# **Toyota Motor Corporation - Climate Change 2018**

## **C0. Introduction**

## **C0.1**

### **(C0.1) Give a general description and introduction to your organization.**

Toyota is a car maker yet involved in finance business, too. Toyota's consolidated annual car sales between Apr.2016 and Mar. 2017 amounts to 8 million 971 thousand units. Toyota sells its cars in 190 countries/regions, mainly in Japan, North America, Europe and Asia. Toyota's business ranges from 1) car manufacturing, 2) finance to 3) others. Car manufacturing covers production of passenger cars, minivans, trucks and other commercial vehicles as well as design/production/assembly of car parts/accessories. Financial business mainly provides financing service to customers at the time of their purchase/lease of Toyota cars. Toyota is also involved in ITS development as auto-related business. Toyota is also involved in, noted as others above, design/constcution of prefab housing, and sales promotion of "Gazoo.com," a car portal site, and au (KDDI) brand communication products.

Toyota's total sales reaches 27 trillion 597.1 billion yen: 25 trillion 81.8 billion yen in car-related business, 1 trillion 823.6 billion yen in finance, and 1 trillion 321 billion yen in other business areas.

## **C0.2**

### **(C0.2) State the start and end date of the year for which you are reporting data.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Start date** | **End date** | **Indicate if you are providing emissions data for past reporting years** | **Select the number of past reporting years you will be providing emissions data for** |
| Row 1 | avril 1 2016 | mars 31 2017 | Yes | 1 year |
| Row 2 |  |  | <Not Applicable> | <Not Applicable> |
| Row 3 | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Row 4 | <Not Applicable> | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C0.3**

### **(C0.3) Select the countries/regions for which you will be supplying data.**

Australia

Austria

Belgium

Brazil

Canada

Chile

China

Denmark

Estonia

Finland

France

Germany

Hungary

India

Indonesia

Italy

Malaysia

Mexico

Netherlands

New Zealand

Nigeria

Norway

Pakistan

Peru

Philippines

Poland

Portugal

Republic of Korea

Russian Federation

Singapore

Slovakia

South Africa

Spain

Sweden

Switzerland

Taiwan (Province of China)

Thailand

Turkey

United Arab Emirates

United Kingdom of Great Britain and Northern Ireland

United States of America

Venezuela (Bolivarian Republic of)

Viet Nam

## **C0.4**

### **(C0.4) Select the currency used for all financial information disclosed throughout your response.**

JPY

## **C0.5**

### **(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Financial control

## **C-TO0.7/C-TS0.7**

### **(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?**

Light Duty Vehicles (LDV)

Heavy Duty Vehicles (HDV)

## **C1. Governance**

## **C1.1**

### **(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

## **C1.1a**

### **(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.**

|  |  |
| --- | --- |
| **Position of individual(s)** | **Please explain** |
| Board/Executive board | Member of the Board of Directors / Executive Vice President In order to further strengthen executive supervision and speed up decision making and execution of operation, Executive Vice Presidents (EVPs) make management decisions and supervise operation in mid-to-long-term perspective. An EVP and Director has been appointed as the decision-maker and supervisor for advanced technology development and powertrain. As technology development and launch strategy of powertrain and infrastructure toward a low-carbon society is one of the important business agenda, the Director in charge of technology development is responsible for supervision and decision-making regarding those agenda as climate-related issues |

## **C1.1b**

### **(C1.1b) Provide further details on the board’s oversight of climate-related issues.**

|  |  |  |
| --- | --- | --- |
| **Frequency with which climate-related issues are a scheduled agenda item** | **Governance mechanisms into which climate-related issues are integrated** | **Please explain** |
| Scheduled – all meetings | Reviewing and guiding strategy  Reviewing and guiding major plans of action  Reviewing and guiding business plans  Monitoring and overseeing progress against goals and targets for addressing climate-related issues | At the Board of Directors, important business matters concerning management are set as resolutions and other business matters deemed necessary by the Board of Directors, such as the status of business execution, are specified as items to be reported. As measures dealing with climate related issues are positioned as one of the most important management matter, effort is made to promptly and appropriately address these measures. In the reporting year, the Board of Directors' agenda included discussions on the approach towards a future hydrogen society as well as collaborations on fuel cells. |

## **C1.2**

### **(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.**

|  |  |  |
| --- | --- | --- |
| **Name of the position(s) and/or committee(s)** | **Responsibility** | **Frequency of reporting to the board on climate-related issues** |
| Chief Risks Officer (CRO) | Both assessing and managing climate-related risks and opportunities | More frequently than quarterly |

## **C1.2a**

### **(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.**

Through our business activities, Toyota aims for sustainable growth by providing society with values ​​such as "safety and Peace of Mind”, "environment" and "excitement". To promote these values, we have established the Corporate Planning Meeting (CPM) and promote activities from a long-term, company-wide perspective. The CPM, which is under the general shareholders' meeting and the Board of Directors, is the highest level meeting body chaired by the Executive Vice President and has about 15 members composed of Executive Vice Presidents, Senior Managing Officers, Managing Officers and Auditors. The CPM is held about once a month to discuss management plans and issues. Climate related issues are discussed at the CPM as matters requiring deliberation on implementation plans based on the Sustainable Growth Strategy.

The CPM has 3 subcommittees (Environmental Product Design Assessment Committee, Production Environment Committee and Resource Recycling Committee), where executives under Senior Managing Officers discuss measures and issues concerning the climate and other issues. All departments concerned collaborate to design, evaluate and manage company-wide short-term/long-term activities.

Progress status and results of each country/region are consolidated by the Environmental Affairs Division and regularly reported to the above three committees and at the CPM. Furthermore, they are also reported to the Corporate Governance Meeting which has the executive oversight function and is chaired by Chief Risks Officer. Priorities and outcomes to be addressed are reported to the Board of Directors via the Corporate Governance Meeting.

(Review of Meeting Structure in 2018)

The auto industry is facing the once-in-a-century transfomational period. Under such a circumstance, stakeholders has more expectations for response to challenges from a non-financial viewpoint centered on ESG. Toyota established "Sustainability Meeting(SM)", restructuring CPM and CGM. SM, chaired by an Executive Vice President, is composed of ourside board members and outside auditors. SM discusses multifaceted challenges from a non-financial viewpoint to confirm business direction. ESG Committee set under SM is composed of executive officers involved and other relevant members. SM discuss how to solve the challenges in a prompt manner.

## **C1.3**

### **(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

Yes

## **C1.3a**

### **(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.**

### **Who is entitled to benefit from these incentives?**

Director on board

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Efficiency project

### **Comment**

Remuneration and bonuses paid to board members have to ensure balance with the company's business performance, and consider their job responsibility, performance and a bonus standard in countries they are from. Bonuses payout is based on thorough consideration such as dividends, bonuses of employees, and trends of competitors, mid-to-long-term business performance forecast and past bonus payout.

### **Who is entitled to benefit from these incentives?**

Other, please specify (consolidated overseas affiliates)

### **Types of incentives**

Recognition (non-monetary)

### **Activity incentivized**

Emissions reduction project

### **Comment**

Toyota has the Global Environment Award to to recognize excellent improvements such as CO2 reduction and recycling activities at consolidated overseas affiliates. A testimonial and a trophy are presented to awardees, and their best practice is shared among group companies to honor their achievement and learn/introduce the practice with each other . Such best practice is also introduced in our Environmental Report. The top 6 teams out of 19 selected in 6 regions present their achievement in Japan. The Brazil team that presented their continued CO2 reduction effort was given the most excellent award.

### **Who is entitled to benefit from these incentives?**

All employees

### **Types of incentives**

Monetary reward

### **Activity incentivized**

Energy reduction project

### **Comment**

The parties that contribute to emission cuts and makes a certain achievement are given money reward (500 - 200 thousand yen).

## **C2. Risks and opportunities**

## **C2.1**

### **(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **From (years)** | **To (years)** | **Comment** |
| Short-term | 0 | 5 |  |
| Medium-term | 6 | 15 |  |
| Long-term | 16 | 50 |  |

## **C2.2**

### **(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

## **C2.2a**

### **(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Frequency of monitoring** | **How far into the future are risks considered?** | **Comment** |
| Row 1 | Six-monthly or more frequently | >6 years | Corporate Planning Meeting(CPM) directly under the Board Meeting discusses climate issues as part of company-wide business strategy. CPM's 3 subcommittees (Environmental Product Design Assessment Committee, Production Environment Committee and Resource Recycling Committee) are held in every quarter to assess short - to long- term climate-related corporate risks. |

## **C2.2b**

### **(C2.2b) Provide further details on your organization’s process(es) for identifying and assessing climate-related risks.**

Toyota operates world-wide and is exposed to various event-related risks. Climate risks impact Toyota's entire business, ranging from development/design to procurement, production, distribution and sales of our products. The Corporate Planning Meeting (CPM) directly under the Board of Directors discusses climate issues as part of our company-wide growth and business strategy and takes into consideration various social challenges.

Also, all relevant departments attend the three subcommittees (Environmental Product Design Assessment Committee, Production Environment Committee and Resource Recycling Committee) under the CPM. The subcommittees, held in every quarter, identify business and cross-sectional risks, challenges and opportunities, including climate issues, and discuss measures to address them. Company-wide measures are also considered and reported to the CPM on issues which require a quick response.

Climate risks and opportunities impacting facilities and equipment include those during the stages of design, production and sales of cars. Toyota analyzes and assesses the priority risks identified at each site. For example, concerning production facilities and equipment, Toyota is implementing energy saving and GHG emission reduction efforts. The assessment of these activities are part of the environmental management conducted by the above-mentioned Production Environment Committee.

To specify the risks, Toyota prioritizes by importance and map impact on Toyota's business activities, impact on our stakeholders, and business opportunity.

The risks are reviewed every fiscal year based on the financial impact defined by the necessary capital expenditure, which differs for each country and region.

