

4. Thinking on Uses for Tax Revenues

How should revenues from Climate Change Tax be used?

In addition to maintaining existing measures, and strengthening them as much as possible, if Climate Change Tax are adopted with a relatively low tax rate, as proposed in **2. Nature and requirements of a tax**, then the size of the tax might not be sufficient to reduce emissions enough to achieve the levels committed in the Kyoto Protocol. In this case, then as discussed in **3. Thinking on reducing the tax burden**, people and enterprises taking anti-climate change measures should be given new subsidies, and new measures to relieve the tax burden as an incentive to take anti-climate change measures should be put in place, such as tax reductions and exemptions, including other taxes.

Such new measures will require an additional source of funds. With the current difficult fiscal situation, however, there are limits as to how many additional funds can be allocated to combating climate change. Consequently, in this case it will be necessary to secure an additional source of funds.

One possible way of obtaining a new source of funds for combating climate change would be to raise (e.g.) the corporation tax, consumption tax, or the like, and use these tax revenues. However, such measures would prevent the price tag from being allocated fairly, according to the size of responsibility for climate change (the size of the environmental impact), and for this reason they are not very well suited to this problem. Furthermore, since this type of tax does not target environmental impact, it would lack the price-incentive effect for implementing measures.

Consequently, the present Expert Committee focused on the fact that the Climate Change Tax should generate a certain level of tax revenues. They then studied using capital equivalent to these revenues for subsidies for anti-climate change measures, and other tax-reduction measures and the like.

If these tax revenues were used to combat climate change, they could be subject to special accounting, for instance as targeted taxes or earmarked funds. Conversely, they could be added to the general account as general revenues, yet exercise the same effect, by being used for subsidies or tax breaks for combating climate change.

Whichever of these mechanisms is chosen, however, it must be utilized in a transparent way, in order to ensure the consent of the public. Additionally, a mechanism must be set up that conducts the subsidies, reductions and exemptions for other taxes, and the like appropriately, and no matter which government agency has jurisdiction, they must be implemented so as to efficiently and reliably tie in to reductions.

Furthermore, such measures should at the same time help to vitalize the Japanese economy, and bolster Japan's international competitiveness.

Based on this thinking, the figure on page 20 shows a conceptual image of how the tax revenues could be used for ACC measures. For example, as shown in **Reference 5** (p. 21), there would be a major involvement with ordinary households.

No matter whether tax revenues from Climate Change Tax are used, or some other source of funding is used, concrete measures for further promotion should be studied based on the assessment and review of the Programme in 2004. As shown by the figure, however, the adoption of products, equipment, and services using technologies that combat climate change, and the development of these products and the like, are vital for the future growth of our country. This could be a candidate for promotion using some source of funding.

Additionally, it is hoped that local governments will also actively combat climate change, in partnership with the national government. If Climate Change Tax are adopted, and their revenues used in some way for additional measures against climate change, then if local governments are implementing these measures, part of the revenues must go to the local governments in order to fund these activities, either by making part of the Climate Change Tax local taxes, or through an allocation mechanism.

Reference 4: Model Calculations

While tax rate for the Climate Change Tax must be studied based on the assessment and review of the Programme in 2004, the Expert Committee performed a model calculation in order to get a general idea of the effects of the tax rate (see **6. Effects of ACC measures and positive and negative impact on the economy** for details). One of the results of this calculation was that it would be possible to achieve the reduction committed in the Kyoto Protocol with an anti-Climate Change Tax of 3,400 yen per metric ton of carbon (equivalent to an approximately 2-yen increase in price on a liter of gasoline), combined with an approximately 950 billion-yen subsidy for anti-climate change measures. In this case, the revenues on an anti-Climate Change Tax of 3,400 yen per metric ton of carbon would be 950 billion yen, so all the revenues of the tax would be used to combat climate change.

Note that as described on page 24, below, employing the price-incentive effect of a tax of 45,000 yen per metric ton of carbon only would have the same emissions-reduction effect as the above-mentioned tax of 3,400 yen per metric ton, combined with subsidies. The reason for this is as follows.

Households and enterprises will likely base their decision on whether to implement ACC measures, and to what degree to implement them, on a comparison between the cost of equipment and facilities that climate change (the required initial investment) and the energy costs that can be saved by energy conservation (the reduction in running cost).

The higher that the tax pushes the price of energy, the more money that can be saved through energy conservation. Meanwhile, subsidies for equipment and facilities that combat climate change lowers the required initial investment. If we are to implement a policy of giving incentives to implement the measures, then it is important to greatly increase the amount of money that can be saved through energy conservation, and/or greatly lower the initial investment, in order to make it much more economical to implement the measures than not (offsetting the disadvantages of implementing the measures, and further making it relatively advantageous to implement them).

