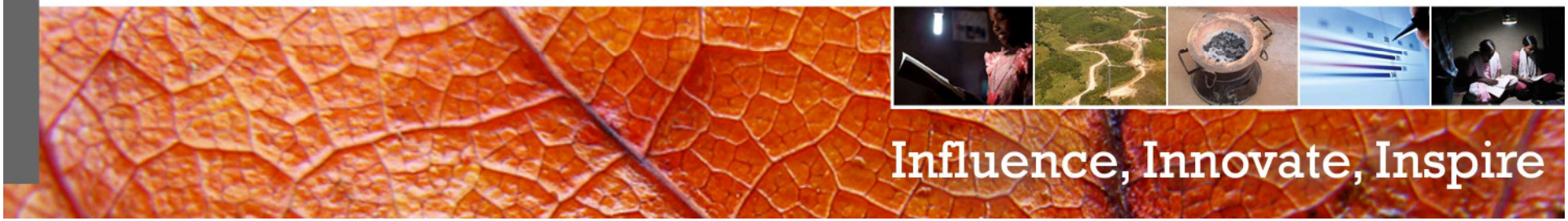
The Gold Standard®
Premium quality carbon credits

Best practice in credited biomass

Adrian Rimmer, CEO, the Gold Standard Foundation



The Gold Standard®
Premium quality carbon credits

What is The Gold Standard?

- Non-profit organization based in Geneva, Switzerland
- Established and actively endorsed by 81 NGOs worldwide, including WWF, Greenpeace, Care International, World Vision, Mercy Corps
- The global benchmark certification for high quality carbon reduction projects in both compliance and voluntary carbon markets
- Independently verified to deliver real, permanent greenhouse gas reductions and sustainable development
- The only standard to incorporate monitoring, reporting & verification for sustainable development and environmental co-benefits - for all projects
- Buyers include Swiss Post, DHL, Rabobank, Nokia, News Corporation, Panasonic, Virgin Atlantic and multiple governments
- Used by UN agencies for carbon finance projects

The Gold Standard®
Premium quality carbon credits

Why was The Gold Standard established ?

Kyoto Protocol, Article 12.2

"The purpose of the CDM shall be to assist Parties not included in Annex I in ***achieving sustainable development*** and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments..."

The Bali Action Plan

Agreed in 2007 to further negotiate on "nationally appropriate mitigation actions by developing country Parties ***in the context of sustainable development***, supported and enabled by technology, financing and capacity building, in a measurable, reportable and verifiable manner."

The Gold Standard®
Premium quality carbon credits

Why do people trust and value Gold Standard?

- Participatory approach, robust engagement and monitoring procedures
- “Do no harm” assessment - UNDP safeguarding principles derived from international conventions for environmental, social, economic impact
- All projects must host and document a two-step interactive ‘Local Stakeholder Consultation’ in both the design phase and feedback rounds
- Sustainable Development Matrix including social, economic and environmental benefits for local communities
- Measurement, Reporting and Verification of sustainable development indicators and other environmental co-benefits
- Active engagement of independent technical experts & NGOs
- UN accredited auditors, supplemented by GS in-house experts
- Constant innovation in all areas e.g. suppressed demand

