCO2e/yr
9001	Partial Fuel Switching to Agricultural Wastes & Refuse Derived Fuel (RDF) at Kattameya cement plant	Egypt	EE industry	Cement	32

Credit start	Expected accumu- lated 2012	Expected accumu- lated 2020	Expected accumu- lated 2030	Grid emission factor tCO2e/MWh	Invest- ment MUS\$	Invest-ment US\$/tCO2
1-jul-13	0	243	323	0,5510	4,6	141



TRANSPORT 10M USD - 45MT CO2



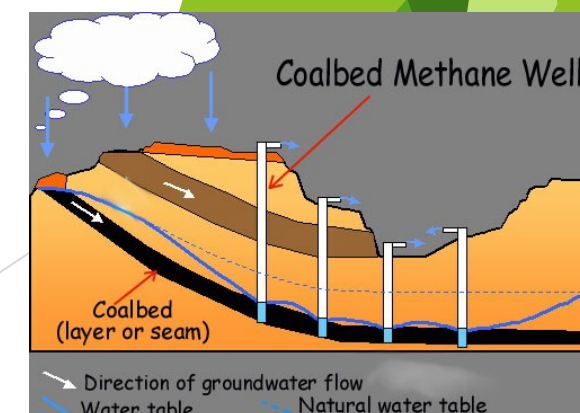
Ref.	Title	Host country	1st period ktCO2e/yr	yrs.
7574	LRT System in Tunis	Tunisia	29	10
10313	Production of biodiesel from non-food oil seeds	Uganda	40	10

Expected accumu- lated 2030	First Start comment	Automatic additionality	Supported by CDM Loan	Invest- ment MUS\$	Invest-ment US\$/tCO2
292	26-mei-12			651,4	22313
401	31-Mar-16	Folk			



MINING, Coal bed/mine methane 10M USD - 292MT CO₂

Ref.	Title	Host country	Sub-type	1st period ktCO ₂ e/yr	yrs.	Credit start	Expected accumu- lated 2030	Grid emission factor tCO ₂ e/MWh	Invest- ment MUS\$	Invest-ment US\$/tCO ₂	Invest- ment US\$/kW
10265	GHG Emissions Reduction through Modjo CETP	Ethiopia	Waste water	143	10	1-jan-19	1426		40,00	281	
6549	Nairobi River Basin Biogas Project	Kenya	Domestic manure	36	10	31-dec-12	359				
8561	Energy efficiency improvement project through modification of heat exchanger network at Kenya Petroleum Refineries Ltd	Kenya	Petrochemicals	6	7	8-apr-13	108				
10335	New gas fired power plant at Ressano Garcia	Mozambique	Coal to natural gas	542	10	1-jan-17	5416	0,9645	230,5	426	1316,2
9620	Anaerobic digestion and heat generation at Sugar Corporation of Uganda Limited	Uganda	Waste water	47	7	6-nov-13	806	0,4370			
10155	Nakivubo Wastewater Treatment Plant Methane Capture and Utilisation Project	Uganda	Waste water	28	10	1-jan-17	276				
834	Egyptian Brick Factory GHG Reduction Project	Egypt	Oil to natural gas	430	10	1-mrt-12	4304				
4224	Fuel Switching from Mazout to Natural Gas in Misr Fine Spinning & Weaving and Misr Beida Dyers at Kafr El Dawar	Egypt	Oil to natural gas	45	10	1-feb-11	451		4,5	101	
9516	Gas Flare Recovery at Suez Oil Processing Company, Egypt	Egypt	Oil and gas processing	186	10	1-jan-15	1862				
10170	Network Energy Optimization	Egypt	Electronics	10	10	23-nov-15	98				
5434	Marrakesh Wastewater Treatment Plant (WWTP) with biogas recovery for cogeneration	Morocco	Waste water	62	10	1-jan-13	625	0,6820			
10137	RAMSA – Biogas recovery and electricity generation from M'zar Wastewater treatment plant, Morocco	Morocco	Waste water	44	4	1-jul-18	531		5,2	118	3267,3



