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African perishables

Inside

Rapid population growth, fast-developing economies and a booming global market for fresh flowers, fruits and vegetables has made Africa a very attractive proposition for perishable logistics players.

The African market could top 10% growth this year, according to some estimates, but access to sufficient transport capacity is still the key export challenge for local growers.

Additionally, all African exporters must grapple with the unique logistics challenges posed by produce seasonality, says Yvonne Otieno, Nairobi-based agripreneur and director at Miyonga Fresh Greens.

"There are seasons when the orders are really low, and then seasons when the volumes required are double or triple the normal amount," she says. "This makes planning difficult and freight prices often increase five-fold."

Established in 2015, Miyonga grows and exports fresh fruits and vegetables to Europe and the Middle East, including passion fruit, avocados, pineapples, French beans, peas and herbs.

"All our shipments to the EU are by air due to the distance, however for Middle Eastern countries we can ship by sea due to the shorter transit period," explains Otieno. "But Europe remains the main receiver of products from Kenya with huge imports of flowers, vegetables and fruits."

Kenya can be a victim of its own success when it comes to freight rates, however. Otieno says the strong demand for capacity often pushes

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rates to the UK "considerably higher" than regional competitors, such as Zambia, despite the extra distance.

"The air freight costs are high, while if we send by sea, the possibility of claims presents a higher risk. That's one of the reasons we have begun producing dried food and food powder. The shelf life is much longer and it can be shipped by sea at much lower cost," she says. To do this, Miyonga turns surplus fruit into dried fruits and fruit powder.

Additional cold chain challenges lie further up the farm-to-fork supply chain. Otieno says that while most Kenyan exporters have cold storage facilities, a large percentage of growers are small-hold farmers who do not have the financial resources to invest in modern cold rooms at the farm or in reefer containers for transport to export to packaging facilities in Nairobi.

"To address this, we have seen a number of innovative solutions meant to help maintain cold chain from the farm-gate level and these are gaining traction, including the use of charcoal coolers."

Surging demand

Despite the logistical headaches, an interesting development for Kenyan exporters like Miyonga is the surging demand in Asia. Otieno says the Asian market presents some good possibilities for Kenyan produce, and that Miyonga is seeing increased enquiries for avocados and coffee. However, she cautioned that it may be too early to tell if the demand sustains in the long-term.

Otieno takes a similar view of the increased interest and activity the large multinational 3PLs are taking in Kenya's perishables market, noting it is "too early to tell if these acquisitions will be good or bad".

Most of Miyonga's shipments are FOB (free on board), with the grower paying for transport up to the port, and the buyer paying for the remainder of the journey. The firm's customers choose their preferred forwarders, says Otieno, which helps it focus on production and delivery to the airport.

"However, for clients who ship CIF (cost, insurance and freight paid by the seller to the port of destination), we have to shop around for forwarders. The advantage of the big companies is that they might be able to negotiate better rates, however the smaller companies give personalised attention, which can give new exporters a chance to enter the market.

"Some are willing to give credit when shipping CIF, based on long-term business relationships with exporters. Forging new relationships with the bigger players will take time; our industry is built on trust and reliability across the supply chain."

Kuehne + Nagel (K+N) is taking a similar long-term view of Africa's perishable logistics market.

"For us it's very simple," says Dennis Verkooy, senior vice president and global head of perishables, air logistics. "If you look across Africa as a continent, there's a billion people, and by 2050 there will be 2 billion people, so the fastest population growth will be in Africa.

"You see clearly in countries like Kenya, Tanzania, Namibia and South Africa, for example, that their economies are moving fast."

K+N acquired Kenyan perishables specialist Trillvane in 2017, one of the country's largest air cargo players. Trillvane has a strong customer base in the UK, helping large supermarkets such as ASDA and Tesco keep the grocery isles stocked.

Verkooy says the "very successful" takeover of Trillvane, together with the purchase of US firm Commodity Forwarders Inc (CFI), helped K+N to significant growth in perishable air freight volumes last year. In 2018, the forwarder also purchased Panatlantic Logistics Ecuador, another perishables specialist.

