



E | T | I | F | O | R
valuing nature

Influence of corporate responsibility on financial return in planted forests: case studies from South East Asia and Africa

IUFRO 2017, Freiburg, 21st September 2017

Lucio Brotto (ETIFOR)
Lara Secco, Mauro Masiero and Davide Pettenella (UNIPD)

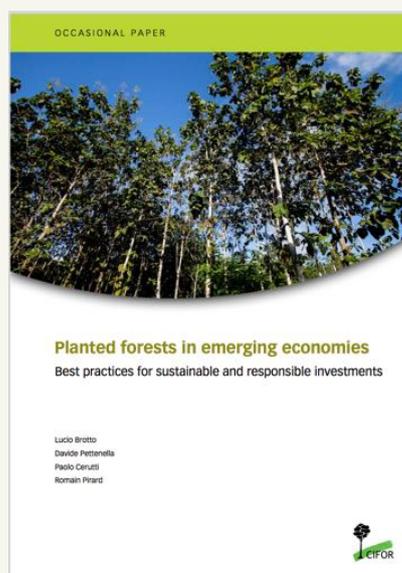
SPIN-OFF Padova University



UNIVERSITA
DEGLI STUDI
DI PADOVA

Investments in planted forests

- Growing area, 278 Mha, 6.8% of forests
- 75% industrial timber production by 2050
- Increasing timberland prices
- 1-3% of forests improves financial performance of portfolio
- 2016: 80 USD billion in US, Latin America, Asia and Eastern Africa
- Ownership: from forest companies to TIMOs + smallholders
- Positive impacts, BUT also many negative impacts (**risks**)



(RMK Timberland Group, 2013; FAO, 2010; Carle and Holmgren, 2008; Peter-Stanley, 2012)

Sustainable and Responsible Investments

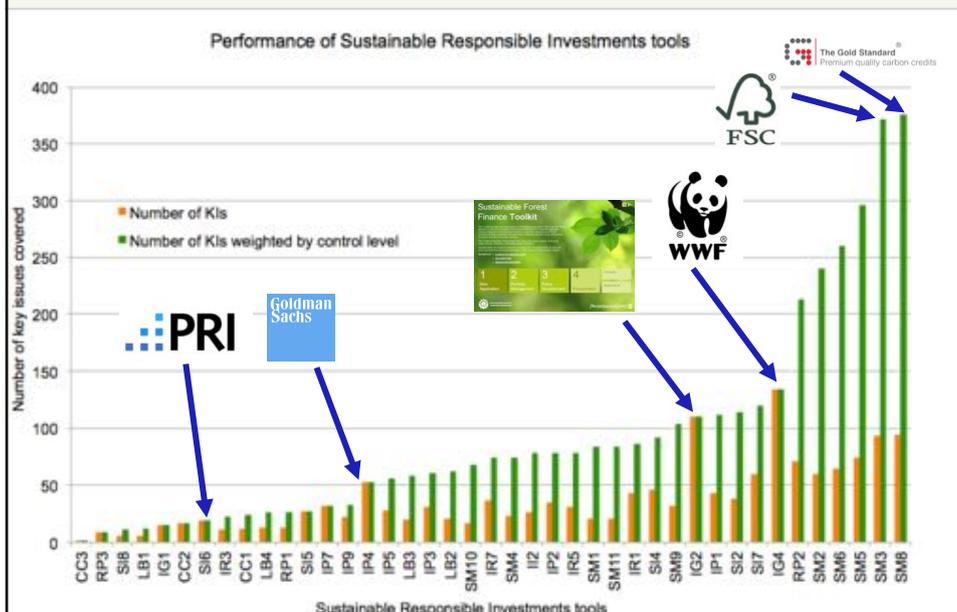
ethical, impact investing, social responsible, etc.

A generic term covering any type of investment process that **combines investors' financial objectives** with their concerns about **Environmental, Social and Governance (ESG)** issues.