FUGITIVE EMISSIONS 0M USD - 214MT CO2/10M USD

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e	Val
553	Recovery of associated gas that would otherwise be flared at Kwale oil-gas processing plant, Nigeria	Nigeria	Delta	Fugitive	Oil field flaring reduction	AM9	9-nov-06	14969	DNV
2029	Pan Ocean Gas Utilization Project	Nigeria	Delta	Fugitive	Oil field flaring reduction	AM9	21-okt-10	26267	DNV
3740	Recovery and marketing of gas that would otherwise be flared at the Asuokpu/Umutu Marginal Field, Nigeria	Nigeria	Delta	Fugitive	Oil field flaring reduction	AM9	1-mei-11	2568	SGS
9163	Recovery and Utilization of Associated Gas from the Obodugwa and neighbouring oil fields in Nigeria	Nigeria	Delta	Fugitive	Oil field flaring reduction	AM9	1-jul-14	2881	RINA
	Escravos Oil Field Associated Gas Recovery and Utilization Project	Nigeria	Delta	Fugitive	Oil field flaring reduction	AM9	1-apr-16	18650	BV Ce

Ref	Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Inve US
553	DNV	113	Italy (Eni)	Nigerian Agip Oil Company, Eni			
2029	DNV	11	Norway (Carbon Limits)	Carbon Limits	301,9	115	
3740	SGS	59	Norway (Carbon Limits)	Carbon Limits	29,5	115	
9163	RINA	20	n.a.	Carbon Limits			
	BV Cert		United K. (Chevron)	Nigerian National Petroleum Corporation	1505,0	807	



WASTE HANDLING, Landfill gas 10M USD - 121MT CO2

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumu- lated 2030 ktCO2e
3841	Municipal Solid Waste (MSW) composting facility in Ikorodu, Lagos State	Nigeria	Lagos	Landfill gas	Landfill composting	AM25	15-dec-10	2818
6672	LFG project in Nigeria	Nigeria	Lagos	Landfill gas	Landfill flaring	ACM1	1-jul-13	1299
Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW		
AENOR	63	Portugal (European Carbon Fund)	n.a.					
LGAI	32	France (Aby Carbon)	Aby Carbon					



AF- & RE- FORESTATION 20M USD - 60MT CO2/ha/yr

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e
9708	Niger Acacia Senegal Plantation Project	Niger	Many	Reforestation	Reforestation	AR-ACM3	21-dec-05	625
	Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW	
	Ernst & Young	31	Spain (Government of Spain)	n.a.				

Ref	Title	Host count	Province / State	Type	Sub-type	Methodology	Credit sta	Expected accumulated 2030 ktCO2e
5265	Oceanium mangrove restoration project	Senegal	Many	Afforestation	Mangroves	AR-AMS3	27-jun-08	61 E
	Validator	Issuance delay (month)	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO2	Invest-ment US\$/kW	
	Ernst & Young	48	France (Danone+ORBEO)	Oceanium				



AGRICULTURE 20M USD - 20MT CO₂/ha/yr

Ref.	Title	Host country	Province / State	Type	Sub-type	Methodology	Credit start	Validator
4531	Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agroforestry Practices	India	Orissa & Andhra Pradesh & Chhattisgarh	Reforestation	Agroforestry	AR-AM1	25-jun-04	TÜV-SÜD
8283	Agro-forestry Interventions in Koraput district of Orissa	India	Orissa	Reforestation	Agroforestry	AR-AMS4	28-jul-09	TÜV-Nord
10128	Mitigation of GHG: Rubber based agro-forestry system for sustainable development and poverty reduction in Pakkading, Bolikhamsay Province, Lao PDR.	Lao PDR	Bolikhamsai	Reforestation	Agroforestry	AR-ACM3	18-jun-15	TÜV-SÜD

Ref.	Forest size ha	Credit buyer	PDD Consultant	Invest-ment MUS\$	Invest-ment US\$/tCO ₂	Invest-ment US\$/kW
4531	1608	Canada (Government of Canada), France (Eco-Carbone), Italy (Government of Italy), Spain (Government of Spain), Luxembourg (Luxembourg Ministry of Sustainable Development and Infrastructure), Japan	WB-CF			
8283	381	n.a.	Patneswari Agri. Cooperative			
10128	969	n.a.	n.a.			



