



Issue 1/2016: Olam Palm Gabon sets benchmark for sustainable, large-scale palm plantation in Africa

Palm is the world's largest and fastest growing vegetable oil and has multiple end uses. Predominantly produced in Indonesia and Malaysia, growth in palm production has effectively been capped by the limited land and inadequate supply of labour as well as being hampered by land title, social and environmental issues. Africa is playing an increasing role in the palm oil sector as the industry there ramps up production to cater to growing global demand.

Within Africa, Gabon stands out as a highly cost competitive producer of palm given its soil, agro-climatic conditions and strong governance framework. Olam's oil palm development project in the country has already become Africa's flagship oil palm project. Successful planting of new areas by Olam in Gabon accounts for more than 50% of the continent's new palm acreage in the past two years.

In this first issue of **Olam Insights** for 2016, we ask our Palm team to share what has and is being done to establish Olam as the foremost upstream operator of sustainable, large-scale palm plantation in Africa.

Oil palm production: the case for Africa and for Gabon

By Ranveer S. Chauhan, Managing Director & CEO, Palm and Rubber

Demand for palm oil globally remains strong despite current volatility in the sector. Against this backdrop, Olam has pioneered a world-class palm plantation and processing business in Africa through an innovative joint venture with the Republic of Gabon.

While traditionally palm oil development has been centred on Asia, particularly in Malaysia and Indonesia, Olam recognised

that Africa offers a unique blend of available land, rural labour and an existing market that is currently serviced through imports. These attributes are in contrast to other more established palm growing centres where both land banks and availability of trained labour are constrained.

Sub-Saharan Africa is both a potentially attractive supplier of and significant market for palm oil. Vegetable oil consumption in Sub-Saharan Africa stands at 8.5 metric tonnes currently, of which about 75% is palm oil, and consumption is expected to grow by 6-10% per annum from its current low base.

Contiguous parcels of land are available and because of the greenfield nature of the

development, there is a clear opportunity to do it right from the beginning on a sustainable basis. Favourable regulatory regimes, tax policies and trade treaties are in place in a number of African countries and their proximity to Europe, the US and South America relative to other origins points to the potential for attractive long-term off-take opportunities.

While parts of the African continent have been well established as the destination of choice for discerning and knowledgeable investors, Gabon stands out as a unique opportunity for palm plantation and production. The political environment is stable and the government has committed up to one million hectares

as a sustainable land bank to attract agricultural development.

Olam recognised Gabon's unique attributes and entered into a sizeable public private joint venture agreement with the government of the Republic of Gabon (RoG) to develop an initial Phase 1 of 50,000 hectares of palm plantation in Gabon. Planting commenced in 2011 and today 31,500 hectares have been planted. Upon reaching full production, yields of up to 24 metric tonnes of fresh fruit bunches or FFB per hectare and 5.2 metric tonnes of oil per hectare can be expected.

The total investment in this Phase 1 development of plantations, palm oil mills and related assets is estimated at US\$500 million. Some 6,502 hectares have already been sold and leased back for US\$130 million, demonstrating Gabon is also prepared to support innovative financial structures to support the growth of the oil palm sector.

Our public private partnership with RoG is rapidly becoming a case study for adoption of best agronomy, commercial and sustainability practices, bolstering the country's economy and improving livelihood opportunities for thousands of people in local communities.

Olam's experience in Gabon has shown that the same success factors seen in Asia can be replicated in Africa through global best practice, tailored approaches for the Africa context, deep local engagement and investment in R&D.

More about the author: **Ranveer S. Chauhan**

Ranveer S. Chauhan is Managing Director & CEO of Palm and Rubber at Olam International. He has over 25 years of work experience in agri-commodities, of which a large part was focused on Africa. As Olam's former Regional Head for West, East and Southern Africa, he lived in Africa for more than 15 years across several countries. Ranveer has a degree in Business Management from IIM-A (India) and has completed the Advanced Management Program at the Wharton University of Pennsylvania. He is Vice-Chairman of the Africa Business Group at Singapore Business Federation. Ranveer is also a co-author of the book entitled "Amazing Africa: A Corporate Journey". He was accorded a national award for his contribution to Côte d'Ivoire through his work in Olam.



