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"How will new organizations be used to achieve sustainable

development?"

Let me begin by offering, on behalf of the Club of Rome, my heartfelt condolences to the

victims of the recent tsunami and earthquake. The Club of Rome's "The Limits to Growth"

report forty years ago noted that continued growth at the levels attained at that time would

become unsustainable at some point. Issues of a global scale are emerging around the

world today. Adhering to a long-term perspective, the Club of Rome believes that we must

not only contemplate today's global problems but also support actual reforms, and the Club

of Rome conducts fundraising efforts in order to host seminars and workshops and conduct

research in this regard.

We have spent forty years thus far contemplating the world, and we must now consider

world affairs forty years from now, that is, the mid-century world of 2050. If we take no

action at all, in forty years the population will rise from 6.9-7.0 billion to 9.5-9.7 billion, with a

median of 9.5 billion and a high estimate of 10.5 billion; if per capita income also grows by

3.5% to 4%, global GDP will swell from about US\$60 trillion at present to US\$200 trillion.

Population and income will grow exponentially rather than linearly. Today I will examine

how to manage these issues and what systems are necessary in view of the alarms or

crises in five areas - (1) poverty, (2) finance, (3) food supplies, (4) ecosystems, and (5)

unemployment - and then consider frameworks of conceptualization and organization for

such an age of change. I will also posit energy policy as a sixth topic for discussion.

1) Poverty

Although we live in a wealthy world, few people share in that wealth. About 1.7 to 2 billion

people live in absolute poverty, and 800 million to 1 billion suffer from malnutrition. Around

20% of the population controls 80% of global wealth, with the top 1% owning 39%.

Unfairness and inequality are on the rise. The poor must be empowered to break out of

poverty and become consumers.

2) Financial crisis

The current financial crisis was initially triggered in the US, impacting the overall real

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economy worldwide. Although this led to talk of greater oversight of certain banks and financial institutions, efforts in this regard have been non-uniform and inadequate.

3) Food crisis

The crisis in food prices can be viewed as a manifestation of the food crisis. Food prices are up 1-2%, population 4% and income 3-4%. In addition to the impact on land use and income, diets and consumption patterns are also affected, especially in terms of greater meat consumption and livestock. Seven kilograms of grains are required to obtain just one kilogram of meat. We must respond to these changes in the food system.

4) Ecosystem crisis

We face urgent issues pertaining to ecosystems, including biodiversity, climate change, and forestry/fisheries. Data from the International Energy Agency shows that it will be difficult to constrain the temperature rise to 2°C. We are losing biodiversity, marine resources and forests at an unprecedented rate.

5) Unemployment crisis

200 to 250 million people of working age are without jobs, while 1 billion are underemployed or only working part-time. Several hundred million poor have incomes too low to provide for an adequate living. Without an adequate living, people are unable to perform work, enabling employment and poverty to coincide. Poverty stirs up both social and political unrest, and some of the circumstances currently facing the Middle East can be attributed to the fact that many younger people do not have jobs. Of the more than 200 million unemployed, it is estimated that the younger generations account for more than 80 million. The worldwide population under age 15 has climbed to 1.7 billion. While this presents an opportunity for nurturing new and skilled human resources, a crisis could ensue if they are not fostered properly.

Next, I would like to say a word about **energy policy**.

Energy is more a focus of discussion than of crisis, but climate change, nuclear power generation, and future energy mixes are all topics meriting attention. Revisions to the tax system and other measures are needed to rectify the situation. By 2050 – a readily foreseeable time, given a useful life for infrastructure of 30-40 years, in which our children will still be living – energy demand will triple. The IPCC has declared that significant progress in decarbonization will be needed by 2050. The effective use of water for agricultural and other purposes will also become a problem. The Club of Rome has covered these in a report entitled "Factor Five."

The preceding description of the crisis may sound pessimistic, but we are wiser than we once were and public interest has also risen, prompting some parties to already begin taking steps. Furthermore, communications are now much more rapid. Two points must be noted when considering solutions. The first is that complex problems entail multifaceted and complex solutions, and the second is that the reasons these complex problems have arisen must also be given serious thought. Short-term thinking is problematic at such a time. While the cost of decommissioning reactors is deemed zero for the nuclear power industry given the economic discount rate, it will not in fact be zero. Politicians generally think only three to five years out, and there are few politicians who think beyond that time frame.

