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Contents

A.	Key messages	
	Impact pathway and intermediate development outcomes (IDOS)	
C.	Progress along the impact pathway	2
D.	Gender research achievements	10
E.	Partnerships building achievements	11
F.	Capacity building	12
G.	Risk management	13
Н.	Lessons learned	13
Anr	nex I. Indicators of progress	15
Anr	nex 2. Performance indicators for gender mainstreaming with targets defined	29

A. Key messages

The year 2016, last year of FTA phase 1, has been impacted by the efforts devoted by the FTA senior management to the development of the FTA 2 proposal and the continuing uncertainty in funding that translated once again in a significant and unplanned cut in W1/W2 funding very late in the year. For what funded research is concerned, 2016 has seen significant achievements made by the program in output, outcome and impact terms as detailed further down in this report. 2016 and overall Phase 1 FTA results contribute to placing the program, for its phase 2, as a potential key provider of knowledge and solutions for the implementation of the SDGs and the Paris Agreement. Among the many achievements for 2016, the followings offer potential for scaling up and out and show recognition of our work by partners.

- Transforming the Roundtable on Sustainable Palm Oil for greater gender equality and women's empowerment: FTA prepared a report for Oxfam Novib and USAID evaluating the RSPO P&C and Guidance. The report will be the basis to develop a 'gender strategy' for the RSPO and to revise gender responsiveness of the RSPO P&C and Guidance. It was used to organize a workshop by the RSPO human rights working group during the most recent RSPO annual meeting in Bangkok. It prompted some company representatives (BASF, Sime Darby, Agropalma) in the room to indicate interest in becoming member of the Human Rights working Group of the RSPO, and some expressly in the newly established sub-group on gender.
- The trees for food security project was able to show how over 30,000 farmers had been reached with new tree options in three years, through a combination of widespread participatory trials with national partners and the development of community based rural resource centers (RRC's) to multiply and disseminate quality tree germplasm and knowledge about how to incorporate it on farms. This is now leading to national co-investment in larger networks of RRCs, the use of social network analysis to accelerate the spread of successful options amongst farmers and more diversity in the options being promoted through government extension systems in keeping with what smallholder farmers want. T4FS project measured e.g. substantial wheat yield increases with Faidherbia albida in Ethiopia (25% close to trees and 10% overall) and tripling yields of climbing beans held up by Alnus acuminata stakes in Rwanda. Similarly Agroforestry for livelihoods of smallholder farmers in Northwest Viet Nam (AFLI) achieved significant policy outcomes and financial impacts demonstrating again the importance and impact of Tree Based Systems as further emphasized by PROFOR through the cases of Malawi and Rwanda.
- Thanks to our legal study on the distribution of powers and responsibilities affecting forests, land use, and REDD+ across levels and sectors in Vietnam, and follow up analysis of multilevel governance in two provinces, we were awarded by Minister of MARD in Vietnam for our outstanding contribution in the presence of more than 30 parliament members, high ranking officers from over 40 provinces in Vietnam and Chairman of Science, Technology and Environment Committee of the Parliament.

B. Impact pathway and intermediate development outcomes (IDOS)

The FTA ToC describes how the program will (1) undertake high quality FT&A research in collaboration with partners and other stakeholders to (2) co-generate relevant, credible and legitimate knowledge that (3) informs and facilitates improved policy and practice and institutional change, which (4) contributes to the delivery of positive, equitable and inclusive development and environmental outcomes. Key elements include **co-learning** through meaningful stakeholder and partner engagement, **interdisciplinarity** to address complex – often "wicked" – problems, **inclusivity** (i.e. women, youth, the poor and marginalized) and a focus on **end-user needs** and **adaptive management**. The overall FTA ToC in combination with nested FP and lower-level ToCs, provide explicit, testable models of the research-to-development process. Project (=grant) level outcome evaluation done during the reporting period have helped advance theory, methodology and understanding of knowledge-to-policy processes and will contribute to further ToC development and refinement in the new year. The main outcome and impact assessment works produced in 2016 are summarized and hyperlinked in Sections C.2 and C.3.

C. Progress along the impact pathway

C.1 Progress towards outputs

In 2016 we continued using and upgrading our FTA database (the cornerstone of our RBM system that contains the operational plans, bilateral project details, outputs, outcomes, geographies etc.). This allows us to generate <u>traffic light</u> reports on request as well as verifying and monitoring progress towards achievement. Screen capture illustrating the status of 2016 outputs is presented below.



Flagsh	ips	✓ Cluster	Activities		4 Key C	Outputs				
Code	Description	Lead Center	Contact Person	Progress Status	Total	Done	Verified	In Progress	Cancelled	No Status
6.1	Smallholder production systems and markets	ICRAF	Fergus Sinclair	73.02%	63	46	41	14	3	0
6.2	Management and conservation of forest and tree resources	Bioversity	Laura Snook	52.90%	124	78	74	39	7	0
6.3	Landscape Management for environmental services, biodiversity conservation and livelihoods	ICRAF	Meine van Noordwijk	52 03%	123	64	58	51	8	0
6.4	Climate change adaptation and mitigation	CIFOR	Christopher Martius	67 65%	136	92	68	38	6	0
6.5	Impacts of trade and investment on forests and people	CIFOR	Pablo Pacheco	88.21%	87	75	64	11	1	0
6.6	Cross cutting themes	CIFOR	Robert Nasi	72.22%	144	104	104	36	4	0

Given the levels of funding cuts of the last two years we are still having a strong level of achievement; however, results have been delayed and are lower than for the previous years. Budget reduction known late in the year such as in 2016 impact the partners' reserves, delay research, and significantly jeopardize the execution of the subsequent POWB, given the resulting reduced capacity of partners to pre-finance new research (as this is requested per the CG functioning modes). The elements that suffered the most are of course the ones the most dependent on W1-2 (cross-cutting themes or sentinel landscapes in FP3). Further examples of activities that were cancelled or delayed due to budget shortfall are provided here. A summary of specific achievements by Flagship can be found here and in SL report. The following subsections will present the levels of outputs achieved in publications, online portals and tools and communication, outreach.

Publications

In 2016, we produced more than <u>880 publications</u>, 78% open access. FTA 2011-2016 publications were downloaded more than 410,000 times (>64,000 times for 2016 only) not counting direct downloads from publisher or scientist's webpages. The OA proportion continues to increase with the usual time lag or an "embargo" delay between publication date and actual OA status for the last year. In budgetary terms realizing 80% "gold" open access for our Thomson-ISI papers represents a cost of about USD 650,000 in publication fees. Out of the 264 articles in impact factor journals, 23% IF>2 and 5% IF>5.

We produced several special issues on Wetlands Ecology and Management Journal, International Forestry Review Journal, and Journal of Environmental Science and Management. Our 5 most downloaded scientific publications in 2016 are:

- Buttoud, G. Nguinguiri, J-C. (eds.) 2016. La gestion inclusive des forêts d'Afrique centrale: Passer de la participation au partage des pouvoirs.: 235p. FAO and CIFOR
- Deakin, E.L. Kshatriya, M. Sunderland, T.C.H. (eds.) 2016. Agrarian change in tropical landscapes Bogor, Indonesia: Center for International Forestry Research (CIFOR). http://dx.doi.org/10.17528/cifor/005867
- Andersson, K. Lawrence, D. Zavaleta, J. Guariguata, M.R. 2016. More Trees, More Poverty? The Socioeconomic Effects of Tree Plantations in Chile, 2001-2011 Environmental Management, 57 (1): 123-136. http://dx.doi.org/10.1007/s00267-015-0594-x
- Elias, M., Arora-Jonsson, S. 2016 Negotiating across difference: gendered exclusions and cooperation in the shea value chain. Environment and Planning D: Society and Space ISSN: 1472-3433; http://hdl.handle.net/10568/76351
- Pirard, R. Petit, H. Baral, H. Achdiawan, R. 2016. Impacts of industrial timber plantations in Indonesia: An analysis of rural populations' perceptions in Sumatra, Kalimantan and Java. CIFOR Occasional Paper No. 149. Bogor, Indonesia: Center for International Forestry Research (CIFOR). http://dx.doi.org/10.17528/cifor/006037

As part of the <u>evidence based forestry</u> initiative we continued the series of systematic reviews and by the end of 2016 had published 21 systematic review protocols and 11 completed reviews.

Data repositories, portals and online tools

We have continued our efforts in data management, archiving and open access. CIFOR migrated DataVerse on its environment since March 2015. CIFOR DataVerse contains 75 studies and 1,123 data files and downloaded for 3,499 times. Since it was developed it has reached 3,131 page views and 1,000 users with 66% of returning users. ICRAF DataVerse contains now 410 studies, and 1,609 data files that were downloaded more than 92,000 times since inception. The Sentinel Landscape DataVerse is steadily growing with 21 studies and 333 unique datasets.

The year 2016 was also packed with activities to encourage future efforts in data management with a focus on metadata and data quality. The questions of usage, aggregation, standardization, interoperability and availability were discussed in detail with scientists to ensure that the outputs are well disseminated.