Above: Aerial view of Olam Palm Gabon's plantation in Mouila, Gabon.

Gabon: exceptional in the Africa context

By Gagan Gupta, President & Country Head, Olam Gabon

One of the main reasons that Olam chose to invest in Gabon initially was the West African nation's political stability and the government's desire to promote economic growth. Gabon is one of the most stable countries in Central and West Central Africa (rated BB- stable by Standard & Poor's) and has the highest income per capita in the region (US\$11,565 per head).

Since 2009, Gabon has set out to implement political and economic reforms under its "Emerging Gabon" policy to transform itself around three pillars: a "Green Gabon" to sustainably develop its natural resources; an "Industry Gabon" to develop local processing industries for exports; and a "Services Gabon" to develop its people in the financial, ICT, health and tertiary education sectors.

Recently, the country has witnessed rapid infrastructure development, with a shift from public to private services. In parallel the government has focused on diversifying sources of revenue by investing in and supporting businesses. This focus enables Olam Palm Gabon (OPG), the joint venture between Olam and the government of Gabon (RoG), to play a leading role in the African Green Revolution.

Gabon is blessed with five million hectares of fertile arable land and a tropical climate. The RoG has adopted a national land use plan that allocates land for different uses and explicitly excludes "intact forests, high conservation value forests and forests which are particularly rich in carbon". As part of that plan, a land bank of 300,000 hectares has been committed in suitable agro-climatic conditions for development by OPG.

The plantation sites have been selected in the regions of Gabon most suited for high yields with a low rural density, making it possible to implement best practices both for optimum agronomy and socio-economic development



Above: Opening ceremony of the Awala mill in September 2015 officiated by Republic of Gabon President Ali Bongo Ondimba.

for the local communities. The RoG has a strong commitment to sustainability and this greatly enhances the operating environment for us in the country.

Collaborative expansion via PPP

OPG stands out in the Africa context as one of the larger and more successful public private partnerships or PPPs. It helps contribute towards broad-basing the economy, embedding best practice sustainability, creation of more jobs for the rural sector and the nation's food security.

Olam's recent participation in RoG's GRAINE scheme through a 49/51 joint venture with RoG is another case in point. It is a bold venture which seeks to replicate the successful FELDA scheme of Malaysia. The RoG provides land and financial resources for developing smallholder plantations and logistics. Olam leverages its proven expertise in palm plantation and responsible rural investment models to support nucleus development of smallholder plantations.

The Phase 1 development under this initiative has benefited more than 14,000 Gabonese farmers and the joint venture will also offer market access to these farmers through Olam's distribution networks.

Mitigating risks

Having the government's direct involvement in the business as a joint venture partner helps to promote better visibility and transparency aligned with the government's overall policy framework. We have also ensured financial and development institutions participate in the financing of the projects we undertake, encouraging a high level of constructive scrutiny by the financial community.

Overall, Olam is the largest and one of the preferred private sector employers in the country employing over 7,100 people. We continue to work on a model that is built on a strong social franchise in conjunction with an economic model where all of our 5,200 OPG employees have a stake in the project's success.

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More about the author: Gagan Gupta

Gagan Gupta is President at Olam International and is currently the Country Head for Olam Gabon. He joined Olam in 2009 and was appointed CEO of Gabon Special Economic Zone (GSEZ) in July 2010. Since then, he has led the growth at Olam Gabon and fostered the public private partnerships between Olam and the government of Gabon. Gagan is a chartered accountant by training and has accumulated more than 15 years of work experience, including his work in Reebok and Reckitt Benckiser prior to joining Olam. He was given the highest civilian order award by the government of Gabon in 2011.





Above: Sowing of germinated seeds in polybags in pre-nursery.

