

# SUSTAINABLE DEVELOPMENT REPORT

for the year **2016** 



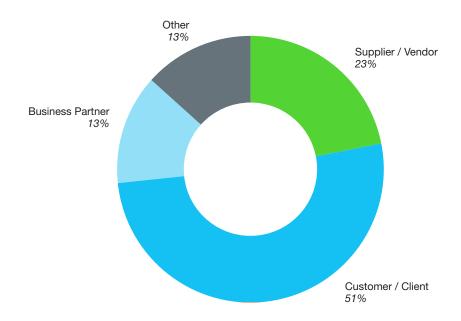


# Index

	Page
Introduction	3
Managing Director's Message	8
Organisational and Operational Boundaries	10
2016 Highlights	11
Safety	12
Our People	17
Our Communities	27
Carbon / Environment	35
Organisational Profile and Governance	43
Abbreviations	56
GRI Assurance Statement	58
Data	61
Global Reporting Initiative (GRI) G4 Content Index	76
Contact	85

This CNCo Sustainable Development (SD) Report for the calendar year 2016 is written in accordance with the GRI guidelines: G4 (Standard Disclosures – Core). A Materiality Assessment was undertaken with internal and external stakeholders to determine which GRI Aspects are material to our business and reported.

External stakeholder engagement - Stakeholder categories



All data presented in this report cover entities and operations within the CNCo group's Operational and Organisational Boundaries (see page 10) and detail our status as at 31 December 2016, unless otherwise stated.

#### Material aspects

During 2016 we have worked hard to reach out to more internal and external stakeholders than previously to raise awareness of the work we are doing in the area of Sustainable Development and to find out what is important (material) to them. Materiality for this report is based on the responses collected from our internal stakeholders (shore staff and sea staff) and external stakeholders (suppliers and vendors, customer and clients as well as our business partners and other stakeholders).

#### External stakeholder engagement

We engaged our stakeholders using a targeted approach across our three business divisions and support services. The responses were analysed to help us focus our efforts on the material issues. The issues of most importance to our external stakeholders are listed below (scores above 75%). All of these areas are being addressed by CNCo through a number of initiatives covered in this report.

This feedback was collected through survey questionnaires in which respondents rated the various components that make an organisation "Socially Responsible" as defined within ISO 26000:2010.

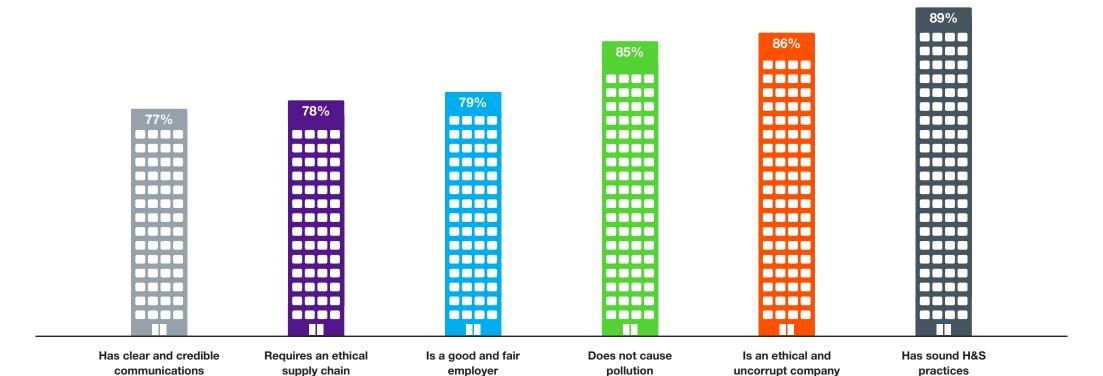
#### Areas of importance to our external stakeholders



Internal Stakeholder engagement

#### Areas of importance to our Shore-based staff who expect that CNCo:

(issues with scores above 75%)



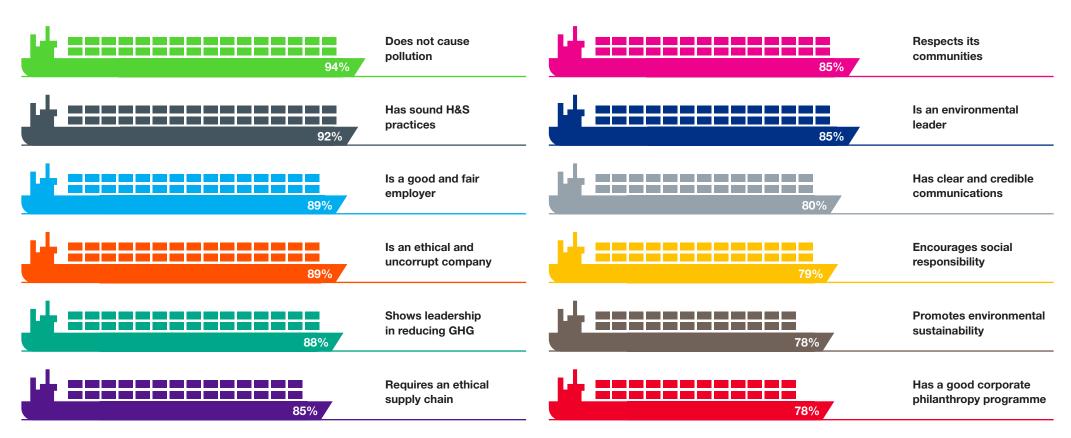
The areas of importance to our sea staff are listed below (scores above 75%). This shows that all areas of Sustainability are of high importance to our sea staff which is very encouraging to see.

Given the very broad scope of topics, we continue to cover them in this SD report, as with previous annual reports under four main sections: Safety, Our People, Communities and Carbon/Environment.

Within this high level structure CNCo remains committed to transparently reporting its performance in all the areas covered by the Social Responsibility standard:

ISO 26000:2010, *viz*. Governance, Human Rights, Labour Practices, The Environment, Fair Operating Practices, Consumer Issues and Community Involvement and Development.

Areas of importance to our Sea staff who expect that CNCo: (issues with scores above 75%)



#### Value Chain analysis

Additionally, we have undertaken Value Chain analysis (see right).

Our Value Chain covers the three distinct stages of our operations:

- 1 Building the vessels
- 2 Operating the vessels, and then
- 3 Transferring the ownership of the vessel whether for onward trading or safe and environmentally sound recycling.

We call this our BOT framework (Build/ Operate/Transfer) – see right for more details. It will help us to understand where our business is having a (positive or negative) impact. We will focus more on using this Value Chain structure over the next few years.

- \* The **Buying** phase is omitted due to the negligible value
- \*\* The **Transfer** phase mainly focuses on ship recycling when we demand continuing responsibility post completion of sale rather than sale for onward trading at which point our liability and opportunity to add or destroy value ceases

	Build*	Operate	Transfer**
Economic	Local economic development. Ethical governance at ship building site.	Employment creation. Supply chain value and opportunities. Facilitation of global economy and trade. Global and local economic development.	Local economic development. Ethical governance at SRF site. Monitoring cost of sustainable ship recycling.
Environmental	Drive demand for improved standards in the industry.  Positive step change in reducing environmental footprint during design phase.  Better management of construction phase.  R&D/more environmentally-responsible features.  Influencing the demand for sustainable products/services.	Drive demand for improved standards in the industry. Improved performance (EEOI, biofuel, reduced emissions through operational efficiencies) during operations. Reduced environmental impact and carbon footprint. Reduced waste to land and sea. Influencing the demand for sustainable products/services.	Drive demand for improved standards in the industry.  Reduced environmental impact during recycling.  R&D/more environmentally-responsible options for reuse and recycling.  Influencing the demand for sustainable ship recycling.
Social	Drive behavioural change and demand for improved standards in the industry. Improved working conditions at ship building yards. Improved H&S practices. Improved human rights and labour practices Employment creation. Improved social indicators and positive impact on overall wellbeing of workers.	Drive behavioural change and demand for improved standards in the industry. Improved working conditions. Improved H&S practices. Improved human rights and labour practices. Employment creation and work opportunities. Community development.	Drive behavioural change and demand for improved standards in the industry. Build capacity of Ship Recycling Facilities (SRF) in India. Improved working conditions at SRF. Improved safety standards at SRF. Improved human rights and labour practices. Employment creation. Improved social indicators and positive. impact on overall wellbeing of workers.

#### Strategic scorecard

Our strategic scorecard is aligned with a number of areas of importance to our stakeholders and provides direction and sets specific indicators (KPIs). The strategic scorecard is revisited each year by CNCo's senior leaders, facilitated through our partnership with the Forum for the Future (FFF), a not-for-profit organisation which works globally with businesses to address sustainability challenges.

Reporting on progress is also done annually because of the longer term nature of the goals, however progress reports and measurements are tracked monthly throughout the year. As at the end of 2016, we were on track against the majority of the goals. However, we revisited

a number of indicators to make them more specific and relevant.

**INNOVATIVE** REWARDING **OPERATIONAL** WINNING TEAM Develop an industry leading workforce and provide rewarding careers as an employer of choice SOLUTIONS **PARTNERSHIPS EXCELLENCE** Provide value enhancing solutions for our customers Establish and enhance long-term, mutually beneficial relationships with our stakeholders Promote innovation, operational excellence and provide safe, healthy EMBED "SEA CHANGE" TO
PTIMISE PERFORMANCE ACROSS ALL EMPLOY THE RIGHT PEOPLE. DELIVER MARKET LEADING ACHIEVE NET ZERO ENVIRONMENTAL IMPACT PARTNERSHIPS WITH OUR KEY CUSTOMERS AND SUPPLIERS ACROSS ALL BUSINESS UNITS I THE RIGHT JOB, IN THE RIGHT SERVICES ACROSS COMMUNITIES IN WHICH WE OPERATE



Our strategic scorecard is aligned with a number of areas of importance to our stakeholders and provides direction and sets specific indicators.

# **Managing Director's Message**



#### Dear friends of CNCo,

Welcome to the sixth, externally assured (GRI G4: Standard Disclosures – Core) Sustainable Development Report for The China Navigation Company Pte Ltd (CNCo). CNCo reports its full performance in all the areas covered by the Social Responsibility Standard: ISO 26000:2010, *viz*. Human Rights, Labour Practices, The Environment, Fair Operating Practices, Consumer Issues and Community Involvement and Development. These are reported under the broad headings Health and Safety, Environment and Biodiversity, and Our People and Communities. We have had this

report externally assured in accordance with the most widely used reporting framework, GRI guidelines: G4 (Standard Disclosures – Core), to assure our stakeholders and readers that what is reported is truthful and complete, and in a way that will permit comparison to be made between our performance and those of our peer group who are also open and transparent about the way they operate.

2016 was a year in which we placed a very strong emphasis on safety or "Zero Harm to all stakeholders". CNCo has been in the shipping business for over 140 years. For it to remain sustainable and fit for business in the next century, the safety of all our stakeholders and avoidance of harm to the environment is absolutely crucial. Regrettably, in Q2 2016 CNCo recorded three fatalities (one to a CNCo seafarer and two to stevedores on one of our ships – the learning points from these tragic events are detailed later) and 14 LTIs. So in the second half of 2016, the company embarked on an even stronger push to immediately further strengthen and embed our safety culture, with the roll-out of several initiatives. led by our top management. CNCo's goal for Zero Harm and to establish it firmly as part of

CNCo's safety culture in every single operation we undertake, now and going forward, can only be realised with hard work, dedication and total commitment from everyone, top to bottom, ashore and on board. I am happy that this emphasis and commitment is in place, at all levels in the company, but there is always more that can be done. Safety excellence leads to operational excellence and drives positive business results and we detail in this report the immediate initiatives we put in place to work towards achieving Zero Harm. Medium and longer term initiatives to maintain and securely embed our current momentum and drive ever higher standards will be detailed in next year's report.

In 2016, CNCo completed its four year energy-efficient fleet renewal and expansion programme that delivered 12 multipurpose liner vessels, 28 handysize bulk carriers and one dedicated cement carrier. This has established CNCo's position for safe, sustainable, cost-effective operations as our customers' partner of choice for the long-term. In so doing this expansion in fleet size led to a commensurate increase in the number of our sea and shore staff and led us to evolve our management structure to be more responsive to customers' needs.

Going in lockstep with the addition of new tonnage, is the sustainable retirement of tonnage that has reached the end of its economic life. The most environmentally efficient solution to this retirement is responsible and environmentally sound recycling of ships, through which over 99%

of the ship by weight is reused, either as is or in re-constituted form. CNCo is the lead company in the Sustainable Shipping Initiative (SSI) on the Sustainable Ship Recycling Working Group. A significant success during the year was our sponsorship of a second Roundtable on Sustainable Ship Recycling immediately post an industry Sustainable Ship Recycling Conference in Dubai in Q2. We had around 30 attendees, including all Hong Kong Convention (HKC) certified compliant Ship Recycling Facilities (SRF) in India, representatives from the Danish, French, German and Japanese Ship-owners' Associations, four IACS Class Societies, five SSI members, the relevant EU Directorate and the NGO Shipbreaking Platform. All the attendees made commitments to a) press their relevant governments to ratify the HKC and/ or b) to maintain communication to help raise standards in an industry that had a very tainted name in the past.

During the year we oversaw the successful sustainable recycling (zero injuries, zero pollution incidents, increased level of HKC compliance and social commitment at the SRF) of two of our ships: *MV Changsha* and *MV Chengtu*, at an HKC compliant SRF in India. All four SRF who bid for this work fully accepted our requirement for external independent auditing, visits by our General Manager for Sustainability and the embedding of a threeman HKC Compliance Monitoring Team at the SRF during every minute when demolishing work was taking place, (all at our additional cost) to ensure that capacity building continued

2016 was a year in which we placed a very strong emphasis on safety or "Zero Harm to all stakeholders".

and that standards and best practices were maintained. It is worthy of note that the SRF willingly accepted all third party advice on improving operations from all three parties and that all three parties were empowered to stop any/all work if it was seen that personnel were in danger of injury or that there was a risk of an environmental pollution event. This is especially noteworthy as with the exchange of the bill of sale, CNCo, as prior owners, no longer had any liability or responsibility for the ship. We believe this is a significant paradigm shift in any sector, post-sale of an asset.

Adverse climate change has called for an urgent global consensus and real action to transform the world into a low-carbon economy. More than 99% of CNCo's GHG footprint is produced from the combustion of residual fossil fuels in internal combustion engines on ships. Because of this, CNCo is committed to radical decarbonisation and

helping to move the dial in this crucial area, notwithstanding that, even "because", shipping (and aviation) are excluded from the Kyoto Protocol/2015 Paris Agreement, by developing a viable alternative fuel technology that can be marinised and scaled-up to be suitable for a high proportion of this sector. We believe that BioFuel Oil (BFO) derived from waste product feedstock, such as is produced by our sister company Argent Energy is a candidate with great potential to achieve this necessary decarbonisation goal, ultimately for the whole deep-sea sector, and we started work with Argent on an R&D project to prove the feasibility of this technology as a drop-in fuel in a marine context. We report on our joint progress with this initiative later in this report.

Although 2016 was another challenging year commercially for most shipping sectors, CNCo continues to take a long-term view of our business. which remains the most GHG-

efficient mode to move the cargo that we all need, globally. 2016 was a busy and positive year for Swire Shipping. In June we launched our new Pacific Islands service which has been highly commended by both new and long term customers.

We were honoured that through our hard work and customer-facing commitment Swire Shipping won the Seatrade Asia award for the "Best Owner/Operator" despite tough competition from several much larger, global carriers. We continue to enhance our network by increasing the frequency and improving the port coverage on several of our services. We welcomed new colleagues in Fiji and Samoa into the CNCo family, as we established our own branch offices there, in these key markets and so retain our leadership position in the Pacific basin.

Despite the worst dry cargo market since 1985, with rates reaching their lowest in February, the Swire Bulk business grew by over 100% during the year. On 1 January 2016, the division was operating 27 vessels and as of 31 December it was operating 55 vessels. The team has grown organically during the year, with new offices opened in Melbourne and Miami, permitting us to be closer to our customers in Oceania and the Americas. Swire Bulk has considerably expanded its customer base, well positioning the business for better times. In 2017 the division is looking to grow its footprint in the parcel trades.

In 2015, Swire Bulk Logistics entered into a long term partnership with New Zealand's Golden Bay Cement to build and operate a self-discharging cement carrier. In 2016, CNCo took delivery of the vessel, *MV Aotearoa Chief*, and she has commenced operations in New Zealand.

In 2016 we were awarded the merit winner of the SEC-MPA Singapore Environmental Achievement Award (SEEA) 2016 (maritime category). This external recognition by the major marine regulatory and environmental bodies in Singapore is a strong endorsement that we are committed to doing our share to enhance our sustainability and doing the right thing for the people and planet.

We strongly believe that by regularly reporting what we do openly and transparently, as in this CNCo Sustainable Development Report for the calendar year 2016, we will develop an ever closer relationship with our stakeholders and that this will help us on our journey to be the leading provider of sustainable shipping solutions and our customers' partner of choice.

James Woodrow



#### THE CHINA NAVIGATION COMPANY \* Taken under full CNCo management within 2016 and will be reported on in 2017 **Bulk Division** JV and Associates Ship Owners and Agencies, Branches and **Liner Trades Bulk Division Liner Trades** Organisational Boundaries (owned fleet) (owned fleet) (chartered fleet) (chartered fleet) Managers Regional offices in: CNCo Pte Ltd Australia 4x Swire B.Delta39 67% 5x Challenger Class Tonnage as detailed Tonnage as detailed Singapore Canada Quadrant Pacific Ltd in Fleet Profile handysize (grabbers) in Fleet Profile 5x Mihos 20x Swire B.Delta39 includes: 8x S Class. MPV31 Hong Kong **Guadalcanal Travel Services** 2x N Class, B170 India see page 62 Swire Bulk 4x Imabari38 New Caledonia 4x Chief Class MPV22 handysize (loggers) Swire Bulk Logistics New Zealand Swire CTM Bulk Logistics Ltd Swire Shipping Papua New Guinea People's Republic of China (PRC) Tradco Shipping Limited Republic of China (ROC) Samoa Singapore Mandarin Shipping Group Ltd Pacifica Shipping\* United Kingdom Polynesia Line Ltd\* United States of America PT Mitrabahtera Segara Sejati Tbk (MBSS) Scope 1 GHG Office Vehicular Vessel HFC and Petrol / Diesel / LPG / Electricity etc HCFC consumption / emissions **Operational Boundries** Vessel HFO, MDO, GHG emissions and LO consumption Vessel NOx. SOx. PM and VOC emissions Scope 2 GHG Office Electricity Usage Scope 3 GHG Management Air Travel **Crew Air Travel**

# **2016 Highlights**

2016 was a year of significant achievements for CNCo.

#### **Environmental:**

- Achieved a reduction in Liner fleet EEOI of 3% towards our interim goal of a 15% reduction in EEOI.
- CNCo won the SEC-MPA Singapore Environmental Achievement Award (SEEA) 2016 (maritime category).
- Completed Argent Energy Bio Fuel Oil Pilot Study (Phase 2) on a Swire B.Delta39 bulk carrier.
- Enhanced our Responsible Cargo Carriage Policy with respect to Marine Biodiversity issues as well as "United for Wildlife" Declaration to prevent illegal trafficking of endangered wildlife species and wildlife products.
- Awarded Eco-Office certification for 2016-2019.
- Recycled 2,950kg of paper in Singapore.

#### Social:

- Placed very strong emphasis on safety or "Zero Harm" to all stakeholders.
- The year-on-year increase in sea staff numbers was 37%, in line with the increase of our fleet size.

- CNCo launched its inaugural Leadership Development Programme in Singapore (for Team Leaders and Operational Leaders).
- We supported our communities in Fiji, the Philippines, Papua New Guinea, Timor-Leste and worldwide through the Mission to Seafarers and The Sailors' Society who are caring for and supporting seafarers of all races, religions or ranks around the world.
- Swire Shipping won the Seatrade Asia "Best Owner/Operator" 2016 Award.
- Our Singapore-based employees spent 483 hours doing voluntary work.

#### Governance:

- CNCo completed its four year energyefficient fleet renewal and expansion programme that delivered 12 multipurpose liner vessels, 28 handysize bulk carriers and one dedicated cement carrier.
- Maintained an active membership of the Sustainable Shipping Initiative, the World Ocean Council and the Maritime Anti-Corruption Network (MACN).
- CNCo issued a revised Code of Conduct and a new suite of Anti-Trust Policies and procedures and introduced compulsory training modules for all shore-based staff, through an online training platform.