In Africa, flowers make up the majority of K+N's perishables business with a 70% share, followed by 20% fruit and vegetables and 10% fish. The continent represents 16% of its total global perishables volume, and Verkooy says the Switzerland-based forwarding giant is open to further acquisitions.

For example, in South Africa, which Verkooy describes as an interesting market, K+N has a relatively small presence, but plans to grow organically and "keep the door open" for an acquisition.

The company recently invested in coolers at both Cape Town and Johannesburg airports; key commodities in the country are fruits and flowers, with some cross-business from Kenyan customers who also have farms there.

Cooling off

After the highs of 2017 and 2018, with the global air freight market expected to cool off a little this year, Verkooy says this would create an "easier year" for perishables, with regards to maintaining capacity.

He explains: "Historically, if you look at the last 20 years you can clearly see perishables is quite a steady product for the airlines, we don't have the big hiccups you get with dry cargo or other commodities when it comes to the rates, they're more stable.

"What we also see is that when there is a lot of demand, then these products suffer a bit. Airlines can choose whether to fly fish for fifty cents or pharma for two dollars. So then you run into situations where you need more capacity."

Verkooy notes a cooler market is "good news" for KN FreshChain, since the benefits of the 3PL's preferred carrier programme come into play. For instance, the forwarder can put more volume with its preferred airlines where it has space agreements and preferential rates, compared with ad-hoc volumes with carriers outside the programme.

"Of course, it happens and we still have a relationship with those airlines, but you can clearly see their share of our business is increasing when the market is hot and decreasing when it's slow."

For fellow Swiss forwarding multinational Panalpina, the rise of global e-commerce has had a big impact on how airlines manage capacity – with African markets often suffering increased northbound rates as a result.

"The airline industry has been through a turbulent period, and especially what we've seen towards the end of 2017 is that e-commerce has had a dramatic effect on how freighter operators are managing capacity," says Colin Wells, Panalpina's global head of perishables.

"So we've lost quite a lot of freighter capacity out of Kenya through natural wastage, but also as some operators are choosing to operate in more lucrative markets. I think it was estimated that at one point we were losing 600 tons a week of freighter capacity, so in essence six flights a week."

Wells agrees that a continuation of global rate erosion in 2019 could see carriers returning to Africa.

Oil and gas

One positive sign for Panalpina is the increased oil and gas projects starting up in Africa, bringing to an end several years of inactivity wrought by the collapse in oil prices in 2014. Panalpina has a large footprint in the sector, and Wells explains the uptick should help carriers with their north-south utilisation rates – a tricky balancing act due to Africa's relative lack of import cargo.

"As projects develop in Africa, it becomes more interesting for the carriers to start doing two-way flights. So I think towards the end of this year we should see some additional fixed capacity."

Pairing northbound and southbound cargo lies at the heart of Panalpina's global end-to-end strategy for perishables, and has resulted in the 3PL acquiring no less than eight companies specialising in the vertical since 2015.

According to Quint Wilken, global head of air freight, perishables,

Eric Mauroux, global head of perishables at Air France-KLM Martinair Cargo, describes the switch to volumetric weight as bringing back economic reality

Panalpina focuses on buying companies with strong inbound freight, as well as exports.

"It's very important because it gives us the end-to-end; in some markets the inbound business is even more important because you control the customer from that side, but you are also able to control business on the origin side too."

This allows the 3PL to offer a one-stop solution to customers who import from multiple countries, adds Wells, including transparency on track-and-trace and cold chain management.

Last year Panalpina continued its acquisition spree with the purchase of Skyservices in South Africa. Wilken describes it as a strategic move that provides "the key to the South African market, which is used logistically as a hub from the continent to other parts of the world".

10% capacity wastage is a big number, considering the dominance of flower exports out of Africa

Prior to Skyservices, Panalpina acquired Kenyan forwarders Airflo and Air Connection. Panalpina moves some Kenyan produce to South Africa, explains Wells, since it is less seasonal there and there are periods when it's easier to access capacity.

"We get a little bit clever in terms of how we move product and find solutions, and the better your network the better solutions you can find."

