IN THIS ISSUE

NEWSLETTER
Issue No.27 | July 2019

African Refiners & Distributors Association
جمعية المكررين والمسوقين الأفارقة
Association des Raffineurs & Distributeurs Africains

ARA WEEK 2019

STRENGTHENING INVESTMENT IN THE AFRICAN DOWNSTREAM



Ivorian Minister, Mr Abdourahmane Cissé, sets the scene for government support of refinery financing, Mr Tope Shonubi of Sahara promotes regional harmonisation.

FINANCING CHALLENGES DOMINATE DISCUSSIONS

A record of nearly 600 delegates attended this year's ARA WEEK conference in Cape Town held at the Century City Conference Centre, up from last year's attendance. The mood in the room was serious as delegates rolled up their sleeves to discuss the difficulties, highlighted throughout the conference, in raising the finance needed to meet the conference theme – *Strengthening Investment in the African Downstream*.

Opening the conference, the Ivorian Minister of Petroleum, Energy and Renewables, Mr Abdourahmane Cissé, presented the financing challenges faced by SIR, the Abidjan refinery.


He announced the conclusion of a $600mn debt rescheduling package to appease the day to day financing problems of the refinery. The Ivorian government has guaranteed the debt, and the re-structuring has significantly reduced the debt burden of the refinery. The Minister stated that the financing improved the funding climate for the refinery and that he would be approaching the refinery shareholders for their plans for the future investments in clean fuel production.

FINANCING THE DOWNSTREAM

Another memorable highlight of this year's conference was a barnstorming performance by Mr Tope Shonubi, CEO of Sahara Energy. In a presentation that lifted the spirits, and sent a strong message that Africans can, and must, succeed on their own continent, Mr Shonubi insisted that Africans should not rely on international companies to build their businesses for them.

Mr Shonubi told of the abundant opportunities as the continent has developed. He expressed his pride that Sahara was one of the first African companies to carry out full cycle crude and product trade transactions using only African resources within the continent – with African crude source, African refinery, African bank, African trader, supplying African product markets.

ARA POLICY OF REGIONAL HARMONISATION

His main theme, however, was the urgent need for the implementation of ARA policy on creating more harmonised markets across Africa, for both product quality and regulation/taxes. He argued that this would lead to favourable economies of scale in intra-regional African trade, improve local refining capacity, reduce landed costs of petroleum products, create more influential economic blocs, and lead to wider export diversification with access to a larger customer base. In line with ARA policy since 2006, he argued that clearly the adoption of unified petroleum product standards across Africa would allow the creation of wider regional product markets, ease intra-regional petroleum product trade, reduce bulk transportation costs and optimise regional logistic infrastructure; regional harmonisation of taxes, excise duties and subsidies would also significantly reduce smuggling and adulteration of fuels.

Mr Shonubi closed with a Swahili proverb – umoja ni nguvu mgawanyiko ni udhaifu: *unity is strength; division is weakness* – and a quotation from Jose Manuel Barroso, former EU Commission President: “African countries cannot hope to shape globalisation or even retain marginal relevance individually. It is only together that we have the weight to influence the big picture.”

Continuing the theme set by Minister Cissé, presentations by Mrs Tariye Gbadegesin of the African Finance Corporation, Dr Rose Mwebaza, Chief Natural Resources Officer of the African Development Bank and Mr Paul Eardley-Taylor of Standard Bank all stressed the constraints of raising finance for downstream capital projects, and proposed potential routes for freeing up the cash needed. In line with ARA policy they stressed the need for competing projects for funds to build their case on economic grounds and risk analysis, paying due attention to environmental and social impacts, as they compete for public and private contributions alongside health, education, transport infrastructure, agriculture and industry. Dr Mwebaza highlighted the funds being attracted into renewable energy and the African mid-stream, while Mr Eardley-Taylor presented the funding requirements of the massive Mozambique LNG projects.

Major technology licensors to the downstream oil industry, Honeywell UOP, WR Grace, and Axens, presented solutions to many of the challenges facing the downstream industry in respect of supplying clean road and marine fuels, while Technip presented practical examples of different financing strategies for different types of downstream investment.

STORAGE & DISTRIBUTION SECTOR INVESTMENT

Continuing on the theme of strengthening investment in the downstream sector the conference moved on to look at the improvements needed in the storage and distribution sector with emphasis on the encouraging role that can be played by the energy regulator. Presentations by Mr Hippolyte Bassolé of Sonabhy (Burkina Faso), Mrs Esther Anku of the National Petroleum Authority (Ghana), Mrs Rojo Ranaivoson of Office Malgache des Hydrocarbures (Madagascar), Mr Moosa Karodia, Puma (South Africa) and Dr Hendrick Fischer of EFOA (Europe) all laid out the environmental, safety and economic challenges facing the sector. Mr Robert Dalgleish of SICPA SA presented a highly informative summary of how fuel marking can offer a technological solution to assure fuel quality protection and complete levy collection in a national distribution network.

RESPONSIBLE INVESTMENT – TRANSFORMATION NEEDED TO RAISE FINANCE

A completely different spin was put on the requirements of financing banks, society, and indeed of the investing companies themselves, by a lively discussion on corporate social responsibility, managing human capital and local content led by Mr James Nicholson (Trafigura), Mr Mark Ware (Vivo Energy) and Mr Derek Bultitude (UOP).

