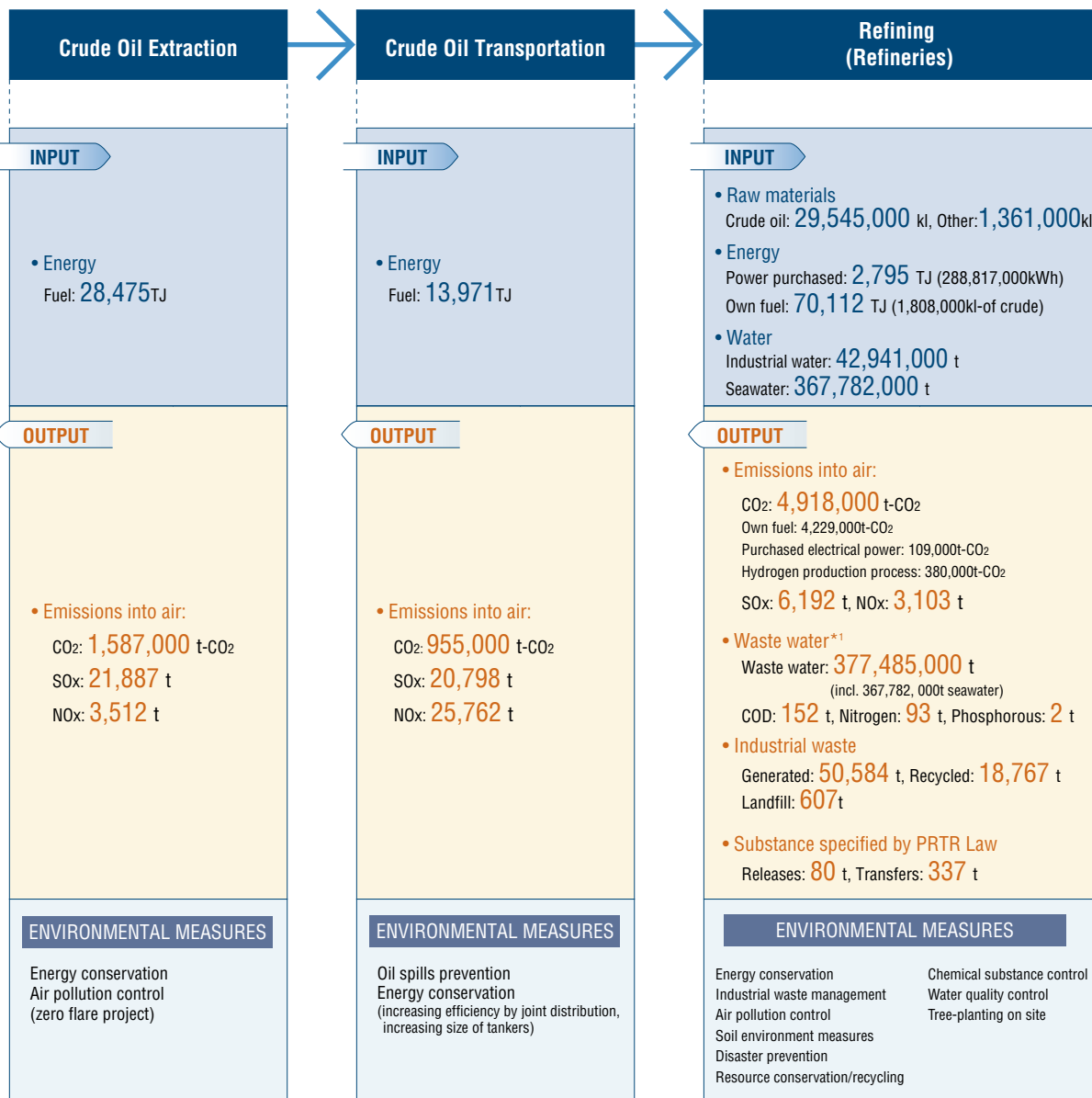


Environmental Impact of Business Activities



R&D Center

ENVIRONMENTAL MEASURES

- Energy conservation
- Resource conservation/recycling
- Industrial waste management
- Chemical substance control
- Water quality control
- Disaster prevention

