Value Creation Implementation Strategies

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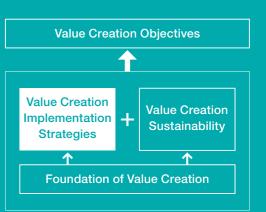
# Value Creation Implementation Strategies

# **Overview**

As part of our commitment to value creation objectives, we, at the Kubota Group, have formulated Mid-Term Business Plan 2025, forging ahead in line with the implementation strategies identified in the plan. We promote business operations by positioning our unique ESG at the core of management, and strengthening our financial, human, intellectual, and manufacturing capital.

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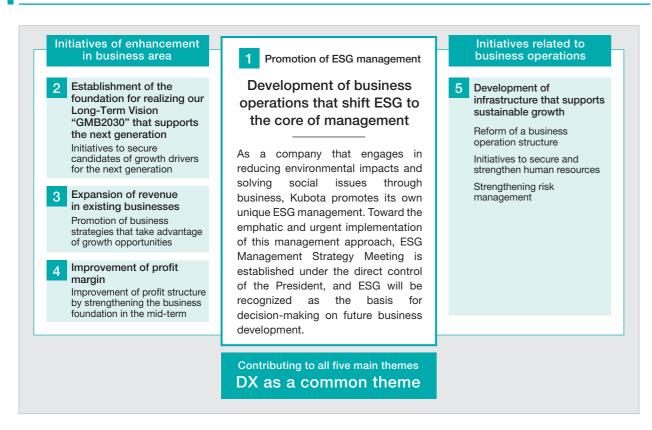
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# Progress of Mid-Term Business Plan 2025

With the aim of becoming an "Essentials Innovator for Supporting Life," committed to a prosperous society and cycle of nature—as outlined in our Long-Term Vision "GMB2030"—we have been working to implement Mid-Term Business Plan 2025. We plan to promote our five main themes and DX as a common theme, and develop business operations that shift ESG to the core of management.

## Outline of Mid-Term Business Plan 2025



## Financial Targets (as announced in February 2021)

Mid-Term Business Plan 2025 financial targets (PL) and FY2022 results

(billions of ven)

		FY2019 FY2025 In		Increase/decrease from FY2019		FY2022
		(Actual)	(Target)	Amount	%	(Actual)
R	evenue	1,920.0	2,300.0	+380.0	+19.8	2,678.8
	Farm & Industrial Machinery	1,558.3	1,870.0	+311.7	+20.0	2,328.0
	Water & Environment	330.1	400.0	+69.9	+21.2	327.6
	Other	31.6	30.0	-1.6	-5.1	23.2
Operating profit		10.5% 201.7	13.0%	+98.3	+48.7	8.2% 218.9

#### Mid-Term Business Plan 2025 financial targets (Other) and FY2022 results

	2019 (Actual)	2021– 2025 (Target)	FY2022 (Actual)
ROE	10.7%	Maintain over 10% / over 11% in 2025	8.8%
Shareholder return ratio	42.7%	Set the mid-term target of over 40%, and aim at 50%	46.4%
Operating cash flow	82.4 billion yen	880.0 billion yen (cumulative total of 5 years)	-7.7 billion yen
Free cash flow	-12.4 billion yen	280.0 billion yen (cumulative total of 5 years)	-177.3 billion yen

# **Promoting Growth Drivers**

# North America Construction Machinery business

Aiming for a significant increase in market share by expanding product lineup and locally integrated operations of development, production, and sales

We have successfully grown revenue and market share, and by transferring production bases have achieved greater production efficiency.

- Compact track loaders (CTLs) have expanded to account for half of the North American Construction Machinery business
- Production of CTLs in North America has begun and production capabilities have been enhanced
- Full model change has gone ahead and strides have been made on development of models in new horsepower ranges

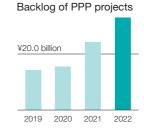


#### Water & Environmental Solutions business

Along with the labor shortages in local governments and aging infrastructure, aiming to shift from equipment sales-oriented business to O&M- and solution-oriented business by utilizing IoT and other technologies

We have steadily increased sales in O&M and solutions.