For such companies to demonstrate such commitment to subjects that are usually relegated to the small print of investment decisions, and then forgotten, was a clear sign that Africa is transforming the way it is doing business; a theme picked up by Mr Gary Still of CITAC Africa in his address to the conference:

During the African Refiners & Distributors Association's Annual General Meeting, which takes place during ARA WEEK, Mr Joël Dervain, the Association's Executive Secretary, and Mrs Mounira Mahmoud A. Allah, the ARA Treasurer, both highlighted to Members the cost-cutting initiatives introduced by the Executive and stressed the importance of members paying their subscriptions on time.

Mounira Mahmoud (Sudan), Hilaire Kaboré (Burkina Faso), Anibor Kragha (Nigeria) and Joël Dervain (Côte d'Ivoire)

The new Executive Committee was elected, and Mr Dervain was unanimously re-elected as Executive Secretary for another three years. ARA closed with Mr Anibor Kragha of NNPC (Nigeria) appointed to the role of President of the Association for the coming year, succeeding Mr Hilaire Kaboré of Sonabhy (Burkina Faso), with Mr Serigne Mboup of SAR (Senegal) voted to be the new Vice-President. Mr Kragha spoke of his personal commitment to the Association's objectives and policy, particularly in respect of the need for clean fuels and the need for financing of the African downstream. He declared three major objectives for the term of his presidency:

- To establish the support of the African Union for the ARA's Clean Air Policy, focussing on clean fuels and vehicles together, and regional harmonisation of both fuel specifications and vehicle exhaust limits, with a longer-term aim of common fiscal policies;
- To initiate communication policies that help both members and potential members to better understand the role of the Association;
- To talk to as many members as possible to assure that the Association is meeting the needs of its members, and to consequently improve the debt collection of membership fees.

The 2019 conference confirmed that ARA WEEK remains the premier Africa Downstream meeting place and policy forum with unrivalled networking opportunities. Along with the high number of registrations, the attendance in the conference hall over all three days remained excellent, confirming the relevance of the presentations to all delegates. The time allowed for debating some complex and difficult subjects was particularly appreciated.

It was announced that ARA WEEK 2020 will again be held in Cape Town, South Africa, during the week of 23rd March 2020.

THANKS TO ALL OUR SPONSORS

THE ARA WOULD LIKE TO THANK ALL ITS SPONSORS AND WISHES THEM ALL A VERY SUCCESSFUL YEAR.

Diamond Sponsors

Gold Sponsors

Silver Sponsors

ARA STORAGE AND DISTRIBUTION FORUM

TOWARDS A SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

21–22 NOVEMBER 2019, ACCRA, GHANA

This year's African Refiners & Distributors Association (ARA) Forum will focus on the downstream supply and distribution sector and will look at how to establish a sustainable and responsible petroleum supply chain. The Forum will concentrate on the need for an independent downstream regulator to assure the sustainability of product supplies in a safe, secure, efficient and economic environment.

The Forum will be held at the Holiday Inn hotel, Accra, Ghana on the 21st–22nd November 2019.

The 2019 Forum will concentrate on the follow up to the discussions held in Cape Town in March during ARA WEEK 2019 when Mrs Esther Anku, the leader of the ARA Regulation Work Group listed the challenges facing regulation of the downstream sector:

- To establish the right Government policies to attract necessary investments, e.g.
  - To regulate or not to regulate? To subsidise or not to subsidise? To be sole importer of products or to allow open tender or private imports?
  - To refine or not to refine? Should governments continue to protect inefficient refineries? What policies can be legitimately promoted to support local refineries?
  - Development of clear NATIONAL and REGIONAL policies that transcend governments and support efficient supply chains
- Adequate legal and regulatory framework, within a dedicated downstream regulatory structure, to support policy and to enforce the rule of law
- Availability and enforcement of standards and regulations – covering whole supply chain from refining or import to the service station
- Harmonisation of sub-regional fuel specifications and pricing structures
- To enhance investments in infrastructure across countries e.g. rail, pipelines.
- Limiting bureaucratic processes, e.g. investment procedures including acquisition of relevant licences and permits etc
- How to assure stable, sustainable, independent regulatory regimes to encourage continued improvements/growth in the downstream petroleum sector in Africa
- To share best practice among regulators e.g. on regulations, compliance, & enforcement.

Mrs Anku added "regulators need to work closely with governments to ensure the right policies are developed and implemented to strengthen investments in the African downstream. Regulators should assure a fair playing field for all operators along the supply chain to boost investor confidences, must continue sharing experiences, and also determine common strategies aimed at strengthening investments in the African downstream."

This message was echoed by Mr Hippolyte Bassolé, leader of the ARA Storage and Distribution Work Group who, in Cape Town this year, stressed the need to assure adequate, safe petroleum storage to meet the market's needs including for security stocks, to improve communication with civil society, to establish product quality controls and product traceability, to invest in pipelines and rail distribution so as to reduce the number of trucks on African roads, to reduce road deaths through improving the management of sub-contractors, drivers and increasing use of new technology, to set and enforce standards for service station safety and engineering requirements, and to fight internal and cross-border fraud. He supported Mrs Anku in highlighting the urgent need to harmonise product quality and pricing policies down common supply chains and in neighbouring countries. "We all just need to be more professional in what we do", he confirmed.

