CC0. Introduction

CC0.1: Introduction

ASELSAN was founded in 1975 with the aim of creating a self-sufficient industry primarily for defense requirements of Turkish Armed Forces. ASELSAN, with tremendous success in the past decades in expanding systematically into the local and global markets, today, with over $1B in revenue and almost 5000 employees has become a high technology, multi-product defense electronics company by introducing state-of-the-art equipment and systems solutions for both military and professional applications. Through dedication of utmost importance to R&D activities clearly seen by allocation of remarkable portion of its annual revenue and through its technological know-how, ASELSAN has achieved the capability to undertake large-scale system integration projects and succeed, in many cases, in developing most sophisticated products.

For the last four years, ASELSAN sustained its position in the world as being in the list of Top 100 Defense Companies. Our vision is to become one of the top 50 defense companies in the world through the development of original and national opportunities and talents of the highest level.

ASELSAN operates under five business sectors:

- Communications and Information Technologies Business Sector (HBT): Tactical Radios, Tactical Area Communication Systems, Avionic, Satellite and Naval Communication Systems, Public Safety Communication Systems
- Radar, Electronic Warfare Business Sector (REHIS): Radar Systems, Electronic Warfare Self Protection Systems, Electronic Warfare Intelligence and Attack Programs
- Defense Systems Technologies Business Sector (SST): Weapon Systems, Command Control (C4ISR) Systems, Naval Combat Systems, Traffic Systems
- Microelectronics, Guidance & Electro-Optics Business Sector (MGEO): Electro-Optic Systems, Navigation & Guidance, Avionic Systems, Microelectronics
- Transportation, Security, Energy & Automation Systems Business Sector (UGES): Transportation Systems, Security Systems, Traffic and Automation Systems, Energy Systems, Homeland Security Systems

Introduction

CC0.2: Reporting Year

01/01/2014-31/12/2014

CC0.4: Currency selection

TRY

CC0.5: Please select if you wish to complete a shorter information request

No

CC1. Governance

Group and Individual Responsibility

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

The highest level of direct responsibility for climate change within ASELSAN lies with the Shared Services Vice President Mr. Hezarfen Oruç. Mr. Oruç also leads the Sustainability Committee which was founded in 2012. The Sustainability Committee is comprised of high level managers and engineers who are able to assess all the risks and opportunities with respect to climate change. The list of members of the sustainability committee is given below:

Hezarfen ORUÇ	Vice President / Shared Services
Aykan ÜRETEN	Finance Director
Murat DOĞAN	Strategy Management Director
Ali Rıza KILIÇ	Supply Chain Management Manager
Şevket CUMAOĞLU	Facilities and Support Services Management Director
Erensoy TOPÇU	Risk Measurement and Analysis Department-Senior Expert Engineer
Pınar ÇELEBİ	Investor Relations and Subsidiaries Manager
Koray GÜRE	Strategic Planning and Corporate Performance Manager
Hülya YILDIRIM	Operational Health and Safety Chief Engineer
Başak YÜCEKAYALI	Investor Relations Specialist

The Sustainability Committee develops and implements economic, environmental and social sustainability strategies and monitors the overall sustainability performance of the company. In order to monitor the environmental performance, environmental performance indicators have been identified. Some of these performance indicators are related to climate change performance.

Individual Performance

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	Efficiency project	In ASELSAN, we have implemented a suggestions system in our intranet in 2013. This suggestion system is called "Idea Management System" and can be used by all of the employees of ASELSAN. An employee who has an innovative idea on climate change, energy efficiency or any other subject can send his/her idea note to the strategy department through this suggestion system. The strategy department then evaluates the idea and if they decide that the idea is plausible, the Strategy Department shares the idea note with the related department. The employee is entitled to a monetary reward if their idea is assessed to be applicable and profitable to the company. The reward is higher (3 Cumhuriyet gold coins) if the idea of the employee results in energy savings thus leading to emission reductions.

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Energy reduction project	In ASELSAN, we have implemented a suggestions system in our intranet in 2013. This suggestion system is called "Idea Management System" and can be used by all of the employees of ASELSAN. An employee who has an innovative idea on climate change, energy efficiency or any other subject can send his/her idea note to the strategy department through this suggestion system. The strategy department then evaluates the idea and if they decide that the idea is plausible, the Strategy Department shares the idea note with the related department. The employee is entitled to a monetary reward if their idea is assessed to be applicable and profitable to the company. The reward is higher (3 Cumhuriyet gold coins) if the idea of the employee results in energy savings thus leading to emission reductions.