PROJECT OVERVIEW SINCE 2003

Number of projects and expected/issued CE			CDM					
Type	number		CERs/yr (000)		2020 CERs (000)		CERs Issued (000)	
HFCs, PFCs, SF6 & N2O reduction	144	1.7%	143721	12%	1109721	13%	870056	48%
Renewables	6045	71%	638606	54%	4714663	55%	546621	30%
CH4 reduction & Cement & Coal mine/bed	1288	15%	212768	18%	1453580	17%	227533	12.5%
Supply-side EE	490	6%	98344	8%	666150	8%	89956	4.9%
Fuel switch	134	1.6%	70722	6.0%	485241	5.7%	63733	3.5%
Demand-side EE	259	3.1%	8906	0.8%	59625	0.7%	5928	0.3%
Afforestation & Reforestation	71	0.8%	2515	0.2%	22287	0.3%	11328	0.6%
Transport	33	0.4%	4440	0.4%	34697	0.4%	2439	0.13%
Total	8464	100%	1180022	100%	8545964	100%	1817595	100%
Wind	2602	31%	238597	20%	1804551	21%	214242	12%
Hydro	2213	26%	322274	27%	2163257	25%	260293	14%
Biomass energy	738	9%	50150	4.2%	356164	4%	54610	3.0%
Methane avoidance	686	8%	28967	2.5%	194993	2.3%	30003	1.7%
Solar	439	5.2%	14215	1.2%	100424	1.2%	4839	0.27%
Landfill gas	405	5%	58076	5%	415216	5%	90683	5%
EE own generation	374	4%	49948	4%	334564	4%	81039	4.5%
Fossil fuel switch	134	1.6%	70722	6%	485241	6%	63733	3.5%
EE Industry	126	1.5%	4582	0%	28210	0.3%	4666	0.3%
Coal bed/mine methane	111	1.3%	72976	6%	540453	6.3%	57549	3.2%
N2O	105	1.2%	57010	5%	467587	5%	323265	18%
EE Supply side (power plants)	96	1.1%	42654	4%	282896	3.3%	7342	0.4%
EE Households	95	1.1%	3628	0.3%	27105	0.3%	1033	0.06%
Afforestation & Reforestation	71	0.8%	2515	0.2%	22287	0.3%	11328	0.6%
Fugitive	56	0.7%	48540	4.1%	284593	3.3%	40348	2.2%
EE Service	38	0.4%	696	0.06%	4310	0.05%	229	0.013%
Geothermal	35	0.4%	12401	1.1%	282896	3.3%	11034	0.6%
Transport	33	0.4%	4440	0.4%	34697	0.4%	2439	0.1%
Cement	25	0.3%	4109	0.3%	17575	0.2%	8940	0.5%
HFCs	22	0.3%	81319	7%	601230	7%	539942	30%
Energy distrib.	20	0.2%	5742	0.5%	48690	0.6%	1576	0.1%
PFCs and SF6	17	0.2%	5393	0.5%	40904	0.5%	6849	0.4%
Mixed renewables	17	0.20%	654	0.1%	4846	0.06%	40	0.002%
CO2 usage	4	0.05%	91	0.01%	676	0.01%	10	0.001%
Tidal	1	0.01%	315	0.03%	2525	0.03%	1563	0.1%
Agriculture	1	0.01%	8	0.001%	74	0.0003%		



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SDGs to sponsor out of the 10+% ROI = 12M+ USD/yr