## **C2.2c**

### **(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

|  |  |  |
| --- | --- | --- |
|  | **Relevance & inclusion** | **Please explain** |
| Current regulation | Relevant, always included | There are regulations on fuel economy and CO2 emissions of cars in each country / region. In countries such as the United States, compliance with regulations such as ZEV is required. We are advancing our cutting-edge technology development inorder to respond to these regulations, but in the unlikely event that regulatory compliance is not adequate, there is the risk of a decline in corporate value as well as negative financial impact. Therefore we categorize this as one of our important risk assessment items. In order to adapt to regulations, we constantly monitor the regulatory trends in each country / region and conduct risk assessments based on a number of scenarios concerning the regulation level. |
| Emerging regulation | Relevant, always included | New regulations are expected to be introduced in the future, such as more stringent regulations on fuel economy and CO2 emissions of cars in each country / region and more stringent ZEV regulations in the United States. In the event that regulatory compliance preparations are insufficient, there is the risk of changes in product development strategies. Therefore we categorize this as one of our important risk assessment items. In order to adapt to new regulations, we constantly monitor the regulatory trends in each country / region and conduct risk assessments based on a number of scenarios concerning the regulation level. |
| Technology | Relevant, always included | Compatibility of technical difficulty and profitability is subject to risk assessments when complying to more stringent fuel economy, CO2 emissions of cars and ZEV regulations in each country / region. There is also the risk of not being able to fully meet the needs of consumers in the technical field arising from the increasing problem of climate change. Technical issues and response policies are assessed for each technical field at the department in charge, including the"Fuel economy/Tailpipe Gas Emission Committee", where various regulatory and social trends are monitored. |
| Legal | Relevant, always included | Improper disclosure of corporate environmental information is subject to risk assessments. We are thoroughly complying with environmental regulations, such as the Waste Disposal Law, at each site. However, conventional management is expected to become inadequate as more stringent regulations are adopted due to changes in the environment caused by climate change. Because there is the risk of insufficient compliance and regulatory violations, we proactively share information with each site and evaluate the degree of risks through case studies. |
| Market | Relevant, always included | As we offers advanced low carbon products such as HV, EV and FCV to the market, there is the risk of not being able to meet the planed sales volume in the event our products are not accepted by the market, as planned in our strategy, due to increasing consumer needs. We conduct evaluations of "development proposals" to take into consideration and evaluate merchantability at the planning stage for each car as well as conduct assessments on the market risks through information collected from each country / region. |
| Reputation | Relevant, always included | While consumers' understanding of climate change progresses, organizations such as NGOs are making various recommendations on climate change measures for companies. In the event that product performance in terms of the response to climate change are inadequate, criticism by consumers, NGOs, etc. are to be assessed in risk assessments. As measures to deal with this risk, we survey consumers' expectations and wishes through customer questionnaires and interview. Also we constantly update ourselves on NGO opinions and latest trends, and evaluate the status of our company's current situation. |
| Acute physical | Relevant, always included | Factories of major Asian suppliers have particularly high risks of typhoons and floods. These sudden events reduce the operating rate of suppliers and have the risk of not being able to stably supply products on time. Suppliers and the Procurement Department at headquarters regularly exchange information and discuss risks related to climate change as necessary. Within the Procurement Department at headquarters, we are discussing countermeasures for events such as natural disasters and assessing the status of these initiatives. |
| Chronic physical | Relevant, always included | Depending on the production site, temperature rises have the risk of causing increase in costs, due to the increase in use of electricity for air-conditioning equipment to maintain the workplace environment. If countermeasures are not sufficient, there is also the risk of damaging employees health. To assess these risks, periodic surveys of the work environment are conducted at each site. |
| Upstream | Relevant, always included | Factories of major Asian suppliers have particularly high risks of typhoons and floods. These sudden events reduce the operating rate of suppliers and have the risk of not being able to stably supply products on time. Suppliers and the Procurement Department at headquarters regularly exchange information and discuss risks related to climate change as necessary. Within the Procurement Department at headquarters, we are discussing countermeasures for events such as natural disasters and assessing the status of these initiatives. |
| Downstream | Relevant, always included | Events such as floods and heavy rain can cause disruptions in the product distribution network and have the risk of not being able to stably supply products on time. Operational tasks are divided and information transmission routes are established within the distribution areas (complete built units, production parts, supply parts). Based on information from each business site, each department within the logistics area cooperates to regularly assesses the measures required for natural disasters, the status of activities and the degree of risks. |

## **C2.2d**

### **(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.**

Progress status and results of efforts to address identified risks are reported to Corporate Planning Meeting(CPM) and its 3 subcommittees (Environmental Product Design Assessment Committee, Production Environment Committee and Resource Recycling Committee), and Regional Environmental Committees (RECs)\* as well. Of those identified at facility/equipment level, mid-to-long term risks and opportunities that require company-wide decision or have company-wide impacts are raised at CPM and REC to share necessary information and to propose company-wide countermeasures. \*RECs are set up in regions Toyota operates - Europe, China, South Africa, Asia/Oceania, and North/South Americas - in order to build a stronger organization to pursue global climate efforts.

I.　Physical risk/opportunities due to floods etc. : Each Group/Division develop Business Continuity Plan (BCP) to recover production/the system in preparation for climate change-caused natural disaster, and make constant improvement through regular training (for first response/recovery). Toyota’s Business Continuity Management (BCM) takes the three-in-one approach, combining

1) employees/their families,

2) Toyota group companies/suppliers and

3) Toyota. Global warming can be both a risk and an opportunity. Extreme weather such as floods and concentrated heavy rain might shut-down the operation. On the other hand, it would elevate awareness of climate change issues among customers and then change their needs, which raises demand for Toyota’s low-carbon products, HVs, EVs and FCVs. Corporate Planning Meeting discusses measures for risk/opportunities that require company-wide decision-making including midterm product planning.

II.　Risk/opportunities due to tightening fuel economy regulations etc.: Toyota appoints regional Chief Risk Officers under the Chief Risk Officer responsible for global risk management on safety, quality and the environment to build regional risk management structures. Within the head office, risk management is assigned by function to chief officers and risk managers, while in each in-house company, risk management is assigned to the company president and company risk managers. These individuals coordinate and cooperate with the regional head offices. Toyota reviews/strengthens the system if needed. Even if fuel economy regulations are tightened in the mid-to-long term, Toyota has technological competitiveness such as HVs, EVs and FCVs in the global market and a wide range of product lineups. Toyota believes more market penetration of those products will bring us opportunities with opening a new market and offering a variety of product choices to customers. Corporate Planning Meeting develops midterm product planning and midterm business planning that involve how to utilize such opportunities. When it comes to priority of identified risk/opportunities, Toyota places the highest priority on meeting regulations. As for product quality and productivity, Toyota makes decisions based on cost-effectiveness with environmentally-friendliness into consideration. Quarterly-held Environmental Product Design Assessment Committee and Production Environment Committee have such priority discussion and report to Corporate Planning Meeting if needed to make decisions.

## **C2.3**

### **(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.3a**

### **(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

### **Identifier**

Risk 1

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type**

Transition risk

### **Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

### **Type of financial impact driver**

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### **Company- specific description**

More countries/regions have fuel economy/CO2 regulations to meet the 2℃ target. As for countries/regions Toyota operates, Japan, the US, EU, China, Canada, Mexico, Saudi Arabia, Brazil, India, Taiwan and South Korea already have the regulations in place, tightening them at a accelerated pace. Violation of those regulations impose penalty on Toyota, which raises financial/reputation risks.

### **Time horizon**

Medium-term

### **Likelihood**

Unlikely

### **Magnitude of impact**

High

### **Potential financial impact**

3564000000

### **Explanation of financial impact**

Below are financial impacts in case Toyota fails to meet tighter fuel economy standards in countries. USA.: Suppose that Toyota falls short of the 20MY CAFE standard by 0.1 miles per gallon (mpg), keeping its FY2016 sales units of 2.37 million, penalty on Toyota is estimated at approximately $33 million. EU: Suppose that Toyota falls short of the 2020 CO2 emission standard by 0.1g/km, keeping its FY2016 sales units of 610 thousand, penalty on Toyota is estimated at appx. 58 million euro. China: Suppose that Toyota falls short of the 2020 standard by 0.1L/100km, keeping its FY2016 sales units of 1.19 million, penalty on Toyota is estimated at 143 thousand yuan. Noted in the financial impact column is Japanese yen equivalent of penalty $33 million imposed by the US regulation. The currency rate: $1=108 yen (as of March, 2017 with reference to the supplemental document of Toyota’s consolidated financial statement) https://www.toyota.co.jp/pages/contents/jpn/investors/financial\_results/

### **Management method**

Toyota launched the world first mass produced HV Prius in 1997 to make environmental contribution ahead of fuel economy regulations. Since then, Toyota has improved HV system performance and expanded HV models. Global HV sales hit 10 million units in January 2017. Toyota has pursued R&D to spread PHVs, EVs and FCVs, defining many years of HV technology as core technology for electrification. In so doing, Toyota considers difference in infrastructure conditions and energy policies among countries/regions to meet various regulations/needs.

### **Cost of management**

999999999999

### **Comment**

Toyota's 2016 consolidated R&D expenditure for auto business totals 1 trillion yen (input as 999.9 billion yen, which is the possible maximum value). The spending includes technological development to meet tighter fuel economy/CO2 regulations, such as vehicle electrification (HVs, PHVs, EVs, ECVs) and "Toyota New Global Architecture," Toyota's structural reform of auto business.

### **Identifier**

Risk 2

### **Where in the value chain does the risk driver occur?**

Supply chain

### **Risk type**

Physical risk

### **Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

### **Type of financial impact driver**

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

### **Company- specific description**

In recent years, extreme weather likely caused by climate change has been more frequently occurring. Toyota operates globally. Suppliers' production facilities in Asia might be particularly affected by natural disaster (floods from typhoons/abnormal rain), which might suspend their operation. Due to the delivery delay from some suppliers, factory operating rate should be affected, which makes it impossible to supply products to the market in a stable manner. And such risks might worsen Toyota's business performance.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

18000000000

### **Explanation of financial impact**

It is impossible to forecast a flood, but if 5% of all facilities around the world suspends their operation for 5 days, Toyota's sales is estimated to decline by 1.8 billion yen, given that 2016 consolidated auto sales was 26 trillion yen. Note: Toyota has a recovery plan such as inventory adjustment and operation efficiency, but such factors are excluded to estimate the impact scale.

### **Management method**

To select a location for a new production facility, Toyota conducts empirical local climate study, with no exception, on impact from climate change such as floods and typhoons. Also, Toyota promotes "supply chain transparency" and "preparedness for disasters" as part of supply chain continuity management. Toyota develops its supply chain management system based on data provided from suppliers and performs risk analysis. The system helps us know what is happening to affected suppliers and prepare substitutional procurement and operation recovery at time of natural disaster. In addition, similar efforts that are integrated with suppliers are proceeding at production facilities in each country.

### **Cost of management**

30000000

### **Comment**

System maintenance cost to keep supply chain status updated.