The Gold Standard®
Premium quality carbon credits

Continued market recognition

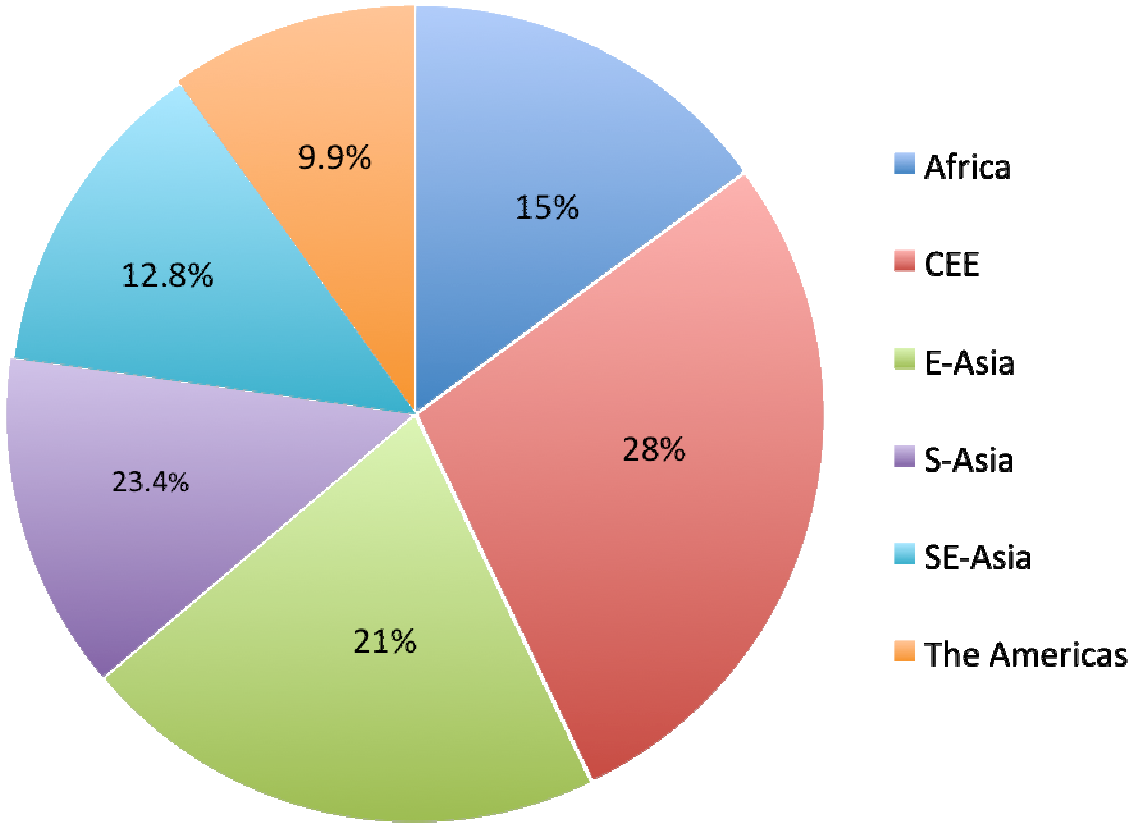
"The Gold Standard continues to be recognized as the flagship for demonstrating real carbon reductions plus additional sustainability benefits." ENDS, 2010

- Winner, Excellence in Commodity Market Policy and Advisory - Commodity Business awards 2011
- Gold Standard project recognition, includes two GS projects (GS685 and GS832) winning awards at the PCIA Special Achievement Awards 2011
- Two GS Projects triumph at The Ashden Awards 2011: E+Co and Ugastove,
- GS LifeStraw project wins the Global Pilot Community Development Award, 2011
- NGO category winner in Climate Change Business Journal's Business Achievement Awards 2010
- Non-profit category runner-up in the Association for Climate Change Officers' Climate Leadership Awards 2010 (winner was a Gold Standard project developer)