- O&M resources have been secured by integrating subsidiaries
- KSIS will be strengthened, such as by steadily developing apps and services
- The Water & Environmental Solutions
   Developing and Sales
   Department has actively
   promoted marketing activities
- Wastewater processing project orders have increased and orders have started to come in for concession\* projects
- \*Where local authorities retain ownership rights to facilities but outsource management rights to a private contractor on a long-term basis

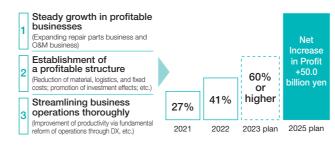


KSIS

# Improvement of Profit Margin

While rising costs may make it difficult to see the results, we have made progress with improvement activities

- Steady growth in profitable businesses: expanding the repair parts business and increasing new O&M orders in environmental services
- Establishment of a profitable structure: promoting steady cost-lowering activities
- Streamlining business operations thoroughly: proceeding with DX, etc., but some time will be needed before the effects become apparent



# Farm & Industrial Machinery Expansion of our business in India and entry into the basic machinery market

Leveraging synergies with Escorts Kubota Limited, aiming to increase market share in India, which is the largest tractor market in the world, and expand business globally by exporting basic machinery

#### Pursuing synergy

- Mutual use of the dealer network
- Introduction of the Kubota Production System (KPS) have been promoted
- R&D resources of both Kubota and Escorts Kubota Limited have been utilized



# ASEAN Farm & Industrial Machinery business

Aiming for a further increase in sales of farm equipment and construction machinery along with urbanization

- Lineup of implements for agricultural work has been expanded
  Lineup of construction machinery has been expanded in line with
- growing demand resulting from urbanization
- Entry into agriculture-related business, such as farm design

# Farm & Industrial Machinery After-market business

Aiming to expand "after-sales business" by utilizing abundant operating machineries on a global level

- Sales of secondary brand "K3R" components has started in 2023
- Demonstration testing of operational data aggregation using telematics has started

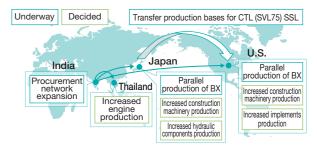
\*K: Kubota
3R: Resolution, Reasonable, & Reliable



# Development of Infrastructure That Supports Sustainable Growth

We have promoted the construction of a production system that aims at stable supply and 50% overseas production.

- Transfer of production bases to meet our target of increasing the ratio of production conducted overseas to 50% in order to lessen the risk associated with concentrating production in Japan
- Decision-making to strengthen production capabilities at several production bases
- Stable supply of products through flexible responses to the supply and demand situation, such as through parallel production in Japan and the U.S.



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# Financial/Capital Strategy Summary and the Role of the Director in Charge of Finance

In terms of our policies toward financial and capital strategy, there are two points of particular importance. The first is the need to strengthen our production capabilities as we believe that, going forward, our business of manufacturing and selling products—such as tractors and construction machinery—can be further expanded. This will include a review of our production network inside and outside Japan, and will necessitate a strategy for stably procuring funding for increased capital expenditures. Of course, this will run in parallel to our efforts to evolve into a solutions provider and realize "GMB2023," while also expanding into business fields that do not increase our debt burden.

The second point worthy of note is that, given global concerns about inflation and current predictions that capital procurement costs will increase due to interest rate rises, there are business areas where sales will grow and where we have the ability to earn, but there are also business areas where that is not true. As such, we must carefully examine which are which, and flexibly adjust our business portfolio accordingly. Those areas where we can stably create cash flows are where we need to allocate our management resources, which include our personnel, our goods, our funds, and our expertise. Moreover, as the business environment continues to change, it is important that we create a blueprint for the future so that we can respond flexibly and steer ourselves in the right direction.

As the director in charge of finance, I am the person ultimately responsible for finance at Kubota. My personal duties cover

two main areas. The first, my most important role, is to ensure that the Kubota Group's management resources are distributed appropriately. It is difficult to raise profits with the same people making the same products in the same places. It is therefore vital that we switch to our systems for producing and procuring products and major components, and supplying markets, to optimal forms. The appropriate distribution of management resources across regions is also increasingly important. In the past, we paid great attention to how we were allocating domestic management resources but as the scale of our business overseas grows, we have to distribute the management resources we have around the world effectively, and tie this into business growth in each of the countries in which we operate.

My other major role is overseeing our internal key performance indicators (KPIs). Before now, the KPIs we set were revenue and operating profit. In the future, though, we want to go beyond thinking of profit and loss alone, and spread awareness within the Company of balanced KPIs that also consider the balance sheet and cash flows. This will lead to a review, and the transformation, of our business portfolio. One of the themes of Mid-Term Business Plan 2025 is a review of our shift to a global management structure, and so we must also revise KPIs so that they contribute to our global management structure, as well as putting in place the foundations that will allow us to allocate management resources appropriately.