- Sponsored the second Roundtable on Sustainable Ship Recycling in Singapore with participants making commitments to:
- Press their relevant governments to ratify the HKC: and/or
- Help raise standards in the industry.
- Successfully and sustainably recycled MV Changsha and MV Chengtu, at an HKC compliant SRF in India with zero injuries, zero pollution incidents, increased level of HKC compliance and social commitment at the SRF.
- Introduced "Thrive", our new Sustainable Development Strategy.
- Launched group bunker procurement change programme covering supplier performance platform, supplier relationship scheme and bunkering process combined with the supplier auditing programme.





Top: Management trainees
Above: MV Changsha, which was successfully recycled in 2016

In 2016 CNCo won the SEC-MPA Singapore Environmental Achievement Award 2016 (maritime category).

# **Safety**

Safety is our top priority in CNCo. We continuously strive to provide a safe and healthy working environment and to cultivate a safe mindset for both our employees and contractors alike. By having a strong safety focus together with a robust reporting and learning culture, we make safety everyone's priority. Our goal is to build an industry leading safety culture.

Regrettably, 2016 was a tragic year for CNCo as we recorded three fatalities and 14 LTIs. In the second half of 2016, the company embarked on a strong push to strengthen the safety culture with the roll out of several initiatives, led by our top management.

As a result, in the second half of the year, the level of safety awareness across the fleet and ashore increased significantly. Safety leadership has to come from the top and CNCo's senior management deliver safety briefings and do safety walks both at sea and ashore on a regular basis. Communication on safety issues is now the first item of the Managing Director's weekly message to all employees. Further, any

meeting on any subject must now start with a safety moment. Every issue of our monthly newsletter, NiuSwire, has articles on safety. This safety leadership across the whole organisation will continue and will be reinvented regularly to maintain impact. Additional resources have been put into the key areas of recruitment, training, auditing and mentoring.

The action plan developed from the comprehensive safety review continues to be implemented and improved upon. All officers and crew must now attend a CNCo designed safety awareness course prior to joining a CNCo ship. Management will ensure that the momentum is maintained going forward.



### Safe log lashing and handling course

Swire Bulk will be operating 24 Swire B.Delta39 bulk carriers of which 20 are specially designed log carriers. It is important that our crew are trained in the best safety practices to ensure Zero Harm. CNCo personnel visited Uniteam Marine training centre in Yangon in February 2016 to observe the "Safe Log Lashing and Handling" training course for CNCo. The course was designed to equip CNCo's crew on practical familiarisation of onboard equipment and handling processes. Trainees were also made aware of potential hazards from manual handling and movement on uneven surfaces, and were taught techniques for correct lashing, among other things. The training materials are coupled with and based on the theory and videos provided by CNCo.

The course focused on donning of appropriate PPE for the task, use of various lashing equipment and actual demonstration of lashing/unlashing logs utilising hog wires and chain lashings. After the instructor was satisfied with the trainees' PPE attire and use of lashing equipment, he then proceeded to demonstrate hog wire lashing, as well as chain lashing and unlashing techniques. The participants gave positive feedback on the course as they gained hands-on training, increasing their safety focus during their onboard duty.

## **Ensuring the safety of our stakeholders**

CNCo aims to ensure Zero Harm to all our employees and stakeholders alike. We have been working to improve our contractors' safety performance by encouraging them to adopt good practices and to ensure safety at the work place. Safety Bulletins are issued quarterly and circulated to our contractors.

In addition to the safety bulletins, we engage agents/stevedores actively and encourage them to provide feedback and suggestions to improve operational safety standards.

#### **Contactors feedback/suggestions include:**

- 1. Conduct regular safety briefings.
- 2. Tool box meeting prior to commencement of cargo operation.
- 3. Inspection of gear prior to lifting to ensure the equipment is suitable, safe for use and has a valid load certificate.
- 4. Apply effective means of communication between crane operator, signal man and riggers during the cargo operation.
- 5. Safety banners displayed in local languages to show and explain the requirements for PPE and other safety aspects.

#### **Overview of Safety Management**

The whole area of Health and Safety (H&S) Management was re-organised in 2016. The breadth and depth of management in this area increased through the hiring of dedicated managers and the re-designation of others to make accountability clearer and simpler. Better processes have been established to ensure that action identified as necessary can be put in place in a more efficient and timely manner.

CNCo now has the following meetings structure in which H&S related issues are discussed:

- Quarterly private group Safety meetings (with feedback from the public group meetings);
- CNCo Internal Risk Committee discussions on systemic safety issues;
- Monthly meeting with CNCo's third Party Ship Managers on Safety and Technical Performance Review;

- CNCo monthly Onshore Safety Performance Review meeting (for contracted stevedore issues etc.);
- CNCo monthly Office H&S meetings in Australia, New Zealand, PNG and Singapore;
- All vessels have a fortnightly dedicated H&S meeting with structured topics for discussions guided by Ship Management;
- Weekly H&S Operations meeting attended by all senior and relevant line managers to drive both the establishment and embedding of strategic/systemic H&S improvement initiatives:
- Weekly meeting in the Crewing Operations, Safety & Training department among other aligning recruitment, training and safety aspects;
- H&S is the first item for review at the monthly Executive Committee Meeting ("ExCom").

The photo shows our Taiwan stevedores, TWKHH, actively discussing safety cargo and tool operations before work commenced.



The whole area of Health and Safety (H&S) Management was re-organised in 2016. The breadth and depth of management in this area increased through the hiring of dedicated managers and the re-designation of others to make accountability clearer and simpler.

# Strategic/systemic H&S improvement initiatives

This is a rolling programme to ensure that all the medium and long term initiatives established after the thorough H&S Systems and Operations review plus newly identified issues are closed out in a timely manner. The main areas of focus are:

- Ensure that the top four officers on every managed vessel (both owned and third party) have the necessary experience in rank and in the company.
- Ensure that all new recruits possess the necessary qualifications and safety awareness through assessments, tests and personal interviews.
- Review of the Safety Management System to ensure that it meets legal criteria and is also Fit For Purpose to assist all our employees to work more safely.
- Extract full value from TRIP, Near Miss form returns, Internal Audit reports as well as all other leading indicators.

- Solve previously identified capacity constraints – in recruitment, in safety training, in crew onboarding, in on-going leadership and competence training.
- 6. Ensure that key ranks have sufficient English language competencies.

#### Fleet safety

The results of the analysis of the five key areas identified from the inputs/comments/ suggestions concerning safety from the fleet are incorporated in the immediate and longer term action plans. The status of implemented and outstanding actions from these plans are reviewed at the Weekly H&S Operations meeting.

The management's efforts at driving the "Step Change" in safety management have been relentless and are being driven at every level of management within the organisation. The new Ship Management structure will bring about positive changes to the way our ships are managed with greater focus on micro managing our ships until our safety and CNCo culture is thoroughly embedded and fleet stabilisation is achieved.

Management's efforts at driving the "Step Change" in safety management have been relentless and are being driven at every level of management within the organisation.

#### **PNG Safety Awareness Course**

21 ratings took part in the Papua New Guinea Safety Awareness Course (SAC) held in Port Moresby from 17 to 19 October. The SAC training that was conducted by Captain Bernie Santos, helped the PNG crew to understand the importance of safety on board vessels for themselves, their fellow seafarers and the environment as a whole.

An interactive training and presentation session was carried out with everyone's participation. Recent incidents were discussed and the importance of Risk Assessments and Work Permits were emphasised. The importance of a good safety culture and the concept of Zero Harm were the themes of the SAC.



#### **New safety training courses**

CNCo's new Safety and Training team has been busy identifying the training needs of our crew and ensuring that suitable courses are conducted to meet safety, operational and leadership requirements.

In October, two pilot practical training courses were conducted in Manila. The Practical Ship Safety course for junior officers and ratings aims to update and refresh their knowledge and understanding of seamanship skills and company procedures for various ship board activities. This course will complement the Safety Awareness Course in raising the safety standards of junior officers and ratings. The Bosun's Role & Responsibility Evaluation & Enhancement Programme (or BOSRREEP) aims to equip Bosuns and Senior Able-Bodied Seamen (ABS) with the necessary planning and leadership skills and the ability to recognise and challenge unsafe orders from superiors.

Both courses will be held regularly.



# CNCo's key strategic actions (offshore) for 2017 are as follows:

- Provide in-depth focus on our near miss reports where analysis from the near miss reports (leading indicators) is used to drive reductions of lagging indicators - LTI's;
- Our work process for assessing risk before commencing any work activity has centred on the use of the Tool-Box Risk Identification Permit (TRIP). Whilst the TRIP remains valid, the QA Department has reassessed the risk levels for various items of ship board work and have categorised them according to their risk level. In so doing, a library of risk assessments (RA) has been created. Additionally the number of Permits to Work has increased to cover life-threatening ("Level 3") work activities. Routine work has also been defined in the SMS where only a "Take-5" process is required;
- Safety Management System (SMS) Review a thorough review of the Company's SMS will take place in 2017. The focus will be on the content and architecture of the SMS which is contained in the Quality Management System;

 Map out the frequency for QA auditor trainers' inspections for 2017 utilising an additional QA auditor trainer to ensure priority coverage for the entire fleet is achieved including training.

#### Swire Bulk fleet H&S performance

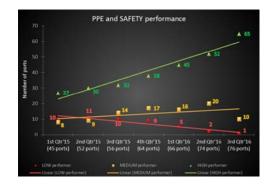
- Swire Bulk started a programme to proactively supply personal protective equipment (PPE) for stevedores' use in ports where such compliance is below global standards:
- A local safety Port Captain was appointed in Kandla, India, to monitor logs discharge and to ensure stevedores comply with CNCo's personal safety rules – both with respect to donning PPE and particularly the handling of electrical grabs' control cables;
- Swire Link auto-messaging system to be upgraded by adding the stevedore safety standards reporting by Masters;
- Port contractors H&S performance monitoring is ongoing;
- Safety presentation and lectures will be made on board vessels by shore teams' representatives whenever logistically convenient to board the vessels.

Swire Bulk started a programme to proactively supply personal protective equipment for stevedores' use in ports where such compliance is below global standards.

#### Swire Shipping - onshore H&S performance

- Primary focus is on contractor compliance with the CNCo Safety Policy;
- The Swire Shipping Shoreside Safety Sub-Committee worked to ensure that our contractors don PPE and work safely. A simple reporting process was developed to encourage ships Masters to report on contractor compliance with the use of PPE and Safety Attitude. This was implemented to monitor performance by identifying trouble spots and to reduce safety-related incidents. To allow effective reporting and recording of safety data, "ShipRep" was adjusted to include the reporting data. This allows tracking performance levels of ports and also allows the operations team greater visibility on contractor compliance;
- Tracking and mitigating hazards reported by vessels has resulted in improving ports safety performance levels. Ports such as Dili, Honiara, Lautoka, Noro and Suva, where safety performance was "LOW" now have adopted the safety policy and are observed to be complying with our PPE requirements and SAFETY rules at all times.

Success in the above initiatives is evidenced in the trends shown on the right, in which the number of low performers are declining and there is a corresponding increase in the number of high performers.



# Swire Shipping's key strategic actions (onshore) for 2017 are as follows:

- We will be introducing a robust reporting tool on contractor safety compliance through the "e-portal" as part of a vendor;
- Identify, record and highlight near misses and incidents and distribute "safety alerts" to all stakeholders;
- Introduce target safety drives with our contractors such as a "Safety Week" to be conducted to ensure that safety and health are integrated into the working culture of our vendors;
- Achieve greater levels of participation of stakeholders in H&S activities, such as encouraging our contractors to appoint safety officers into their teams for focused delivery and effective communication;
- Update the existing quarterly Safety Bulletin among all stakeholders;
- To achieve zero "low performers" and move 25% of the "medium performers" into the "high performers" band.



The full CNCo safety statistics for sea staff can be found in the data section on page 70.

Tracking and mitigating hazards reported by vessels has resulted in improved ports safety performance levels.

# **Our People**

Our people are at the core of CNCo's business operations. We are committed to providing a continuous learning environment where employees are empowered to reach their highest potential. We value our multinational workforce and actively promote an inclusive and diverse workplace with a strong focus on safety excellence.



#### **Employment information**

As at the end of 2016, CNCo employed 2,391 people in various locations around the world. Our employees come from 33 countries.

748 of our employees were shore-based, while the remaining 1,643 were seafarers (834 Officers and 809 crew members). Our seagoing team continued to grow in line with the size of our fleet increase. The year-on-year increase from 2015 levels was 37% for sea staff (note: each position on a ship requires more than one person to fill as a proportion of crew are on leave at any time). Our land-based staff decreased by 7% in 2016 as the company consolidated and restructured some of the

operations. This number also does not reflect our office expansion in Fiji due to the delayed administrative transition process.

Our business strategy continues to focus on growing our global operations. CNCo's expansive geographical footprint covers five Swire Bulk offices across Australia, Japan, Singapore, UK and USA. Swire Bulk Logistics operates from Indonesia, New Zealand and Singapore. Swire Shipping has significant employee representation in Australia, China, Hong Kong, New Zealand, Papua New Guinea and Singapore. There is a wider representation throughout the Pacific Islands, mostly operating under joint ventures or agencies and are not direct employees of CNCo.

As at the end of 2016, CNCo employed 2,391 people in various locations around the world. Our employees come from 33 countries.

Our People 18





The year-on-year increase from 2015 levels was 37% for sea staff and a decrease of 7% for shore-based staff.

The geographical breakdown of our office employees by key locations:

Singapore (Head Office) – 32%, Papua New Guinea (PNG) – 24%, Australia – 15%, and New Zealand – 13% with the remaining 16% based in China, Fiji, HK, India, Indonesia, Japan, Samoa, Taiwan, UK and USA.

The numbers are similar to 2015 with very little changes.

# Other Locations 16%\* New Zealand 13% Total number of shore-based staff 748 Australia 15% PNG 24%

#### Shore-based staff by location

Shore-based staff 113	
	total
113	45 40/
	15.1%
52	7.0%
1	0.1%
13	1.7%
5	0.7%
4	0.5%
1	0.1%
97	13.0%
181	24.2%
7	0.9%
240	32.1%
9	1.2%
15	2%
10	1.3%
748	100%
	52 1 13 5 4 1 97 181 7 240 9 15

\*Other Locations: China, Fiji, HK, India, Indonesia, Japan, Samoa, Taiwan, UK and USA Our seafarers came from 22 countries, representing a decrease from 24 countries in 2015.



99% of our office workforce were employed on a full-time basis. The number of supervised employees who were "contractors" is immaterial (~1%) and most of them were skilled professionals working as consultants on a contract basis to assist with projects such as the implementation of new IT systems.

#### Note:

Some sea staff, particularly all our Filipino seafarers, are employed, as required by Philippine law and managed by the Philippine Overseas Employment Administration (POEA) on a contract by contract basis. We do not classify these as "contractors" as all overseas Filipino workers, be they seamen, doctors, nurses, etc. are employed on this basis.

23% of our shore-based staff were in management roles, with the remaining 77% providing support functions.

92% of our shore-based workforce were classified as "local", similar to the 2015 figure. We define "local" as those who are a national or permanent resident of the country of employment. 7% were classified as "expatriates".

About 20% of this expatriate staff percentage were parent company managers who have a centrally planned rotation through internal postings within the Swire group. The rest were employed as industry experts and have long-term careers with the company worldwide.

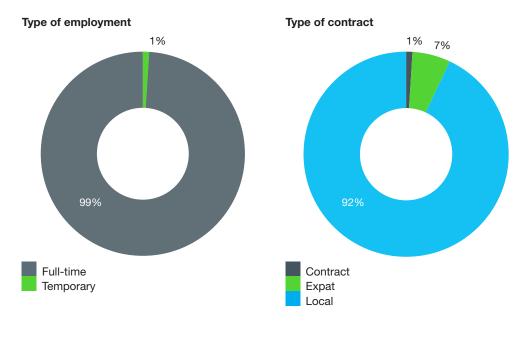
Globally, all our contracts comply with the relevant local employment laws. We continue to provide benefits that are additional to local legislation such as medical insurance for shore-based staff, and for all seafarers, private healthcare, life insurance and paid pension arrangements (or cash *in lieu*).

All CNCo seafarers are covered by a collective bargaining agreement in accordance with the International Labour Organization (ILO) Maritime Labour Convention (MLC) 2006.

The number and rates of employee hires and employee turnover can be found on page 75.

Employee turnover remains a valuable indicator of the company's sustainability and is an ongoing area of focus for the company. Overall staff retention in 2016 for shore-based staff was 86% and 91% for sea staff (officers and crew). Both shore-based and sea staff retention remains consistent year-on-year.

We continue to monitor and analyse the turnover rates against the national average figures and in light of changes within the business and the industry, to conduct exit interviews where possible, and seek to rectify any reasons for turnover where they are viable and within our control.



Employee turnover remains a valuable indicator of the company's sustainability and is an ongoing area of focus for the company. Overall staff retention in 2016 for shore-based staff was 86% and 91% for sea staff.

#### Diversity in the workplace/human rights

For a multinational shipping company, with employees from 33 countries, having an inclusive, cohesive and supportive culture is key to our continuing sustainability. We create a welcoming, positive, innovative and high performing work environment by promoting equal opportunities, diversity and inclusion and respect in the workplace. This is done through Policies, Code of Conduct, induction programmes, forums, seminars and training.

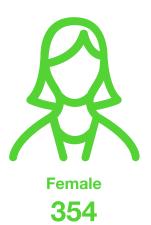
In 2016, 53% of the office employees were male which remains consistent in the past few years (52% in 2015) and 47% were female (48% in 2015).

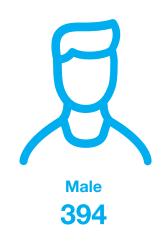
The CNCo Pte Ltd Board of Directors comprises nine members, of whom one is female. We also now have one senior female manager who is on CNCo's Executive Committee. Notwithstanding that gender diversity has historically always been skewed in the shipping sector, we recognise this as a challenge and the company, and in particular our Human Resources (HR): Learning and Development Department, continues working on strategies to better balance our gender diversity at all job levels within the company.

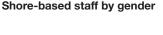
There were four (or 0.2%) female officers among our sea staff. This is reflective of the shipping industry (excluding the cruise sector) in general. We seek to encourage more women to join CNCo, having for many years had a gender-blind employment process supported by the creation of a culture where women feel safe and are supported. In addition to our clear and explicit policies on equal opportunities and anti-harassment, we provide a Confidential Reporting hotline to deal with any issues.

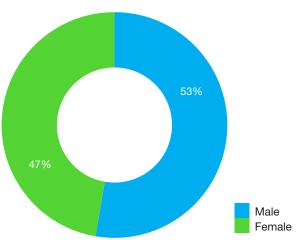
We take a strong stance with regards to any forms of harassment in the workplace and have a robust system in place to address such situations in a timely manner.

In 2016, CNCo issued Equal Opportunities, Diversity, Inclusion and Respect in the Workplace Policy which aims to further embed diversity and equality into all our operations to ensure that we benefit from a welcoming, positive, innovative and out-performing work environment, which is essential to our continuing success.



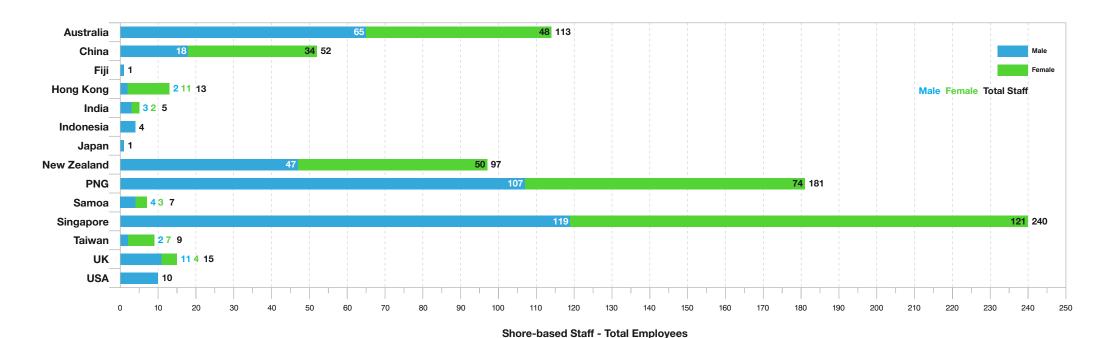






Our People 22

#### Percentage of shore-based staff by gender and country



For a multinational shipping company with employees from 33 countries, having an inclusive, cohesive and supportive culture is key to our continuing sustainability.





