



# Development of GHG Reduction Project by using Gold Standard



## **About South Pole Carbon**

- Why Gold Standard
  - Project cycle & Documentation requirement
-



# South Pole has a wealth of international experience



\* *Environmental Finance*: Voluntary Carbon Market Survey 2011; \*\* Schwab Foundation/WEF



## Latest achievement

South Pole Carbon strengthens its position as global market leader for carbon offsetting. We are proud that the quality of our certificates is internationally recognized:

- Voted Best Project Developer in the Greenhouse Gas market survey, as voted by the readers of Environmental Finance magazine.
- Won Best Project Developer CDM in the Carbon Trading magazine 2012 market survey and the runners-up in the Best Project Developer in the Voluntary Carbon Markets categories.



# International Market Leader in compliance and voluntary market



## Carbon market firsts

- Brought to market the **first ever Gold Standard carbon** credits (Biomass Malavalli / India)
- Handled the **first ever international Kyoto carbon credit transfer**
- **First company to cancel carbon credits**, making sure that they cannot be resold
- **First issuance of Social Carbon credits** outside Latin America



The Gold Standard®  
Premium quality carbon credits

Portfolio Pledge 51%



SOCIALCARBON®

## Premium quality

- **Leadership Position on Gold Standard (GS) Registry:** 45 projects listed
- **One of the top GS VER developers** with 20% of entire GS VER pipeline, **market leader in issued GS VER credits**
- **Best Project Developer** (Environmental Finance: Voluntary Carbon Market Survey 2011 and 2012)
- Winner of **Prix Social Entrepreneur** Switzerland 2011 (WEF/Schwab Foundation)



# South Pole references – an extensive network of high quality buyers

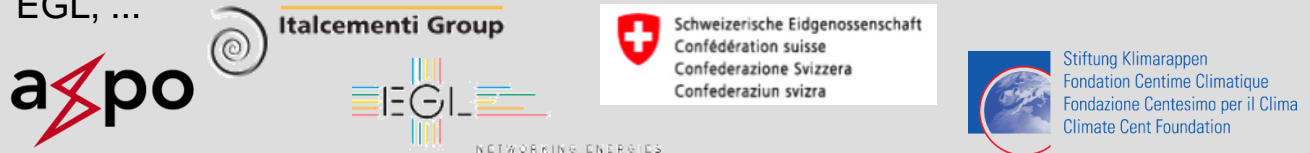


## Unparalleled carbon market expertise

- Participation in the UNFCCC Methodology Panel
- Involved in major climate change negotiations since 1997
- Carbon advisory to international organizations (World Bank, European Commission, World Economic Forum, GTZ, Africa Progress Panel, World Food Programme, ...) and to registered CDM projects with a volume of 100 million tCO<sub>2</sub>e until 2012

## Extensive client network

- Top-rated compliance buyers  
such as the Austrian Government, Swiss Government, Climate Cent Foundation (Switzerland), Italcementi Group, LUSO Carbon Fund (Portugal), EGL, ...



- Well-known voluntary buyers  
such as BP, Unilever, Axpo, Swiss Re, WWF, Austrian Post, Eneco Energy, RBC, Greenpeace, Ben & Jerry's, Transoflex, ...)





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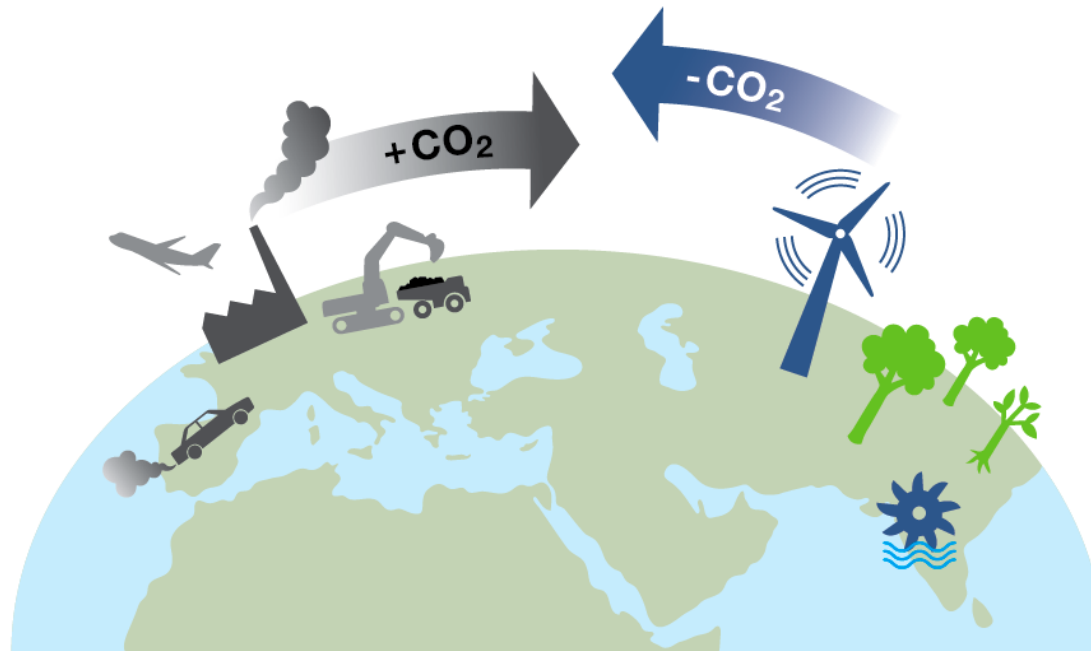
## **Why Gold Standard**

