



Special 130th Founding Anniversary Interview

Contributing to the SDGs through Innovation

Journalist

Hiroko Kuniya



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Over the 130 years since its foundation in 1890, the Kubota Group has contributed to the world in the areas of food, water and the environment. As we continue to support the future of the earth and humanity by solving social issues through superior products, technologies and services, our mission is to remain aligned with the sustainable development goals (SDGs) of the United Nations.

As we mark our 130th founding anniversary, we have invited journalist Hiroko Kuniya, who has been active in reporting on the SDGs and awareness raising activities, to take part in a dialogue with Chairman Kimata about the Kubota Group's initiatives for achieving SDGs.

Hiroko Kuniya

A project professor at Keio University's Graduate School of Media and Governance. Following her career as an anchor, she is currently active as a trustee (special mission) at the Tokyo University of the Arts, a board member at the non-profit think tank, Renewable Energy Institute, and has also been appointed as a National Goodwill Ambassador for Japan by The Food and Agriculture Organization of the United Nations (FAO).

Solving SDG Issues through Global Open Innovation

Kuniya After seeing the KUBOTA REPORT 2019, I felt that the Company is actively promoting management from environmental, social, and governance (ESG) perspectives. Could you tell me about the meaning of the title of last year's Top Message, "Setting SDGs as a compass, we are driving forward at full speed toward the realization of the 'Global Major Brand Kubota'."

Kimata This is a message that I myself also find inspiring. The Kubota Group is promoting management with an emphasis on the fields of food, water and the environment, but I believe that its contribution to the SDGs is not as good as it might be. For example, in the field of food, we provide customers with agricultural machinery, but this does not contribute to the overall food production system including agriculture, and this will be a major theme for us going forward.

“What should Kubota do going forward? I think it should contribute to the overall food production system.”

Kuniya Our current food production system has an extremely high environmental load, doesn't it? For example, the CO₂ emissions related to the production, processing, transportation, and so forth of discarded food are said to account for around 8% of CO₂ emitted by humanity overall; and with the global population projected to reach 9.7 billion in 2050, food security is also becoming a significant issue. So while there are many types of environmental load that need to be greatly reduced in the fields of food and agriculture, would you agree that there are also significant business opportunities for Kubota?

Kimata That's right. If we can improve on food losses, then the form of the agriculture sector itself may also need to be changed. So I tell our employees to have a sense of crisis. On the other hand, this will also help to reduce the environmental load, so I think that a key point for the Kubota Group's survival will be to move from providing agricultural machinery to contributing to the construction of food production systems that curb food and energy losses, reduce CO₂ emissions, and help to save labor and personnel.

Kuniya That is an important perspective, I agree. Also, the forests that absorb that CO₂ are decreasing, so we face major challenges such as how to prevent the area of agricultural land from expanding further, how to avoid the use of large quantities of chemical fertilizers and protect biodiversity, while improving the balance of nitrogen and phosphorus and ensuring that people have food to eat.

Kimata The Kubota Group is engaged in the service water purification and sewage treatment business, so for example as a water environment solution in the field of water we are promoting an initiative to use fertilizer components such as phosphorous recovered during the sewage treatment process for agriculture. Also, I believe that the uptake of robotics technologies that do not require labor or human work and of smart agriculture that utilizes ICT, IoT, and AI is absolutely essential for developing environmentally friendly agriculture into strong, attractive business.



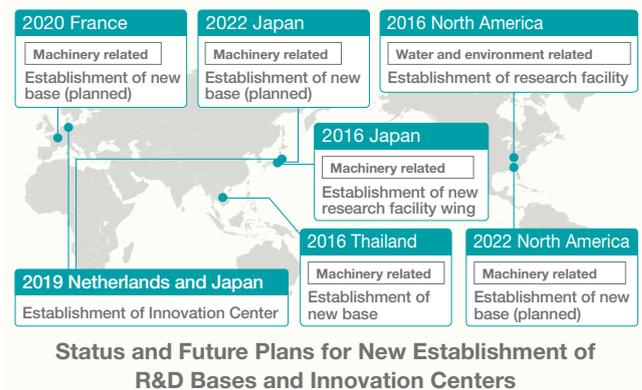
A concept tractor of the future developed to commemorate Kubota's 130th anniversary. The tractor operates completely autonomously without a human driver thanks to AI and electrification technologies, presenting Kubota's vision for the future of farming.

Kuniya So rather than applying new fertilizer, you are reusing the recovered phosphorous and so forth.