Palm cultivation in Gabon: making progress

By Supramaniam R. Ramasamy, President & Global Head, Palm and Rubber Plantations

Backed by strong sponsor commitment, Olam Palm Gabon (OPG) has achieved significant milestones since inception. Africa had not seen sustainable, large-scale palm developments in recent years until OPG successfully planted 31,500 hectares across two sites (Awala and Mouila) in Gabon. The total area planted by OPG in the past two years accounts for more than 50% of new palm acreage in all of Africa over that period.

The area planted and the attractiveness of Gabon as a location for palm plantation establishment is even more notable when considering that many other palm development projects in the wider region have suffered major setbacks due to political risks, difficulty in securing large land banks without incumbrances, community issues and unclear policies.

Our journey has been characterised by teamwork and collaboration. Since inception four years ago, OPG has successfully built a team of more than 5,200 people who have been intimately involved in shaping our model tailored to succeed as an upstream operation in the Africa context. Gathering a strong core management team that combines global skills and experience with local context and knowledge has been fundamental.

While the land and agro-climatic suitability of production factors in Gabon match palm producing countries in Asia, our early stage commitment to developing and implementing the best agronomy practices and careful selection of the right planting materials also laid a solid foundation for success.

Training and development from day one

Nationalisation of the team is not merely a best practice – it is essential for culture and technology transfer. Gabonese nationals make up 90% of our team and the balance are expatriates with high quality skills in this sector who provide the initial training to prepare the national team to run the operations independently at international standards. Our aim is to transition more national employees into managerial functions by 2020.

At inception, we identified the required competency levels. We then selected qualified and experienced Asian planters, engineers and operators from Indonesia, Sri Lanka, India, Philippines and Malaysia as well as their counterparts from other African countries, such as Ghana, Nigeria, Cameroon and Cote d'Ivoire. These team members deliver training and transfer of technology and farming culture to local employees who are new to the sector.

So far 4,200 employees have been trained in the classroom and the field, clocking more than 5,000 hours of training in agronomy, health & safety, RSPO and Good Agricultural Practices. Every year OPG offers its national employees internship programmes in established companies in



Above: A Gabonese employee (left) on the job training by an Indonesian expatriate who typically picks up French after a few months as he lives within the local community.

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Malaysia, Indonesia, India, Sri Lanka, South Africa, Italy and Morocco. For example, in 2015, two national employees completed a Diploma in Intensive Oil Palm Management and Technology offered by the Malaysian Palm Oil Board in Malaysia and another two completed a stint at palm mills in the country. In addition, every year, 30 interns will be attached at three agricultural colleges and universities in Gabon for six months.

To ensure an available pool of local talent, we are exploring tie-ups with local universities to find young and talented Gabonese who will not only have the relevant training but also a good fit with our organisational culture and ambitions.

With the launch of the joint initiative between OPG and RoG under the GRAINE scheme, Olam teamed up with the world's largest CPO producer, Felda Global Ventures (FGV), to launch a training programme in oil palm plantation management for over 2,000 Gabonese smallholders to help them become commercially viable RSPO certified plantation owners. To qualify for the land parcels, the Gabonese smallholders must undergo rigorous training in Good Agricultural Practices to enable them to achieve RSPO certification. FGV has been recognised by the World Bank and the United Nations as having the most successful outgrower development model in the world.

Investment in R&D: developing a centre of excellence

R&D is another strategic priority as we develop OPG into a long-term, sustainable and profitable business.

Olam has invested in the construction of a Centre of Excellence within OPG which will undertake the testing and analysis of plant tissues, soils, fertilisers, water, effluent, and agrichemicals to improve yield and efficiency. It also aims to reduce production costs through breeding, tissue culture, agronomy and crop protection.

R&D is also an area characterised by strong collaboration and partnerships. We have initiated tie-ups with reputable research organisations, such as Temasek LifeScience Laboratory (TLL) and the National University of Singapore (NUS), the Agropolis Foundation International in France, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia.

