

**Module: Introduction****Page: Introduction**

---

**CC0.1****Introduction**

Please give a general description and introduction to your organization.

ICL (Israel Chemicals Ltd) Group is one of the world's leading fertilizer and specialty chemicals companies. For a world challenged by population growth and scarce resources, ICL makes products that increase global food and water supplies and improve industrial materials and processes. The company benefits from direct access to low-cost, highly concentrated sources of minerals – especially potash and bromine. Leveraging this strong basis, we have built leadership positions in the areas of fertilizers and specialty fertilizers, flame retardants, water treatment solutions, specialty phosphates for the food, hygiene and safety industries, and a growing range of sustainability segments.

In 2016, ICL spent an amount of approximately \$76 million on issues related to the environment and environmental conservation. In 2017, ICL is expected to spend a sum of approximately \$112 million in this area, promising the long-term competitive advantages of our company.

ICL produces over a third of the world's bromine and is the 6th largest potash producer in the world. ICL is a leading supplier of fertilizers in Europe and a major player in specialty fertilizer market segments. As one of the world's most integrated manufacturers and suppliers of phosphate products, ICL has become one the leading global providers of pure phosphoric acid and a major specialty phosphate player.

ICL operates via two divisions: the Essential Minerals Division and the Specialty Solutions Division. The Essential Minerals Division includes the ICL Potash & Magnesium, ICL Specialty Fertilizers and ICL Phosphate business units. The division focuses on efficiency, process innovation and operational excellence. The Specialty Solutions Division includes three business units: ICL Industrial Products, ICL Advanced Additives and ICL Food Specialties. The division concentrates on achieving growth through a highly-tailored customer focus, product innovation and commercial excellence.

ICL's major production activities are located in Israel, Europe, the US, South America and China, and are supported by major global marketing and logistics networks. ICL employs approximately 13,500 employees worldwide.

---

**CC0.2****Reporting Year**

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

---

### CC0.3

#### Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Israel
Germany
United States of America
China
Spain
Netherlands
United Kingdom
Belgium
Austria
Canada
Brazil

Select country
France
Mexico
Australia
Turkey

---

#### CC0.4

##### Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD(\$)

---

#### CC0.6

##### Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.

If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

---

#### Further Information

**Module: Management**

**Page: CC1. Governance**

---

#### CC1.1

**Where is the highest level of direct responsibility for climate change within your organization?**

Senior Manager/Officer

---

**CC1.1a**

**Please identify the position of the individual or name of the committee with this responsibility**

Mr. Charles M. Weidhas, the Chief Operating Officer of ICL, also serves as commissioner for environment, safety, industrial health and security for the entire ICL Group. In this capacity, his responsibilities include supervision of the full range of the Group's climate change-related activities in coordination with the Company's corporate-level Centre of Excellence for Greenhouse Gases (GHG COE). The GHG COE, under the management of the VP/Business Development of ICL Essential Minerals, leads corporate-wide initiatives for implementing a company-wide climate-change strategy. As part of this mandate, the COE promotes carbon reporting and reduction initiatives on both product and facility levels, with activities addressing all Company activities from R&D to procurement to M&A policies. As part of its responsibilities, the COE is charged with gathering, processing and consolidating climate change-related data from all ICL companies, analysing and preparing it for the sake of CDP reporting and other voluntary reports, and issuing an annual report quantifying the GHG emissions (Corporate Carbon Footprint) of all ICL companies for the use of internal management. The COE also produces periodic reports regarding climate change and carbon footprint issues for senior management members, who in turn generate reports quarterly and annually for the Board of Directors.

---

**CC1.2**

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

---

**CC1.2a**

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Emissions reduction project Emissions reduction target	ICL has instituted the following initiatives to incentivize the reduction of GHG emissions: 1) As a general rule, ICL encourages suggestions from employees for projects regarding GHG management and/or reduction and other environmental issues, and offers material rewards (including monetary rewards) for suggestions that are adopted- including those that would help the corporation meet its GHG reduction target (see section 3.1a of this report); 2) ICL initiates competitions between facilities and subsidiaries to help the Company achieve its sustainability targets, including GHG reductions. The employees of the winning facilities receive material rewards (including monetary rewards) 3) ICL's primary stockholder, Israel Corp., holds an annual competition for environment-related improvements (including GHG reductions) which offers financial rewards
Facility managers	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Other: On-time supply of data for CFP calculations	1) Climate-change leaders throughout ICL receive management recognition for the on-time supply of data for CFP calculations. 2) Companies that succeed in reducing their CFP from previous years (whether in terms of absolute quantities or as a percentage of production) are recognized in the Company's annual report and at Company conferences.
Business unit managers	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Other: On-time supply of data for CFP calculations	1) Climate-change leaders throughout ICL receive management recognition for the on-time supply of data for CFP calculations. 2) Companies that succeed in reducing their CFP from previous years (whether in terms of absolute quantities or as a percentage of production) are recognized in the Company's annual report and at Company conferences.
All employees	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Other: On-time supply of data for CFP calculations	ICL has instituted the following initiatives to incentivize the reduction of GHG emissions: 1) As a general rule, ICL encourages suggestions from employees regarding carbon management and other environmental issues, and offers material rewards (including monetary rewards) for suggestions that are adopted. 2) ICL initiates competitions between facilities and subsidiaries to help the Company achieve its sustainability targets, including GHG reductions. The employees of the winning facilities receive material rewards (including monetary rewards) 3) ICL's primary stockholder, Israel Corp., holds an annual competition for environment-related improvements (including GHG reductions) which offers financial rewards.

---

**Further Information**

**Page: CC2. Strategy**

---

**CC2.1**

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

---

**CC2.1a**

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	all of ICL's global operations (see country list in question 0.3)	> 6 years	

---

**CC2.1b**

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

ICL has established (since 2009) an Enterprise Risk Management (ERM) cycled program which aims at mitigating existing risks and identification of new risks, including climate related regulatory and physical risks and others. The ERM program is under the responsibility and supervision of the ICL COO who is also the corporate CRO and the commissioner for all EHS issues. The CRO is accountable for implementing the overall Risk Management policy in the group, on behalf of ICL's CEO and reports to the Board of Directors on a periodical basis. The asset/sub-company/business unit level risks are identified, then aggregated to the organizational (ICL group) level, and ranked by materiality to the entire organization. Risks reduction is accomplished through an organized periodical cyclic process which includes several phases:

- ▶ Identification of the risks – A structured process by which each sub-company's top management, within each business unit, identify the organizational key risks.
- ▶ Mapping and measurement of the risks – A process designed to rank and evaluate the identified risks.

- ▶ Management of the risk – Nomination of a team dedicated to analyse the key organizational risks and develop an improvement plan to mitigate the risk.
  - ▶ Monitoring the execution of actions for reducing the risk
  - ▶ Developing a control and monitoring mechanism within the group at the different levels (group, business units, sub-companies, assets).
- Each business unit has identified several climate related risks within these categories and established a diverse working team (including mid-level management and operational personnel and managed by a senior manager) to analyse the risk exposure and develop a mitigation plan. The working teams update this analysis on a quarterly basis, and the progression of mitigation programs is constantly monitored, reported to ICL's management on a semi-annual basis and to the board of directors on an annual basis.

**CC2.1c**

**How do you prioritize the risks and opportunities identified?**

As mentioned above, one of the cyclic phases of the Enterprise Risk Management (ERM) program is the Mapping and measurement of the risks identified. In this phase, all risks (including Climate change related) are ranked and evaluated by Impact and Likelihood. ICL has developed a unified approach to evaluate and prioritize these risks. A matrix of impact and likelihood had been developed according to the specific characteristics of the company. The Impact of the risks is evaluated according to potential damage to the company's profitability, reputation or compliance. Each level is tailored by numbers or qualitative description. The likelihood is evaluated according to frequency or probability. This ranking is conducted by the working teams of each business unit and the entire organization, and reported to ICL's management on a semi-annual basis and to the board of directors on an annual basis.

**CC2.1d**

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

**CC2.2**

**Is climate change integrated into your business strategy?**

Yes

## CC2.2a

### **Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

How the business strategy has been influenced: ICL's commitment to sustainability, and to mitigating climate change in particular, have become cornerstones for the company's strategy. ICL's Centre of Excellence for Greenhouse Gases (GHG COE), which we established in 2008, promotes corporate-wide initiatives for implementing ICL's overall climate-change strategy. The GHG COE promotes carbon reporting and reduction initiatives on both product and facility levels, from R&D to procurement to M&A policies. The GHG COE is also responsible for gathering, processing and consolidating needed climate change-related data from all ICL companies, reporting it to the CDP and other bodies, and issuing an annual report quantifying Company-wide GHG emissions (Corporate Carbon Footprint) for internal management purposes. The COE also reports on climate change and carbon footprint issues to senior management on a periodic basis, who in turn report regularly (quarterly/annual) to the Board of Directors. The gathered GHG emission trends data is assessed annually, and is used to determine ICL's progress against our reduction target (see chapter 3 of this report), and determine the effectiveness of different possible reduction initiatives.

We also began 'Carbon Footprinting' our products in 2008. Our methodology is the use of LCA analyses based on the rigorous UK standard PAS 2050. We have so far calculated the Carbon Footprint of over 60 main products worldwide.

What aspects of climate change have influenced the strategy: Our strategy is based on the premise that climate change is becoming an increasingly significant issue for consumers, governments and companies worldwide (as detailed in the Risks & Opportunities section below, "regulatory" and "other"). For ICL, climate change can impact both the demand to our products and services, as well as our ability to supply them. The aspects of climate change that have especially influenced our strategy are therefore: volatility in precipitation across different geographies, floods and wildfires, sudden rise or decline sea water levels, and desertification of previously fertile lands in various parts of the world. In addition, the demand for sustainable products, most notably in developed markets, has yielded several requests to analyse our products' CFP, showing growing consumer awareness for climate change issues. These requests, usually received by the different marketing divisions, were reported to ICL's management and have accelerated ICL's strategic adaptation to climate change. Furthermore, we are aware of intensifying global legislation and regulation of all issues relating to climate change. These phenomena, and the need to ensure the long-term sustainability of our business, have encouraged ICL to pursue industry leadership in both product and corporate Carbon Footprinting.