CC2. Strategy

Risk Management Approach

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
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Turkey	> 6 years	The identified risks related to climate change as well as other identified risks are monitored annually to assess the severity of the risk and reported to the Early Detection and Management of Risk Committee. In ASELSAN the risks are first assessed in the facility and activity level. The risks are given a score from 1 to 5 according to their severity and probability of occurrence. The combined risk score is found by multiplying the severity and probability scores of the risk. The risk is level 1 if combined score is between 1 and 5. Level 2 if combined score is between 6 and 10. Level 3 if combined score is between 11 and 15. Level 4 if

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
				combined score is between 16 and 20. Level 5 if combined score is between 21 and 25. Only the risks that are assessed to be Level 4 or higher are reported to the Board of Directors.

CC2.1b Please describe how your risk and opportunity identification processes are applied at both company and asset level

At the company level, the scope of the identified risks and opportunities include, changes in fuel and energy prices, climate change related laws and regulations, global competitiveness, changing customer needs, potential threats of national security and employee related issues.

The climate change related risks and opportunities at the company level are assessed by the sustainability committee which is comprised of high level executives as well as senior engineers and HR managers. The Sustainability Committee is responsible for identifying measures to reduce the risks. This committee is responsible for identifying the level of each risk, setting targets to reduce these risks and making performance reviews to assess whether the climate change related targets are met. This committee also decides on how and when the identified opportunities can be seized. The committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology given in section CC2.1.c.

At the asset level, each facility and every unit in each facility has to perform the risk analysis using the methodology and scoring system defined in section CC2.1.c. The facility level risk analyses are then reviewed by the facility managers and submitted to the Sustainability Committee for final review. The committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology given in section CC2.1.c.

The major risks and opportunities at the asset level are the events that may have a major effect on the GHG emissions of ASELSAN. These events usually are related to energy and fossil fuel consumption. Where renovations in product design that lead to less energy consumption may be assessed as an opportunity, increased consumption of fossil fuels during production is assessed as a major climate change related risk.

CC2.1c How do you prioritize the risks and opportunities identified?

First, the probability of occurrence of the identified risk is scored as given below:

Probability	Score
Very low/impossible	**1**
Low	**2**
Moderate	**3**
Probable	**4**
Very High Probability	**5**

Then, the effect of the identified risk event is determined:

Severity	Severity Level Guide	Score
Very low	No permanent or significant effect.	**1**
Low	Significant impact on ASELSAN in the long term. (≥8 years)	**2**
Moderate	Significant impact on ASELSAN but can be managed without a major impact in the medium to longer term. (4-8 years)	**3**
High	Requires major effort to manage and resolve in the short term or risk events that could threaten the existence and the profit of ASELSAN. (1-3 years)	**4**
Very High	Threatens the business continuity immediately.	**5**

The total score is found by multiplying the effect and probability factors. Which gives a numerical value between 1 and 25. According to this final score the risks and opportunities are prioritized:

Combined Score	Risk Level	Related Action
1-5	Level 1	No immediate action.
6-10	Level 2	No immediate action but the risk event needs to be monitored annually.
11-15	Level 3	The mitigation measures for the identified risk event is determined by the sustainability committee.
16-20	Level 4	Poses a threat and shall be dealt with. The risk event and the measures to be applied are reported to the Board of Directors.
21-25	Level 5	Poses a huge threat and shall be immediately dealt with. The risk event and the measures to be applied are immediately reported to the Board of Directors.

Sustainability committee and the Early Detection and Management of Risk Committee reviews and finalizes all climate change related risk analysis, and presents the critical risks that are assessed to be Level 4 or above to the Board of Directors. They also present a report to board of directors about the financial and operational measures that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied.

Business Strategy

CC2.2 Is climate change integrated into your business strategy?

☒Yes

☐No

CC2.2a Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

Climate change has come into the attention of ASELSAN starting with the first invitation from CDP Turkey in 2012. Although energy efficiency was a focal point for the operations in ASELSAN, the effects of these energy efficiency studies on climate change was never calculated. Starting from 2012 the ASELSAN strategy team has focused on climate change. First step was the calculation of our GHG Inventory. During the initial CDP period a very quick calculation was made for the years 2009-2010-2011 for the purpose of reporting to CDP. Since 2012 we have started evaluating the risks and opportunities related to climate change with a specific risk assessment process.

The strategies of ASELSAN are determined for a 5 year period, and are revised annually. The strategies are determined taking performance assessment results of previous years into consideration, with the guidance of the major shareholder of ASELSAN, Turkish Armed Forces Foundation (TAFF), Board of Directors and CEO. As the corporate performance system is a vivid system, it enables us to continuously improve and monitor our performance. The reviews are reported on a monthly basis.

As the strategy of ASELSAN is determined for a period of 5 years, climate change related issues could not be included in the strategy up until the year 2014. However in 2014 the Strategy Management Directorate has implemented the climate change related issues into the strategy of the term 2015-2019. As a part of this strategy the GHG emissions of ASELSAN are planned to be reduced by the end of 2020. The most important aspect of climate change that influences our strategy is the opportunity to develop a green business. Although we are not yet influenced by the regulatory changes in Turkey, it is also another aspect of climate change, as we would like to be prepared to the changes in regulation.