A properly diverse workforce is one whose members are not discriminated against. Accordingly, we require full compliance with applicable employment and other laws and will not tolerate unlawful discrimination\*, or harassment or any other breaches of applicable law.

Our equal opportunities practices commit us to ensuring there is no unjustified discrimination in the recruitment, retention, skills training and competence development of our employees on the basis of aspects including age, disability, ethnicity or ancestry, family responsibilities, gender identity, language (while noting that proficiency in the English language is a legal requirement of the marine industry), marital status including civil partnerships, nationality, political views, pregnancy, race, religious beliefs or creeds, or sexual orientation.

CNCo aims to have a workforce that as far as practical reflects the diversity of the stakeholder communities in which its business units operate worldwide.

CNCo is an equal opportunity employer and we ensure that there is no instance of men and women with the same competence and/ or experience being paid differential rates for performing the same work.

Salaries are set by the Compensation and Benefits Department and in accordance with the local geographical market guidelines so that we can both attract and retain the best talent. Executive pay is determined after discussions with external consultants, combined with the use of benchmarking data from similar organisations.

CNCo does not provide performance-based pay, equity or shares as part of its remuneration packages regardless of seniority. Bonuses are awarded for performance on a discretionary but equitable basis. Pensions are provided as a minimum as per statutory requirements. For sea staff, pay negotiations are undertaken collectively with relevant international or national bodies, and administered under Collective Bargaining Agreements (CBA) in accordance with the ILO MLC 2006.

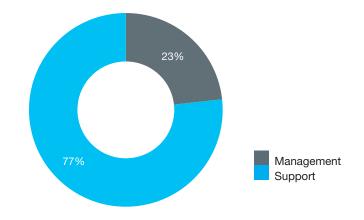
CNCo did not have any cases of discrimination or harassment in 2016.

\*Decisions become a form of unlawful discrimination when race, creed, national origin, ethnicity, or gender cause one person to be treated differently than another. Some states have laws that also protect against discrimination on the basis of marital status or sexual orientation. These are called protected classes.





Breakdown of management vs support roles



CNCo aims to have a workforce that as far as practical reflects the diversity of the stakeholder communities in which its business units operate worldwide.

#### **Employer of Choice**

CNCo has been the Employer of Choice for many of our sea and shore-based employees. We have a rewards and recognition programme in place which rewards loyal long serving employees. The average length of service has increased from 2015 figures and is 5.94 years for crew (from 5.7), 5.76 for officers (from 5.75) and 6.38 years for shore-based employees (from 5.7).

CNCo recognises employees for their long service and ongoing contributions to the business by presenting them with Long Service Awards. In 2016, we issued 38 awards to employees ashore and at sea for lengths of service from 10 to 40 years. This adds up to 500 years of service.



	Shore-based staff	Sea staff
10 years of service	6	18
15 years	5	3
20 years	2	3
40 years	0	1

#### Above:

Peter van Uden (left), CNCo's Commodore, receiving a long service pin from James Woodrow, Managing Director, CNCo. Captain van Uden has been with CNCo for 42 years.

Total number of permanent employed employment type and gender	es by		0.53%	0.80%
Male	e Female			
Full time/Permanent contracts 390	348	46.	52%	
Temporary contracts 4	4 6			52.14%
	Male	Female		
Full time/Permanent contracts Temporary contracts				

# Performance management, training and development

Sea staff

CNCo puts significant emphasis on safety training for our seafarers. In 2016, we ran 23 Safety Awareness Courses (SACs) and safety induction courses in China, Myanmar, New Zealand, Philippines, PNG, Singapore, Sri Lanka and Ukraine. There were also 20 engine and electric crane training courses provided to our new staff.

All of these are discretionary training courses, i.e. not required under the SOLAS STCW

legislation, but which CNCo sees as critical to the safety of our sea staff and all stakeholders upon whom we impact. The goal of the SACs is to emphasise and reinforce the company's safety culture and to promote Zero Harm.

The SAC emphasises practical safety management skills, explores the benefits of leading safety indicators and looks at accident root cause analysis, proactively recognising hazards and understanding safety control, mitigation and recovery measures. The total cost of the discretionary training in 2016 was USD 1,638,941 which is a significant investment given the current shipping market conditions.

Our Cadetship Programme is ongoing with the recruitment of cadets from China, Hong Kong and from the South Pacific Islands. As a sustainability objective, CNCo has committed to recruit 15% of our required cadet intake from our key stakeholder communities in the South Pacific Islands by the end of 2016 (which was met) and 25% by the end of 2020.

In 2016, 953 CNCo sea staff received 23,376 hours of training, or an average of 14.23 training hours per seafarer (from 8.81 in 2015).

All CNCo seafarers receive a performance evaluation review conducted by the Master or Chief Engineer at least twice a year. The appraisal looks at personal characteristics, team work, aptitude and leadership qualities among other specific skills sets. The process is intended to highlight areas for improvement and training opportunities, and identify individual's strengths for a robust recognition and promotion programme.

Shore-based staff

CNCo continues to invest in learning and development. Across the group, shore-based employees received 5,791 hours of training, or an average of 7.74 training hours per employee. This represents a 38% increase from 2015 figures. 190 male employees received 3,355 hours of training compared to the 2,436 hours received by 155 females. The overall cost of training for shore-based staff was USD 121,594.

CNCo's Business Excellence department introduced the improvement journey which is a company-wide departmentally-focused 'GOALS' programme and a more detailed "Greenbelt" programme which equips individuals with more advanced skills and training such as Lean Six Sigma methodology. This training is ongoing.



As a sustainability objective, CNCo has committed to recruit 15% of our required cadet intake from our key stakeholder communities in the South Pacific Islands by the end of 2016 (which was met) and 25% by the end of 2020.





Our People 26

#### **Launch of Team Leader Development programme**

One of CNCo's strategic objectives is to build a winning team and the company is increasing its efforts to hone the leadership skills in the company. With this in mind, HR held the inaugural Team Leader Development Programme (TLDP) in Singapore from 24 to 26 February. Comprising three key modules, Self Awareness, Team Leadership and Change Leadership, the programme seeks to equip leaders and managers in CNCo with leadership competencies and relevant skills to lead their teams more effectively.

On the first day of the programme, MD CNCo, James Woodrow, gave a welcome address and highlighted CNCo's strong emphasis in talent development and leadership training. He also shared interesting anecdotes about his personal leadership journey.

During the three-day programme, participants learnt about self leadership, how to improve work efficiency through achieving better self-awareness, factors that drive others' behaviours and the importance of mindfulness and emotional intelligence, among others. Key concepts were brought to life with engaging role-play activities and lively group discussions.

In 2016, CNCo launched its inaugural Leadership Development Programme in Singapore (for Team Leaders and Operational Leaders). These programmes seek to equip leaders and managers within the organisation with the requisite leadership competencies and skills so that they can lead their teams more effectively. CNCo also launched a new Learning Management System (LMS) as part of the Company's continuing commitment to investing in its people.

The new LMS system was launched in conjunction with Lynda.com, an industry leader in online training. Shore employees can now access an extensive selection of online courses on software, creative and business skills on the new platform. The addition of this learning portal allows office employees to receive training, learn new skills and acquire new knowledge at their own convenience beyond the formal classroom training.

Performance management for office employees is done using the Smart Goals online system. Performance assessments include a review of smart goals, performance against Swire values and job competencies.

#### **Emotional support helpline**

The health, safety and wellbeing of all CNCo employees, both ashore and at sea is as important to us as having aligned and engaged employees. In August 2016, CNCo worked with Befrienders Worldwide to set up a a dedicated email service for CNCo employees who need emotional support. The service is available in English and Chinese. Later in the year, an English voice helpline service was also introduced. Befrienders Worldwide has an international network of over 350 crisis helplines in 36 countries that provides emotional support to those in despair. The services are confidential in nature.





We believe in doing right by our communities and investing in worthy causes. We support charities and community organisations as well as our employees in need. Our support for the communities focuses on Education, Community, Health, Youths, Environment and Biodiversity. We are committed to establishing long-term, mutually rewarding relationships with our partners and our communities.

#### Supporting seafarers worldwide

We have a long-term partnership with both The Mission to Seafarers and The Sailors' Society who are caring for and supporting seafarers of all races, religions and ranks around the world. This support is provided through fundraising events and other collaborations.

CNCo also provides ongoing support to the ASSM Dependent's Association (ASSMDA), an independent, not-for-profit association in the Philippines formed by the partners and relatives of our Filipino seafarers. ASSMDA provides voluntary assistance and social support to the seafarers' families in times of need and aims to improve their livelihoods through organising value-added social activities.





Left: Her Royal Highness Princess Anne visits Singapore in support of The Mission to Seafarers.

We have a long term partnership with both The Mission to Seafarers and The Sailors' Society who are caring for and supporting seafarers of all races, religions and ranks around the world.



Above: Swire Shipping sponsor PNG Cricket's big bash.

# Supporting our key stakeholder communities

# Swire Shipping Talent ID Programme in PNG - Swire Sport Programme

Cricket PNG (CPNG), in association with Swire Shipping/CNCo launched the Swire Shipping Talent ID Programme in September 2015, with the aim of finding the next Barramundi and Lewas player from around PNG. CPNG's High Performance Department conducts these programmes around the country.

As part of this programme Cricket PNG reaches out to young talent in various provinces and sponsors youth cricket holiday ID camps. Talent ID Camps are very structured and cover the following areas:

- Coaching
- Strength and conditioning
- Mental application
- Elite cricketer's expectations
- Theory
- Training for potential Talent ID Coaches in the regions
- Matches

"The 2016 Swire Shipping Talent ID programme gave us the opportunity to establish relationships with local associations to give attention to the junior programmes in their local areas. This is in line with CPNG efforts to build our junior programme capacity to hunt for talent mainly outside of traditional cricket areas. The foundation was set last year and we will look to build on with follow up programmes following the initial engagements," said CPNG High Performance Manager, Rarua Dikana.

"The Swire Shipping Talent ID programme is vital for CPNG to maintain its growth especially with talented cricketers in the nontraditional cricket-playing background. Our aim is to encourage young people to love the sport of cricket making it the sport of choice," concluded Dikana.

"The 2016 Swire Shipping Talent ID programme gave us the opportunity to establish relationships with local associations to give attention to the junior programmes in their local areas."

#### Swire Sport programme in Fiji

In 2016 we extended our Swire Sport programme beyond PNG and the Solomon Islands and reached out to two schools in Fiji, providing them with donated rugby equipment. Both schools and village communities were severely affected by Tropical Cyclone Winston.

#### **Swire Shipping Coffee Bulking**

The Swire Shipping Coffee Bulking facility in Lae has been fully operational since January 2016 to service the coffee industry in PNG which exports premium quality coffee to global destinations. Swire Shipping is the leading carrier of coffee from PNG and has been involved with the industry for over 30 years.

The purpose of establishing this operation was to provide a "one stop" value-enhancing solution for our customers, the coffee traders and exporters. The leading coffee exporters in PNG have committed their support to the Swire Shipping Coffee Bulking operation, in order to ensure sustainability for the Industry, due to the number of service providers being limited.

The operation handles both bulk and bagged coffee that is packed in 20' containers and has the advantage of being based inside the Lae Port. In 2016 over 350,000 bags of coffee were handled through the facility.

#### **Swire Sport programme in Fiji**

CNCo has been working with local sports clubs in PNG and the Solomon Islands to develop the Swire Sport programmes. In 2016 we reached out to two schools in Fiji, providing them with rugby equipment. Club shirts, shorts, socks, balls and training cones were shipped by Swire Shipping from Hong Kong to Suva on a *pro bono* basis. The equipment was generously donated by the Valley Fort Rugby Club in Hong Kong.

The two schools jointly selected were:

- 1. Nailega District School, in Buca Levu Village in the province of Ra, and;
- 2. Nalidi District School, in Nakorotubu Village in the province of Ra.

Both schools and village communities were severely affected by Tropical Cyclone Winston and are still operating using the temporary set up provided by UNICEF.

We are very grateful to the Valley Fort Rugby Club for their donation and to Craig Strong for establishing the Swire Sport Fiji programme. Fiji Ministry of Education also expressed their gratitude as one of their disaster recovery strategies for school communities is to galvanise their morale through sporting activities.





Left:

Team and students at Nailega District School, Fiji.

#### Far Left:

Swire Shipping Coffee Bulking Facility.

#### **Corporate Philanthropy and Volunteering**

In 2016, we organised two events for our staff to learn about the carbon footprint of food and the techniques used for growing food in an urban environment. The events took place at Comcrop, a social enterprise that promotes urban farming in Singapore.





# **Sustainable Living**

CNCo colleagues in Singapore found out how they can contribute to a sustainable city by spending an afternoon with Comcrop on 21 April.

Comcrop is a social enterprise tasked to promote urban farming in Singapore. Their unique business model includes a rooftop farm in the middle of the city's busy central district. Located on the roof of Scape building, the 6000-square foot farm uses hydroponic (soil-less growing of plants) and aquaponic (raising fish) technology to produce 10kg each of basil and mint every day.

Through this event, the participants learned about the carbon footprint of our food and the techniques used for growing food in an urban environment. They gained hands-on experience propagating mint plants, harvesting and making a mini hydroponic system using plastic bottles.

Everyone enjoyed the opportunity to learn about sustainable living and discovered their green thumbs. At the same time, Comcrop was grateful for the extra help given their limited resources.

Comcrop is a social enterprise tasked to promote urban farming in Singapore.

#### **Environment and biodiversity**

# Partnership with Endangered Species International

CNCo partners Endangered Species International (ESI) in South Mindanao in the Philippines on mangrove and coastal reef conservation and to protect the endangered Philippine forest turtles. Under this partnership, ASSM volunteers (who are CNCo seafarers) work in the field alongside the ESI on various conservation and community engagement activities. The volunteers made two field trips in 2016 to the Mt. Matutum Protected Landscape.



#### **Protecting our environment**

As part of the Sustainable Development programme, CNCo partnered the Endangered Species International in South Mindanao, The Philippines, on mangrove and coastal reef conservation and to protect endangered Philippine forest turtles.

In March, five of CNCo's sea staff volunteered five days of their time enhancing the habitat of forest turtles and protecting the environment. One of the first activities upon the team's arrival at the Tupi Municipal was a radio interview. They were invited to talk about the purpose of their trip and through the media, encouraged the community to do their part to protect endangered species and their habitat.

On the second day, the team started at Barangay Cebuano which is home to around 300 planted trees. Their task was to clear and slash cogon grasses to prevent nutrient competition and to install tree guards to protect the trees from animals such as cows, goats and wild pigs. The team installed around 75 tree guards!

On the third day, the team worked on soil potting in preparation for wildlings planting and watered the planted trees at Sitio Bagong Silang. The next day, the team climbed Mt Matutum to collect tree wildlings to be potted for planting. Around 550 tree wildlings were collected and potted. That night, they conducted a freshwater turtle habitat assessment along the river of Sitio Bagong Silang.

In March, five of CNCo's sea staff volunteered five days of their time enhancing the habitat of forest turtles and protecting the environment.

#### Advancing ecotourism and marine conservation in Timor-Leste

CNCo supported Conservation International, a global nature non-government organisation (NGO) and the government of Timor-Leste to carry out a cetacean research and capacity building of key stakeholders in Timor-Leste in October 2016. This enabled a baseline to be drawn up to inform the developing whale/dolphin watching industry in Timor-Leste and to identify species needs, especially during the annual migration period.

The Cetacean Scoping Survey identified 11 species in 25 pods consisting of over 2,000 individual whales and dolphins. Two species were newly recorded. Many of the pods contained more than one species and at times comprising more than 500 individuals. These superpods are one of the extraordinary features of the cetacean migration north of Timor-Leste and a very unique phenomenon observable so close to shore.

The Timor-Leste government, Conservation International and local partners identified a high need for further research to ensure correct management of the waters by all users (eco-tourists, fishermen, ships in transit, etc.) during the mass migration and to underpin the design of a Sustainable Ecotourism Plan for the country.

Apart from the Scoping Survey, a two-day Operator Training Course was held to introduce the participants to international best practices for whale watching. The group consisted of local whale watching guides, fishermen and business people. An open Whale Watching Guidelines Workshop was held on the last day to introduce government officials, stakeholders, and communities to the Pacific Whale Watching Guidelines, with a view to developing a set of Timor-Leste-specific guidelines.

These survey and training workshops were a valuable contribution towards Timor-Leste's establishment of eco-tourism and helped to enhance the country's conservation efforts.

The Cetacean Scoping Survey identified 11 species in 25 pods consisting of over 2,000 individual whales and dolphins.

#### **Scoping Survey in Timor-Leste**

CNCo supported Conservation International, a global nature non-government organisation (NGO) and the government of Timor-Leste to carry out a cetacean research and capacity building of key stakeholders in Timor-Leste in October 2016. This enabled a baseline to

be drawn up to inform the developing whale/dolphin watching industry in Timor-Leste and to identify species needs especially during the annual migration period. The survey and training workshops were a valuable contribution towards Timor-Leste's establishment of eco-tourism and helped to enhance the country's conservation efforts.



#### **Supporting research programmes**

# Swire National Oceanographic Centre Ocean Monitoring System (SNOMS)

CNCo is supporting the UK National Oceanography Centre (NOC) through a multi-year SNOMS programme, a part of the ocean monitoring project, by installing monitoring equipment on board one of CNCo's liner vessels. CNCo sponsored

the upgrading and reinstallation of the SNOMS data collection box and the ongoing operational data collection expenses. The measuring devices were installed on *MV* Shengking in 2016 to provide vital data on the oceans' ability to slow the build-up of carbon dioxide in the atmosphere and mitigate ocean acidification, which is leading to coral bleaching and loss of crustaceans with calcite shells.

#### **Supporting climate research**

As part of a major new collaboration between CNCo and the National Oceanography Centre (NOC), measuring devices have been installed on *MV Shengking* to provide vital data on the oceans' ability to slow the build-up of carbon dioxide in the atmosphere. Under this partnership, data collected by *MV Shengking* showing the changing patterns in the flow of carbon dioxide between the air and oceanic surface waters is sent immediately to the NOC scientists via satellite.

Susan Hartman, project leader from the NOC said, "We were delighted when CNCo approached us with the offer to again use one of their vessels. The route across the Pacific will help our research and this information will be made available to international research projects that are already assessing carbon levels elsewhere in the world."

CNCo partly funds this project.



The measuring devices were installed on *MV Shengking* in 2016 to provide vital data on the oceans' ability to slow the build-up of carbon dioxide in the atmosphere and mitigate ocean acidification.



# Commonwealth Scientific Research Organisation (CSIRO)

CNCo works with a number of scientific organisations such as CSIRO to facilitate data collection using CNCo vessels. The data is used to study the changes in weather patterns, and understanding the roles of the oceans as carbon sinks as well as the distribution of marine life.

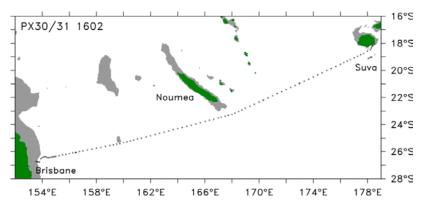
#### 1 Below:

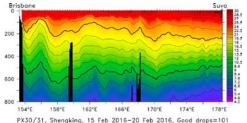
A plot of the temperatures in the upper 800m of the ocean between Australia and Fiji.

#### 2 Bottom Left:

Locations of temperature profiles collected by the *Shengking* in February 2016.

Credit (images 1 and 2): Scripps Institution of Oceanography







#### Helping to track and predict ocean flows

CNCo supports the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in their ocean monitoring and prediction efforts.

On the February trip, *MV Shengking* crossed a large warm-core (high sea level) eddy off New Caledonia and a rather unusual cold core eddy (low sea level) off Brisbane. When such an eddy forms, it can deflect part of the fast-flowing East Australian current offshore, weakening the normally strong jet that runs southward along the shelf break. *Shengking* also sampled extremely warm waters near Fiji just before Cyclone Winston arrived. These high ocean temperatures likely intensified this major and damaging storm.