Mr Joël Dervain, the ARA's Executive Secretary, added that: "the ARA sees the development of robust regulation in the downstream petroleum sector as a critical step in spreading the ARA ethos of sharing best practice across the continent. The implication of energy regulators, alongside distribution and marketing professionals, offers a unique way to develop policy in respect of storage and distribution management for ARA Members to discuss with their governments, shareholders, other stakeholders and, especially, their own management and staff."

The Forum is planned to be an inter-active process offering all downstream stakeholders unique networking opportunities to help share experience and develop synergies. To join the Forum and the unique ARA network, contact info@afrra.org, for further information on registration, sponsorship and call for papers.

ARA HELPS FUND ECOWAS STUDY ON FUELS QUALITY AND VEHICLE EXHAUST EMISSION HARMONISATION IN 15 COUNTRIES

ECOWAS Member States

REPORT SENT TO MINISTERS

The ARA has helped fund and support a report produced for the 15 ECOWAS countries (the West African Economic Community) by CITAC Africa on the development of a regional framework for the harmonisation of fuel quality standards and vehicle exhaust emission limits in the sub-region. The conclusions of the study can be used as a template for other regions with common supply chains across the African continent.

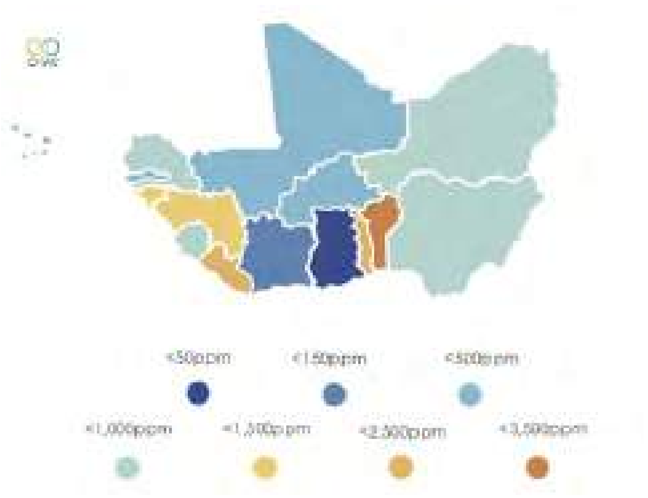
The main recommendation of the report is to launch a coordinated communication campaign, with the full support of ECOWAS member states' governments, their ministries and their regulatory bodies. The campaign is essential to help all supply chain stakeholders, from governments to the population at large, understand the benefits of clean air to bring a reduction of premature deaths to a healthy population and the subsequent economic benefits. And that these benefits come at a cost of higher fuel and vehicle prices with greater enforced controls on vehicle maintenance and inspection. But that these costs are completely outweighed by the benefits over time. The numbers justifying the costs and revenues are irrefutable.

However, clean fuels do not have to be refined locally; they can be imported without incurring large capital projects in African refineries, and the report notes that where ECOWAS states' governments consider that refining is part of their industrial infrastructure, financial support may be needed by governments to assist the necessary refinery investments.

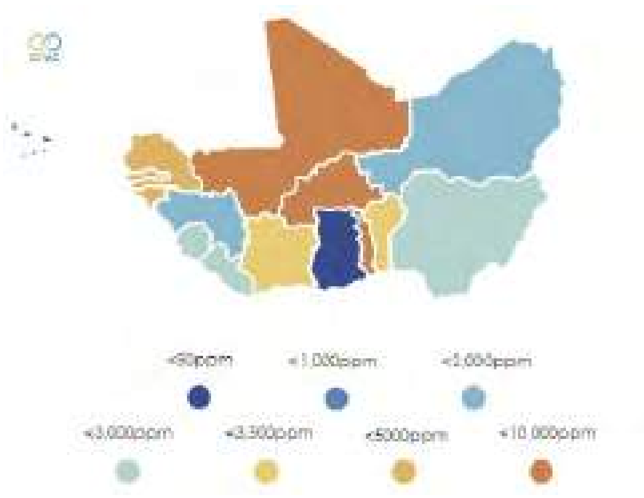
THE IMPORTANCE OF VEHICLES TO ACHIEVE CLEAN AIR

One startling fact highlighted in the study is that simply assessing the size and age of the ECOWAS in-use vehicle fleet proved difficult. This led to an important conclusion to promote the establishment of a harmonised vehicle database software across the region. But what is clear is that the anecdotal average age of the ECOWAS in-use vehicle fleet means that vehicles are not equipped with modern pollution abatement technology and that, therefore, regardless of fuel quality, a reduction in polluting exhaust emissions can only be achieved by a combination of action plans:

- A common scrappage encouragement policy across ECOWAS
- The introduction, with five years warning, of strictly enforced vehicle maintenance and inspection exhaust emissions limits (EURO-III) for the existing fleet alongside the introduction of enabling fuels for the vehicle technology (essentially, lower sulphur)
- The introduction of a strictly enforced age limits (five years) of vehicle imports assuring working pollution abatement technology (EURO-IV or better), alongside the introduction of enabling fuels for the vehicle technology (essentially, lower sulphur)



ECOWAS gasoline specifications, August 2018



ECOWAS gasoil specifications, August 2018

FUEL QUALITY

Currently, fuel specifications differ significantly across the 15 ECOWAS member states:

The study recommends that all 15 member states establish the same detailed specifications (not just sulphur), based on the ARA's AFRI specifications, measured by the same internationally recognised test methods, for both gasoline and gasoil. The ability for all regulatory authorities to test for all the specification points down the supply chain is seen as essential and will require investment in appropriate laboratories and equipment.

