

**“Emission trends for Annex I Parties, the mitigation potential of policies and technologies in different national circumstances, including experience gained so far, and the costs and benefits of emission reductions”**

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Presentation of Japan**

**A. Emission trends of Japan**

GOJ's comprehensive Kyoto implementation plan is working effectively as it mobilizes entire society of Japan into action, business, local communities, households and ordinary citizens, and organizations of all sorts. We've had 30 years of national drive to conserve energy. Conservation is our DNA.

There are compulsory measures, inducing measures, and voluntary measures. Key concept is energy efficiency and technology innovation.

Compulsory measures are to raise energy efficiency in industry, household/commercial, and transportation. Top-runner system is one of the most effective policy tools in this regard.

Japan's industrial production system functions with the highest energy efficiency. Still Japanese business is reducing further their emissions through very imaginative voluntary actions.

This action is often referred to as an attempt to draw one more drop of water from dry towel and it is a sign of our seriousness.

This Keidanren action involves 35 industrial sectors covering more than 80% of Japan's industrial emissions, 45% of Japan's total emissions.

They are reducing CO2 emissions in 2010 down below 1990's level and their scorecards are all good every year.

They have independent performance review and monitoring system to ensure credibility and transparency.

In offices, in households, in transport we are not sparing any efforts. Here again the battle cry is energy efficiency and conservation.

Renewable energy is expanding through R&D investment and RPS rules.

And, we are going to achieve our target so as to ensure a genuine win-win situation between economic growth and environment. In fact, Japan has been consistently decoupling CO2 emissions from GDP growth since 1996 except only two occasions.

Present hovering by 6-8% over 90's level is due to the emissions rise in 90s and also due to nuclear power plant shutdown which took place some years ago.

All in all, we are absolutely sure we can achieve our target. We are closely monitoring our performance and we are going to adopt further measures if needed.

Yet, I must say frankly that it is difficult for Japan to achieve 6% target, because Japan is already the least emitter per GDP in the world. Our marginal abatement cost is the largest in dollar terms in the world as IPCC TAR clearly indicates. Our unit mitigation effort is the most expensive in the world.

Yet we are dead serious and the nation and the government of Japan are absolutely committed to meet our target. So please make no mistake about our determination.

#### B. Mitigation potential of policies and technologies in different national circumstances

Now I like to move to the issue of mitigation potential of policies and technologies in different national circumstances.

Here I like to draw your attention to the fact that there is an enormous amount of untapped mitigation potentials in this world.

Using my metaphor of dry towel, it seems to me that there are mountains of wet towels all over the world and those drenched towels are just there waiting for them to be dried.

Globally speaking, mitigation potential is enormous which can be abated quite inexpensively. Policies and measures can reduce a lot of emissions. Energy efficiency is attainable inexpensively.

So talking about global abatement action, top priority must be to address to those wet towels and to ensure some basic equity in terms of marginal abatement cost amongst all major emitter countries.

Secondly, may I refer to the IEA works on efficiency.

Their latest survey tells us that energy efficiency has a key role to play and is achievable in short-term. Improved energy efficiency is the most important contributor to reduced emissions, according to their findings.

Energy efficiency offers, it says, substantial energy and GHG savings at low or negative cost, energy security and reliability benefit and enhanced business competitiveness and social welfare.

The survey says also that a more sustainable energy future is possible with known technology. And the costs are not out of reach. Urgent action is needed in public and

private sectors, it says.

All this coincides with our national experience. First, energy efficiency is attainable by simply getting policy and regulatory framework right. This is no exaggeration. What really matters is not just tech investment per se. What really matters is how to get policies and measures right.

We therefore, very much like to see energy efficiency become a rallying point of the global action of this century. It has all qualities to be one because it does not cost much, it is effective and above all, it will save the humanity.

Thirdly on technology development.

Despite my previous argument, technology is crucial. We said it million times. Yet we are not so sure how technology is to be developed.

There are people who say that the market is crucial for tech innovation. And to a certain extent, I agree but not totally.

Yes, climate change is an externality. Yet putting the price on carbon is not the whole answer.

There is in fact a body of opinions that argue that market may not be quite able to motivate required breakthrough R&D because it tends to catch only low cost emission reductions in the near term.

What we need is a bit more complex. We need a day-to-day cost reduction in one form or another. That's for sure. Yet, along with those near-term efforts, we definitely need a long-term R&D investment for radically new technologies to come forward in decade and decade to come.

And here we have many ways to do it. Each country has opted its own methodology. It has a lot to do with each country's development strategy. A country which aims at a long-term, robust technology development in search of breakthrough innovations may focus more on public and private consortium, for example.

In fact, that has been our strategy. Government has invested massively in R&D, fostered public/private/academia partnerships. It protected intellectual property right. It provided subsidies, incentives, tax breaks, quicker amortization, procurement policy for the reduction of the initial costs and many others.

Establishing roadmap for the future tech innovation has given assurances to investors.

Public awareness played an important role too. Government and the conscientious public raised voice and sent key message to the nation for energy conservation and efficiency.

There is another set of measures which facilitate innovation. Government must provide physical infrastructure as in the case of hydrogen supply system.

Government can provoke more tech investment by setting higher standards.

So my point is simple. Apart from markets, there are many types of policies and measures which drive tech investment and innovation.

### C. Experience gained so far and the costs and benefits of emission reductions

Finally, let me summarize lessons we gained from our experiences.

First and the most important one is that we must try all possible options.

On technology development, for example, all possible options must be encouraged. Sectoral efficiency target can help us to mitigate further. Focus on policies and measures is just as important as numerical for improving overall efficiency.

Furthermore, going sectoral has got at least one good benefit in that that will ease concerns over the international competitiveness.

And then, I must emphasize the role of the private sector in the whole issue of climate change. Without their resources and inputs, no credible technological progress would be possible.

The private sector plays an important role in technology transfer because, after all, they are the owners of the technologies and they are the ones that make sure that the technologies are not just shipped abroad but are transplanted and function.

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