### **Identifier**

Risk 3

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type**

Transition risk

### **Primary climate-related risk driver**

Policy and legal: Increased pricing of GHG emissions

### **Type of financial impact driver**

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### **Company- specific description**

More countries/regions have fuel economy/CO2 regulations in place to meet the 2℃ target. Many of countries/regions Toyota operates already have. When those regulations are introduced in countries that are not currently put in place, and if it is not possible to comply those regulations through improving energy efficiency at facilities etc., there is a risk that brings negative financial impact caused by purchasing additional allowances and credits, or paying fines, etc.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

35458478

### **Explanation of financial impact**

Suppose that a regulation equivalent to EU ETS spreads around the world. Toyota's direct emission in 2016 totals 2,604,655 t-CO2(Scope 1). If it fails to reduce its emission, Toyota cannot meet the regulation-required 2.2% reduction which is required by the ETS. So, Toyota has to purchase European Union Allowance(EUA) equivalent to 57,302 t-CO2(＝2,604,655 t-CO2×2.2%) as excessive emission. 2016 EUA average unit price is 5.2EUR/t-CO2. Therefore, Toyota has to purchase EUA equivalent to 57,302×5.2＝297,970 EUR. Noted in the financial impact column is Japanese yen equivalent. The currency rate: 1 euro=119 yen (the full-year rate of the financial year ending in March, 2017)

### **Management method**

Toyota updates/replaces equipments to reduce CO2 emission and builds lower-carbon factories. These are measures to avoid negative financial impact in case of failure in catching up tighter CO emission regulations. An example is the new painting line at Tsutsumi Plant. The painting process needed urgent CO2 reduction because it is larger CO2 emitter compared other various processes, such as pressing, welding, and assembly. Toyota developed/introduced new painting technology, and improved all of the painting process thoroughly. As a result, Toyota successfully achieved 40% reduction of painting facility capacity and 32% CO2 reduction, while keeping high-quality. Toyota shares best practice internally. The painting process improvement has applied to the newly-built plant in Malaysia, and to facility updates. Toyota's 2016 low-carbon facility investment totals 194.719 billion yen.

### **Cost of management**

194719000000

### **Comment**

Toyota updates/replaces equipments to reduce CO2 emission and builds lower-carbon factories. Toyota's 2016 low-carbon facility investment totals 194.719 billion yen.

## **C2.4**

### **(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.4a**

### **(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

### **Identifier**

Opp1

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

### **Type of financial impact driver**

Increased revenue through demand for lower emissions products and services

### **Company- specific description**

More countries/regions have fuel economy/CO2 regulations to meet the 2℃ target. As for countries/regions Toyota operates, Japan, the US, EU, China, Canada, Mexico, Saudi Arabia, Brazil, India, Taiwan and South Korea already have the regulations in place, tightening them at a accelerated pace. Toyota has a variety of HV lineups that meet fuel economy standards in countries. Toyota believes the regulations enhance value of Toyota's products, which leads to boosting Toyota's sales.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

High

### **Potential financial impact**

999999999999

### **Explanation of financial impact**

Toyota's 2016 non-consolidated auto sales hit 9.223million units, which translates into 11.4763 trillion yen. HV/PHV sales total 1.402 million units, accounting for 15% of the entire annual sales units, making a significant contribution to Toyota's sales. The amount that multiplies average Prius sales price by the above-mentioned units is about 3.5 trillion yen (the representative model: Japan Prius S Grade - 2.5 million yen).(input as 999.9 billion yen, which is the possible maximum value)

### **Strategy to realize opportunity**

Toyota has proactively developed EVs and environmental technology to make them more available to the market. Toyota has tried to spread them not only in countries that already have fuel economy/CO2 regulations, but also at a global basis. As a result, HV sales since 1997 marked more than 10 million unites (as of Jan 2017), which translates into reduction of 77 million tons of CO2 emission cut and 29 million kl of gasoline consumption reduction. Each EV model has its own features. Alternative fuel for it has strength/weakness. Energy conditions/policy vary from country to country or from region to region. Under such conditions, Toyota tries to contribute to building mobility society with high energy efficiency by developing vehicles that are best-suited for customer needs and local conditions and making them more available in the market. Toyota continues to pursue development of HVs, PHVs, EVs and FCVs and to achieve more widespread use of them in markets with a target of global sales of electrified vehicles of 5.5 million units in 2030. Toyota intends to have more then 10 EV models in the early 2020s and to expand PHV/FCV lineups in the 2020s.

### **Cost to realize opportunity**

99999999999

### **Comment**

Toyota's 2016 consolidated R&D expenditure for auto business including those environmental technology total 1 trillion yen (input as 999.9 billion yen, which is the possible maximum value).

### **Identifier**

Opp2

### **Where in the value chain does the opportunity occur?**

Customer

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development of new products or services through R&D and innovation

### **Type of financial impact driver**

Increased revenue through demand for lower emissions products and services

### **Company- specific description**

Power outages occur frequently due to abnormal weather such as typhoons and floods caused by climate change. HVs that equip household power supply can be utilized as electric power supply source of mobile phone and cookers. Further expansion of HVs and PHVs (household power supply rechargeable HV) with household power supply will lead to increased Toyota’s sales. In particular, it is expected that MIRAI, a fuel cell vehicle plays a role as a generator when a power failure occurs due to a disaster, etc., and customer's further support will be expected to increase.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

50000000000

### **Explanation of financial impact**

Toyota develops electrical outlets set for HVs/PHVs that enable to power home appliances. Plug accessories would contribute to HV/PHV sales. Toyota's 2016 HV sales have reached more than 670,000 units. If 3% sales volume improves, due to the sales effect of power outlets, the number of units sold will increase by about 20,000. As a financial impact, sales will increase by about 50 billion yen.

### **Strategy to realize opportunity**

Toyota develops plug accessories for 12 kinds of HVs, such as the sedan type Prius and the minivan type Alphard. Toyota continues to install plug accessories to newly developed HVs, and to develop electrically-powered next-generation vehicles (EVs and FCVs) that is able to serve as power generators. MIRAI, a fuel cell vehicle(FCV) has a large capacity external power supply system with a capacity of about 60 kWh. It is possible to use it as a power supply for home appliances in the event of a power outage due to climate-related disaster. Toyota's 2016 consolidated R&D expenditure for auto business including the environmental technology total 1 trillion yen.

### **Cost to realize opportunity**

99999999999

### **Comment**

Toyota's 2016 consolidated R&D expenditure for auto business including those environmental technology total 1 trillion yen.

### **Identifier**

Opp3

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Resource efficiency

### **Primary climate-related opportunity driver**

Use of more efficient production and distribution processes

### **Type of financial impact driver**

Reduced operating costs (e.g., through efficiency gains and cost reductions)

### **Company- specific description**

More countries/regions have fuel economy/CO2 regulations to meet the 2℃ target. Many of countries/regions Toyota operates already have those regulations in place. Toyota is promoting energy-saving and reduction of its total energy use not only to respond to external pressure but also to make voluntary efforts to achieve Challenge 3 (Plant Zero CO2 Emission) of the Toyota Environmental Challenge 2050. This investment is not only for a response to regulations but also for reduction of fixed cost including energy purchase, which contributes to improving Toyota's profitability.

### **Time horizon**

Medium-term

### **Likelihood**

Very likely

### **Magnitude of impact**

Medium-high

### **Potential financial impact**

700000000

### **Explanation of financial impact**

The financial impact shown above indicates a total of economic benefits of reduced energy cost through energy saving investment at Toyota Motor Corporation (TMC) 10 plants (2016). The value was calculated, based on the environmental accounting guideline issued by Japan's Ministry of Environment, by summing up estimated energy costs reduced of each energy saving investment project. The estimated energy cost reduced is calculated by multiplying energy unit price by energy consumption reduction drawn from comparison the energy efficiency of a new equipment and that of previous equipment, and actual energy consumption in the reporting year. As below-mentioned, TMC's facility investment for environmental conservation totals 18.3 billion yen. 0.7 billion yen as shown above is part of it, is the economic benefit amount Toyota has assessed. Improvement effect in profitability would become even larger, if the coverage is expanded and carbon-tax avoidance is considered.

### **Strategy to realize opportunity**

Toyota makes capital investment every year to comply with environmental regulations and achieve our own goal; Challenge 3. The investment contributes to attaining "Plant Zero CO2 Emission" and improving Toyota's profitability. Facility investment contributes to enhancing Toyota's competitiveness to realize sustainable growth as a means for climate change mitigation and for achievement of its own goals for the Challenges, and for cost-cutting and profitability improvement. An example is introduction of the new painting line at Tsutsumi Plant. Urgent CO2 reduction had to be made at the painting process, the larger CO2 emitter compared other various processes, such as pressing, welding, and assembly. Toyota developed/introduced new painting technology, and improved all of the painting process thoroughly. As a result, Toyota achieved 40% reduction of painting facility capacity and 32% CO2 reduction, while keeping high-quality. CO2 emission correlates with energy consumption. In other worlds, Toyota successfully reduced energy purchase equivalent to CO2 emission cut. Toyota shares best practice internally. The painting process improvement has applied to the newly-built plants and to facility updates. Introduction of a LED bulb is able to cut only a small amount of energy use/CO2 emission. But a large scale introduction of LED bulbs is able to reduce more energy use/CO2 emission than the painting line. It produces a significant effect as the whole Toyota.

### **Cost to realize opportunity**

18300000000

### **Comment**

Facility investment for environmental conservation at TMC 10 plants totals 18.3 billion yen.