We continued improving our data portals and developed/improved/contributed other online tools totaling more than 2 million downloads and sessions. For the main portals we continued the development of Terra-I (hosted by CIAT) is the engine behind WRI Global Forest Watch and is now expended to cover East Asia; the Tropical managed forest observatory (TMFO) pursued the analysis of the 490 permanent plots generating new knowledge and publications. The number of dataset and map available through the Landscape Portal (hosted by ICRAF) have steadily increased (including all the Sentinel landscape datasets) offering now an interactive webmapping.

Communication and outreach products

In 2016, the traffic via the Forests, Trees and Agroforestry website increased to some 37,000 unique page views, compared to nearly 23,000 in 2015. During the year, six newsletters on FTA research were distributed to 4,600 subscribers. More than 200 blogs based on FTA research have been put online on FTA and partners' websites, and the number of page-views exceeded 50,000. One of these sites, Forests News, a dedicated site presenting research findings in journalistic-style articles, attracts about 31,000 readers each month. ICRAF's Agroforestry Word Blog had some 110,000 page views in 2016. FTA articles and publications are also actively supported through promotions on social media increasing readership and downloads. CIFOR and ICRAF have built a strong community of people and organizations interested in accessing their knowledge. CIFOR counts 28,000 followers on its English Facebook page and 36,500 followers on its Twitter account. The World Agroforestry Centre has 16,000 Facebook followers, and 33,000 followers on Twitter.

As part of their outreach activities, FTA partners, including CIFOR, convene and participate in events at all scales. FTA scientists played an active role at the The IUFRO Regional Congress for Asia and Oceania in Beijing in October, the IUCN World Conservation Congress in Hawaii in September, the 2016 Asia-Pacific Rainforest Summit in Brunei in August, and the Asia-Pacific Forestry Week in the Philippines in February, among dozens of other events. A key FTA event is the Global Landscapes Forum (GLF). Last year, more than 5,500 people from over 95 countries connected in person and online at the GLF in Marrakesh. A second GLF dedicated to sustainable financing was held in London in June for the second year in a row, attracting key experts. The importance of GLF as the key event for sustainable land use has been recognized by the German government who will support it for the coming four years. The GLF website, which also serves as a portal for sharing information from FTA, has counted nearly 370,000 page views in 2016.

C.2 Progress towards the achievement of research outcomes and IDOs

-1		
Flagship Projects	Expected outcomes 2016 (Quantified)	
Flagship Project 1:	Nested-scale planned comparisons of the cost effectiveness of different tree intensification options co-initiated across large scaling domains in at least six countries (likely Peru, Kenya, Ethiopia, Mali, Niger, Vietnam), covering at least 10 million people and 100	We have exceeded the expected outcome target with nested scale planned comparisons initiated directly in seven countries in Africa and Asia covering scaling domains relevant to the livelihoods of over 11.5 million people and groundwork laid for them to be rolled out in a further two countries in Latin America, the options are relevant for an area of more than 105 million ha. Planned comparisons of different tree establishment techniques, soil and water conservation options, post harvest pest and disease control and farmer managed natural regeneration have been initiated in Kenya, Ethiopia, Niger and Mali involving trials on nearly 10,000 farms through the IFAD-funded dryland restoration project working with development partners. Large scale participatory trials of agroforestry intensification options have also been initiated in Ethiopia, Rwanda and Uganda through the ACIAR-funded Trees4FoodSecurity project and in Vietnam through the ACIAR-funded AFLi project. FTA smallholder agroforestry restoration options designed for different contexts in Brazil have been endorsed by national partners and cocoa and coffee intensification options for different zones put in place within a developing national policy framework in Peru.
	six countries (likely Indonesia, Kenya, Ethiopia, Mali, Rwanda, Peru) initiate a systematic evaluation of the cost effectiveness of alternatives for value chain development, extension provision and seed and	The expected outcome target has been realised with value chain innovation activities initiated at scale in six countries. Value chain innovation platforms, involving private and public actors have initiated systematic evaluation of options to increase income capture for smallholders from coffee, honey and dairy value chains in Uganda; and, Solwesi beans, soya beans and local chickens in Zambia, through the ACIAR-funded VIP4FoodSecurity project, complemented by efforts in Rwanda to develop processing and marketing of tree tomato in the ACIAR-funded Trees4FoodSecurity project. Marketing of fruit (including ongoing domestication of indigenous species) was targeted through the ACIAR-funded AFLi project across three provinces in Vietnam while options for timber and a range of NTFPs (non-timber forest products), including bamboo, are being evaluated across three provinces of Indonesia in the ACIAR-funded Kanoppi project. A new USAID-funded public-private partnership with Natura in Brazil has initiated evaluation of product diversification strategies for oilpalm producing smallholders in the Brazilian Amazon.
	systematic testing of policy / institutional reform to lift barriers to sustainable and equitable tree management in large scaling domains in six countries (likely Peru, Kenya, Rwanda, Mali,	The expected outcome target has been met with policy innovations already achieved in five countries, options developed for a sixth and groundwork for analysis of policy constraints initiated in two more. In Peru we previously reported on redefinition of agroforestry in forest regulations legalising timber production from sustainably managed fallows. In 2016 FTA research contributed to agroforestry concessions (CUAF) becoming incorporated in national policy associated with formalising land title and are expected to contribute to national commitments, including to restore 3.5 M ha of land in the 20 x 20 initiative. Key FTA contributions are inclusion of a whole farm approach to framing regulations and recognition of a diverse portfolio of agroforestry options. In Vietnam we previously reported the adoption of new provincial and district policies to promote agroforestry in the province of Yen Bai, this has been consolidated in 2016 with an agreement by the Department of Agriculture and Rural Development to co-invest in six exemplar agroforestry landscapes across three provinces. As a result of the success of sustainable intensification of farming systems through promotion of agroforestry in the ACIAR-funded Trees4FoodSecurity project, FAO has engaged FTA to advise on the framing of national agroforestry policy for Rwanda, evaluation of livestock governance options have been initiated in Ethiopia and the Minister of Agriculture has invited FTA to assist him in developing a national strategy to scale up agroforestry adoption in the country. In India we previously reported the adoption of a national agroforestry policy, in 2016 this was taken forward in state level legislation removing constraints to farmers selling many native timbers and loan programmes for establishing agroforestry through the National Bank for Agriculture and Rural Development. In Brazil restoration options developed by FTA for the cerrado and caatinga agroecological zones have been endorsed by a range of national bodies including the Brazilian f
Flagship Project 2:	three Amazonian countries (among Peru, Colombia,	managing tree cover at the <u>farm-forest interface</u> and policy options to overcome them. A <u>story</u> was written on the achievements of this outcome: It describes how FP2 research and associated efforts led to the implementation of a certification program in Loreto, Peru for peccary pelt export and legal sale of bushmeat in local restaurants as well as
	Brazil, Ecuador) use FTA recommendations to	facilitating an agreement between local communities and a gas company for the management and hunting of small game and conservation of large game on the