For example, we collaborated with TLL on biofertiliser and pollination during the rainy season and recently undertook the management of elephants and palm weevil *Rynchophorus Sp* in plantation as part of an integrated pest management and crop protection programme with CSIRO and Agropolis.

Additionally, we are working with NUS to provide sufficient high quality planting materials for future expansion developed specifically for utilisation in Africa. Our long term goal is to identify and select planting materials with 30% higher yield (oil per hectare per year basis) than the current commercial planting materials adapted to conditions in Africa.

Independent research activities also include irrigation, fertiliser, progeny trials, clonal plantings, drone application, oil palm breeding, integrated pest management and fruit ripening using plant growth regulators and biofertiliser as catalysts.



Delivering the fruits of labour

Approximately 3,500 of our 31,500 planted hectares have now reached the three-year mark and are producing fresh fruit bunches or FFB. We are on track to complete Phase 1 development of 50,000 hectares by 2017.

Our first processing plant in Awala was commissioned in September 2015. The oil extraction rate (OER) improved from 22.0% to 24.5% within the first year of harvesting mainly due to continuous training of harvesters and plantation staff and crop quality improvement. Loose fruit collection improved to 9% of the total FFB, which puts us on track to achieving an OER of 25%.

Planting schedule

Hectares	Up till 2015	2016	2017	Total
Awala	6,502	300	-	6,802
Mouila	24,998	12,400	5,800	43,198
Total	31,500	12,700	5,800	50,000

Note: The developed area in Awala represents 36% of total concession area with the balance 64% being conservation area. In Mouila, developed area represents 47% and conservation area 45% of total concession area.

More about the author: Supramaniam R. Ramasamy

Supramaniam R. Ramasamy joined Olam International in September 2011 as Global Head of Plantation in Palm and Rubber based in Malaysia. He has 32 years' experience in upstream and midstream businesses in palm, rubber and cocoa. He has also led large scale sustainable land development in Indonesia for 12 years. Prior to Olam, he had worked with Guthrie's, Good Hope and Felda Global Ventures in Malaysia. Supramaniam holds a Bachelor of Science in Agriculture and a Master in Plantation Management from Agricultural University of Malaysia (UPM).



A second mill located in Mouila is due to start operations in January 2017. Another two mills are currently planned for commissioning in 2020 when the entire 50,000 hectares of palm reach maturity. We expect the plants to reach full capacity utilisation at a combined 887,900 metric tonnes of FFB per hectare by 2020, delivering a CPO yield of 5.2 metric tonnes per hectare or a total of 217,500 metric tonnes in CPO and 18,300 metric tonnes in palm kernel oil annually.



Above: Smallholders in villages to be part of the outgrower programme under the joint initiative between Olam and the Gabonese government’s GRAINE scheme to promote rural development.

More than a social licence: taking the lead in sustainable palm practices

By Dr Christopher Stewart, Head of Environment and Sustainability, Olam Gabon

Olam Palm Gabon (OPG) is ensuring that our social and environmental programmes will have a genuine and lasting positive impact for the communities and environment where we operate in Gabon. We see it as one of the most crucial factors of our long-term success in the country.

Our programmes are tailored to meet the needs of local communities while adhering to the broader principles of consultation and community involvement. These elements underwrite a strong social licence for us to complete the development of plantations and palm oil production facilities.

We started with a comprehensive social participatory mapping to determine areas used for subsistence agriculture, collection of non-timber forest products (NTFP) and sites of cultural significance. The results of these studies along with an Environmental Impact Assessment were shared with communities so that they could make informed decisions about their future.

If a proposed development is initially accepted, community representatives and Olam adopt procedures for

consultation and identifying individuals or groups entitled to compensation, and eventually both parties agree to terms and conditions of development, which are signed and witnessed by all parties in our Social Contracts.

Across our palm plantations in Gabon (and also for rubber), Olam now has social contracts with 46 villages which include commitments to improve the lives of local people, based on their choices.