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# Carbon credits – how it works

Man-made global warming threatens the basis of life, foremost it is threatening the poorest countries, and increasingly it threatens the standard of living in the industrialized world. Market based mechanisms are a strong and proven tool, beyond energy efficiency and savings, for the fight against climate change.



For every ton of avoided greenhouse gas emissions, achieved e.g. by replacing fossil fuel power with renewable energies, the project owner is receiving so called carbon credits which can be sold to companies and institutions with a voluntary or compliance carbon reduction strategy.







# What and Why, Gold Standard ?

- Established in 2003 by WWF, the Gold Standard is an award winning certification standard for carbon mitigation projects and is recognized internationally as the benchmark for quality in both the compliance and voluntary carbon markets.
- Carbon market is a buyer driven, for the end buyer, reduced risk brings peace of mind – an offset programme is only as strong as its weakest tonne. With sustainable development and environmental co-benefits being maximized and ensured via The Gold Standard's MRV, investing in quality Gold Standard carbon credits is an investment in your own brand, demonstrating to clients, staff and suppliers sincerity towards environmental and corporate social responsibility.
- It is generally viewed as one of the most rigorous voluntary standards and consequently sells at a premium of up to 20% in both markets, and is also supported by over 60 NGOs. Apart from producing emission reductions, Gold Standard projects are assessed for the contribution to sustainable development and local stakeholder benefits.



# Compliance and voluntary carbon markets

	Examples	Key features
<b>Compliance markets</b> 	<ul style="list-style-type: none"><li>• EU Emission Trading Scheme</li><li>• Kyoto Protocol Market</li><li>• New Zealand Emission Trading Scheme...</li></ul>	<ul style="list-style-type: none"><li>• Different types of compliance carbon credits</li><li>• Kyoto credits (CDM and JI) can be sold to Kyoto and EU markets</li><li>• High liquidity</li><li>• Unit price varies little across projects, but premium for Gold Standard certified projects</li></ul>
<b>Voluntary markets</b> 	<ul style="list-style-type: none"><li>• GS VERs</li><li>• VCUs</li><li>• VERs for Chicago Climate Exchange</li><li>• ...</li></ul>	<ul style="list-style-type: none"><li>• Carbon credits generated on the basis of voluntary standards</li><li>• Not suitable for compliance purposes (Kyoto)</li><li>• Prices vary with quality and origin of projects, with Gold Standard projects fetching the highest price</li></ul>