Kenya's prospects for 2019 appear to be picking up again following the extreme weather of heavy rain experienced just after Valentine's Day last year. Wells says this suppressed flower volumes, but now the market is back on track.

This is a view shared by Andrew Walters, commercial director at UK-based Network Airline, who says loads have been consistent since the start of the year.

"Now we're gearing up towards the Valentine's Day rush," he explains. "Demand seems to be pretty good and will only increase now in the run up to Valentine's and the peak period of Mother's Day in the UK and Europe, and then Easter."

Network Airline provides GSSA services in addition to managing its own freighter fleet. In 2017, the firm teamed up with Kenyan cargo carrier Astral Aviation to operate three 747s and four flights a week between Nairobi and Doncaster. A separate MD-11 flight lands in Liege, operated by Nigerian carrier Allied Air. Walters says an additional one or two flights will be put on to satisfy the extra demand for Valentine's Day.

Another big challenge for the Kenyan flower sector in 2018 was the switch by airlines from actual weight to volumetric-based charges. The switch added "huge" costs for growers and receivers, according to Panalpina's Wells, who described Kenya as a "last bastion" for the practice – other flower-growing countries, such as Colombia, made the switch years ago.

Skidded cargo

To help mitigate the impact on customers, Panalpina invested heavily in an extension to its facility at Nairobi airport, which opened in November. There, Wells says they have been encouraging the use of standardised boxes for skidded cargo, as the previous lack of uniformity meant boxes could contain 20% air.

"The reality is that fresh air costs money to send, and the only way you can effectively do skidded cargo is where you have uniformity of box size. So we have reduced the exposure to both the grower and receiver by maximising payloads," he adds.

Skidded cargo also allows for a better blend of freight, according to Wells, meaning the forwarder can fill some of the volumetric space with denser product, normally vegetables.

Eric Mauroux, global head of perishables at Air France-KLM Martinair Cargo (AF-KLM), describes the switch to volumetric weight as bringing back economic reality.

"We were dealing with around 500 different types of boxes in the flower trade," says Mauroux. "This lack of standardisation results in a waste of air freight capacity, which is vital because in the peak season all the actors say they need more space, but 10% of the aircraft is wasted without standardisation."

Ten percent capacity wastage is a big number, considering the dominance of flower exports out of Africa. Mauroux says 70% of Africa's air cargo exports are perishables, with flowers making up 37% compared with 40% for all fruits and vegetables.

"Something that's really striking when you look at the fresh imports into Europe from Africa is that it's really driven by the flower business," he explains. Ethiopia accounts for some of the volume, but the bulk of the trade flows between Nairobi and Amsterdam.

With the flower category and better space utilisation a top priority for the airline, AF-KLM teamed up with Schiphol Airport and Royal FloraHolland to create the Flowerbox.

Developed through the trio's Holland Flower Alliance (HFA) initiative, a two-month Flowerbox pilot successfully created a 15% increase in weight on airline pallets by reducing space between boxes.

"E-commerce has had a dramatic effect on how freighter operators manage capacity", says Colin Wells, Panalpina's global head of perishables

Roos Bakker, director of business development at Schiphol, says that in addition to Flowerbox, the HFA has been busy creating an information-sharing platform that allows players in the chain to link critical flower data to air waybill data.

"Flower shipment data such as number of boxes, flower type, and number of flowers and stems in each box, is linked to air waybill numbers by the portal, which then generates a unique GLN code that gives all users access to all the data in one place," she explains.

"In successful pilots on journeys from Nairobi to the Royal FloraHolland auction in Aalsmeer, Netherlands, shipments of flowers remained traceable, in real-time and on shipment level, throughout the journey, including both product and shipment information."

Bakker notes perishables in general, and specifically flowers, are very

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important to Schiphol and to Holland, with the category accounting for about 25% of all air freight imports.

"It's a steady market, but one where we see great opportunities to optimise."

Optimisation is even more vital when considering what Bakker describes as Schiphol's "constrained operating environment", whereby the airport cannot exceed 500,000 ATM (air transport movements) a year.

"Schiphol has reached this amount, and therefore expanding in terms of flight movements is not possible. Together with HFA we are looking for other ways to optimise our business."