## **C2.5**

### **(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

|  |  |  |
| --- | --- | --- |
|  | **Impact** | **Description** |
| Products and services | Impacted | In response to the trend towards more stringent CAFE and ZEV regulations as well as the society's aim to achieve 2°C, Toyota is revitalizing investments for systems such as electric motorization and automatic driving as part of our development strategy. R&D expenses related to products and services for low-carbon transition are 343,716 million JPY. In addition, Toyota believes there will be a significant change in demand for power trains due to the more stringent regulations and the increased infrastructure investments aimed at achieving a 2°C society. In response to such social change, Toyota is determined to implement power train development with all options in mind, in order to provide optimized cars which are able to meet customer needs. |
| Supply chain and/or value chain | Impacted | In response to the trend towards more stringent CAFE and ZEV regulations as well as the society's aim to achieve 2°C, Toyota is promoting developments for electric motorization as part of its development strategy. In order to supply more electric cars to the market, Toyota is promoting collaboration with suppliers towards stable supply of batteries, a key part of electric motorization. Adaptation measures to the occurrence of disasters such as typhoons and floods at supplier factory include the adoption of business continuity management in the supply chain as well as the promotion of "supply chain information visualization" and "disaster preparedness" on an everyday basis. In addition, in Japan, supplier data is now systemized for risk analysis. In the event of a disaster, Toyota can quickly understand the situation of the affected suppliers and use the system for alternative procurement and production recovery. Toyota join forces with suppliers to pursuing similar initiatives at production sites in countries. For this effort, Toyota invested about 30 million JPY in management costs. |
| Adaptation and mitigation activities | Impacted | Adaptation measures to the occurrence of disasters such as typhoons and floods at supplier factory include the adoption of business continuity management in the supply chain as well as the promotion of "supply chain information visualization" and "disaster preparedness" on an everyday basis. In addition, in Japan, supplier data is now systemized for risk analysis. In the event of a disaster, Toyota can quickly understand the situation of the affected suppliers and use the system for alternative procurement and production recovery. Toyota join forces with suppliers to pursuing similar initiatives at production sites in countries. For this effort, Toyota spent about 30 million JPY in management costs. |
| Investment in R&D | Impacted | In response to the trend towards more stringent CAFE and ZEV regulations as well as the society's aim to achieve 2°C, Toyota is promoting developments for electric motorization as part of our development strategy. Among them, Toyota has positioned storage batteries as a "key part" for electric motorization. Toyota plans to invest 1.5 trillion JPY by 2030 for the development and production of in-vehicle batteries. |
| Operations | Impacted | In response to the trends toward larger energy price fluctuations and more stringent emissions regulations in society, Toyota has reduced energy consumption, through energy conservation activities, in order to reduce it management risk. In order to realize this, capital investment for low-carbon transition increased to 194,719 million JPY. |
| Other, please specify | Please select |  |

## **C2.6**

### **(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.**

|  |  |  |
| --- | --- | --- |
|  | **Relevance** | **Description** |
| Revenues | Impacted | With about 11 million electric cars sold and about 4,500 development staff, Toyota has accumulated a significant amount of technology on electrification and know-how as backed by our achievements. Electric cars have had a great impact on our revenues to date. Society is expected to change towards limiting global temperature rise within 2°C and Toyota believes that the impact on our revenues will become greater in the future. Our company regards electric vehicles as important in the mid- to long-term business, as evidenced by initiatives such as setting up a challenge to sell more than 5.5 million electric cars in 2030. Our medium-term management plan will also incorporate such challenges in the financial planning process as well. |
| Operating costs | Impacted | At some production sites, such as in Thailand, past floods have affected repair and operating costs. In the future, there is the possibility that the scale and frequency of related disaster risks will further increase due to climate change. Based on this, additional expenses for reinforcement of facilities and increase in countermeasure costs are included in the financial planning process for each of these sites with a high disaster risk related to climate change. To reduce such risks, surveys of several hundred million yen are conducted before deciding on locations for new business sites, including production plants, and include consideration of climate change impacts, especially typhoons and floods. Toyota also promotes "supply chain information visualization" and "disaster preparedness" on an every-day basis, not only in TMC factories, but also as part of the business continuity management of the supply chain in response to the occurrence of disasters. For this effort, Toyota spent about 30 million JPY in system maintenance costs. |
| Capital expenditures / capital allocation | Impacted | In order to maintain our business competitiveness, Toyota has made strategic capital investments in activities such as energy savings, taking into account the investment recovery opportunities thanks to a decrease in energy purchase volume. In the future, additional capital investment may be necessary due to more stringent emission controls and increasing unit price of energy. The impact of this is also included in our financial planning process. The size of capital investment contributing to low-carbon transition in 2016 is 194,719 million JPY. |
| Acquisitions and divestments | Impacted | Due to the social trend to limit global temperature rise within 2°C, Toyota is promoting electric motorization and weight reduction as part of its development strategy and also promoting to improve work efficiency. In response to this impact, Toyota converted Daihatsu Industry Co., Ltd. into a wholly-owned subsidiary through a share exchange and unified the development of compact cars. Likewise, Toyota have included strategic and flexible acquisitions and investment hikes in its financial planning process, such as by investing in environmental vehicles and reviewing tie-up strategies with suppliers and others. |
| Access to capital | Impacted | In order to enhance competitiveness to realize sustainable growth, it is necessary to improve corporate value by continuing to create innovative technologies for "making better cars." To achieve this, it is necessary to make mid-to-long term R&D investment and build relationship with shareholders who support/go hand in hand with Toyota. To attain the goals, Toyota set 1.5 trillion worth of authorized shares of Model AA Class Shares in 2015 as capital-raising instruments. Toyota has issued 27 million shares of it, equivalent to 500 billion yen. |
| Assets | Impacted | In response to the trend towards more stringent CAFE and ZEV regulations as well as the society's aim to achieve 2°C, Toyota is promoting developments for electric motorization to provide new value to our customers. In the development of electric motorization, Toyota has set the challenge to sell more than 5.5 million electric vehicles and over 1 million ZEV by 2030. Toyota is also trying to reduce the number of gasoline-powered engine vehicles by around 2025. Based on these policies, Toyota plans to review and replace existing strategic assets in production facilities. For example, in order to promote fuel cell vehicles (FCVs), Toyota is aiming to sell more than 30,000 vehicles a year from around 2020 around the world, but in order to respond to the production level (which is ten times larger than the current level of 3,000 units a year), Toyota is determined to expand production facilities for fuel cell stack (FC stack which are the backbone unit of FCV) and high pressure hydrogen tank for storing fuel hydrogen. |
| Liabilities | Please select | In its financial business, Toyota offers car loans and lease service. For the purpose of spreading environmental vehicles, Toyota issued green bonds used for loans and leases for environmental vehicles. The first Green Bond, which was issued in 2014, worths about 170 billion JPY. In the future, expecting changes towards a society to limit global temperature rise within 2°C, Toyota includes this option in the financial planning process as the spread of environmental vehicles and the provision of loan services to encourage their use will become more important. |
| Other | Please select |  |

## **C3. Business Strategy**

## **C3.1**

### **(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

## **C3.1a**

### **(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative and quantitative

## **C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)**

### **(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

## **C3.1c**

### **(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

I)

Toyota regards long-term GHG emission targets (-2050) in developed countries/across the globe, tighter fuel economy standards, and regulations on CO2 sources as business risk as well as business opportunities. Those factors affect Toyota's GHG emission target under the business strategy including production and sales. An example of it is development of Toyota Environmental Challenge 2050.

II）

Toyota Environmental Challenge 2050 was released as Toyota's business strategy in Oct 2015 to prepare for Paris Climate Accord, whose 2℃ target was supposed to be agreed in Dec 2015.

Toyota constantly reviews its 5-yr mid-term goal and business planning to achieve the goal of the Challenge.

Below are the most important factors in carrying out short-term strategy to achieve the 2020 target.

1) Further CO2 reduction from offices/production facilities

2) Accelerated market launch of new model cars with improved fuel economy

3) Reduction of CO2 emission averaged among new cars on road(22% reduction by 2020 from 2010)

III)One of the examples of major business decision making in the reporting year is that Toyota launched new joint R&D for ZEVs with outside research institutions, universities and companies. Toyota is also considering entering new business areas with partner companies to respond to the shift of car use practice.

Toyota is investing total 35 million dollars in Toyota Research Institute, Inc, US AI research institution, to research catalyst for batteries materials and fuel cells for next-generation ZEVs and eco-cars.

Toyota also started new mobility business (car-sharing/ride-sharing) with Uber Technologies, Inc. to provide new value and service.

## **C3.1d**

### **(C3.1d) Provide details of your organization’s use of climate-related scenario analysis.**

|  |  |
| --- | --- |
| **Climate-related scenarios** | **Details** |
| 2DS | ■ Comparative analysis of our power train ratio strategy 【Selected scenario】 IEA ETP 2DS, B2DS 【Input】 Sales ratio of new cars by power train 【Area】 Toyota's power train development area 【Changes to the scenario】 None 【Method of analysis】 Toyota promotes a wide range of development efforts from HV to ZEV as part of our efforts towards electric motor vehiclization, as described in our 2030 Electric Vehicle Strategy. We identified the following transition scenarios, as a comparative scenario for our corporate strategy, which reveals the global power train ratio for new cars in 2030. Scenario: IEA ETP 2DS, B2DS As a result of the comparison, we confirmed that it is unnecessary to change our current strategy for the ratio of electric vehicles, as the ratio of electric vehicles that the Company has set in our strategy exceeds both scenarios. Regarding the ZEV ratio, however, our current strategy for the ration of ZEV is higher than the ZEV ratio necessary to achieve 2DS, but is less than the ZEV ratio required to achieve B2DS. However, through the development of HV, we have cultivated elemental technologies indispensable for electric vehicles as well as established a mass production basis which can be utilized for ZEV. Also, it is possible to change the power-train lineup flexibly and strategically according to changes in demand. Analysis results revealed that we are capable of responding to changes in social demand through our technological advancements in electric motorization. |

## **C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e**

### **(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization’s low-carbon transition plan.**

【Low-carbon transition plan: Toyota Environmental Challenge 2050 and 2030 interim goals of it】

Toyota developed 2030 interim goals for Toyota Environmental Challenge 2050. Toyota estimates to sell more than 5.5 million EVs and more than 1 million ZEVs, cut product life cycle CO2 emission by 25% from 2013 levels, and cut CO2 emission from factories by 35% from 2011 levels by 2030. Toyota is planning full-scale introduction of its mass-produced EVs, starting in China, in 2020, and then is expanding lineups across Toyota/Lexus brands at a global scale. Toyota plans to have a lineup of more than 10 EV models in the early 2020s, to expand EV lineups by around 2025, and to reduce engine-powered vehicles to zero, expanding EV-grade vehicles. Battery is a key to achieve the goal. Battery development has challenges, such as supply capacity, energy density related to driving range and charging time and cost that largely affects a vehicle price. Toyota is making 1.5 trillion of R&D/facility development investment toward 2030 to solve those challenges. Also, Toyota has started joint development of in-board square battery with various suppliers to ensure stable supply. In addition, while vehicle electrification is reducing CO2 emission of vehicles on road close to zero, CO2 emission in association with production of materials for EVs auto parts and production of EVs auto parts and EVs themselves are increasing as more EVs-exclusive auto parts are needed. Toyota enhances environmentally-friendly design even for materials and joint force with suppliers, and reduces waste as much as possible to solve the challenge.

