Governance ↓

Home > Our company > Sustainability/CSR > Environment > ■

# Disclosure based on TCFD Recommendations

Metrics and Targets ↓

Strategy ↓

risks, opportunities, and financial impacts of climate change on our business. We are pleased to disclose some of the results of this study based on the TCFD recommendations.

In August 2020, we announced our support for the

recommendations of the Task Force on Climate-related

Financial Disclosures (TCFD) and promoted an analysis of the



Risk management ↓

## Information Disclosure Committee, which are chaired by executive officers, as well as by its subcommittees and working groups under their supervision, are scrutinized by the Sustainability Management Committee, which is chaired by a director and

Governance

Sustainability Management Committee notifies Board of directors of the key issues. The PDCA cycle has implemented to ensure matters pointed out by Board of directors throughout the company. <Detailed Information> Basic policy of sustainability: https://www.hamamatsu.com/jp/ja/our-company/sustainability-and-csr/hamamatsu-photonics-sustainability.html > Fundamental environmental policy: https://www.hamamatsu.com/jp/ja/our-company/sustainability-and-csr/environment/environmental-management.html >

managing executive officer and the general manager of the administration division. The

Based on our basic policy of sustainability and fundamental environmental policy, we

recognize that initiatives for climate change is one of the most important issues. The

contents of the studies conducted by the Environmental Committee and the

lealth and Safety Committee

Supply chain committee

nformation Disclosure Comm

Environmental Committee

Strategy

Opportunities

Reputation

Physical

risks

Market changes and

technological

changes

Governmental

policies

and laws

Impact

We recognize that various changes due to climate change will affect our business. In order to identify the most important risks and

Define multiple

scenarios that

encompass the transition and

physical risks

associated with the

organization

opportunities, we conducted a scenario analysis at 1.5/2°C and 4°C for our entire business in the following steps. 01/Identify Key Risks and 02/Define Scenarios 03/Assess Impact on Business 04/Define Measures

Impact on business

Business costs

Supply chain

Timing

Input costs

Profit

Suspension of

business

Physical

#6 Increased risk of business

sales due to severe wind and

shutdown and decreased

## 01 Identification of key risks and opportunities We identified the climate change risks and opportunities facing the company now and in the foreseeable future. We scrutinized the interests of our stakeholders and their future significance. As a result, we identified 16 transition and physical risks and opportunities. Degree Risks of Opportunities