Ocean monitoring and prediction efforts are going through a revolution. Satellites and robotics allow the tracking of the state of the ocean in ways not thought possible 20 years ago. The mainstays of modern ocean observing are satellite missions that measure temperature and sea level, and a large array of simple profilers call Argo. These systems can be added together with models to project the ocean flow at large scales. However, the more detailed subsurface ocean structures are much harder to track. This is where the collaboration between CSIRO and CNCo is so valuable.

#### CSIRO acknowledges Swire Shipping's support in ocean work

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) presented a Tasmanian Huon Pine plaque to Swire Shipping in appreciation of our participation in CSIRO's ocean studies conducted while our vessels sailed between Fiji and Australia. Swire Shipping's support allowed CSIRO to collect excellent data sets, which have been invaluable to their climate models, long term climate research and predictions. The data collected is placed on a public domain and is accessible to all researchers involved with the World Meteorological Organisation's programmes.

# **Carbon / Environment**

We will help create a resilient environment that provides for our future by pursuing a long-term goal of decarbonisation and optimising energy efficiency and protecting and, where viable, enhancing the biodiversity of the environment.



CNCo continues to seek innovative ways to minimise the impact of our business on the environment and biodiversity in the regions in which we operate. Over the years, we have made significant progress towards environmental sustainability by adopting a proactive approach towards sustainable shipping, expanding our eco-efficient fleet and implementing a number of operational initiatives.

#### Our environmental goals and commitments

CNCo's Environmental Policy includes our over-arching commitment to a target of "Zero Pollution" incidents and our ultimate long-term goal is for our operations to have a "Net Zero Impact" on the environment and its biodiversity. We have set an internal, science- based target, based on research by University College London as an input to IMO's deliberations to the United Nations Framework Convention on Climate Change (UNFCCC). We work actively to achieve a KPI of reducing our EEOI (Energy Efficiency Operational Index or the energy we expend moving one tonne of cargo, one nautical mile) by 35% below our baseline by the end of 2020.

This is a key goal to advance our journey towards "Net Zero Environmental Impact". Our progress for the bulk and liner fleet's EEOI since 1 January 2014 is shown in graphs on pages 73 and 74. The EEOI figures for liner fleet show a downward trend. This is largely a result of using more fuel efficient ships, rationalisation of individual trades, and a higher focus on operational efficiency. We continue to monitor emissions for each ship on a per voyage and an annual basis and use the IMO EEOI metric as our baseline.

These environmental goals are a part of CNCo's Strategic Scorecard 2030 and are revisited every year by CNCo's senior leaders. In the calendar year 2016 we achieved a reduction in liner EEOI (transport work efficiency and thus GHG emissions) of 3.0% towards our interim goal of a 15% reduction in EEOI. The bulk fleet EEOI increased by 23.7% (equating to 30.3% over our target EEOI for December 2016), however we will be using the software on board (Kongsberg Marorka) and in the office (IMOS VESON) to move this from a manual to an automatic calculation as part of the bulk fleet's compliance with EU MRV Regulations for relevant ships, and this may result in re-stating of this data series.

CNCo continues to seek innovative ways to minimise the impact of our business on the environment and biodiversity in the regions in which we operate.

Carbon / Environment 36

Other objectives (KPIs) towards achieving Net Zero environmental impact by 2030 include:

- Energy Efficiency Design Index (EEDI) compliance index at ≤ 80% for all relevant liner and bulk vessels on delivery to CNCo (deriving more transport work efficiency from less fuel);
- Existing vessel design efficiency (EVDI) to be ≥ 50% better than baseline upon taking delivery of the vessels;
- Implement three pilot technical or operational initiatives that can lead to a 50% reduction in an atmospheric environmental impact of the liner, bulk and bulk logistics fleet.

#### **Environmental initiatives and achievements**

In a challenging and competitive market, CNCo is always looking for innovative ways to manage our operating costs more efficiently and effectively. Over the past few years, CNCo has benefitted from the use of the John Swire & Sons (JS&S) Sustainable Development (SD) Fund to finance investments aimed at improving efficiency of CNCo's fleet. They proved to be effective and are showing emission reduction results.

With the signing of the Paris Agreement in December 2015, which entered into force with absolutely unprecedented speed in November 2016, adverse climate change is now

# SINGAPORE REGISTRY OF SHIPS MINISTRY SEPHINE TELE MINISTRY GOL VEARS ANNIVERSARY CELEBRATION 2016 Wisning Inter Wisni

#### **CNCo receives SRS Green Ship Certificates**

The Singapore Registry of Ships (SRS) is the world's fifth largest ship registry, with a fleet of more than 4,700 vessels and tonnage of more than 87 million gross tons (as of December 2016). SRS also has the youngest fleet among the top ten registries, with an average age of less than ten years.

CNCo currently has 12 of its 46 (26%) owned and operated fleet registered with the SRS. The steady growth of the SRS attests to the effective administration and "quality flag" strategy that the Maritime and Port Authority of Singapore (MPA) has followed since its establishment in 1966.

CNCo was presented with 5 MPA Green Ship Certificates by Mr Andrew Tan, Chief Executive MPA for *MV Foochow, MV Hanyang, MV Hoihow, MV Hunan* and *MV Hupeh*. The MPA Green Ship Programme encourages Singapore-flagged ships to reduce carbon dioxide and sulphur oxides (SOx) emissions.

Qualifying Singapore-flagged ships such as the "H" and "F" Class enjoy a reduction of Initial SRS Registration Fees and a rebate on the Annual Tonnage Tax: Ships that adopt energy efficient ship designs exceeding IMO's Energy Efficiency Design Index (EEDI) will enjoy 50% reduction of Initial Registration Fees and 20% rebate on Annual Tonnage Tax. This rewards companies such as CNCo for their investment, beyond legislative requirements, in order to reduce our environmental footprint and help move our sector towards being more sustainable and successful.

Left:
CNCo Managing Director
(third from the left)
receiving SRS Green Ship Certificates

In a challenging and competitive market, CNCo is always looking for innovative ways to manage our operating costs more efficiently and effectively.

recognised by the huge majority of countries as requiring both an urgent global consensus and more importantly, real action, to transform the world into a low-carbon economy. >99% of CNCo's GHG footprint is produced from the combustion of residual fossil fuels in internal combustion engines on ships. Because of this CNCo is committed to radical decarbonisation and helping to move the dial in this crucial area, notwithstanding that, even "because", shipping (and aviation) are excluded from the Kyoto Protocol/2015 Paris Agreement, by developing a viable alternative fuel technology that can be marinised and scaled up to be suitable for a high proportion of this sector.

We believe that Bio Fuel Oil (BFO) – only derived from waste product feedstock - such as is produced by our sister company *Argent Energy* (www.argentenergy.com) is a candidate with great potential to achieve this necessary decarbonisation goal, ultimately for the whole deep-sea sector, and we started worked with *Argent* on an R&D project funded by the John Swire & Sons SD Fund to prove the feasibility of this technology as a drop-in fuel in a marine context.

# Argent Energy Bio Fuel Oil pilot study (Phase 2) on a Swire B.Delta39 bulk carrier

Overview of the Project

Argent Energy has produced what it believes is a drop-in replacement B100 Bio Fuel Oil (BFO) to replace the IFO/HFO usually used in marine slow-speed 2-stroke diesel main engines (ME). Winterthur Gas and Diesel (Win G&D) took control of the 2-stroke division of Wärtsilä in July. The latter was the supplier at the time of the RTXflex-50 engines on CNCo's Swire B.Delta39 bulk carrier fleet.

The former conducted trials on a similar (RTX-6) engine at Winterthur, Switzerland for 57 hours prior to the takeover, and found the BFO to be satisfactory, but with some concerns. CNCo has subsequently worked with *Argent Energy* and Win G&D to conduct a small scale field test on Swire B.Delta39 bulk carrier *Wulin*.

This three-day test was planned to be a precursor to a full-scale 2,000 hours (90 days) test of the BFO in a ME, and once proven satisfactory, Win G&D would issue a formal "No Objection" letter, opening a materially significant market to *Argent's* product.

Argent Energy has produced what it believes is a drop-in replacement B100 Bio Fuel Oil to replace the IFO/ HFO usually used in marine slow-speed 2-stroke diesel main engines.



#### Phase 1:

The running of the Wärtsilä Test Bed RTX-6 engine in Winterthur on BFO for 57 hours: Completed successfully.

#### Phase 2:

The running of an RTflex50 Main Engine on a Swire B.Delta39 bulk carrier (MV Wulin) on BFO for three days (72 hours) at sea: Abandoned after 23 hours.

#### Phase 3:

The running of an RTflex50 Main Engine on a Swire B.Delta39 bulk carrier on BFO for three months (2,000 hours) at sea, to commence on successful completion of Phase 2: Success in Phase 3 will be the issue of a Letter of No Objection from Win G&D to use this fuel in their RTflex50 engines.

#### Phase 4:

The commercial scale-up of *Argent* B100 BFO for sale to all operators of relevant engines.

#### Phase 2 trial report

Argent supplied 40m3 of BFO to MV Wulin at a deviation port call in Rotterdam, with full cogniscence and welcome support of the charterer. During the Rotterdam port call, a large consignment of spare parts was delivered to the vessel and several of the parts were immediately fitted by the ship's engineers. One CNCo Ship Manager, two additional CNCo Chief Engineers plus a Win G&D Technician joined the vessel for the duration of the trial.

After departure for Las Palmas and once well clear of Ushant (out of the English Channel and taking a wide berth of the Bay of Biscay) the ME engine was changed over from diesel oil to BFO. There were some minor initial problems with filters blocking up but the change-over was otherwise seamless.

The engine ran for 23 hours, showing good performance (the fuel actually has a higher

energy output than "standard IFO") until a major fluctuation in the fuel pressure caused a gasket on the fuel line to burst. Once this was cleaned up, attempts to restart the ME were unsuccessful due to low fuel pressure.

A period of intense fault-finding followed in which all Injection Control Units (ICU) were changed. Some of the components showed major signs of wear. Two quick closing valves time, the vessel was drifting in calm seas with generators running on diesel oil.

had also failed which could have been the root cause for the pressure fluctuations. During this Once the engine was returned to service, the vessel proceeded to Las Palmas, initially on diesel oil but subsequently on HFO.

Upon arrival at Las Palmas, all remaining engine components were replaced, and the removed parts sent back to Win G&D for analysis. Initial feedback indicates significant wear on all ICUs, fuel pumps and injectors.

The BFO delivered in Rotterdam was pumped directly into the service tanks. It was decided early on that the BFO would not be run through the vessels purifiers as it would likely

be contaminated with HFO and damage the existing seals on the purifiers. Therefore, filtration was carried out by Argent prior to delivery.

Clogging of filters and the wear on components would suggest that the BFO still contained a large percentage of impurities. A sample was sent for assay and the results revealed that the BFO must indeed be purified prior to use, either on board in a purifier with compatible seals, or prior to delivery.

This is potentially an easy problem to overcome as efforts can be focused on methods of removing impurities by centrifuging or advance filtration and this will be the next step in this R&D programme in 2017.

The sample was also found to have high acid levels which would explain failure of springs in the quick closing valves. It was known that the BFO had a higher acid number than HFO but this could become even more acidic through natural degradation of this organic oil.

Clogging of filters and the wear on components would suggest that the BFO still contained a large percentage of impurities.







#### Other initiatives

All CNCo ships have Bilge and Garbage Management Plans. All the new vessels are fitted with Ballast Water Treatment Plants and all new engines are TIER II compliant for  $NO_x$  emissions. Our new Swire B.Delta39 bulk carriers also have an advanced incinerator and oily water separator plant.

#### **Energy consumption and emissions**

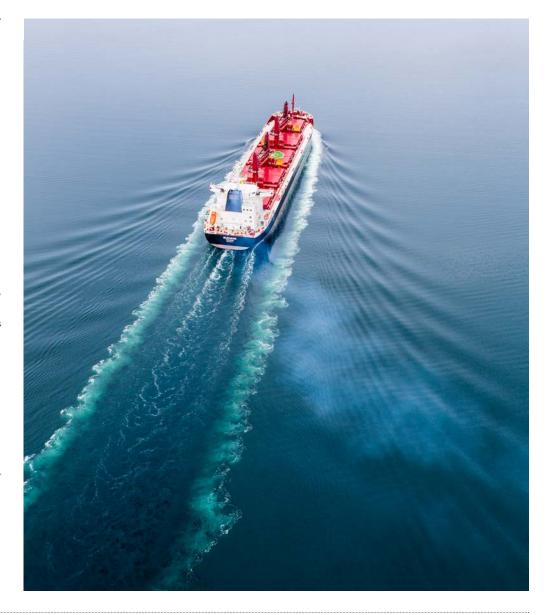
Emissions from combusting marine fossil fuels in internal combustion engines in 2016 at 1,144,774.54 tCO $_2$  represent 99.53% of our Scope 1 emissions (HFO/MGO/LO). Including MGO and LO, plus Scope 2 (from use of commercial electrical power) the total GHG emissions from our operations were 1,145,062 tCO $_2$ . This is a 56.5% increase on the prior year and compares to, and is linearly related to, our increase in the size of our fleet of 46%. Scope 2 emissions are immaterial in relation to our Scope 1 emissions (0.025%) and contributed 287.4 tCO $_2$  to the figure above.

Scope 3 emissions from shore and crew air travel contributed 5,128 tCO<sub>2</sub> which is a 6.5% decrease from 2015 – a result of economies of scale and better management – of a low contributor (0.45%) to total GHG footprint. A summary of all these figures are presented in the Environmental Summary (see page 72).

#### **Environmental training**

A module on energy efficiency awareness containing in-depth explanation of a Ship Energy Efficiency Management Plan (SEEMP) as well as all the measures is included in the SAC. CNCo provides training on the optimum use of the SEEMP to all Ship Managers and sea staff via computer based training, available on all our ships. We also provide our seafarers with various environmental awareness modules via our extensive Videotel<sup>TM</sup> collection. In addition to this training, monthly Health, Safety and Environment (HSE) meetings are held on all CNCo vessels where relevant environmental topics are raised and discussed.

CNCo provides training on the optimum use of the Ship Energy Efficiency Management Plan to all Ship Managers and sea staff via computer based training, available on all our ships.



Carbon / Environment

#### Responsibility in our supply chain

CNCo has in place a Responsible Cargo Carriage Policy (RCCP). We recognise the importance of conserving species diversity and we have a responsibility not to consume or facilitate trade in any flora or fauna or their produce that may threaten the sustainability of any species. In accordance with the RCCP: "We understand that research will be ongoing and the determination of good practice is a dynamic process and hence this policy will evolve over time", we enhanced the provisions of this policy in September 2016:

1 To include reference to "the Cartagena" Protocol on Biosafety (2000) to the United Nations Convention on Biological Diversity (CBD). In seeking to act responsibly, CNCo has determined that it will only carry flora and fauna cargo in full compliance with the CITES and CBD Conventions and their Annexes. Amendments and Protocols. Additionally we will seek to support the outcomes of the current development of an international legallybinding instrument under the UN Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of Areas Beyond National Jurisdiction (ABNJ)".

Note: ABNJ is now of increasing importance with respect to Marine Biodiversity, as IMO designates "Particularly Sensitive Sea Areas" (PSSAs) and CBD establishes Ecologically or Biologically Significant Marine Areas (EBSA) in Marine Areas Beyond National Jurisdiction (ABNJ) / in "The Area", i.e. area defined in UNCLOS as "the seabed & ocean floor beyond the limits of national jurisdiction".

"The Area" will become of increasing importance sooner than many may expect, as Marine Spatial Planning is developed to ensure harmonious use of the high seas ABNJ by potentially conflicting users. CNCo has been transiting many of these areas for many years (particularly in the Pacific Ocean, see below) and it is crucially important both for the public good and enlightened self-interest that we identify what harm we may do, and then ensure that we avoid doing this harm in these areas.

2 After discussions with the SSI and Interpol in Singapore as to how we could assist in stopping the trade in endangered or illegally trafficked species, CNCo signed up to the Buckingham Palace Declaration of the "United for Wildlife" International Taskforce on the Transportation of Illegal Wildlife Products, to prevent the illegal trafficking of endangered

wildlife species and wildlife products and now formally supports the United for Wildlife International Taskforce on the transportation of illegal wildlife products, recognising the devastating impact of illegal wildlife trade, and will not knowingly facilitate or tolerate the carriage of illegal wildlife products, or game or hunting trophies (including legally hunted or legally acquired trophies).

Further, CNCo will notify relevant law enforcement authorities of cargoes suspected of containing illegal wildlife and their products.

We will also support the development of mechanisms by the World Customs Organisation and national customs authorities to aid the detection and prevention of trade in illegal wildlife and their products.



We recognise the importance of conserving species diversity and we have a responsibility not to consume or facilitate trade in any flora or fauna or their produce that may threaten the sustainability of any species.

Carbon / Environment 41

#### **Industry leadership**

CNCo is a founding member and an active participant of the Sustainable Shipping Initiative (SSI). The SSI is a coalition of shipping leaders from around the world, formed to take practical steps to tackle some of the sector's greatest opportunities and challenges. The group is working to achieve a vision "of an industry in which sustainability equals success".

By being an active member of the SSI, we work alongside our competitors, regulators, suppliers, financial institutions, etc, united by the common goal to show that collaborative action is possible, and to mobilise support across the whole shipping supply chain from factory gate to consumer, demonstrating that shipping can contribute to and (will only) thrive by operating in a sustainable manner.

Going in lockstep with the addition of our new tonnage, is the sustainable retirement of tonnage that is being replaced as it has reached the end of its economic life. The most environmentally efficient solution to this retirement is the responsible and environmentally sound recycling of ships, through which over 99% of the ship by weight is reused, either as is or in re-constituted form. CNCo is the lead company in the SSI on the Sustainable Ship Recycling Working Group.

A significant success during the year was our sponsorship of a second Roundtable on Sustainable Ship Recycling immediately post an industry Sustainable Ship Recycling Conference in Dubai. We had around 30 attendees, including all Hong Kong Convention (HKC) certified compliant Ship Recycling Facilities (SRF) in India, representatives from the Danish, French, German and Japanese

Ship-owners' Associations, four IACS Class Societies, five SSI members, the relevant EU Directorate, and the NGO Shipbreaking Platform. All the attendees made commitments to a) press their relevant governments to ratify the HKC and/or b) to maintain communication to help raise standards in the industry.

During the year, we oversaw the successful sustainable recycling (zero injuries, zero pollution incidents, increased level of HKC compliance and social commitment at the SRF) of two of our ships: MV Changsha and MV Chengtu, at an HKC compliant SRF in India. All four SRF who bid for this work fully accepted our requirement for external independent auditing, visits by our GM for Sustainability and the embedding of a threeman HKC Compliance Monitoring Team at the SRF during every minute when demolishing work was taking place, (all at our additional

cost) to ensure that capacity building continued and that standards and best practices were maintained.

It is worthy of note that the SRF willingly accepted all third-party advice on improving operations from all three parties and that all three parties were empowered to stop any/all work if it was seen that personnel were in danger of injury, or that there as a risk of an environmental pollution event.

This is especially noteworthy as with the exchange of the bill of sale, CNCo, as prior owners, no longer has any liability or responsibility for the ship. We believe this is a significant paradigm shift in any sector, post-sale of an asset.



CNCo is a founding member and an active participant of the Sustainable Shipping Initiative (SSI). The SSI is a coalition of shipping leaders from around the world, formed to take practical steps to tackle some of the sector's greatest opportunities and challenges. Carbon / Environment 42

#### Eco-office initiatives and green guidelines

CNCo's Headquarters in Singapore has been Eco-Office certified by the Singapore Environment Council since 2010. Our employees have embraced Eco-Office practices together with the Reduce-Reuse-Recycle approach to environmental sustainability.

We follow a set of Swire group Green Guidelines which are applied in all of our offices. They cover initiatives such as reducing electricity usage, using only FSC/ PEFC certified paper, practicing double-sided printing, more efficient use of air-conditioning/ heating, and following good recycling practices to further reduce our carbon footprint wherever possible, among others. In 2016, we were awarded the Eco-Office certification for 2016-2019 scoring 93% for our environmental practices.

We continue to educate and engage our employees in environmental activities ranging from corporate volunteering for conservation and environmental causes (see Communities section of the report for more information), partnering with NGOs/NPOs and organising Lunch and Learn seminars in Singapore office.