The most important component of our short term business strategy related to climate change is the decision of calculating our GHG emissions and reporting to CDP. Another important component is the decision on establishing a connection between the climate change risk assessment to our enterprise risk assessment. This year we have also decided to include all our facilities to our GHG Inventory, which enabled us to see our real impact on climate change. We believe the brand value and market value of ASELSAN will be positively affected with the implementation of these decisions. We have also decided to obtain ISO 50001 Energy Management Systems Certification.

The most important component of our long term (5 years) strategy that have been influenced by climate change is that we have set long term reduction targets (5% reduction of absolute Scope 1 and 2 emissions according to our base year by the year 2020) and we have decided to invest in energy efficient technologies both in our facilities and in our products. Another important component is that we have established Renewable Energy Systems Program Management Department which is responsible of R&D of renewable energy technologies. ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey. We have also established Electric Vehicle Systems Program Management Department which is working on developing traction control systems for electric public transportation vehicles. As transportation related GHG emissions account for nearly 17% of Turkey's total emissions, we aim to enhance the existing electric vehicle systems designed for public transportation, and take part in the shift towards low carbon public transportation.

2014 was a very important year in Turkey as BIST has introduced the Sustainability Index for BIST-30 companies, where these companies were evaluated on their sustainability performance against some ground rules. ASELSAN was one of the 15 companies were able to be included in the BIST Sustainability Index. The Index's criteria on climate change strategy and management is totally aligned with CDP, which gave us an advantage against other listed companies. Our share is now favored by environmentally friendly institutions as well.

ASELSAN has been in BIST-50 Index and Corporate Governance Index of Borsa Istanbul (BIST) since January 2013. Both indices are considered to be prestigious indices of BIST as big, corporate industrial firms, holdings and banks dominate them. Corporate governance rating is a prerequisite for presence in Corporate Governance Index of BIST and with the latest revisions in Corporate Governance Principles; sustainability has become a new dimension for corporate governance rating of companies. Thus, climate change aspect is now embedded in our corporate governance rating.

ASELSAN management values ASELSAN share's presence in BIST-50 and Corporate Governance Index of BIST. In addition to this, there are long term institutional investors in ASELSAN's investor base. These facts are other implications of the value we attach to climate change and energy efficiency.

The most important business decisions that have been influenced by climate change are:

- Setting an absolute GHG emission reduction target
- Establishing the "Renewable Energy Systems Program Department"
- Establishing the "Electric Vehicle Systems Program Management Department"

CC2.2c Does your company use an internal price of carbon?

No, and we do not currently anticipate doing so in the next 2 years

Engagement with Policy Makers

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

☐Funding research organizations

☒Trade associations

☐Other

☐No

CC2.3a On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	We follow the regulation on monitoring and reporting of GHG emissions that was published on 2012 very closely. Although ASELSAN is not yet included in the scope of this regulation, we still participate in meetings and our sustainability committee is ready to send our comments about the communiqués that are related to this regulation.	For the moment we support the legislation and the communiqués related to this legislation with no exceptions.
Energy efficiency	Support	We have sent our comments to the energy efficiency law no 5627 by the Ministry of Energy and Natural Resources during its preparation stage. We fully support this law.	We fully support the energy efficiency law and the related by-laws.

CC2.3b Are you on the Board of any trade associations or provide funding beyond membership?

☐Yes

☒No

CC2.3h 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?

According to our new corporate communication strategy, all communication activities have to be approved either by our CEO or Chairman of the Board. Being the highest level of executives in ASELSAN, our CEO and our Chairman are both fully aware of our general corporate strategies and our overall climate change strategy.

CC2.4 Would your organization's board of directors support an international agreement between governments on climate change, which seeks to limit global temperature rise to under two degree Celsius from pre-industrial levels in line with IPCC scenarios such as RCP2.6?

Yes

CC2.4a Please describe your board's position on what an effective agreement would mean for your organization and activities that you are undertaking to help deliver this agreement at the 2015 United Nations Climate Change Conference in Paris (COP 21)

According to our Board, an effective agreement is an agreement that includes all the nations. Every nation in the world shall sign this agreement and where the responsibilities of each and every country is clearly identified and monitored by independent organizations. The performance of the countries shall be assessed and there has to be a penalty system for countries that don't meet their targets. Especially the developed countries must have serious emission reduction targets.

CC3. Targets and Initiatives

Targets

CC3.1 Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

☒Absolute target

☐Intensity target

☐Absolute and intensity target

☐No

CC3.1a Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions	Target year	Comment
Abs1	Scope 1+2	100	5	2013	42654.99	2020	We have a target of reducing our total Scope 1+Scope 2 emissions 5% below our base year emissions by the year 2020.