Flagship Projects	Expected outcomes 2016 (Quantified)	
Tojecus	promote policies to legalize hunting and bushmeat trade, taking into account women's and men's roles and benefits. IDO 1,2,4,5	company's concession. In Ecuador, rural communities and landowners petitioned to include wildlife restoration as an environmental service, along with carbon stocks. This would be monitored using camera traps and hunters' data. In Brazil, a participatory monitoring system for bushmeat and other game products has been tested in selected communities and is being adopted by municipalities. In addition, a recommendation based on FTA bushmeat research (UNEP/CBD/SBSTAA/REC/XX/11 "Sustainable use of biodiversity: bushmeat and sustainable wildlife management: information in response to decision XII/18, paragraph 13") was converted into the CBD COP decision XIII/8 during COP13 in Cancun in 2016.
	Four universities in developing countries adopt three training modules developed by FTA. IDO 6	An <u>outcome story</u> documents why the training modules were developed and how they contribute to IDO 6 by filling a gap observed in many Universities, where little or no attention is given to managing and conserving genetic resources in curricula about forestry, natural resource management or environmental studies. Four training modules developed by FTA scientists on the basis of research findings include background materials and teaching tools needed to use the modules effectively. They have been translated into Spanish, French, Russian and Chinese. The Spanish language modules have been taken up at the University del Valle, Guatemala; the Pontificia Universidad Javeriana, Cali, Colombia; the University of Concepcion, Chile; and the National University of Buenos Aires, Argentina (within an MSc course). In addition, a regional training center on forest genetic resources was established in China in 2016, collaboration between the Chinese Academy of Forestry and a private sector partner, which used these modules to train 60 professionals from countries in the Asia-Pacific region that year. Key factors contributing to the uptake of these modules included FTA's organization of training events using them, where professors had the opportunity to use them.; their availability, for free, on the web; the case study approach, which included examples relevant to the needs of practitioners; and involving experts on forest genetic resources coordinated by FTA scientists in each region (LAFORGEN in Latin America, APFORGEN in the Asia Pacific, SAFORGEN in sub-Saharan Africa).
	Tree seed centers and development NGOs in Africa and Nepal adopt the interactive map tool produced by FTA. IDO 6	An <u>outcome story</u> 'Tree seed centers and development NGOs in Africa and Nepal adopt the interactive map tool produced by FTA (IDO 6)' documented that the key to influencing policy and practice changes were (i) directly working with national tree seed centers of developing countries and being involved in training and working with project staff involved in forest landscape restoration; and (ii) actively participating in the biannual meetings organized by the OECD for the 'Scheme for the Certification of Forest Reproductive Material Moving in International Trade'. A study conducted in July determined that the <u>Agroforestree database</u> had been accessed 73,109 times, the <u>Agroforestry Tree Domestication primer</u> had been downloaded 50,672 times, and the <u>Tree Diversity Analysis manual</u> had been downloaded 39,481 times, The <u>Agroforestry Species Switchboard</u> had been accessed 28,736 times and the <u>vegetationmap4africa</u> 11,016 times (numbers reflect different dates when tools or statistics became available). R packages for community ecology and species suitability modelling have been installed many times, with the <u>BiodiversityR package</u> having been installed at least 51,845 times and the <u>vegan community ecology package</u> at least 528,365 times (statistics obtained via the <u>cranlogs</u>
Flagship Project 3:	Development agencies in >5 countries start using sentinel landscape characterization data for planning gender-sensitive sustainable development interventions in the established broad domains of similarity. IDO 2, 3, 4, 6	package that only reflects installations in RStudio). There is evidence that this outcome was achieved in the Nicaragua/Honduras, Peru and Burkina Faso (supported by the BioDev project) landscapes, as well in both the Jambi and West Kalimantan parts of the Sumatra/Kalimantan landscape – with variable emphasis on data and experience obtained prior to and in parallel with the SL characterization, and the SL data per se. For Uganda it is based on prior data only. In retrospect the outcomes promised as part of a 32M W1/W2 proposal for the extension phase could not be achieved with the actual budget of less than half this amount and a trajectory towards (considerably) less than a quarter as expected for 2017. With the outcome defined at highly integrative policy level, the delays in W1/W2 funded synthesis is severely affecting this FP. That does not mean that outcomes other than what was promised (generally at more local, bilateral project levels) have been achieved. In fact the opposite.
	National planning agencies in at least ten countries use FTA evidence to take into account consequences of changes in forest and tree cover on human nutrition and vulnerability to shocks and disasters in strategies	Active dialogues with national partners take place in the Philippines, Thailand, Indonesia (various districts, provinces + national level), Viet Nam, Nepal, India, Zambia, Ethiopia, Mali, Sierra Leone, Guinea, Peru, with various intensity and emphasis in local context; a comprehensive 'green economy' planning for South Sumatra province (Indonesia) was presented by the government at the UNFCCC COP in 2015, following a 2015 presentation from Papua. Active dialogues with national partners take place in the Philippines, Thailand, Indonesia (various districts, provinces + national level), Viet Nam, Nepal, India, Zambia, Ethiopia, Mali, Sierra Leone, Guinea, Peru, with various intensity and emphasis in

Flagship Projects	Expected outcomes 2016 (Quantified)	
		local context; a comprehensive 'green economy' planning for South Sumatra province (Indonesia) was presented by the government at the UNFCCC COP in 2016, following a 2015 presentation from Papua. Attribution at this level of policy is often not easily documented, and with scarce resource our focus has been on maximizing the chances of uptake and impact (primarily based on long-term relations of trust rather than the strength of evidence as such), rather than on claiming it. The forthcoming FAO forest and nutrition study is expected to be a further vehicle for the 'change of theory' that we envisaged. Key publications on forest/rainfall and forest/flood relations were delayed in the peer review process during 2016, but have now (early 2017) been published and 'popularized' in public discussions, facilitating wider uptake. These are, however, complex relationships where nuance is easily lost. The 'green economy' study in Indonesia is likely to be replicated in other contexts, as it combines a 'process' and 'product' perspective in an effective way.
		FTA has contributed analyses of the relevance and modality of tenure reform in China (evaluation of Sloping Land Conversion program in Yunnan province), Viet Nam, Indonesia (support for extension of HKM/Village forest programs in <i>Sulawesi</i> (3 provinces), <i>Kalimantan</i> (2 provinces) and <i>Sumatra</i> (2 provinces), evaluation of established tenure reform sites for missing elements), Cameroon (DRYAD community forestry activities) and Peru (linked to agroforestry/forest definition as basis for local rights); a cross-continental comparative study on gender-specific landscape appreciation and rights is still in progress.
Flagship Project 4:	FTA-generated knowledge informs UNFCCC policy and countries in implementing post-2020 new climate agreement including MRV, accounting rules, compliance and finance. IDO 1, 6	FTA's supported the Green Climate Fund (GCF) preparing their REDD+ Result-Based Payment Strategy (RBP) by organizing partner engagement events at the Third Asia-Pacific Forestry Week (Philippines, February), at a side event at 44th UNFCCC SBSTA (Bonn, May), cf. video, InfoBrief. GCF drafted their RBP strategy in December FTA supported governments implementing national REDD+ strategies. In Vietnam (with the Vietnamese Academy of Forest Science (VAFS) on multilevel governance, legal forests and land use responsibilities, gender; and with Vietnam Forest Protection and Development Fund (VNFF) and Ministry of Agriculture and Rural Development (MARD) on Payment for Forest Environmental Services (PFES)). In Peru, work was successful on MRV (with Ministry of Environment (MINAM) - terra-I, the FTA co-funded monitoring tool is now employed by Peru and being expanded to Asia). Two InfoBriefs broke new ground on transparent monitoring (independent monitoring; non-state actors), supporting the Paris Agreement's Transparency Mechanism; one received very good response from civil society organisations (e.g. French CSO networks). (See Outcome Story)
	FTA-generated knowledge contributes to UNFCCC Agriculture Roadmap development (jointly with CCAFS) and better coordination and cohesion of mitigation and adaptation finance. IDO 1, 6	Peru's National Strategy for Forests and Climate Change referenced FTA research on mitigation-adaptation synergies based on detailed REDD+ comments we provided. FTA supported partner CCAFS in making recent research findings available for the Marrakech climate talks showing that action is needed to address climate impacts on agriculture while reducing greenhouse gases produced by food and farming FTA analysed party and observer submissions, with positive response across boundary partners, stakeholder groups and negotiators. (See Outcome Story) An FTA policy brief on adaptation—mitigation synergies in the Paris Agreement has
	SBSTA, GCF), and at least 5 countries use FTA knowledge in the design of Joint Mitigation and	received very positive responses from Colombia, EU, Indonesia, USA, and the Green Climate Fund (GCF), making the issue of joint mitigation and adaptation (JMA) increasingly accepted. JMA is now integrated in GCF work and ongoing UNFCCC negotiations FTA has also begun to address biofuels on marginal lands in Indonesia (brief, blog), with pilot trials in India (documentary) and in 5 other countries. As a result, Brazil and India declared intentions to scale up sustainable biofuel production and agroforestry systems as a key component of their Nationally Determined Contributions (INDCs).FTA contributed to Colombia's low-emission development strategy development by providing, with CCAFS, key inputs to Colombia's Intended Nationally Determined Contributions (INDC) and the Forestry NAMA.(See Outcome Story)