50PPM – IMPORTS FIRST

In terms of headline gasoline specifications, the report recommends from 2020 all non-ECOWAS imports have maximum limits of 50ppm sulphur, max 1% benzene, max 6 mg/ltr of metallic additives and zero oxygenates (to allow for local ethanol and MTBE blending if allowed by regulatory authorities due to the potential environmental impact of poor quality infrastructure down the supply chain).

For gasoil, the report recommends that from 2020 all non-ECOWAS imports have a maximum limit of 50ppm sulphur, 460 microns lubricity, minimum cetane number of 46 and minimum cetane index of 49.

REFINERY INVESTMENTS AND TIME-LIMITED WAIVERS

The report suggests that all ECOWAS refineries be given a waiver until 1st January 2024 to achieve these specifications, except for metallic additives where an interim 10mg/ltr maximum is proposed from 1st January 2020 until 2024 in order to encourage the importation of more modern vehicles while maintaining some octane flexibility, and affordability, in the interim period.

This waiver period, which should not be allowed to be extended, is recommended to permit the ECOWAS refinery shareholders to determine their best strategies for clean fuel supply, including plant closure.

IMPACT OF THE PROPOSED NEW FUEL SPECIFICATIONS ON THE ECOWAS REFINERIES

To achieve the new fuel specifications by 2024, the study estimated that $4,246mn capital funds will be required by the local refineries. After increased operating costs (OPEX) and product premia recovered through market pricing (the evaluation assumes the refineries recover international market value for the product quality produced), a net operating cost of $28.3mn is estimated.

COSTS/BENEFITS OF THE REPORT'S RECOMMENDATIONS

The study evaluated the incremental fuel and vehicle costs/ benefits of the proposed fuel specifications, the incremental costs of new vehicle technology, and the monetised health benefits of reductions in PM2.5 emissions according to the reduction in the number of premature deaths multiplied by the Value of Statistical Life (VSL).

The result in net benefits to society is valued prudently at $107bn in the period 2018–2050. Nearly all these benefits are attributable to cleaner diesel engines enabled by the transition to 50ppm diesel and Euro 4/IV diesel vehicles. The consultant commented that in their view these benefits will be exceeded by imposing future emission checks on the existing vehicle fleet and lowering the metallic additives maximum limit alongside the reducing sulphur for gasoline. The incremental costs over the same time period are $10bn.

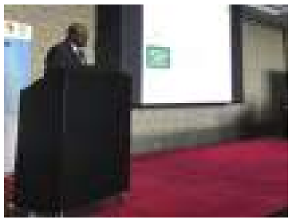
The challenge for the ECOWAS refiner is that the analysis shows that at current and forecast market prices, there is inadequaute return to refinery shareholders for this investment. The investment will either need to be considered by the refinery shareholders as the cost of remaining in business to supply the products of the future, or will need fiscal or other incentives to promote the necessary funding. This is because the majority of these benefits of the refineries investing in clean fuel production accrue to the state, not to the refinery shareholders.

ARA PRESENTS CLEAN FUELS POLICY IN EGYPT

The Sustainable Transport in Egypt (STE 2019) workshop was organised with "Cleaner Fuel for Cleaner Air" in focus.

Under the theme of Cleaner Fuels for Cleaner Air, an international seminar was held on June 18th in Dusit Thani Hotel, Cairo, Egypt. The event was organised by the Centre for Environment and Development for the Arab Region and Europe (CEDARE), the Egyptian Ministry of Environment and the United Nations Environment Program (UN Environment). The theme was in tune with the mandates of Egypt's Sustainable Development Strategy, Egypt Vision 2030, and the "100 Million Healthy Lives Campaign" under the patronage of H.E. President Abdul Fattah El Sisi, announcing *health* among the priorities of his second presidential term.

In the presence of delegates from the Egyptian Ministries, EGPC, local stakeholders, ARA President Anibor Kragha and ARA Executive-Secretary Joël Dervain, Mrs Zoubida Benmouffok, ARA MENA Representative and ARA Operational Director, made a presentation on the financing challenges facing the refining sector to invest in clean fuel production. She stressed that African governments must provide a favourable economic environment for all downstream investors (regardless of where they are in the supply chain), with a clear tax structure, political stability and a roadmap for product quality (ARA specifications: AFRI 1–6). Investments in the supply chain, including refining, require the application of international market prices, an economic scenario and business plan, a history of sound management and operational performance and a rigorous review of any socio-economic benefits coming from a refining infrastructure (essentially direct and indirect employment). In an economic environment where the current price differentials in the international market between high and low sulphur products offer little economic support for a desulphurisation investment, and benzene extraction is difficult to justify, government support for projects, be it as shareholder or state, is essential for raising funds when such investments are the price of staying in the refining business.



Mr Evans Mauta, leader of the ARA Specifications Work Group, presented the ARA Clean Fuels Policy:

- To establish AFRI specifications as the minimum standard across Africa
- To consider fuels and vehicles as an integrated system, with product quality assurance down the supply chain and enforced vehicle maintenance and inspection controls to deliver clean air
- To consider the socio-economic benefits of a refining infrastructure
- To establish harmonised fuel specifications and fiscal regimes down natural supply chains
- To establish the necessary regulatory framework and communication campaign to all stakeholders

He admitted that Africa was slow in meeting the AFRI timelines but stated that civil society and public opinion was now driving African governments to establish firm policies for both fuels and vehicles.