There are two things I would like to stress here: values and the new economy. As to the first, it is important that we think about and discuss the future and take up values pertinent to lifestyles and public goods as topics for discussions. Secondly, a link between values and the new economy is needed. We have lost sight of the true purpose of the economy: to maximize welfare and minimize suffering. GDP counts the value of harvested trees as contributing to wealth but does not incorporate volunteer work, harm to health from pollution, or the depletion of natural resources. Social capital is important for understanding true wealth. Social capital includes satisfaction deriving from social interaction, one's own sense of existence, a family's sense of security, the security of communities and cities, and confidence in the security of one's children. Conversely, social anxiety gives rise to crime and physical destruction. Impacts and costs 10 years down the road must also be considered. Uncertainty is now on the rise worldwide, and the maximum options bearing the minimum risk must be made available.

The new economy features four systems for dealing with genuine issues: (1) state policy, (2) market roles, (3) global governance, and (4) local communities.

(1) State policy

State policy must be restructured to ensure greater continuity. We must not only increase wealth but also raise living standards, and this requires courage transcending short-term political mandates. In other words, we need newly enlightened economic activities/markets that demonstrate an understanding of public policy and the role of states.

(2) Market roles

Markets have two aspects. First, the market needs greater correctness, transparency, moderation, and stability. Global rules must be created for financial capital. Among the

efforts that should be undertaken are reviewing excessive compensation and building trust between markets and citizens. Second, the market must incorporate public goods. For instance, there are many people who reject the Kyoto Protocol, but the carbon market went from zero to \$30 billion in 2008 and will reach a turning point in 2012. Public approaches can provide markets with returns by sustaining public goods over the long term. If a carbon market is possible, then markets for forests, water and social values are also likely possible. A global partnership to this end is needed.

(3) Global governance

The world has become smaller. Electronic communications have evolved, transport costs have shrunk, and interrelationships have grown closer. Japanese citizens should be thought of not only as citizens of Japan but also as regional and global citizens. There are three aspects to global governance. The first is the global commons, i.e., collective property rights in the environment, natural resources, etc. Second, there is awareness of issues pertaining to poverty, starvation and human security. Third, there are clear-cut global rules. These are the costs incurred for engaging in actions connected with aviation safety, war norms, financial transactions, environmental goods, trade systems, human trafficking, etc.

The UN is in the vanguard of creating rules for global governance, but parties who did not commit directly to the Copenhagen Accord could perhaps argue that it was developed top-down. The UN can create a broad-ranging framework for discussion, but this framework will lack the flexibility to implement actual restrictions. On the other hand, common accounting standards provide one example of bottom-up codification. Flexible organizations are needed that can implement measures, develop targets, and coordinate between the government and the private sector across various areas of endeavor.

(4) Local communities and individuals

In local communities, it is possible for a flexible organization to coordinate governmental and private-sector efforts to steer the efforts of individuals. In the past, for instance, many people were negative toward recycling, but it has now become part of the social mainstream. It is important to provide knowledge, education and information about values to the individuals in local communities, and to give further thought to the reasons economic growth is necessary. Going low-carbon will not immediately create a sufficient number of new jobs, but it will likely lead to new employment under the new system. While technology cannot replace ecosystems, biodiversity and natural resources, it constitutes an important social foundation as well as ecological and social capital. These values will likely impact our future purchases, lifestyles and fates.

Finally, the future issues of great interest to the Club of Rome, as apparent in its three work programs, are (1) a future vision for employment, (2) the new economy, and (3) the organizations and governance that will oversee these. What types of educational systems are necessary to ensure meaningful employment? Will half of the productive-age population work full-time or will all of the productive-age population work half-days as part-timers? Genuinely worthwhile discussions on the new economy are needed when deciding on investments and formulating public policy. A guild for values is needed for governance. As noted earlier, we must discuss the philosophical issue of the universal values of mankind as we look ahead toward 2050.