We continue to monitor our recycling efforts and improving our sustainability practices. In 2016, we recycled 2,950kg of paper. We are also actively working on other CNCo office embedding sustainability into their operations.

Over the years we have implemented the following initiatives:

- Using recycled and FSC or PEFC paper;
- Switching to lower weight 80gsm paper;
- Using soy/vegetable based ink for printing;
- Encouraging staff to use projectors instead of printing multiple copies of documents/using e-forms;
- Recycling paper/plastic/glass waste;
- Disposing of electronic equipment by depositing them in the e-waste bin;
- Reducing electricity consumption/avoiding using lights in the meeting rooms with sufficient sunlight/switching off monitors at night;
- Switching to the use of rechargeable batteries (in PC mice, keyboards and other uses);
- Choosing sustainable materials/equipment with Green Mark/Green label/Green Guard certification or Singapore Green building products for the office;
- Holding environmental activities such as lunch time seminars/beach clean ups, etc.

We encourage all CNCo offices to do their part by implementing as many of those initiatives. The basic steps to follow are:

- Switch off lights in areas that are not being used;
- Switch off your monitor and computer before leaving the office always!
- Reuse paper that has only been printed on one side (non-confidential only);
- Avoid printing at all if not necessary;
- Separate waste for recycling where possible and PLEASE put it in the right bin;
- Use durable utensils and crockery instead of disposable ones, avoid using and storing styrofoam and plastic utensils.

#### CNCo runs sustainable offices

CNCo is committed to reducing any negative impacts that our business has on the environment as well as monitoring performance and identifying areas for improvement. The area of our operations where our shore-based employees can make the greatest difference is the office environment.

In Singapore, CNCo has been working with the Singapore Environmental Council (SEC) since 2012 on getting our office to improve environmental practices by undergoing biennial Eco-Office certification. Through its Eco-Office certification scheme, SEC strives to incorporate best sustainable practices into the daily lives of office workers and inspire and educate them to do their part to preserve/enhance the environment.

This process requires gathering data and reducing electricity, water, paper usage and recycling as well as providing environmental education to employees.



# **Organisational Profile & Governance**

The China Navigation Company Pte Ltd (CNCo) is the wholly owned deep-sea ship-owning and operating arm – and oldest operational entity – of the Swire group.



#### Organisational profile

CNCo was founded in 1872 to operate Mississippi-style paddle-steamers on China's Yangtze River. Since then the company has expanded globally, while its primary operational focus remains in the Asia-Pacific region. CNCo is one of the older independent British shipping companies still managing its own tonnage in-house.

The China Navigation Company Pte Ltd is a Singapore registered company and is a wholly owned subsidiary of The China Navigation Company Limited, registered in London. Neither company is publicly quoted on any stock exchange. As can be seen from the Organisational and Operational Boundaries diagram (see page 10), The China Navigation Company Limited is also the parent company for the Swire Shipping agency companies in Australia, China, Hong Kong, New Caledonia, New Zealand, and Taiwan. It has 50% shares in Swire CTM Bulk Logistics Limited, a joint venture with C Transport Maritime SAM registered in Monaco, a 25% share in Mandarin Shipping Limited registered in Hong Kong and is a joint managing shareholder, with Ahrenkiel Shipping, of Quadrant Pacific Ltd.

The Company operates a global network of multipurpose liner, dry bulk and bulk logistics services through its three business divisions: Swire Bulk, Swire Bulk Logistics and Swire Shipping.

Swire Shipping operates liner trades in Australia, New Zealand, Asia, North America and the island nations of the South Pacific, in addition to providing services to India, the Middle-East and Europe. Swire Shipping operates a versatile fleet of multipurpose ships capable of carrying containerised, refrigerated, project, breakbulk and heavy-lift cargoes.

Swire Bulk operates from eight locations: Beijing, London, Melbourne, Miami, San Francisco, Shanghai, Singapore and Tokyo, focusing on the global handysize market.

Despite the challenging trading conditions, CNCo takes a long term view of growing its business and has invested in a newbuilding programme to renew and expand its fleet. At the end of 2016, Swire Bulk owned 24 modern Swire B.Delta39 handysized bulk carriers and four Imabari38 loggers, and had 3 "Green Dolphin38" handysized bulk carriers on order for delivery in 2017.

CNCo operates a global network of multipurpose liner, dry bulk and bulk logistics services through its three business divisions: Swire Bulk, Swire Bulk Logistics and Swire Shipping.

#### CNCo's shipping coverage



Swire Bulk Logistics is the industrial shipping division of CNCo. Deploying purpose-built vessels, Swire Bulk Logistics specialises in the handling of dry bulk materials at sea, predominantly through floating transhipment vessels where there is insufficient existing infrastructure locally and intermediate supply chain solutions, to provide value added services for our customers in the Asia Pacific region. Working together with Swire Bulk and Swire Shipping, the division is able to offer horizontally integrated answers and a global network of experience to provide innovative and sustainable marine supply chain solutions for our customers through long-term partnerships.

#### **Business performance**

CNCo's fleet continued to grow in 2016 with Swire Shipping operating 25 owned and four chartered vessels by the end of the year. Swire Bulk had sixty vessels on the water as at 31 December 2016: 28 owned and 32 time-chartered-in. A significant event for Swire Bulk Logistics at the end of the year was the launch and delivery of its purpose-built cement carrier, MV Aotearoa Chief. Specific business divisions' achievements are as follows:

#### **Swire Shipping**

2016 has been a busy and positive year for Swire Shipping. In June we launched our brand new Pacific Islands service which has been highly commended by both long term and new customers. We were delighted and honoured to be awarded the "Seatrade Asia Award for Best Owner/Operator" in 2016 despite some tough competition from several large global carriers.

Throughout the year we continued to enhance our network by increasing the frequency and improving the port coverage on several services. The company has a strong brand in New Caledonia with Swire Shipping Agencies there and we have thus worked to replicate that in Fiji and Samoa, rather than continue to operate through third-party agents in those countries. In December, we proudly welcomed 75 staff in Fiji (official transition of ownership will take place in 2017), and five staff in Samoa into the CNCo family as we established our own branch offices in those countries. This expansion will greatly strengthen our customerfacing presence in the Pacific Islands.





CNCo's fleet continued to grow in 2016 with Swire Shipping operating 25 owned and four chartered vessels by the end of the year.

In Apia, Swire Shipping had two agents, one for Polynesia Line and one for Swire Shipping's Asia trades. In 2016, CNCo was registered in Samoa to operate in its own right and a new branch office was established. Polynesia Line has been servicing Samoa for 50 years and CNCo through various other trades for just short of this period. The establishment of a Swire Shipping branch in Apia is a further demonstration of the long term commitment to the Samoan community. At the end of December 2016 the office went live and is now handling the three CNCo vessel port calls per month.

#### **Swire Bulk**

Swire Bulk has also continued to grow and expand its services in 2016. The specific highlights include:

#### Vessels/Fleet

- Concluded the new building programme with the final deliveries of the Swire B.Delta39's and the Imabari38 "T Class" vessels in Japan;
- Secured three "Green Dolphin38" handysize ships for delivery in February-April 2017;
- The Atlantic fleet grew from seven to 18 vessels.

#### People/places

- Our office staff in Australia increased to five people, based in Melbourne, and we have two employees in our new Miami office. This allows us to be closer to our customers and offer them specialised local services:
- Swire Bulk also grew in our London, Singapore, Australia and San Francisco offices to support the fleet growth taking the overall number of Swire Bulk global staff to 36;
- We employed an Indian Ocean/PG Manager to grow the Swire Bulk business in this area;
- We also employed a Global Operations Manager to increase our operational efficiencies and services to our customers.

#### Customer development

- We continued to grow our cargo book and are very pleased to have a number of repeat customers under Contracts of Affreightment (CoA) who enjoy our efficient and timely service and the fact that we perform well consistently;
- A bulk semi-liner service commenced from Asia into Australia, New Zealand and the Pacific Islands:
- Swire Bulk carried 20% of the New Zealand log exports (in bulk);
- We started a parcel service into Australia offering existing and new customers the opportunity to ship in 5,000/38,000 lot sizes and increasing cross divisional relationships across the operating divisions.

## Swire Bulk expands Atlantic presence with new office in Miami

Swire Bulk opened an US Atlantic desk in the City of Miami, Florida, United States, on 25 January. This new desk, headed by Ronald Cellucci, Swire Bulk's newly appointed Regional Office Manager for Atlantic North America, is located at the Brickell City Centre.

The Miami desk will be working closely with our London and San Francisco offices to grow Swire Bulk's dry bulk handy business in North and South America.

By the end of 2016, Swire Bulk will own 24 modern Swire B.Delta39 handysized bulk carriers and four Imabari38 loggers.

With the opening of the Miami office, Swire Bulk now operates from eight locations - Singapore, Tokyo, Melbourne, San Francisco, Shanghai, Beijing, London and Miami.



#### **Swire Bulk Logistics**

Swire Bulk Logistics built and launched its new purpose-built cement carrier, *MV Aotearoa Chief* in Auckland, New Zealand in 2016. The deployment of *MV Aotearoa Chief* was a result of a long-term partnership between CNCo and Golden Bay Cement, a division of Fletcher Building Limited, to supply, manage and operate the cement carrying vessel.

MV Aotearoa Chief was built in China's Jinling Shipyard. The vessel is 125 metres in length (limited by berth lengths and available turning circles) and has a carrying capacity of 9,000 tonnes, the equivalent of over 350 road tankers being taken off the roads each voyage, with commensurate savings in GHG,  $\mathrm{SO}_{x}$ ,  $\mathrm{NO}_{x}$  and PM emissions.

Incorporated into the design and build is the latest technology in electronic engine management, providing optimum fuel efficiency and low emissions.

The vessel is scheduled to make over 80 voyages each year from Golden Bay Cement's plant at Portland near Whangarei to the company's port-based storage facilities around New Zealand.

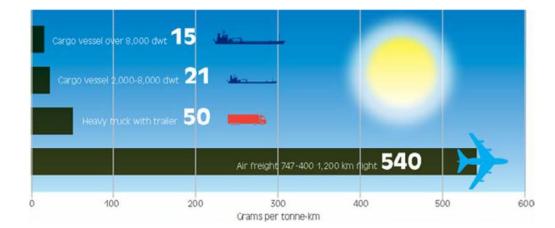
Flagged in New Zealand, Aotearoa Chief has a crew of 14 New Zealand seafarers. As part of CNCo's commitment to service and safety excellence, an electronic simulator replicating the vessel's characteristics has been installed at the New Zealand Maritime College in Auckland to train the crew in various simulated environments for vessel handling and safety procedures.

At MBSS, in which we have a 25.68% stake: 60 dockings or 35% of the fleet were completed; the highest in a single year in MBSS's history – 42 dockings were completed in the first 26 weeks of the year before the main annual holidays commenced. The docking budget was maintained throughout 2016. The average days in dock was reduced by 22% y-o-y to 45 days. The average tug and barge sets' off hire per month due to the docking program was 30% below the KPI. The average sets off-hire due to breakdowns was 15% below the internal KPI. The technical availability/uptime of the fleet (excluding statutory docking) was 96%.

A highly successful conversion was undertaken on Floating Crane (FC ) Abby from sea water to fresh water cooling resulting in material R&M cost savings and the delivery of the first environmentally friendly FC in the fleet.

The design, drawing approvals, heat sink computations and execution was undertaken solely by MBSS's own internal asset management personnel. One vessel's crane column suffered significant cracking and the design, planning approval and repair was achieved in seven days with a cost saving of USD 150,000.

Our internal fleet review has provided a clear roadmap of the status of fleet renewal and reassessed the individual ships' useful life for the business. A business-wide Risk Assessment programme has been executed and application and implementation of the necessary risk mitigation is ongoing.



Our internal fleet review has provided a clear roadmap of the status of fleet renewal and reassessed the individual ship's useful life for the business.

**Left:** Ships are CO<sub>2</sub> efficient - the most energy efficient on a tonne-km basis Comparison of CO<sub>2</sub> emissions between different transport modes

*Diagram source:* Shipping, World Trade and the Reduction of CO2 emissions. International Chamber of Shipping



Above: Aotearoa Chief in Portland. Photo credit: Martin Budz

#### Governance

The parent company's Board of Directors is the highest level governance and oversight body and sets the strategy for its subsidiary companies. The Chairman of the Parent Company Board of Directors is Mr. B. N. Swire. Since the 2015 report our Technical Fleet Director retired from the Board, and the company after an impressive 40 years with the group and the number of non-executive, independent directors was doubled to four. The CNCo Board of Directors at 31 December 2016 thus comprised nine members of whom four were INEDs.

CNCo has a high-level Sustainable
Development (SD) Steering Group comprising
the Managing Director, the Fleet Quality
Assurance Manager and Designated Person
Ashore (DPA), the Global Operations Manager
for Swire Shipping (who is also head of the
Shore-side Safety Committee) and the GM for
SD. This group meets quarterly and reviews all
strategic aspects of SD, in particular Health,
Safety, Environment, Social and Governance
issues, with a view to managing all operations
in accordance with our SD Policy.

At the operational level, there are Sustainability Working Groups, comprising cross-functional representatives who meet quarterly in Singapore and in the main regional offices of Sydney and Auckland. They seek to operationalise the guidance and strategy set by the SD Steering Group.

The HR Welfare Group has oversight of the social/welfare/people strategy areas.

The General Manager of Sustainable
Development directly reports to the Managing
Director and is a member of the Executive
Committee (ExCom), allowing him to provide
SD input at a strategic level at an early stage of
new project deliberation and planning.

The Designated Person Ashore (DPA) has been an internationally legally required position since 1993, peculiar to the shipping industry under the IMO International Ship Management ("ISM") Code which provides an international standard for the safe management and operation of ships and for pollution prevention.

The DPA role was instituted in the marine industry to ensure that one named person has direct access to the highest level of management if required. This legal responsibility and authority of the designated person or persons includes monitoring the safety and pollution prevention aspects of the operation of each ship and ensuring that adequate resources and shore-based support are applied, as required.

The shareholders are directly represented on the CNCo Board of Directors and use this platform to provide governance direction. While CNCo has no direct public shareholders, it manages and operates all its businesses in compliance with both the John Swire & Sons (UK)'s, and CNCo's Corporate Code of Conduct.



CNCo is fully aware of and understands the concerns of global governments and the public about climate change risks and recognises that the use of fossil fuels to meet the world's energy needs contribute to the rising concentration of greenhouse gases in the atmosphere, which would result in increases in global temperatures.

This compliance is in line with our belief that it is imperative to act with probity, transparency and accountability in order to achieve our long-term objectives. Our Board is committed to maintaining and developing robust corporate governance practices. At their behest, the CNCo management regularly review the operating practices and the Enterprise Risk Management framework that ensures:

- satisfactory and sustainable returns to its parent company;
- the interests of stakeholders are safeguarded;
- overall short and long-term business risk is understood and managed appropriately;
- the delivery of high-quality services; and
- the highest standards of ethics are maintained by our employees in all dealings.

CNCo is fully aware of and understands the concerns of global governments and the public about climate change risks and recognises that the use of fossil fuels to meet the world's energy needs contribute to the rising concentration of greenhouse gases in the atmosphere, which would result in increases in global temperatures. We recognise the dangers of inaction and we are committed to reducing CNCo's environmental impact. There is a growing demand for climate-related information by investors, lenders, insurers and other stakeholders.

At the end of 2016 the Task Force on Climaterelated Financial Disclosures (TCFD) (see https://www.fsb-tcfd.org) issued its interim findings on how voluntary, consistent climaterelated financial risk disclosures should be made by companies to provide information to investors, lenders, insurers, and other stakeholders. The Task Force considered the physical, liability and transition risks associated with climate change and what constitutes effective financial disclosures across industries. The work and recommendations of the Task Force will help firms understand what financial markets want from disclosure in order to measure and respond to climate change risks, and encourage firms to align their disclosures with investors' needs.

While the recommendations of the TCFD primarily relate to listed entities, as we transit into a lower-carbon economy, we are, as good business practice, also currently assessing climate-related risks and opportunities under three categories (Physical climate parameters, Regulations and other climate-related parameters) for CNCo. This expected internal report on climate-related financial disclosures will help CNCo's stakeholders, including its Board of Directors, better evaluate the risks that are most pertinent to our business and develop adaptation and mitigation plans, plus determine potential opportunities for CNCo.

# Anti-corruption, anti-trust and monopoly practices

The company has Zero tolerance towards corruption and anti-competitive behaviour. CNCo's Corporate Code of Conduct (CoC) is a comprehensive governance document that defines how employees must behave in the course of all of their duties. Our anti-corruption and anti-trust governance processes are also covered within this Code.

The CoC, together with internal controls, sets a strong foundation to prevent any corruption and anti-competitive/anti-trust behaviours. The company carries out training for all employees within the CNCo group, testing their understanding of those principles and how they apply to the daily work/duties. With the support of John Swire & Sons Ltd we produced and launched a video explaining the CoC in 2015 to better engage employees.

Any and all incidents of potential or actual noncompliance are reported to the CNCo Audit Committee and investigated. In 2016, as in the previous year, CNCo was not involved in any legal actions for anti-competitive behaviour, anti-trust, or monopoly practices. In late 2015 CNCo carried out anti-trust training based on the level of exposure among our personnel and adopted a stand-alone Anti-trust Policy at the beginning of 2016 to which all employees are strictly required to adhere to at all times. Online anti-trust training for employees was launched for all relevant personnel in 2016.

One of the challenges that CNCo, like many other shipping companies globally, faces is the expectation in some ports for "benefits" for the processing of work that should be undertaken as a matter of course. CNCo has been working hard for over two years now to eliminate these payment demands for "facilitation payments" completely and is now seeing material success. Facilitation payments risk is covered under CNCo's Business Unit Risk Register. All ships are required to report all such requests and such reports are reviewed at the quarterly CNCo Risk Review Committee and by the internal and external Audit Committee.

CNCo has been a member of the Maritime Anti-Corruption Network (MACN) since 2015 to contribute towards the maritime industry's vision and aim of being free of corruption. MACN works closely with key stakeholders, including governments and international organisations, to identify and mitigate not only the symptoms, but also the root causes of corruption in the maritime industry.

In 2016, MACN had notable successes in the following locations:

 Suez Canal - great successes reported from participating member companies.

Next steps: Encourage more member participation and expand the initiative to stakeholders outside of MACN, including

government engagement.

- Argentina MACN is successful in spearheading changes on the ground as members note operational improvements.

  Next steps: We await the legislative changes that MACN and local partner Governance Latam have driven on vessels' holds' cleanliness to be approved in June 2017. A launch event is being planned in Buenos Aires in early July 2017. A new working group is formed to support implementation phase and two new projects regarding customs and garbage.
- Members revisited the work done in India and China.

Next steps: The India working group will focus on gaining official commitment from local government stakeholders and agree on formalise an action plan for two ports. The China working group will draft a concept note with focus on corruption risks with letter of indemnity and scope the action plan further.

- In Thailand, MACN will focus on involving local member representation and kick off face-to-face sessions to share best practices and map issues.
- MACN's engagement in Indonesia continues successfully with the recent completion of Phase 2 of the project sponsored by the UK Foreign & Commonwealth Office.

Next steps: MACN will seek continued support for its actions with the President's office.

Continue to have frequent meetings with Chambers of Commerce located in Jakarta was highlighted and the vessel clearance process is the next step in the project. Members' best practices were also shared and MACN Secretariat will assess possibilities of creating more tools for this CA.

• In **Nigeria**, the integrity training for government officials continues.

Next steps: MACN Secretariat will ask for input from members on current issues and share the outcome with the membership and local government stakeholders. MACN Secretariat will also update the country brief with links to the new SOP and grievance mechanism.

More about MACN can be found at www.maritime-acn.org

# Governance policies and management systems

CNCo's Anti-bribery Policy is set out in our Code of Conduct (CoC). In August 2016 CNCo issued a revised CoC to keep it aligned with the John Swire & Sons Code of Conduct. CNCo also issued a new suite of Anti-Trust Policies and procedures and conducted company-wide training for relevant managers.

In 2016 CNCo introduced compulsory training modules for all shore-based staff, through the online training platform. Training covers the CoC, UK Bribery Act (2010), Anti-trust and Preventing Harassment in the workplace. All modules require employees to pass the test demonstrating their understanding of the regulations.