Flagship Projects	Expected outcomes 2016 (Quantified)	
Flagship Project 5:	Select investors and government agencies in three countries (likely including Brazil, Indonesia and Mozambique) use FTA knowledge in the process of developing more inclusive and sustainable business models, and options for enhancing responsible investment. IDO 1, 2, 6	We follow <u>four avenues to achieve impact</u> in developing more inclusive business models. First, we engaged with business-driven platforms such as the Tropical Forest Alliance (TFA 2020), and other key business platforms, notably the Asia-Pacific Rainforest Partnership. Second, we supported debates at LANDac, the Land Governance for Equitable and Sustainable Development. Third, we influenced key donor agendas regarding investment options and business models. Fourth, we engaged country level efforts in Brazil, Indonesia, Brazil, Indonesia and Tanzania. Major progress was achieved in the European Land Forum s upported and convened by LANDAc and the Dutch Ministry of Foreign Affairs, which involved government representatives, private sector and key civil society organizations. In a gathering held in 2016, we were able to shift mainstream discourses aimed at mitigating the adverse effects of agricultural investments to views on leveraging agricultural investments in support of inclusive and green development . Our work helped improve understanding of the challenges and opportunities of promoting and scaling genuinely inclusive business models. This led to an expression of interest and endorsement for developing withincountry collaborative learning processes to promote the uptake and enhance the positive development of more smallholder-inclusive business models. In response to this request, we have initiated since the late of 2016, with support of Shared Value Foundation and BZ, as a continuation of our work undertaken under the CIFOR program DFID KnowFor, the formation of investment-specific learning platforms in Mozambique, Tanzania, and Uganda. In 2017, at least one multi-stakeholder platform will be institutionalized in each of the three countries, linked to already existing platforms for overseeing impact and progress of large-scale investments, based on tangible action points that represent shared agricultural visions
	articulation of international sustainability standards into national sustainability standards for two commodities (timber and oil palm) are informed by FTA research. IDOs 3, 6	In 2016, as countinuation of previous work, we have supported two national processes linked to improving the articulation of national standards and transnational sustainability processes, one related to the timber sector in Cameroon and another one linked to the palm oil sector in Indonesia. With respect to timber in Cameroon, our work in 2016 led to the establishment of a working group on informal timber market in Cameroon, which comprises the Ministry of Forestry, donors engaged in the FLEGT VPA, civil society groups and the national association of timber traders (ANCOVA) to discuss on approaches to set up a monitoring system for the domestic timber markets. In addition, we produced a photo essay to help a wider audience to understand the topic and its implications. With respect to palm oil in Indonesia our work in 2016 directly informed a multistakeholder working group for strengthening the Indonesian Palm Oil Supply (IPSO) vis-à-vis the international standards for sustainable palm oil production. Main issues discussed relate to setting aside conservation areas within granted concessions, consultation processes to local populations to be affected by plantations development, and technical and financial supporting systems to promote the uptake of mandatory standards by smallholders. While substantive progress was achieved in the debates, in early 2017, a draft is still under consideration by key stakeholders in the government, particularly the Ministry of Environment and Forestry (MoEF).
	knowledge to help identify, prioritize and integrate concrete action points into the planning processes for strengthening tenure reform implementation in three countries (likely	Our work on tenure has influenced several policy processes regarding land use, fire and haze; sustainable commodity supply; and forest tenure reforms. Some actions and outcomes to highlight, are those in Colombia, Peru, Uganda and Indonesia, where Participatory Prospective Analysis (PPA), multi-stakeholder consultative processes were facilitated involving government, non-government organizations, academia, community representatives and private sector actors. The multi-stakeholder processes identified threats to the tenure security of local forest adjacent communities, and a suite of mitigative actions (such as adequate budgets, improving capacities of local government personnel, enhanced women participation) that participants anticipated would increase the likelihood of forest tenure reforms strengthening rather than undermining local tenure security. In Peru and Colombia, the process helped governments to understand the viewpoints of other stakeholders. In Indonesia, PPA was more valued by district-level actors and the prioritized actions will be integrated into regional government programs in 2017. In Uganda PPA was recognized by national-level policy makers as an important process for improving cross-sectoral problem-solving and action. In both Uganda and Indonesia project advisory committees comprising government representatives, civil society and local community representatives provided an additional forum for identifying actions for strengthening tenure security in future action plans.

C.3 Progress towards Impact

Contributing to the development of impact assessment methodology, an Impact Assessment Brief elucidated the importance and value of using qualitative methods for holistic project evaluations. We also two impact studies under SPIAF guidance and in collaboration with Virginia Tech. University: <a href="Impact Assessment of Natural Resource Management Policy Research: A case study of the contribution of the Sustainable Wetlands Adaptation and Mitigation Project to the effectiveness of the Indonesian Forest Moratorium and Assessing the Impact of the Jepara Furniture Value Chain Project

Thanks to support from the GEF-funded and FAO-managed project, "Sustainable Management of Wildlife and Bushmeat sector in Central Africa", local communities of Phalanga Mbuda, Luangu Nkoko and Tsundi Ngonzo in the Democratic Republic of Congo were granted the rights to manage their land as a community forest concession, of which part will be specifically designated for hunting purposes. CIFOR, via the work of the Bushmeat Research Initiative supported by USAID and UKAID, is a key partner in this effort, providing technical support from the initial diagnosis phase to the development of the management plans (mapping the territory, assessing hunting and other livelihood activities, estimating wildlife resources using camera traps, measuring bushmeat consumption and setting up a monitoring system). This collaboration and our involvement in the global debate about the unsustainable use of wildlife have also helped convince the European Commission to initiate a large 45M euros project on Sustainable Wildlife Management project involving FAO, CIFOR, CIRAD and WCS to be started in 2017.

D. Gender research achievements

Gender research in 2016 focused on analyzing and fostering the active participation of women and marginalized groups in forest governance in various geographies, including <u>Nepal</u>, <u>India</u>, <u>Nicaragua</u> and <u>Uganda</u>. Results from action research include an increase in women's confidence, participation in community forestry, and opportunities to benefit from trees.

FTA research on forest product trade and investments had a strong gender focus. Findings from research on smallholder oil palm production systems in Indonesia guided the development of a Gender Strategy for the Roundtable on Sustainable Palm Oil (RSPO), and prompted renewed attention to the gender responsiveness of the RSPO criteria, indicators and guidance. As a result of this work, CIFOR now sits in the gender sub-group within the RSPO human rights working group. Work on gender and value chains continued to gain momentum, with investments in toolkits and trainings on gender-responsive value chain development, produced in collaboration with PIM.

During 2016, FTA scientists have challenged researchers, practitioners and policymakers to move beyond the men-versus-women dichotomy and adopt an intersectionality lens to their analyses. Works ranging from forest product value chains, to climate change, to reviews of global perspectives on gender equality in the sustainable development goals have compellingly demonstrated the need to consider how gender intersects with age, socio-economic status, ethnicity and other social variables in order to reach and deliver outcomes to the most vulnerable segments of the population.

Capacity strengthening for gender integration has continued with the development of tools, trainings, and individualized and team-based support to FTA researchers and their projects by the FTA Gender Integration Team (see details in Capacity Development section). The IEA gender evaluation of the CGIAR recognized the pertinence of "the on-going processes through which the Gender Integration Team (GIT) has been active in probing, assisting and challenging colleagues with regard to gender issues".

Based on insights from research on <u>sustainable mountain development in the Peruvian Andes</u> and <u>smallholder shade coffee production in Nicaragua</u>, an FTA <u>webinar</u> on gender, agroforestry and climate change in Latin America enhanced the knowledge and engagement of 47 decision-makers and development practitioners across 13 countries. The webinar event webpage was the most visited FTA post in 2016. Three <u>thematic events on gender-responsive climate policy and action</u> held at the UNFCCC COP22 in November 2016, sharing CIFOR findings on gender and climate change mitigation and adaptation, convened more than 200 participants representing governments, development agencies, NGOs and research organizations.

A <u>special issue</u> on gender-responsive participatory approaches in forest research, produced within the context of FTA's Gender Research Fellowship Programme, provided insights into the challenges and benefits of these approaches for gender researchers and non-gender specialists alike. In addition, a book on the state of the art in gender and forests provided the fundamentals for the range of actors who seek to integrate gender analyses in their forests work. The edited book, which has been distributed to 500 developing country libraries and scholars, was named <u>'book of the month'</u> in April 2016 by Book Aid International.

Partnerships were pursued through collaborative initiatives at key conferences and platforms such as KNOWFOR, which brings CIFOR, ICRAF, IUCN, and the World Bank together around key gender and forests issues, such as restoration. A March 2016 workshop on 'Disciplining Gender in Undisciplined Environments: Tensions in environmental and development practices in the North and South' resulted in collaboration among 30 scholars and development practitioners to bridge the gaps between gender theory and practice.

Challenges to FTA's gender theme in 2016 included cuts to FTA's overall W1/W2 funding, which translated into a decline in absolute resources allocated to gender. Funding shortfalls were addressed by shifting more of the time of GIT members to project funds, leaving the GIT with less dedicated time to gender mainstreaming. FTA's recruitment of a <u>Gender Postdoctoral Fellow</u> through the CGIAR Gender Postdoctoral Fellowship Award, who is conducting cross-CRP work with WLE and PIM, has partially contributed to support the FTA gender team to cope with otherwise shortfalls.

E. Partnerships building achievements

At the heart of the program we have expended our group of core partners in the process of developing the FTA 2 by being joined by two important international stakeholders: <u>Tropenbos International</u> and INBAR.

At the FP/Center levels we have also a wide array of new partnerships that have been established. We signed a Memorandum of Understanding with the Chinese Academy of Forestry and a private company, China Happy Ecology Industrial Ltd. focused on restoration of forest landscapes, which agreed to fund a regional training center on forest genetic resources for participants from countries in the Asia-Pacific Region. We have continued our partnership with FSC and RSPO as key partners pushing for adoption of sustainability standards, and initiated engagement with the ISEAL Alliance that embraces most of sustainability initiatives in different sectors. We are engaging key global institutes such as and initiated partnerships with the International Institute for Applied Systems Analysis (IIASA), to improve our analytical capacity to examine impacts of sustainability processes at the macro-level in economies such as Indonesia.

We are increasingly engaging with multi-stakeholder platforms, some driven by the private sector, such as the Tropical Forest Alliance (TFA 2020), and national ones such as the Roundtable of Sustainable Beef in Brazil (GTPS). We are also actively supporting working groups driven by governments such as the strengthening ISPO working group in Indonesia and the working group on informal timber markets in Cameroon. In support to our work on business models, we have developed formal partnership arrangements with COWI Denmark and Shared Value Foundation, and the Dutch development organization (SNV).

