Particulars

About Your Organisation

Organisation Name

Cirad

Corporate Website Address

http://www.cirad.fr/

Primary Activity or Product

■ Affiliate Member

Related Company(ies)

Yes

Company	Primary Activity	RSPO Member	Plantation?	Files	
				GHG Report	Map file
PALMELIT	o Affiliate Member	Yes	No	-	-

Membership

Membership Number	Membership Category	Membership Sector
8-0004-04-000-00	Affiliate	Organisations

Affiliates Members

Operational Profile

1.1. What are the main activities of your organisation?

CIRAD is the French agricultural research and international cooperation organization working for the sustainable development of tropical and Mediterranean regions. CIRAD (the Centre for International Cooperation in Agricultural Research for Development) is a public industrial and commercial institution (EPIC) under the joint authority of the Ministry of Higher Education and Research and the Ministry of Foreign Affairs and International Development. CIRAD works with the whole range of developing countries to generate and pass on new knowledge, support agricultural development and fuel public policies on major global issues concerning agriculture.CIRAD is an organization dedicated to targeted research which operations are designed to respond to development needs, from field to laboratory and from the local to global scale. CIRAD's activities involve life sciences, social sciences and engineering sciences which are applied to agriculture, food and rural territories. CIRAD works hand-in-hand with local partners on complex, ever-changing issues such as food security, ecological intensification, emerging diseases, or the future of agriculture in developing countries. CIRAD runs a global network of partners backed by twelve regional offices, from which it conducts joint operations with more than 100 countries. Its bilateral partnerships fit in with multilateral operations of regional interest. In metropolitan France, CIRAD provides the national and global scientific communities with extensive research and training facilities, primarily in Montpellier. CIRAD is a founding member of Agreenium, the French national consortium for agriculture, food, animal health and the environment,. CIRAD in figures: # A staff of 1650, including 800 researchers. # Collaborative R&D operations with more than 100 countries. # Three complementary Scientific Departments, namely : Biological Systems (BIOS), Performance of Tropical Production and Processing Systems (PERSYST), and Environment and Societies (ES). # A total of 34 research units in association with Universities and Agricultural Schools. # Twelve regional offices covering metropolitan France, the French overseas regions and foreign countries. # Thirty world-class research platforms open to partners from developing countries. # About 5 million euros spent on PhD courses and tutorships # 800 researchers and technicians from all over the world hosted and trained each year. # A total budget of 197 million euros (2014).

1.2. Activities undertaken to promote sustainable palm oil, the RSPO and/or members in the reporting period

For more than 70 years, Cirad is developing collaborative research projects in order to document, understand and share the scientific basis of sustainable palm oil production.

1.3. Do you have any collaborations with the industry players/private sector to support them in the market transformation towards CSPO?

Yes

If yes, please give details:

Major private partnership on oil palm research at Cirad include: 1. PT SMART, Indonesia: Sinar Mas Agricultural Research and Technology For twenty years, the CIRAD-PT Smart partnership reflected in many ways most of the recent developments engaged by the palm oil industry. Initiated under the form of consultancy activities aimed at improving the management of mineral fertilization, the partnership rapidly evolved towards new research questions and scientific themes which are now backing the steady transition efforts from the company towards sustainable production systems. Collaborative research activities now include precision agriculture, waste recycling (more than 15% of fertilizers used by PT Smart are now originating from composting various mill by-products), typology of smallholders, ecosystem services, agri-environmental indicators, modeling of the plant architecture, etc .. 2. PT SOCFINDO, Indonesia A long term R&D partnership with PT Socfindo provided valuable series of date in both oil palm plant breeding and agronomy. The major output of such a solid partnership is the production of certified seeds through CIRAD's subsidiary PalmElit which directly transfers results of intensive genetics and genomics to end users: plantations and smallholders. 3. SIAT Group, Nigeria, Ghana, Gabon Activities with SIAT Group are mainly located in Western and Central Africa. they covers Best Management Practices, Integrated Pest Management, Recycling of Mill Effluents (methanisation) and the protection of endangered High Conservation Value areas (Green Ologbo Project). 4. PT REA Kaltim, Indonesia R&D activities with PT REA Kaltim are focusing on Best Management Practices in various locations throughout East Kalimantan. 5. PT Austindo, Indonesia CIRAD is principally involved in R&D on fertilisation management, agricultural practices and and efficiency of mill effluents recycling (composting) with PT Austindo (ANJ).