CC3.1d For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Abs1	14.28	%0	In 2014 we have set the target of reducing our Scope 1+Scope 2 emissions by 5% according to our base year by the year 2020. As we have set this target in 2014, we have had very little emission reduction initiatives in place. We are currently working on developing projects that will help us reduce our GHG emission by reducing the energy consumption in our daily operations.

Emissions Reduction Initiatives

CC3.2 Does the use of your goods and/or services directly enable GHG emissions to be avoided by a third party?

☐Yes

☒No

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

☐No

CC3.3a Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO_2e savings

Stage of development	Number of projects	Total estimated annual CO_2e savings in metric tonnes CO_2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	1	41.46
Not to be implemented		

CC3.3b For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO_2e savings (metric tonnes CO_2e)	Scope	Voluntary/ Mandotary	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, years	Comment
Energy efficiency: Building services	Replacement of 2 old oily type transformer with dry type new transformers	41.46	Scope 2	Voluntary	16000	122692.35	4-10 years	11-15 years	As oily type transformers require cooling, by replacing existing 2 oily type transformers with dry type transformers with no cooling need, enabled us to shut down the corresponding cooling system. This energy saving measure resulted in 16000 kWh decrease in our electricity consumption.

CC3.3c What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	In ASELSAN our energy use is one of our main resources. Therefore, we constantly try to develop projects that increase energy efficiency. When we have a project idea, the related directorate makes a detailed feasibility analysis that shows how much investment is required for a certain project and how much savings (both in terms of energy and financial savings) can be achieved with that particular project. If the payback period of the project is below 5 years and if the project lifetime is over 10 years, a report is prepared and the project is submitted for budget approval. Then this project is included in the budget plans for the upcoming year.

CC4. Communications

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
In voluntary communications	Underway – previous year attached	Pages 39 and 42	Sustainability Report 2014

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 risks driven by changes in regulation

	RD-ID: 01	RD-ID: 02
Risk driver	Fuel/energy taxes and regulations	Product labelling regulations and standards
Description	Turkey has ratified the Kyoto Protocol in 2009 and reports its emissions to UNFCCC. Although Turkey does not have a cap on its GHG emissions, changes in the global climate regulations may force Turkey to have an emission cap which may result in changes in the tax regime. A new taxation system for non-renewable power plants will result in a rise in energy prices which may eventually increase our operational costs. The Turkish government may also lay taxes on fossil fuels, which will also put a pressure on our operational expenses as we use fossil fuels like natural gas, diesel oil, etc.	In ASELSAN one of our primary goals is to increase our activities as sub-contractors of major defense industry companies in Europe and US by providing our services in such a way that enables us to contribute to the development of global defense industry. However as the environmental regulation especially in Europe is far more advanced than the one we have in Turkey, soon we may face product labeling requirements. We may need to assess the carbon footprint of all the products that we wish to produce as sub-contractors of European and American companies. This may force us to perform a more detailed and enhanced analysis on our systems, including the environmental effects of our systems throughout the whole life cycle of the system (i.e. a detailed LCA) Or we may need to comply with Eco-labeling standards such as EPDs in order to be able to export our products and systems to US and

		Europe, which may force us to make changes in product design to be able to compete with our competitors.
Potential impact	Increased operational cost	Increased operational cost
Timeframe	> 6 years	> 6 years
Direct/Indirect	Indirect (Supply Chain)	Direct
Likelihood	Likely	More likely than not
Magnitude of impact	Low	Low
Estimated financial implications	10% raise in energy prices will result in 0.8% raise in our operational expenses.	It is expected that these types of requirements will not exceed 0.5% of our OPEX.
Management method	We are researching opportunities of generating a part of our own energy from renewable resources on our premises.	We are closely following up the environmental regulations in our target markets, and whenever we see that there is a need for such action, we will perform the related environmental analysis before it becomes a regulatory obligation. ASELSAN is very meticulous in such actions and in the past many standards or reporting schemes like ISO 27001, CDP, CMMI (Capability Maturity Model Integration) have been applied even before it was asked for by our clients.
Cost of management	Generation of our own energy will require purchasing solar panels. As the project is in idea stage the related costs are not determined.	As we are not taking any immediate action at the moment, there are no related costs of management. In the coming years, costs related to Life Cycle Analysis or Environmental Product Declarations may arise.