# Progress of Mid-Term Business Plan 2025: Results and Issues Over the First Two Years

Let's look back at the first two years of Mid-Term Business Plan 2025. In FY2022, revenue came to ¥2,678.8 billion, which exceeded the FY2025 target of ¥2,300.0 billion. Operating profit, meanwhile, reached ¥218.9 billion. The reasons for revenue surpassing the target were (1) raising prices and (2) making Escorts Kubota Limited a wholly owned subsidiary. On the other hand, while we responded to rising costs of raw materials and logistics by raising prices, there is a delay on the effects of this due to back orders and similar. Price rises and similar also could not offset entirely the increase in costs in the same fiscal year, which prevented large profit increases. In addition, another major factor was a drop in the efficiency of factory operations compared to the past, as a result of supply chain chaos due to impacts such as

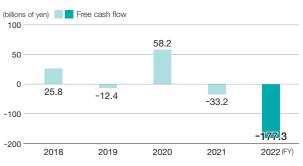
component shortages caused by lockdowns in Shanghai. While we went ahead with a variety of measures—including transferring production to overseas bases and diversifying suppliers—some of these will take a while to have an effect, and we expect that developing a more resilient procurement system will also take more time.

Free cash flows during the two-year period, meanwhile, posted negative ¥210.0 billion. M&A purchases for the two years totaled ¥200.0 billion yen, including ¥180.0 billion related to India's Escorts Kubota Limited and some other smaller purchases. Another major factor was capital expenditures of more than ¥290.0 billion in order to establish global R&D bases, increase production, and encourage greater use of IT.

#### Trends in capital expenditures and R&D expenses



## Trends in free cash flows



We are making some progress with the themes identified in Mid-Term Business Plan 2025. In the North American Construction Machinery business, which is a driver of growth, sales of CTLs have expanded close to expectations, and the Farm & Industrial Machinery business in the ASEAN region has performed well, excluding the political chaos occurring in Myanmar. Our aftermarket business has also seen a steady growth in component sales, while O&M in Water & Environment business has promoted the application of DX technologies. A reasonable amount of progress is, therefore, evident, and so we judge that efforts to strengthen existing businesses have been relatively successful. R&D is also making progress in line with plans, despite the significant financial burden of efforts such as strengthening our global research system, becoming carbon neutral, and developing autonomous driving.

Financial figures for Mid-Term Business Plan 2025, which take into account factors such as price rises and M&As, are forecast to

result in revenue of ¥3,000 billion, operating profit of ¥360.0 billion, and operating margin of 12%. Since the acquisition of Escorts Kubota Limited, the number of employees of the Kubota Group has exceeded 50,000. Human resources in Japan account for around 24,000 of those, so more than half of our employees are outside Japan. The move toward local development and production has also taken a step forward, so we predict the number of group employees overseas will increase. Considering this, under the current operational rules that are based on our business in Japan, there are some aspects of management, business, or human capital development that will be difficult for those overseas to feel as though they are taking part. That is why we need to move forward with work to develop a system based on global operations by 2025. Also, to realize "GMB2030," a major theme for the next three years will be creating a blueprint for new business development in 2026 and beyond.

# Financial and Capital Strategy to Be Changed by the Introduction of ROIC

In the past, we have placed importance on growth, and this has meant that financial KPIs were focused on revenue and operating profit—i.e., monetary amounts—and the common belief in the Company is that increasing revenue would bring greater profit. However, since the peak operating margin of the period between FY2013 and FY2015 (when it reached 13–14%), it has dropped as we have made upfront investments in new regions and business fields. Taking into consideration in-house discussions

and dialogue with those connected to capital markets, in 2021 we switched to a focus on operating margin and other ratios. In the past few years, we have made some sizable capital expenditures and M&As, and it is important that we get a return on the capital we have invested from now on. In the final three years of Mid-Term Business Plan 2025, it is important to raise business returns to create cash flows and recover our investments. By doing so, we can secure the resources for future capital investments, bearing in

mind the issues of the first two years. To reduce interest-bearing debts, which have increased recently, is also important. Therefore, in terms of financial KPIs, revenue will remain an important KPI of

growth, but operating margin, ROIC, and free cash flows—i.e., future investment capital—must also be a focus.

#### Trends in revenue and operating margin



\*Due to a change to the accounting period, figures for the fiscal year ended December 31, 2015 are for the nine-month period from April 1 to December 31, 2015. \*From the fiscal year ended December 31, 2018, International Financial Reporting Standards (IFRS) have been applied instead of Generally Accepted Accounting Principles (U.S. GAAP) that were applied previously. For the fiscal year ended December 31, 2017, financial figures in accordance with U.S. GAAP and IFRS are both presented.