### carbon tax/emissions trading #7 Increased damage due to scheme

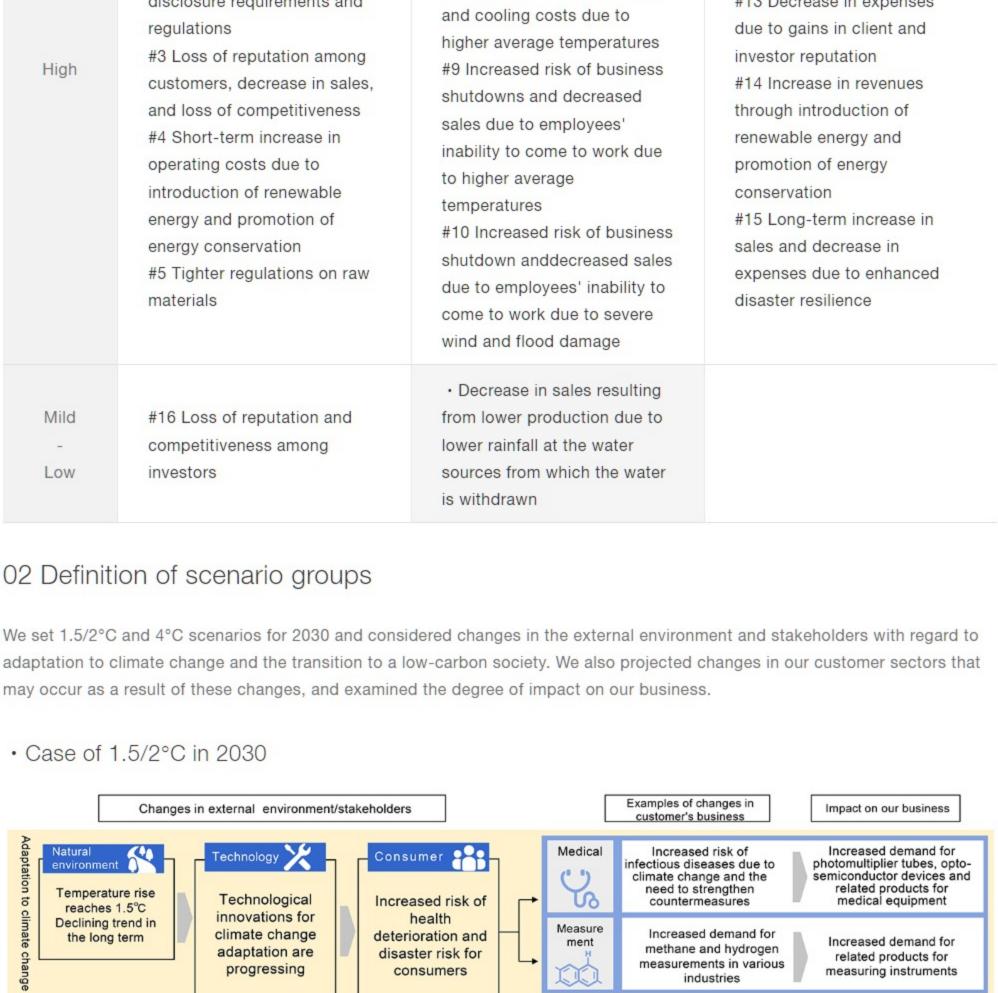
#1 Increase in operational

costs due to introduction of

Transition

severe wind and flood #2 Increased burden and risk #12 Increase revenues by damage of fines due to stricter entering new markets #8 Increased air conditioning disclosure requirements and #13 Decrease in expenses and cooling costs due to

flood damage



#### low-carbon society Strengthening Promote research and regulations on climate development of energychange disclosure saving and decarbonization technologies

Declining trend in

the long term

Investors and

financial institutions

Accelerate ESG

investments and loans

Promote portfolio

decarbonization

Government

Natural

Transition to a

innovations for

climate change

adaptation are

progressing

32% progress in

making renewable

energy the main

source of power

Changes in external environment/stakeholders

progressing

Technology

Growing demand for environmental measurement and analysis and renewable energy-related products, but also for decarbonization efforts in product manufacturing processes Case of 4°C in 2030

Impact on the Company as a whole

health

deterioration and

disaster risk for

consumers

Practice

environmentally

conscious

consumption and

purchasing

behavior

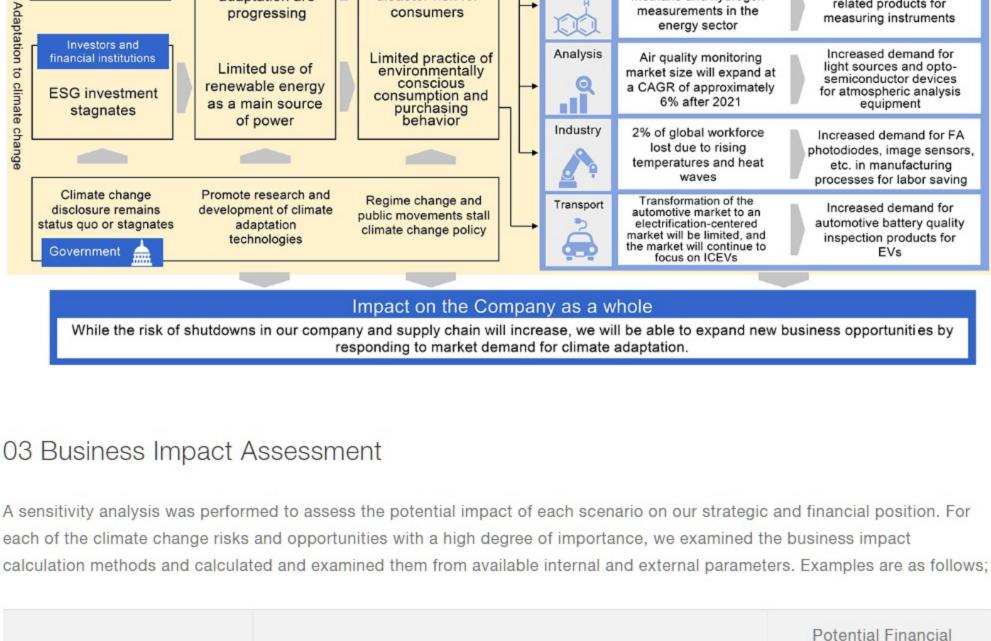
Promoting

decarbonization

policies to achieve

carbon neutrality

Temperature rise Technological reaches 1.6°C innovations for Over 4°C in the long term climate change adaptation are



Impact on Business in 2030

Damage to manufacturing sites due to severe wind and

Medical and biotechnology equipment: Increased sales of

Analytical instruments: Increased sales of related products

flood damage and increased restoration costs

## related products for specimen testing equipment Industrial Equipment: Increased sales of related products Opportunities for EV battery inspection systems

