

# TOSHIBA

Leading Innovation >>>



## Conference on Resource Efficiency

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# Environmental Management based on the Eco-efficiency Indicator "Factor T"



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Toshiba Group  
Earth Protection Mark

# Eco-efficiency and Factor



$$\text{Eco-efficiency} = \frac{\text{Value of a product}}{\text{Environmental Impact of a product}}$$

Factor = Improved Eco-efficiency

\*The higher the value, the greater the eco-efficiency is.

\*The value of the factor indicates to what extent the eco-efficiency of the product has increased.

## Toshiba's Approach:

"Factor T" integrating three environmental perspectives

- To optimize the trade-off between Environment and Lifestyle -

1. Integration of environmental impact by the **LIME Method**
2. Integration of value of a product with multiple functions by the **QFD method**
3. Integration of **product and business process** eco-efficiency



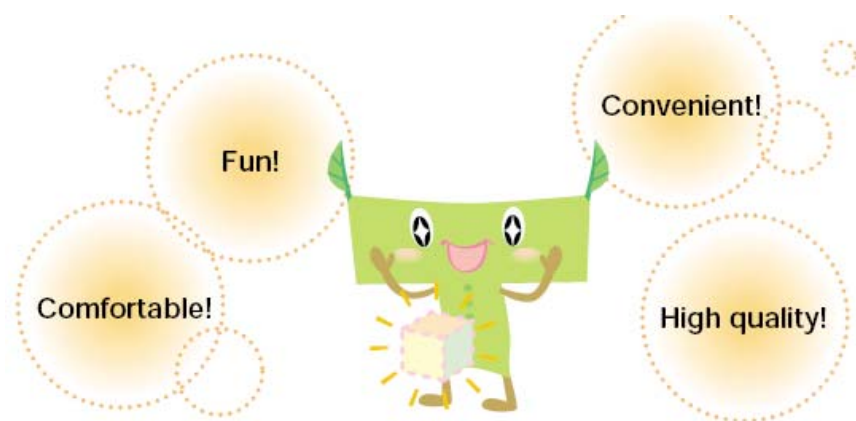
# What is Product Value?