We continued expanding our collaboration with other CRPs, especially PIM and CCAFS with some significant achievements. A joint FTA(FP4)-CCAFS effort that led to a proposal approved for funding by IFAD on Greening Livestock using forest resources (offsetting emissions from the dairy sector in Kenya and Tanzania) together with ILRI. FTA FP5 and CCAFS implemented joint research and dissemination activities for informing the debate on potential and limits of public-private agreements to support deforestation reduction and transition to more sustainable cattle ranching practices. This work generated several scientific outputs under the form of journal articles and scientific events accompanied by several outreach communication pieces. We also have cross WLE-FTA-PIM gender work started with a dedicated post-doc.

Despite the financial constraints, the Sentinel Landscapes network has grown to nine landscapes, with plans for an additional landscape in the Miombo systems of Southern Africa. Biophysical data collection using the Land Degradation Surveillance Framework (LDSF) has been completed in 27 LDSF sentinel sites in these nine landscapes, the majority of the sites having completed soil analysis by June 2016. While some sites are still pending analysis due to export restrictions (e.g. India, where alternative arrangements for analysis are being made) as well as complications with customs clearance in some cases, the development of models for soil and land health mapping has been initiated, and maps are being posted to the Landscape Portal for sharing after being validated against field measurements.

In 2016, the 18 institutions involved in <u>TmFO</u> decided to consolidate their partnership through the signature of a MoU. The final version of the document was agreed among institutions by November 2016, and the process of signatures started in December. The process of signature should be finalized by the end of the first 2017 semester.

Terra-I program started new partnerships in Asia in Myanmar, Cambodia, Indonesia, Philippines and Vietnam, including initial case studies and funding proposals for future development.

The National Network for Monitoring Ecosystems of the Honduran Broad-leaved Forest (REMEF) was formed through the initiative of CATIE. Representatives of the Atlantic Regional University Center (CURLA), the National Institute of Conservation and Forest Development of Protected Areas and Wildlife (ICF) Region Atlantida, the National Association of Forest Producers (ANPFOR) and the Cooperativa Regional Agroforestal Colón, Atlantida Honduras Limitada (COATLAHL), signed on to it at a workshop in Ceiba Atlantida in November.

F. Capacity building

A set of 46 policy and practice support tools (including guidelines and manuals), were made available through FTA partner's websites, blogs, and other communication avenues. Examples at the global level include REDD+ Knowledge Tree, REDD+ Cost Model, The expanded Terra-I program system, while at the local level, examples include technical manuals on tree propagation techniques, Guidelines for the management of agroforestry trees, to Guidelines to engage with marginalized ethnic minorities in agricultural research for development. In addition, three training modules of Forest Genetic Resources Training Guide - Not only for geneticists have been adopted by faculties of universities in Argentina, Columbia, Chile and Guatemala.

FTA program trained and influenced over 38,000 practitioners (farmers, extension workers, NGOs, foresters and agro-foresters, business and private sector staff and policy makers of which 36% females) on issues relevant to FTA through its training sessions, awareness and policy deliberation seminars, symposia and other events. Amongst such short knowledge sharing events was the "international workshops of coffee, cocoa and fruits" in Nicaragua, which provided space for exchange of information between actors including the private sector, academic and governmental organizations including more than 400 delegates. At this event, CATIE-FTA presented the key results and studies in relation to sustainable agriculture with a focus in agroforestry. Amongst regular courses were the Landscape Governance Course 2016 and successful graduation of AfPBA's second cohort of 2015-2016 comprising 25 plant breeders from Africa.

Early steps have been taken to establish nested communities of practice encompassing practitioners from international, regional, national and local scales and are being supported with tools, methods and guidelines for taking land restoration to scale in Niger, Ethiopia, Mali, Tanzania and Kenya. In addition, Nicaragua innovation platforms have been supported by rich evidence of FTA related issues and likewise, the Cote d' Ivories' Cocoa platform has continuously been supported. Likewise, global multi-stakeholder processes, e.g., RSPO and CoP22 have been supported by FTA's research, as have two platforms in Kenyan counties, and several subnational governmental implementation agencies in Indonesia. In addition, Knowfor2 gender working group comprising CIAT, CIFOR, IUCN, and PROFOR focuses on sharing best practices of institutional gender mainstreaming.

G. Risk management

Risk	Explanation	Risk management
Uncertainties in W1-2 availability and very late notification of W1-2 budget reduction	Decisions on final amounts of CGIAR W1+2 disbursements from the CGIAR Fund announced very late in the year. The Program had to operate with no guarantee that the 2016 financial plan for FTA would be respected. Only in December FTA was informed to receive 2.5M less against the financing plan. At this time the budget had already been spent. Financial uncertainty and instability has great impact on the partners and Program's capacity to deliver on its integrated research portfolio.	It is extremely difficult to manage pre-emptively such changes. We have agreed with our ISC on ways to deal with such shortfalls depending on their intensity and when they occur during the financial year
Delayed transfer of W1&2 funds	Pre-financing as a problem for partners and a significant risk for contracting Centers in the context of uncertain financing plans	The Lead Center will need to develop different types of agreements with the partners when relying on W1/2 in order to ensure that no disproportionate risk is borne by the lead center. Each FTA partner has to manage, for what it is concerned, the financial risk related to w1/2 Finplan and disbursment calendar.
Increased volatility and unrest in many countries of our active portfolio	The past years have seen a significant increase in volatility and unrest around the world. This affects current and future FTA activities in some important countries (Cameroon, Central African Republic, DR Congo, Burkina Faso, Mali) by i) increasing potential risk to researchers, ii) making work more difficult or costly, or iii) rendering it impossible to travel to research sites.	Increased emphasis on safety and security and duty of care. Continual monitoring of situation in countries where we work

H. Lessons learned

H.1 Estimate the overall level of confidence/uncertainty of the indicators provided in Table 1.

We have improved the reliability of our collection of quantitative indicators that can be relatively easily determined as maps, records are available and numbers of participants or courses can be easily quantified. Many other kinds of indicators however are difficult to define or differentiate from one another and even harder to quantify (what is the meaning of "number of policies" without context). This year will likely be the last year we are using these pre-defined indicators before moving towards sets of more optimally designed and tailored ones. It would be interesting to see whether this Table 1 are at all informative or useful to reveal anything consequential about CRP's achievements.

H.2 Description, if relevant, of research avenues that did not produce expected results, and description of actions taken by the CRP, such as new research directions pursued and their expected outputs and outcomes.

We had already done a re-prioritization of some actions while developing the 2015-2016 extension proposal (see FTA 2015-2016 extension proposal and FTA 2015 annual report). The year 2016 has therefore been very much a continuation without major changes as there was to be a total overhaul of FTA following the development of the phase 2 proposal to start in 2017. We believe however that there are some interesting lessons – presented below - to be drawn from our work related to influence policies and getting involved in politically loaded debates:

- Given the political economy of domestic timber markets (i.e. corruption and elite capture of
 economic rents), one of the main lessons learned on engagement for outcome has been to maintain
 partners separated, and once that the policy process mature, we are able to bring them together
- We also learned that in politically loaded debates, such as those of sustainable palm oil or timber legality, different players in the policy arena value the independent views that researchers bring to those debates to the extent that those are independent and grounded in empirical evidence.
- The need to develop research instruments and analytical frameworks to unpack smallholders in recognition that smallholders are not a homogenous population and that upgrading and market entry barriers are therefore not uniform, which is a topic with practical implications
- Upscaling and replication of socially inclusive business models that address environmental challenges
 will not be effective if social learning amongst various stakeholders involved in the development and
 implementation of business models is neglected, thus effective business models require of adaptive
 capacity and institutionalization of learning processes
- Increasing attention should be placed to leverage the potential of finance in the interception of
 efforts from companies to build clean supply chains and inclusive business models. In this context,
 landscape approaches offer important potential to mobilize investments at scale under financing
 models that work for smallholders and SMEs, yet under important institutional constraints.

H.3 Lessons learned by the CRP from its monitoring of the indicators and from its qualitative analyses of progress.

We have continued our efforts in putting in place a comprehensive Design/Monitoring/Evaluation/ Learning framework in which the intended contributions of research are deliberate, explicit and testable. We have also reinforced our MELIA team in view of the forthcoming implementation of FTA phase 2. On a more specific note, when documenting uptake, it is important to monitor regularly reports on the numbers and attributes of users that access, download or install tools or publications generated by the CRP. A specific lesson learned was the value of using the "cranlogs" package to monitor daily installations of R packages such as the BiodiversityR package developed and maintained at ICRAF.