Kimata That's right. Our research is already under way.

Kuniya To return to the topic of agriculture, I've heard that researchers in Japan are looking at devising new methods for cultivating rice in a way that will reduce methane emissions that occur with the traditional method if flooding the paddies when planting.

Kimata There are also research results showing that methane production can be reduced by extending the drying period for cultivated paddy fields. The Kubota Group is also proposing a change in the method of agriculture to wet direct seeding, where seed rice coated with iron powder is sown directly in a flooded paddy field, or dry direct seeding into a dry field. These methods require less labor time than the convention method of raising and planting seedlings, saving energy and labor. We will focus on providing total solutions for this kind of agriculture with a global perspective, particularly in Asia. An important part of promoting this kind of initiative is alliances with outside partners such as venture companies, companies from other industries, universities, and research institutions. In 2019, Kubota established Innovation Centers in Japan and Europe. Our policy is to create new value through open innovation.



Kubota aims to create new value by promoting open innovation through investment in outside partners and joint research.

Kuniya They say that the various technologies needed for achieving the SDGs can be found in Japanese companies. The problem is in how to liaise with diverse stakeholders and create a new business model using technology. I think it is very significant that you have established open innovation spaces.

The Road to Achieving SDGs Expected by the Next Generation

Kuniya The message of SDGs on social change is “transforming our world.” I am very interested in how companies respond to this message, or how it is received by top management. What do you think about his point?

Kimata I really want to leave it up to the younger generation who will be responsible for society going forward. In terms of businesses that contribute to the fields of food, water and the environment, and that align with the 17 SDGs, I think it is important that the younger generation should be the ones doing the thinking, rather than following what corporate officers or top management have to say. Thankfully, the Kubota Group is beginning to be recognized externally as a company that seeks to contribute to the SDGs. I'm delighted to see that this is also leading to an increase in people seeking to join the Company who are interested in contributing to society through business.

Kuniya That sounds ideal. And have you yourself felt that awareness of the SDGs and sustainability is spreading throughout the Company?

Kimata I have felt that it is spreading, particularly among young employees. Our employee awareness survey from last year indicates that around 60% of them consider it their own personal issue. By looking to the younger generation for their ideas, we might see a major shift in thinking, such as creating zero-emission agricultural machinery, or creating something that actively utilizes and absorbs CO₂. I expect to see a new environmental business that goes beyond simply reducing CO₂.

Kuniya In the field of water, where there are concerns over chronic worldwide shortages, we might see ideas for development of products that generate water on site, for example, rather than the traditional concept of carrying water through pipes. No doubt Kubota has engaged in various activities to raise awareness around the SDGs and sustainability. What is the principle or approach that you would most like all employees to share?

Kimata First, I'd like to ask them to recognize anew that the Kubota Group's business itself contributes to society. In addition, I want them to aspire to make Kubota a company that local residents are glad to have in their towns. If this concept grows, then I think that people around the world may say they are glad to have Kubota in it. By setting the SDGs as our compass, I think that each employee now thinks individually as they engage in business about whether each new product development or investment aligns with

our goal of bringing joy to society. I believe that this standard for determination was established through the SDGs. Moreover, I hope to find sympathy and agreement for this way of thinking not only among the Kubota Group, but by many of our suppliers, and that we can work together as one to solve issues.

Kubota's Challenges and Mission for Achieving the SDGs

Kuniya What do you see as the Company's strengths and weakness and its opportunities and risks in realizing the SDGs?

Kimata First of all, I think that the Kubota Group's strengths are the fields of food, water and the environment, which are its priority fields. Moreover, we need to reduce CO₂ emissions as we grow going forward, and by taking this as an opportunity, our first priority is to clear the most stringent regulations. In addition, we must not shy from investing in R&D to develop electric tractors, electric small-scale construction machinery, hybrids, and others that can dramatically reduce CO₂ emissions. The risks are from flood damage due to climate change. The typhoons of 2019 not only hammered agriculture, but also had a significant impact on our supply chains. Naturally we must strengthen management of risks to business, but I am keenly aware that Kubota has an increasingly important contribution to make through all of its business activities to increasing the resilience of villages and urban infrastructure.



Mini excavators and tractors under development. Kubota will focus its efforts on development of engines that have reduced CO₂ emissions while also conducting R&D on products that are electrified or fueled by hydrogen, etc.

Kuniya Among the SDGs, No. 13 Climate Change presents both a risk and a target area where Kubota can leverage its strengths. How about weaknesses?