- ▶ SDG 1 - poverty 62% → SHR, \$250pp balance, dLv, Layers of Sust,
- ▶ SDG 2 - Hunger → National plan Food Forest
- ▶ SDG 3 - Health → Local ICT: VIPcure self-help, Happiness Index
- ▶ SDG 4 - Education → U.N. Youtube system
- ▶ SDG 5 - Gender equality → HR 50 quality check & development plan
- ▶ SDG 6 - Clean water and sanitation → Mapping Nat. Water & distribution plan
- ▶ SDG 7 - Clean energy Climate change → CDM projects, tech. factories
- ▶ SDG 8 - Decent work and economic growth → C₀ SHR Nat. Villages plan, Infra, Governance
- ▶ SDG 9 - Industry, innovation & infra → Defining 2050 Way of Life industry & Roll out



<http://www.ng.undp.org/content/nigeria/en/home/post-2015/sdg-overview.html>

http://www.vconnect.com/nigeria/list-of-ngos_c459



World Sustainability Fund

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Project samples

SDGs to sponsor out of the 10+% ROI = 12M+ USD/yr

- ▶ SDG 10 - Reduction Inequality → Land politics to SHR, dLv, Limits to ownership
- ▶ SDG 11 - Sust. Cities & Communities → Living Bronning, Waste reduction, Electric transport
- ▶ SDG 12 - Resp. Production & Consumption → Local & Nat. Circular Sustainability & Economy
- ▶ SDG 13 - Climate Action → SHR 31, Nat. parks, Most Polluting C₀ planning with legal Liability
- ▶ SDG 14 - Life below water → Ocean acidification, Marine and ecosystem pollution eradication
- ▶ SDG 15 - Life on land → Agriculture, Loss of natural habitats
- ▶ SDG 16 - Peace, justice & strong institutions → Solving conflicts
- ▶ SDG 17 - Partnerships for the Goals → Finance, technology, CB



http://www.nigeriagalleria.com/Agencies_and_Organizations/NGOs.html



World Sustainability Fund

Top SDG NGOs in Nigeria

- Under development

http://www.nigeriagalleria.com/Agencies_and_Organizations/NGOs.html



UNFCCC EB, DOE, UNDP, UNEP, ...

- clean development mechanism (CDM)
- joint implementation (JI)
- and the new market mechanism (NMM) under development (2-5 May 2017)