A key goal within HFA is to prolong the vase life of flowers. To this end, AF-KLM teamed up with Netherlands- and Kenya-based supply chain management specialist FlowerWatch to develop the 'degree hour': an innovative KPI that allows the carrier to enhance its cold chain monitoring capabilities.

Mauroux explains: "We multiply the number of hours it takes to carry the flowers with the temperature the shipment has been exposed to. If a shipment is exposed to 10 degrees when it should be between 0-2 degrees, but only for five minutes, then maybe this is not good – but it's not that bad either. However, if it's exposed for three hours, then you have a problem."

He also says there is a big need to improve data sharing throughout the cold chain, since "everyone has their own information".

He adds: "We don't all measure the same thing - exporters might measure temperature inside the box, ground handlers could be measuring the pallet, and we could be measuring the temperature inside the cold room, for example."

He says ramp handling, in particular, needs to be improved, and that AF-KLM is looking at deploying reefer trucks at both Charles de Gaulle (CDG) and Schiphol.

Panalpina's Wells agrees cold chain ground handling is a global issue requiring attention and investment. Furthermore, he says, there is "undoubtedly" a need for IATA to introduce a certification programme in line with the CEIV standards for pharmaceutical cargo.

"There's still a high wastage of products post-harvest. We're working

At AF-KLM, keeping the highest cold chain standards is paramount, says the carrier

with companies to monitor temperature at cargo handling sheds, because many of these receiving facilities don't have cold storages."

Cold chain standards are also a top priority for K+N. The company is rolling out an internal certification programme across its entire KN FreshChain network of 78 stations worldwide, with the process already completed in London, Amsterdam and Madrid.

There is a big need to improve data sharing throughout the cold chain, since "everyone has their own information"

K+N's Verkooy describes the programme as providing global standardisation for customers, whereby every certified facility offers the same standards and procedures no matter its location, a 'Starbucks-like' concept.

"It's going to take all of 2019 and some of 2020 to complete this certification process across the whole network, but once it's done I firmly believe we'll take a big step forward, and it makes us a bit unique because I'm not aware of anybody else who has this."

At AF-KLM, keeping the highest cold chain standards is paramount considering the size of what Mauroux describes as the carrier's "fresh" business. Fresh represents 16% of all air cargo globally, he notes, making it the biggest vertical in the industry. At 25%, fresh is an even bigger share at the French-Dutch airline.

"This sector is very dynamic and growing, it requires a lot of attention as far as controlling the cold chain, because at the end of the day if we want the growth to continue we always need to enhance the customer experience.

"Looking ahead it's growing more rapidly than the overall air freight market, which is at 2-4% per year, but the fresh business is 6-8% per year. So it's growing very fast and this is a trend that's going to be there for many years to come," Mauroux says.

He notes Africa represents about 18% of total fresh air cargo exports worldwide, compared with 26% from Latin America. Again, AF-KLM has a larger share, with Africa representing one-third of its total fresh business.

Aside from Kenya, Mauroux highlights the neighbouring countries in East Africa as also being very active, especially Burundi and Uganda. AF-KLM has a partnership with Kenya Airways to serve these countries with a feeder network to Nairobi.

"South Africa is a very interesting place to be, as well as neighbouring countries like Namibia, especially on the fruits and vegetables side, but also on fish which is growing very quickly out of Cape Town," he adds.

In West Africa, he says Senegal and Mauritania are also performing well with fish exports; while for the Ivory Coast and Ghana, the carrier exports "huge flows" of pre-cut fruits for the ready-to-eat fruit salads found on supermarket shelves in Europe.

To help mitigate the north-south imbalance between imports and exports – a mix Mauroux describes as "a bit fragile at times" – the carrier has circular flights bringing in foodstuffs to African markets where there are large expat communities or a military presence.

The capacity challenge for African perishables is exacerbated by the relatively low value of the produce, compared with other value-added cargo such as pharma. Mauroux explains that this makes transport costs a much higher share of the overall cost of the final product.

Yields flat

As a result, he says, while yields for general cargo have increased considerably, by about 6% over the past couple of years, the same cannot be said for perishables, where the yield hasn't increased at all, or even slightly decreased.