# Voluntary carbon market

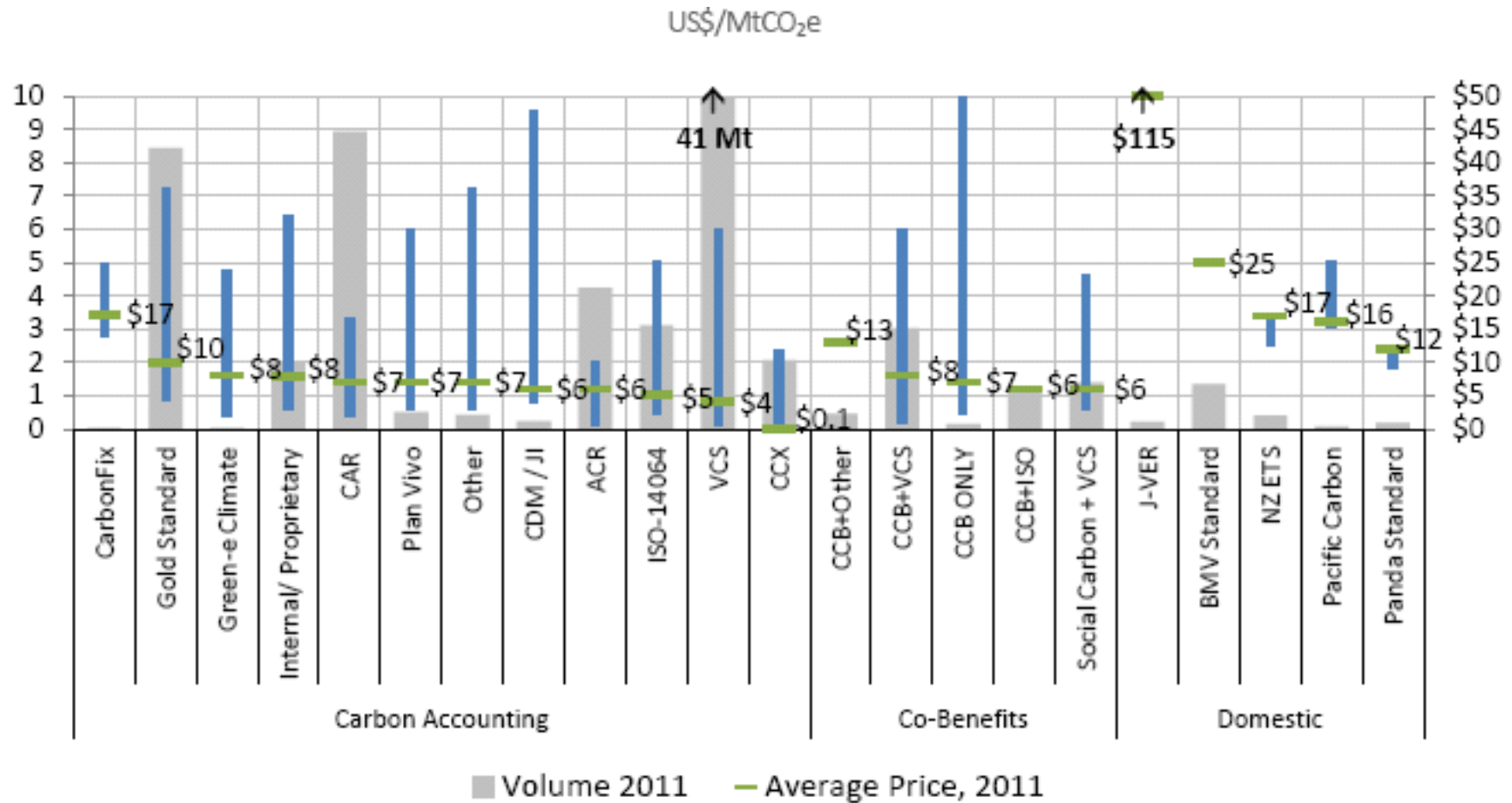
Rank	Motivation	Share
1	Corporate Social Responsibility	32%
2	Public Relations/Branding	22%
3	Resale	22%
4	Anticipation of Regulation or Commodity Investment	19%
5	Greening a supply chain	7%

Location	Volume (MtCO <sub>2</sub> e)	Value (\$ million)	Market Share
Europe	33	204	47%
North America	29	\$159	41%
Oceania	3	\$22	4%
Asia	3	\$47	4%
Latin America	2	\$23	2%
Africa	.9	\$10	1%

	Voluntary Buyers			Pre-Compliance Buyers		
	Volume (MtCO <sub>2</sub> e)	Value (\$ million)	Market Share	Volume (MtCO <sub>2</sub> e)	Value (\$ million)	Market Share
End Use/ Retirement	48	\$259	53%	8	\$64	8%
Secondary Market	26	\$172	28%	4	\$22	5%



# Market standard's differences





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## **Project cycle & Documentation requirement**