As we have pressed ahead with financial and capital strategies with consideration of ROIC, circumstances we see have changed. We have provided customers in the Farm & Industrial Machinery business with retail financing in the form of installment sale, and so we currently hold a great deal of interest-bearing debt (¥1.544.8 billion at the end of the last fiscal year). However, excluding this retail financing interest-bearing debt, at the end of the last fiscal year the Kubota Group maintained a net cash position. We could also calculate ROIC without the influence of this retail financing, but as it is a tool that we use to sell our products, we think it would be appropriate to manage ROIC as a single, unified indicator. In 2022, we also incorporated ROIC as one of the KPIs we use to determine remuneration for the Directors. We are, however, aware that our ROIC disclosure is still not enough, and this is due to both the big influence that retail financing has on it, and also because our discussions about what ROIC should be in the medium and long term are still ongoing. We believe we have a responsibility to keep all our stakeholders informed, and as such I hope they will understand. In terms of our efforts to spread awareness within the Company of more balanced financial KPIs, we need to have each department or employees in positions of responsibility appreciate the importance of financial KPIs as they do their jobs. If employees do not, this will not lead to various types of actions. That is why educational activities are my other major role as the director in charge of finance.

With regard to amounts, while the Farm & Industrial Machinery business accounts for the majority of our revenue and operating profit, our environmental services—which comprise engineering and O&M—are showing a high ROIC trend. Recently, our Water & Environment business has seen sales growth in the solutions business, and it is characterized by small total assets on the balance sheet. As such, there is a possibility that Water & Environment business may first achieve ROIC of 10% or higher, our long-term target excluding retail financing. While the Farm & Industrial Machinery business is achieving impressive profits in North America, retail financing and its accompanying interest-bearing debts mean that the business has large total assets on the balance sheet, so its ROIC is relatively low.

If we compare the two businesses, from the perspective of

amounts alone, the Farm & Industrial Machinery business and North America stand out, but they look very different when considered from the perspective of ratios, i.e., ROIC. By looking at these from a different viewpoint than we have in the past, rather than make generalizations about the importance of ROIC and how to improve it, we can take specific actions that consider the characteristics of each business. This proves that a larger scale does not necessarily result in greater efficiency, and shows that there are differences between varying businesses and regions. Employees cannot understand these differences by only looking at profit and loss. This perspective of looking at business through the lens of the balance sheet is something that Kubota has never had before.

You may ask why ROIC has become so important to us—it is because Kubota Group is aiming to become a solutions provider, the ideal outlined in "GMB2030." With solutions, total assets are not large, and as the business does not involve selling hardware alone, profit margin can be high even if revenue is not. As such, we can expect a more stable business model. If we were to continue focusing on scale above all else, revenue attributable to solutions would seem small, but judged from the perspective of profit margin, stability, and ROIC, solutions can be evaluated very differently. If we cannot change employees' awareness of this issue, carrying on as we have will not lead us to realizing "GMB2030," and so we must bear this in mind with our management of finances and capital in the future.

Previously, for M&As we have not had clear internal standards in place, instead responding to each case by carefully considering the details of each. More recently, we have paid more attention to the cost of capital in-house, and recognized that it should be at around 8%. To go ahead with capital expenditures or M&As, they must clear this 8%. From the perspective of risk, considering factors such as yield and safety, we will not proceed if profitability is less than 10% at the planning stage. In the past we decided whether or not to invest based on the payback period, but in the future, as we consider a return exceeding capital cost of 8%, we need to use a criterion like internal rate of return (IRR).

For capital expenditures, we carefully scrutinize demand and investment amounts—on which capital expenditures are

predicated—but for M&As, we will value an investigative and deliberative process that incorporates elements such as the profit margin of the company to be acquired or the likelihood of synergies. When considering capital expenditures, there is a tendency to put a positive spin on demand, and so as the director in charge of finance I must be strict and come up with two or three countermeasures, including for what might happen if demand differs from forecasts. For M&As, alongside other past mergers, making the Indian company Escorts Limited a wholly owned subsidiary (Escorts Kubota Limited) created a high degree of synergy with Kubota and shows a lot of potential as an export base for the basic market in both developed and developing nations in the future.