04 Consideration of countermeasures

Transitional

Physical

flood damage

for environmental analysis

Types

Risks

September 30, 2021) GHG emissions (Scope 1 and 2) were 59,386 t-CO2 in the 74th fiscal year (ended September 30, 2021), a reduction of approximately 13 % (target 7.5 %) from the 71st fiscal year (ended September 30, 2018). <Detailed Information> Environment: https://www.hamamatsu.com/jp/jen/our-company/sustainability-and-csr/environment.html > ESG Data: https://www.hamamatsu.com/jp/en/our-company/sustainability-and-csr/esgdata.html > ▼Scope 1 and 2 100 ▼ Scope 3 76% of suppliers by spend covering Category purchased products and service will

and in line with the Paris Agreement. Meanwhile, as key metrics in our mid- to long-term environmental strategy, we have

established, evaluated, and managed GHG emissions, water usage, renewable energy usage, etc. GHG emissions are calculated

for Scope 1, 2, and 3\* in accordance with the GHG Protocol, and third-party verification is conducted. 74th fiscal year (ending

50 83%。 more

71st Business Period 84th Business Period 104th Business Period

(FY2031)

Environment>

• Our GHG emissions (Scope 1 and 2) for FY2021 was 59,386 t-CO<sub>2</sub>. We reduced it by 13 % (the target 7.5 %) compared with FY2018.

(FY2051)

Our SBT certified target (Scope 1 and 2) aims to reduce GHG emissions in FY2031 by 30 % compared with FY2019.

Management of pollution including waste

**Privacy Policy** 

change > Environmentally Friendly and Contributing Products >

Site Map

Help

Request for survey on chemical substances in products >

Reducing carbon emissions and climate

Protecting our water resources > Management of chemicals in products >

Disclosure based on TCFD

Recommendations

have science-based targets by FY2026

15% reduction by FY2031 (Compared

SCIENCE

TARGETS

BASED

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

to FY2019)

HAMAMATSU

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TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

**Board of Directors** 

Sustainability Management Committee

Measures

Business model

transformation

Portfolio

transformation

Capacity and

technology investment

#11 Increase in sales through

the provision of products and

services that contribute to

addressing climate change

Measure

ment

Analysis

Industry

Transport

Examples of changes in Impact on our business customer's business Consumer Increased demand for Medical Increased risk of photomultiplier tubes, optoinfectious diseases due to semiconductor devices and climate change and the related products for need to strengthen Increased risk of medical equipment countermeasures health deterioration and Measure Increased demand for Increased demand for ment disaster risk for methane and hydrogen related products for measurements in the consumers measuring instruments energy sector

Increased demand for

methane and hydrogen

measurements in various

industries

Air quality monitoring market size will expand at a CAGR of

approximately 6% after 2021

2% of global workforce

lost due to rising

temperatures and heat

waves

Transition to a focus on

electrification is in full swing, with BEVs, PHEVs, and

FCVs accounting for 64% of passenger car sales by 2030

Increased demand for

related products for

measuring instruments

Increased demand for

light sources and opto-

semiconductor devices

for atmospheric analysis equipment

Increased demand for FA

photodiodes, image

sensors, etc. in

manufacturing processes for labor saving

Increased demand for

automotive battery

quality inspection

products for EVs

1.5/2℃ 4°C Decrease in sales due to lower product competitiveness High and sluggish customer evaluations Short-term increase in operating costs due to introduction Mild of renewable energy and promotion of energy conservation Business shutdowns (production sites, logistics, inventory, supply chain) and sales decline due to severe wind and Mild High

Mild

Mild

Mild

Mild

High

Mild

Mild

Low

Impact

Based on the results of the project impact assessment, we will consider countermeasures for those items that have a large impact. Risk management We have established environmental management rules and operate a company-wide environmental management system. We evaluate risks and opportunities for the environment, including climate change, and set environmental objectives and targets for each fiscal year. Management reviews our performance and challenges, and we strive to improve our environmental performance through continuous improvement. Based on multiple climate-related scenarios, we have quantitatively evaluated risks and opportunities for financial impact, which will be used for risk management throughout the group in the future. Metrics and Targets Under the Group's long-term vision for global warming countermeasures, our greenhouse gas reduction targets (GHG reduction targets) were certified by the SBT Initiative, an international environmental organization, in October 2021 as scientifically based

## 32.5% 75 decrease

(FY2018)

\*Scope 1: Direct emission from use of fuels, city gas, GHGs from non-energy sources, etc., CFC leaks 25 Indirect emissions from the use of purchased electric power, etc. Indirect emissions from the value chain

Decrease

(purchase of goods and services, logistics,

sales, and disposals, etc.)

Category

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