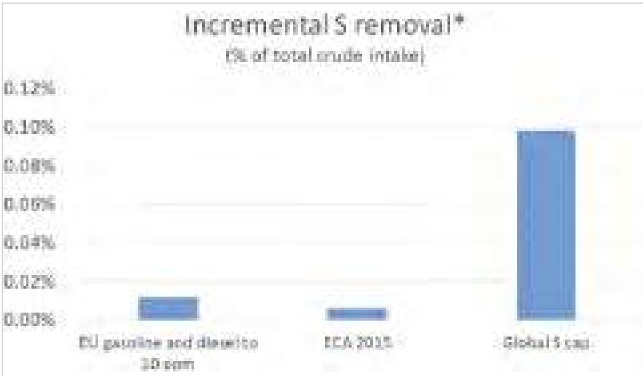
Evans announced that a study was being discussed to support the adoption of the AFRI specifications and road map by the African Union. The ARA has proposed financing the study and the AU Commission has committed to organising a stakeholders' validation workshop ahead of a specialised technical sub-committee meeting on energy. The study will analyse the socio-economic and health benefits of the AU adopting the AFRI Clean Fuels Policy. He said that one challenge for the study, shared with many countries, including Egypt, is for all government ministries (Finance, Energy, Petroleum, Environment, Trade, Transport) to share the objectives – this will be the key to opening up the financing for both clean fuels and for establishing controls on all in-use and imported vehicles.

The Cleaner Fuel for Cleaner Air Workshop is a continuation of a series of annual events held by CEDARE to provide policy support in sustainable transportation, with past events addressing topics of intelligent transport systems and electric vehicles. It is considered as another aspect of prolonged collaboration between CEDARE and the Egyptian Ministry of Environment through the Global Fuel Economy Initiative (GFEI) and the Partnership for Clean Fuels and Vehicles (PCFV) of which the ARA is an active partner.

CHALLENGES OF MARPOL ADDRESSED IN CAIRO

The ARA and the Egyptian General Petroleum Company (EGPC), in conjunction with IPIECA (the global oil and gas industry association for advancing environmental and social performance) hosted a joint workshop on the 19th June at the Dusit Thani Hotel in Cairo, Egypt. The topic was the impact across Africa of the UN's International Maritime Organisation's changes of global regulation by reducing the sulphur content of ship bunkers fuel (MARPOL) to a maximum of 0.50% by weight from 01.01.2020.

The MARPOL Annex VI 2020 changes are the most significant change in the refining, shipping and ship bunkering industries for decades.

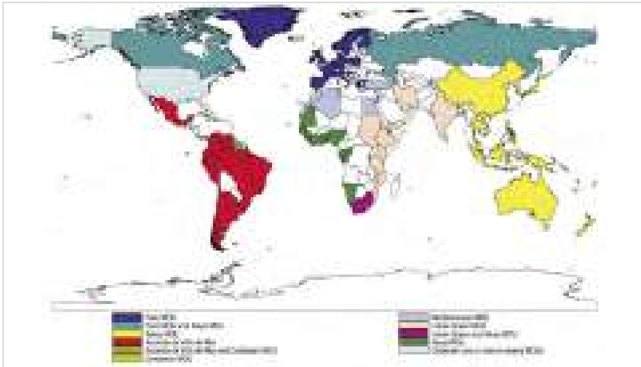


The Workshop focused on pan-African impacts of this regulatory change on the complete bunker fuel supply chain, including the preparations needed by ship operators and owners.

NO DELAY

Mr Eddy Van Bouwel, IPIECA's representative to the IMO, gave delegates a brief history of the MARPOL process and sent a simple message: **there will be no delay**. As of May 2019, 94 Member States have ratified Annex VI, representing 96.71% of the world's tonnage. The latest addition was Gabon in April 2019. He expects compliance to be high, with 90% of global marine trade going through signatory ports with over 95% of global bunkers purchased by ships under flags that are signatories to Annex VI.

Mr Van Bouwel presented the different roles and obligations of Flag States and Port State Control which are linked to the UN through 9 MoUs (Memorandum of Understanding) and the US Coastgaurd.

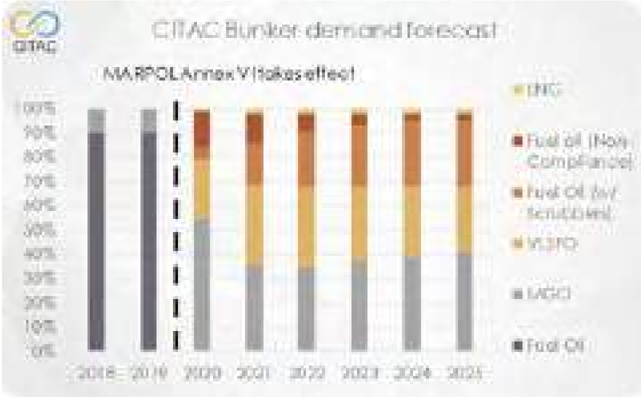


He stressed the role being played by the oil industry to allay concerns that the fuel quality change could potentially increase safety risks to ships. He stressed that it will be important to make sure that adequate information is made available to ship operators, such that they can take appropriate action to mitigate those risks. This will mean a much more transparent and open relationship will be needed between the supplier and the vessel on how the fuel has been produced or blended. This need for suitable industry guidance that addresses the impact on fuel and machinery systems resulting from new fuel blends or fuel types has led IPIECA to collaborate with other stakeholders to provide such guidance. The ARA is actively involved in these discussions through IPIECA's Marine Issues Task Force. The joint industry guidance (between the fuel supply and shipping industries) is expected to be ready in August and an associated free e-learning program is expected to be ready in October.