CC5.1b: Please describe your risks that are driven by change in physical climate parameters

	RD-ID: 03
Risk driver	Change in temperature extremes
Description	Changes in temperature extremes may result in more cooling demand in the summer months and more heating demand in the winter. This change may result in the increase of our operational expense.
Potential impact	Increased operational cost
Timeframe	1 to 3 years
Direct/Indirect	Direct
Likelihood	More likely than not
Magnitude of impact	Low
Estimated financial implications	As the energy expenses constitute approximately 8% of our OPEX, this risk may result in raise in the energy expenses. A 50% rise will result in energy expenses that constitute 12% of our OPEX.
Management method	Enhancing building and infrastructure insulation.
Cost of management	The costs associated for management of this risk has not been calculated yet.

CC5.1c: Please describe your risks that are driven by changes in other climate-related developments

	RD-ID: 04
Risk driver	Changing consumer behaviour
Description	Consumers (the companies that we are sub-contracting for) in Europe and USA are inclined to purchase more climate friendly products. As we intend to increase our activities as sub-contractors of major defense industry companies in Europe and US, we may need to make a detailed assessment on the effects of our products on climate change in order to be able to compete with our competitors.
Potential impact	Reduced demand for goods/services
Timeframe	> 6 years
Direct/Indirect	Direct
Likelihood	About as likely as not
Magnitude of impact	Low-medium
Estimated financial implications	It is expected that this type of requirements will not exceed 0.5% of our OPEX.
Management method	We are closely following up the environmental regulations in our target markets, and whenever we see that there is a need for such action, we will perform the related environmental analysis before it is turned into a regulatory obligation. We have also decided to obtain ISO 50001 Energy Management Systems Certification. ASELSAN is very meticulous in such actions and in the past many standards or reporting schemes like ISO 27001, CDP, CMMI (Capability Maturity Model Integration) have been applied even before it was asked for by our clients.
Cost of management	As we are not taking any immediate action at the moment, there are no related costs of management. In the coming years, costs related to Life Cycle Analysis or Environmental Product Declarations may arise.

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 opportunities that are driven by changes in regulation

	OD-ID: 01	**OD-ID: 02**
Opportunity driver	Emission reporting obligations	Other regulatory drivers
Description	Turkey already has started developing an MRV system for GHG emissions of companies. Taking early action will help ASELSAN to be ready for future legislative issues that the company may face. In 2014 BIST started a Sustainability Index for the companies listed in BIST-30 index. We have already become one of the 15 companies that is listed in the index. Our efforts on climate change played an important role in being listed in this index. Our ongoing actions on climate change will result in getting higher scores in the Sustainability Ranking of BIST. This will increase the interest on the investor's side and will have a positive effect on our both existing and prospective shareholders.	Turkey's 10th Development Plan includes a Program for Enhancing Energy Efficiency. ASELSAN has a chance to benefit from governmental incentives in the scope of this program.

Potential impact	Increased stock price (market valuation)	Reduced operational cost
Timeframe	1 to 3 years	1 to 3 years
Direct/Indirect	Direct	Direct
Likelihood	About as likely as not	Very likely
Magnitude of impact	Low	Low
Estimated financial implications	We believe our studies on climate change will help us to positively differ from the companies that don't carry out such studies and are listed in BIST30 Index. Our efforts in sustainability will positively affect the valuation and investor sentiment of ASELSAN as a good number of our shareholders are long term institutional investors. Any dimension adding value to sustainability of ASELSAN is of importance. Hence, we consider the importance we attach to GHG related actions is a crucial dimension.	As we may be able to receive funding and get incentives from the government for our energy efficiency R&D projects, we will be able to do more research and develop more energy efficient technologies.
Management method	This year we have included all of our facilities in our GHG emissions calculations. We are also planning on getting certified in ISO 14064-1 in the coming years. Our system documentation is prepared for ISO 14064-1. Also we have decided to get certified in ISO 50001 Energy Management System.	We are closely following the incentive programs regarding energy efficiency.
Cost of management	We have not started investigating the cost of consultancy and ISO certification; hence the costs of management are not yet determined.	We don't have any costs except the daily costs of our employees, because all we need to do to manage this opportunity is to closely monitor the incentive programs and apply to the ones that are related to our scope of interest.

CC6.1b: Please describe the opportunities that are driven by changes in physical climate parameters

	OD-ID: 03
Opportunity driver	Change in precipitation extremes and droughts
Description	Climate scientists project that climate change will result in water scarcity and droughts. It is expected that throughout the world there will be drop in agricultural yields and water scarcity will increase. This may force people to immigrate to more fertile grounds. Therefore the governments of some countries may feel the need to improve border security as well as public security and surveillance systems. The countries may need to enhance the security of water resources, and surveillance of the area using satellites. These events may result in a global request for existing services of many industries including the defense industry.
Potential impact	Increased demand for existing goods/services
Timeframe	> 6 years
Direct/Indirect	Indirect (Client)
Likelihood	Likely
Magnitude of impact	Low-medium
Estimated financial implications	We are projecting 5% raise in security systems sales.
Management method	No management is necessary for the identified opportunity as it doesn't require a major investment.
Cost of management	No major cost as the identified opportunity can be handled using existing resources.