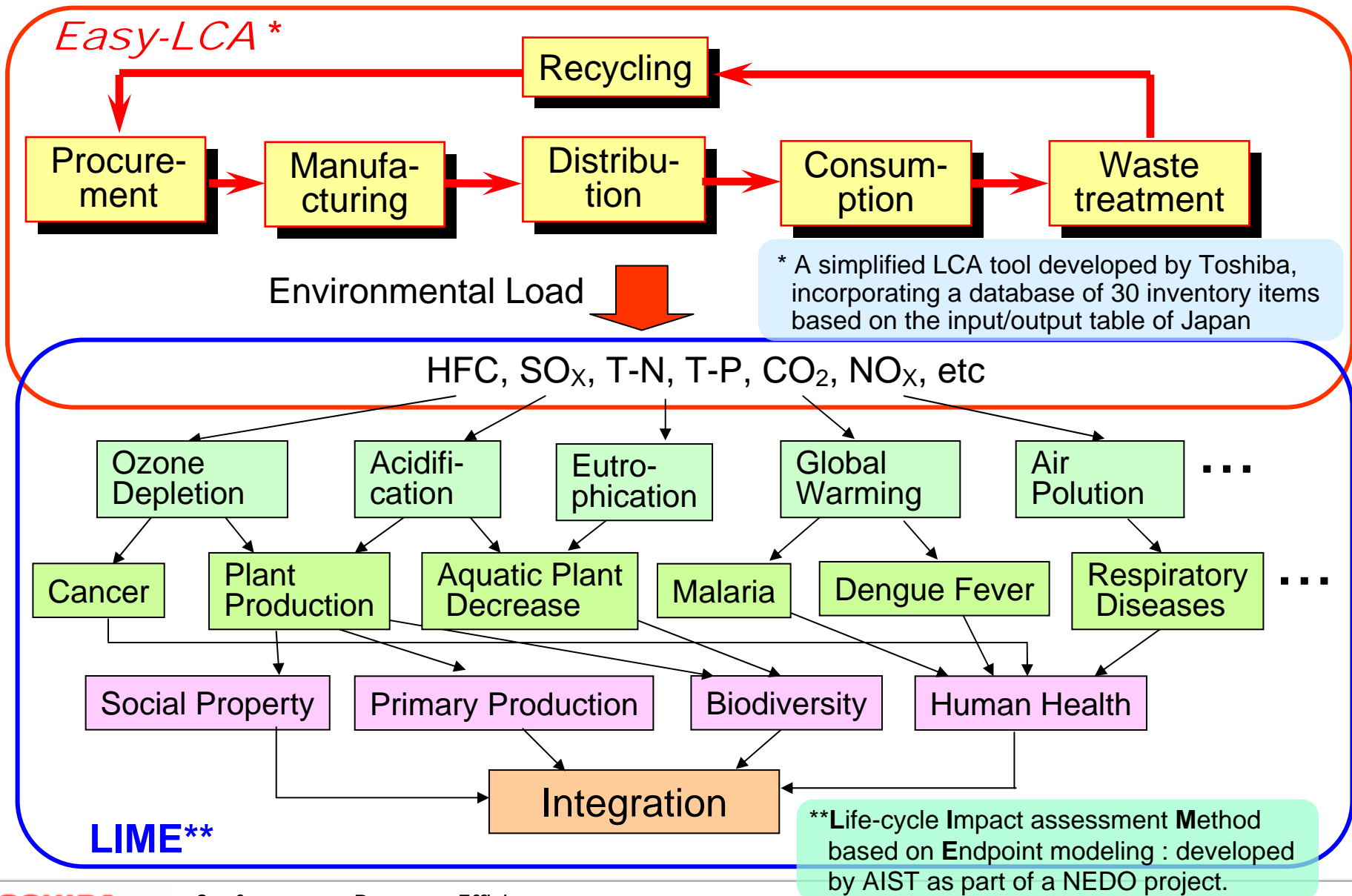
- Voice of customer is translated into quality characteristics.
- The method of calculating the “value of a product” is unique to Toshiba Group.
- Customers’ evaluation of a product is reflected in an indicator to enhance customer satisfaction.
- Toshiba group adopted QFD\* method to reflect customers’ evaluation in determination of product value.