Annex I. Indicators of progress

FTA	Indicator	Details	2015		Details 2015		2016	
			Target	Actual	Target	Actual		
KNOWLE	NOWLEDGE, TOOLS, DATA							
All	1. Number of flagship "products" produced by CRP	Includes but not limited to: Global tree cover and biomass carbon on agricultural land: The contribution of agroforestry to global and national carbon budgets. Scientific Reports 6:29987 Systematic approaches to designing and implementing planned comparisons, Tree domestication principles and protocols, http://blog.worldagroforestry.org/index.php/2016/12/04/harvest-time-become-something-thrilling/ Field, farm and landscape management niches for promoting tree diversity, Preserving diversity of cocoa flavours; Frameworks for timber and forest management. Women and Forests http://dx.doi.org/10.4324/9781315666624 Gender responsive participatory research http://hdl.handle.net/10568/78629 Forest restoration and genetic diversity (Blog series for COP 13) Forest Genetic Resources and climate change http://hdl.handle.net/10568/80076 Food from Forests http://hdl.handle.net/10568/78168 Forests, Trees, and Micronutrient-Rich Food Consumption in Indonesia TS Amy Ickowitz, Dominic Rowland, Bronwen Powell, Mohammad Agus Salim. PLOS One 11 (5), 1-15 Tropical Fruit Trees – South Asia (Book/Blogs) Occasional Paper: http://www.cifor.org/library/6284/success-from-the-ground-up-participatory-monitoring-and-forest-restoration/ Evans, K.A., Guariguata, M. R. 2016. Success from the ground up: participatory monitoring and forest restoration. Occasional Paper no. 159. CIFOR, Bogor, Indonesia (peer reviewed). Related blog: http://blog.cifor.org/47183/success-from-the-ground-up?fnl=en.	50	55	50	57		

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
		 Challenges and prospects for scaling-up ecological restoration to meet international commitments: Colombia as a case study. Murcia, C., Guariguata, M. R., Aronson, J., Andrade, A., Andrade, G., Escobar, E., Ramirez, W., Montes, E. 2016. Conservation Letters 9: 213-220. http://onlinelibrary.wiley.com/wol1/doi/10.1111/conl.12199/full Blog: http://blog.cifor.org/37201/thinking-restoration-think-big-and-think-inclusive?fnl=en. Natural regeneration as a tool for large-scale forest restoration in the tropics: prospects and challenges. Chazdon, R. L., Guariguata, M. R. 2016. Biotropica 48: 716-730. http://www.cifor.org/library/6282/natural-regeneration-as-a-tool-for-large-scale-forest-restoration-in-the-tropics-prospects-and-challenges/ Blog: http://blog.cifor.org/47262/beyond-tree-planting?fnl=en. Baral, H., Guariguata, M. R., Keenan, R. J. 2016. A proposed framework for assessing ecosystem goods and services from planted forests. Ecosystem Services. http://www.sciencedirect.com/science/article/pii/S2212041616303874 Blog: http://blog.cifor.org/47752/green-deserts-or-functional-forests?fnl=en Sustainable beef in Brazil Community forestry in Central Africa Domestic and regional timber trade in Africa Timber value chains in Indonesia Fire and haze in Indonesia Indonesia's forest conversion moratorium assessed with an agent-based model of Land-Use Change and Ecosystem Services (LUCES). Suwarno, A., van Noordwijk, M., Weikard, H.P. and Suyamto, D., 2016.Mitigation and Adaptation Strategies for Global Change, doi:10.1007/s11027-016-9721-0 Tenure reform in Indonesia, Uganda and Peru Tenure reform in peatlands: combining productive and protective functions as part of restoration. Widayati A, Tata HL, van Noordwijk M. 2016. Policy Brief no. 70. Agroforestry options for ASEAN series no. 4. Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional Program;				

FTA	Indicator	Details	2015		20	16
			Target	Actual	Target	Actual
		 Metrics of water security, adaptive capacity and agroforestry in Indonesia. van Noordwijk M, Kim Y-S, Leimona B, Hairiah K, Fisher LA, 2016. Current Opinion on Environmental Sustainability 21: 1-8 Blog:http://blog.worldagroforestry.org/index.php/2016/12/03/roleagroforestry-climate-change-adaptation-southeast-asia/ http://blog.worldagroforestry.org/index.php/2016/06/15/one-landscapeone-people-meeting-national-and-international-goals-in-asean/ Certify and shift blame, or resolve issues? Environmentally and socially responsible global trade and production of timber and tree crops. Mithöfer D, van Noordwijk M, Leimona B, Cerutti PO (2016) International Journal of Biodiversity Science, Ecosystem Services & Management, 13(1), 72-85, DOI: 10.1080/21513732.2016.1238848 Cocoa and fair trade in Latin America and Africa FLEGT/VPA Towards productive landscapes: Trade-offs in tree-cover and income across a matrix of smallholder agricultural land-use systems SA Rahman, T Sunderland, M Kshatriya, JM Roshetko, T Pagella, Land Use Policy 58, 152-164 Measuring the effectiveness of landscape approaches to conservation and development JA Sayer, C Margules, AK Boedhihartono, T Sunderland, JD Langston, Sustainability Science, 1-12 Sustainable oil palm Can intensification reduce emission intensity of biofuel through optimized fertilizer use? Theory and the case of oil palm in Indonesia. van Noordwijk, M, Khasanah, N., Dewi, S., 2016. Global Change Biology Bioenergy 9, 940–952. http://blog.worldagroforestry.org/index.php/2016/11/30/biodieselpalm-oil-finding-sweet-spot-ecology-economy/ Minimizing the footprint of our food by reducing emissions from all land uses. van Noordwijk M., Dewi S, Minang PA. 2016. ASB Policy Brief 53. Nairobi, Kenya: ASB Partnership for the Tropical Forest Margins. Adoption of ESG criteria in investments Inclusive business models 				

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	2015		2016	
			Target	Actual	Target	Actual	
All	2. % of flagship products produced that have explicit target of women farmers/NRM managers		35%	40%	40%	40%	
All	3. % of flagship products produced that have been assessed for likely gender-disaggregated impact	All our products, outputs derived from household or community surveys, interviews are gender disaggregated and follow the principles set by the Gender Integration Team. The percentage given is a low estimate based on the volume of projects that carry out this sort of sampling.	30%	30%	30%	30%	
All	4. Number of "tools" produced by CRP	 Includes but not limited to: model to develop scenarios and assess trade-offs at the landscape level using INVEST model to foresight oil palm development globally (based on IMPACT) 2 model game developed using COMMOD to assess landscape dynamics associated with oil palm development (based on ComMod) 1 mode refined using GLOBIOM to assess impacts of zero deforestation in the palm oil sector in Indonesia guidelines for the mainstreaming of gender perspectives into RSPO principles and criteria Online Atlas operational for the island of Borneo, shared by Malaysia Indonesia and Brunei available at: www.cifor.org/map/atlas (DG) Methodological approach to smallholder typology (GS) Manual on Guidelines for the Co-elaboration of scenarios: Facilitating future-oriented collaboration of multiple stakeholder on share understanding and joint action for problem solving in the context of forest tenure reforms and tenure security PPA guide on tenure security Key Informant interview guidelines Focus Group Discussions guidelines Household Survey Questioner and guidelines 	14	42	40	51	

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	2015		2016	
			Target	Actual	Target	Actual
		 PPA guidelines Bureaucracy survey guidelines Bureaucracy data analysis guidelines 				
All	5. % of tools that have an explicit target of women farmers	All the tools derived from gender relevant research and projects consider both men and women.	20%	40%	40%	40%
All	6. % of tools assessed for likely gender- disaggregated impact	Whenever relevant all tools are assessed for likely gender disaggregated impact. It is therefore difficult to put a number in this or we can put 100%	50%	50%	50%	50%
All	7. Number of open access databases maintained by CRP	 Includes but not limited to: https://www.catie.ac.cr/gavilan/ Tree Functional and Ecological Databases: Trees for Food Security Project - Baseline Data Databases of Shaded coffee systems Molecular, morphological, phenotypic and sensorial characteristics of individual cocoa trees of the chuncho type in La Convencion and Satipo Mapforgen Database on oil palm companies and smallholders in East, West and Central Kalimantan (HK) Map of oil palm concessions and deforestation in Borneo (DG) CIFOR Dataverse (3 dataverse, 75 dataset, 1,123 files) Forest Carbon database (http://carbonstock.cifor.org/user/HomeMap) Knowledge Tree database (http://www.cifor.org/knowledge-tree) INCAS (http://www.incas-indonesia.org) Offline/USB GCS Publication Database Global Wetlands (http://www.cifor.org/global-wetlands) 	10	26	25	27
All	8. Total number of users of these open access databases	It is difficult to give a total number of users but as a first approximation we will use the number of unique visitors as proxy	10000	> 40,000	25,000	≈ 25,000
All	9. Number of publications in ISI journals produced by CRP	See the <u>complete list of publications</u> and the <u>summary table</u>	250	281	250	267