CC6.1c: Please describe the opportunities that are driven by changes in other climate-related developments

	OD-ID: 04
Opportunity driver	Changing consumer behaviour
Description	As climate change is one of the biggest challenges humanity is facing, consumers are becoming more and more environmentally aware. We are working on projects to enhance the efficiency of the vehicles used in personal and public transportation. (i.e. electric vehicles, less energy consuming subway trains, etc.) Producing new and more climate friendly products may be a good opportunity for us to gain new clients.
Potential impact	New products/business services
Timeframe	> 6 years
Direct/Indirect	Direct
Likelihood	More likely than not
Magnitude of impact	Low-medium
Estimated financial implications	Financial implications of these projects are not yet evaluated.
Management method	R&D activities for new climate friendly product lines.
Cost of management	The R&D activities have not yet started hence the cost of management is unknown.

CC7. Emissions Methodology

Base year

CC7.1 Please provide your base year and base year emissions (Scopes 1 and 2)

Base Year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
From01-Jan-13 To 31-Dec-13	7254.41	35400.57

Methodology

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

ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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)

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
Electricity	0.69095	metric tonnes CO2e per MWh	TEIAS & myclimate Turkiye
Natural gas	0.20607	metric tonnes CO2e per MWh	ecoinvent database v.2.2
Diesel/Gas oil	0.00267	metric tonnes CO2e per liter	ecoinvent database v.2.2
Liquefied petroleum gas (LPG)	0.00302	metric tonnes CO2e per metric tonne	ecoinvent database v.2.2
Motor gasoline	0.00239	metric tonnes CO2e per liter	ecoinvent database v.2.2
Other, please specify R 134 a	1430	metric tonnes CO2e per metric tonne	IPCC AR4
Other, please specify R 407 c	1774	metric tonnes CO2e per metric tonne	IPCC AR4
Other, please specify R 410 a	2087.5	metric tonnes CO2e per metric tonne	IPCC AR4
Other, please specify R 22	1810	metric tonnes CO2e per metric tonne	IPCC AR4
Other, please specify R 404 a	3921.6	metric tonnes CO2e per metric tonne	IPCC AR4
Other, please specify R 23	14800	metric tonnes CO2e per metric tonne	IPCC AR4

CC8. Emissions Data Boundary

CC8.1 Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

Scope 1 and 2 Emissions Data

CC8.2 Please provide your gross global Scope 1 emissions figures in metric tonnes CO_2e

7910.40

CC8.3 Please provide your gross global Scope 2 emissions figures in metric tonnes CO2

36911.01

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 Scope 2 emissions from this source	Explain why the source is excluded
Golbasi Facility	Emissions are relevant but not calculated	Emissions are relevant but not calculated	Golbasi Facility was still under construction and had not been operational until the beginning of 2015. Therefore, it will not be included in the inventory before 2015.

Data Accuracy

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
1	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	Uncertainties related to activity data and emission factors have been included in the uncertainty calculations. The uncertainties of Scope 1 and Scope 2 emissions have been calculated using GHG protocol's uncertainty tool. Scope 1 emissions uncertainty is calculated as 2.9%. The overall uncertainty of the Sco 1 and 2 emissions is calculated as 4.3%.
2	More than 5% but less than or equal to 10%	Metering/ Measurement Constraints	Uncertainties related to activity data and emission factors have been included in the uncertainty calculations. The uncertainties of Scope 1 and Scope 2 emissions have been calculated using GHG protocol's uncertainty tool. Scope 2 emissions uncertainty is calculated as 5.1%. The overall uncertainty of the Sco 1 and 2 emissions is calculated as 4.3%.

External Verification or Assurance

CC8.6 Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

No third party verification or assurance

CC8.7 Please indicate the verification/assurance status that applies to your reported Scope 2 emissions

No third party verification or assurance

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	

Carbon Dioxide Emissions from Biologically Sequestered Carbon

CC8.9 Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC9. Scope 1 Emissions Breakdown

CC9.1: Do you have Scope 1 emissions sources in more than one country?