The workshop discussed what sort of marine fuel blends will appear in the real world, rather than in theoretical models, post-2020. The demand for 0.50% sulphur bunker fuel will likely be met by a mix of components (distillates, VGO, LSSR, low Sulphur residuals) and new fuel oil formulations as the market responds over time and new streams are introduced. New formulations will depend on initiatives by individual suppliers to meet the current ISO 8217:2017 with a sulphur limit of 0.50%. ISO 8217 will consider any new developments in the next revision cycle while ISO & CIMAC (the marine engine manufacturers) are working on new guidance to supplement ASTM D4740 (the "spot test").

Fuel availability modelling studies have pointed at the key fuel quality aspects that will need attention from ship operators:

- Flash Point
- Pour Point
- Stability
- Compatibility

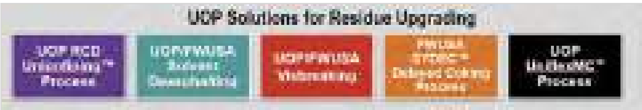


WAITING FOR PAS

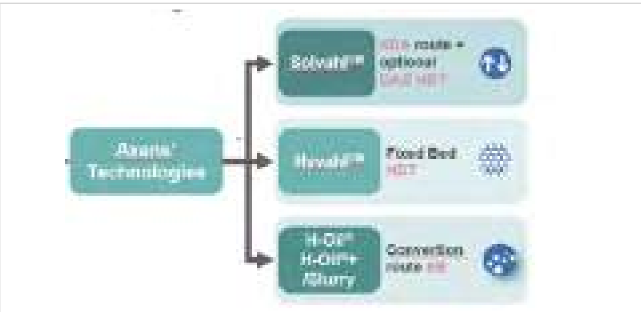
An ISO temporary specification will be released Q3 2019 and is eagerly awaited by both suppliers and bunker buyers. This "Publicly Available Specification" or PAS (PAS 23263) will be used in conjunction with ISO 8217:2017 or earlier editions. The PAS will not introduce new specifications or an additional table for 0.50 % S fuels but will provide general guidance applicable to all 0.50 % S fuels, including sulphur content, flash point, kinematic viscosity, cold flow properties, ignition characteristics, catalyst fines, and stability. Importantly, Annex D of the PAS provides considerations on commingling of fuels, information on pre-delivery compatibility testing and other test methods which can be used to evaluate stability and compatibility of fuels.

REFINING IMPACT

Refinery technology suppliers Axens and Honeywell UOP both presented the marine fuel production options available. Honeywell UOP presented their residue upgrading options:



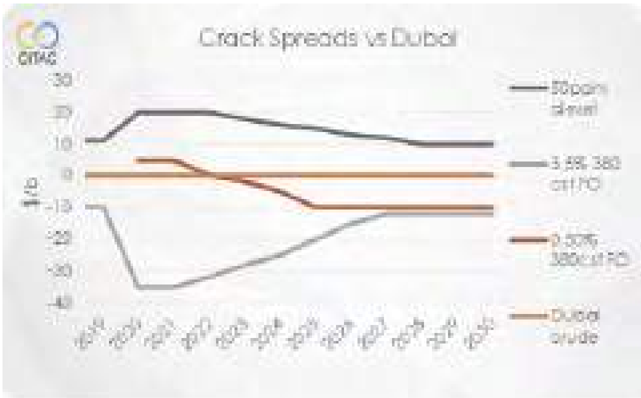
And Axens theirs:



All the options are significant investments for refiners in what is an extremely uncertain marketplace with the bunker mix expected to change radically, and to keep changing.

The expected evolution of price and demand for the different fuels was described by African downstream consultancy CITAC Africa's Executive Director, Mr James McCullagh. He highlighted the many unknown variables: marine gas oil will likely be the initial 'winner', competing with domestic diesel for supply; ship scrubber installations will continue over the early 2020s but eventually stabilise, then fall; using non-compliant fuel will be difficult: reputational, insurance and finance risk will deter their use.

Mr McCullagh postulated that the accepted wisdom is that distillate and HSFO cracks will diverge sharply in 2020 but by the mid/late 2020s, the benefit of owning a scrubber will reduce substantially and perhaps disappear; high sulphur fuel oil refinery destruction projects will continue; refining margins will recalibrate to meet market demand with all products impacted; vacuum gas oil will be a key swing product as competition for its value evolve (LPG, gasoline, middle distillate); lube base oil values will be affected; and major changes in crude oil quality differentials are extremely difficult to forecast but will be key in driving refinery investment decisions.



At the end of the workshop, the delegates expressed their satisfaction at the depth of the discussions and the last word was left with Eddy Van Bouwel of IPIECA. "The important things in the short–term are fuel stability and compatibility; the availability of IMO's detailed Fuel Oil Non Availability Reporting (FONAR) system based on "best efforts"; ensuring that a minimum number of fuel types need to be carried on board to enable segregation; and preparation through the use of a Ship Implementation Plan. In short: **PLANNING and PREPARATION by ALL INVOLVED is KEY."**

Copies of all presentations are available to ARA Members and Sponsors through the ARA website or by request from info@afrra.org.