## **C4. Targets and performance**

## **C4.1**

### **(C4.1) Did you have an emissions target that was active in the reporting year?**

Both absolute and intensity targets

## **C4.1a**

### **(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

### **Target reference number**

Abs 1

### **Scope**

Scope 1+2 (location-based)

### **% emissions in Scope**

100

### **% reduction from base year**

100

### **Base year**

2013

### **Start year**

2015

### **Base year emissions covered by target (metric tons CO2e)**

8890000

### **Target year**

2050

### **Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

### **% achieved (emissions)**

11.47

### **Target status**

Underway

### **Please explain**

・Global emssion target in production at major production facilities ・Target GHG: CO2 emission from energy use

### **Target reference number**

Abs 2

### **Scope**

Scope 1+2 (location-based)

### **% emissions in Scope**

15.3

### **% reduction from base year**

28

### **Base year**

1990

### **Start year**

2016

### **Base year emissions covered by target (metric tons CO2e)**

2110000

### **Target year**

2020

### **Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

### **% achieved (emissions)**

100

### **Target status**

Underway

### **Please explain**

・Global emission target in production at major production facilities ・Target GHG: CO2 emission from energy use ・Already achieved (150.64% achieved(emissions)), but go even further.

### **Target reference number**

Abs 3

### **Scope**

Scope 1+2 (location-based)

### **% emissions in Scope**

100

### **% reduction from base year**

35

### **Base year**

2013

### **Start year**

2015

### **Base year emissions covered by target (metric tons CO2e)**

8890000

### **Target year**

2030

### **Is this a science-based target?**

No, and we do not anticipate setting one in the next 2 years

### **% achieved (emissions)**

32.8

### **Target status**

Underway

### **Please explain**

・Midterm milestone for the global target in production at major facilities (the Toyota Environmental Challenge 2050) ・Target GHG: CO2 emission from energy use

## **C4.1b**

### **(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

### **Target reference number**

Int 1

### **Scope**

Scope 1+2 (location-based)

### **% emissions in Scope**

100

### **% reduction from baseline year**

100

### **Metric**

Metric tons CO2e per unit of production

### **Base year**

2001

### **Start year**

2015

### **Normalized baseline year emissions covered by target (metric tons CO2e)**

1.18

### **Target year**

2050

### **Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

### **% achieved (emissions)**

36.4

### **Target status**

Underway

### **Please explain**

・Global emssion target in production at major production facilities ・Target GHG: CO2 emission from energy use ・Unit: per production volume

### **% change anticipated in absolute Scope 1+2 emissions**

-100

### **% change anticipated in absolute Scope 3 emissions**

0

### **Target reference number**

Int 2

### **Scope**

Scope 1+2 (location-based)

### **% emissions in Scope**

100

### **% reduction from baseline year**

61

### **Metric**

Metric tons CO2e per unit of production

### **Base year**

2001

### **Start year**

2016

### **Normalized baseline year emissions covered by target (metric tons CO2e)**

1.18

### **Target year**

2020

### **Is this a science-based target?**

No, but we anticipate setting one in the next 2 years

### **% achieved (emissions)**

59.6

### **Target status**

Underway

### **Please explain**

・Global emssion target in production at major production facilities ・Target GHG: CO2 emission from energy use ・Unit: per production volume

### **% change anticipated in absolute Scope 1+2 emissions**

-15.1

### **% change anticipated in absolute Scope 3 emissions**

0

## **C4.2**

### **(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

## **C4.3**

### **(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

## **C4.3a**

### **(C4.3a) Identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

|  |  |  |
| --- | --- | --- |
|  | **Number of projects** | **Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked \*)** |
| Under investigation | 0 | 0 |
| To be implemented\* | 10 | 9110 |
| Implementation commenced\* | 5 | 70 |
| Implemented\* | 96 | 33980 |
| Not to be implemented | 0 | 0 |

## **C4.3b**

### **(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

### **Activity type**

Energy efficiency: Processes

### **Description of activity**

Other, please specify (higher efficiency equipment)

### **Estimated annual CO2e savings (metric tonnes CO2e)**

7061

### **Scope**

Scope 1

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

192000000

### **Investment required (unit currency – as specified in CC0.4)**

18300000000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

1-2 years

### **Comment**

CO2 reduction activity implemented includes: ・introduce highly efficient air conditioners and freezing machines ・consolidate processes and equipment Activity period is for 1 year. The cost saving amount in the reporting year is based on the investment until the preceding year. Investment effect normally emerges after the following year of the reporting year. Therefore, cost reduction and investment recovery estimated from investment don't agree with the recovery year in the table. The recovery year is an indicator for an investment decision.

### **Activity type**

Energy efficiency: Processes

### **Description of activity**

Other, please specify (higher efficiency equipment)

### **Estimated annual CO2e savings (metric tonnes CO2e)**

26923.48

### **Scope**

Scope 2 (location-based)

### **Voluntary/Mandatory**

Voluntary

### **Annual monetary savings (unit currency – as specified in CC0.4)**

408000000

### **Investment required (unit currency – as specified in CC0.4)**

800000000

### **Payback period**

1-3 years

### **Estimated lifetime of the initiative**

1-2 years

### **Comment**

CO2 reduction activity implemented includes: ・introduce highly efficient air conditioners and freezing machines ・consolidate processes and equipment Activity period is for 1 year.

## **C4.3c**

### **(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

|  |  |
| --- | --- |
| **Method** | **Comment** |
| Dedicated budget for energy efficiency | Toyota maintains a large amount investment and maintenance spending to promote both further energy saving and various environmental efforts (development of energy saving products, and recycle and recovery f products). Toyota invested 441.6 billion yen in 2015, and 451 billion yen in 2016. In particular, Toyota makes 18.3 billion yen of facility investment specifically for climate change mitigation. |

## **C4.5**

### **(C4.5) 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?**

Yes

## **C4.5a**

### **(C4.5a) 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**

Company-wide

### **Description of product/Group of products**

Toyota launched the world first mass-produced HV Prius in 1997 under its philosophy that "environmental contribution comes true only through more availability of products." Since then, Toyota expanded HV lineups. Toyota sells 37 models of HVs as of 2016. HV sales hit 1.4 million units in 2016 alone, and reached 9.94 million units to date. Toyota's HVs feature electrically-powered driving, energy regeneration at the time of idling stop deceleration, highly efficient gasoline engine recycle synergized by electrification, control systems that realize the highest efficiency in response to drivers' ways of driving, and more. To decrease air/tire rolling resistance, Toyota's HVs enhance air conditioning efficiency (mileage not claimed in product catalogues), save lightning electricity consumption and are equipped with monitors with which customers can enjoy eco-driving. Prius PHV launched in 2012 has a large-capacity battery and an external charging system developed based on the Toyota HV system, which enable customers to enjoy long-distance EV driving without having to worry about batteries' running down. The feature also promises more market penetration and lower emission toward renewable energy-dominant future. Also, Toyota launched MIRAI, the world first mass-produced FCV, in 2014, and achieved 2,000 sales units by 2016. Toyota intends to make it more available to customers. FCVs, which realize zero emission while on the road, have a potential that leads future low carbon society because hydrogen is able to replace unstable renewables and be stored/transported easily.

### **Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

### **Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (HV ratio of all Toyota sales units)

### **% revenue from low carbon product(s) in the reporting year**

15

### **Comment**

Toyota calculates CO2 emission reduction effect by comparing real-world CO2 emission from HVs to that from comparable gasoline-powered vehicles. Global cumulative HV sales reached 9.94 million units in 2016, which reduced CO2 emission by 76 million ton, in other words, gasoline consumption by 28 million kl.

## **C5. Emissions methodology**

## **C5.1**

### **(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

### **Scope 1**

### **Base year start**

avril 1 2001

### **Base year end**

mars 31 2002

### **Base year emissions (metric tons CO2e)**

3010000

### **Comment**

### **Scope 2 (location-based)**

### **Base year start**

avril 1 2001

### **Base year end**

mars 31 2002

### **Base year emissions (metric tons CO2e)**

3990000

### **Comment**

### **Scope 2 (market-based)**

### **Base year start**

### **Base year end**

### **Base year emissions (metric tons CO2e)**

### **Comment**

## **C5.2**

### **(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

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

## **C6. Emissions data**

## **C6.1**

### **(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?**

### **Row 1**

### **Gross global Scope 1 emissions (metric tons CO2e)**

2604655

### **End-year of reporting period**

<Not Applicable>

### **Comment**

### **Row 2**

### **Gross global Scope 1 emissions (metric tons CO2e)**

### **End-year of reporting period**

### **Comment**

## **C6.2**

### **(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.**

### **Row 1**

### **​Scope 2, location-based​**

We are reporting a Scope 2, location-based figure

### **Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

### **Comment**

## **C6.3**

### **(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?**

### **Row 1**

### **Scope 2, location-based**

5265425

### **Scope 2, market-based (if applicable)**

<Not Applicable>

### **End-year of reporting period**

<Not Applicable>

### **Comment**

### **Row 2**

### **Scope 2, location-based**

### **Scope 2, market-based (if applicable)**

<Not Applicable>

### **End-year of reporting period**

### **Comment**

## **C6.4**

### **(C6.4) 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?**

No

## **C6.5**

### **(C6.5) Account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions.**

### **Purchased goods and services**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

61196000

### **Emissions calculation methodology**

1)CO2 emission from production of purchased products is calculated by multiplying the number of units sold by CO2 emission from the stage of materials and parts production per unit, which is calculated through a Life Cycle Assessment for each car model. The CO2 emission factors used for the LCA are sourced from the Life Cycle Assessment Society of Japan (JLCA) and GaBi software. 2)CO2 emission from production of secondary materials used in a manufacturing process is calculated by multiplying the monetary amount of purchased secondary materials by the respective CO2 emission factor. The factors are defined by Japanese Ministry of Environment(MOE). 3)CO2 emission from test car development is calculated by multiplying the number of test cars produced by CO2 emission of a test car. CO2 emission of a test car is calculated through a Life Cycle Assessment. The CO2 emission factors used for the LCA are sourced from JLCA and GaBi.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

80

### **Explanation**

Ratio of total number of units produced of models assessed by LCA to total units produced of all models in the reporting year.

### **Capital goods**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

3891000

### **Emissions calculation methodology**

Calculated by multiplying the amount spent in capital investment by the CO2 emission factor. The emission factor is sourced from Japan Environmental Management Association for Industry.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

Capital investment is disclosed in our Financial Report (auto business)

### **Fuel-and-energy-related activities (not included in Scope 1 or 2)**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

959000

### **Emissions calculation methodology**

The total value was calculated by multiplying the annual energy consumption by energy source, by the respective CO2 emission factor for each energy source. The CO2 emission factors are sourced from Japan Environmental Management Association for Industry.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

Annual energy consumption by energy source is available in the Environmental Report (covering Toyota Motor Corporation and its domestic/overseas consolidated affiliates).