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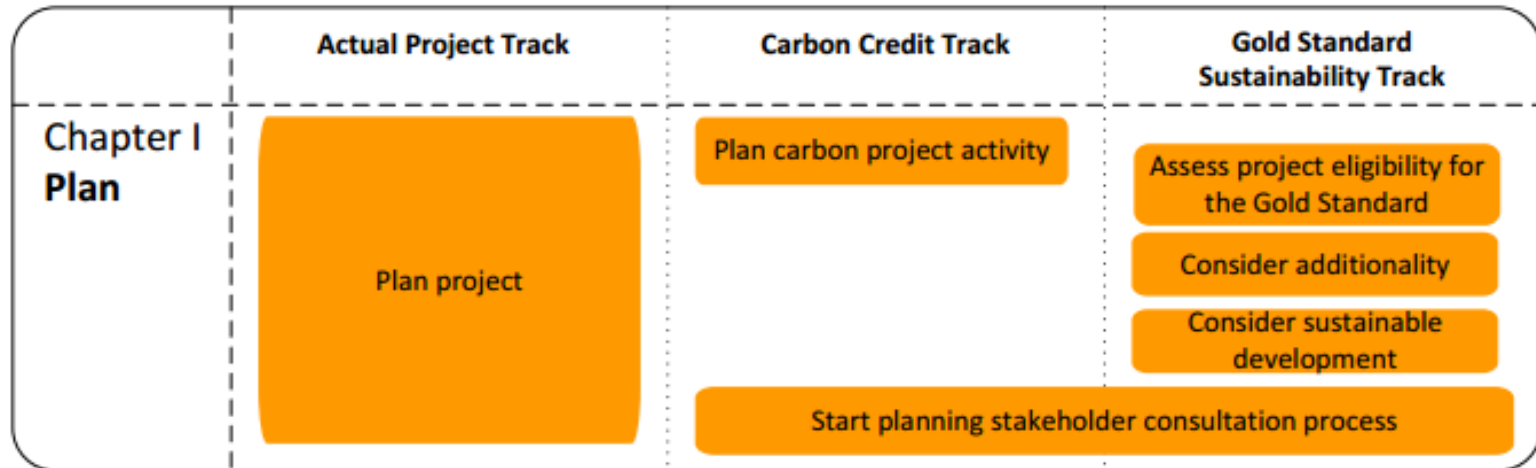
# Gold Standard Project Cycle Overview

## **Current version 2.2**

- **Chapter I : Plan**
- **Chapter II : Design & Report**
- **Chapter III: Validate**
- **Chapter IV: Monitor**



# Planning phase










To be eligible for Gold Standard registration your project must fit either in the renewable energy supply category, the end-use energy efficiency improvement category or waste handling & disposal

Greenhouse gases		Greenhouse gas eligible under the Gold Standard?	Greenhouse gas eligible under the UNFCCC?
CO2	Carbon dioxide	Yes	Yes
CH4	Methane	Yes	Yes
N2O	Nitrous oxide	Yes	Yes
PFCs	Perfluorocarbons	No	Yes
HFCs	Hydrofluorocarbons	No	Yes
SF6	Sulphur hexafluoride	No	Yes