"This shows with perishables you can reach a limit where any kind of increase becomes problematic and has some effect on demand."

One trend in Africa Mauroux doesn't see as a problem is the ongoing consolidation driven by the two Swiss multinational 3PLs. He says it's a positive move, since AF-KLM is also a multinational and as such tends to "think alike". It also increases the investments and capital the sector needs.

While 67% of African fresh exports go to Europe, and 28% to the Middle East and South-east Asia, Mauroux sees an uptick in flows to China, with a particularly strong interest in flowers. However, similarly to Otieno of Miyonga Fresh Greens, he doesn't necessarily see this as a long-term trend.

"I believe on a medium-term basis those flows will be provided by local production," he explains.

On the other hand, Panalpina's Wells says China is growing at an exponential rate in terms of the appetite for flowers and Kenyan produce in general.

"We're seeing year-on-year double-digit growth in what we're sending to China," he notes. "Reportedly only 1% of the middle class in China is currently buying branded western produce, so if that figure just increases marginally, the impact on the volumes going to China would be quite substantial."

The surging demand in Asia is already impacting African cargo flows. For example, Wells says that with Kenya sending more product to China, Uganda is benefiting as a result by replacing some of the lost supply previously exported to Europe.

Panalpina's Wilken (*above*) explains: "In the up and coming Asia market people are willing to pay a premium compared with the old markets in Europe. We often use cherries from Chile as an example – that's also going to happen now in Africa whereby it has some premium products from Kenya, South Africa, Egypt and Morocco. These sellers are starting to look for premium markets and want to get a better yield for their product, and so then the likes of Uganda and Zimbabwe will potentially fill the gaps."

However, Wilken again brings up the importance of logistics costs, noting that if southbound traffic and available capacity doesn't improve, then it will be difficult for Africa to compete with Latin America where transport costs are much lower.

Upbeat on Africa

On the whole, though, the two Panalpina executives are rather upbeat on Africa. Wells says Zimbabwe and Uganda are leading the charge in terms of volume growth, while in the more established South African market it is blueberries and avocados that are really taking off.

He says: "It really is a great time for Africa; it's taken a while but it's being recognised as a premium place for produce and flowers.

"We believe there will be over 10% growth this year as an industry. With air cargo, there's a risk that when there's no capacity the product could migrate to ocean, but overall we see good growth, and as long as people keep on eating it's going in the right direction for sure."

While air cargo worries that it may lose to sea freight, it already carries just a tiny fraction of the total: some 90% of Africa's exports travel by ship.

According to Anne-Sophie Zerlang Karlsen, Maersk Line's head of global reefer solutions, the main reefer commodities exported from Africa originate in South Africa, where citrus, avocados and grapes dominate.

"We are further seeing growth in commodities like mangos and lychees," says Karlsen. "In general, these are more sensitive commodities, and there is some air freight ex-Africa. However, due to the price, as well as the overall wide selection of shipping services, by far most of the commodities are exported by sea.

"Technology like controlled atmosphere is enabling this, combined with better visibility into the supply chain through products like remote container management, which further enables more and more exporters to sell their fruit in foreign markets."

Outperforming

Karlsen says global reefer markets grew by 6.3% in 2018, and that African markets slightly out-performed the global average, mainly due to the rise in Asian imports from South Africa.

"The Asian import markets from Africa continue to be the strongest-growing, which is the same for Africa as well as for any other reefer trade globally. This is driven by the increase in population, as well as an increasing demand for more kinds of produce and availability of all produce across seasons."

Inland logistics is a big challenge across Africa, notes Karlsen, increasing the turn-time of reefer equipment and therefore the need for greater capital expenditure from the shipping industry. And like airlines, container carriers must also grapple with trade imbalances.

"Africa is overall a highly unbalanced continent for the reefer trades, where we have some fish imports mainly in West Africa, and then the large exports focused on South and East Africa.

"This is a challenge, but not too different from how Oceania or Latin America functions. It requires a lot of planning for the shipping lines to ensure that equipment is positioned as needed."