No

CC9.2 Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

☐By business division (CC9.2a)

☒By facility (CC9.2b)

☐By GHG type (CC9.2c)

☒By activity (CC9.2d)

☐By legal structure (CC9.2e)

CC9.2b: Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO_2e)	Latitude	Longitude
Macunkoy and Teknokent (METU) Facilities (Ankara)	3733.26	39.967638 (Macunkoy)	32.766312 (Macunkoy)
Akyurt Facility (Ankara)	4141.90	40.086282	33.024097
Marine Systems Directorate (Istanbul)	15.39	40.851304	29.2876408
Marine Systems Istanbul Laboratory (Istanbul)	2.45	40.864766	29.259214
Transportation, Security, Energy and Automation Systems Business Sector (UGES) Facility (Istanbul)	17.38	41.0561362	28.9853673

CC9.2d: Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO_2e)
Diesel Consumption (Generators)	267.03
Natural Gas Consumption	5216.84
Diesel Consumption (Automobile)	1144.88
Gasoline Consumption (Automobile)	78.95
HFC Emissions	1202.43
Fire Extinguishers (CO2 Fillings)	0.26
LPG Consumption	0.01

CC10. Scope 2 Emissions Breakdown

CC10.1 Do you have Scope 2 emissions sources in more than one country?

No

CC10.2 Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

☐By business division (CC10.2a)

☒By facility (CC10.2b)

☒By activity (CC10.2c)

☐By legal structure (CC10.2d)

CC10.2b: Please break down your total gross global Scope 2 emissions by facility

Facility	**Scope 2 emissions (metric tonnes CO_2e)**
Macunkoy and Teknokent (METU) Facilities (Ankara)	22311.39
Akyurt Facility (Ankara)	14497.03
Marine Systems Directorate Office (Istanbul)	32.15
Marine Systems Directorate Istanbul Laboratory (Istanbul)	69.55
Transportation, Security, Energy and Automation Systems Business Sector (UGES) Facility (Istanbul)	28.03

CC10.2c: Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO_2e)
Electricity Consumption	36782.02
Central Heating	128.99

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 fuel, electricity, heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Fuel	31005.72
Electricity	53234.00
Heat	625.94
Steam	0
Cooling	0

CC11.3 Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Natural gas	25315.52
Liquefied petroleum gas (LPG)	9.43
Diesel/Gas oil	5375.63
Motor gasoline	305.14

CC11.4 Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the Scope 2 figure reported in CC8.3

Basis for applying a low carbon emission factor	MWh associated with low carbon electricity,heat, steam or cooling	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor		

CC12. Emissions Performance Emissions History

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	Comment
Emissions reduction activities		Choose an item.	
Divestment		Choose an item.	
Acquisitions		Choose an item.	.
Mergers		Choose an item.	
Change in output	7.81	Increase	Due to the fact that a part of our boiler system was shut down for over a month in early spring of the previous reporting year, our natural gas consumption was considerably lover. During this reporting period however, the system was fully operational which led to an increase in corresponding Scope 1 emissions.
Change in methodology		Choose an item.	
Change in boundary		Choose an item.	
Change in physical operating conditions		Choose an item.	
Unidentified		Choose an item.	
Other	6.28	Decrease	Since the beginning of the reporting period, we have promoted the efficient use of vehicles. As a result, we have reduced our vehicle related fuel consumption. The reduction in corresponding Scope 1 emissions therefore can be related to behavioral change.

Emissions Intensity

CC12.2 Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO_2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
0.000021	metric tonnes CO_2e	unit total revenue	5.08	Increase	As our Scope 1 emissions, particularly the part related to our natural gas consumption has increased due to the fact that in the previous year, our boiler system was not fully operational whereas in this reporting period it was fully operational. In addition, our electricity consumption has also increased which resulted in an increase of our Scope 2 emissions.

CC12.3 Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO_2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change
9.30	metric tonnes CO_2e	FTE employee	9.09	Increase	Together with the fact that the number of our FTE has decreased by 3.68%, and at the same time our energy consumption increased, resulted in an increase of per FTE emissions intensity.

CC13. Emissions Trading

CC13.1 Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.2 Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

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 CO_2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Purchased goods and services	Relevant, calculated	2721.55	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Purchased metal raw materials are included in the estimations together with the chosen 14 suppliers' (strategic partners) energy consumption namely electricity, natural gas and diesel (generator) consumptions.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO_2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Capital goods	Not relevant, explanation provided				There hasn't been a major capital purchase in the reporting year. Therefore, this emission source will be included in the following year's inventory if a major purchasing occurs.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	19101.39	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Scope 3 emissions arising from fuel and energy consumption are included in the estimations
Upstream transportation and distribution	Relevant, not yet calculated				
Waste generated in operations	Relevant, calculated	451.07	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Waste generated under different categories such as household waste, recyclable waste, wastewater, electronic waste and hazardous waste are included in the estimations
Business travel	Relevant, calculated	24608.47	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Business travels by vehicle, bus and plane are included in the estimations