## Types of activities certified by Gold Standard

-  CDM Stand alone projects (small or large scale)
-  CDM Programme of Activities (CDM PoAs)
-  Joint Implementation projects (JI)
-  Voluntary Stand alone projects (small or large scale)
-  Voluntary Micro-Scale projects (stand alone)
-  Voluntary Programme of Activities (VER PoAs)
-  Voluntary Micro-Scale Programme of Activities (Micro  
VER PoAs)





- Normal project

For a new project, apart from the normal CDM documents, additional local stakeholder consultation as per GS requirement is needed.

- Retroactive project

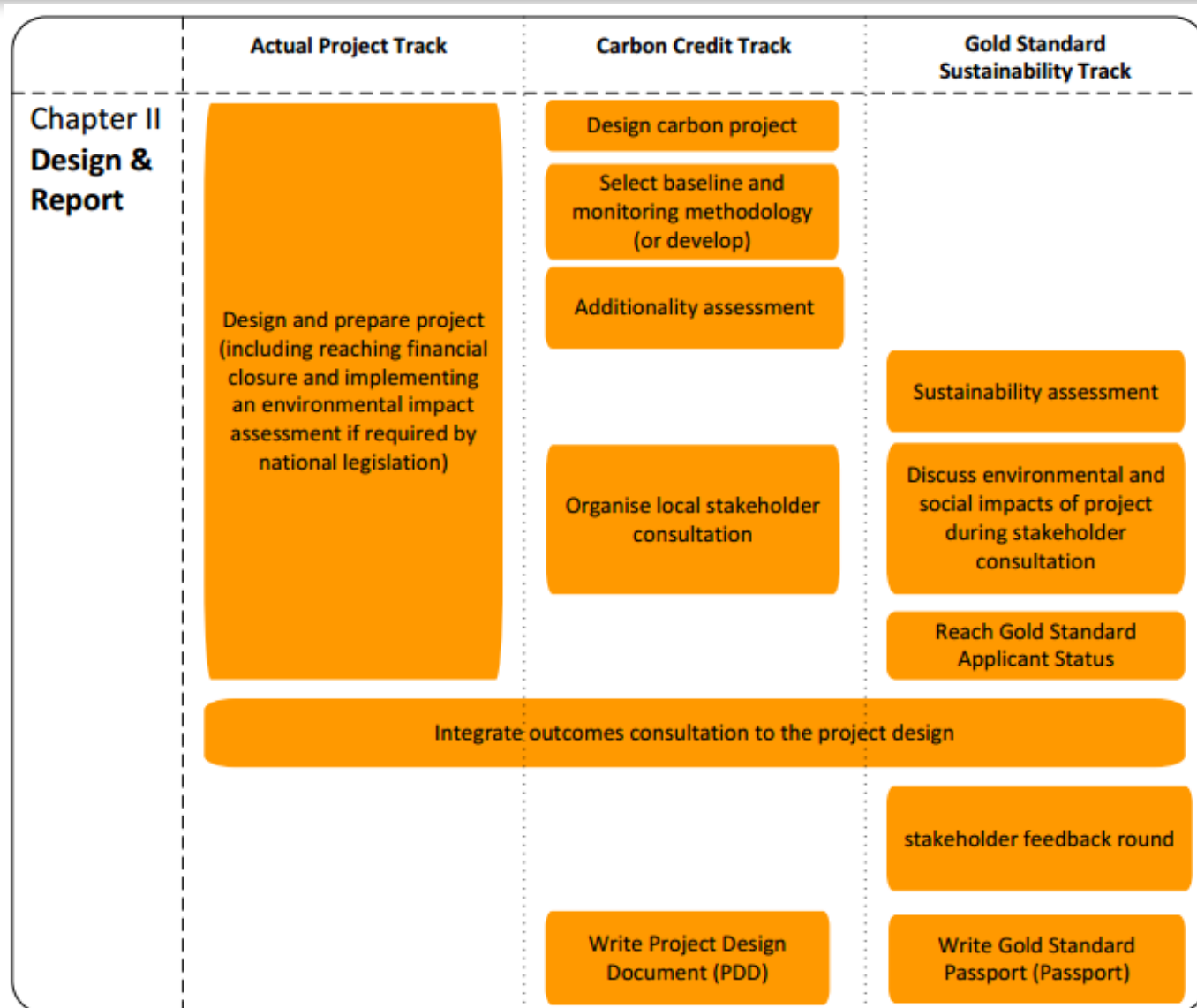
If the start date of the project is before the time of the first submission to Gold Standard, the project needs to pass a pre-feasibility assessment (PFA). The project can apply under the Gold Stand only if the outcome of the PFA assessment is positive.