### **Upstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

852000

### **Emissions calculation methodology**

Calculated by multiplying the number of units sold by CO2 emission generated during upstream transportation per car. The CO2 emission is calculated through a LCA for each car model. The CO2 emission factors used for the LCA are sourced from the Life Cycle Assessment Society of Japan (JLCA) and GaBi software.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

80

### **Explanation**

Ratio of total number of units produced of models assessed by LCA to total units produced of all models in the reporting year.

### **Waste generated in operations**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

118000

### **Emissions calculation methodology**

Calculated by multiplying a quantity of waste generated through production by a CO2 emission factor. The CO2 emission factors are sourced from Japan's MOE.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

A quantity of waste is disclosed in the Environmental Report (covering Toyota Motor Corporation and its domestic/overseas consolidated affiliates).

### **Business travel**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

141000

### **Emissions calculation methodology**

Calculated by multiplying total distance traveled, which is calculated based on the number of business travels and destination, by CO2 emission factors. The CO2 emission factors are sourced from Japan's MOE.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

20

### **Explanation**

Calculated as all consolidated affiliates based on Toyota's primary data. The number of employees is disclosed in our Financial Report (auto business, common)

### **Employee commuting**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

706000

### **Emissions calculation methodology**

Calculated based on commute data (transit subsidy, etc.) and CO2 emission factors. The CO2 emission factors are sourced from Japan Environmental Management Association for Industry and Japan's MOE.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

20

### **Explanation**

Calculated as all consolidated affiliates based on Toyota's primary data. The number of employees is disclosed in our Financial Report (auto business, common)

### **Upstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

0

### **Emissions calculation methodology**

Calculated as Scope2

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

### **Explanation**

The CO2 emissions generated during use of leased copy machines and PCs is included in Scope2.

### **Downstream transportation and distribution**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

9000

### **Emissions calculation methodology**

Calculated based on the typical distance transported per completely built up car (CBU), the total amount of CBUs transported which is calculated by multiplying sales volume by vehicles, and CO2 emission factors. The emission factors are sourced from the Law on Promotion of Global Warming Countermeasures.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

### **Explanation**

### **Processing of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

1070000

### **Emissions calculation methodology**

The emission is calculated by multiplying CO2 emission per truck/bus, which is calculated through a LCA for each representative model, by the number of truck/bus produced. The CO2 emission factors used for the LCA are sourced from the Life Cycle Assessment Society of Japan (JLCA) and GaBi software.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

There are many kinds of specifications. Representatives of all models are assessed by LCA.

### **Use of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

328938000

### **Emissions calculation methodology**

1) CO2 emission during use of products is calculated by 1) averaging CO2 emission per car sold in Japan, US, EU and China, where regulators have developed databases on fuel economy and sales volume, 2) defining it as globally averaged CO2 emission per car, and 3) multiply it by a global sales volume. The CO2 emission factors are sourced from Japan Environmental Management Association for Industry and the Law on Promotion of Global Warming Countermeasures. 2) CO2 emission during maintenance service is calculated by multiplying CO2 emission generated during maintenance service per car, which is calculated through a LCA, by the number of car sold. The CO2 emission factors used for the LCA are sourced from the Life Cycle Assessment Society of Japan (JLCA) and GaBi software.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

70

### **Explanation**

Defined as ratio calculated by primary data of regulators: Japan, US, EU and China.

### **End of life treatment of sold products**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

3711000

### **Emissions calculation methodology**

Calculated by multiplying CO2 emission generated per car during the processes of disposing used car, by the number of car sold . The CO2 emission per car is calculated through a LCA. The CO2 emission factors used for the LCA are sourced from the Life Cycle Assessment Society of Japan (JLCA) and GaBi software.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

80

### **Explanation**

Ratio of total number of units produced of models assessed by LCA to total units produced of all models in the reporting year.

### **Downstream leased assets**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

not available

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

### **Explanation**

CO2 emission generated during use of rent-a-car is included in use of products (category 11).

### **Franchises**

### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

not available

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

### **Explanation**

NA: Toyota has no franchise.

### **Investments**

### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

151000

### **Emissions calculation methodology**

The emission is calculated by multiplying the scope1 and 2 emissions of investee companies in which Toyota Motor Corporation hold stocks, by Toyota’s shareholding ratio. The scope1 and 2 emissions of investee are sourced from their publicly disclosed data.

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

### **Explanation**

Names/the number of stocks held by Toyota is available in our Financial Report.

### **Other (upstream)**

### **Evaluation status**

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

### **Explanation**

### **Other (downstream)**

### **Evaluation status**

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

### **Explanation**

## **C6.7**

### **(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

## **C6.10**

### **(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

### **Intensity figure**

0.285176822

### **Metric numerator (Gross global combined Scope 1 and 2 emissions)**

7870080

### **Metric denominator**

Other, please specify (unit total revenue/ million)

### **Metric denominator: Unit total**

27597193

### **Scope 2 figure used**

Location-based

### **% change from previous year**

0.19

### **Direction of change**

Decreased

### **Reason for change**

Sales increase is a factor, but Toyota implemented emission reduction measures: - introduce more efficient air conditioning and freezing machines - consolidate the process and equipment

### **Intensity figure**

0.0007470744

### **Metric numerator (Gross global combined Scope 1 and 2 emissions)**

7870080

### **Metric denominator**

vehicle produced

### **Metric denominator: Unit total**

10534533

### **Scope 2 figure used**

Location-based

### **% change from previous year**

0.5

### **Direction of change**

Increased

### **Reason for change**

The increase came from the increase of the production volume.

## **C7. Emissions breakdowns**

## **C7.1**

### **(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?**

No

## **C7.2**

### **(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

|  |  |
| --- | --- |
| **Country/Region** | **Scope 1 emissions (metric tons CO2e)** |
| Japan | 1903754 |
| North America | 345641 |
| Europe | 86990 |
| China | 150178 |
| Other, please specify (Rest of the World) | 118092 |

## **C7.3**

### **(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

## **C7.3a**

### **(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

|  |  |
| --- | --- |
| **Business division** | **Scope 1 emissions (metric ton CO2e)** |
| Administrative division | 260046 |
| Production division | 2344610 |

## **C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4**

### **(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Gross Scope 1 emissions, metric tons CO2e** | **Net Scope 1 emissions , metric tons CO2e** | **Comment** |
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Electric utility generation activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 2344610 | <Not Applicable> |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C7.5**

### **(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country/Region** | **Scope 2, location-based (metric tons CO2e)** | **Scope 2, market-based (metric tons 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)** |
| Japan | 2925469 |  | 6874272 | 5315 |
| North America | 864761 |  | 1599542 | 6133 |
| Europe | 193886 |  | 375601 | 10443 |
| China | 552003 |  | 1188469 | 291 |
| Other, please specify (Rest of the world) | 729307 |  | 1201397 | 78929 |

## **C7.6**

### **(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

## **C7.6a**

### **(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

|  |  |  |
| --- | --- | --- |
| **Business division** | **Scope 2, location-based emissions (metric tons CO2e)** | **Scope 2, market-based emissions (metric tons CO2e)** |
| Administrative division | 1048086 |  |
| Production division | 4217339 |  |

## **C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7**

### **(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Scope 2, location-based, metric tons CO2e** | **Scope 2, market-based (if applicable), metric tons CO2e** | **Comment** |
| Cement production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Chemicals production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Coal production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Metals and mining production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (upstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Oil and gas production activities (downstream) | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Steel production activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |
| Transport OEM activities | 4217339 |  |  |
| Transport services activities | <Not Applicable> | <Not Applicable> | <Not Applicable> |

## **C-TO7.8**

### **(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.**

### **Activity**

Light Duty Vehicles (LDV)

### **Emissions intensity figure**

0.000097

### **Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e**

266439571

### **Metric denominator**

p.km

### **Metric denominator: Unit total**

2740473712

### **% change from previous year**

111

### **Vehicle unit sales in reporting year**

10075271

### **Vehicle lifetime in years**

10

### **Annual distance in km or miles (unit specified by column 4)**

16000

### **Load factor**

1.7

### **Please explain the changes, and relevant standards/methodologies used**

Metric denominator: 2,740,473,712,000 In 2016, the evaluation method for 2015 was changed (resulting in an increase due to taking into account the mining and refining of fuel used for driving) Emissions intensity : t-CO2/p・km

### **Activity**

Heavy Duty Vehicles (HDV)

### **Emissions intensity figure**

0.000078

### **Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e**

58131515

### **Metric denominator**

t.km

### **Metric denominator: Unit total**

744095516000

### **% change from previous year**

107

### **Vehicle unit sales in reporting year**

176159

### **Vehicle lifetime in years**

10

### **Annual distance in km or miles (unit specified by column 4)**

64000

### **Load factor**

6.6

### **Please explain the changes, and relevant standards/methodologies used**

In 2016, the evaluation method for 2015 was changed (resulting in an increase due to taking into account the mining and refining of fuel used for driving) Emissions intensity : t-CO2/t・km

## **C7.9**

### **(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

## **C7.9a**

### **(C7.9a) 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.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Change in emissions (metric tons CO2e)** | **Direction of change** | **Emissions value (percentage)** | **Please explain calculation** |
| Change in renewable energy consumption | 410 | Decreased | 0.01 | Emissions value : 0.005%(percentage) (1)FY2015:10082tCO2e (2)FY2016: 10,492tCO2e Emissions value =((2)-(1))/(Sccpe1+2)×100 Sccpe1+2＝7,560,626(FY2015) The changes were due to the changes in renewable energy purchase contracts and in-house renewable energy generation. |
| Other emissions reduction activities | 33984 | Decreased | 0.44 | (1)FY2015:19,370tCO2e (2)FY2016: 33,980tCO2e Emissions value =((2)-(1))/(Sccpe1+2)×100 Sccpe1+2＝7,560,626(FY2015) The CO2 decrease was thanks to replacement of equipments and streamlining of production lines. |
| Divestment |  | <Not Applicable> |  |  |
| Acquisitions |  | <Not Applicable> |  |  |
| Mergers |  | <Not Applicable> |  |  |
| Change in output | 343847 | Increased | 4.55 | (1)Scope1+2: FY2015 (2)Scope1+2: FY2016 (3)Change in renewable energy consumption (4)Other emissions reduction activities Emissions value =((2)-(1)-(3)-(4))/(Sccpe1+2)×100 Sccpe1+2 |
| Change in methodology |  | <Not Applicable> |  |  |
| Change in boundary |  | <Not Applicable> |  |  |
| Change in physical operating conditions |  | <Not Applicable> |  |  |
| Unidentified |  | <Not Applicable> |  |  |
| Other |  | <Not Applicable> |  |  |