## \*QFD (Quality Function Deployment):

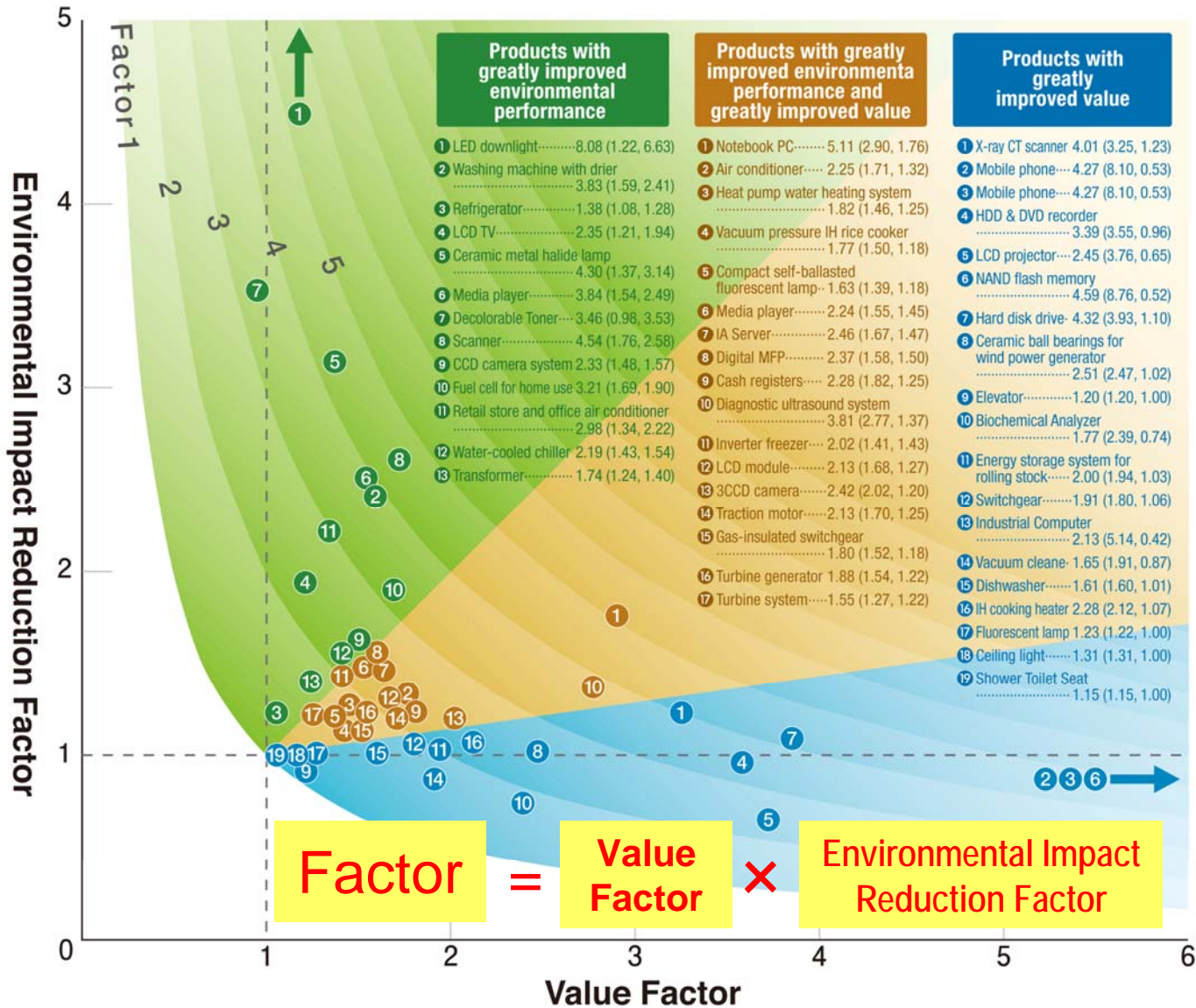
A systematic process for integrating product functions based on the degree of importance customers attach to them when selecting a product.



# Process of Integrating Environmental Impact



# Factor Description and Applications



- “Factor T” is already applied to 80% of Toshiba Group products.
- Factors are calculated on the basis of FY2000 models.
- Graph shows factors of products using two axes:
  - “Value Factor”
  - “Environmental Impact Reduction Factor”
- Lines indicate enhancement of the value or reduction of the environmental impact.

# Toshiba's Commitment to the Environment - The First Stage

## Environmental Vision 2010

< Toshiba Group Slogan >

Committed to People,  
Committed to the Future. TOSHIBA

Contribute to sustainable development by enhancing overall eco-efficiency throughout business processes and products