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
1,2,3,4, 6	10. Number of strategic value chains analyzed by CRP	 Including: Son tra (Docynia indica); Value chain innovation platforms to improve food security Moist forest timber (Latin America) Shea butter (Burkina Faso) Oil palm (Indonesia, Colombia, Cameroon), Beef in the Brazilian Amazon and Kenya Sugarcane in Tanzania and Mozambique Timber in Indonesia, Central Africa, MesoAmerica and Western Amazon Coffee in Nicaragua, Guatemala and Honduras Soy (Brazil, Mozambique), Pulp and paper (Indonesia), Cocoa (Peru), Charcoal (Zambia) 	10	28	20	20
1,5,6,7	11. Number of targeted agro-ecosystems analysed/characterised by CRP	 Including: Agroforestry in the Cerrado and Caatinga biomes; N-fixing and non N-fixing shade trees with Arabica coffee systems in Latin America; Soil properties on trees distribution on tropical mountains in East Africa; Semi-arid and sub-humid agroecologies (tree adoption); Mixed cropping systems with legumes, fodder and fruit trees in the uplands of Northwestern Vietnam; Timber management in the tropics and subtropics Wooded grassland and mixed crop, Nicaragua (est pop 73,730) Natural tropical forests, Congo Basin (timber, bushmeat, food trees) Natural tropical forests, Amazon (bushmeat, brazil nut) Fallows Amazon (bushmeat) Dry forest Burkina Faso (food trees) Central Asia forests and farms (fruit trees) Natural tropical forests/community forests Central America (timber and non-timber) Cacao producers Africa, Asia, Latin America 	15	37	30	32

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
1,5,6,7	12. Estimated population of abovementioned agro-	 India Western Ghats Dry Forest (Latin America) Timber and pulp and paper in warm humid tropics (HP). Oil palm in humid tropics; Sugarcane, in the subhumid tropics (GS) Pastures in humid tropics (Brazil) Pasture landscapes in dry tropics in East Africa Cocoa in humid tropics Trees in farmed lands 'Water tower' configuration with high-conversion + high-sensitivity combination Diversified cocoa agroforestry in Indonesia Diversified oil palm in Brazil and Indonesia Community-based forest management in Cameroon Sahelian parklands (Optimal tree density) Peatland agroforestry Small island agroforestry Sandalwood agroforestry Approx. 959 million in humid tropics and 616 million in sub-humid tropics and 100 million in Dry tropics in East Africa 	≈ 900 millions	≈ 900 millions	≈ 900 millions	> 900 millions
CAPACITY	ecosystems / ENHANCEMENT AND INNO	OVATION PLATFORMS				
All	13. Number of trainees in short-term programs facilitated by CRP (male)	See capacity development section in the narrative	2,000	≈ 35,800	5,000	23,313
All	14. Number of trainees in short-term programs facilitated by CRP (female)		2,000	≈ 14,000	5,000	15,525

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
All	15. Number of trainees in long-term programs facilitated by CRP (male)	See capacity development section in the narrative	100	136	100	117
All	16.Number of trainees in long-term programs facilitated by CRP (female)	See capacity development section in the narrative	100	59	100	81
1,5,6,7	17. Number of multi- stakeholder R4D innovation platforms established for the targeted agro- ecosystems by the CRPs		20	17	20	23
TECHNOL	OGIES / PRACTICE IN VARIO	OUS STAGES OF DEVELOPMENT				
All	18. Number of technologies/NRM practices under research in the CRP (Phase I)	 Include among others: Field scale modelling of tree-crop interactions in Eastern Africa; Indigenous fruit domestication in Southeast Asia, East and Western Africa (Son tra and Allanblackia); Grafting and propagation techniques of the fruits under domestication (Son tra and Allanblackia); Scaling up land management practices through the concept of RRCs in Western Africa; Scaling up land restoration practices through the concept of planned comparisons in Eastern Africa; Tree nursery and procurement characteristics for Eastern Africa; Strategies for legal and sustainable certification of small-scale forest enterprises for Latin America; Timber production systems for Latin America; Tenure rights and participation in community forestry for Latin America; Local knowledge for tree species selection on coffee farms for Eastern Africa; 	50	50	50	50

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
		 Conservation status of cacao landraces and traditional varieties assessed in the upper Amazon and Mesoamerica and scientific methodologies developed to assess the impact of genetic erosion of on-farm genetic diversity. Promote the implementation of cacao genebank management standards and dissemination of germplasm and related information. Burkina Faso Parklands – Tree Management Brazil Nut management – Amazon Sustainable Mahogany management – Guatemala. Fruit Tree Conservation and Management – Central Asia. Vegetation Maps for species selection – East Africa. Species Suitability Analysis – Colombia. Diversified cocoa agroforestry – Indonesia Diversified rubber – Mainland Southeast Asia Metrics for watershed management – Indonesia Indicator for flood risk in mosaic landscapes Peatland agroforestry (Dyera and other options) Technical follow up to community forest tenure agreements Indonesia Community-based forest management – Cameroon Highland fruit agroforestry – Vietnam Small-island agroforestry options in context Multifunctional mountain landscapes Nepal Diversification in fastwood plantation landscapes Vietnam 				
All	19. % of technologies under research that have an explicit target of women farmers	See indicator 2	50%	50%	50%	50%
All	20. % of technologies under research that have been assessed for likely gender-disaggregated impact	See indicator 3	50%	50%	50%	50%

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
1,5,6,7	21. Number of agroecosystems for which CRP has identified feasible approaches for improving ecosystem services and for establishing positive incentives for farmers to improve ecosystem functions as per the CRP's recommendations	 Including: Agroforestry in the Cerrado and Caatinga biomes; N-fixing and non N-fixing shade trees with Arabica coffee systems in Latin America; Soil properties on trees distribution on tropical mountains in East Africa; Semi-arid and sub-humid agroecologies (tree adoption); Mixed cropping systems with legumes, fodder and fruit trees in the uplands of Northwestern Vietnam; Timber management in the tropics and subtropics Cacao Parkia Trees – Burkina Faso. Central Asia Fruit Trees. Guatemala Mahogany Restoration. Oil palm landscapes in Cameroon Oil palm landscapes in Indonesia Sustainable beef production in Brazilian Amazon Production forest landscapes in Indonesia Production forest landscapes in central Africa Pasture landscapes in East Africa 	15	21	15	17
1,5,6,7	22. Number of people who will potentially benefit from plans, once finalised, for the scaling up of strategies	 Includes: Around 50 million of rural population in Java, Sulawesi etc. who have teak and mahogany plantations Approx. 40 million if talking about the Congo Basin humid tropics, Approx. 900 million if considering all tropics in the world. 	50 million	≈ 80 million	50 million	≈ 50 million
All, except 2	23. Number of technologies /NRM practices field tested (phase II)	 Guatemala Mahogany Restoration. Columbia Dry Forest Restoration. However, our approach to scaling does not generally adopt a model of piloting and then scaling up but large N trials from the outset to address fine scale variation in context and a co-learning paradigm to refine. See indicator 18 	20	34	20	19
1,5,6,7	24. Number of agroecosystems for which innovations (technologies, policies,	 Includes but not limited to: Agroforestry in the Cerrado and Caatinga biomes; N-fixing and non N-fixing shade trees with Arabica coffee systems in Latin 	20	20	20	20

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	20	15	20	16
			Target	Actual	Target	Actual
	practices, integrative approaches) and options for improvement at system level have been developed and are being field tested (Phase II)	 America; Soil properties on trees distribution on tropical mountains in East Africa; Semi-arid and sub-humid agroecologies (tree adoption); Mixed cropping systems with legumes, fodder and fruit trees in the uplands of Northwestern Vietnam; Timber management in the tropics and subtropics Natural tropical forests/community forests Central America (timber and non-timber). Dry forest (Latin America). 1 agroecosystem with proposed environmental friendly principles incorporated in the final adopted strategy on sustainable palm oil in Cameroon 3 agroecosystems with proposed gender inclusive decision-making processes among forest communities Smallholder agroforestry options in 4 provinces of Sulawesi (Indonesia) Green growth options across the four ecological zones of S Sumatra province – Indonesia Agroforestry options for dry Eastern Indonesia Low emission development options for 3 districts of Papua (Indonesia) 				
1,5,6,7	25. % of above innovations/approache s/options that are targeted at decreasing inequality between men and women	• see indicator 19	10%	17%	10%	18%
1,5,6,7	26. Number of published research outputs from CRP utilised in targeted agro-ecosystems		20	26	20	7