A tax of 3,400 yen per metric ton of carbon would not increase the size of the savings of energy conservation as much as a tax of 45,000 yen per metric ton of carbon. But because it would be used in combination with subsidies that lowered the required initial investment, it would have about the same combined effectiveness at encouraging households and enterprises to implement ACC measures as the 45,000-yen tax.

Conceptual Diagram of Using Tax Revenues to Combat Climate Change

Basic Principle: Focus support on efficient, effective, direct measures that are ensured success

Integration of Environment and Economy: Simultaneously contribute to the formation of a society that allows us to escape from climate change, while at the same time vitalizing Japan's economy and making it more internationally competitive

Note: If the revenues from Climate Change Tax are to be used on anti-climate change measures, then it must be studied anew based on the results of the assessment and review of the Program in 2004, in conjunction with a study of whether Climate Change Tax are needed. The uses described below are only an example for the purposes of illustration. The actual use may differ from this example.

Create a prosperous society by avoiding climate change (mainly support for ordinary households)

- Promote replacement of existing products with energy-efficient models
- Promote construction of energy-efficient homes/homes that use renewable energy, and installation of insulation
- Local governments work with climate change prevention centers, councils, and officials to promote measures suited to the local area

Create the world's greenest transportation system (mainly support for transportation sector)

- Help make Japan a country in which only low-pollution/high fuel-efficiency cars run, including clean-energy cars with the world's highest performance
- Incentives to make Japan world pioneer in popularization of fuel-cell cars
- Promote use of public transportation, modal shift¹, and more efficient distribution

Harness technological innovation and the creativity and ingenuity of the business community to vitalize the economy and bolster international competitiveness (mainly support for businesses)

- Support measures for achieving targets by companies setting high voluntary targets
- Support adopting of pioneering technologies
- Support industries with high energy consumption where this would impact international competitiveness
- Support adoption of facilities that manufacture products with low greenhouse gas emissions upon disposal and use

Cut emissions of gases with large greenhouse effect (e.g. F-gases, methane, and dinitrogen monoxide)

- Develop and popularize refrigerants and the like that do not contribute to climate change or deplete the ozone layer
- Support technologies/systems to effectively use organic waste as materials/energy

Create a greener country

- Protect and tend (planting, pruning, weeding, etc.) forests as measure for absorption of CO₂
- Promote urban greening

Effectively use the Kyoto Mechanism²

- Accelerated promotion of CDM, etc.

Note: Additionally, use biomass³ and waste as energy, build measures against climate change into town planning, support for development of new technologies and environmental ventures, etc.

Subsidies

Reductions/exemptions for
Climate Change Tax

Reductions/exemptions
for existing taxes

Financing system, etc.

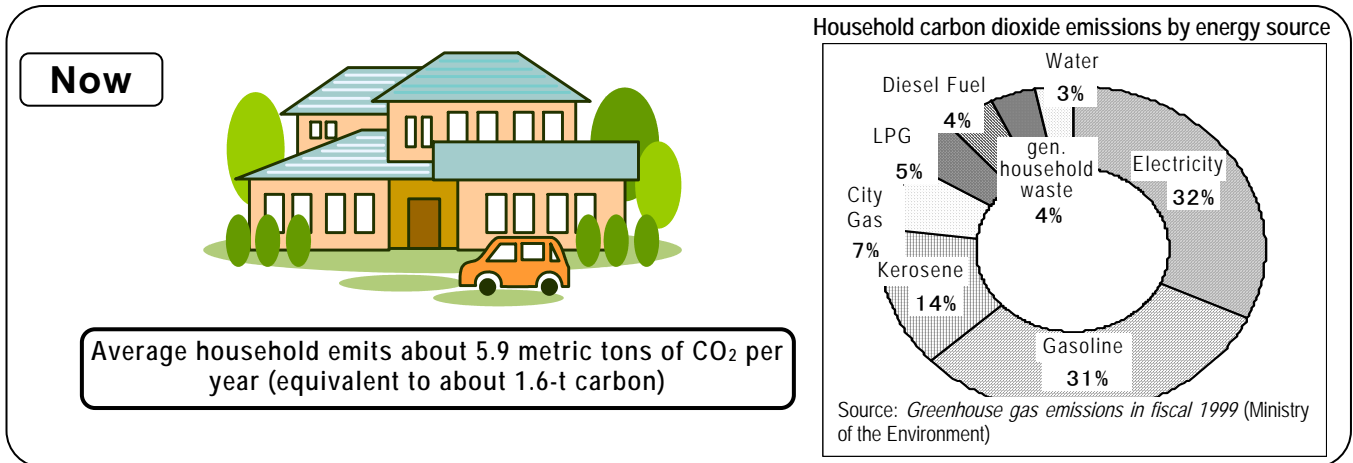
¹ A modal shift is the change from carrying freight by motor vehicle to rail and ships

² The Kyoto Mechanism is an international measure for each country to achieve its commitment, allowed by the Kyoto Protocol. Under the mechanism, countries can use some of the emissions and allotments of other countries. Includes joint implementation (JI), clean development mechanism (CDM), and emissions trading.