SADC MOVES TOWARDS REGIONAL HARMONISATION OF PETROLEUM STANDARDS

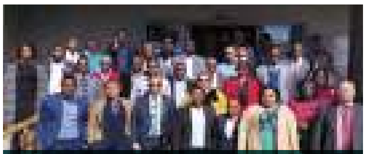
The Southern African Development Community (SADC) and UN Environment held a regional workshop for Southern Africa on fuel quality harmonisation and vehicle emission standards from 6th to 7th June 2019 in Boksburg on the outskirts of Johannesburg in South Africa. The objective was to discuss regional harmonisation of cleaner fuels and vehicle emission standards in a coordinated way.

The countries that participated in the workshop were Angola, Botswana, DRC, Eswatini (formerly Swaziland), Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe.

In addition, there was representation from international and regional bodies. These included United Nations Environmental Programme (UNEP), represented by their Kenyan and South African regional offices, Air Pollution Information Network for Africa (APINA). There were also representatives from the Southern Africa Development community (SADC), South African Petroleum Industry Association (SAPIA) and the International Council on Clean Transportation (ICCT) from the USA, and the East Africa Community (EAC).

The workshop was co-organised by APINA through the Institute of Environmental Studies of the University of Zimbabwe, UNEP and ICCT.

The discussion topics did not only cover the challenges that fuel pose to the environment but also tackled the issue of vehicle standards. It was unanimously accepted that as the standards for fuel were being worked on, the standards for vehicles needed to be looked at as well. The fuel and vehicle standards needed to be taken as one system and not as different systems, if the whole aspect of cleaner environment is to achieve its intended goals.



Delegates of the SADC UNEP fuels and vehicle emissions workshop

Mr Evans Mauta, leader of the ARA Specifications Work Group, presented the ARA Clean Fuels Policy and the workshop ended up with recommendations similar to the ARA roadmap for achieving cleaner fuels and vehicle standards in tandem. Within SADC what is required is to be harmonised are the actual timelines for effecting each standard to ensure that practical realities on the progression are not overlooked.

ARA WORK GROUP MEETINGS IN CAPE TOWN

The Work Group meetings were held on the eve of the AGM. Their objective was to review activity over the past year (2018–19) and to present and discuss objectives for the next year.

1. RHSEQ WORK GROUP

Following a review of activity in the previous year, and recommendations that came out of the various meetings*, participants focussed on defining the tasks for the next year, which are:

- Changes in specifications / environmental standards and the upgrading of fuels:
  - ARA has published its policy and roadmap for fuel specifications in Africa and is committed to working with governments and institutions for its implementation: transition to AFRI4 in 2020 and AFRI5 in 2025 (50 ppm gas oil and gasoline at 150 then 50 ppm of sulphur and 1 ppm of benzene). This involves heavy investments to construct new units.
  - The difficulties in obtaining financing and the solutions that need to be implemented for the upgrade of the units are challenges for both the RHSEQ Group and the Specifications Group. The subjects will therefore be discussed in joint meetings on technology choices and options for refineries to adopt them, together with the associated financing plans, fleet management and air quality policies, and the consequent internal policies which need to be developed by African refineries (compliance with new standards, national and international specifications, the social responsibilities that will need to be assumed, the need to engage in sustainable development, increased involvement of "green" associations, etc.);

- The impact of large refineries in Asia and future African refineries:
  - High levels of imports of low-cost, quality products from other continents, particularly Asia, with its large complex refineries, are changing the economic environment for many African refineries. The new African refineries, if they are built, will also compete with the existing ones;
  - However, it is interesting to note that, in recent years, some African refineries managed to impose themselves in an often hostile environment, despite the economic constraints: the refineries of Niger and Chad, built with the help of Chinese oil companies, the reformer upgrade at SONARA in Cameroon, the Clean Fuels program for the desulphurisation and isomerisation of fuels in South African refineries and the SONATRACH projects in Algeria for desulphurisation, isomerisation and reforming;

- Reducing refinery energy consumption. Energy consumption of our refineries is high. It is therefore necessary to invest in projects to reduce energy consumption to be competitive;

- In October 2006 the International Maritime Organization (IMO) adopted, under the Marpol (Maritime Pollution) Convention, stricter rules on sulphur emissions within the so-called Sulphur Emission Control Area (SECA). The sulphur content of marine fuels will be reduced to 0.5% by 2020 (compared to 3.5% today) and will be applicable to all seas and oceans. Refineries do not have low sulphur fuels production units, so investment will be required to meet this specification. Both shipowners and refiners are concerned about the subject. African refineries processing low sulphur crudes may be able to improve their profitability.

2. SPECIFICATIONS WORK GROUP

Following a review of activity in the previous year, and recommendations that came out of the various meetings*, participants focussed on the challenges for the next year:

- Fuel Additives: Mr John Walsh, Afton Chemical, made a presentation on additives, in addition to the "additive guidance document" which had been distributed prior to the meeting;

- Reporting on the MARPOL annex:
  The key points of this topic were presented, which rightly dominated the discussion because of the effect it is likely to have on the African continent. Participants were informed that meetings about the guidelines have been held with IPIECA and IMO and these will continue as 2020 approaches. Mr David Bleasdale of CITAC represents the ARA at these meetings and reports back to Mr. Evans Mauta, of the Indeni refinery, the Work Group leader, and to the ARA.