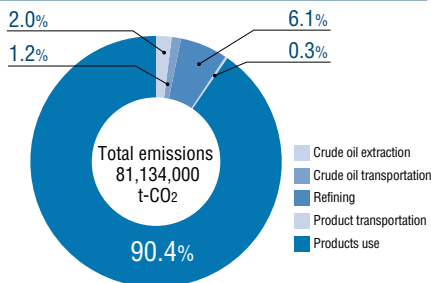
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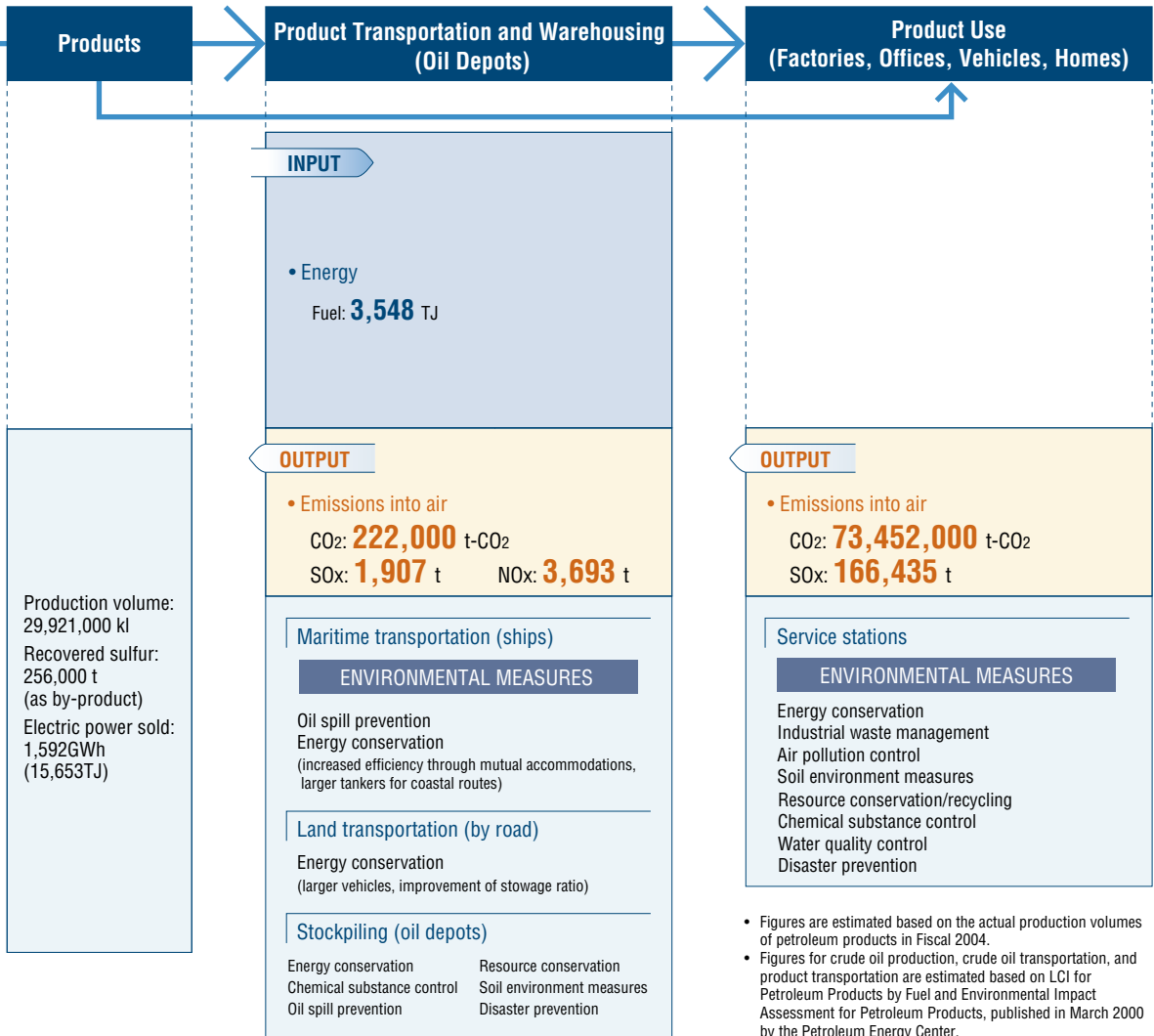
ENVIRONMENTAL MEASURES

- Energy conservation
- Resource conservation/recycling
- Green purchasing

* 1 We emitted clean water excluding this data.

■ Proportion of CO₂ in Oil Life Cycle





- Figures are estimated based on the actual production volumes of petroleum products in Fiscal 2004.
- Figures for crude oil production, crude oil transportation, and product transportation are estimated based on LCI for Petroleum Products by Fuel and Environmental Impact Assessment for Petroleum Products, published in March 2000 by the Petroleum Energy Center.
- Figures for refining and product consumption are derived from environmental accounting. See p.75-78 of the Related Data for the methods and basis of calculations.
- In relation to CO₂ emissions from refining, we calculate the data by the method recommended by the Ministry of Environment's "Guidelines Concerning Methods of Calculation of Emissions of Greenhouse Gases by Businesses (draft)".
- Refining includes data from the Yokkaichi Kasumi Power Station and Cosmo Matsuyama Oil Co., Ltd.
- Electric power sold refers to power sold by the Chiba Refinery, the Yokkaichi Kasumi Power Station and Cosmo Matsuyama Oil Co., Ltd. The CO₂ emissions from refining is the amount after deduction of CO₂ emissions, a result of such power generation. It includes CO₂ emissions for the purchased electricity.
- Figures here do not include CO₂ emissions associated with the construction of facilities.
- The figures for SO_x emissions at the consumption stage are reported for reference. The figure indicates the potential SO_x emissions based on sulfur content in products, and does not take into account SO_x reductions resulting from desulfurization of emissions that occurs during use by customers. Thus, the actual figure for SO_x emissions is expected to be lower than the figure reported here.
- The figures for CO₂ and SO_x emissions at the use of products stage include potential impacts of naphtha. Naphtha is used as an ingredient in petrochemicals and fertilizers, which by themselves do not emit CO₂ or SO_x.

■ Oil Life Cycle Inventory (LCI)

Stage	Crude Oil Extraction	Crude Oil Transportation	Refining	Products Transportation	Products Use	Total
Energy Consumption (TJ)	28,475	13,971	72,908	3,548	1,074,297	1,193,199
CO ₂ Emissions (1,000t-CO ₂)	1,587	955	4,918	222	73,452	81,134
SO _x Emissions (t)	21,887	20,798	6,192	1,907	166,435	217,219
NO _x Emissions (t)	3,512	25,762	3,103	3,693	—	—