Category code	Category
A	Local people impacted by the project or official representatives
B	Local policy makers and representatives of local authorities
C	For CDM / JI projects, an official representative of the DNA or DFP of the host country of your project, or the UNFCCC focal point if the DNA or DFP has not yet been set-up. (For voluntary GS projects, the DNA must also be notified. An invitation letter can be sent, however no formal response is required).
D	Local non-governmental organisations working on topics relevant to your project
E*	The local Gold Standard expert who is located closest to your project location
F	Relevant international Non-Governmental Organisations (NGOs) supporting The Gold Standard, with a representation in your region and ALL GS Supporter NGOs located in the host country of the project.

Under Gold Standard, the project could potentially claim emission reduction up to two years maximum prior to Gold Standard registration deepening on the condition of the project.



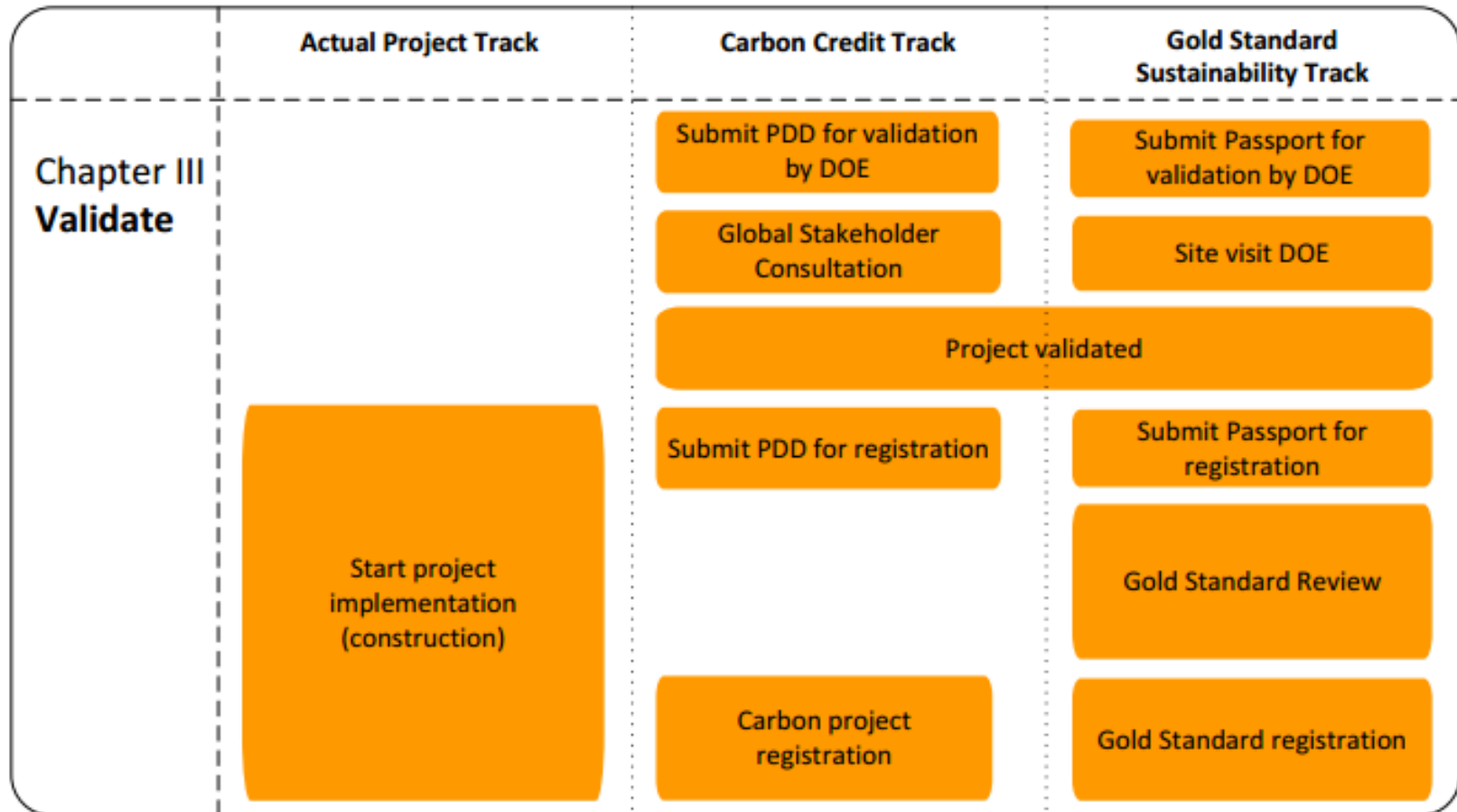
# Designing & Reporting Phase





Template	Description
Gold Standard Passport	The document presents all GS specific, required information that is not already covered in the PDD and is required for registration under The Gold Standard.
Local Stakeholder Consultation Report	The Document that describes the outcomes of your local stakeholder consultation, including the meeting outcomes.
ODA Declaration	The declaration by which the Project Owner states that the project has not directly or indirectly received or benefited from official development assistance on the condition that the credits are transferred to the donor country of the assistance.
Sustainable Development matrix	The matrix in which you explain the relevance of each sustainable development indicator in the context of your project and how you score them, and where you provide appropriate sources of information.
Sustainability Monitoring Plan - table	This table needs to be used to describe the monitoring of the relevant indicators and corresponding parameters of your project. Note there is no template for the entire sustainability monitoring plan, only for the monitoring table.
Terms & Conditions	This document needs to be signed by the project participant before registration in order to guarantee the project is committed to the lawful use of the name and brand Gold Standard.