Going forward, while we cannot entirely rule out M&As as large as with Escorts Kubota Limited, for the time being we will focus on post-merger integration for M&A projects we have implemented over the past two years. For capital expenditures, last year we completed the construction of the Kubota Global Institute of Technology (KGIT), a large-scale R&D facility, but equipment still needs to be replaced. In the future BCP investment will be needed in Japan, and capital expenditures will continue at a higher level than in the past with efforts such as earthquake-proofing investment and changes to production networks to achieve local production and local consumption.

# Corporate Value, Information Disclosure, and Shareholder Return Policy

The types of corporate value that Kubota considers are twofold: quantitative and qualitative. The first is our share price, which allows us to quantitatively judge whether corporate value has increased, and an important element is our market capitalization. I feel that changing the way we disclose information, from a short-focus to a more medium- and long-term-oriented stance that includes non-financial factors, is vital for us to lower the cost of capital in the medium and long term, and to raise our market capitalization. Each quarter, we sit down with investors and analysts, but this communication mostly revolves around short-term performance, and the Farm & Industrial Machinery business in North America in particular. I would like to properly disclose information about the solutions to resolve social issues we are aiming for, in light of their contribution to our main businesses

including R&D activities in the future. In addition to disclosing the progress we are making on Mid-Term Business Plan 2025 and our Long-Term Vision "GMB2030," this is a challenge for our information disclosure.

The qualitative form of corporate value, meanwhile, is the extent to which we are respected by our stakeholders, namely our shareholders, customers, employees, business partners, and communities. We have brought ESG issues to the core of our management, and for two years have been running K-ESG management, for which the "S" also stands for "stakeholders." One of the important ways of thinking that characterizes K-ESG management is defined as "participation," whereby various stakeholders take part in Kubota's business by accepting risk and engaging with us.

#### Trends in dividend per share and shareholder return ratio



- \*Due to a change to the accounting period, figures for the fiscal year ended December 31, 2015 are for the nine-month period from April 1 to December 31, 2015
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With this approach, all stakeholders must be rewarded for the risks they take. Part of our engagement is teaching stakeholders that by participating in our business, they can benefit financially as well as gaining the satisfaction of helping to resolve society's issues. With this in mind, our shareholder return policy, alongside information disclosure, is very important. As we make several investments connected to medium- and long-term growth, we do not intend that our shareholder return ratio should rise dramatically from the current level of 40%, but a ratio of 50% is one of our

targets. In FY2022, we carried out a stock buy-back worth ¥20.0 billion, and we were able to provide a return that went well beyond 40%, with a shareholder return ratio of 46.4%. Our policy is to continue providing shareholders with an adequate return, including in terms of dividend yield. By this I mean our policy is to retire our shares immediately after buy-back. If growth investments pay off, there is a chance that the shareholder return ratio could rise suddenly, but our goal is to stably increase our economic value and thereby strengthen shareholder returns.

# **Human Capital**

Value Creation Implementation Strategies



We will develop a corporate culture that places importance on dialogue to draw out the maximum potential of our human resources

# Kazuhiro Kimura

General Manager of Human Resources and General Affairs Headquarters Senior Managing Executive Officer

# Kubota Group's Human Capital Management in Tandem with "GMB2030"

#### Basic approach

In 2021, we formulated the Long-Term Vision "GMB2030," and one of the foundations of our efforts to achieve that vision is our K-ESG management. This style of management follows Kubota's unique way of thinking, and the "S" stands for not only "Social" but also "Stakeholders" of all kinds. One such important type of shareholder is employees, and as such actively investing in employees is an important part of promoting K-ESG management.

In the future, in order to achieve "GMB2030," we must also change our business model, to move away from just selling products to linking our businesses in the three fields of food, water, and the environment to provide solutions to social issues. To do this, we need to strengthen our human capital, and so we will work on human capital management that emphasizes areas of materiality, namely improvement of employee growth and job satisfaction, and business operations based on diverse values.

# Kubota Group's human capital strategy

Going forward, the elements that will power our efforts to resolve environmental and social issues are an organization that is strong and flexible and diverse, independent human resources. Therefore, strengthening these is the basis of our human capital strategy.

# Kubota Group's human capital strategy

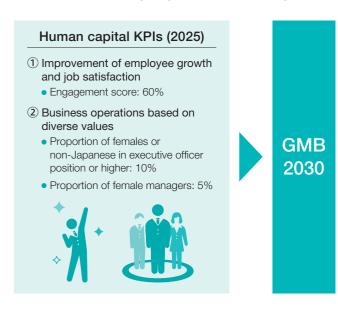
- Construction of a corporate culture that respects diverse forms of individuality and values dialogue to draw out the maximum potential of our human resources
- Provision of opportunities for growth for human resources who have an appetite to take on challenges, by strategic and systematic investment in training
- Support for independent career development that values employee goals
- Promotion of health & productivity management that supports the three points above

We will contribute to the achievement of "GMB2030" by implementing various personnel measures based on these human capital strategies.