In 2016 CNCo introduced compulsory training modules for all shore-based staff, through the online training platform.



#### **Thrive Strategy**

Sustainability for the companies within the Swire Pacific Limited and John Swire & Sons groups has always been an issue of greatest importance. Today, this is even more pressing than ever before as our planet faces very serious environmental challenges. This is why the Swire group introduced "Thrive" as the approach that will help ensure that our business's decisions are guided and underpinned by the basic principles of environmental sustainability.

Our *Thrive* strategy lists six key areas where we all have both the opportunity and the responsibility to play our part in protecting our planet's natural systems and resources, while simultaneously making us more efficient and resilient businesses that are set up to continue to succeed in the long-term.

The strategy is also a way to align the priorities of all companies within the groups to focus on clear, tangible, metric-driven goals in order to achieve the greatest positive impact.

All group companies are now working to achieve time-bound targets due for delivery by 2030 with the initial emphasis on 2020 'milestones' for each area of focus. The "Carbon", "Water" and "Waste" areas on the right of the diagram are the first for which the businesses will be setting metrics. Those for Biodiversity and Climate Resilience will then follow.

CNCo has developed its own slightly expanded Sustainable Development strategy based on the *Thrive* concept that covers all six focus areas mentioned above, together with the addition of others which are material to our own Company. This strategy was introduced in late 2016/early 2017 and is presented on page 65.



Swire has been in business for the past 200 years. Our business has stood the test of time because we have always looked ahead and taken the right decisions for the long-term. The world is facing some of the most pressing environmental challenges of our time. We are committed to being part of the solution. So, when we make decisions for the long term, we consider our impact on the natural world. We depend on it and have the desire to enrich it. We will help create a resilient environment that provides for our future.

Because when we help the world in which we operate to thrive, so do we.

#### The six focus areas are to:

- Pursue a long-term goal of radical decarbonisation.
- Turn today's waste into tomorrow's resource.
- Use and manage water responsibly.
- Source materials sustainably.
- Protect and enhance biodiversity.
- Build lasting climate resilience.

#### **Sustainable Development Goals**

In September 2015, more than 190 countries signed up to the UN Sustainable Development Goals (SDGs), which set out a vision for ending poverty, hunger, inequality and protecting the Earth's natural resources by 2030. The UN explicitly acknowledged that the achievement of these SDGs is simply not possible without the involvement of the private sector.

Our establishment of clear, tangible, measurable goals under our *Thrive* strategy, and then tracking our progress will allow us to positively contribute towards achieving the SDGs and hence playing a crucial role in helping to attain global Sustainability.

For more information on SDGs please visit: http://bit.ly/1VXvanH

The areas where CNCo can make the most contribution to the achievement of the SDGs and those which are closely related to our business are included in the Annex on page 67.

Our establishment of clear, tangible, measurable goals under our *Thrive* strategy, and then tracking our progress will allow us to positively contribute towards achieving the SDGs and hence playing a crucial role in helping to attain global sustainability.



Above: Mountains in Papua New Guinea

#### Supply chain management

With the rapid growth of business and the fleet size, CNCo is now operating over 100 vessels worldwide. In 2014, CNCo formed a Procurement Department in order to cope with the supply chain related risks and drive business improvement.

In 2015, the team introduced the SAP ERP system which established the critical foundation for the procurement process and supplier data management. In January 2016, CNCo launched the group bunker procurement change programme in order to achieve tangible savings.

The programme covered deployment of supplier performance platform, establishing supplier relationship scheme and bunkering process combined with the supplier auditing programme.

CNCo's operating spend by the end of 2018 is expected to be approximately USD 800 million. Hence, procurement is recognised by the organisation as a key functional area which contributes to achievement of corporate strategic objectives.

The following key objectives are identified as the highest priority under our procurement strategy for 2017:

- 1 Improving buyer experience and internal customer satisfaction;
- 2 Improving supplier relationships.

Key projects have commenced to create business opportunities, such as: Valued Supplier on-boarding project, Centralised Contract Management and Vendor Consolidation. Additionally, in light of the upcoming bunker regulations and the need to manage marine fuel environment holistically, CNCo will work on introducing a robust bunker procurement end-to-end supply chain process and enhanced data analytics capability.

CNCo works with a thousand of diverse general suppliers globally, with the majority located in Australia, China, New Zealand, PNG and Singapore. Together with our key internal stakeholders, the Procurement Department aims to build stronger rapport with suppliers. Currently, CNCo's Procurement Department is collaborating with 20 strategic suppliers

on the Continuous Improvement Programme (CIP) which contributes significant value to the sustainable procurement.

CNCo aims to promote best procurement practises and nurture our talent by participating in industrial professional networks. CNCo's Group Procurement Manager is a council member of the International Marine Purchasing Association (IMPA) since 2014 and was appointed as Honorary Member of Singapore Association of Ship Suppliers & Services (SASS) and an Associate of the globally recognised procurement organisation – Chartered Institute of Procurement and Supply (CIPS).

CNCo Supplier Code of Conduct can be found on our website http://bit.ly/2fyQGTW

#### CNCo's main supply chain management categories include:

- 1 Bunker fuel supply chain
- 2 Operations, e.g. services required at port and terminals
- 3 Logistics, e.g. container movement related services
- 4 Ship Management, e.g. spare parts and maintenance
- 5 IT and Corporate related services



Above: Highland Chief. Photo credit: Newcrest Mining Limited

#### **Awards**

In 2016 Swire Shipping won the Seatrade Asia Maritime "Ship Owner/Operator" Award. And in the same month, CNCo won the SEC-MPA Singapore Environmental Achievement Award (SEEA) 2016 (maritime category).

### We are "Ship owner of the year"!

The winners of the 9th Seatrade Maritime Awards Asia were unveiled and honoured across 15 award categories at the Shangri-La Hotel, Singapore, on 15 July. Highly recognised and acknowledged as one of the region's most prestigious industry awards, the awards gala dinner was attended by over 400 leading industry professionals and guests.

Among the 49 finalists in the competitive categories, 11 well-deserving winners were chosen by an independent panel of senior industry figures for their remarkable achievements despite the stiff competition and challenges within the maritime industry.

We are very proud that Swire Shipping won the coveted "Ship Owner/Operator" Award!

The award is judged on key criteria such as network and service development, commitment to the environment, fleet utilisation, customer service and schedule reliability. We were pitted against strong contenders – APL, Pacific Basin, Wan Hai and Berge Bulk.

This is the third time we have won the award and the industry recognition is indeed a strong testament to our successful multipurpose liner service.





#### CNCo wins environmental achievement award

We are extremely proud to be the merit winner of the SEC-MPA Singapore Environmental Achievement Award (SEEA) 2016 (maritime category).

This is the inaugural year that the Singapore Environment Council (SEC) has made an SEEA Award in the maritime category, sponsored by the Maritime and Port Authority of Singapore (MPA). The award was presented by the Singapore Minister for the Environment and Water Resources, Mr Masagos Zulkifli, Mr Andrew Tan, Chief Executive MPA and Ms Isabella Loh, Chairman of the Singapore Environment Council.

#### The judges cited CNCo's major recent green initiatives/ achievements:

- Investment in eco-friendly vessel designs which deliver reduced fuel consumption and reduced greenhouse gas (GHG) emissions;
- Working closely with its sea staff on improving operational efficiencies and reducing bunker consumption on board;
- Investment in trim optimisation, slide valves and slow steaming nozzles for optimising vessel speed and fuel consumption and reduction of NOx emissions;
- Producing 2,000 "Green Containers", resulting in the elimination of 44 tonnes of volatile organic compound (VOC) emissions;
- Being a founding member of the Sustainable Shipping Initiative, a coalition of global leaders taking steps to help the whole shipping value chain make long-term sustainable plans for future success.

"This external recognition by the major environmental and marine regulatory bodies in Singapore is a strong endorsement that we are committed to doing our share (or more) to enhance our sustainability on an ongoing basis and to leave the environment in a better condition than that which we found it."

#### **Simon Bennett**

General Manager, Sustainable Development, CNCo

Abbreviations 56

AMSA	Australian Marine Safety Authority
ASA	Australian Shipping Association
ASSM	Anscor Swire Ship Management (manning agency)
AVL	Approved Vendor List
BFO	Bio Fuel Oil
ВНР	Brake Horse Power
CAD	Competence and Assurance Department
CAR	Audit-driven Corrective Action Report
CARB	California Air Resources Board
CBA	Collective Bargaining Agreement
CCoC	Corporate Code of Conduct
CFC	Chlorofluorocarbon/s
CNCo	The China Navigation Company Pte Ltd
CoC	Certificate of Competency
CSR	Corporate Social Responsibility
CCBA	Climate, Community and Biodiversity Alliance
CP	Corporate Philanthropy/pic
DCC	Australian government: Department of Climate Change
DECC	UK government: Department of Energy and Climate Change
DEFRA	UK government: Department for Environment, Food and Rural Affairs
DP	Dynamic Positioning
DPA	ISM Code: Designated Person Ashore
DPI	Deficiencies per Port State Inspection
E&P	Exploration and Production
ECA	Emission Control Area
EEOI	Energy Efficiency Operational Index
EPA	US government: Environmental Protection Agency
ESI	Endangered Species International
ETS	Emission Trading Scheme
FOE	Fleet Operational Efficiency

GEDO	Australian government DCC Greenhouse and Energy Data Officer
GHG	Greenhouse Gas/es
GJ (unit)	Giga-Joule, 1 billion joules of energy
GRI	Global Reporting Initiative
H <sub>2</sub>	Hydrogen
HCFC	Hydrochlorofluorocarbon/s
HCV	High Conservation Value
HFO	Heavy Fuel Oil – a residual fossil fuel
HHV	Higher Heating Value, also known as gross calorific value, of a fuel is defined as the amount of heat released by combusting a specified quantity and returning the temperature of the combustion products to 150°C. LHV assumes all the water component is in liquid state at the end of combustion
HKC	Hong Kong Convention for Safe and Responsible Recycling of Ships (2009)
HOF	Head Office (in Singapore)
HSE	Health, Safety and the Environment
HSSE	Health, Safety, Security and the Environment
ICAO	Inter Civil Aviation Organisation
ICS	International Chamber of Shipping
IEA	International Energy Agency (UN)
IFO	Intermediate Fuel Oil - residual fuel. Usually 180 or 380 CST viscosity See http://intertek.ch/schwerol
IHM	Inventory of Hazardous Material, per the HK Ship Recycling Convention
ILO	(UN) International Labour Organisation
IMO	(UN) International Maritime Organisation
INED	Independent Executive Director
ISM	International Management Code for the Safe Operation of Ships and for Pollution Prevention, (International Safety Management (ISM) Code) as chapter XI of SOLAS
IUCN	International Union for Conservation of Nature and Natural Resources
KBA	Key Biodiversity Area
KPI	Key Performance Indicator

Abbreviations 57

kW hr (unit)	Kilo Watt hour, is a unit of energy equal to 1,000 Watt hours or 3.6 mega Joules
LHV	Lower Heating Value, also known as net calorific value, of a fuel is defined as the amount of heat released by combusting a specified quantity and returning the temperature of the combustion products to 150°C. LHV assumes all the water component is in vapour state at the end of combustion
LMS	Learning Management System
LO	Lubricating Oil
LTI	Lost Time Injury
LTIFR	Lost Time Injury Frequency Rate
MARPOL	IMO International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 and later
MCA	(UK) Maritime and Coastguard Agency
MDO	Marine Diesel Oil – a distillate fuel
MGO	Marine Gas Oil – a distillate fuel (higher fraction than MDO)
MHE	Material Hazardous to the Environment
MLC	ILO Maritime Labour Convention, 2006
MPA	Maritime and Port Authority of Singapore
MSA	UK: Modern Slavery Act (2015)
MTC	Medical Treatment Case
NGER	Australian National Greenhouse Gas and Energy Reporting Act
NI	Nautical Institute
NO <sub>x</sub>	Oxides of Nitrogen
OFW	Overseas Filipino Workers
OPEC	Organisation of Petroleum Exporting Countries
PEU	Performance Evaluation Reports
PM	Particulate Matter
PO	Purchase Order/s
POEA	Philippines Overseas Employment Agency
PSCI	Port State Inspection Compliance Index
PSI	Port State Inspection
QHSE	Quality, Health, Safety and Environment
REDD	Reduced Emissions from avoided Deforestation and forest Degradation

RFQ Request For a Quote RWC Restricted Work Case	
RWC Restricted Work Case	2
	-
SAC Safety Awareness Co	purse
SD Sustainable Developr	ment
SDG Sustainable Developr	ment Goals
SECA Sulphur Emission Co	ntrol Area/s
SEEMP Ship Energy Efficience	y Management Plan
SIN Singapore	
SMS Safety Management S	System
SMTC Swire Marine Training	Centre, located in Loyang, Singapore
SOLAS IMO International Coin 1980 and later	nvention for the Safety of Life at Sea, 1974, as amended
SO <sub>x</sub> Oxides of Sulphur	
SPO Swire Pacific Offshore	e (Group)
SRF Ship Recycling Facilit	ty
SSA Singapore Shipping A	Association
	nvention on Standards of Training, Certification and eafarers, 1978, as amended in 1995 and later
TBT Tributyl Tin (antifoulin	g)
tCO <sub>2</sub> Tonnes of Carbon Did	oxide
	oxide equivalent. This is CO plus the other four "natural GHG" "industrial GHG" of SF <sub>6</sub> and Hydroflurocarbons
TRCF Total Recordable Cas	se Frequency Rate
TRIP Toolbox Risk Identific	cation Permit
UKBA (UK) Bribery Act (201	0)
ULS Ultra Low Sulphur co	ntent
UNFCCC United Nations Frame	ework Convention on Climate Change
VCS Verified Carbon Stand	dard
VOC Volatile Organic Com	pound/s
y-o-y Year on Year change	
"Seiri, Seiton, Seiso, cleaning, Standardizi	Seiketsu, and Shitsuke" or "Sorting, Set in order, Systematic ng, and Sustaining"

GRI Assurance Statement	58

**GRI Assurance Statement** 59 **GRI Assurance Statement** 60

Data 61

# In this section:

62	Fleet Profile
65	Sustainable Development Strategy
67	SDGs and CNCo Thrive strategy with progress
70	Safety Statistics
72	Environmental Summary
73	Energy Efficiency Operational Index
75	New Hires and Staff Turnover
76	Global Reporting Initiative G4 Content Index

## **Fleet Profile**

# Bulk - In Operation as at 31 December 2016

Vessel Name	EVDI or EEDI	ESI	Rightship GHG Emissions' Rating	Year Built	IMO No.	DWT (SSW MTs)	GТ	NT	LOA (m)	Max Breadti (m)	Capacity n Nominal (TEU)	Hold Capacity - Bale (m³)	Hold Capacity (m³)	Cargo Gear (T)	Country of Registration	Status	Vessel Type
Eredine	4.646	35.3	B+	2014	9681871	39855	24785	13019	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Managed, Operated	Logs Fitted Handysize Bulk Carrier
Erradale	4.7	38.6	B+	2014	9681883	39757	24785	13021	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Managed, Operated	Logs Fitted Handysize Bulk Carrier
Erisort	4.531	24.8	B+	2014	9681895	39763	24785	13022	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Managed, Operated	Logs Fitted Handysize Bulk Carrier
Eriskay	4.78	33.5	B+	2015	9681900	39810	24785	13021	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Managed, Operated	Logs Fitted Handysize Bulk Carrier
Fengning	4.658	31.3	B+	2015	9690884	39836	24785	13022	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Fengtien	4.576	36.9	B+	2015	9690896	39782	24785	13035	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Foochow	4.74	32.5	B+	2015	9690901	39758	24785	13022	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Funing	4.63	36.7	B+	2015	9690913	39784	24785	13019	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Hanyang	4.655	39.2	B+	2016	9714226	39802	24785	13019	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Hoihow	4.551	28.9	B+	2015	9714238	39721	24785	13029	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Managed	Logs Fitted Handysize Bulk Carrier
Hunan	4.696	10.8	B+	2016	9714252	39100	24785	13024	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Hupeh	4.715	N/A	B+	2016	9714264	39773	24785	13022	180.0	180.0	N/A	47181	48908	4 x 36T	Singapore	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Liangchow	4.624	15.7	B+	2015	9715191	39685	24785	13028	180.0	180.0	N/A	47181	48908	4 x 36T	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Lintan	4.716	34.9	B+	2015	9715206	39641	24785	13033	180.0	180.0	N/A	47181	48908	4 x 36T	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Luchow	4.65	37.2	B+	2015	9715218	39728	24785	13019	180.0	180.0	N/A	47181	48908	4 x 36T	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Luenho	4.557	35.9	B+	2016	9715220	39752	24785	13028	180.0	180.0	N/A	47181	48908	4 x 36T	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Pakhoi	4.611	14.5	B+	2016	9721554	39777	24785	13026	180.0	180.0	N/A	47181	48908	4x24T Grab / 30.7T Log	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Pekin	4.601	34.6	B+	2016	9721566	39200	24785	13026	180.0	180.0	N/A	47181	48908	4x24T Grab / 30.7T Log	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Powan	4.552	10.8	B+	2016	9721578	39200	24785	13036	180.0	180.0	N/A	47181	48908	4x24T Grab / 30.7T Log	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Poyang	4.582	N/A	B+	2016	9721580	39500	24785	13028	180.0	180.0	N/A	47181	48908	4x24T Grab / 30.7T Log	Hong Kong	Owned, Operated	Logs Fitted Handysize Bulk Carrier
Taiyuan	5.58	N/A	C+	2016	9768928	37657	23175	12202	180.0	180.0	N/A	45238	46995	4x24T Grab / 30.7T Log	Hong Kong	Owned	Logs Fitted Handysize Bulk Carrier
Tientsin	5.45	N/A	C+	2016	9768930	37657	23175	12202	180.0	180.0	N/A	45238	46995	4x24T Grab / 30.7T Log	Hong Kong	Owned	Logs Fitted Handysize Bulk Carrier
Tsingtao	5.46	N/A	C+	2016	9768942	37657	23175	12202	180.0	180.0	N/A	45238	46995	4x24T Grab / 30.7T Log	Hong Kong	Owned	Logs Fitted Handysize Bulk Carrier
Tunsin	5.587	N/A	D	2016	9768954	37800	23175	12202	180.0	180.0	N/A	45238	46995	4x24T Grab / 30.7T Log	Hong Kong	Owned	Logs Fitted Handysize Bulk Carrier
Wuchang	4.713	33.7	B+	2013	9657844	39128	24785	12537	180.0	180.0	N/A	47661	48908	4 x 30T + 4 x 12cbm Grabs	Hong Kong	Managed, Operated	Handysize Bulk Carrier
Wuchow	4.772	34.6	B+	2013	9657856	39090	24785	12543	180.0	180.0	N/A	47661	48908	4 x 30T + 4 x 12cbm Grabs	Hong Kong	Managed, Operated	Handysize Bulk Carrier
Wuhu	4.709	34.7	B+	2014	9657868	39182	24785	12545	180.0	180.0	N/A	47661	48908	4 x 30T + 4 x 12cbm Grabs	Hong Kong	Managed, Operated	Handysize Bulk Carrier
Wulin	4.886	29.1	B+	2014	9657870	39049	24785	12538	180.0	180.0	N/A	47661	48908	4 x 30T + 4 x 12cbm Grabs	Hong Kong	Managed, Operated	Handysize Bulk Carrier
African Venture	4.846	N/A	D	2012	9612131	34730	24212	11601	180.0	180.0	N/A	42911	44147	4 x 30T	Hong Kong	Operated	Handysize Bulk Carrier
Bunun Dynasty	5.913	N/A	D	2014	9707821	37795	23281	12101	180.0	180.0	N/A	45238	46995	4 x 35T	Hong Kong	Operated	Logs Fitted Handysize Bulk Carrier
Daiwan Ace	5.97	N/A	С	2014	9672206	34358	21514	11203	180.0	180.0	N/A	40510	41753	4 x 30.5T	Hong Kong	Operated	Logs Fitted Handysize Bulk Carrier
Daiwan Glory	6.566	N/A	D	2015	9173832	35531	22314	11139	177.0	177.0	N/A	44199	45626	4 x 30T	Hong Kong	Operated	Logs Fitted Handysize Bulk Carrier

## Fleet Profile

Bulk - In Operation as at 31 December 2016 cont.