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO_2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Employee commuting	Relevant, calculated	1993.89	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Employee shuttles and private car commuting are included in this category
Upstream leased assets	Not relevant, explanation provided	0			Only the fuel consumption related emissions from the leased vehicles are reported under the energy and fuel related scope 3 emissions.
Investments	Not relevant, explanation provided				No investment related emissions occurred within the reporting period.
Downstream transportation and distribution	Relevant, calculated	4749.37	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	All delivery and shipment related emissions are included in this category
Processing of sold products	Not relevant, explanation provided				All of our sold products are final products, so processing of our sold products are not relevant.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO_2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Use of sold products	Not relevant, explanation provided				Due to the lack of data on usage phase of sold products, this emission source was excluded from the boundary.
End of life treatment of sold products	Not relevant, explanation provided				Due to the lack of data on end of life treatment of sold products, this emission source was excluded from the boundary.
Downstream leased assets	Not relevant, explanation provided				There aren't any leased downstream assets in ASELSAN. Therefore, this emission source has been excluded from the boundary.
Franchises	Not relevant, explanation provided				ASELSAN has no franchises. Therefore, this emission source is not relevant.
Other (upstream)	Relevant, calculated	23436.41	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Includes, food and beverage consumption, office supplies, hotel stays, refrigerant and fire extinguishers use related Scope 3 emissions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO_2e	Emissions calculation methodology	Percentage of emissions calculated using primary data	Explanation
Other (downstream)	Relevant, calculated	73.66	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100	Includes all mail deliveries related Scope 3 emissions

CC14.2 Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No third party verification or assurance

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
Purchased goods & services	Change in output	14.66	Increase	This category mainly represents our suppliers' energy consumption related emissions. Therefore, the increase in emissions can be related to both change in physical conditions and change in output, output being the suppliers' operational percentage representing the service they provide to Aselsan.

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in output	5.41	Increase	Due to the fact that a part of our boiler system was shut down for over a month in early spring of the previous reporting year, our natural gas consumption was considerably lover. During this reporting period however, the system was fully operational which led to an increase in our energy consumption and consequently in energy related Scope 3 emissions.
Waste generated in operations	Change in methodology	16.15	Increase	Activity data within this category for the previous reporting year included some estimation, whereas this reporting period it was based on preliminary data. Therefore, a comprehensive estimation has been made, resulting in an increase of emissions.
Business travel	Change in boundary	151.81	Increase	In 2013 Inventory only the business travels, namely flights, conducted by Macunkoy Facility employees were included in the boundary whereas in 2014 business travels conducted by all Aselsan employees were taken into account in the estimations. Therefore, a considerable increase in emissions has occurred.
Employee commuting	Change in boundary	26.22	Increase	In this reporting year, daily rented vehicle usage was added to the boundary. Consequently, emissions under this category have accordingly risen.
Downstream transportation and distribution	Change in boundary	112.17	Increase	As similar with the reasons of changes mentioned above, downstream transportation and distribution related emissions have also increased due to the expansion of the boundary from "Macunkoy Facility activities only" to "all operational facilities included".

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Other (upstream)	Change in boundary	3.17	Increase	The main reason for this increase is the inclusion of hotel stays conducted by all facilities, whereas in the previous reporting year only the hotel stays of Macunkoy employees were taken into account.
Other (downstream)	Change in boundary	49.27	Increase	In comparison with the previous reporting year where only outgoing mail deliveries were included in the boundary. However, in this reporting period all mail deliveries including the ones financially controlled by Aselsan were included in the estimations.

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

☐Yes, other partners in the value chain

☐No, we do not engage

CC14.4a Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

ASELSAN has a broad international and local supply network and has reached a substantial number of suppliers since her inspection in 1975. ASELSAN works with different type of suppliers such as sellers, manufacturers, subcontractors, service providers, building contractors, distributors. Subcontractors, who design and produce according to ASELSAN requirements, play a special role among our suppliers due to the fact that their performance directly affects the success of ASELSAN. Therefore, ASELSAN evaluates and selects subcontractors by well-defined auditing activities and monitors the performance of each approved subcontractor by each delivery. During the auditing process, supplier's capability of environmental management is also evaluated. By the beginning of 2015, the issues of GHG emission measurement and climate change strategies will be added into environmental management questionnaire and subcontractors will be given a score according to their replies. For our 2014 inventory we have requested data from our main subcontractors and 14 of the submitted their electricity and fossil fuel consumption figures that are relevant to their production for ASELSAN. As a result we have seen that our suppliers' energy consumption is a Scope 3 GHG emissions source that needs to be investigated further. Therefore, not only we plan to communicate with an increasing number of suppliers to collect data for the next reporting period, but also we will identify a key supplier group and provide training for them to better manage their energy performance and consequently their GHG emissions.

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

Number of suppliers	% of total spend	Comment
402	32	These data represent our approved subcontractors in 2014.

CC14.4c If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
Other	We are using the energy consumption values of our main suppliers to calculate our scope 3 GHG emissions. In the future we are planning to include the GHG emissions data of our suppliers in supplier scorecards.

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
Hezarfen Oruç	Vice President	Board/Executive board