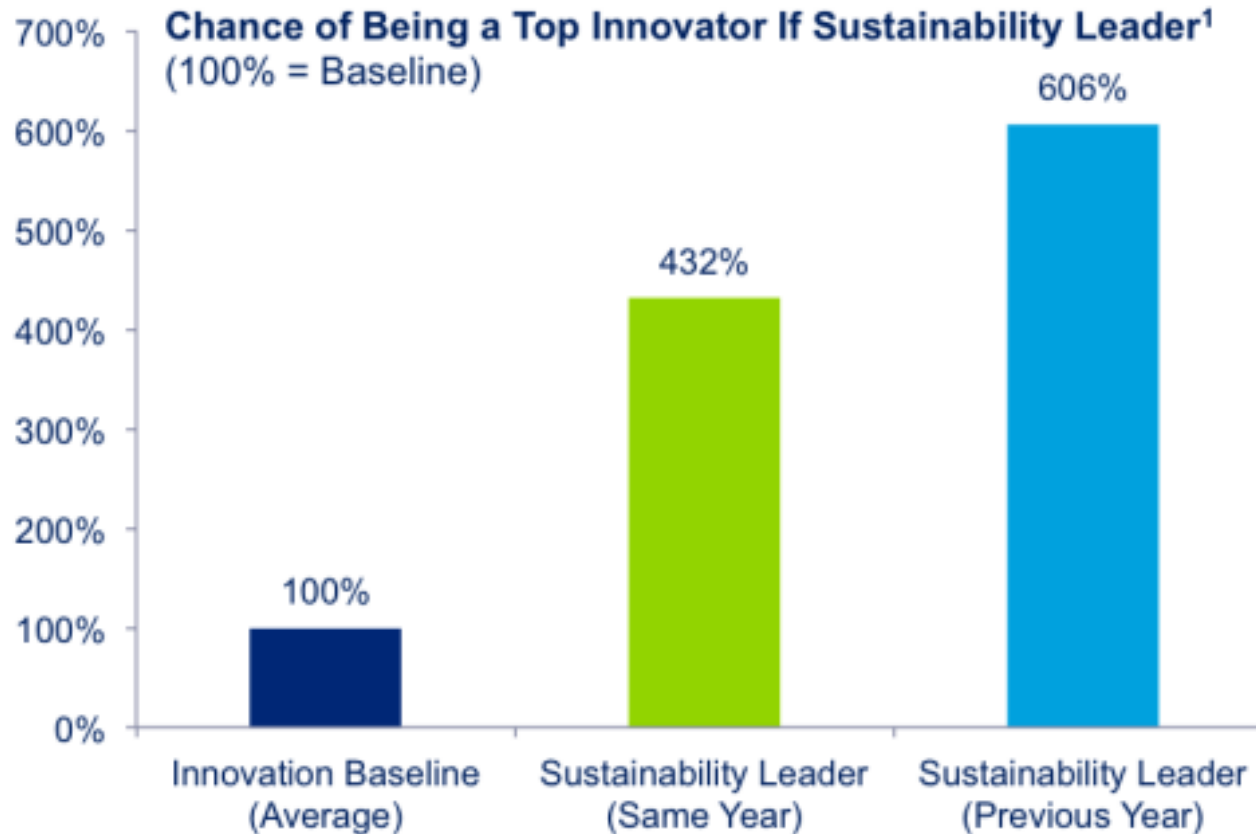
Top 20 Highest Paying Nigerian Companies

- 1.) Dangote Company (FMCG)
- 2.) NNPC (Oil and Gas)
- 3.) Shell (Oil and Gas)
- 4.) Chevron (Oil and Gas)
- 5.) Nestle Nigeria Plc (FMCG)
- 6.) Mobil (Oil & Gas)
- 7.) MTN (Telecoms)
- 8.) Nigeria Breweries (FMCG)
- 9.) Coca-Cola (Coke Soft Drink Company)
- 10.) Guinness Nigeria Plc (Diageo)
- 11.) Total (Oil and Gas)
- 12.) Access Bank (Banking)
- 13.) Nigerian Civil Service (Government)
- 14.) Oando Nigeria Plc (Oil & Gas)
- 15.) Arik Air (Aviation)
- 16.) NLNG (Oil & Gas)
- 17.) Schlumberger
- 18.) Diamond (Banking)
- 19.) British American Tobacco (BAT)
- 20.) Emirate Airlines (Aviation)



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Welcome at WSF

Creating The World We Need Together



World Sustainability Fund

Aliko Dangote

Naissance	<u>10 avril 1957</u> (60 ans) <u>Kano (Nigeria)</u>
Nationalité	<u>Nigérian</u>
Profession	<u>Homme d'affaires</u> , PDG de <u>Dangote Group</u>
Formation	Étude de commerce (<u>Université al-Azhar</u> au <u>Caire</u>)
Ascendants	Mohammed Dangote (père) Mariya Sanusi Dantata (mère)



- ▶ Africa's richest man, Aliko Dangote plans to invest \$500 million in establishing a sugar processing facility in Nasarawa State, Nigeria.
- ▶ The sugar plantation will occupy 60,000 hectares and will be completed in less than 30 months. When completed, it will produce 480,000 tonnes of sugar, which is about 27% of Nigeria's consumption. Dangote estimates the project will cost about \$700 million.
- ▶ According to the FORBES list of world billionaires published today, Aliko Dangote is still Africa's richest man with a fortune estimated at \$12.2 billion.