FTA	Indicator	Details	20	015	20)16
			Target	Actual	Target	Actual
All, except 2	27.Number of technologies/NRM practices released by public and private sector partners globally (phase III)	Our approach to scaling does not generally adopt a model of piloting and then scaling up but large N trials from the outset to address fine scale variation in context and a co-learning paradigm to refine. See indicator 18 for details of where this approach is being applied	5	24	5	10
POLICIES I	IN VARIOUS STAGES OF DE	VELOPMENT				
All	28. Numbers of Policies/ Regulations/ Administrative Procedures Analyzed (Stage 1)	 Among the main policies/instruments analyzed in 2016 there are: on delivery systems of quality fruit tree germplasm in Vietnam; indigenous fruit tree domestication strategies in Vietnam; strengthening women's tenure rights and participation in community forestry; on management of timber and non-timber forest products in Indonesia; on smallholder timber management in Peru and Ecuador Analysis of fire regulations in Indonesia Analysis of tenure regulations in Indonesia, Uganda and Peru (Review of implementation of forest regulations in Peru; Review of Collective titling regulation in Peru; Review of implementation of 1 collective titling regulation in Colombia) (AL) Influenced the revision of the fair trade cocoa standard Community forestry in Cameroon Analysis of beef and soy regulations (TAC Meat - Soy moratoria) in the Brazilian Amazon 	40	36	30	30
All	29. Number of policies / regulations / administrative procedures drafted and presented for public/stakeholder consultation (Stage 2)	Among the policies/instruments that reach a drafting stage or consultation stages Nagoya Protocol (Guatemala); Fire prevention for Province of Riau; Fire prevention for Bengkalis Regency) drafted and presented in multi-stakeholder meetings (HP) Influenced the revision of the fair trade cocoa standard	15	5	5	5
All	30. Number of policies / regulations / administrative procedures presented	 Fire prevention for Province of Riau; Fire prevention for Bengkalis Regency) presented to parliament members; and both are now under PROLEGDA (legislation program) (HP) 	5	1	2	3

FTA	Indicator	Details		2015	20	016
			Target	Actual	Target	Actual
	for legislation(Stage 3)					
All	31. Number of policies / regulations / administrative procedures prepared passed/approved (Stage 4)	Community forest management agreements in two provinces of Sulawesi	2	1	2	2
All	32. Number of policies / regulations / administrative procedures passed for which implementation has begun (Stage 5)		2	2	2	0
OUTCOM	MES ON THE GROUND					
All	33. Number of hectares under improved technologies or management practices as a result of CRP research	 5 million ha: FMNR in the Sahel and East Africa; food and fruit trees in West Africa and Southeast Asia; trees for restoring degraded lands in East and West Africa; Fertiliser trees in Southern Africa and fodder trees in East Africa) on a continuing basis. 995 km2 in Burkina Faso 7 hectares of peatland in Dompas Village, Bengkalis Regency, Riau was rewetted and planted with sago. It is a part of community based fire prevention and restoration at local level. (HP) 	No target given in 2015	> 3 million	2 million	> 5 million
All	34. Number of farmers and others who have applied new technologies or management practices as a result of CRP research	 32990 (In collaboration with partners, approximately 100 events for capacity development in the development of biofuels were organized, with over 2,000 smallholder farmers trained (Brazil, Colombia, India, Mali, Philippines, Zambia). A total of 14,298 farmers were sensitised on various options of combining mineral fertilisers with agroforestry fertiliser trees (Malawi). Training on productivity enhancing technologies (PET) such as crop residues processing, treatment and utilization, feed formulation and pasture plot establishment reached 14,913(9078M,5835F) farmers (Tanzania). Fifteen extension workers and commune staff were trained on producing grafted Son tra seedlings in nurseries, top-working, best clone selection, harvesting and storing Son tra fruit. One field visit was also undertaken for 	No target given in 2015	Direct: > 2250	10,000	> 10,000

Forests, Trees and Agroforestry (FTA); Annual report 2016

FTA	Indicator	Details	2015		20)16
			Target	Actual	Target	Actual
		50 farmers, extension workers and agricultural division staff to visit the established trials in Co Noi, Son La province. The study tour was organized in relation to the establishment of exemplar landscape in nearby Na Ban village. (Norwestern Vietnam).				
		 Seventy lead-farmers (7 female, 63 male) were trained in conservation agriculture including on agroforestry practices. Refresher training was also provided to three additional extension staff on grafting of 10 accessions of improved mango with scions (Burkina Faso, Mali, Sudan) 				
		 In collaboration with KFS 700 farmers were trained on tree planting and management. 41 farmers were sensitized through farmers exchange visit and 42 reached during field days for experience sharing and lesson learning on RWH technologies. 631 farmers were trained on various aspects of conducting planned comparisions. Ninety nine farmers were also trained on developing honey value chains (Kenya) 				
		 One hundred and twenty eight (32% female) farmers were trained on producing organic liquid fertilizer, and silvicultural management focusing on improving farmers' awareness and adoption of pruning practice for their timber trees and FMNR stands to improve timber production (Indonesia). 				

Annex 2. Performance indicators for gender mainstreaming with targets defined

Performance Indicator	CRP performance approaches requirements	CRP performance meets requirements	CRP performance exceeds requirements
1. Gender inequality targets defined	Sex-disaggregated social data is being collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations	 Sex-disaggregated social data collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations The CRP has defined and collected baseline data on the main dimensions of gender inequality in the CRP's main target populations relevant to its expected outcomes (IDOs) 	 Sex-disaggregated social data collected and used to diagnose important gender-related constraints in at least one of the CRP's main target populations The CRP has defined and collected baseline data on the main dimensions of gender inequality in the CRP's main target populations relevant to its expected outcomes (IDOs) CRP targets changes in levels of gender inequality to which the CRP is or plans to contribute, with related numbers of men and women beneficiaries in main target populations
	CRP on Forest Trees and Agroforestry exceeds re	equirements.	
	 FTA views gender integration in research as a empowerment both as a means to achieving explicitly dedicated to women's empowermed management and benefits is improved'. Gender research in 2016 generated data and Analysing and addressing constraints in the Nepal, India, Nicaragua and Uganda Gender dimensions of agribusiness expand Intersection between patterns of tree-condition in the Indian Indonesia and the Indian Indonesia and Indian Indonesia Indian Indi	a fundamental part of doing good science (and do FTA's Intermediate Development Outcomes (IDC ent: 'Women are better empowered and gender of knowledge on important dimensions of gender ne participation of women and marginalized groundsion in Tanzania, and of smallholder oil palm prover transition and gender-specific land-use prefer Philippines. To of and benefits from forest and tree resources for in Latin American geographies alue chains and approaches for gender-responsive limate change) and geographies, FTA research has socio-economic status, ethnicity and other social me is bringing together key actors to promote por production and the impacts of large-scale land anced the knowledge and engagement of decision climate change adaptation and mitigation, and the	duction systems in Indonesia rences and decisions to inform landscape restoration for successful agroforestry strategies targeting climate change

Performance Indicator	CRP performance approaches requirements	CRP performance meets requirements	CRP performance exceeds requirements
2. Institutional architecture for integration of gender is in place	 CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS. Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy -CRP M&E system has protocol for tracking progress on integration of gender in research 	 CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS and funds allocated to support their interaction. Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy CRP M&E system has protocol for tracking progress on integration of gender in research A CRP plan approved for capacity development in gender analysis 	 CRP scientists and managers with responsibility for gender in the CRP's outputs are appointed, have written TORS and funds allocated to support their interaction. Procedures defined to report use of available diagnostic or baseline knowledge on gender routinely for assessment of the gender equality implications of the CRP's flagship research products as per the Gender Strategy CRP M&E system has protocol for tracking progress on integration of gender in research A CRP plan approved for capacity development in gender analysis The CRP uses feedback provided by its M&E system to improve its integration of gender into research
	 including at least one focal point from each of ICRAF has resulted in a new coordinator being. The IEA gender evaluation of the CGIAR reconactive in probing, assisting and challenging of the evaluator additionally notes the value of projects, FPs and the overall portfolio—as "a understanding of what should be considered database and must be filled by project mana. Results from the GEIRS pilot have been used. In 2016, the GIT successfully coordinated the for the second phase CRP proposal. For more their projects, adding at least 60 scientists to by capacity development activities. For more the Gender CCT has been affected by the draresources allocated to gender; a decline that dedicated to gender mainstreaming. Although 	ted to integrate gender dimensions across the CR of the four FTA participating CGIAR Centres. The organized the pertinence of "the on-going processes olleagues with regard to gender issues". If the Gender Equality in Research Scale (GEIRS)—in excellent tool to raise awareness [among FTA start of this at each stage of the research cycle." The gers on an annual basis. It o discuss options for strengthening gender in FTE integration of gender dimensions in the FP research cycle and the generation of gender dimensions in the FP research cycle and the generation of gender dimensions in the FP research cycle and the generation of gender dimensions in the FP research cycle and the generation of gender dimensions in the FP research cycle and for the generation of gender dimensions in the FP research cycle and for the generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle. The generation of gender dimensions in the FP research cycle.	s through which the Gender Integration Team (GIT) has been a tool to monitor the integration of gender across FTA scientists] of the need for gender mainstreaming and to raise a GEIRS has become an integral part of the FTA project TA projects with project teams. arch priorities and developed a strategy for gender research the FTA full proposal 2017-2022. In the FTA full proposal 2017-2022. In the GEIRS has become an integral part of the FTA researchers and adquarters and field-based locations that have been reached asslated into a decline in absolute (though not relative) asslated into a decline in absolute (though them less time another decreases in W1/W2 would seriously threaten its



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The CGIAR Research Program on Forests, Trees and Agroforestry (FTA) is the world's largest research for development program to enhance the role of forests, trees and agroforestry in sustainable development and food security and to address climate change. CIFOR leads FTA in partnership with Bioversity International, CATIE, CIRAD, ICRAF, INBAR and TBI.

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