Kimata I think we still have issues to address in creating workplaces where diverse people can participate actively.

Kuniya It is certainly difficult to drive innovation without a diverse workforce. Kubota's ratio of female managers was 3.0% in FY2019, which is a very low level. I hope that the Company actively work to promote participation by women.



“A diverse workforce is essential for driving innovation. I hope that the Company actively work to promote participation by women.”

“We will strive to conduct sincere corporate operations so that local people are glad to have Kubota in their districts and towns.”



Kimata Thank you for your valuable opinion. I think that we must make the Company an attractive place for women to work as well. In particular, increasing the number of female managers and the female hiring rate for new recruits are indicators that we should manage as a Company, and I aim to see steady progress on these going forward.

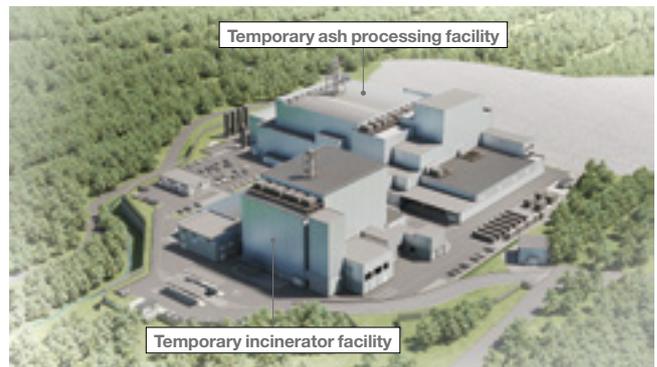
Kuniya The number of women entering agriculture appears to be increasing as well, so it will be important to pay attention to female opinions in and outside the Company in promoting smart agriculture going forward. Furthermore, on the environmental front, Kubota has already announced Long Term Environmental Conservation Targets 2030, which I think is very progressive. However, don't you think it would be good for the Company to set even further reaching, more ambitious targets going forward?

Kimata 2020 is our 130th founding anniversary, and we are currently drafting our vision for 10 years from now, “GMB2030.” In this vision, we will discuss issues along the lines you have suggested, so I hope you will look forward to seeing the results.

Kuniya Nowadays, a sustainable global environment is seen as the foundation of the economy. Every company is called upon to consider how far it can reduce the impact of business on the environment. This is indeed what is required under TCFD*1.

Kimata The Kubota Group also announced its agreement with TCFD in January 2020. Going forward, I would like us to not only take protective measures, but as a progressive company, also add one or two initiatives that can solve various environmental issues. In fact, one of the initiatives that the Kubota Group is working on in its Water & Environment business is radioactive waste treatment services*2 in Futaba-Machi, Fukushima Prefecture. In this project we are using industrial waste treatment technology*3 that we applied in the past in Teshima, Kagawa Prefecture. At the time, we didn't imagine that the technology would be used later on in the project in Futaba-Machi, but we developed the current technology after being advised by experienced external scholars that we met on the Teshima project that the technology might be effective for reducing the volume of waste containing radioactive substances.

Kuniya It appears that among the technologies of Japanese companies, there are many more that can help solve social issues. I remember covering the Teshima project in a program in the past, so I know it well.



Computer-generated image of the completed facility for reducing the volume of radioactive substances in Futaba-Machi, Fukushima Prefecture. This project utilizes original technologies developed by the Kubota Group through its involvement in a previous industrial waste treatment project in Teshima, Kagawa Prefecture*3.

Kimata Thank you for covering our project even though it was not well known.

Kuniya The program covered Kubota's earthquake-resistant water pipes, as well as its problem involving asbestos. Looking at the Group's website, I see that it has continued to make payments of financial aid and donations to medical research funds. What kind of lasting impact do you think this experience had on Kubota's management?

Kimata I think that the management team has really been filled with an awareness of the need to operate and manage the Company honestly. As I mentioned before, we aim to make all of our stakeholders glad that Kubota exists, in our environmental initiatives, in our community contributions, and in our recruitment activities. In addition, we hope that this response will be heard from local towns throughout the world, and that each small pocket of support will spread, enabling us to help make the world a little better.

(January 2020)

*1 The Financial Stability Board (FSB) announced Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for voluntary ascertainment and disclosure by companies and other organizations of the risks and opportunities arising from climate change, and its financial impact.

*2 Operations treating waste material contaminated by radioactive substances.

*3 An operation over 14 years starting in 2003, in which Kubota carried out processing of illegally dumped waste at an intermediate processing facility, including a proprietary rotating melting furnace.