- ➔ annual growth > 35% per year in Europe since 2009
- ➔ mainly institutional investors (e.g. pension & insurance)
- ➔ > 1000 organizations involved in emerging markets
- ➔ new investors entering forest sector

(EUROSIF, 2016; FAO, 2012)

Quality of impact tools applicable to forestry



What are the impacts on risks in planted forests?

Assessment of impacts

AUTHOR	TARGET	AREA	CSR TOOL	IMPACT FOCUS	METHOD	OUTCOMES
Morris & Dunne, 2004	Processing companies	South Africa	FSC	Value chain & market	Interview with control firm approach	POSITIVE: access to market. NEGATIVE: small enterprises are marginalized
Nebel et al., 2005	Natural forests and processing companies	Bolivia	FSC	Overall	Statistical analysis	POSITIVE: access to market and price premium. Enforcement of statutory control
Overdevest & Rickenbach, 2006	Natural forests and plantations	USA	FSC	Overall	Survey-based	NULL: no price premium
Kollert & Lagan, 2007	Natural forests	Malaysia	FSC	Financial performances	Statistical	POSITIVE: price premium
Foster et al., 2008	Natural forests	USA	FSC	Environmental (carbon)	Sample plots with control firms approach	POSITIVE: more carbon stock
Maletz & Tyslachouk, 2009	Natural forests	Russia	FSC	Audit techniques	Interview	POSITIVE: socially inclusive NULL: formalistic style
Anaupo et al., 2009	Natural forest and plantations	Brazil	FSC and PEFC	Overall	Survey-based	NULL: no price premium POSITIVE: better market access
Cubbage et al., 2010	Plantations	Argentina and Chile	FSC and PEFC	Overall	Interview and statistical analysis	POSITIVE: improved forest management practices, legal and social aspects
Boustah et al., 2010	Natural forests and processing companies	USA and Canada	FSC and PEFC	Financial performances	Statistical analysis with control firm approach	POSITIVE: financial benefits for FSC on the long-run
Cerutti et al., 2011	Natural forests	Cameroon	FSC	Forest management practices	Statistical analysis with control firm approach	POSITIVE: reduction of harvesting rate in a situation of overharvesting
Johansson & Lidestav, 2011	Natural forests	Sweden	FSC and PEFC	Environmental	Survey-based and statistical analysis	NULL: no improvement detected. Negative for PEFC: increased harvesting rate
Lidestav & Berg Lejon, 2011	Natural forests	Sweden	FSC and PEFC	Overall	Statistical analysis	POSITIVE: increased harvesting rate in a situation of under harvesting
Dare et al., 2011	Plantations	Australia	FSC	Social	Interview	NULL POSITIVE: improvement of engagement practices
Moore et al., 2012	Natural forests and plantations	USA and Canada	FSC and PEFC	Overall	Survey-based	POSITIVE: FSC requires more environmental changes, PEFC requires more economic changes

- focus on FSC certification, no straightforward answer
- few studies measuring impact on field







Registry ID*	Legal structure**	Productive area [ha]	Project start	Project phase	Species	Income Source	MAI (m ³ /ha/y) & Rubber (t/ha/y)	Rotation period (y)	IRR%	Number of SRI tools
KH_14_1	LLC	5000-15000	2009	early	Tectona g.	Timber	11	25	15.0	4
KH_14_2	LLC	>15000	1980	late	Hevea b.	Latex, timber, firewood, rubber seeds	6.5 & 1.7	30	15.2	2
KH_14_3	Non-Profit	<5000	2007	early	Hevea b.	Rubber, sawnwood	1.5, only rubber	30	16.5	0
KH_14_4	Sole p.	<5000	2004	mid	Hevea b.	Rubber	2, only rubber	25	19.6	0
UG_14_01	LLC	5000-15000	2002	mid	Pinus c.	Timber, fuelwood, carbon credits	25	18	16.7	6
UG_14_2	LLC	<5000	2006	mid	Pinus c.	Timber, fuelwood	20	18	12.0	0
UG_14_3	Sole p.	<5000	2011	early	Eucalyptus g.	Timber, poles, firewood	15	10	NA	0
UG_14_4	Sole p.	<5000	2007	early	Pinus c.	Timber	10	20	NA	0
VN_14_1	Non-Profit	<5000	2005	mid	Acacia a.	Timber, chipwood	10	10	27.2	2
VN_14_2	Gov	5000-15000	1977	late	Acacia m.	Timber, NTFPs	15	10	17.8	3
VN_14_3	Gov	<5000	1998	late	Acacia m.	Woodchip, honey	16	7	17.6	3
VN_14_4	Gov	<5000	2001	late	Acacia m.	Woodchip, honey	16	7	15.8	0