Long term strategy: From a strategic perspective, in recent years we have been charting a work plan aimed at accelerating our long-term growth in a dynamically changing marketplace. With a diversified product portfolio and a strong reputation in the areas of fertilizers, water treatment, food additives, hygiene and safety, we are well positioned to offer solutions that promote the wellbeing of the global population facing the challenges of global warming, population growth and intensified urbanization – challenges that give rise, amongst other things, to shortages of food and usable water. To help address these problems, we plan to increase our portfolio of environmentally-friendly and carbon-efficient products (Examples: 'smart' fertilizers and advanced electricity batteries) significantly in the coming decades (over 10 years), both through increased R&D investment and through acquisitions. By capitalizing on our products and know-how in these areas, our goal is to set in motion a "virtuous circle" of sustainability that simultaneously increases our sales and profits.

Short term strategy: In the short term, the need for reliable, company-wide CFP calculations has led us to implement improved measurements of the full range of our carbon-related activities. Example: One of the most significant short-term climate-change related business decisions that we have made is to shift all our significant energy-consuming sites to use natural gas rather than fuel oil or diesel to power our operations (on a continuous, long term basis). This decision, for which implementation has begun in 2010, was sparked, amongst other factors, by the need to use less carbon-intensive fuels. The transition is still in progress and is due to be completed for all relevant sites by the end of 2018. Other examples of short-term strategy were process changes – for example, we have implemented CDM projects to reduce our SF6 and N2O emissions, and thereby generated approx. \$14 million in revenues related to Carbon Credit (current projects). These CDM projects (and the transition to natural gas, described below) were initiated, among else, to help ICL reach its current reduction target (30% by 2020, see below)- and thus meet the growing expectations of stakeholders such as regulators and growingly-climate-aware customers.

Strategic advantage: We believe we have become one of the leading companies in the GHG field, not only in Israel, but also on a global industry basis. We believe our efforts in this field have positioned us favourably to withstand growing consumer scrutiny and the public's preference for low-carbon economies. ICL continues

the reporting of the Company's overall GHG emissions to both the CDP and to the voluntary reporting mechanism in Israel. In this way, we are demonstrating our commitment to the mitigation of climate change and our aim to assume leadership in climate change mitigation activities.

Substantial business decision within the reporting period: In 2016, ICL has decided to continue (for the second straight year) with the CDP supplier engagement program, and to significantly increase the number of suppliers addressed through the program. Utilizing this program, the ICL Global procurement organization has asked a significant part of its main suppliers to disclose their GHG emissions and climate change mitigation strategies to the CDP. The related climate-change aspect was growing interest and awareness from ICL's investors and customers regarding ICL's commitment to increasing sustainability and climate change mitigation with its suppliers. Further details on this issue appear in CC 14 below.

---

#### CC2.2b

Please explain why climate change is not integrated into your business strategy

---

#### CC2.2c

**Does your company use an internal price on carbon?**

No, and we currently don't anticipate doing so in the next 2 years

---

#### CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

---

#### CC2.3

**Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)**

Direct engagement with policy makers  
Trade associations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Voluntary and Mandatory Carbon reporting	Support	<p>Voluntary and Mandatory Carbon reporting In the last 6 years: ICL has become one of the first companies to make a GHG emission report to the voluntary GHG reporting mechanism established by the Israeli Ministry for the Protection of the Environment. Member companies, such as ICL, have been asked to help shape the evolving mechanism: for example, ICL has suggested the inclusion of a number of factors relevant to chemical companies. ICL believes that its participation will be a positive catalyst for the participation of other Israeli companies, thus helping Israel to achieve its nationwide climate change mitigation targets. The voluntary mechanism was generally believed to be the basis for a future mandatory reporting scheme in Israel. Meanwhile, the Israeli PRTR reporting mechanism (established in 2012) has included a different, partial mandatory reporting of GHG emissions of the different ICL facilities within Israel. ICL representatives are participating in round table forums regarding the PRTR law, and voice their support in mandatory GHG reporting and their experience-based opinions on the best way of implementing this type of reporting.</p>	<p>ICL has often voiced it's opinion on the need to coordinate and unify the reporting methodologies and boundaries of GHG emissions between the Israeli voluntary GHG reporting mechanism and the Israeli PRTR reporting mechanism. We believe this would both reduce reporting burden from the participating companies, and help avoid confusion amongst our stakeholders regarding the actual amounts of annual GHG emissions.</p>
Cap and trade	Support	<p>ICL representatives have taken an active role in several discussions in recent years with government representatives in Israel regarding the possibility of the country joining the EU-ETS, expressing their support in such a development. As a local leader in GHG accounting and reduction, ICL is well prepared to participate in any future emission trading scheme and would profit from Israel's joining of an international emission trading program.</p>	
Energy efficiency	Support	<p>ICL has implemented several energy efficiency programs in its global facilities, and supports energy efficiency schemes proposed by governments in territories where the company operates.</p>	

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: General support of climate change management	Support	<p>As one of the leading climate change activist companies in Israel, a country which is moving ever closer towards the legislation of carbon-limiting initiatives, ICL is regularly asked to state its opinion regarding proposed carbon initiatives, drafts of new Carbon Footprint (CFP) standards, etc. For example, ICL's representatives took an active part in a national GHG mitigation committee (Israel's GHG Reduction curve), and in discussions regarding Israel's proposed national reduction plan, submitted as part of the COP 21 global climate agreement. We often voice ICL's support of stricter climate change policies and potential emission-trading schemes. ICL's GHG COE representatives are frequently asked to lecture on ICL's CFP work, with an emphasis on the marketing and material advantages that the program has generated so far. This is another sign that ICL is viewed as a leader for climate change-related activities within Israel. ICL frequently asks its suppliers to provide CFP accounting for their products as an input for ICL's product CFP calculations. This is one of the ways in which ICL is encouraging other companies to conduct product CFPs.</p>	

---

**CC2.3b**

**Are you on the Board of any trade associations or provide funding beyond membership?**

Yes

---

**CC2.3c**

**Please enter the details of those trade associations that are likely to take a position on climate change legislation**

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Israel's Manufacturers Association	Consistent	Supporting Climate Change legislation and mitigation policies	ICL is an active member of Climate Change committees as part of Israel's Manufacturers Association. As one of the leading climate change activist companies in Israel, we encourage other manufacturing companies to report and manage their GHG emissions, and for the manufacturers association to take a positive active role in shaping GHG legislation in Israel in a matter that would be beneficial for both the industry and the efforts to mitigate climate change.

---

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

---

CC2.3e

Please provide details of the other engagement activities that you undertake

---

CC2.3f

**What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

All our activities regarding influence on climate change policies (as described in 2.3a and 2.3b above) are coordinated by and reported to the GHG Centre of excellence (COE), which leads the implementation of ICL's climate change strategy, as determined by ICL's management. The GHG COE members discuss these issues fluently, and common decisions are made and communicated internally on the corporation's position on different policy issues. In this way- we ensure that our climate change strategy is indeed reflected and represented in all activities that could influence policies.

---

CC2.3g

Please explain why you do not engage with policy makers

## Further Information

### Page: CC3. Targets and Initiatives

#### CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target

#### CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Other: Scope 1+2 (market based)+3 (all currently measured by ICL, see CC14)	100%	30%	2008	4179550	2020	No, and we do not anticipate setting one in the next 2 years	After achieving our previous goal (reducing 20% of emissions in Israel from 2008 and 2012), we have determined a new, more ambitious goal for the coming years. Notes: 1. The target year was recently changed from 2017 to 2020, while maintaining the same reduction percentage goal (30%). This change was decided on in order of aligning the ICL reduction target to the short-term targets most commonly used by governments and large organizations (in terms of the target year), and also due to the increase in the



---

**CC3.1c**

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
----	---------------------------------------------------------------------------------------	------------------------------------------------------	-------------------------------------------------------------------------------------	----------------------------------------------------	---------

---

**CC3.1d**

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
----	--------------------------------	-----------	------------------------------------------------	---------------------------------	-------------	-----------------------------------	---------

---

**CC3.1e**

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	67%	82%	By the end of 2016, we have achieved a 24.6% absolute reduction in our GHG emissions compared with baseline emissions (which is $24.6/30=82\%$ of the original target). The new inclusion in 2016 of ICL's major recent acquisition-ICL China YPH (see details in chapter 12)- has caused a significant addition to ICL's GHG inventory (~440 tonne CO <sub>2</sub> e), which were not included in our baseline emissions (or any year before 2016). We are currently therefore considering updating the emission target respectively. It should be noted that if excluding YPH, ICL has already surpassed it's 30% reduction target for 2020.

---

**CC3.1f**

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

---

**CC3.2**

**Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?**

No

---

**CC3.2a**

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
----------------------	------------------------------------------	--------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------	-----------------------------------------------------	---------

**CC3.3**

**Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)**

Yes

**CC3.3a**

**Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings**

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	2	380000
Implemented*	2	1450000
Not to be implemented	0	0

**CC3.3b**

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Other	Transition to natural gas: Since 2010, ICL has been undertaking a strategic transition to increasingly use natural gas instead of 'heavy' fossil fuels (fuel oil, diesel and naphtha) to power its largest production plants in Israel, resulting in a drastic reduction in the Company's use of fuel oil and diesel. The transition is now near completion, and today approximately 97% of the ICL Israel fuel consumption is comprised of natural gas (therefore this initiative was considered as "implemented" in 3.3a above). During 2016- two of ICL sites in China (Shandong, YBKGT) have also made a transition from Coal and Diesel to liquid natural gas. By the end of 2018, further ICL sites: ICL China YPH 3C, ICL Haifa	450000	Scope 1 Scope 2 (market-based)	Voluntary	70000000	110000000	1-3 years	>30 years	The annual monetary savings from the transition to natural gas were estimated in previous years as significantly higher. The current reduced saving figure is mainly due to the vary significant and ongoing drop in the global oil prices in 2014-6, which has made the traditional fuels used before natural gas (mainly HFO) much cheaper. However, the transition to natural gas is still beneficial for both economic and environmental considerations.