Toshiba Group CSR Report 2007 p.41

**Double overall eco-efficiency  
FY2010/FY2000**

**Product  
eco-efficiency**

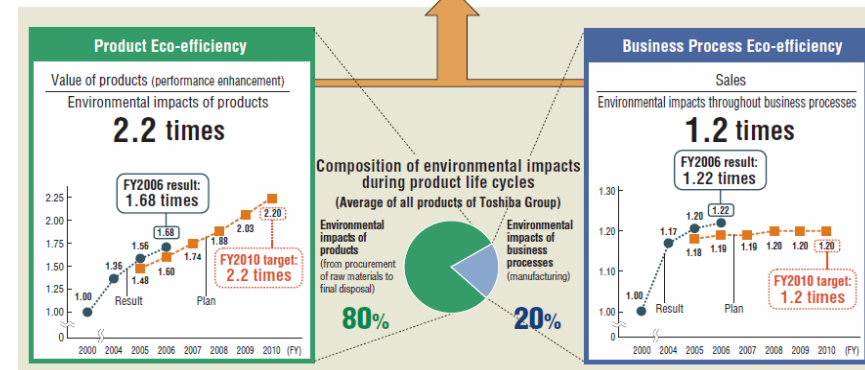
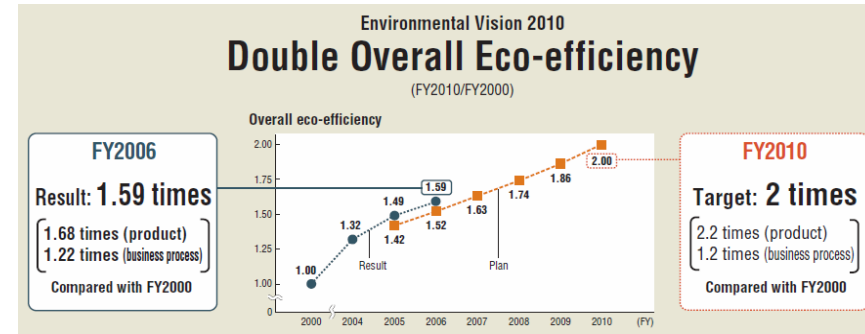
**Factor T - Product  
2.2**

Value of a product /  
Environmental impact of a  
product throughout its lifecycle

**Business process  
eco-efficiency**

**Factor T- Process  
1.2**

Sales / Environmental impact  
of the entire business process



# Advancing toward 2050 - The Second Stage



## *The ideal situation in 2050*

- People lead affluent lifestyles in harmony with the Earth -

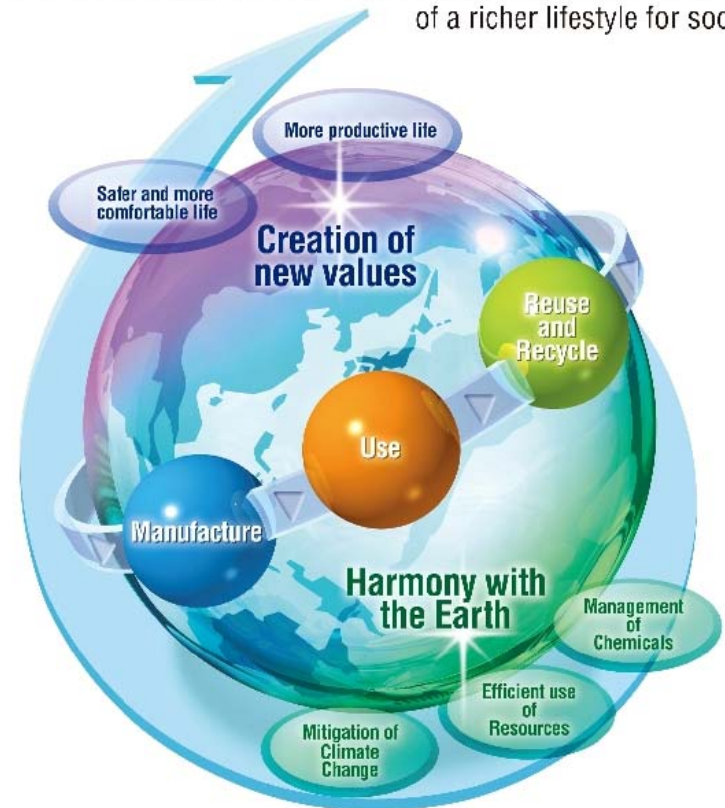
### Challenges

- Mitigate the environmental impacts of population growth
- Mitigate the environmental impacts of economic growth
- Create new value