The Gold Standard®
Premium quality carbon credits

Gold Standard project pipeline

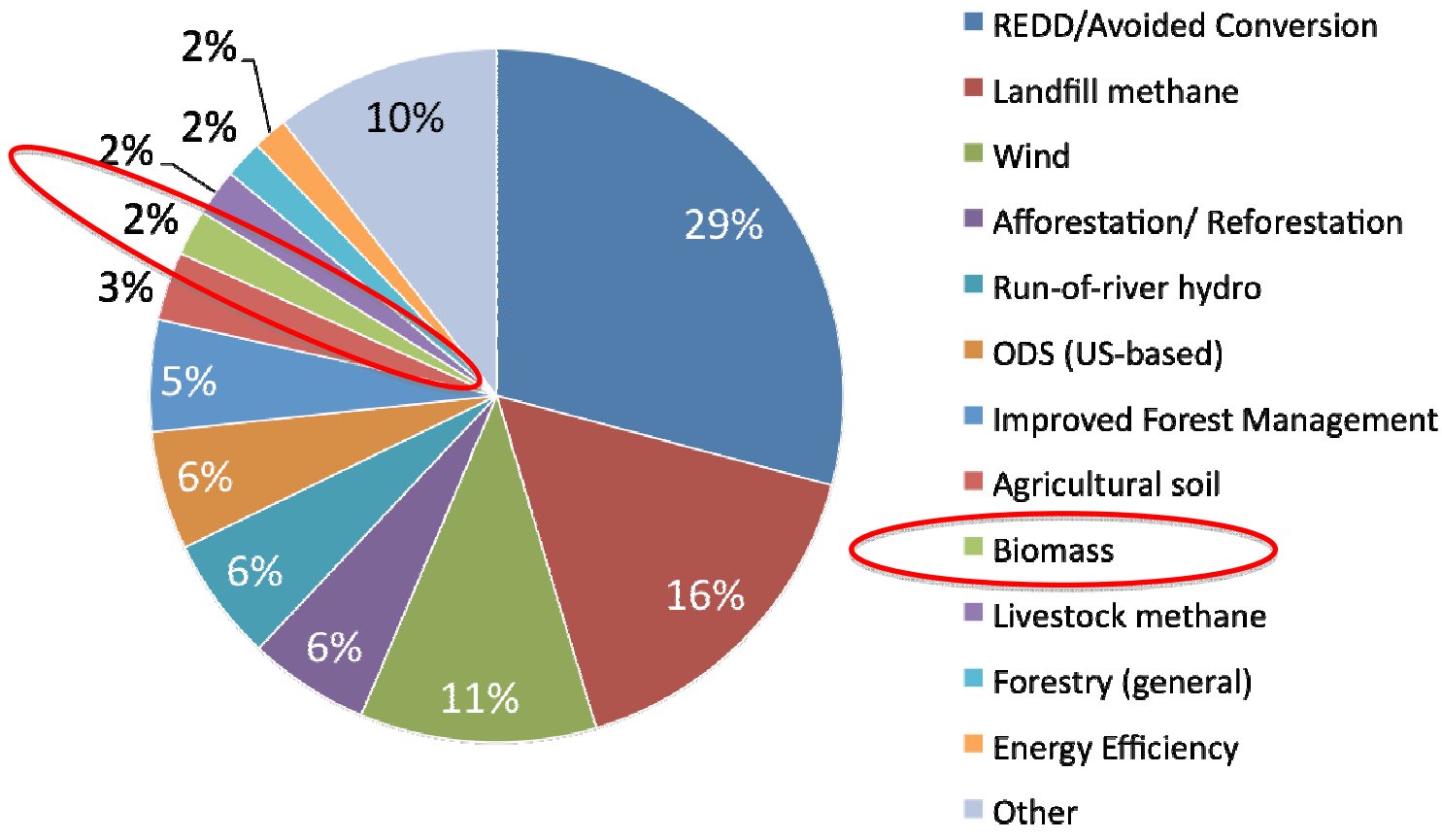
- 100+ project types
- 160+ project developers
- 700+ projects
- in over 50 countries
- 8m CER/VER issued
- 40m CER/VER pipeline
- Approx 40:60 ratio of compliance to voluntary market projects



Geographic location of GS projects

The Gold Standard®
Premium quality carbon credits

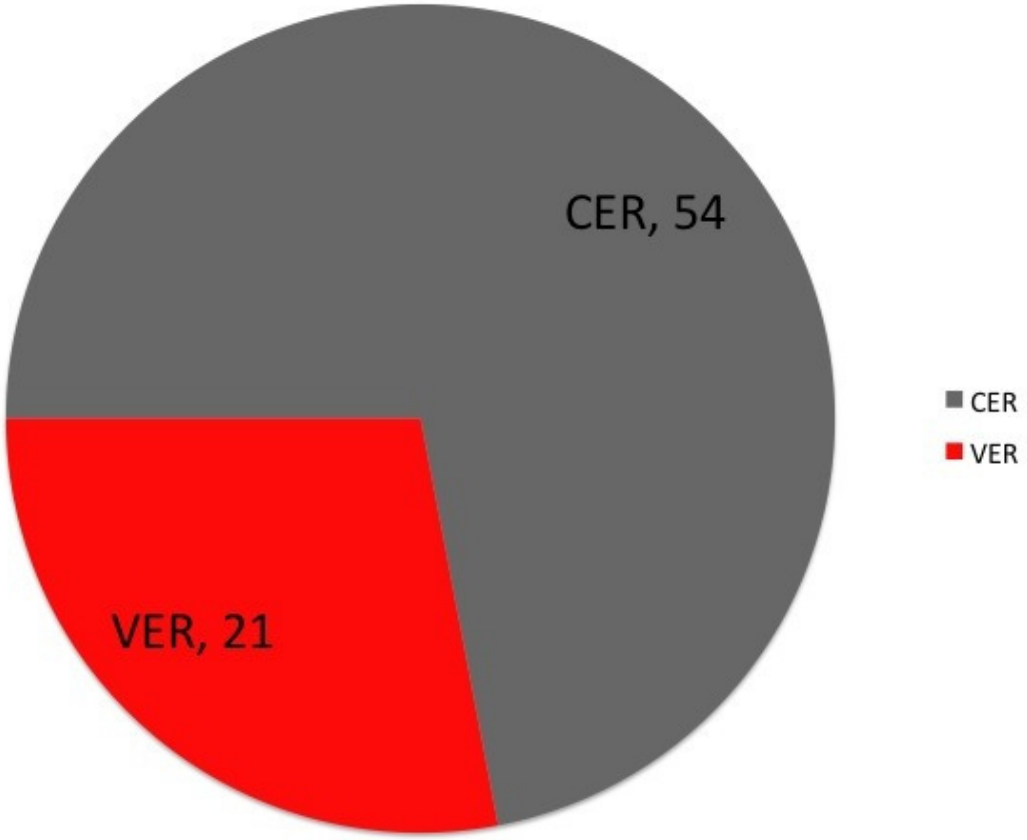
Voluntary market transaction volume by project type