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>F&amp;C, ICL Rotem Zin- are due to be connected to new gas supplies. These measures are reducing our Scope 1 emissions directly by decreasing emissions from onsite energy combustion. In addition, they may reduce our Scope 2 emissions, as the employment of new, more efficient CHP plants effectively reduces ICL's dependency on the purchase of more carbon-intense external electricity. This initiative is expected to operate on a permanent basis, without a limited lifespan. ICL has undertaken this transition to natural gas on a voluntary basis in line with Israel's national energy strategy. The transition will significantly improve the ICL group energy efficiency, and is expected to reduce energy, maintenance and other costs, thereby saving ICL approx. 70 million USD(\$)</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>annually . This estimated yearly saving is expected after the completion of the conversion of all ICL facilities to Natural Gas usage, was determined according to currently known fuel prices, is relevant to the time of completion of this report, and might be revised due to future events such as fluctuations in fuel prices, the availability of Natural Gas etc.</p>								
Process emissions reductions	<p>Changes in the manufacturing process of metal magnesium: Despite the fact that magnesium is a commodity and that its markets are highly competitive, ICL's magnesium production process conforms to extremely high quality standards and incorporate an ongoing effort to reduce associated carbon emissions. Magnesium, when melted, ignites if it comes into contact with</p>	1000000	Scope 1	Voluntary	0	900000		>30 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>oxygen in the air, an occurrence which impairs the quality of the product. For this reason, it is common industry practice to "protect" the magnesium by using gases that prevent its exposure to oxygen. Some of the gases commonly used in this process have been linked with negative health and environmental effects, including SF6. As awareness of the need for environmental protection grows, the industry has become more aware that SF6 is a greenhouse gas with significant greenhouse potential (22,800 CO2e). As such, ICL's Dead Sea Magnesium (DSM) has replaced this gas with HFC134a, a gas with a much lower GWP value. Currently, SF6 is no longer used at DSM (therefore this initiative was considered as "implemented" in 3.3a above). For this reduction initiative, ICL's DSM has</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>chosen to employ the UN's Clean Development Mechanism (CDM) for the trading of approvals for the reduction of greenhouse gases (Carbon Credits). The company initiated this project in 2009, and is annually validating the achieved reductions. The project has resulted in a significant reduction in DSM's CFP and in ICL's overall CFP. DSM has reduced its Scope 1 process GHG emissions by over 90%. The change was voluntary, and the company has received CDM credit for it, generating over \$13 million overall in income from carbon credits. This initiative is expected to operate on a permanent basis, without a limited lifespan (in terms of not using SF6. Income levels may vary according to fluctuations in the Carbon Market).</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Process emissions reductions	Reduction of process emissions from nitric acid production: ICL Haifa Fertilizers and Chemicals (F&C) operates a nitric acid facility which emits a small quantity of nitrous oxide (N2O). Although nitrous oxide is not considered a health contaminant, it is considered a greenhouse gas. Since the end of November 2007, ICL has been deploying an innovative system aimed at reducing its nitrous oxide emissions (per nitric acid production) by approx. 80%. At this stage, the actual reduction achieved has reached approx. 60%, and the Company is continuing its efforts to improve the performance of the system through support of Johnson Matthey, the firm that developed the technology (therefore this initiative was considered as "implemented commenced" in 3.3a above). The project was approved by the CDM	80000	Scope 1	Voluntary	0	700000		>30 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>Executive Board of the United Nations Framework Convention on Climate Change (CDMEB - UNFCCC) and backed by Israel's National Committee for Clean Development. This process enables the Company to use the Clean Development Mechanism (CDM), making it possible to trade Carbon Credits. The reduction is in Scope 1 process emissions. The change was voluntary, and ICL has received CDM credit for it. This initiative is expected to operate on a permanent basis, without a limited lifespan. The estimated eventual annual CO2e reduction is difficult to estimate in absolute terms- as the production level of nitric acid at this facility can vary significantly according to market needs. Average production of 2008-12 was used to estimate the expected savings in absolute terms.</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Processes	<p>Energy savings: In early 2013, ICL launched a global energy efficiency program, as part of the corporate wide ACE (Ambition Creates Excellence) efficiency plan. For this purpose, ICL developed a standard methodology that could be applied at all locations. By the end of 2016, 26 of ICL's largest global production facilities have implemented this methodology. During 2017, it is estimated that a further 4 plants will be taken through the methodology for the first time. Other sites are being re-visited to refresh local teams and procedures, and to identify new energy efficiency opportunities. The main areas of efficiency projects implemented so far include: optimizing the control and use of equipment used in production processes, re-using the residual heat in production plant stacks,</p>	300000		Voluntary Mandatory	36000000	25000000	<1 year	>30 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>greater efficiency in the production of compressed air and steam, and deployment of advanced control systems for automatic shutdown of power, light and air-conditioning systems. In addition, ICL works to implement behavioral changes that reduce energy use on an on-going basis. As part of the program, ICL is implementing new and improved energy management systems, and all significant energy consuming will be accredited to ISO 50001/a similar internal standard by 2020. ICL's ACE energy efficiency plan has reduced expenses by approximately USD 26 million overall in 2016 compared to the 2013 base year. The goal of the plan is to reach an annual savings of USD 45 million in energy costs by 2020 compared with 2013. This program is meant to reduce</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	<p>both Scope 1 and Scope 2 emissions (by conducting savings in both fuel and external electricity uses). The program is partially-voluntary and partially-mandatory (as energy efficiency requirements according to the relevant EU's BREF are currently being inserted as a condition to business licenses for manufacturing facilities in Israel, but this does not cover all aspects and facilities covered in our program). The program is an on-going process which will continue in future years. In addition, the behavioral changes effected are intended to be maintained and to be enhanced in the future. Therefore, this initiative is expected to operate on a permanent basis, without a limited lifespan. The expected annual GHG reduction has been adjusted according to the new savings program, but</p>								

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	may still vary as new savings projects are planned and initiated.								

### CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	
Dedicated budget for energy efficiency	
Employee engagement	
Other	The financial potential of the CDM mechanism.

### CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

### Further Information

Some of ICL's products can be used by customers to prevent the generation GHG emissions, although we did not include this in section 3.2 due to our limited access to specific estimations. Examples of these products include: • Potash, a common fertilizer (one of ICL Fertilizers' main products): the use of potash makes the use of land by farmers more efficient, thereby preventing the need to convert additional forests or wetlands for agriculture. As such, the use of potash has a beneficial effect on the global carbon balance. Potash also increases plant sequestration of CO2 in comparison with other fertilizers. • Flame and forest-fire retardants (ICL Industrial Products largest product lines) enhance resistance to fire in diverse applications and delay its spread. The fires prevented (or quenched more rapidly) reduce significant unnecessary carbon dioxide emissions. • ICL's chemical-based water treatment solutions enhance the fresh water supply in water-challenged regions, reducing the need to engage in energy-intensive, costly desalination projects.

**Page: CC4. Communication**

**CC4.1**

**Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)**

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Underway - previous year attached	p. 141-144	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/ICL_Corporate%20Responsibility%20Report_2015.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC4.1/ICL_Corporate Responsibility Report_2015.pdf</a>	In the ICL annual CSR/GRI report
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	p. 94-95 (which are p. 102-103 in PDF file)	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/20F-2016-Final.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC4.1/20F-2016-Final.pdf</a>	In ICL's annual financial (F-20) report.
In voluntary communications	Underway - previous year attached	Entire document (only Hebrew version exists)	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC4.1/2015_ICL_original_form_28.6.16.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC4.1/2015_ICL_original_form_28.6.16.pdf</a>	In ICL's annual report to the voluntary GHG reporting mechanism in Israel.

**Further Information**

Our 2016 Annual Report and 2015 Corporate Responsibility Report summarize ICL's general strategy regarding climate change and GHG emissions. The Corporate Responsibility Report also includes GHG absolute emission figures for the entire Company. English versions of both reports are attached above. Since 2011, ICL has become one of the first companies to report annually regarding its Israeli GHG emissions to the voluntary GHG reporting mechanism established by the Israeli Ministry for the Protection of the Environment (note: ICL's Israeli facilities account for the majority of the Company's global GHG emissions). This report (also attached above) only exists in the Hebrew language.

## Module: Risks and Opportunities

### Page: CC5. Climate Change Risks

#### CC5.1

**Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

Risks driven by changes in regulation  
 Risks driven by changes in physical climate parameters  
 Risks driven by changes in other climate-related developments

#### CC5.1a

**Please describe your inherent risks that are driven by changes in regulation**

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	Most of ICL's largest producing facilities are located in Israel. GHG	Increased operational cost	1 to 3 years	Direct	About as likely as not	Low	Potential implications are the costs of a potential Carbon tax which will add a	ICL has founded its GHG Centre of Excellence, and the company has	The costs associated with our actions are reflected in maintaining a dedicated and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	regulation in Israel is still in its first steps, and there is currently much uncertainty about the nature of the eventual mandatory GHG reporting scheme. In 2010, a voluntary mechanism for company reporting of GHG's (Scope 1 and Scope 2 emissions) was introduced by the Israeli Government with active participation of ICL. This mechanism has widely been considered to be the basis for of a future mandatory reporting and emission-reducing mechanism in						price for every CO2 ton emitted, of maintaining a dedicated GHG management staff, and of hiring a qualified third party to verify our emissions. The overall financial expense under this scenario should not exceed \$10 million (<0.2% of ICL's total revenues). However, the scenario of a Carbon tax implemented in Israel seems unlikely in the adjacent future, as Israel is still taking its first steps in GHG legislation.	gathered expertise in the GHG field and has already reduced its emissions significantly from 2008 levels (see section 3 of this report). Thanks to its significant role and advanced position with regards to GHG management, ICL is a strategic partner in the dialogue between the government and the Industry in Israel, and can anticipate coming developments within this risk in advance. Therefore, ICL is well-positioned to manage this	professional team for the continuous analysis of GHG emissions, and hiring a qualified third party accounting company to begin verifying our GHG calculations. We estimate the overall costs at approximately \$200 thousand annually (less than 0.01% of the company's total revenues).