### Environmental Vision 2050

#### Environmental Vision 2050.

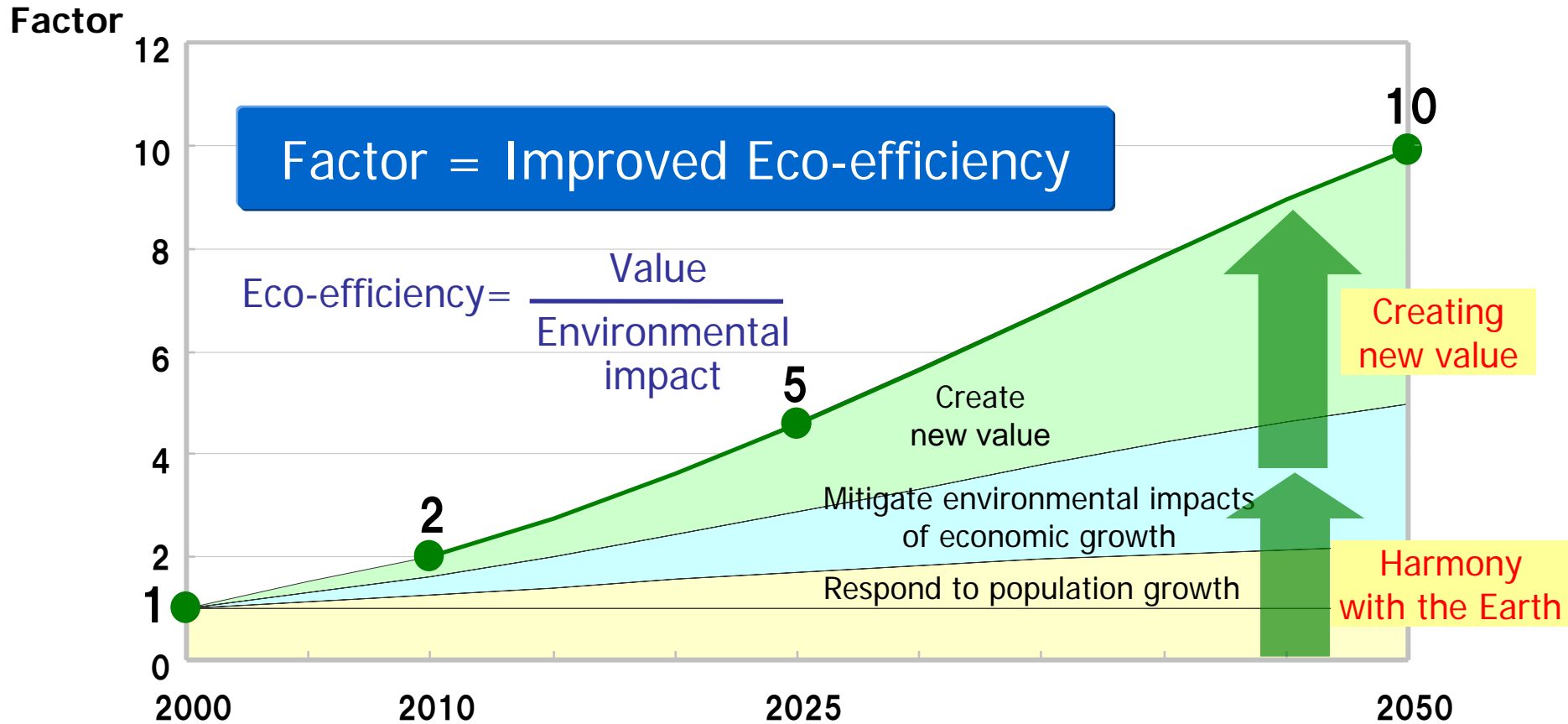
Toshiba Group practices environmental management that promotes harmony with the Earth, contributing to the creation of a richer lifestyle for society.



# Environmental Vision 2050



Goal: "People lead affluent lifestyles in harmony with the Earth"



Toshiba Group's Environmental Vision 2050 → Factor 10