Source: "State of the Voluntary Carbon Markets 2011", Ecosystem Marketplace and Bloomberg New Energy Finance

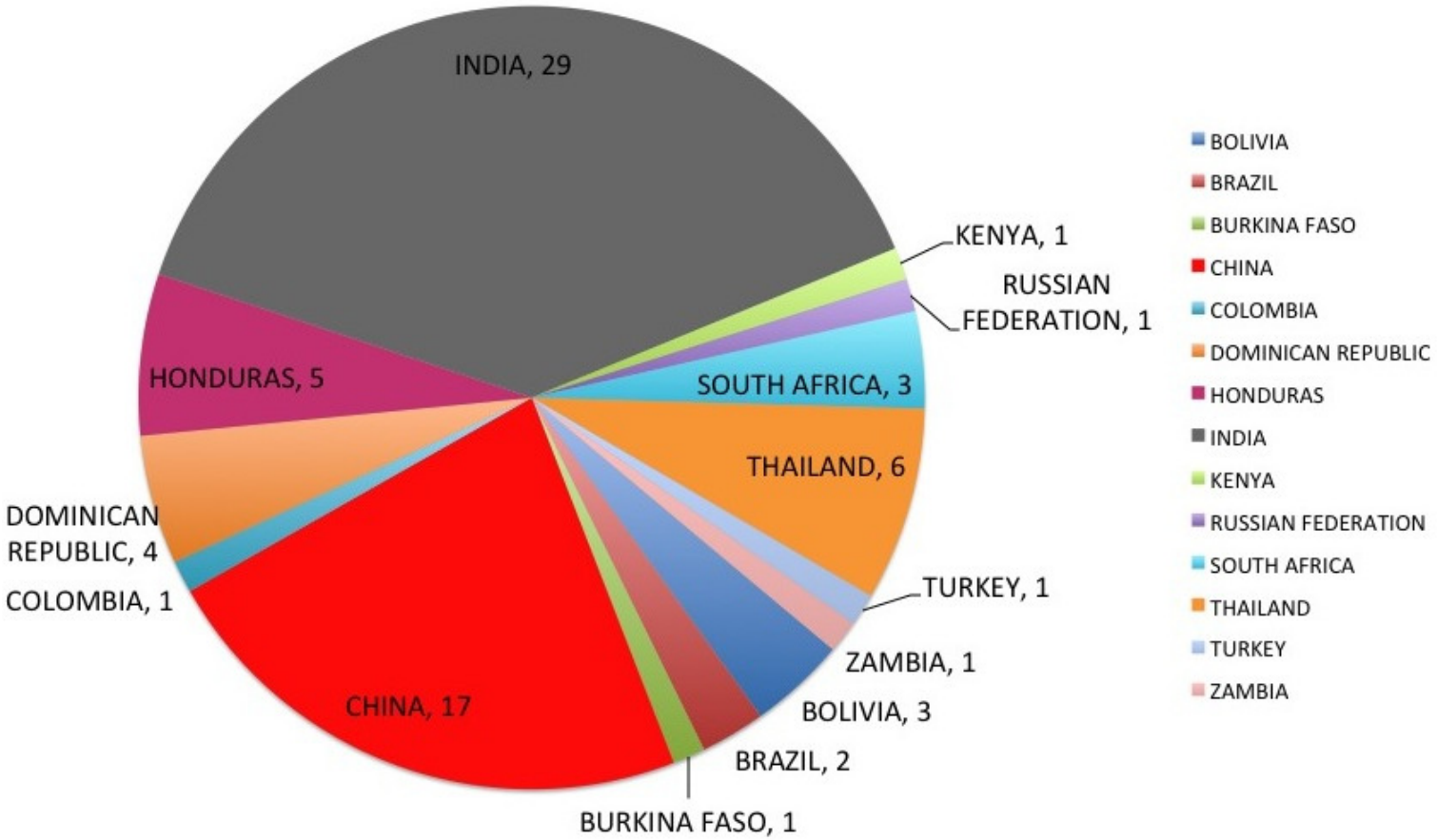
The Gold Standard®
Premium quality carbon credits