# Validating phase

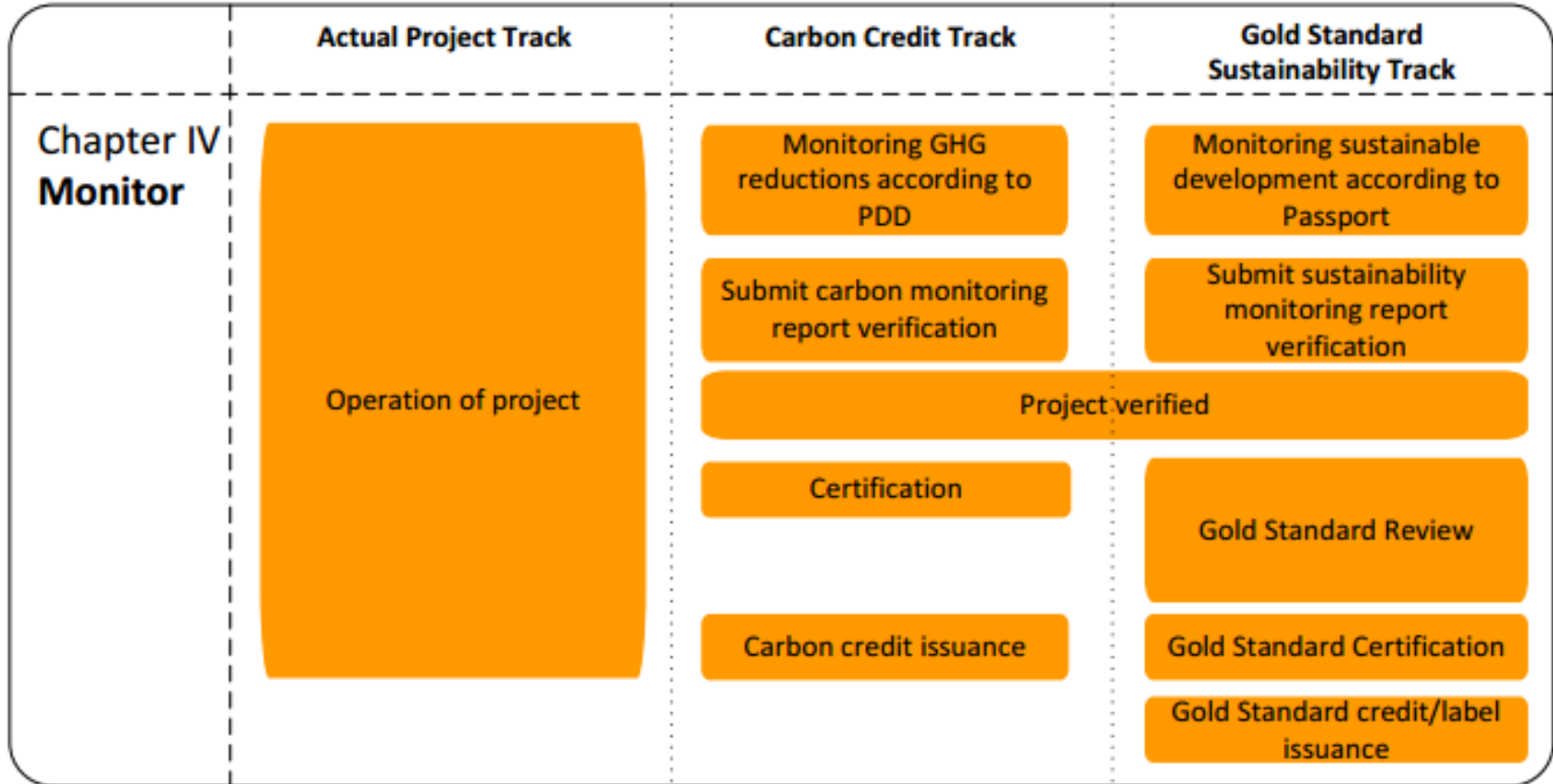




Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
Gold Standard indicators of sustainable development.	If relevant copy mitigation measure from "do no harm" –table, or include mitigation measure used to neutralise a score of ‘–’	Check <a href="http://www.undp.or/mdg">www.undp.or/mdg</a> and <a href="http://www.mdgmonitor.org">www.mdgmonitor.org</a>  Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score ‘–’ in case negative impact is not fully mitigated score 0 in case impact is planned to be fully mitigated. No change in impact: score 0 Positive impact: score ‘+’
Air quality				
Water quality and quantity				
Soil condition				
Other pollutants				
Biodiversity				
Quality of employment				
Livelihood of the poor				
Access to affordable & clean energy services				
Human and institutional capacity				



# Monitoring phase



**Local/regional/global environment**

Water quality and quantity

Air quality (emissions other than GHGs)

Other pollutants: (including, where relevant, toxicity, radioactivity, POPs, stratospheric ozone layer depleting gases)

Soil condition (quality and quantity)

Biodiversity (species and habitat conservation)

**Social sustainability and development**

Employment (including job quality, fulfilment of labour standards)

Livelihood of the poor (including poverty alleviation, distributional equity, and access to essential services)

Access to energy services

Human and institutional capacity (including empowerment, education, involvement, gender)

**Economic and technological development**

Employment (numbers)

Balance of payments (sustainability)

Technological self reliance (including project replicability, hard currency liability, skills development, institutional capacity, technology transfer)

**Sustainable Development Indicators**



- Grievance mechanism

	Method chosen (include all known details e.g. location of book, phone number, identity of mediator etc)	Justification
Continuous Input & Grievance Expression Process Book		
Telephone access		
Internet/email access		
Nominated Independent Mediator (optional)		