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Israel. However, in 2011, The Israeli parliament has also passed a law promoting the establishment of a local PRTR (Pollution Release and Transfer Registry) mechanism. This mechanism, which has now been now active for four years, requires all major Israeli industry facilities to annually report a significant variety of pollutant emissions, including GHG gases. The methodology used for this reporting of GHG's does not match the</p>							<p>risk, and has invested the necessary resources to deal with climate change as part of its sustainability policy.</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>one used by the voluntary mechanism (for example, the PRTR scheme excludes Scope 2 emissions, uses different EF's in some cases, and other differences), which continues to operate in parallel. The leaders of these two government mechanisms have made statements promising to improve the alignment between them (and possibly unifying the reports) for the next reporting year to allow accurate and simple GHG reporting, but the results of</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>this expected improvement are yet to be determined. In conclusion, it is still unclear what form the eventual mandatory mechanism in Israel would take: whether as part of the PRTR law, as an emission trading scheme (such as the EU-ETS), as a taxation plan or some other option. Additional related uncertainties include the base years which would be used in such a mechanism, and the magnitude of emission reductions that would be demanded. A general overall</p>								



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	scenarios.								
Other regulatory drivers	ICL, as a company within the chemistry industry, is influenced by regulatory demands and licensing policies (e.g. environment and safety). For instance, ICL produces potash and salt in Israel, Spain and the UK according to permits and licenses issued by the relevant countries. Regulatory demands have been intensifying throughout the world, and changes in the compliance landscape may impact ICL and its operations. Further, since climate change	Reduction/disruption in production capacity	Unknown	Direct	Exceptionally unlikely	Low	Potential financial implications of the risk are the losses of revenues from the operation of specific ICL facilities (due to non-renewal of permits). Revenues of ICL (2016) were \$5.4 billion globally, and any loss of revenue is dependent on which facilities are involved and for what period of time. In addition, the financial impact is related to selling prices of our products, which are subject to market developments.	ICL believes the scenario of the non-renewal or cancelation to our permits is very unlikely. The ICL facilities are in full compliance with strict environmental regulations, and act to prevent the likelihood of a damage caused to our facilities by natural disasters, for example by mitigating the intensity of floods at our facilities areas using canals and other engineering solutions. Therefore, the scenario of a severe damage caused to one	The costs associated with our actions are of implementing engineering solutions such as the canals described above. Such costs are dependent on the type of regulatory requirement, the production site involved and the scope of work needed, In 2016, for example, ICL spent a sum of around \$76 million on environmental issues, out of which \$12 million were invested in plant and equipment for the prevention of

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>increases the likelihood and severity of natural disasters, the acceleration of climate change could result in increased regulatory activities, influencing governmental decisions regarding the renewal of licenses. Government approvals are important to ICL in cases in which non-renewal could affect the company. However, ICL maintains high standards throughout its production facilities, often significantly above regulatory requirement, and therefore</p>							<p>of our facilities that would lead to a non-renewal of permits is not considered by ICL as a significant risk. Furthermore, ICL is an extremely diverse and globally spread company, with over 50 production sites worldwide and a wide variety of products. Therefore, even the temporary or permanent shutdown of one of its facilities is very unlikely to have a significant influence on the company's overall profitability (net income of \$509 million in 2015).</p>	<p>environmental hazards, and approximately \$64 million as a current expense in this area.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	sees this risk as exceptionally unlikely.								
Fuel/energy taxes and regulations	ICL's plants throughout the world consume large amounts of energy (although they are highly energy-efficient). Governments are expected to act to mitigate climate change, and one of the mitigation methods they may use is the legislation of taxes and/or regulations associated with the combustion of fossil fuels, especially emission-intensive fuels such as fuel oil and diesel. Any increase in the input fuel cost rate will affect	Increased operational cost	1 to 3 years	Direct	About as likely as not	Low	Potential implications of the risk are the added taxes related to (Carbon-intensive) fossil fuels, which could add costs to large producing companies such as ICL. This impact can amount to several millions of USD annually. ICL's energy costs in 2016 amounted to 6% of total production costs, including oil products (\$15 million), electricity (\$167 million) and natural gas (\$77 million). Due to the gradual	As part of the effort to tackle global warming as well as the rising risk involved with dependency on fuel oil and as mentioned above, ICL has been completing a gradual shift to the full usage of natural gas as our main fuel source (instead of fuel oil and diesel). This strategic investment of nearly \$110 million is expected to yield approx. \$70 million in annual energy savings (see section 3 of this report), but also reduce our	Costs associated with the strategic transition to natural gas are approx. \$110 million.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>the Company's manufacturing costs and volumes. The fact that ICL is already implementing a gradual shift from fuel oil and diesel to natural gas positions it favourably to deal with such government initiatives.</p>						<p>increase in natural gas usage, the overall energy costs (per production) are declining.</p>	<p>exposure to the fluctuating oil market. The transition is now near completion, and by the end of 2016, ~97% of the fuel consumption of ICL Israel's facilities is derived of natural gas. Since renewable energy has not yet become a reliable energy source for industries at Israel, Natural Gas is the best current available solution for ICL in GHG emission terms, and therefore it is very unlikely that it will be specifically taxed in Israel. ICL is also utilizing solar</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								energy for the production of Carnallite at the Dead Sea, using one of the world's largest evaporation systems. The use of solar energy helps ICL avoid the high costs related to fossil fuels and other energy sources used by the company's competitors. Regardless to the transition to natural gas and use of solar energy, ICL is hedging against short-term fluctuating energy prices coordinated by ICL's energy forum.	

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	ICL is a major producer of fertilizers for the agricultural industry. The agricultural industry is influenced by local weather conditions. Storms, long periods of drought, floods and extreme temperature change can affect crop quality and quantity, resulting potentially in decreased fertilizer usage and loss of sales. In fact, one of the main effects of climate change is expected to be an increased frequency of extreme weather events, such as harsher	Reduced demand for goods/services	>6 years	Indirect (Client)	About as likely as not	Low	Potential implications of the risk are losses of revenues from fertilizers sales in the specific regions affected by the droughts. For instance, a 1% drop in fertilizers sales would result in a lost income of approximately 24 million dollars (according to 2016 figures). However, since ICL has a well-diversified portfolio of global customers, it is highly unlikely that any specific cases of droughts would significantly affect the company's revenues.	As mentioned above, ICL's diverse range of customers around the world greatly reduces the chances of being impacted by this risk and the magnitude of it. In order to mitigate this risk, ICL continues to explore new markets and develop new products and service offering in order to reduce the company's exposure to specific markets.	There are no significant costs associated with managing this risk. The relevant marketing costs are included in the company's total selling and marketing costs (including shipping), which were approx. \$722 Million at 2016, but are not considered a significant part in these costs.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>and/or longer droughts, which also leads to crop loss. If a country experiences a dramatic change in crop characteristics or output, the government could activate a mitigation plan by increasing the subsidy offered to local producers and farmers. It is difficult to predict the effect that this might have on ICL sales and revenues. If demand for fertilizers drops, ICL might be forced to reduce its prices, thereby reducing its profits, or otherwise lose some sales. However, a drought in one country could</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	lead to increased fertilizer demand in another country which becomes its supplier, leading to increased profits for ICL in the supplier country. As such, this aspect of climate change could represent both a risk and an opportunity for ICL.								
Sea level rise	ICL is a major producer of fertilizers, products which are needed globally to achieve the increasing need to produce more crops from a decreasing quantity of agricultural land. One of the expected effects of climate change is a rise in the level of	Reduced demand for goods/services	>6 years	Indirect (Client)	Very unlikely	Low	Potential implications of the risk are losses of revenues from fertilizers sales in the specific regions affected by the droughts. For instance, a 1% drop in fertilizers sales would result in a lost income of approximately 24 million dollars (according to	As mentioned above, ICL's diverse range of customers around the world greatly reduces the chances of being impacted by this risk and the magnitude of it. In order to mitigate this risk, ICL continues to explore new markets and develop new	There are no significant costs associated with managing this risk. The relevant marketing costs are included in the company's total selling and marketing costs (including shipping), which were approx. \$722 Million at 2016, but are not

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>the sea. Such a rise could significantly diminish the amounts of land available for all of mankind's needs, including agriculture. If the quantity of land used for agriculture is diminished, ICL's sales of fertilizer could be lowered at some cases. However, the need to grow the same or more crops on less land could also increase demand for fertilizers. Therefore, the rise in sea level represents both a risk and an opportunity for ICL.</p>						<p>2016 figures). However, since ICL has a well-diversified portfolio of global customers, it is highly unlikely that any specific cases of droughts would significantly affect the company's revenues.</p>	<p>products and service offering in order to reduce the company's exposure to specific markets.</p>	<p>considered a significant part in these costs.</p>
Change in precipitation extremes and droughts	<p>Some of ICL's Israeli plants are located in Sdom in the Dead Sea region. In 2004,</p>	<p>Reduction/disruption in production capacity</p>	<p>&gt;6 years</p>	<p>Direct</p>	<p>Unlikely</p>	<p>Medium</p>	<p>Potential implications of the risk are the physical damage that</p>	<p>Apart from ICL implementing specific physical measures to</p>	<p>The cost associated with our actions is the specific measures and</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	severe flooding in the area caused property damages and loss of profits. Climate change is expected to increase the frequency of extreme weather events such as floods, and could therefore increase the chance of such incidents in the future. Apart from implementing physical measures to deal with extreme weather conditions, ICL has acquired insurance to protect itself from exposure to such natural disasters.						could be inflicted to ICL's facilities in the case of floods, and the loss of revenue caused by a lowered production.	deal with such scenarios, ICL has acquired insurance to protect itself from exposure to such natural disasters as floods. This does not affect the likelihood of floods, but greatly reduces the magnitude of potential damage to ICL. This insurance is currently expected to be renewed annually, hence mitigating this risk for a long-lasting timeframe.	price of the insurance, estimated at several millions of dollars.
Change in precipitation pattern	The Company's Israeli phosphate plants use large	Increased operational cost	>6 years	Direct	More likely than not	Low	Potential financial implications of the risk are the	For both financial and sustainability reasons, ICL is	In the last decade, the organization has spent over