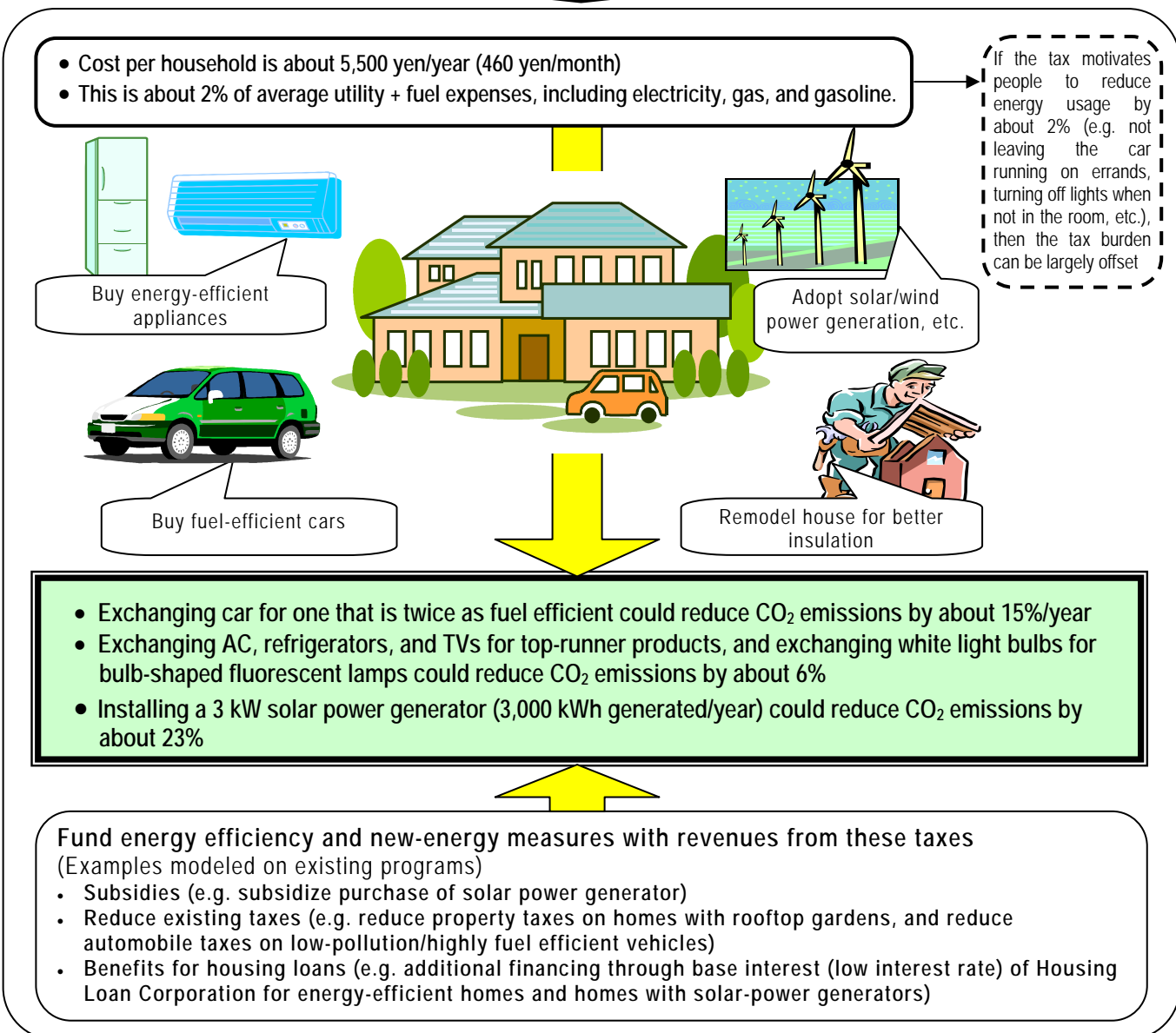
³ Biomass, or "biological mass," is recyclable organic material originating from living things, excluding fossil resources. Examples are food waste, rice stalks, and wood chips.

Reference 5: Conceptual diagram of CO₂ emissions and Climate Change Tax

Example of ordinary households



If the Climate Change Tax is adopted with tax rate of 3,400 yen/metric ton carbon



Note: Since electricity, gas and the like are not billed in proportion to use, a 2% reduction in energy consumption does not translate precisely into a 2% reduction in the bill