*Due to confidentiality agreements no information that can reveal the identity of companies involved in the study are provided. Case studies are identified through Registry ID. KH = Cambodia, UG = Uganda, VN = Vietnam. ** LLC = Limited Liability Company, Sole p. = sole proprietorship, Gov = public company privatized or in the process of privatization.

- property structure: private, no-profit, government (privatized)
- area: from 15 to 17000 ha
- 5 different species
- different products & different investment processes

Desk Vs Field

KEY ISSUE	RISK RANK DESK	RISK RANK FIELD
Existence of policies, procedures and measures for monitoring and/or prevention of forest damage caused by fire, diseases, pests, wind, water, climate change and infringements (e.g.: illegal harvesting and illegal waste dumping)	20	1
Plan for resources requirements and allocation (financial, human, machine, land)	75	2
Amounts of investments and/or expenditures in the forest sector and related sources	104	3
Climate change is affecting the ability of the organization to produce, source or supply commodities that are at risk	61	4
Forest management not threatening/diminishing resources (include food) or tenure rights of indigenous people	6	5
Revenue generated by the management of forest resources	94	6
Financial sources and investments in the forest sector guarantee the sustainability of management in the long term	105	7
Operational guidelines and training for health and safety procedure and equipment of forestry workers (include emergency training)	8	8
No illegal logging exists	19	9
Communication between stakeholder is efficient	28	10
Fuel, oil, toxic substances and waste are properly stored disposed	35	11
Presence of forest management plan (include Project Design Document)	63	12
Careful selection of sites, species and genotype adapted to local conditions	68	13
The project is reducing poverty	129	14
Compensation and benefits to increase workers loyalty, long term employment and relations	60	15
Social impact assessment	17	16
Presence of a person responsible for the control of pests and diseases	89	17
Prevention of encroachment	145	18
Origin of seed, plants, cuttings identified and certified	98	19

SRI tools RISK mitigation capacity

	KH_1	KH_2	KH_3	KH_4	UG_1	UG_2	UG_3	UG_4	VN_1	VN_2	VN_3	VN_4
RISK 25	17,5	11,6	15,3	10,6	14,7	19,0	8,6	9,1	18,2	15,5	13,5	15,9
% MITIGATED RISK	80,1	16,4	20,6	21,8	86,3	80,4	0,0	6,5	69,5	76,0	62,1	39,7
% SRI MITIGATED RISK	34,3	0,0	0,0	0,0	47,9	0,0	0,0	0,0	55,9	60,6	53,4	0,0
IRR%	15,0	15,2	16,5	19,6	16,7	12,0	NA	NA	27,2	17,8	17,6	15,8
SRI TOOLS	YES MANY	YES FEW	NO	NO	YES MANY	NO	NO	NO	YES MANY	YES MANY	YES FEW	NO

- most of the project with SRI have high risk mitigation
- the SRI strategy can be effective in dealing with 85% of the risk mitigation













Take home messages

- Investments with SRI tools are mitigating risks (up to 85%)
- FSC reported as key in:
 - Generating new measures of risk mitigation (e.g. price premium)
 - Improving existing measures (e.g. forest management instruments)
 - Improving dialogue
- Responsibility and profitability: biased by case studies diversity

www.etifor.com/en/publications/

www.cifor.org/library/6136/planted-forests-in-emerging-economies-best-practices-for-sustainable-and-responsible-investments

www.regenwald-schuetzen.org

More info:
lucio.brotto@etifor.com

Etifor.com



SPIN-OFF PADOVA UNIVERSITY



UNIVERSITA
DEGLI STUDI
DI PADOVA