## **C7.9b**

### **(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## **C8. Energy**

## **C8.1**

### **(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

## **C8.2**

### **(C8.2) Select which energy-related activities your organization has undertaken.**

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertakes this energy-related activity** |
| Consumption of fuel (excluding feedstocks) | Yes |
| Consumption of purchased or acquired electricity | Yes |
| Consumption of purchased or acquired heat | Yes |
| Consumption of purchased or acquired steam | Yes |
| Consumption of purchased or acquired cooling | Yes |
| Generation of electricity, heat, steam, or cooling | Yes |

## **C8.2a**

### **(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Heating value** | **MWh from renewable sources** | **MWh from non-renewable sources** | **Total MWh** |
| Consumption of fuel (excluding feedstock) | HHV (higher heating value) | 0 | 15000005 | 15000005 |
| Consumption of purchased or acquired electricity | <Not Applicable> | 89785.53 | 10695154 | 10784940 |
| Consumption of purchased or acquired heat | <Not Applicable> | 0 | 152114 | 152114 |
| Consumption of purchased or acquired steam | <Not Applicable> | 0 | 299830 | 299830 |
| Consumption of purchased or acquired cooling | <Not Applicable> | 0 | 2397 | 2397 |
| Consumption of self-generated non-fuel renewable energy | <Not Applicable> | 11325 | <Not Applicable> | 11325 |
| Total energy consumption | <Not Applicable> | 101111 | 26149500 | 26250611 |

## **C8.2b**

### **(C8.2b) Select the applications of your organization’s consumption of fuel.**

|  |  |
| --- | --- |
|  | **Indicate whether your organization undertakes this fuel application** |
| Consumption of fuel for the generation of electricity | Yes |
| Consumption of fuel for the generation of steam | Yes |
| Consumption of fuel for the generation of cooling | Yes |
| Consumption of fuel for co-generation or tri-generation | Yes |

## **C8.2c**

### **(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

### **Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

### **Heating value**

HHV (higher heating value)

### **Total fuel MWh consumed by the organization**

7427

### **MWh fuel consumed for the self-generation of electricity**

0

### **MWh fuel consumed for self-generation of heat**

7427

### **MWh fuel consumed for self-generation of steam**

0

### **MWh fuel consumed for self-generation of cooling**

0

### **MWh fuel consumed for self- cogeneration or self-trigeneration**

0

### **Fuels (excluding feedstocks)**

Natural Gas

### **Heating value**

HHV (higher heating value)

### **Total fuel MWh consumed by the organization**

14098032

### **MWh fuel consumed for the self-generation of electricity**

5028027

### **MWh fuel consumed for self-generation of heat**

4034891

### **MWh fuel consumed for self-generation of steam**

3650376

### **MWh fuel consumed for self-generation of cooling**

1384738

### **MWh fuel consumed for self- cogeneration or self-trigeneration**

0

### **Fuels (excluding feedstocks)**

Kerosene

### **Heating value**

HHV (higher heating value)

### **Total fuel MWh consumed by the organization**

123221

### **MWh fuel consumed for the self-generation of electricity**

198

### **MWh fuel consumed for self-generation of heat**

0

### **MWh fuel consumed for self-generation of steam**

140

### **MWh fuel consumed for self-generation of cooling**

122883

### **MWh fuel consumed for self- cogeneration or self-trigeneration**

0

### **Fuels (excluding feedstocks)**

Diesel

### **Heating value**

HHV (higher heating value)

### **Total fuel MWh consumed by the organization**

8672

### **MWh fuel consumed for the self-generation of electricity**

8672

### **MWh fuel consumed for self-generation of heat**

0

### **MWh fuel consumed for self-generation of steam**

0

### **MWh fuel consumed for self-generation of cooling**

0

### **MWh fuel consumed for self- cogeneration or self-trigeneration**

0

### **Fuels (excluding feedstocks)**

Other, please specify (Heavy oil A)

### **Heating value**

HHV (higher heating value)

### **Total fuel MWh consumed by the organization**

762653

### **MWh fuel consumed for the self-generation of electricity**

34345

### **MWh fuel consumed for self-generation of heat**

80

### **MWh fuel consumed for self-generation of steam**

431737

### **MWh fuel consumed for self-generation of cooling**

296492

### **MWh fuel consumed for self- cogeneration or self-trigeneration**

0

## **C8.2d**

### **(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

### **Diesel**

### **Emission factor**

2.67

### **Unit**

kg CO2e per liter

### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories

### **Comment**

### **Kerosene**

### **Emission factor**

2.51

### **Unit**

kg CO2 per liter

### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories

### **Comment**

### **Liquefied Petroleum Gas (LPG)**

### **Emission factor**

2.82

### **Unit**

metric tons CO2 per metric ton

### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories

### **Comment**

### **Natural Gas**

### **Emission factor**

1850

### **Unit**

metric tons CO2 per m3

### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories

### **Comment**

### **Other**

### **Emission factor**

2.67

### **Unit**

kg CO2e per liter

### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories

### **Comment**

## **C8.2e**

### **(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total Gross generation (MWh)** | **Generation that is consumed by the organization (MWh)** | **Gross generation from renewable sources (MWh)** | **Generation from renewable sources that is consumed by the organization (MWh)** |
| Electricity | 34345 | 34345 | 11325 | 11325 |
| Heat | 80 | 80 | 0 | 0 |
| Steam | 431737 | 431737 | 0 | 0 |
| Cooling | 296492 | 296492 | 0 | 0 |

## **C8.2f**

### **(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

### **Basis for applying a low-carbon emission factor**

Off-grid energy consumption from an on-site installation or through a direct line to an off-site generator owned by another company

### **Low-carbon technology type**

Solar PV

### **MWh consumed associated with low-carbon electricity, heat, steam or cooling**

11210

### **Emission factor (in units of metric tons CO2e per MWh)**

0

### **Comment**

### **Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities ( e.g. green tariff), supported by energy attribute certificates

### **Low-carbon technology type**

Biomass (including biogas)

### **MWh consumed associated with low-carbon electricity, heat, steam or cooling**

60533

### **Emission factor (in units of metric tons CO2e per MWh)**

0

### **Comment**

### **Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities ( e.g. green tariff), supported by energy attribute certificates

### **Low-carbon technology type**

Hydropower

### **MWh consumed associated with low-carbon electricity, heat, steam or cooling**

18043

### **Emission factor (in units of metric tons CO2e per MWh)**

0

### **Comment**

SMALL HYDRIC

### **Basis for applying a low-carbon emission factor**

Contract with suppliers or utilities ( e.g. green tariff), supported by energy attribute certificates

### **Low-carbon technology type**

Wind

### **MWh consumed associated with low-carbon electricity, heat, steam or cooling**

11210

### **Emission factor (in units of metric tons CO2e per MWh)**

0

### **Comment**

## **C-TO8.4**

### **(C-TO8.4) Provide any efficiency metrics that are appropriate for your organization’s transport products and/or services.**

### **Activity**

Light Duty Vehicles (LDV)

### **Metric figure**

26

### **Metric numerator**

tCO2

### **Metric denominator**

Production: Vehicle

### **Metric numerator: Unit total**

266439571

### **Metric denominator: Unit total**

10075271

### **% change from previous year**

111

### **Please explain**

In 2016, the evaluation method for 2015 was changed (resulting in an increase due to taking into account the mining and refining of fuel used for driving)

### **Activity**

Heavy Duty Vehicles (HDV)

### **Metric figure**

330

### **Metric numerator**

tCO2

### **Metric denominator**

Production: Vehicle

### **Metric numerator: Unit total**

58131515

### **Metric denominator: Unit total**

176159

### **% change from previous year**

107

### **Please explain**

In 2016, the evaluation method for 2015 was changed (resulting in an increase due to taking into account the mining and refining of fuel used for driving)

## **C9. Additional metrics**

## **C9.1**

### **(C9.1) Provide any additional climate-related metrics relevant to your business.**

## **C-TO9.3/C-TS9.3**

### **(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.**

### **Activity**

Light Duty Vehicles (LDV)

### **Metric**

Sales

### **Technology**

Conventional hybrid

### **Metric figure**

1400000

### **Metric unit**

Units

### **Explanation**

Global sales volume(including PHVs)

### **Activity**

Light Duty Vehicles (LDV)

### **Metric**

Sales

### **Technology**

Plug-in hybrid vehicle (PHEV)

### **Metric figure**

2000

### **Metric unit**

Units

### **Explanation**

Global sales volume

### **Activity**

Light Duty Vehicles (LDV)

### **Metric**

Sales

### **Technology**

Vehicle using LPG/CNG

### **Metric figure**

2000

### **Metric unit**

Units

### **Explanation**

Domestic sales volume (CVG taxis)

### **Activity**

Light Duty Vehicles (LDV)

### **Metric**

Sales

### **Technology**

Vehicle using bio-fuel

### **Metric figure**

60000

### **Metric unit**

Units

### **Explanation**

US sales volume (FFV)

## **C-TO9.6/C-TS9.6**

### **(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?**

### **Activity**

Light Duty Vehicles (LDV)

### **Investment start date**

avril 1 2016

### **Investment end date**

mars 31 2017

### **Investment area**

R&D

### **Technology area**

Other, please specify (Development of low-carbon technologies )

### **Investment maturity**

Applied research and development

### **Investment figure**

343716000000

### **Low-carbon investment percentage**

21-40%

### **Please explain**

Consolidated investment value for investments conforming to the definition of low-carbon as defined by Toyota in each R&D field. This value includes investments in technologies to improve the current fuel economy, core technologies for electric motorization, and systems development for an efficient mobile society.

### **Activity**

Light Duty Vehicles (LDV)

### **Investment start date**

avril 1 2016

### **Investment end date**

mars 31 2017

### **Investment area**

Equipment

### **Technology area**

Other, please specify (Low-carbon production facilities)

### **Investment maturity**

Large scale commercial deployment

### **Investment figure**

19471900000

### **Low-carbon investment percentage**

0-20%

### **Please explain**

Consolidated investment value for investments conforming to the definition of low-carbon as defined by Toyota in our properties, plants and equipment. This value includes investments in equipment replacement contributing to emission reductions compared to current equipment during manufacturing, new facilities for manufacturing new fuel-efficient products, manufacturing facilities for components required for electric motorization, and facilities for renewable-energy / energy-saving / energy-storage.