75 Gold Standard Biomass Projects (7%)



The Gold Standard®
Premium quality carbon credits

Gold Standard Biomass Project Locations



The Gold Standard®
Premium quality carbon credits

Benefits of crediting biomass projects under GS

- Biomass projects can deliver significant benefits
  - Reduced GHG from fuel substitution and avoided methane
  - Delivering energy in remote, rural locations
  - Job creation, creating value from waste
- However, environmental rigour is paramount
  - 'Leakage' must be addressed
- Projects should be carried out to the benefit, not detriment, of communities
  - Health issues must be managed e.g. silica from rice husks
  - Employment must be fairly compensated
  - Land for fuel crop use must not reduce that available for food production
- The Gold Standard approach provides a suitable governance framework, a mechanism for expert and NGO involvement and risk management

The Gold Standard®
Premium quality carbon credits

Challenges for crediting biomass projects

- The major technical challenge (for carbon crediting) with biomass projects is 'leakage' due to the availability and existing use of surplus biomass
- E.g. in India rice husk is predominantly used in biomass power plants and industry for thermal energy generation due to its excellent calorific value, hence the price of rice husk has increased six-fold in the last 10 years and availability is now scarce
- In this situation it is becoming very challenging for project activities to demonstrate that rice husk is available in surplus - a requirement as per CDM and Gold Standard requirements
- If biomass is not available in surplus, its use by the project activity may lead to diversion from other, pre-existing users that may have to shift to fossil fuels

The Gold Standard®
Premium quality carbon credits

Biomass projects – Gold Standard approach

- Need to demonstrate that activities make use of renewable biomass
- Monitoring plan must include monitoring of availability of surplus biomass of each type (to avoid leakage risk)
- Convincing evidence should be provided that the current users of biomass are in agreement with the new use envisioned **OR** demonstrate availability of surplus biomass in line with CDM methodologies
- Activities making use of land currently in use for growing food crops are NOT eligible for Gold Standard registration unless convincing evidence is provided showing that the energy crop is part of traditional rotational cropping
- Avoidance of methane from biomass decay is eligible if biomass is used to substitute non-renewable fuels in projects delivering energy services
- Retrofit: renewable fuel share of up to 50% achieved within three years
- Green-field: >80% renewable fuel share achieved from the outset

The Gold Standard®
Premium quality carbon credits

Biomass projects in the palm oil industry

- Evaluated on a case-by-case basis in light of a pre-feasibility assessment
- A compliance report must be provided at registration showing that the project activity is in compliance with the latest version of the Roundtable on Sustainable Palm Oil (RSPO) guidance document on Principles and Criteria for Sustainable Palm Oil Production
- Project proponents must demonstrate that they have started process for RSPO compliance at the time of submission of the pre-feasibility assessment
- Project activities making use of GMOs must declare so transparently
- Local stakeholders opinion on GMOs prevails and appropriate mitigation measures must be put in place to address their concerns.

The Gold Standard®
Premium quality carbon credits

Supporting best practice in biomass projects - Gold Standard sustainability assessment

'Do no harm' assessment

- UNDP Safeguarding principles
- Identify suitable mitigation measures

Stakeholder consultation guidelines

- Interactive, participatory, bottom-up approach
- Stakeholder Feedback Round

Sustainable Development Matrix

- UN Millennium Development Goals
- Self-score + blind-score = consolidated matrix

Sustainability Monitoring Plan

- Include indicators, mitigation measures, and parameters
- Part of the Gold Standard Passport

The Gold Standard®
Premium quality carbon credits

Supporting best practice in biomass projects

'Do No Harm' Assessment

- Safeguarding Principle 8: The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.