# Major Personnel Measures Toward "GMB2030"

To maximize the value of the Kubota Group's human capital, we will invest seriously in a stronger organization and individual growth.

# Major personnel measures Measures to construct a corporate culture that places importance on Stronger dialogue to draw out the maximum organization potential of our human resources • Expand flexible, highly productive ways of working • Proactive investment in human resources with an appetite for taking on challenges Training of the leaders who will drive forward our business globally • Creation of independent human resources based on individual goals and strengths Promotion of health & productivity management



By making active investments in our human resources from a variety of angles, such as those detailed below, we will strengthen the Kubota Group's human capital.

# Improvement of employee growth and job satisfaction

# Stronger organization

In terms of strengthening our organizational structure, we are putting particular effort into constructing a culture of dialogue. In order to share messages from management with employees and to enable employees to pass their opinions up to management, the president and other top executives from each business participate in town hall meetings. Moreover, through one-on-one meetings between managers and general employers, we are deliberately creating time for dialogue that does not just concern work duties, but also covers topics such as daily-work-related worries, personal career plans, and feedback that contributes to growth.

#### Individual growth

For individual growth for employees, we have started a program that dispatches employees to startups or developing nations that differ from their own workplaces or work duties and to solve social issues so that they can consider for themselves their own career path independently. We have also introduced a system that allows employees to try out duties in other departments within the Company alongside their normal duties, which helps to broaden employees' horizons and acts as a measure to support employees in taking on challenges that lead to personal growth.

Furthermore, in order to train the leaders who will drive forward our business globally, we are implementing structured leadership training that covers everyone from the youngest employees to those in management positions. For department heads and above, the training brings together talented human resources from all around the world, and creates a forum to learn using case studies from Kubota's past.

# Business operations based on diverse values

In the future, we must grasp customers' needs and develop a global business strategy that considers a range of perspectives. To do so, we require an organization that can constantly create new value and respond to change. To that end, the Kubota Group must do two things: create a working environment where varied human resources can demonstrate their diverse abilities, and making proactive investments to draw out the strengths that each employee possesses. In particular, we are continuously promoting greater female participation, and are actively working to increase diversity among directors and higher positions.

#### Promotion of health & productivity management

The Kubota Group believes that it is by maintaining and promoting employee health that we can produce lively workplaces and create new value, and is therefore actively working toward health & productivity management. Through our business activities, we can bring happiness to our employees and their families but also contribute to the resolution of issues in the fields of food, water, and the environment. At present, we are pushing ahead with initiatives that focus on issues such as preventing lifestyle-related diseases and offering mental health measures.

\*Health & Productivity Management as featured in this publication is a registered trademark of the Nonprofit Organization Kenkokeiei.

# Improvement of Employee Growth and Job Satisfaction



# Basic approach

To improve employee growth and motivation, we are accelerating our efforts from the perspectives of developing a stronger organization and individual growth. The construction of robust organizational structures that can support employees in demonstrating their individual qualities and that aid high levels of engagement will lead to the creation of new

# Constructing a Stronger Organization

Dialogue

To create new value, we plan to construct an organizational and management system that respects diverse individuals and dialogue that inspires employees to utilize their capabilities and motivation to the full.

#### Diversity and inclusion

#### Strengthening management that leverages diversity

#### 1 Section leader system

The working environment is undergoing great change, as ways of working no longer dependent on physical location or set working hours spread, and as people are increasingly focused on their career paths. In such circumstances, better communication through more considerate management is required to maintain and enhance employee motivation. To provide this, we introduced a section leader (SL) system. So far, we have appointed 207 SLs (of

whom 10 are women). Section manager or team manager

# Roles of the SLs

- Manage the tasks of section members Consult with section members or offer advice
- (1-on-1, etc.) • Provide on-the-job training
- to section members

#### 2 360° feedback

If those being evaluated can understand the gap between how they and others evaluate their work, they will be able to grow, renew their awareness, and improve how they work in a team. Receiving an evaluation from subordinates and colleagues from the

Work area A

same level, as well as from above, is effective in strengthening management, and also allows bosses to utilize this in training that incorporates the individual qualities of their subordinates (those being evaluated).