Vessel Type	Status	Country of Registration	Cargo Gear (T)	Hold Capacity (m³)	Hold Capacity - Bale (m³)	Capacity Nominal (TEU)	Max Breadth (m)	LOA (m)	NT	GТ	DWT (SSW MTs)	IMO No.	Year Built	Rightship GHG Emissions' Rating	ESI	EVDI or EEDI	Vessel Name
Logs Fitted Handysize Bulk Carrier	Operated	Panama	4 x 30T	44147	42911	N/A	180.0	180.0	11201	21525	34327	9709312	2016	D	N/A	6.275	Daiwan Justice
Logs Fitted Handysize Bulk Carrier	Operated	Panama	4 x 30T	44147	42911	N/A	180.0	180.0	11201	21525	34327	9709324	2016	D	N/A	6.275	Daiwan Kalon
Logs Fitted Handysize Bulk Carrier	Operated	Hong Kong	4 x 30T	46995	45238	N/A	180.0	180.0	12101	23269	37679	9727285	2015	D	N/A	5.931	Glengyle
Handysize Bulk Carrier	Operated	Hong Kong	4 x 30T	42565	40432	N/A	180.0	180.0	11627	20763	33266	9493509	2008	D	N/A	6.849	Greentec
Handysize Bulk Carrier	Operated	Marshall Islands	4 x 30.5T	47125	45369	N/A	180.0	180.0	12139	23273	38090	9642162	2013	E	N/A	6.762	Indigo Silva
Logs Fitted Handysize Bulk Carrier	Operated	Panama	4 x 30.5T	42857	40896	N/A	177.0	177.0	11140	19885	32555	9310769	2007	D	N/A	6.85	IVS Kittiwake
Logs Fitted Handysize Bulk Carrier	Operated	Panama	4 x 30T	44147	42911	N/A	180.0	180.0	11199	21561	34302	9692739	2015	В	N/A	5.135	Magpie SW
Handysize Bulk Carrier	Operated	Panama	4 x 30.0T	47236	46316	N/A	184.8	184.8	11814	23855	38447	9527958	2012	D	N/A	6.021	Mimitsu
Handysize Bulk Carrier	Operated	Panama	4 x 30T	47899	45205	N/A	186.4	186.4	12531	22662	37215	9610638	2011	E	N/A	7.016	Ocean Satoko
Handysize Bulk Carrier	Operated	Panama	4 x 30.5T	47090	45414	N/A	176.5	176.5	12253	21699	36367	9610212	2012	E	N/A	6.907	Supernova
Handysize Bulk Carrier	Operated	Hong Kong	4 X 30.5T	46994	45238	N/A	180.0	180.0	12101	23303	37655	9775165	2016	С	N/A	5.49	Uni Harmony
Box Shaped Type Bulk Carrier	Operated	Singapore	4 x 30T	48142	47183	N/A	183.0	183.0	12015	24020	38503	9623659	2011	E	N/A	6.816	Unicorn Ocean
Handysize Bulk Carrier	Chartered	Marshall Islands	4 X 35 T	46994	45238	N/A	180.0	180.0	12101	23250	37644	9775153	2016	D	N/A	5.937	Union Mark
Logs Fitted Handysize Bulk Carrier	Operated	Marshall Islands	4 x 30.5T	46994	45238	N/A	180.0	180.0	12010	23216	34693	9691644	2014	D	N/A	5.929	Union Taylor
Handysize Bulk Carrier	Operated	Hong Kong	4 x 30T	49213	47630	N/A	189.0	189.0	12342	24735	38145	9579406	2011	E	N/A	6.771	Unison Power
Logs Fitted Handysize Bulk Carrier	Operated	Hong Kong	4 x 30.5T	48280	48159	N/A	179.9	179.9	12931	24991	38947	9725380	2015	В	N/A	4.73	Xing Zun Hai
Logs Fitted Handysize Bulk Carrier	Operated	Hong Kong	4 x 30T	44147	42911	N/A	180.0	180.0	11201	21538	34398	9728394	2015	В	N/A	5.722	Yochow
Logs Fitted Handysize Bulk Carrier	Operated	Hong Kong	4 x 30T	44147	42911	N/A	180.0	180.0	11201	21538	34398	9728409	2015	В	N/A	5.722	Yunnan

## Fleet Profile

Liner - In Operation as at 31 December 2016

Vessel Name	EVDI or EEDI	ESI	Rightship GHG Emissions' Rating	Year Built	IMO No.	DWT (SSW MTs)	GT	NT	LOA (m)	Max Breadth (m)	Capacity Nominal (TEU)	Hold Capacity - Bale (m³)	Hold Capacity (m³)	Cargo Gear (T)	Country of Registration	Status	Vessel Type
Island Chief	20.070	N/A	B+	1990	8810449	13387	10352	5804	158.1	22	981	N/A	N/A	3 x 45T	Hong Kong	Owned, Managed	Liner
Kiribati Chief	19.776	N/A	B+	1990	8809189	13668	10357	5802	158.1	22	876	N/A	N/A	3 x 60T	Hong Kong	Owned, Managed	Liner
Melanesian Chief	20.196	N/A	B+	1990	8809191	13387	10352	5804	158.1	22	981	N/A	N/A	3 x 45 T	Hong Kong	Owned, Managed	Liner
Micronesian Chief	20.208	N/A	B+	1991	8901705	13557	10350	5802	158.1	22	981	N/A	N/A	3 x 45T	Hong Kong	Owned, Managed	Liner
Kokopo Chief	19.6	N/A	B+	1991	8907412	13387	10352	5804	158.1	22	981	N/A	N/A	3 x 45T	Hong Kong	Owned, Managed	Liner
Chenan	14.946	N/A	G+	1992	9007374	25561	18391	9229	184.9	28	1123	32114	34103	3 x 26T, 2 x 31T, 1 x 20T	Hong Kong	Owned, Managed	Liner
Kweichow	16.172	N/A	F+	1994	9070694	25524	18451	8250	184.9	28	1257	28831	29819	2 x 26T, 3 x 35T	Hong Kong	Owned, Managed	Liner
Kwangtung	15.747	N/A	F+	1994	9070709	25524	18451	8250	184.9	28	1257	28831	29819	2 x 26T, 3 x 35T	Hong Kong	Owned, Managed	Liner
Kweilin	16.196	N/A	F+	1994	9103104	25410	18468	9201	184.9	28	1257	32608	33756	2 x 26T, 3 x 35T	Hong Kong	Owned, Managed	Liner
Kwangsi	15.77	N/A	F+	1995	9103116	25607	18468	9253	184.9	28	1257	31472	33077	2 x 26T, 3 x 35T	Hong Kong	Owned, Managed	Liner
Nanchang	21.838	N/A	D+	1995	9082805	23016	16800	8662	184.0	25	1728	N/A	N/A	3 x 40 T	Hong Kong	Owned	Liner
Ngankin	21.917	N/A	D+	1996	9105994	23064	16801	8672	184.1	25	1730	N/A	N/A	3 x 40 T	Hong Kong	Owned	Liner
Spirit of Canterbury	24.83	N/A	D+	2005	9319557	14053	9910	5032	148.0	23	1102	N/A	N/A	-	New Zealand	Owned, Managed	CV1100
Shansi	14.72	39.7	B+	2013	9614476	30700	25483	11814	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Shantung	14.449	40.9	B+	2013	9614488	30814	25483	11819	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Shaoshing	14.71	37.4	B+	2013	9614490	30769	25483	11808	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Shengking	14.856	26.1	B+	2013	9614505	30813	25483	11813	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Shuntien	14.538	26.5	B+	2013	9614517	30852	25483	11810	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Siangtan	10.409	37.8	A+	2013	9614529	30756	25483	11805	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Soochow	14.42	25.2	B+	2014	9614531	30721	25483	11817	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Szechuen	14.836	21.7	B+	2014	9614543	30688	25483	11813	199.9	28	2118	41881	44807	4 x 60T	Singapore	Owned, Managed	Liner
Coral Chief	15.164	N/A	A+	2015	9689938	22035	18723	7681	175.2	28	1617	N/A	12310	3 x 60T	Hong Kong	Owned, Managed	Container Ship
Highland Chief	14.851	N/A	A+	2015	9689940	22035	18723	7681	175.2	28	1617	N/A	12310	3 x 60T	Hong Kong	Owned, Managed	Container Ship
New Guinea Chief	14.922	N/A	A+	2015	9689952	22027	18723	7688	175.2	28	1617	N/A	12310	3 x 60T	Hong Kong	Owned, Managed	Container Ship
Papuan Chief	14.978	N/A	A+	2015	9689964	22032	18723	7683	175.2	28	1617	N/A	12310	3 x 60T	Hong Kong	Owned, Managed	Container Ship
Altonia	21.852	N/A	D	2000	9217553	22968	16803	8648	184.0	25	1730	N/A	N/A	3 x 40T	Germany	Operated	Container Ship
Antung (ex MCP London)	23.801	N/A	F	2007	9371957	7702	5316	2309	117.0	20	618	9523	9522	2 x 40T	Malta	Operated	General Cargo
Polynesia (ex Jost)	26.058	N/A	E	2010	9477347	17127	16137	6126	161.3	25	1338	N/A	N/A	2 x 45T	Liberia	Operated	Container Ship
Mia Schulte	13.5	N/A	B+	2015	9676735	30231	27279	10011	188.9	30	2345	N/A	N/A	3 x 45T	Singapore	Operated	Container Ship

# **Thrive**

CNCo. has been in business since 1872.

Our business has stood the test of time because we have always looked ahead and made decisions based on long term sustainability.

We don't see our business as separate from the world. We depend on it, and wish to help shape it positively.

So when we build businesses, we seek to build communities. When we employ people, we help them to fulfil their potential. When we use resources, we seek to protect the environments that provide them.

The world in which we operate is facing some of the most pressing social and environmental challenges of our time. We are committed to being part of the solution.

Because when the world in which we operate thrives, so do we.

# **Thriving People**

We will respect and care for our employees and other stakeholders, unlocking the potential for all of us to grow by:

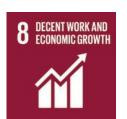
- Safeguarding the health and safety of all our employees and stakeholders by driving sustained safety excellence;
- Adopting a diverse and inclusive approach to securing the best talent;
- Improving our corporate governance to reflect our stakeholders' interests;
- Respecting the human rights of all of our employees and other stakeholders.

#### Relevant SDGs









<sup>\*</sup>The Sustainable Development Goals (SDGs) is a set of seventeen aspirational global goals to end poverty, protect the planet, and ensure prosperity for all.

For more information please visit: https://sustainabledevelopment.un.org

## **Thriving Environment**

We will help create a resilient environment that provides for our future by:

- Pursuing a long-term goal of de-carbonisation and optimising energy efficiency;
- Turning today's waste into tomorrow's resource;
- Using natural resources and systems responsibly and sustainably;
- Protecting and, where viable, enhancing the biodiversity of environments that our operations impact.

## **Thriving Communities**

We will work with communities wherever we operate to improve people's lives by:

- Connecting with and empowering the local communities that we touch;
- Strengthening our supply chain through responsible and ethical sourcing of services and materials;
- Offering services to enable our stakeholders to live more sustainably.

#### **Relevant SDGs**



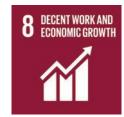








## **Relevant SDGs**









Relevant SDG Goals	Links to Thrive Strategy	Relevance to CNCo's operations
3 GOOD HEALTH AND WELL-BEING	SAFEGUARDING THE HEALTH AND SAFETY OF ALL OUR EMPLOYEES AND STAKEHOLDERS BY DRIVING SUSTAINED SAFETY EXCELLENCE.	See progress in the Safety, Environment and Our Communities sections of the SD Report  Areas covered: Health and Safety Policies and standards; Labour practices; Employee welfare and benefits; D&A Policy and testing; Environmental Policies and procedures to ensure No Harm to the environment and communities; Waste disposal and responsible ship recycling in line with international conventions.
5 GENDER EQUALITY	ADOPTING A DIVERSE AND INCLUSIVE APPROACH TO SECURING THE BEST TALENT.  RESPECTING THE HUMAN RIGHTS OF ALL OF OUR EMPLOYEES AND OTHER STAKEHOLDERS.	See Our People section of the report  Areas covered: EODIR Policy in place; Use of gender inclusive language; Gender neutral employee attraction and retention polices and procedures; Equality in pay structures and rewards; HRM practices supporting women in the workforce; Ensuring that funded activities benefit both genders; Leadership Development programmes in place.
6 CLEAN WATER AND SANITATION	TURNING TODAY'S WASTE INTO TOMORROW'S RESOURCE.  USING NATURAL RESOURCES AND SYSTEMS RESPONSIBLY AND SUSTAINABLY.	See Environment and Communities sections of the report  Areas covered: Environmental protection of water catchment areas and water resources (guideliens for operating in protected areas, Community project i.e.: Partnership with ESI, Scoping Survey in Timor-Lesté); Environmental Policy; Recycling practices onboard our vessels; Safe and sustainable ship recycling practices (in accordance with HKC and ISOs) minimising release of hazardous chemicals into the water; Protection of wetlands (CP projects), mangroves and coral reefs (Partnership with ESI).
7 AFFORDABLE AND CLEAN ENERGY	PURSUING A LONG-TERM GOAL OF DE-CARBONISATION AND OPTIMISING ENERGY EFFICIENCY.	See Environment section of the report  Areas covered: Decarbonisation through low carbon technologies and minimising use of fossil fuels; R&D into alternative energy sources (Biofuel trials); Energy efficiencies: Eco design for owned vessels (slow steaming, electric cranes etc); Eco-office/green office practices.

# **Relevant SDG Goals**

#### **Links to Thrive Strategy**

ADOPTING A DIVERSE AND INCLUSIVE APPROACH TO SECURING THE BEST TALENT.

RESPECTING THE HUMAN RIGHTS OF ALL OF OUR EMPLOYEES AND OTHER STAKEHOLDERS.

STRENGTHENING OUR SUPPLY CHAIN THROUGH RESPONSIBLE AND ETHICAL SOURCING OF SERVICES AND MATERIALS.

#### Relevance to CNCo's operations

#### See Our People and Safety sections of the report

Areas covered:

Inclusive labour practices across all countries of operation; Good and safe working conditions;

Equal pay for work of equal value; Human Rights impact assessments (when required);

Sound labour rights incorporated into organisational policies and procedures (HR and SPSM;

Contracts and Manuals); Supply Chain Sustainability issues; Supplier audits;

Equal opportunities and respect in the work place (EODIR Policy);

H&S standards; Modern Day Slavery statement and assessments.



ADOPTING A DIVERSE AND INCLUSIVE APPROACH TO SECURING THE BEST TALENT.

RESPECTING THE HUMAN RIGHTS OF ALL OF OUR EMPLOYEES AND OTHER STAKEHOLDERS.

#### See Our People section of the report

Areas covered:

EODIR Policy and its enforcement ashore and at sea;

Grieviance mechanism:

Social protection policies and min wage in line with National labour laws;

Equality in pay structures and rewards.



TURNING TODAY'S WASTE INTO TOMORROW'S RESOURCE.

USING NATURAL RESOURCES AND SYSTEMS RESPONSIBLY AND SUSTAINABLY.

STRENGTHENING OUR SUPPLY CHAIN THROUGH RESPONSIBLE AND ETHICAL SOURCING OF SERVICES AND MATERIALS.

#### See Environment section of the report

Areas covered:

Environmental Management policies and practices;

Hazardous materials management practices and disposal;

Recycling practices; Sustainable ship recycling policy and practice;

SD Policies, committees, working groups; Sustainable procurement practices and policies;

Supply Chain Sustainability working group and CoC; SD reporting.



PURSUING A LONG-TERM GOAL OF DE-CARBONISATION AND OPTIMISING ENERGY EFFICIENCY.

#### See Environment section of the report

Areas covered:

Decarbonisation through low carbon technologies and minimising use of fossil fuels;

Eco-office/green office practices;

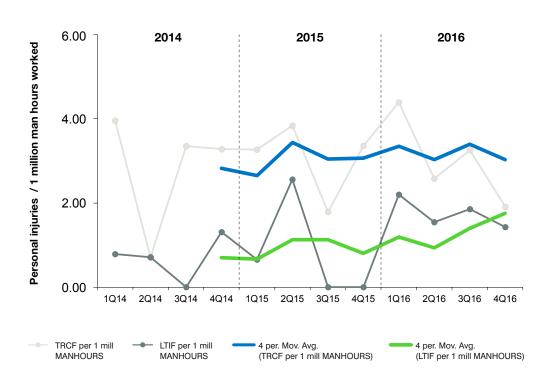
Energy efficiencies (Clean or Clean Design) for owned vessels;

R&D into alternative energy sources (Biofuel trials).

Relevant SDG Goals	Links to Thrive Strategy	Relevance to CNCo's operations
14 LIFE BELOW WATER	PROTECTING AND, WHERE VIABLE, ENHANCING THE BIODIVERSITY OF ENVIRONMENTS THAT OUR OPERATIONS	See Environment and Our Communities section of the report
■⁴ BELOW WATER	IMPACT.	Areas covered:
		Going beyond legislative compliance;
		Zero Harm Policies;
		Investment in clean and green technologies; Green guidelines;
		Working with NGOs on environmental conservation and biodiversity related projects;
		Corporate Philanthropic investments (ESI, employee education and volunteering);
1C PEACE, JUSTICE	IMPROVING OUR CORPORATE GOVERNANCE TO REFLECT OUR STAKEHOLDERS' INTERESTS.	See Governance and Our People sections of the report
<b>IO</b> AND STRONG	CONTO FARENCE DENO INTERECTO.	Areas covered:
INSTITUTIONS		Code of Conduct; Whistleblowing Policies;
- With		Third party due diligence; Antitrust Policies; Sanctions;
		Procurement practices and guidelines; Supply Chain Sustainability Code of Conduct;
		Anti-bribery Policy and training for employees;
_		Privacy Policies, procedures and training.
17 PARTNERSHIPS	CONNECTING WITH AND EMPOWERING THE LOCAL COMMUNITIES THAT WE TOUCH.	See Our Communities section of the report
FOR THE GOALS		Areas covered:
	OFFERING SERVICES TO ENABLE OUR STAKEHOLDERS TO	Corporate Philanthropic investments in our key stakeholder communities;
	LIVE MORE SUSTAINABLY.	Partnerships with Universities and NGOs;
		Supporting scientific research programs;
$\sim$		Working with Governments in the areas of assistance required in LDCs where we operate;
		Engage in Public-private and Civil Society partnerships for SD.

Safety Statistics 70

Injuries Near Misses

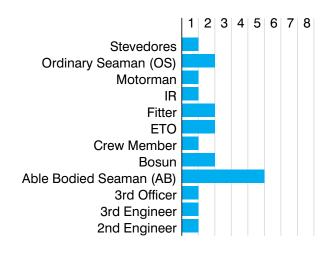




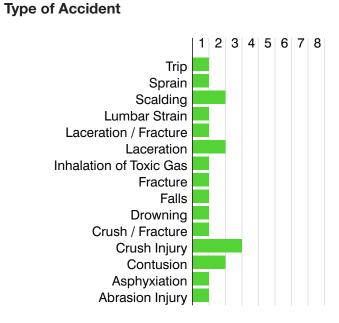
Total Recordable Cases\*

\*Total Recordable Cases comprises: Lost Time Injuries + Medical Treatment Cases + Restricted Workday Cases





Rank





Environmental Summary 72

	2012	2013	2014	2015	2016
Total vessels (owned and managed/operated) as at 31 December	15 (+ 16 u/c)	24 (+ 26 u/c & 4 managed)	31 (+ 6 managed)	54	79
Scope 1 emissions (tCO2e)	610,558	625,426	479,486	731,700	1,144,775
Emissions from marine fuel	99.8% marine fuels	99.9% marine fuels	99.9% marine fuels	99.96%	99.98%
EEOI - liner fleet (tCO <sub>2</sub> e/tm)	31	30	27	26.82	n/a
EEOI - liner fleet (new methodology UoM: gCO2e/NRT-nm)	n/a	6.54	5.89	6.23	6.05
EEOI - bulk fleet (tCO <sub>2</sub> e/tm)	n/a	Not a full year	7	11.21	n/a
EEOI - bulk fleet (new methodology UOM: gCO2e/t-nm)	n/a	12.60	11.72	11.28	13.95
Electricity (CO <sub>2</sub> )	237	241	197	268	287
Flights (CO <sub>2</sub> )	4,547	3,098	4,467	5,483	5,128
SOx emissions (mT)	13,051	13,858	10,458	12,119	24,563
NOx emissions (mT)	15,510	16,259	12,236	14,201	28,848
Particulate Matter emissions (mT)	1,233	1,313	989	1,145	2,317
VOC emissions (mT)	231	241	185	216	441
Spills	Nil	2 (21 litres in total of hydraulic oil or sludge being transferred entered the sea)	Nil	MV Ningpo: Oil Spill at Marsden Point 1 December 2015	Nil

We continue to monitor emissions for each ship on a per voyage and an annual basis and use the IMO EEOI metric as our baseline. Our progress for the Bulk and Liner fleets EEOI since 1 January 2014 is shown in graphs below and on the following page.