Aside from giving priority to local employment, our engagement and management plans cover health, education, lighting, transport and village farming. For example, since 2012 we have built or refurbished 14 schools and handed out 5,000 school kits; set up worker health centres and organised HIV awareness training at all our sites; drilled 60 village wells; and installed over 2,200 solar lamps for streets and homes. We have built two village cassava mills and trained small farmers to produce better yields with improved planting stock of banana, cassava and palm.

We are clearly seeing our projects changing the face of the communities – quality of housing material, new residential construction, new shops and markets, better clothes and a disciplined and well-engaged community are clear data points of change coming from the new income the community has earned.

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Dr Christopher Stewart
Head of Environment and Sustainability,
Olam Gabon

We are very conscious that we have a unique opportunity to be the front-runner in establishing sustainable palm plantations in Africa. We are using the Roundtable Sustainable Palm Oil Principles and Criteria (RSPO P&C) as a baseline for our sustainability framework. These have been bolstered with additional environmental and social measures, including a commitment to no deforestation or conservation of high conservation value (HCV) forests and ecosystems and high carbon stock (HCS) forests and peatlands. (Read our Plantations Code and Palm Policy which are in line with those of IFC and RSPO).

HCS+ process

The debate on sustainability has reached a mature pitch in the sector. We are at the forefront of sustainability by applying Free, Prior and Informed Consent (FPIC), Environmental & Social Impact

Assessments (ESIA) and RSPO P&C to our palm plantation investments. We also want to take the lead on the conservation of HCS forests.

There is still debate on the definition of HCS forests and we continue to work with industry and scientific community partners to shape and track the development of accepted definitions. In the meantime there are several key HCS initiatives in development that will guide us on undertaking the HCS+ process in our plantation.

Gabon is the first country in Africa to have committed to reducing its Greenhouse Gas emissions by 2025 relative to its 2000 baseline under its 2015 Climate Action Plan for the UNFCCC, which includes protection of HCS and HCV forests in its land-use plan and sets out how it will deliver on its UNFCCC commitment.

The international High Carbon Stock Study Group published its Science Study Report in December 2015, in which the Technical Committee presented Olam's Mouila landscape as a case study to guide an HCS+ process suitable for forest-rich nations. Considering all our

palm plantations in Mouila, the HCS Study Group concluded that our palm project will be at least climate neutral and carbon positive (i.e. net fixation or removal of 4.8 million tonnes of carbon dioxide from the atmosphere) over the first 25 years of the project.

More about the author: Dr Christopher Stewart

Dr Christopher Stewart has been with Olam for three years and heads the Corporate Responsibility & Sustainability function in Olam Gabon. Christopher has more than 20 years of experience in various aspects of tropical ecology, natural resource management and environmental innovation, including 16 years in the private sector. He has a strong experience in policy and standards development, environmental and social assessments, sustainable management practices, capacity building and compliance in land use, natural resources and waste management industries, including factories and mills. Christopher was involved in the development of Olam's Palm Policy and in the design and management of Olam's palm and rubber plantations in Gabon from inception. He holds a PhD in Tropical Forest Ecology at the University of Cambridge.



Facts on Olam Palm Gabon

Business activities:	RSPO compliant palm cultivation and milling
JV partners:	Olam: 60% Republic of Gabon: 40%
Land bank:	300,000 ha
Phase 1 development:	50,000 ha by 2017
Planted area:	31,500 ha
Location and acreage:	Awala: 6,802 ha (planted, sold and leased back 6,502 ha) Mouila: 43,000 ha
Expected FFB yield:	Up to 24 MT/ha
Expected CPO yield:	5.2 MT/ha
Phase 1 capex:	US\$500 million
Employee strength:	5,200 against target of 6,500 by 2020
Sustainability milestone:	First RSPO certification by July 2016



Above: One of the 14 schools which Olam Palm Gabon has built or refurbished as part of its social development programmes in Gabon.