

FOR PEOPLE, PLANET AND PROSPERITY

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#NGP2019

NEW GENERATION PLANTATIONS

- Maintain ecosystem integrity
- Protect and enhance high conservation values
- Developed through effective stakeholder involvement processes
- Contribute to economic growth and employment

CREATE SHARED VALUE & HIGH CONSERVATION VALUES



SUSTAINABLE INTENSIFICATION

"Sustainable intensification: An approach to produce higher levels of forest ecosystem services from the same area of land while decreasing the negative environmental, social and cultural impacts of forestry production."

Proposed definition for sustainable intensification in forestry from Tim Payn, lead scientist at New Zealand research institute Scion, based on IIED (2015)
Sustainable Intensification Revisited.

- · Landscape stewardship novel governance mechanisms
- Land-use planning forestry & agriculture connected
- Management precision forestry agriculture & restoration

ECOSYSTEM SERVICES





POSITIVE IMPACT

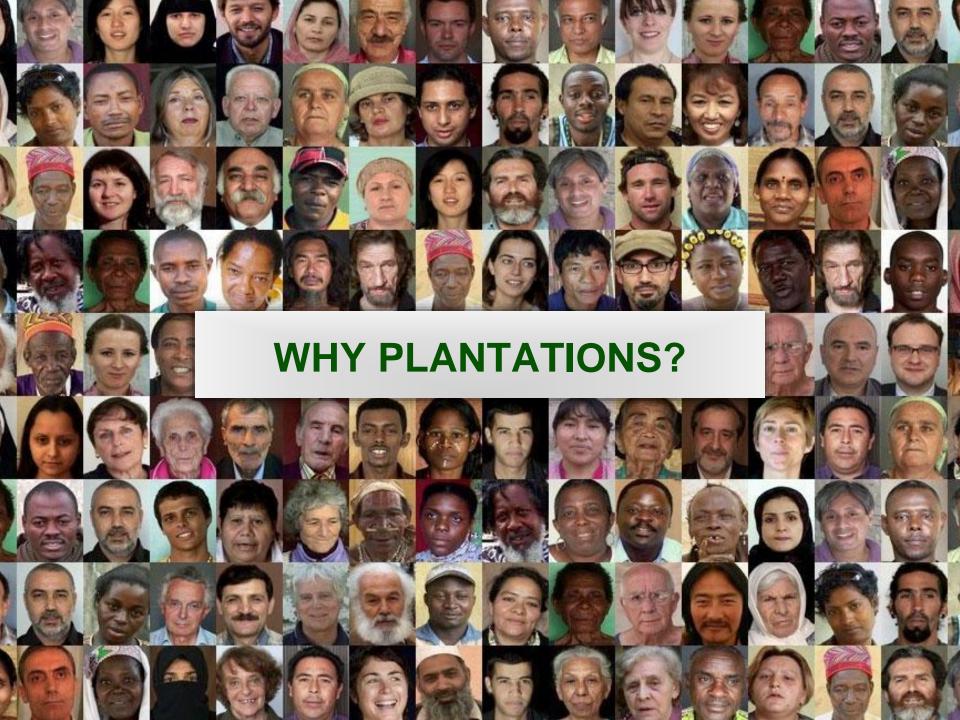
Plantations can bring degraded land back into productive use, alongside restoring natural ecosystems and the services they provide.

Figure 2. Ecosystem services from plantations, in relation to other ecosystems and land uses. Source: Baral et al. 2016. A proposed framework for assessing ecosystem goods and services from planted forests.				
Ecosystem services	Provision of ecosystem services from planted forests in relation to:			
		ddidada		0
Provisioning services	Native forests	Native grasslands	Managed pasture	Agriculture
Food production	<u> </u>	<u> </u>		<u> </u>
Timber production	⊕	(1)		(1)
Medicines	<u> </u>	<u> </u>	- Ř	•
Freshwater	<u> </u>	(1)	<u> </u>	•
Regulating services				
Fresh air regulation	W	①	①	①
Carbon sequestration and storage	①	①	①	(1)
Groundwater recharge	W	$\overline{\mathbb{Q}}$	<u> </u>	①
Natural hazard regulation	(①	①	ூ
Water purification	(igotimes	①	ூ
Disease regulation	(?	①	ூ
Pollination	(igotharpoons	igotharpoons	ூ
Erosion prevention and soil protecti	ion 😑	igotharpoons	⊜	ூ
Habitat or supporting serv	vices			
Habitat for species	(igotharpoons	①	ூ
Maintenance of genetic diversity	(igotharpoons	?	ூ
Cultural services				
Spiritual and religious values	igotimes	igotharpoons	?	?
Aesthetic values	igotimes	$\underline{\Psi}$?	?
Recreation and ecotourism	(?	①	ூ



Pirard et al. (2015) found evidence of REDUCED DEGRADATION of natural forests with the expansion of plantations

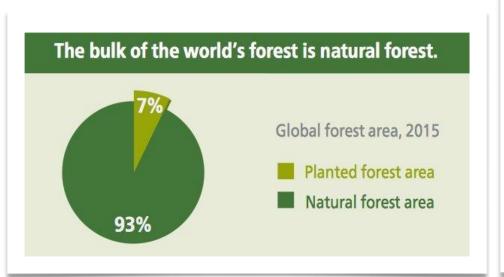


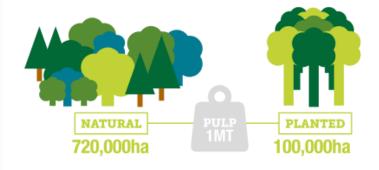


WHY PLANTATIONS?

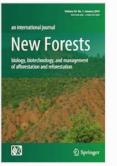
Logging from natural forests is 816 million m3 (26%) lower due to wood from Plantations

(Buongiorno & Zhu, 2014)





PLANTATIONS
MAKE UP 7% OF
GLOBAL FOREST
COVER BUT
PROVIDE 33%
OF COMMERCIAL
TIMBER



New Forests

pp 1–16 | <u>Cite as</u>

Production, restoration, mitigation: a new generation of plantations