The EEOI figures for liner fleet show a downward trend. This is largely a result of using more fuel efficient ships, rationalisation of individual trades, and a higher focus on the operational efficiency. In the calendar year 2016 we achieved a reduction in Liner EEOI (transport work efficiency and thus GHG emissions) of 3.0% towards our interim goal of a 15% reduction in EEOI.

#### Liner EEOI



The Bulk Fleet EEOI increased by 23.7% however we will be using the software on board (Kongsberg Marorka) and in the office (IMOS VESON) to move this from a manual to an automatic calculation as part of the Bulk fleet's compliance with EU MRV Regulations for relevant ships, and this may result in re-stating of this data series.

#### **Bulk EEOI**



New Hires during 2016 by Country, Age Group and Gender Identity				Turnover by Country, Age Group and Gender Identity			
Country / Age Group	Male	Female	TOTAL	Country / Age Group	Male	Female	TOTAL
Australia	10	7	17	Australia	8	5	13
<30	5	1	6	>=30 And <=50	2		2
>=30 And <=50	5	5	10	>50	6	5	11
>50		1	1				
China	4	2	6	China	2	3	5
<30	2	1	3	<30		2	2
>=30 And <=50	2	1	3	>=30 And <=50	2	1	3
Indonesia	1		1				
>=30 And <=50	1		1	Indonesia	1		1
New Zealand	7	8	15	>=30 And <=50	1		1
<30	1	1	2				
>=30 And <=50	4	6	10	New Zealand	5	12	17
>50	2	1	3	<30	1	3	4
Papua New Guinea	22	19	41	>=30 And <=50	2	2	4
<30	8	8	16	>50	2	7	9
>=30 And <=50	13	10	23				
>50	1	1	2	Papua New Guinea	15	10	25
Samoa	3	3	6	<30	4	6	10
<30		1	1	>=30 And <=50	2	1	3
>=30 And <=50	3	2	5	>50	9	3	12
Singapore	23	26	49				
<30	5	10	15	Singapore	21	19	40
>=30 And <=50	16	16	32	<30	6	7	13
>50	2		2	>=30 And <=50	5	3	8
Taiwan		1	1	>50	10	9	19
>=30 And <=50		1	1				
United Kingdom	4	1	5	Taiwan	1	2	3
<30	2		2	>=30 And <=50	1	2	3
>=30 And <=50	2	1	3				
United States	3		3	United Kingdom		2	2
<30	2		2	<30		1	1
>=30 And <=50	1		1	>=30 And <=50		1	1
GRAND TOTAL	77	67	144	GRAND TOTAL	53	53	106

Indicator	Disclosure on Management Approach	Reported	Cross-reference/Answers/Notes		
Section: Strategy & Analysis					
G4-1	MD's Cover Note	Yes	See MD's message of the report. p8		
Section: Organisational Profile					
G4-3	Organisation name	Yes	"Organisational Profile/Governance" section of the report. p43		
G4-4	Primary brands, products, and services	Yes	"Organisational Profile/Governance" section of the report. p43		
G4-5	Headquarters location	Yes	"Organisational Profile/Governance" section of the report. p43		
G4-6	Where the organisation operates	Yes	"Organisational Profile/Governance" section of the report and "Our People" section. p43 and p17-19		
G4-7	Nature of ownership and legal form	Yes	"Organisational Profile/Governance" section of the report. p43		
G4-8	Markets served	Yes	"Organisational Profile/Governance" section of the report. p43		
G4-9	Scale of the organisation	Yes	"Our People" section for the breakdown of employees/offices. All financial information is confidential. p17-18		
G4-10	Total number of employees by type	Yes	"Our People" section of the report: "Employment information and Diversity in the Workplace/Human Rights". p20-22 There were no seasonal variations in employment numbers.		
G4-11	Collective bargaining agreements	Yes	All CNCo seafarers are covered by collective bargaining agreement (CBA) in accordance with the Maritime Labour Convention (MLC) 2006. Land based employees are not covered by collective bargaining agreements.		
G4-12	Supply chain description	Yes	Please refer to the "Supply Chain Management" sub-section on p54.		
G4-13	Organisational changes during the reporting period	Yes	CNCo completed its four year energy-efficient fleet renewal and expansion programme that delivered 12 multipurpose liner vessels, 28 handy-size bulk carriers and one dedicated cement carrier. This growth resulted in 37% increase in sea employee numbers.		
G4-14	Precautionary principle	Yes	CNCo manages all risks that have the potential to impact our operations. We are measuring, monitoring and reporting our Environmental impact and have a number of initiatives in place to reduce out greenhouse gas emissions and other negative environmental impact. See Section on "Carbon and Environment" for more details. In 2015 CNCo hired a Group Risk Manager to oversee and manage all corporate risks on <i>p35</i> .		

G4-15	External charters, principles, or other initiatives	Yes	Hong Kong Civic Exchange's Fair Winds Charter (Voluntary prior to regulation came into force on 1 July 2015). Fair employment practices (TAFEP) Singapore since April 2013.
G4-16	Membership associations	Yes	Singapore Shipping Association Sustainable Shipping Initiative World Ocean Council Global Compact (Singapore) Maritime Anti-Corruption Network (MACN) CSR Asia (strategic partner)
Section: Identified Ma	terial Aspects & Boundaries		
G4-17	Entities included in financial statements	Yes	Please refer to the organisational boundaries diagram. All companies within its scope have been reported on under this report. All financial statements are confidential.
G4-18	Process for defining report boundaries and content	Yes	"See "Organisational an Operational Boundaries" diagram on p10.
G4-19	Material aspects included in the report	Yes	See "Material aspects" under the "Introduction" Section of the report. p3-5
G4-20	Descriptions of material aspect boundaries within the organisation	Yes	See "Material aspects" under the "Introduction" Section of the report and the Organisational and Operational Boundaries diagram. Material aspects are relevant for all CNCo entities and in all geographical locations we operate. p3-5
G4-21	Descriptions of material aspect boundaries outside the organisation	Yes	Subsequent to our formal Value Chain analysis (see BOT framework) we are now reporting on third party ship recycling (to a limited extent) even though we have no legal liability for it. SRFs we use are located in India. Please refer to the Industry Leadership subsection under the "Carbon/Environment" section of the report. p41
G4-22	Restatements	Yes	There have been no restatements of data however some of the initiatives which started in prior years and continued during the reporting period are covered.
G4-23	Changes from previous reports in terms of scope and/or boundaries	Yes	Opened CNCo office in Samoa.  Fiji office will be officially opened in 2017.

Section: Stakeholder	r Engagement		
G4-24	Stakeholder groups	Yes	Investors: Shareholders/JS&S Board/UK Head office and other Swire group companies (Private and Public) Subsidiary Companies: As per organisational boundary chart Employees: Sea staff, shore staff, Senior execs/mid Managers/Managers/other Suppliers: Legal/HR/Auditors/bunker suppliers Communities: Local key s/h communities/Corporate Philanthropic funds recipients Government and Regulators: Classification societies Shipping Industry actors: Peers/SRF/SSI members
G4-25	How stakeholders were identified	Yes	In 2015 SD department worked with the Communications Department to develop the Communications Plan and identify key stakeholder groups and communications strategies.
G4-26	Approach to stakeholder engagement	Yes	Stakeholder engagement is an ongoing process. We interact with our stakeholders regularly, through office visits (employees and clients), officer and crews' fora (for sea-going employees), training programmes (sea staff and industry partners) during SAC in Singapore and on board our vessels (sea staff), shore employee induction programmes and many other ad hoc events. Those events are organised with the aim of keeping our stakeholders fully aware of the material developments within the company and specifically covering the area of Sustainable Development. They also offer an avenue to voice any concerns related to safety, human rights, labour practices and environmental issues. For this report, we have extended our engagement to include: suppliers and vendors, customer and clients as well as our business partners and other stakeholders. We engaged our stakeholders using a targeted approach across our three business divisions and support services. The responses were analysed to help us focus our efforts on the material issues. Please see "Material aspects" on <i>p3-5</i> .
G4-27	Topics raised during stakeholder engagements	Yes	See "Material aspects" under the Introduction Section of the report. All concerns are addressed in collaboration with other departments and in SD Reports. <i>p3-5</i>

Section: Report Profile			
G4-28	Reporting period	Yes	"Introduction" Section of the report - January to December 2016.
G4-29	Date of most recent report		Sustainability report for 2015 calendar year.
G4-30	Reporting cycle	Yes	Annual
G4-31	Report contact	Yes	Contact section of the report. GM - Sustainable Development is the key contact. p85
G4-32	"In accordance" option, GRI Index and report assurance	Yes	Report for the year 2016 has been prepared in accordance with the Global Reporting Initiative's Sustainability Reporting Guidelines (GRI 'In accordance' Standard disclosure - Core Option), with a focus on transparency and clarity. It will be externally assured and the assurance statement added to the report at a later date.
G4-33	Policy regarding report assurance	Yes	We have sought external assurance for this report from an independent assurer. The assurer does not have any known relationship to the organisation.
Section: Governance			
G4-34	Governance structure of the organisation	Yes	"Organisational Profile / Governance" section of the report. p48
Section: Ethics & Integrity			
G4-56	Code of conduct	Yes	CNCo's Code of Conduct is available on the company's website (www.chinanav.com Sustainability tab). The Code is applicable to all employees ashore or at sea, it sets the highest standards of business ethics.  For more information see Anti-corruption and anti-trust subsection of the report / under "Organisational Profile & Governance" section. p50-51

Specific Standard Disclosu	ures by Material Aspects by GRI aspect		
Environmental Category			
DMA (Material Aspect)	Energy		
G4-EN3	ENERGY CONSUMPTION WITHIN THE ORGANIZATION	Yes	Please refer to the "Carbon/Environment" section of the report. p39
DMA	Emissions		
G4-EN15	DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 1)	Yes	Please refer to the "Energy consumption and emissions" subsection and Environmental Summary table of the report. p39 and 72
G4-EN16	ENERGY INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 2)	Yes	Please refer to the Energy consumption and emissions subsection and Environmental Summary table of the report. p39 and 72
G4-EN17	OTHER INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 3)	Yes	Please refer to the Energy consumption and emissions subsection and Environmental Summary table of the report. p72
G4-EN18	GREENHOUSE GAS (GHG) EMISSIONS INTENSITY	Yes	Please refer to the Environmental Summary table of the report. p72 - All figures are absolute.
G4-EN19	REDUCTION OF GREENHOUSE GAS (GHG) EMISSIONS	Yes	Please refer to the "Highlights" section of the report. CNCo achieved a reduction in Liner fleet EEOI of 3% towards our interim goal of a 15%.  While measures were taken to reduce emissions from office operations and travel, they are not very significant as 99.95% of our emissions are Scope 1.
G4-EN21	NOX, SOX, AND OTHER SIGNIFICANT AIR EMISSIONS	Yes	Please refer to the Environmental Summary table of the report. p72
DMA	Effluents and Waste		
G4-EN22	TOTAL WATER DISCHARGE BY QUALITY AND DESTINATION	Yes	Ships use ballast water which they discharge in various locations however the water undergoes treatment before it is discharged.  Discharges of black and gray water generated and discharged in the course of normal ship operations is regulated by MARPOL which CNCo strictly complies with. Ship's oily water separator systems is used on board vessels.
G4-EN24	TOTAL NUMBER AND VOLUME OF SIGNIFICANT SPILLS	Yes	None in 2016.

DMA	Compliance		
G4-EN29	MONETARY VALUE OF SIGNIFICANT FINES AND TOTAL NUMBER OF NON-MONETARY SANCTIONS FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS	Yes	None in 2016.
DMA	Environmental Grievance Mechanisms		
G4-EN34	NUMBER OF GRIEVANCES ABOUT ENVIRONMENTAL IMPACTS FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	Yes	There were zero non-compliance grievances or public complaints on our environmental impact in 2016.
Social			
DMA	Employment		
G4-LA1	TOTAL NUMBER AND RATES OF NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER BY AGE GROUP, GENDER AND REGION	Yes	Please see p75 of the report.
G4-LA2	BENEFITS PROVIDED TO FULL-TIME EMPLOYEES THAT ARE NOT PROVIDED TO TEMPORARY OR PARTTIME EMPLOYEES, BY SIGNIFICANT LOCATIONS OF OPERATION	Yes	All of the statutory benefits are provided as an absolute minimum in all of CNCo's key locations for all employees.  All of our seafarers receive: Private Healthcare for all seafarers Pension arrangements or cash in lieu for all seafarers Life Insurance Collective Bargaining Agreement in place with International Transport Federation (ITF) affiliates Discretionary training  Key locations are defined as countries where more than 10% of our employees are based.
DMA	Occupational H&S		
G4-LA5	PERCENTAGE OF TOTAL WORKFORCE REPRESENTED IN FORMAL JOINT MANAGEMENT-WORKER HEALTH AND SAFETY COMMITTEES THAT HELP MONITOR AND ADVISE ON OCCUPATIONAL HEALTH AND SAFETY PROGRAMS	Yes	On board our vessels 45% (as a minimum) of our workers are represented on the joint H&S committees. For the offices, we have H&S committees in key locations: Singapore/Australia/NZ/PNG.
G4-LA6	TYPE OF INJURY AND RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, AND ABSENTEEISM, AND TOTAL NUMBER OF WORK- RELATED FATALITIES, BY REGION AND BY GENDER	Yes	Please see "Safety" Section of the report and the related tables. p70-71

G4-LA8	HEALTH AND SAFETY TOPICS COVERED IN FORMAL AGREEMENTS WITH TRADE UNIONS	Yes	Following topics are fully covered in CBA for seafarers: Working hours, sickness and injury (incl. sick pay), compensation for disability and death, medical treatment.
DMA	Training and Education		
G4-LA9	AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE BY GENDER, AND BY EMPLOYEE CATEGORY	Yes	Training is conducted throughout the year to comply with rules and regulations. Discretionary training is also provided to uplift the Safety standards. For statistics please refer to the "Performance management, training and development" sub-section of the report under "Our People" section. <i>p24-26</i>
G4-LA11	PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT REVIEWS, BY GENDER AND BY EMPLOYEE CATEGORY	Yes	100% of land based employees and seafarers in all locations received a yearly performance appraisal and development review in 2016. For the sea staff this was done at the end of each shift.
DMA	Diversity and Equal Opportunity		
G4-LA12	COMPOSITION OF GOVERNANCE BODIES AND BREAKDOWN OF EMPLOYEES PER EMPLOYEE CATEGORY ACCORDING TO GENDER, AGE GROUP, MINORITY GROUP MEMBERSHIP, AND OTHER INDICATORS OF DIVERSITY	Yes	Governance Body - Board of Directors: 1 Female Director/age group 30-50 y.o. All other members are male falling into two age groups: 30-50 years old and over 50. No minority groups present.
DMA	Labour Practices Grievance Mechanisms		
G4-LA16	NUMBER OF GRIEVANCES ABOUT LABOR PRACTICES FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	Yes	No grievances were reported in 2016.
HUMAN RIGHTS		•	
DMA	Non-discrimination		
G4-HR3	TOTAL NUMBER OF INCIDENTS OF DISCRIMINATION AND CORRECTIVE ACTIONS TAKEN	Yes	There were no cases of discrimination or harassment reported in the Fleet or the office.
G4-HR6	OPERATIONS AND SUPPLIERS IDENTIFIED AS HAVING SIGNIFICANT RISK FOR INCIDENTS OF FORCED OR COMPULSORY LABOR, AND MEASURES TO CONTRIBUTE TO THE ELIMINATION OF ALL FORMS OF FORCED OR COMPULSORY LABOR	Yes	There were no cases of forced or compulsory labour in 2016. CNCo published Policy Statement on Modern Slavery and Human Trafficking in October 2016 which is available on our website (http://www.swireshipping.com/images/stories/article/sustainableDevelopment/Modern-Slavery-Statement-v3-281016.pdf)
DMA	Human Rights Grievance Mechanisms		
G4-HR12	NUMBER OF GRIEVANCES ABOUT HUMAN RIGHTS IMPACTS FILED, ADDRESSED, AND RESOLVED THROUGH FORMAL GRIEVANCE MECHANISMS	Yes	There were no grievances about human rights impacts filed in 2016.

SOCIETY			
DMA	Local Communities		
G4-S01	PERCENTAGE OF OPERATIONS WITH IMPLEMENTED LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMS	Yes	See "Our Communities" section of the report. CNCo invests in key stakeholder communities with a number so Corporate Philanthropic projects being implemented in various geographies and employee engagement activities. <i>p27-34</i> Social Return on Investment (SROI) was done on the partnership with Endangered Species International project only.
DMA	Anti-corruption		
G4-SO3	TOTAL NUMBER AND PERCENTAGE OF OPERATIONS ASSESSED FOR RISKS RELATED TO CORRUPTION AND THE SIGNIFICANT RISKS IDENTIFIED	Yes	CNCo's Corporate Code of Conduct is a comprehensive governance document that sets out rules on how CNCo employees must behave in the course of carrying out their duties. One of the areas covered by the Code is anti-corruption. The Code together with internal controls set a strong foundation to prevent any corruption related incidents. The Company carries out anti-corruption/anti-bribery training and testing for every single employee within the group.  Any incidents of potential or actual non-compliance are reported to the CNCo Audit Committee and investigated. The company has Zero tolerance towards corruption.  This risk is also covered under each and every Business Unit Risk Register and reviewed periodically. CNCo joined Maritime Anti-Corruption Network (MACN) in 2015.  For more information see "Anti-corruption, anti-trust and monopoly practices" sub-section of the "Organisational Profile / Governance" section of the report. p50
G4-SO4	COMMUNICATION AND TRAINING ON ANTI- CORRUPTION POLICIES AND PROCEDURES	Yes	CNCo issued a revised Code of Conduct and a new suite of Anti-Trust Policies and procedures and introduced compulsory training modules for all shore staff, through the on-line training platform. 100% of shore based employees took training and assessments in 2016. 100% of seastaff watched Corporate Code of Conduct video and 836 seafarers received CoC/anti-corruption training during SACs.
G4-SO5	CONFIRMED INCIDENTS OF CORRUPTION AND ACTIONS TAKEN	Yes	There were no incidents of corruption reported in 2016.
DMA	Anti-competitive Behaviour		
G4-S07	TOTAL NUMBER OF LEGAL ACTIONS FOR ANTI- COMPETITIVE BEHAVIOR, ANTI-TRUST, AND MONOPOLY PRACTICES AND THEIR OUTCOMES	Yes	There were no incidents of anti-competitive behaviour reported in 2016.
DMA	Compliance		
G4-S08	MONETARY VALUE OF SIGNIFICANT FINES AND TOTAL NUMBER OF NON-MONETARY SANCTIONS FOR NON-COMPLIANCE WITH LAWS AND REGULATIONS	Yes	There were no non-compliance with laws or regulations.

PRODUCT RESPONSIBILITY	PRODUCT RESPONSIBILITY				
DMA	Customer Health and Safety				
	PERCENTAGE OF SIGNIFICANT PRODUCT AND SERVICE CATEGORIES FOR WHICH HEALTH AND SAFETY IMPACTS ARE ASSESSED FOR IMPROVEMENT	Yes	See "Safety" section of the report. p12		

Contact 85

#### Request for Feedback

In order that we may continually improve our reporting, we would be grateful for your views and comments on any aspects of this report, via e-mail to the address below.

#### **Contact Details**

Thank you for reading this report

Simon Bennett General Manager Sustainable Development The China Navigation Company 300 Beach Road #27-01 The Concourse Singapore 199555

Tel +65 6309 3632

simon.bennett@swirecnco.com

www.swirecnco.com