If not, please explain why:

--

1.4. Did members of your staff participate in RSPO working groups/taskforces in the reporting period?

Yes

1.5. What percentage of your organization's overall activities focus on palm oil?

10

1.6. How is your work on palm oil funded?

Around 75% of CIRAD budget comes from French Government, the rest of funding being provided by both public and private bilateral/multilateral partnership. Oil palm research is roughly funded through 60% of public budget. It is generated through bilateral collaborative research activities and competitive research grants. In 2015, a total workforce equivalent to 50 full time permanent staff was dedicated to oil palm research at Cirad. As a whole the research effort on oil palm from Cirad accounts for a gross yearly amount of € 10 millions.

Actions for Next Reporting Period

2.1. Outline actions that will be taken in the coming year to promote sustainable palm oil.

Cirad is committed to collaborative research on the scientific basis of sustainability certification for the palm oil industry. - Genetics and Genomics Research : historical and ongoing activity at Cirad (relayed by PalmElit) with production of certified seeds under commercial partnership agreements in Benin, Nigeria, Indonesia, Thailand, Ecuador and Colombia. - Research on best agronomic practices: coupling good agronomic management with reduced and quantified environmental impacts - Describing, qualifying and better understanding the diversity of production systems and identifying levers for change (smallholders and plantation companies) - Research on agricultural and forest ecosystem services and systems - Research on public governance systems and certification schemes - Research on the perception of global changes by local stakeholders

Challenges

1 What significant economic, social or environmental obstacles have you encountered in the production, procurement, use and/or promotion of CSPO and what efforts did you make to mitigate or resolve them?

In France, there is huge room for improvement in public education and communication on efforts undertaken by stakeholders to improve the sustainability of palm oil production. Recent changes on the French tax regime on vegetable oils has increased tensions between pros and cons. CIRAD works in relationship with Alliance Francaise pour l'Huile de Palme Durable (http://www.huiledepalmedurable.org/lalliance-francaise-pour-une-huile-de-palme-durable/) in order to promote CSPO among both the French public and decision makers. Major obstacles reside in the long-term funding of research on key topics underlying RSPO Principles and Criteria. Private/public partnership has always been quite efficient but more coordination is needed between national/international research centres and funding bodies in order to avoid overlapping and dispersion.

2 How would you qualify RSPO standards as compared to other parallel standards?

--

Cost Effective:

Yes

Robust:

No

Simpler to Comply to:

Yes

3 How has your organization supported the vision of RSPO to transform markets? (e.g. Funding; Engagement with key stakeholders; Business to business education/outreach)

CIRAD's role as a public research institution is to provide evidence-based data and research results to the industry and public decision makers. As a whole, CIRAD has produced 425 peer-reviewed research articles since 2015 from its research activities on oil palm.