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>amounts of water as part of their daily operations. Water is scarce, and is purchased from Israel's national water company, Mekorot, at a cost determined by the Israeli government. Climate change is likely to reduce precipitation in Israel, thus increasing the price of water. Any increase in the cost of water may increase the Company's operational costs.</p>						<p>added costs of water. Since the organization's annual expenses on water are approx. 25-30 million dollars, a 10% rise in water prices would result in an added cost of approx. 2.5-3.0 million dollars. However, these added costs are not considered significant in proportion of the general ICL income.</p>	<p>continually pursuing initiatives to minimize water usage and wastage so as to limit its dependency on water availability. Some of the ICL facilities are now operating new and improved waste water treatment facilities, which allow to recycle much of the wastewater back into the production processes (after treatment). Furthermore, the organization is constantly searching for opportunities to substitute the usage of drinking grade quality water with non-drinking grade quality water for</p>	<p>\$13 Million on drilling in the Sdom area, in purpose of extracting brackish water. In addition, some of the environmental investments mentioned above include the establishment of new wastewater facilities, allowing for greater recycling capacity of water.</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								<p>the sake of the production processes (though only in cases where this does not affect the quality of the product). The usage of non-drinking grade quality water allows ICL to avoid some of the risk of a rising in water prices (as this grade of water is usually cheaper), and has sustainability advantages as well- by using water that would otherwise not used by the general public. One of the key examples of this is DSW, one of ICL's largest companies, which extracts local brackish</p>	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								water in the Dead Sea area for production needs. This water is otherwise unexploited by the public, and the extraction operations are approved and encouraged by the regulations.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	As awareness of climate change increases, consumers are pressing governments and companies to take preventative action. This trend has been	Reduced demand for goods/services	1 to 3 years	Direct	Likely	Low	Potential implications are the loss of sales, due to consumers preference to products with a lower, reliable CFP value. For instance, a 1% drop in all ICL	The GHG COE has gathered much expertise on the subject. The Carbon Footprinting of our products is advancing at a steady pace, with more than 60	The costs associated with our actions are the costs of maintaining a dedicated and professional staff for the measuring and the analyzing of our

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>increasing since the COP 21 global climate agreement, in December 2015. ICL has experienced growing demand from its clients to provide Carbon Footprint (CFP) calculations for its products. For example, the French Government has enacted in recent years a pilot program under which products imported into France are requested have a valid product CFP. Products which will not have a reliable calculated CFP, could suffer from a competitive disadvantage compared to more climate change-oriented competitors. As a company with many diverse</p>						<p>sales due to such reasons would result in a lost income of approximately \$54 million (according to 2016 publicly available financial statements). However, ICL is likely to be more prepared for the change in consumers' behavior than others. Therefore, this issue is more likely to present an opportunity to potentially increase our sales.</p>	<p>products under reliable carbon footprint analysis according to the British standard PAS2050 together with SKM Enviros. Five of ICL's core products have also gained the Carbon Trust's certification at 2009. Our actions in this field significantly reduce the magnitude of this risk, and in fact turn it into an opportunity, if we can keep our position as leaders in climate change management.</p>	<p>GHG emissions and product Carbon Footprint. We estimate the overall costs at approximately \$200 thousand annually (less than 0.01% of the company's total revenues).</p>

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>products, ICL invests significant resources (in terms of personnel, time and funding) to answer growing world's demand for product Carbon Footprinting. Its actions are facilitated by its accumulated experience in establishing ICL's GHG COE, which has gathered much expertise on the subject, as well as its progress in product Carbon Footprinting. Therefore, the change of consumer behavior represents both a risk and an opportunity for ICL, as the Company's efforts in this area position it as a leader in the climate change</p>								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	field, improving its overall reputation (and potentially therefore increasing its sales).								

---

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

---

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

---

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

**Further Information**

**Page: CC6. Climate Change Opportunities**

**CC6.1**

**Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply**

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

**CC6.1a**

**Please describe your inherent opportunities that are driven by changes in regulation**

<b>Opportunity driver</b>	<b>Description</b>	<b>Potential impact</b>	<b>Timeframe</b>	<b>Direct/Indirect</b>	<b>Likelihood</b>	<b>Magnitude of impact</b>	<b>Estimated financial implications</b>	<b>Management method</b>	<b>Cost of management</b>
Cap and trade schemes	One of the scenarios related to the Israeli government's strategy regarding climate change is the implementation of a local cap & trade scheme	Other: Competitive Advantage	3 to 6 years	Direct	Unlikely	Low	Potential implications: Emission trading schemes offer financial benefits for companies that exhibit the best reduction per	As a large producing company which has highly developed its methods to calculate its GHG emissions and to find the best	There are no direct costs associated with these actions, except for maintaining the activities within the corporate GHG Centre of Excellence.

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>and/or the joining of the country to one of the existing global schemes. As a company that has achieved expertise in both carbon reporting and physical reductions, ICL could benefit from the implementation of a cap &amp; trade scheme in Israel. Therefore, we believe this potential development has become an opportunity for the Company .Currently, however, such a development seems unlikely due to the evident crisis in the global carbon market, and since this issue is currently not included in Israel's INDC (submitted as part of the Paris</p>						<p>cost ratios. Based on our earnings from trading carbon credits through the clean development mechanisms, the potential financial income from implementing such a scheme in Israel could reach approx. \$4 million annually for ICL (depending on fluctuations in the carbon market).</p>	<p>opportunities for emission reductions, ICL has already significantly reduced its emissions and continues to do so. Therefore, ICL has developed a competitive advantage for such a potential scheme. To address the potential impact, ICL has already contracted its carbon credits within the CDM scheme up to 2012, and in some cases on a spot basis with no future commitments, allowing the company sufficient carbon credits to manage potential opportunities arising in carbon markets. In order of</p>	<p>These ongoing costs are estimated at approximately \$200 thousand annually (less than 0.05% of the company's net income).</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	agreement).							increasing the likelihood of this opportunity, ICL is advocating for an open, free carbon market in Israel whenever we are asked for our opinion.	

**CC6.1b**

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	The agricultural industry, in which ICL operates, is influenced by local weather conditions. Storms, long dryness periods, floods and extreme temperature changes could affect the	Increased demand for existing products/services	>6 years	Indirect (Client)	About as likely as not	Low	Potential financial implications of this opportunity are the additional revenues from sales of fertilizers to the specific regions as a result of the change in climate patterns.	ICL continues to explore new opportunities in developing markets, and expands its global position to benefit from any direct opportunity arising in this field (change in climate)	There are no significant costs associated with managing this opportunity. The relevant marketing costs are included in the company's total selling and marketing costs (including shipping),

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>agricultural product quality and its quantity, resulting in higher fertilizer usage per acre and therefore increased sales. One of the expected main effects of climate change is the increase in frequency of extreme events such as harsher and/or longer droughts, which naturally leads to loss of crops. If a country experiences a dramatic change in crops characteristics or output, the government could activate a mitigation plan under which it would increase subsidies to local producers / farmers. In some cases, a drought in one country could lead to</p>						<p>These financial implications are very much dependent on the type of products and markets involved. For instance, a 1% added rise in fertilizers sales would result in an added income of of approximately 24 million dollars (according to 2016 figures).</p>	<p>patterns). ICL's vast distribution of customers around the world enhances its ability to benefit from this opportunity and the magnitude of the opportunity.</p>	<p>which were approx. \$722 Million at 2016, but are not considered a significant part in these costs.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	increased fertilizer demand in another country which supplies its food, leading to increased profits for ICL in the supplier country. Therefore, change in precipitation extremes and droughts are considered both a risk and an opportunity for ICL.								
Other physical climate opportunities	ICL is a major producer of fertilizers, products which are needed globally to achieve the increasing need to produce more crops from a decreasing quantity of agricultural land. One of the expected effects of climate change is a rise in the level of the	Increased demand for existing products/services	>6 years	Indirect (Client)	Very unlikely	Low	Potential financial implications of this opportunity are the additional revenues from sales of fertilizers to the specific regions as a result of the change in climate patterns. These financial implications are very much dependent on the type of	ICL continues to explore new opportunities in developing markets, and expands its global position to benefit from any direct opportunity in this field (rise in sea level). ICL's vast distribution of customers around the world enhances its ability to benefit from this	There are no significant costs associated with managing this opportunity. The relevant marketing costs are included in the company's total selling and marketing costs (including shipping), which were approx. \$722 Million at 2016, but are not considered a

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	sea. Such a rise could significantly diminish the amounts of land available for all of mankind's needs, including agriculture. If the quantity of land used for agriculture is diminished, ICL's sales of fertilizer will be impacted. However, the need to grow the same or more crops on less land could increase demand for fertilizers. Therefore, the rise in sea level represents both a risk and an opportunity for ICL.						products and markets involved. For instance, a 1% added rise in fertilizers sales would result in an added income of of approximately 24 million dollars (according to 2016 figures).	opportunity and the magnitude of it.	significant part in these costs.
Change in precipitation pattern	One of the possible physical effects of climate change is major changes in participation patterns, resulting in a lack	Increased demand for existing products/services	>6 years	Indirect (Client)	More likely than not	Low	Potential financial implications of this opportunity are the additional revenues from sales of I.D.E	I.D.E's marketing department is constantly searching for new business opportunities and demand for	There are no specific costs associated with managing this opportunity. The ownership of I.D.E is maintained

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>of fresh water in different parts of the world. Under such a scenario, water desalination technology (as a prominent solution) becomes a significant business opportunity. ICL has partial ownership (50%) in I.D.E, a leading provider of water desalinization solutions. The company has already implemented a range of water desalination projects in Israel and worldwide, developing new technologies which help in reducing the price and increasing the availability of desalinated water. In case of a growing lack of</p>						<p>desalination services. The specific additional revenues are dependent on the specific business cases arising (what countries, the magnitude of demand for I.D.E services, etc.). For instance, a 10% rise in I.D.E net income would result in an added income of approximately 1.5 million dollars for the ICL organization (as per the 2013 financial statements).</p>	<p>their services- which at many cases arises from scarcity of water (due to climate change and other reasons).</p>	<p>without any direct relation to this opportunity's management.</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	fresh water, the desalination market is expected to grow, and I.D.E sales could rise, earning added profits for ICL.								

#### CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	As the awareness to climate change rises in the world, consumers are pressuring governments and companies to act on the subject. ICL has experienced a growing demand from its clients to provide them with the Carbon	Other: Competitive Advantage	1 to 3 years	Direct	Likely	Low	Potential implications of this opportunity are added sales, due to the consumers' preference to products with a lower, reliable CFP value. We believe ICL is likely to be more prepared for the change in consumers' behaviour than	The GHG COE has gathered much expertise on the subject. The Carbon Footprinting of our products is advancing at a steady pace, with more than 60 products under reliable carbon footprint analysis according to the British standard	The costs associated with our actions are the costs of maintaining a dedicated and professional staff for the measuring and the analyzing of our GHG emissions. We estimate the overall costs at approximately

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	<p>Footprint (CFP) of our products. For example, In recent years the French Government has decided, as a pilot stage, to demand any imported product entering France to have a valid product CFP. As a company with many diverse products, ICL needs to spend significant resources (personal, time and funding) to answer to growing demand of product Carbon Footprinting. However, the GHG COE has gathered much expertise on the subject, the Carbon Footprinting of our products is advancing on a steady pace (currently- over</p>						<p>others. The gained competitive advantage would depend on the type of products and markets involved. For instance, a 1% rise in all ICL sales due to such reasons would result in an added income of approximately \$54 million (according to 2016 publicly available figures).</p>	<p>PAS2050 together with SKM Enviro. Five of ICL's core products have also gained the Carbon Trust's certification at 2009. Our actions in this field enhance the magnitude of this impact, whereas the likelihood is mainly influenced by macro-trends and consumer preferences.</p>	<p>\$200 thousand annually (less than 0.01% of the company's total revenues).</p>

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	60 leading products have undergone a CFP calculation). Therefore, this item could be a risk of added costs to ICL, but is more likely an opportunity to exhibit our leadership in the climate change field, and improve our reputation with clients (thus hopefully, increasing our sales).								

---

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

---

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

---

**CC6.1f**

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

---

**Further Information**

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading**

**Page: CC7. Emissions Methodology**

---

**CC7.1**

**Please provide your base year and base year emissions (Scopes 1 and 2)**

<b>Scope</b>	<b>Base year</b>	<b>Base year emissions (metric tonnes CO2e)</b>
Scope 1	Tue 01 Jan 2008 - Wed 31 Dec 2008	3050059
Scope 2 (location-based)	Tue 01 Jan 2008 - Wed 31 Dec 2008	972949
Scope 2 (market-based)	Tue 01 Jan 2008 - Wed 31 Dec	939487

Scope	Base year	Base year emissions (metric tonnes CO2e)
	2008	

---

**CC7.2**

**Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

**Please select the published methodologies that you use**

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

---

**CC7.2a**

**If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

---

**CC7.3**

**Please give the source for the global warming potentials you have used**

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)

#### CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Most emission factors were taken from DEFRA/DECC (UK Government GHG conversion factors for Company Reporting) 2016.		Other: Multiple units	2016 Defra / DECC's UK Government GHG conversion factors for Company Reporting (attached)

#### Further Information

Most emission factors were taken from DEFRA/DECC (UK Government GHG conversion factors for Company Reporting) 2016. The Exceptions are: 1. A few custom ICL-specific ones that were calculated with the help of our climate-change specialist consultants, SKM-Enviros and in some cases specific site engineers 2. Specific energy supplier EF's obtained by some of our different sites, usually from the supplier invoices. 3. Emission factors from the e-grid database for U.S based facilities.

#### Attachments

**Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)**

---

**CC8.1**

**Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Operational control

---

**CC8.2**

**Please provide your gross global Scope 1 emissions figures in metric tonnes CO<sub>2</sub>e**

1886626

---

**CC8.3**

**Please describe your approach to reporting Scope 2 emissions**

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We are reporting a Scope 2, market-based figure	

---

**CC8.3a**

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
1167030	1080679	

**CC8.4**

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

**CC8.4a**

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
10-20 local offices and logistic centres	Emissions are not relevant	Emissions are not relevant	Emissions are not relevant	ICL is a global large organization with over 50 producing facilities, and also has operational control over sales offices, headquarter offices and logistic centers around the world. The emission data which is gathered and calculated by the ICL GHG COE includes relevant data from all producing facilities, but also from a few of ICL's main offices and logistic centers-

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
				which have always proved to be very negligible producers of GHG emissions in ICL general scales. For the other offices and logistic centers not included in the GHG inventory, we have made assumptions (using the values already known for offices and logistic centers in ICL) and can state with reasonable confidence that these locations constitute together under 0.5% of our total emissions. We therefore consider the emissions from these locations not relevant, due to the negligible size of emissions, due to the high burden and low cost-benefit value of obtaining the necessary data from these locations, due to the hardship of finding significant reduction opportunities in these locations (compared with the much more viable reduction opportunities existing in our production facilities), and since these locations are usually of no environmental interest to our stakeholders.

**CC8.5**

**Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations**

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 10% but less than or equal to 20%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints	Since our report has not yet been fully verified, and due to the diversity and scale of our company, results are subject to different deviations. ICL's estimation is that the uncertainty range could reach up to 20% of Scope 1 emissions.. Figures given in this report are valid to the best of our knowledge at this time. Potential reasons for variation could include mistakes in measuring, calculating and/or internal reporting of figures relevant for emission calculation and missing units in the scope of reporting (although these are estimated to account for less than 0.5% of total emissions).In addition,

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
		Sampling Data Management	calculations of process emissions are made by senior engineers at different ICL facilities. Although we consider these calculations reliable, they might deviate slightly from actual emissions.
Scope 2 (location-based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints Sampling Data Management	Since our report has not yet been fully verified, and due to the diversity and scale of our company, results are subject to different deviations. ICL's estimation is that the uncertainty range could reach up to 20% of Scope 2 emissions. Figures given in this report are valid to the best of our knowledge at this time. Potential reasons for variation could include mistakes in measuring, calculating and/or internal reporting of figures relevant for emission calculation and missing units in the scope of reporting (although these are estimated to account for less than 0.5% of total emissions). Some uncertainty is added from missing information on the production methods of the small quantities of steam purchased by ICL companies from external suppliers. An average emission factor has been implemented in such cases.
Scope 2 (market-based)	More than 10% but less than or equal to 20%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints Sampling Data Management	Since our report has not yet been fully verified, and due to the diversity and scale of our company, results are subject to different deviations. ICL's estimation is that the uncertainty range could reach up to 20% of Scope 2 emissions. Figures given in this report are valid to the best of our knowledge at this time. Potential reasons for variation could include mistakes in measuring, calculating and/or internal reporting of figures relevant for emission calculation and missing units in the scope of reporting (although these are estimated to account for less than 0.5% of total emissions). Some uncertainty is added from missing information on the production methods of the small quantities of steam purchased by ICL companies from external suppliers. An average emission factor has been implemented in such cases.

**CC8.6**

**Please indicate the verification/assurance status that applies to your reported Scope 1 emissions**

Third party verification or assurance process in place

**CC8.6a**

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.6a/Cleveland%20Potash%20Limited%20-%202016%20AE%20Final%20VOS%20-%2020170227.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Cleveland Potash Limited - 2016 AE Final VOS - 20170227.pdf</a>	Pages 15-26; This is for ICL UK Cleveland Potash (Boulby mine)	European Emissions Trading System (EU ETS)	2
Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.6a/IV_IBERPOTASH_SALLENT_02_901_235221_firmado.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC8.6a/IV_IBERPOTASH_SALLENT_02_901_235221_firmado.pdf</a>	p 1-14 (entire document; available only in Catalan, no English version); This is for ICL Iberia Iberpotash (Sallent mine)	European Union Emissions Trading System (EU ETS)	1
Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2017/40/22340/Climate%20Change%202017/Shared%20Documents/Attachments/CC8.6a/IV_IBERPOTASH_SURIA_02_901_235220_firmado.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC8.6a/IV_IBERPOTASH_SURIA_02_901_235220_firmado.pdf</a>	p 1-14 (entire document; available only in Catalan, no English version);	European Union Emissions Trading System (EU ETS)	1

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
				This is for ICL Iberia Iberpotash (Sallent mine)		

**CC8.6b**

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

**CC8.7**

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

**CC8.7a**

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Market-based	Annual process	Complete	Limited assurance	<a href="https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC8.7a/ICL- ΠΙΠ-CDP-2016.pdf">https://www.cdp.net/sites/2017/40/22340/Climate Change 2017/Shared Documents/Attachments/CC8.7a/ICL- ΠΙΠ-CDP-2016.pdf</a>	Pages 1-4 (entire document)	ISAE 3410	1

#### CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

#### CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

#### CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

---

**Further Information**

**Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)**

---

**CC9.1**

**Do you have Scope 1 emissions sources in more than one country?**

Yes

---

**CC9.1a**

**Please break down your total gross global Scope 1 emissions by country/region**

Country/Region	Scope 1 metric tonnes CO2e
Israel	1333877
Rest of world	552749

---

**CC9.2**

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**

---

**CC9.2a**

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
-------------------	----------------------------------------

---

**CC9.2b**

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
----------	----------------------------------------	----------	-----------

---

**CC9.2c**

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
----------	----------------------------------------

---

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
----------	----------------------------------------

---

**Further Information**

**Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)**

---

CC10.1

**Do you have Scope 2 emissions sources in more than one country?**

Yes

---

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Israel	630829	536380	1047973	0

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Rest of world	536201	544299	1076060	93560

**CC10.2**

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

**CC10.2a**

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)

**CC10.2b**

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
----------	----------------------------------------------	--------------------------------------------

---

**CC10.2c**

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
----------	----------------------------------------------	--------------------------------------------

---

**Further Information**

**Page: CC11. Energy**

---

**CC11.1**

**What percentage of your total operational spend in the reporting year was on energy?**

More than 5% but less than or equal to 10%

---

**CC11.2**

**Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year**

Energy type	MWh
Heat	0
Steam	211833
Cooling	0

---

**CC11.3**

**Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year**

6161834

---

**CC11.3a**

**Please complete the table by breaking down the total "Fuel" figure entered above by fuel type**

Fuels	MWh
Kerosene	240
Coking coal	10092
Other: Gasoline (used mainly for vehicles)	31572
Liquefied petroleum gas (LPG)	5941
Diesel/Gas oil	232044
Oil shale and bitumen (oil sands)	311534
Natural gas	5203258
Other: Heavy Fuel Oil (Mazut)	236270
Other: Coal	120092
Petroleum coke	10791

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Direct procurement contract with a grid-connected generator or Power Purchase Agreement (PPA), where electricity attribute certificates do not exist or are not required for a usage claim	22367	0	One site consuming zero-carbon electricity
Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company	71193	0	One site consuming zero-carbon steam

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
2694545	1912200	782345	0	0	The fuels that were used for the electricity production reported in this line ("Total electricity produced") have already been accounted for in the fuels detailed above in 11.3 and 11.3a.