Project Baseline

- A biomass-to-energy project requires that agro-industrial crop residue - rice husk - is transported to the biomass plant
- Workers who load the rice husk for transport to the biomass plant are exposed to airborne particulate matter which irritates eyes and lungs

Mitigation Measure

- Provide workers with protection against airborne particulates in the form of Respiratory masks, Eye goggles, Gloves
- Add to Sustainable Development Matrix and Monitoring Plan

The Gold Standard®
Premium quality carbon credits

Supporting best practice in biomass projects

Stakeholder Consultation

- Active invitation of relevant stakeholders (local community, GS NGO supporters, local NGOs, local authorities, DNA) via newspapers, postings, email, door-to-door visits
- Valid concerns should be monitored

Project Baseline

- Project generates questions from local farmers about the ability to get a decent price for crop residue (i.e. wheat straw)
- The plant owner is willing to offer 2 rupees per truckload

MRV

- Monitored under indicator: Quantitative employment and income generation
- Parameter: Income monitored by crop residue delivery payment receipts

The Gold Standard®
Premium quality carbon credits

Sustainability Monitoring Plan

- Includes all non-neutral SD indicators, mitigation measures and stakeholder concerns
- Describes how monitoring will be done (how, with what frequency, by whom)
- Stakeholder consultation process is paramount to this

No		6
Indicator		Employment quality (worker safety)
Mitigation measure		Provide protective equipment (Respiratory masks, goggles, gloves)
Repeat for each parameter		
Chosen parameter		Worker acceptance receipts and usage of equipment
Current situation of parameter		No protective equipment in use
Future target for parameter		!00% worker usage rates
Way of monitoring	How	Worker equipment acceptance receipts and independent audit of worker usage rates
	When	Annually
	By who	Quality control teams

The Gold Standard®
Premium quality carbon credits

Case Study: Malavalli Power Plant, Mysore, India

- Developed by South Pole Asset Management and MyClimate.
- Consists of a 4.5 MW (gross) capacity grid-connected biomass-based power plant with high-pressure steam turbine configuration.
- Agricultural residues used include sugar cane trash, coconut fronds, corn cobs, and toppings of plantation wood.

Malavalli Power Plant

The Gold Standard®
Premium quality carbon credits

Case Study: Malavalli Power Plant, Mysore, India

Key sustainable development benefits:

- Reduces emissions by 21,000 tonnes CO2e per year
- Created 650 local jobs
- Contributed 45 Million rupees to the local economy
- Introduced healthier disposal practices for biomass
- Provides reliable energy for 18 hours per day, with improved voltage
- Increased availability of electricity promotes new industry, such as a saw mill
- Establishment of 'Grameena Udyog Samithi' finance platform to support locals
- Creation of an non-profit entity to manage power distribution, billing and collection of revenues from the project
- Implementation of 100% ash utilization scheme, involving production of organic fertilizer that is redistributed to farmers, thereby promoting organic farming.

The Gold Standard®
Premium quality carbon credits

Rigour and a holistic approach are vital

- Creates trust
  - in investors and financiers
  - In end-buyers and their customers
  - In policymakers
- Promotes adoption and change
- Serves as steering tool for policy makers
- Stabilises and builds markets
- Promotes linking between schemes
- Attracts capital
  - Reduced risk – project, political, reputational
  - Increases the investment universe - liquidity

The Gold Standard®
Premium quality carbon credits

What next?

- Fragmentation and proliferation of carbon markets post 2012
  - Second Kyoto commitment period? Targets?
  - New, regional markets – Australia, Brazil, China, SE Asia.. Turkey?
  - Expansion of existing schemes - EU legislation will expand – e.g. ETS Airlines
  - Grandfathering of high quality credits
- Scaling up
  - Sustainable growth – leapfrog economies
  - Regional and city-wide, multi-intervention programmes
  - Landscape-level
  - Mobilising governmental financial transfers and private capital
  - ENGAGEMENT, QUALITY AND ASSURANCE WILL BE VITAL

NAMAs

The Gold Standard®
Premium quality carbon credits

Adrian Rimmer

adrian.rimmer@cdmgoldstandard.org

+41 22 788 70 80

www.cdmgoldstandard.org

Influence, Innovate, Inspire