4 Other information on palm oil (sustainability reports, policies, other public information)

Some recent key publications from CIRAD: Montoya, C., Lopes, R., Flori, A., Cros, D., Cuellar, T., Summo, M., ... & Zambrano, J. R. (2013). Quantitative trait loci (QTLs) analysis of palm oil fatty acid composition in an interspecific pseudo-backcross from Elaeis oleifera (HBK) Cortés and oil palm (Elaeis guineensis Jacq.). Tree genetics & genomes, 9(5), 1207-1225. Morcillo, F., Cros, D., Billotte, N., Ngando-Ebongue, G. F., Domonhédo, H., Pizot, M., ... & Claverol, S. (2013). Improving palm oil quality through identification and mapping of the lipase gene causing oil deterioration. Nature communications, 4. Pardon, L., Bessou, C., Nelson, P. N., Dubos, B., Ollivier, J., Marichal, R., ... & Gabrielle, B. (2016). Key unknowns in nitrogen budget for oil palm plantations. A review. Agronomy for Sustainable Development, 36(1), 1-21. Bessou, C., Basset-Mens, C., Latunussa, C., Vélu, A., Heitz, H., Vannière, H., & Caliman, J. P. (2016). Partial modelling of the perennial crop cycle misleads LCA results in two contrasted case studies. The International Journal of Life Cycle Assessment, 21(3), 297-310. Cros, D., Denis, M., Sánchez, L., Cochard, B., Flori, A., Durand-Gasselin, T., ... & Suryana, E. (2015). Genomic selection prediction accuracy in a perennial crop: case study of oil palm (Elaeis guineensis Jacq.). Theoretical and Applied Genetics, 128(3), 397-410. Tisné, S., Denis, M., Cros, D., Pomiès, V., Riou, V., Syahputra, I., ... & Cochard, B. (2015). Mixed model approach for IBD-based QTL mapping in a complex oil palm pedigree. BMC genomics, 16(1), 798. Montoya, C., Cochard, B., Flori, A., Cros, D., Lopes, R., Cuellar, T., ... & Ritter, E. (2014). Genetic architecture of palm oil fatty acid composition in cultivated oil palm (Elaeis guineensis Jacq.) Compared to its wild relative E. oleifera (HBK) Cortés. PloS one, 9(5), e95412. Bessou, C., Chase, L. D., Henson, I. E., Abdul-Manan, A. F., i Canals, L. M., Agus, F., ... & Chin, M. (2014). Pilot application of PalmGHG, the Roundtable on Sustainable Palm Oil greenhouse gas calculator for oil palm products. Journal of Cleaner Production, 73, 136-145. Nkongho, R. N., Feintrenie, L., & Levang, P. (2014). The non-industrial palm oil sector in Cameroon (Vol. 139). CIFOR. Tao, H. H., Slade, E. M., Willis, K. J., Caliman, J. P., & Snaddon, J. L. (2016). Effects of soil management practices on soil fauna feeding activity in an Indonesian oil palm plantation. Agriculture, Ecosystems & Environment, 218, 133-140. Dussert, S., Guerin, C., Andersson, M., Joët, T., Tranbarger, T. J., Pizot, M., ... & Morcillo, F. (2013). Comparative transcriptome analysis of three oil palm fruit and seed tissues that differ in oil content and fatty acid composition. Plant physiology, 162(3), 1337-1358. Mercière, M., Laybats, A., Carasco-Lacombe, C., Tan, J. S., Klopp, C., Durand-Gasselin, T., ... & Breton, F. (2015). Identification and development of new polymorphic microsatellite markers using genome assembly for Ganoderma boninense, causal agent of oil palm basal stem rot disease. Mycological Progress, 14(11), 1-11. Comte, I., Colin, F., Grünberger, O., Follain, S., Whalen, J. K., & Caliman, J. P. (2013). Landscape-scale assessment of soil response to long-term organic and mineral fertilizer application in an industrial oil palm plantation, Indonesia. Agriculture, ecosystems & environment, 169, 58-68. Verwilghen, A. (2015). Rodent pest management and predator communities in oil palm plantations in Indonesia: a comparison of two contrasting systems (Doctoral dissertation, Univ. de Franche-Comté). Ponte, S., & Cheyns, E. (2013). Voluntary standards, expert knowledge and the governance of sustainability networks. Global Networks, 13(4), 459-477. Cheyns, E. (2014). Making “minority voices” heard in transnational roundtables: The role of local NGOs in reintroducing justice and attachments. Agriculture and Human Values, 31(3), 439-453. Djama, M., & Daviron, B. (2010, May). Managerial rationality and power reconfiguration in the multi-stakeholder initiatives for agricultural commodities: the case of the Roundtable for Sustainable Palm Oil (RSPO). In European Group for Organizational Studies summer workshop, Margaux, France (pp. 26-28).