Target of evaluation and number of individuals

	FY2020	FY2021	FY2022
Target	Newly appointed section managers	+ existing section managers and newly appointed department managers	+ existing department managers
Individuals	207	287 (cumulative)	326 (cumulative)

#### 3 Setting a maximum number of subordinates for each executive position

For bosses to appropriately manage their subordinates on a personal basis, as well as the workplace overall, we will ensure that burden does not exceed manageable levels. At the same time, to give the diverse human resources that will carry Kubota into the future (including younger and female employees), a more appealing impression of what an executive is and does, we are carrying out organizational management that sets a basic maximum number of subordinates. We will also continue to monitor the number of subordinates within the organization to achieve more considerate management than we have been able to previously.

# Ensuring our corporate culture takes root

#### Town hall meetings

From the perspective of communication, and to achieve "One Kubota," we are stepping up internal communications, through such means as publishing video messages from the top management, including on internal networks. Part of those efforts is our town hall meetings, which bring together the executive team with newly appointed managers and younger employees. Through direct dialogue

Work area B Work area C



Town hall meetings in 2022

between the executive team and employees, we will spread awareness and understanding of "GMB2030," raise employee engagement, and from now on we will move forward with initiatives to invigorate our town hall meetings.

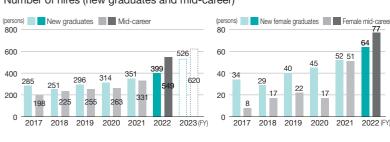
#### Town hall meetings with the president or executive vice president

	FY2021	FY2022
Times held	6	25
Participants	100	400

#### Expanding recruitment of new graduates and mid-career hires

We are expanding our recruitment of both candidates fresh out of university and mid-career applicants in order to achieve "GMB2030" and Mid-Term Business Plan 2025. For mid-career hires, we are proactively recruiting individuals with a diverse range of specialisms and experiences, and we will tie this into business expansion. In the case of new graduate recruitment, we have incorporated recruitment by job type and are strengthening measures to prevent mismatches after assignment. Moreover, to promote female participation. we are also increasing our recruitment of women.

#### Number of hires (new graduates and mid-career)



# 1-on-1 meetings

With the aim of improving organizational management capabilities, enhancing support for members' growth and raising their motivation, in 2021 we introduced 1-on-1 meetings for administrative and technical positions (from general employers to managers). We have also been running seminars to spread awareness and understanding among employees.

#### 1-on-1 meeting participant numbers and satisfaction

	FY2021	FY2022
Participants	640	2,518
Satisfaction level	85.9%	94.2%

Target: administrative and technical staff

#### Kubota Group vision and mission





# Ways of working not dictated by time or location

# **Kubota Smart Work**

We are putting in place environments that expand opportunities for employment and in which employees can fully demonstrate their capabilities and ambition and we are also making it possible for employees to utilize diverse ways of working and to allocate their time in an efficient manner. These efforts will be tied into raising productivity, employee performance, and employee motivation. Here we will introduce three representative examples of the many measures we are taking.

#### 1 Remote working system

We have developed an environment where people can work regardless of where they are, which eliminates the issue of employees having to move away from their families and also allows people to work as well as caring for others. We have introduced this system so that employees can find it easier to work and demonstrate their maximum performance. Employees can work anywhere in Japan provided that they live somewhere where the distance between the nearest train station to their home and the nearest station to their workplace takes five hours or less by public transport.

## Number of remote working system users

	FY2021	FY2022
User group	Managers	Managers & administrative/technical staff
Individuals	4	17

#### 2 Super flextime system (flextime without required "core" hours)

To promote ways of working that are not dictated by set working hours, we have introduced a system that does not include core

working hours where attendance is required. As long as an employee works for a set number of hours each month, he or she can choose for him or herself the times at which they start and stop working—and for how many hours they work—each day (although the minimum work time per working day is one hour).

#### 3 Activity-based working (ABW)

We introduced ABW with the goals of achieving effective ways of working, encouraging better communication, and raising employee engagement, and we are constructing office lavouts that enable a diverse range of flexible workstyles. At the same time, we are encouraging the use of less paper and less keeping of paper stock.

e.g. gathering together disparate offices in the Tokyo area into the Tokyo Head Office, and concentrating the Water and Environment Infrastructure Consolidated Division in the Hanshir



Café space at Tokyo Head Office

# **Discovering and Training Strong Individuals**

Independence Growth opportunities

We will forge individuals who can independently carve out their own career paths and hone their strengths, while also creating value as part of a team. By investing in training strategically and systematically, we will provide opportunities for growth to human resources who are hungry to take on challenges.