  Participants were informed that the general guidelines on production and quality assurance were now in place. (See also article on MARPOL Workshop held in Cairo in June);

- Drawing up AFRI-6
  Various stakeholders raised concerns about some of the Afri-6 parameters and it was decided to postpone finalising the issue until the next meeting. In view of the concerns raised, Mr. Mauta reminded participants that a systematic approach to development of the standards was being used and that the subject remained open.

3. STORAGE/DISTRIBUTION WORK GROUP

Participants reviewed the past year's activities and the recommendations made during the various meetings.*

In the next year, the Workgroup will concentrate on the following themes:

Organisation of the group

- Creation of a team responsible for operational and strategic monitoring;
- Improve the dynamics of the Work Group by creating sub-groups for each geographical region;
- Create and run a database to facilitate exchange of data and professional information.

Organisation of workshops and training seminars

- Organisation of a workshop on QHSE in the storage, transport and distribution operations, in collaboration with the Refining Work Group, including feedback on incidents and accidents;
- Organisation of training seminars;

Setting up benchmarks

- Anti-pollution plan and means of preserving product quality (pollution, contamination...);
- A benchmark for inspection and specifications;
- A benchmark for the various activities: transport, storage, conservation and distribution;
- Visual inspection procedures, Non-Destructive Test;
- Digital instrumentation (scan, telemetry, ...).

4. REGULATION WORK GROUP

The past year's activities and the recommendations issued during the various meetings * were reviewed. **The topics agreed by participants for the next year are:**

Infrastructure issues for:

Pipelines

- Few regions in sub-Saharan Africa have enough demand to justify the expense. Kenya and South Africa are commercially viable, while the Beira / Zimbabwe line is operating at full capacity. However the Nigerian pipeline network is underutilised and not functioning well;

Haulage:

- The high cost of haulage leads to calls for alternatives to road transport;
- Poor road safety leads to fatal accidents and loss of goods;
- Increased traffic and damage to roads is creating the need to diversify supply chains in Africa;
- The question of the need for larger trucks, road trains;
- The need for more maintenance of road networks that are becoming further damaged by heavier vehicles;
- New road networks are needed to meet the increase in commercial traffic

Rail transport

- Rail transport is an excellent method of distribution within a country because it offers a flexible mode of transport, does not require a large working capital and is low risk related to the price of products. However, when countries have rail systems, they are mostly inefficient
- Poor operating conditions, inadequate rolling stock, lack of maintenance, and lack of information systems to plan deliveries and routes have resulted in increased operating costs
- However, a number of projects are underway, notably in East Africa, where Qalaa is investing in a private link connecting the Mediterranean to the Indian Ocean;
- There is also a project underway for a rail link between the port of Djibouti and Addis Ababa in Ethiopia.

Operational challenges include:

- Inadequate control of imports and exports of fuel at borders;
- The illegal mixing of diesel with paraffin and other adulterations (e.g. waste oil);
- Direct delivery from foreign depots to sales points in other countries;
- Weaknesses in the monitoring of licensed operators (distributors and transporters);
- Smuggling of petroleum products across porous borders;
- Lack of synchronisation of tax levels, levies and margins, resulting in huge price differences at the pump between neighbouring countries, which encourages smuggling.

** These activities and recommendations were reported in newsletters n26 (December 2018) and n25 (July 2018). They are available on request from info@afrra.org*

NEW MEMBERS

The ARA is delighted to announce that **Astron Energy** (South Africa), **Ministère du Pétrole du Niger** (Niger) and **Uganda National Oil Company** (Uganda) have become Members of the ARA.

ASTRON ENERGY
South Africa

MINISTÈRE DU PÉTROLE DU NIGER
Niger

UGANDA NATIONAL OIL COMPANY
Uganda

UPCOMING EVENTS

WORK GROUP MEETINGS

19 September 2019
Joint RHSEQ & Specifications Meeting
Lusaka, Zambia

20 November 2019
Joint Storage & Distribution and Regulation Meeting
Accra, Ghana

21 March 2020
Specifications, Refining & HSEQ, Regulation and Storage & Distribution Meeting
Cape Town, South Africa

MEETINGS

11–12 July 2019
Laboratories & Audits QHSE
Ouagadougou, Burkina Faso

20 September 2019
Executive Committee
Lusaka, Zambia

19 November 2019
Jet Fuel Product-Handling Workshop
Accra, Ghana

23 January 2020
Executive Committee
Geneva, Switzerland

22 March 2020
Executive Committee
Cape Town, South Africa

SEMINARS

5–7 August 2019
Second Workshop dedicated to Butane
Senegal, Dakar

TRAINING

10–11 October 2019
Training Laboratories

11–12 December 2019
Training Storage, Transport and Distribution

ARA STORAGE AND DISTRIBUTION FORUM

21–22 November 2019
Accra, Ghana

ARA WEEK

23–25 March 2020
Cape Town, South Africa

VISIT
WWW.AFRRA.ORG/EN/EVENTS
FOR MORE DETAILS

Registered Office: ARA, 1200 Geneva, Switzerland
Operational Headquarters – Abidjan: Lot 70 Rue des Cannas – Ilot 6 B Danga Sud – Cocody Danga – Abidjan – PO BOX: 08 BP 2565 ABIDJAN 08 – Cote d'Ivoire