**Further Information**

**Page: CC12. Emissions Performance**

**CC12.1**

**How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?**

Increased

**CC12.1a**

**Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year**

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	2.0	Decrease	In 2016 a total of ~49,000 tonne CO2e were reduced by our emissions reduction initiatives, and our total S1 and S2 emissions in the previous year were 2,497,146 tonnes CO2e, therefore we arrived at 2.0 % through $(49000 / 2497146) * 100 = 2.0\%$ . The majority of this reduction specifically in 2016 is due to the ACE energy efficiency program. See section 3.3b of this report for further details on this initiative.
Divestment			
Acquisitions	17.6	Increase	In 2016 a total of ~440,000 tonne CO2e were added due to acquisitions, and our total S1 and S2 emissions in the previous year were 2,497,146 tonnes CO2e, therefore we arrived at 17.6% through $(440000 / 2497146) * 100 = 17.6\%$ . In late 2015, ICL started to operate a new large joint-venture phosphate operation in Yunnan, China (YPH). YPH were not included yet in the 2015 emissions, due to the very short period in 2015 (less than 2 months) in which the site was operating under ICL operational control. However, in 2016 they are fully included, for the first time, in the ICL GHG inventory. Most YPH emissions are generated from its large phosphate and fertilizers plant, 3C. However, by the end of 2018, YPH 3C is due to be connected to new gas supplies, replacing coal and thus significantly reducing the site's emissions.
Mergers			
Change in output	2.0	Increase	In 2016 a total of ~49,000 tonne CO2e were added by changes in output, and our total S1 and S2 emissions in the previous year were 2,497,146 tonnes CO2e, therefore we arrived at 2.0 % through $(49000 / 2497146) * 100 = 2.0\%$ . The majority of the 2016 specific increase was caused by the return to full production

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
			capacities in in ICL Dead Sea and ICL Neot-Hovav, after the 2015 prolonged worker-strikes at these sites.
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other	1.9	Increase	In 2016 a total of ~48,000 tonne CO2e were added by changes in output, and our total S1 and S2 emissions in the previous year were 2,497,146 tonnes CO2e, therefore we arrived at 1.9 % through $(48000 / 2497146) * 100 = 1.9\%$ . The majority of the 2016 specific increase was caused by the return to full production capacities in in ICL Dead Sea and ICL Neot-Hovav, after the 2015 prolonged worker-strikes at these sites.

**CC12.1b**

**Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

**CC12.2**

**Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue**

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.0005533	metric tonnes CO2e	5363000000	Market-based	19.8	Increase	Despite the recent acquisition of YPH (and the therefore significant increase in phosphate fertilizers production volumes) the ICL revenues have remained very similar between 2015 and 2016 (-0.8%; full reasons and analysis can be found in ICL's public annual financial statements). Therefore the increase in emissions per \$ of revenue was caused by the emission trends mentioned in question 12.1a, and mostly by the acquisition of YPH (see above).

**CC12.3**

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.411	metric tonnes CO2e	Other: Total production of main Potash and Phosphate fertilizers	7222307	Market-based	10.1	Decrease	This reduction is partially caused by the Emission Reduction initiative described above (Energy efficiency, see 12.1a). ICL produces hundreds of diverse products from its dozens of global production sites. These products vary significantly in energy and GHG intensities. Therefore, we do not consider overall global sum of production as a reliable metric for emission intensity. A More reliable metric is the total

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
							production of our Potash sites (DSW, Iberpotash, CPL), and our main Phosphate rocks, acids and fertilizers production plants (Rotem, YPH). These sites/sub-companies represent together a significant portion of ICL's largest production sites. When using their combined production (total tonnes of Potash from all types+total tonnes of P2O5 in all Rotem and YPH products) as a denominator- the effects of the YPH acquisition and increased output (see 12.1a above) can be neutralized. And so, the 10.1% decrease in remaining emissions is mostly caused of increased energy efficiency (see Emission Reduction Activities in 12.1a), and in a generally more efficient production (sites much closer to full capacity than in 2015).

### Further Information

ICL is a large and complex organization, with significant diversity of energy and carbon intensity between its different facilities. Some facilities, especially those located in the Sdom region (DSW, DSM and DSB) are also inter-dependent in energy terms. For instance, DSM and DSB are jointly supplied electricity and steam by the DSW operated CHP plant. The amount of electricity produced at the CHP plant and the added amount purchased from external sources are dependent on both the production volumes at all three plants, and the CHP's capacity of electricity production. The national grid electricity in Israel has a much higher EF than the electricity produced at the ICL-owned CHP plant, and therefore the CHP's electricity capacity and operating schedule are key factors in the emission trends of all three Sdom facilities. Due to this operational situation, and similar cases throughout the ICL organization, we find it challenging to provide an accurate, detailed breakdown of our emission deviations between these sites and others. As mentioned, our total annual emissions trends are the result of multiple reasons (as required above in question 12.1a), including production volumes, shortage/supply of natural gas, and energy efficiency initiatives. Our GHG analysts have examined these calculations and results and have estimated the distribution of emission changes portrayed above (in 12.1a) to the best of their knowledge at this current time. Actual specific reasons for the emission trends may differ. We estimate the possible deviation of emission change by up to 20% for each reason stated above.

**Do you participate in any emissions trading schemes?**

Yes

---

**CC13.1a**

**Please complete the following table for each of the emission trading schemes in which you participate**

<b>Scheme name</b>	<b>Period for which data is supplied</b>	<b>Allowances allocated</b>	<b>Allowances purchased</b>	<b>Verified emissions in metric tonnes CO2e</b>	<b>Details of ownership</b>
European Union ETS					Other: Only two companies owned and operated by ICL participate in the EU-ETS: ICL Iberia Iberpotash, and ICL U.K CPL. Also, only some of the installations in both these companies are included in the EU-ETS scheme.

---

**CC13.1b**

**What is your strategy for complying with the schemes in which you participate or anticipate participating?**

---

**CC13.2**

**Has your organization originated any project-based carbon credits or purchased any within the reporting period?**

No

---

**CC13.2a**

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
---------------------------------------	--------------	------------------------	----------------------------	----------------------------------------	--------------------------------------------------------------	------------------	--------------------------

---

#### Further Information

As described in CC 3.3b above, ICL has undertaken in recent years two CDM approved-projects: 1. Eliminating SF6 usage as cover gas in ICL DSM magnesium production (since 2009). 2. Reducing the N2O emitted per tonne of nitric acid production in ICL Haifa F&C (since 2007). Although both projects are still active (the DSM project has been fully completed and the F&C project is near its 80% reduction goal; see further details in CC 3.3b above), in both cases, no new credits were issued through 2016. Since the current carbon price remains very low, the credit issuing process is currently not cost-effective, as the process would have cost more than the current possible revenues from the credits, in both project cases. ICL remains updated with possible fluctuations in the carbon market. If carbon prices would increase again, the credit-issuing process for either or both of these projects could resume.

#### Page: CC14. Scope 3 Emissions

---

#### CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	6212	The emissions given in this line represent our GHG emissions related to externally sourced water. The emissions were calculated using DEFRA/DECC 2016 emission factors for supplied water. These EF's were used on all water purchased by the different ICL companies (tap water, well, river etc.). Quality of information is considered high, as most water figures are derived of primary data (invoices of water suppliers). In the minority of cases, where no metering is conducted, the consumption was estimated by the relevant facility personnel. The assumption is that these GHG emissions derive of electricity consumed in pumping and/or pre-treatment of the water by the suppliers. Other materials sourced externally have been assessed as part of our product footprinting analyses in cooperation with our consultants and ICL's purchasing and supply-chain departments. Our conclusion was that ICL did not have influence on potential reduction of emissions resulting from the production/supply of these materials, and they were therefore excluded from our Scope 3 GHG inventory. This conclusion will be re-discussed and assessed in coming years, in regards to the results of the pilot participation in the CDP supplier engagement program.		
Capital goods	Not relevant, explanation				The potential amount (size) of GHG emissions deriving of purchased capital goods was

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	provided				assessed by the ICL GHG COE, and was determined to be insignificant. ICL is a large manufacturing organization, and any emission arriving from specifically purchased capital goods is likely to be very negligible compared the significant emissions resulting from our fuel combustion, electricity consumption and process GHG emissions.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	32168	The emissions given in this line represent our Scope 3 GHG emissions related to the activity of contractor vehicles (not owned directly by ICL companies), mostly heavy machinery working in our plants. Emissions were calculated using DEFRA/DECC 2016 emission factors for fuels (usually diesel), and at some cases also based on DEFRA /DECC 2016emission factors for heavy machinery activity, measured in km's or ton-km's). Quality of information is considered medium, as in many cases the contractors could not supply accurate fuel consumptions, and estimation were conducted by the facility personnel. Some of these emissions, from our smaller facilities outside of Israel, have not been calculated yet (and are expected to be completed in coming years).However, the figure supplied in this line nonetheless represents the grand majority of this relevant activity within our organization.		
Upstream	Not relevant,				As a large manufacturing organization, there are

