Green technology—increasing Japan's global contribution

Green Productivity Advisory Committee Chairperson Hajime Bada, Asian Productivity Organization.

On 3 February 2016, Honorary Adviser, JFE Holdings Co., Ltd., Hajime Bada was appointed the sixth chairperson of the Asian Productivity Organization (APO)'s Green Productivity Advisory Committee (GPAC). We met recently to discuss the GPAC's current activities and future plans for achieving its goal of boosting productivity while protecting the environment.

What he hopes to accomplish as GPAC chairperson:

Since 1994, when the GP initiative was launched, the APO has been working to popularize, promote, and educate member countries about ways to increase productivity in their industrial, agricultural, and service sectors while still protecting the environment. The GPAC's goal is to support the APO in these endeavors. With further economic development expected in coming years in the Asia-Pacific, including PR China, increased energy consumption and carbon emissions could restrict and impede growth. Achieving both economic growth and environmental protection is a need for all countries around the world. Japan, through its own past experience in dealing with issues such as pollution, has developed world-class green technologies and know-how. Japan has a long track record of helping to reduce greenhouse gas emissions in Asia and of supporting sustainable development beyond levels required by international agreements. Since its establishment in 1961, the APO has also been working to meet these global needs. The COP21 agreement adopted in Paris last year set the goal of achieving human-generated greenhouse gas emission neutrality during the second half of this century. As an environmentally advanced country, Japan will need to implement Joint Crediting Mechanism projects to reach its carbon emission targets, and the APO and GPAC are expected to play a key role in formulating these projects. As the new GPAC chairperson, my aim is to enhance Japan's global contributions. If we are to avoid passing on a negative legacy to future generations, we must reverse environmental degradation at a faster rate than that of economic growth. I therefore believe that it is crucial for the GPAC's activities to be prompt and create immediate effects.

On what led him to become a member of GPAC:

GPAC Vice Chairperson Dr. Ryoichi Yamamoto (Professor Emeritus, The University of Tokyo), was a few years ahead of me at university (GPAC Chairperson Bada holds a B.A. and

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M.A. in metallurgy from The University of Tokyo School of Engineering). Dr. Yamamoto spent most of his career working in material science, but about 10 years ago, he shifted his focus to the environment and became a visiting associate professor of the Faculty of Environmental and Information Studies, Tokyo City University. Since then he has made a name for himself in this field. My involvement with the GPAC started when Dr. Yamamoto expressed interest in a talk I gave some years back. Starting in February 2010, I spent six years as a GPAC vice chairperson, attending the annual general meetings and offering advice about the APO and GPAC activities. Last year, I attended an International-GPAC workshop for the first time, where representatives of APO member countries gathered to share information on eco-businesses and exchange ideas on the best ways to advance GP initiatives.

Koji Hamasaka of Nikkan Sangyo Shimbun *speaks with GPAC Chairperson Bada, at the headquarters of JFE Holdings, Co., Ltd. in Tokyo.*

How JFE is contributing to environmental conservation through its steel, engine, and shipbuilding businesses:

Global crude steel production will most likely increase as emerging countries develop their economies. Japan can contribute to reducing CO_2 emissions by helping other countries adopt the blast furnace technology used for its own steel manufacturing industry, which has significantly lower energy use and lower carbon emissions than those in other countries. This is called an "eco-solution." We can also contribute to reducing vehicle fuel consumption by working to develop thinner, stronger, more workable high tensile-strength steel, resulting in lighter vehicles and better fuel economy. This is an "eco-product." Finally, we can develop innovative new technologies such as reduced-hydrogen steelmaking, which is supported by a Japanese government initiative. This is an "eco-process." These are three ways in which JFE is contributing to environmental conservation in the area of steel manufacturing.

JFE Engineering is also involved in renewable energies such as solar, geothermal, and biomass. Our waste power generation technology, which uses combustion gases from waste incineration to generate electricity, is among the leaders nationally in both efficiency and performance. Making more fuel-efficient ships also contributes to reducing carbon emissions. Japan Marine United, our shipbuilding arm, has developed "eco-ships" and is hoping to attract orders from shipping companies seeking to upgrade and modernize their aging fleets. This year, the JFE Group will be an exhibitor at the EPIF for the first time. Even though our steel, engine, and shipbuilding businesses are not directly linked to everyday consumers, we want to raise public awareness of our technology and show how we are contributing to global environmental conservation.

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