# Gold Standard Registry



The Gold Standard  
Premium quality carbon credits

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## VER Project Credits

Vintage	Project ID	Project Developer	Project Name	Version	Validation DOE	Verification DOE	Project Type	Region	Country	State/Province	Quantity of Credits	Documents	Project Website
2010	GS778	<a href="#">South Pole Carbon Asset Management Ltd.</a>	Blue Fire Bio wastewater treatment and biogas utilization project (300147)_pre-CDM VER	V2.0	TUV Rheinland (China) Ltd.	Germanischer Lloyd Certification GmbH	Biogas – Cogeneration	SE-Asia	THAILAND	Nakorn Ratchasima	<a href="#">10,613</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2011	GS778	<a href="#">South Pole Carbon Asset Management Ltd.</a>	Blue Fire Bio wastewater treatment and biogas utilization project (300147)_pre-CDM VER	V2.0	TUV Rheinland (China) Ltd.	Germanischer Lloyd Certification GmbH	Biogas – Cogeneration	SE-Asia	THAILAND	Nakorn Ratchasima	<a href="#">8,719</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2008	GS777	<a href="#">South Pole Carbon Asset Management Ltd.</a>	Bangna Starch Wastewater Treatment and Biogas Utilization Project (300084)_pre-CDM VER	V1.0	TÜV NORD CERT GmbH	Germanischer Lloyd Certification GmbH	Biogas – Electricity	SE-Asia	THAILAND	Kalasin	<a href="#">2,497</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2009	GS777	<a href="#">South Pole Carbon Asset Management Ltd.</a>	Bangna Starch Wastewater Treatment and Biogas Utilization Project (300084)_pre-CDM VER	V1.0	TÜV NORD CERT GmbH	Germanischer Lloyd Certification GmbH	Biogas – Electricity	SE-Asia	THAILAND	Kalasin	<a href="#">20,094</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2008	GS775	<a href="#">South Pole Carbon Asset Management Ltd.</a>	CYY Biopower Wastewater treatment plant including biogas reuse for thermal oil replacement and electricity generation Project, Thailand (300059)_pre-CDM VER	V1.0	TÜV NORD CERT GmbH	RINA S.p.A.	Biogas – Cogeneration	SE-Asia	THAILAND	Nakorn Ratchasima	<a href="#">5,976</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2009	GS775	<a href="#">South Pole Carbon Asset Management Ltd.</a>	CYY Biopower Wastewater treatment plant including biogas reuse for thermal oil replacement and electricity generation Project, Thailand (300059)_pre-CDM VER	V1.0	TÜV NORD CERT GmbH	RINA S.p.A.	Biogas – Cogeneration	SE-Asia	THAILAND	Nakorn Ratchasima	<a href="#">8,681</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2010	GS472	<a href="#">South Pole Carbon Asset Management Ltd.</a>	InfraVest Changbin and Taichung bundled Wind Farms Project - Taiwan (300190)	V1.0 SoP	SGS United Kingdom Ltd.	CERPEI Certification Body	Wind	E-Asia	TAIWAN	N/A	<a href="#">248,316</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2011	GS472	<a href="#">South Pole Carbon Asset Management Ltd.</a>	InfraVest Changbin and Taichung bundled Wind Farms Project - Taiwan (300190)	V1.0 SoP	SGS United Kingdom Ltd.	CERPEI Certification Body	Wind	E-Asia	TAIWAN	N/A	<a href="#">310,115</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2009	GS472	<a href="#">South Pole Carbon Asset Management Ltd.</a>	InfraVest Changbin and Taichung bundled Wind Farms Project - Taiwan (300190)	V1.0 SoP	SGS United Kingdom Ltd.	CERPEI Certification Body	Wind	E-Asia	TAIWAN	N/A	<a href="#">238,414</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2008	GS472	<a href="#">South Pole Carbon Asset Management Ltd.</a>	InfraVest Changbin and Taichung bundled Wind Farms Project - Taiwan (300190)	V1.0 SoP	SGS United Kingdom Ltd.	CERPEI Certification Body	Wind	E-Asia	TAIWAN	N/A	<a href="#">217,064</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>
2010	GS612	<a href="#">South Pole Carbon Asset Management Ltd.</a>	InfraVest Guanyin Wind Farm Project - Taiwan	V2.0 SoP	SGS United Kingdom Ltd.	CERPEI Certification Body	Wind	E-Asia	TAIWAN	Taoyuan County	<a href="#">64,724</a>	<a href="#">View</a>	<a href="#">www.southpolecarbon.com</a>



# Example of Gold Standard Project



## Wastewater treatment, Thailand

This project is engaged with mitigating global warming and local air pollution at a Thai starch plant by capturing methane and generating sustainable energy and social benefits for local communities.

### Project achievements



#### Socio-economic impact:

- 17 new jobs have been created both for the operation of the wastewater cycle.
- New qualified jobs for locals have increased the general income level which benefits all the community.
- The cleaned water from the new wastewater cycle allows for fish farming and irrigation of nearby fields, thus enabling locals to increase their income.
- The plant workers receive training on modern technologies and can increase their knowledge and skills.
- Technology transfer supports the workers' understanding of modern and sustainable applications.

#### Environmental impact:

- With the now covered lagoons and the UASB reactor in operation, air pollution and strong odour from the wastewater have been reduced significantly.
- All water from the wastewater cycle can be re-used in the plant which reduces water consumption.
- No solid waste is generated but sludge that is given to local farmers as fertilizer.





# South Pole Contacts

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Thank you for your attention!