## **C10. Verification**

## **C10.1**

### **(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

|  |  |
| --- | --- |
|  | **Verification/assurance status** |
| Scope 1 | Third-party verification or assurance process in place |
| Scope 2 (location-based or market-based) | Third-party verification or assurance process in place |
| Scope 3 | Third-party verification or assurance process in place |

## **C10.1a**

### **(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

### **Scope**

Scope 1

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Independent Practitioner's Assurance Report\_ER17\_57.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/Z1RACMpca02mbtiNDQVrlw/IndependentPractitionersAssuranceReportER1757.pdf)

### **Page/ section reference**

Environmental Report 2017 p23 Trends in Global CO2 Emissions (from Energy Consumption at Stationary Emission Sources) and CO2 Emissions per Unit Produced p57 Independent Practitioner’s Assurance Report

### **Relevant standard**

ISAE3000

### **Proportion of reported emissions verified (%)**

100

### **Scope**

Scope 2 location-based

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Type of verification or assurance**

Limited assurance

### **Attach the statement**

[Independent Practitioner's Assurance Report\_ER17\_57.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/Z1RACMpca02mbtiNDQVrlw/IndependentPractitionersAssuranceReportER1757.pdf)

### **Page/ section reference**

Environmental Report 2017 p23 Trends in Global CO2 Emissions (from Energy Consumption at Stationary Emission Sources) and CO2 Emissions per Unit Produced p57 Independent Practitioner’s Assurance Report

### **Relevant standard**

ISAE3000

### **Proportion of reported emissions verified (%)**

100

## **C10.1b**

### **(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

### **Scope**

Scope 3- all relevant categories

### **Verification or assurance cycle in place**

Annual process

### **Status in the current reporting year**

Complete

### **Attach the statement**

[Independent Practitioner's Assurance Report\_ER17\_57.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/Z1RACMpca02mbtiNDQVrlw/IndependentPractitionersAssuranceReportER1757.pdf)

### **Page/section reference**

P19 Response to Scope3 P57 Independent Practitioner's Assurance Report

### **Relevant standard**

ISAE3000

## **C10.2**

### **(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

## **C10.2a**

### **(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Disclosure module verification relates to** | **Data verified** | **Verification standard** | **Please explain** |
| C6. Emissions data | Year on year change in emissions (Scope 1 and 2) | ISAE3410 | Annually C6.1、C6.3 |
| C6. Emissions data | Year on year emissions intensity figure | ISAE3410 | Annually C6.10 |
| C7. Emissions breakdown | Change in Scope 1 emissions against a base year (not target related) | ISAE3410 | Annually C7.2 |
| C7. Emissions breakdown | Change in Scope 2 emissions against a base year (not target related) | ISAE3410 | Annually C7.2 |
| C8. Energy | Renewable energy products | ISAE3410 | Annually C8.2a |
| C4. Targets and performance | Other, please specify (Environmental Accounting) | ISAE3000 | C4.3c Environmental Accounting |

## **C11. Carbon pricing**

## **C11.1**

### **(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

Yes

## **C11.1a**

### **(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.**

EU ETS

## **C11.1b**

### **(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.**

### **EU ETS**

### **% of Scope 1 emissions covered by the ETS**

1.5

### **Period start date**

janvier 1 2016

### **Period end date**

décembre 31 2016

### **Allowances allocated**

39220

### **Allowances purchased**

0

### **Verified emissions in metric tons CO2e**

22782

### **Details of ownership**

Facilities we own and operate

### **Comment**

## **C11.1d**

### **(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?**

Do not participate in any emissions trading for the purpose of profit. (Except if the participation in emissions trading scheme is stipulated by laws and regulations, in which case comply with the law)

## **C11.2**

### **(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## **C11.3**

### **(C11.3) Does your organization use an internal price on carbon?**

No, but we anticipate doing so in the next two years

## **C12. Engagement**

## **C12.1**

### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, other partners in the value chain

## **C12.1a**

### **(C12.1a) Provide details of your climate-related supplier engagement strategy.**

### **Type of engagement**

Information collection (understanding supplier behavior)

### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

### **% of suppliers by number**

82

### **% total procurement spend (direct and indirect)**

75

### **% Scope 3 emissions as reported in C6.5**

75

### **Rationale for the coverage of your engagement**

Toyota has enhanced product quality by establishing good relationship with suppliers. Toyota distributed Toyota Green Purchasing Guidelines to suppliers to reduce their GHG emission and to reduce GHG emission from logistics. Using this foundation, Toyota joined CDP Supply Chain Program in 2015. Toyota asks all domestic 1-tier suppliers, except small suppliers whose procurement goes below a certain amount, to answer the CDP questionnaire, in order to reduce scope 3 emission.

### **Impact of engagement, including measures of success**

Achievement is measured by a participation rate to Supply Chain Program and a total procurement amount of suppliers who answer the questionnaire. 2016 CDP Supply Chain Program reduced CO2 emission by 69.8mt.

### **Comment**

## **C12.1c**

### **(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.**

<Methods of engagement with other partners on the value chain>

Toyota dealers are our other partners in the value chain. At CSR workshops held by the Toyota National Dealers' Advisory Council (TNDAC), all Toyota dealers have come together to promote voluntary activities based on the Toyota Dealer CSR Guidelines set forth in 2005. To further promote these initiatives, they called for increased acquisition of third-party certification of environmental management systems to accelerate the development of people and the creation of environmentally-friendly dealerships, and to bolster the level of trust from customers.

<Strategy for prioritizing engagements>

Toyota Motor Corporation (TMC) is encouraging Toyota dealers to voluntarily reduce CO2 by monitoring the establishing progress of environmental management system of Toyota dealers and assisting establishment of their environmental management system.

<Measures of success>

TMC measures success by monitoring progress in establishing environmental management system of suppliers and other partners in the value chain as well as Toyota dealers.

## **C12.3**

### **(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Trade associations

## **C12.3b**

### **(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## **C12.3c**

### **(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

### **Trade association**

JAMA (Japan Automobile Manufacturers Association, Inc.)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Japanese industry scientifically discusses climate change mitigation measures with the Japanese government, and tries to make them feasible in a real term. Toyota participates in "Commitment to a Low Carbon Society,” the Keidanren-led CO2 reduction initiative targeting 2030. In other words, Toyota Environmental Challenge 2050 agrees with the initiative. Japan Automobile Manufacturers Association, Inc.(JAMA) proactively commits to climate change mitigation in cooperation with not only the Japanese government but also other national governments. JAMA shared Japanese industry's comprehensive climate measures and experience with Thailand and Indonesia in the reporting year.

### **How have you, or are you attempting to, influence the position?**

JAMA, representing the auto industry, scientifically discusses climate change mitigation measures with the Japanese government, and tries to make them feasible in a real term. Toyota Environmental Challenge 2050 agrees with JAMA's proactive policy that aims to improve fuel economy, and develop next generation. vehicles, making them more available in the market.

### **Trade association**

Keidanren (Japan Business Federation)

### **Is your position on climate change consistent with theirs?**

Consistent

### **Please explain the trade association’s position**

The Japanese industry scientifically discusses climate change mitigation measures with the Japanese government, and tries to make them feasible in a real term. Toyota participates in "Commitment to a Low Carbon Society,” the Keidanren-led CO2 reduction initiative targeting 2030. In other words, Toyota Environmental Challenge 2050 agrees with the initiative. Keidanren's "Society 5.0" aims to maximize energy efficiency and expand use of renewable energy through ICT, and recommends comprehensive social reform through the 4th industrial revolution toward decarbonized society.

### **How have you, or are you attempting to, influence the position?**

Toyota assumes the Vice President of Keidanren, the Commissioner of the Environment Safety Committee and other various positions, and participates in active discussion/implementation on climate change mitigation. As Chair of Committee on New Industry and Technology, Mr. Uchiyamada Toyota Chairman of the Board plays a leadership role in “Development of innovative technologies,” one of four major pillars of Keidanren’s “The Commitment to a Low Carbon Society”. He contributed to organize "Society 5.0" that aims to maximize energy efficiency and expand use of renewable energy through ICT, and recommends comprehensive social reform through the 4th industrial revolution toward decarbonized society.

## **C12.3f**

### **(C12.3f) 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?**

Toyota as a member of JAMA and Keidanren is involved in decision making at a monthly advisory committee as a commissioner. Toyota discusses climate issues and how to respond to them at internal meetings with relevant players, prior to attending the monthly committee. Toyota participates in committee discussion to bring climate issues into line with Toyota's climate strategy via such internal approval process.

## **C12.4**

### **(C12.4) 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**

In mainstream reports

### **Status**

Complete

### **Attach the document**

[Form 20-F\_2017\_P17-18, P30-35, P.38-52.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/aA_-I-MhTEmmmibiYTMTSg/Form20F2017P1718P3035P.3852.pdf)

### **Content elements**

Strategy

### **Publication**

In voluntary communications

### **Status**

Complete

### **Attach the document**

[Environmental Report2017\_P.15-17.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/lqkkVOC2-kuw04UzQhplJA/EnvironmentalReport2017P.1517.pdf)

[Environmental Report2017\_P.22-26.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/Ou-J3mZGHUW03rCyBx9jVw/EnvironmentalReport2017P.2226.pdf)

[Environmental Report2017\_P.18-21.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/yO4NkZPGpESxYLcPvh6frg/EnvironmentalReport2017P.1821.pdf)

[Environmental Report2017\_P52.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/81O5D3ABdkmnoA-PBOZYxw/EnvironmentalReport2017P52.pdf)

### **Content elements**

Emissions figures

Emission targets

Other metrics

### **Publication**

In voluntary communications

### **Status**

Complete

### **Attach the document**

[Sustainability Data Book2017\_P.90-93.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/1xg3eR_LYkqJcUJqY0mBZg/SustainabilityDataBook2017P.9093.pdf)

[Sustainability Data Book2017\_P.94-98.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/m73aJG13GkmE4SjpWGynqQ/SustainabilityDataBook2017P.9498.pdf)

[Sustainability Data Book2017\_P.85-89.pdf](https://www.cdp.net/fr/formatted_responses/files?file_path=k9me76vz7u2sozvqoi2gbw-cdp-credit360-com/JdtKcGSafkqOD39ZJmJw9w/SustainabilityDataBook2017P.8589.pdf)

### **Content elements**

Emissions figures

Emission targets

## **C14. Signoff**

## **C-FI**

### **(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

## **C14.1**

### **(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

|  |  |  |
| --- | --- | --- |
|  | **Job title** | **Corresponding job category** |
| Row 1 | Member of the Board of Directors / Executive Vice President | Board/Executive board |