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
transportation and distribution	explanation provided				naturally emissions related to the transportation of ICL's significant amount of externally purchased raw materials. These emissions were previously assessed as a one-time project by our consultants (SKM-Enviros). The cases of raw material transportation that constitute the major part in these emissions were identified, and discussions were made regarding the findings with ICL's different purchasing departments. However, our conclusion was that for several reasons, ICL does have significant influence in order of reduce these emissions, and therefore- they are currently excluded from our Scope 3 GHG inventory.
Waste generated in operations	Relevant, calculated	6678	The emissions given in this line represent our Scope 3 GHG emissions related to the treatment of our wastes by external companies. The emissions were calculated using DEFRA/DECC 2016 emission factors according to the different waste streams and treatment method. Quality of information is considered medium, as in some cases specific metering of waste streams is available, but on many others- the amounts are still calculated based on mass balances or assumptions. Therefore, future corrections to the emissions provided in this line may be possible.		
Business travel	Relevant, calculated	6552	The emissions given in this line represent our Scope 3 GHG emissions related to flights taken by our company's personnel. The emissions		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			<p>were calculated using DEFRA/DECC 2016 emission factors for short/long haul flights (per one person traveling in the plane). An uplift factor was also used. Quality of information is considered medium, as in some cases specific km's/miles of flights taken by company employees was available, but on others- the km's were estimated or calculated using the number of flights taken and an average flight distance. Other business travel (by car, train) was estimated by the GHG COE and is considered to be very negligible- and is therefore not annually calculated.</p>		
Employee commuting	Relevant, calculated	2281	<p>Scope 3 GHG emissions related to employee commute by regular daily buses, mini-buses and transits (not owned by ICL) which transport employees from different cities and towns in Israel (and some additional countries) to our facilities. Also included are special taxi rides taken in Israel. The emissions were calculated using DEFRA/DECC 2016 emission factors for diesel consumption, and km's travelled by bus. Quality of information is considered medium, as in some cases specific diesel consumptions were supplied, but on others- emissions were calculated using assumptions about the km's of bus travel and number of employees per ride. Other employee commuting (by personal vehicles of the employees) was estimated by the</p>		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			GHG COE and is considered to be very negligible compared with other company fuel consumptions, and furthermore- relevant information is very hard to obtain. Therefore, our calculations cannot be regularly updated.		
Upstream leased assets	Not relevant, explanation provided				The potential amount (size) of GHG emissions deriving of upstream leased assets was assessed by the ICL GHG COE, and was determined to be insignificant. ICL is a large manufacturing organization, and any emission arriving from our small number of upstream leased assets is likely to be very negligible compared the significant emissions resulting from our fuel combustion, electricity consumption and process GHG emissions. Therefore, we do not maintain an annual update of these emissions.
Downstream transportation and distribution	Relevant, calculated	130408	The emissions given in this line represent our Scope 3 GHG emissions related to some of our downstream distribution by our companies. The figures included in the calculation are the fuels consumed during transportation of ICL goods by external contractors, working for our cargo transportation company (Mifaley-Tovala), and also by the Israeli national rail services (transporting ICL goods from the Tzefa terminal to Ashdod and Haifa harbors). The emissions were calculated using DEFRA/DECC 2016 emission factors for diesel and for ton-km of rail		

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			transportation. Quality of information is considered high, as in both cases relevant bills are supplied and available. As a large manufacturing organization, with a highly complex supply chain of products, we assume that there are further emissions related to our supply chain (transport by ships, trucks in countries outside of Israel). However, we currently assume our influence on these emissions to be quite negligible (and relevant information is very hard to obtain), and therefore do not currently calculate these added emissions.		
Processing of sold products	Not relevant, explanation provided				ICL manufactures and sells hundreds of different products to many diverse customers around the world. Most of these products have several customers, with diverse usages for our many products. Any information on the processing, usage and end of life treatment of our products is very hard to obtain. Although the organization does actively promote safe and environmentally- responsible usage of its products, we consider our influence on the GHG deriving of our costumers actions (processing, usage and end of life treatment) to be insignificant. Therefore, we do not annually asses these emissions.
Use of sold products	Not relevant, explanation provided				ICL manufactures and sells hundreds of different products to many diverse customers around the world. Most of these products have

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					<p>several customers, with diverse usages for our many products. Any information on the processing, usage and end of life treatment of our products is very hard to obtain. Although the organization does actively promote safe and environmentally- responsible usage of its products, we consider our influence on the GHG deriving of our costumers actions (processing, usage and end of life treatment) to be insignificant. Therefore, we do not annually asses these emissions.</p>
End of life treatment of sold products	Not relevant, explanation provided				<p>ICL manufactures and sells hundreds of different products to many diverse customers around the world. Most of these products have several customers, with diverse usages for our many products. Any information on the processing, usage and end of life treatment of our products is very hard to obtain. Although the organization does actively promote safe and environmentally- responsible usage of its products, we consider our influence on the GHG deriving of our costumers actions (processing, usage and end of life treatment) to be insignificant. Therefore, we do not annually asses these emissions.</p>
Downstream leased assets	Not relevant, explanation provided				<p>The potential amount (size) of GHG emissions deriving of downstream leased assets was assessed by the ICL GHG COE, and was determined to be insignificant. ICL is a large</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					<p>manufacturing organization, and any emission arriving from our small number of downstream leased assets is likely to be very negligible compared the significant emissions resulting from our fuel combustion, electricity consumption and process GHG emissions. Therefore, we do not annually asses these emissions.</p>
Franchises	Not relevant, explanation provided				<p>The potential amount (size) of GHG emissions deriving of franchises was assessed by the ICL GHG COE, and was determined to be insignificant. ICL is a large manufacturing organization, and any emission arriving from our franchises not operationally controlled by ourselves is likely to be very negligible compared the significant emissions resulting from our fuel combustion, electricity consumption and process GHG emissions at our operationally controlled facilities. Therefore, we do not annually asses these emissions.</p>
Investments	Not relevant, explanation provided				<p>The potential amount (size) of GHG emissions deriving of investments was assessed by the ICL GHG COE, and was determined to be insignificant. ICL is a large manufacturing organization, and any emission arriving from our investments in facilities not operationally controlled by ourselves is likely to be very negligible compared the significant emissions resulting from our fuel combustion, electricity</p>

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					consumption and process GHG emissions at our operationally controlled facilities. Therefore, we do not annually assess these emissions.
Other (upstream)	Not evaluated				
Other (downstream)	Not evaluated				

---

**CC14.2**

**Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

No third party verification or assurance

---

**CC14.2a**

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
------------------------------------------	--------------------------------------	-----------------------------------	----------------------	------------------------	-------------------	-------------------------------------------------------

**CC14.3**

**Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?**

Yes

**CC14.3a**

**Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year**

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Employee commuting	Change in boundary	24	Increase	The specific increase in Employee Commuting emissions at 2016 is mostly attributed to increased access to logistics information, mostly in ICL Israel. ICL has recently established a shared services center (SHS) for its Israeli sites, where regional operations are more centrally concentrated. This allows for better and more complete access to some information, including employee commuting. The employee commuting emissions are now calculated based on all bus, mini-bus/transit and taxi employee commute activities in Israel (previously only bus information was available, and not for all Israeli sites). Note: Our Scope 3 measuring methodologies are annually examined and amended by the ICL GHG COE. Future corrections and/or additions to our scope 3 GHG inventory are likely yet to be expected. These potential corrections form a part of our constant efforts to improve the accuracy

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				and fullness of our vast and complex GHG inventory. Any past or future differences are expected to be well within the uncertainty range declared at this year's report.

**CC14.4**

**Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

- Yes, our suppliers
- Yes, our customers

**CC14.4a**

**Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success**

Suppliers: In early 2016, ICL has become the first fertilizer and/or chemical company to join the CDP supplier engagement program, and has continued membership for a second year in 2017. Through this program, which includes over 100 global leading businesses, the ICL Global procurement organization has asked its main key suppliers to disclose their GHG emissions and climate change mitigation strategies, through the internationally recognized CDP reporting methodologies. ICL has joined the CDP supplier engagement program in purpose of increasing its positive impact in regard to the global struggle against climate change, and of increasing its overall sustainability-related collaboration with its suppliers and the CDP organization. This is the first global-organizational level sustainability scheme that ICL has undertaken in relation to its suppliers. The ICL Global procurement organization considers this initiative as a pilot (now in second year), which pending success could be expended to more suppliers and/or other sustainability issues. These key suppliers were prioritized and chosen for the second pilot year as a sample group which represents significant possible Scope 3 emissions for ICL. Our goals/measures for success for the second year are that at least 30% of approached suppliers will report to the CDP at ICL's request.

Customers: Since initiating the ICL GHG project at 2008, ICL has initiated several efforts alongside partners and customers to reduce GHG emissions throughout the life cycle. In some cases we have even approached our customers with carbon data and presented them with facts and figures on our performance. For example, ICL's bromine-based flame retardants offer a low-carbon alternative to phosphorus-based retardants used for fire safety purposes. ICL has also received several requests for carbon footprint values for our products by our customers (and the frequency of these requests has increased lately, since the COP 21 global climate agreement). In all such cases- we are determined to readily provide them with these values. In some cases, where these requests are for products that have not been assessed yet (as of today, we have calculated ~60 products carbon footprints, but our organization offers hundreds of different products) these requests help us determine the prioritization of product assessments. The required products are given high priority within our decision on which batch of products to assess in

any given time. Success is measured by our ability to provide our customers with the CFP value of our products immediately after their request (if already calculated) or within a reasonable timeframe (if calculation is still needed), and in our ability to maintain and enhance long-standing business engagement with such customers.

#### CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Other: CDP Supplier Engagement program	76	17%	Our main focus for this year, ICL's second year in the CDP supplier engagement program, is increasing the response rate of our suppliers to the data request. Further usages of the data depend on the amount of suppliers who will cooperate with the engagement program, and the amount of details that each supplier would provide in it's report. Through the data supplied (especially question SM 2.1) we hope to find routes of possible cooperation with our suppliers to reduce emissions for both sides. If this initiative is successful and expanded (to more suppliers and/or other sustainability issues), we hope to gather enough data to enhance the sustainability and climate-change related considerations if our supplier assessments, and increase these consideration weight in the choice of suppliers. However, this process is still in its first steps.

#### CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

#### Further Information

Some information in this document is based upon certain sections from ICL's 2016 Annual financial (F-20) report. You are advised to review the entire report, available on our internet site at: <http://www.icl-group.com>. For details regarding adjustments you should refer to the full documentation as published. You should not assume that the information contained herein is accurate as of any date other than the date of this document. We are not providing you with any investment, legal, business or tax advice. All statements, other than statements of historical facts included in this document, may be forward-looking statements. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we can give no assurance that such expectations will prove to have been correct. Such forward looking information involves risks and uncertainties, including those referred to in the company's 2016 Annual financial (F-20) report referred

above. Some of the market and industry data contained in this document are based on independent industry publications or other publicly available information, while other information is based on internal studies and/or estimates. Although we believe that these sources and our internal data are reliable, as of their respective dates, the information contained in them has not been independently verified, we cannot assure you as to the accuracy or completeness of this information. As a result, you should be aware that the market and industry data contained in this document and beliefs and estimates based on such data, may not be reliable. © ICL 2017

## Module: Sign Off

### Page: CC15. Sign Off

---

#### CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Asher Grinbaum	ICL Acting CEO	Chief Executive Officer (CEO)

---

#### Further Information

[CDP 2017 Climate Change 2017 Information Request](#)