# Providing opportunities for reskilling and growth

# Cross My Field Program (cross-boundary learning inside and outside Kubota)

This training program gives employees the chance to take on challenges beyond the boundaries of their duties, business fields, and their own personal limitations. It aims to help employees, who have various ideas, to achieve personal growth through missions under this program.

Year	No.	Plan	Start
2021	-	Creating a comfortable atmosphere and space in Japan	June 2021
2022	1	Encouraging smart agriculture	July 2022
2023	2	Solving social issues in developing nations	June 2023

#### ① Encouraging smart agriculture in Izumi

We have participated in Izumi Agri Center as a start-up member.

Under the guidance of venture enterprise managers, we aim to resolve the region's agricultural issues.

#### 2 Solving social issues in developing nations

By bringing employees to NGOs and social enterprises in developing nations, we aim to resolve social issues in those locales using the skills and experience cultivated at Kubota.



Raising employee engagement

# In-house second-job system

We have introduced a system whereby Kubota employees can become involved in tasks for different departments within the Company while continuing to do their main job. We provide growth opportunities to employees based on their wishes, and this will help to raise employee engagement and invigorate our organization.

#### Examples of second-job placements

Original workplace	Second-job destination	Second-job details
Customer service department	Sales department	Managing, planning, and offering improvement suggestions for Kubota websites, email newsletters, etc. Interview with clients, photography for product catalogues, and support for exhibitions
R&D department	Sales department	Discovery of customers' needs and suggesting ideas for future product development

#### Internal open recruitment

We will foster a corporate culture that energizes its employees to focus on creation and addressing challenges, and allows them to independently select their own job positions. Doing so will spread a proactive approach of wanting to jump into new lively positions in line with their own desires, raise the sense of independence for employees and cultivate energetic employees.

#### Examples of internal open recruitment

Open recruitment postings
Responsibility for promotion and planning of the agricultural studies facility at Hokkaido Ballpark F Village

Responsibility for R&D into agricultural systems that enable fully unmanned operation

# Strategic provision of opportunities to learn

We aim to create human resources that are able to create the new value needed to develop our business activities with a spirit of "One Kubota" and "On Your Side." We will provide level-specific training so that employees gain their skills and mindsets required for different positions in a timely and systematic manner. Moreover, by introducing specialized training for specific objectives (approx. 160 different courses), we are working to support a training program under which each employee can actively enhance their skills.

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# Level-specific training system



Human resource training costs



#### Selective training

#### ① Kubota Leadership Training (KLT)

KLT is provided for section managers and develop capabilities of looking at the future from a better vantage point and considering business direction. It also brings about leaders that can plan and develop strategy.

#### (2) K-WAVE (training for the personnel who will be the next generation of executives)

We work to quickly identify and train the visionary leaders who will drive new business and innovation in the future.





## Voluntary training

Participants learn the knowledge and skills they need to promote projects or high value-added tasks and to guide section member training.

#### Training targets and number of trainees

	Target group	2021	2022	2023
KLT*	Section managers	9	_	23
K-WAVE	Mid-level administrative/ technical staff	14	18	19
K-Step	Mid-level administrative/ technical staff	_	82	78

<sup>\*</sup>Held every other year

# Global leader (GL\*) training

To strengthen our global management and utilize human resources to realize "GMB2030," and to encourage regional and global business growth, we carry out GL training as part of our efforts to develop GL capabilities. Through elements such as group sessions that examine original case studies, the aims of the training are for trainees to: understand Kubota's strengths and uniqueness, develop a sense of unity as "One Kubota," and gain awareness and motivation as a GL. Alongside introducing the GL system, we are

also working on activities for our regional headquarters to deepen cooperation between managers and to train the next generation of leaders.



President speaking with GLs

#### Global competencies

#### Able to hold global management perspectives but make optimal decision-making locally



#### Able to form ability to flexibly adapt to the local area 5 Taking initiative to

# address challenges

Ability to take on the challeng of organizational changes and business reforms, and influence others to promote changes and

Able to work on new challenges and achieve a future ideal

<sup>\*</sup>To promote Kubota's global management, GLs are appointed from among non-Japanese management members from group companies. At the moment, this only applies to the Farm and Industrial Machinery Consolidated Division, but in the future, we will expand this program throughout the Kubota Group.

# **Business Operations Based on Diverse Values**

# Policy on Diversity Management

# Basic approach

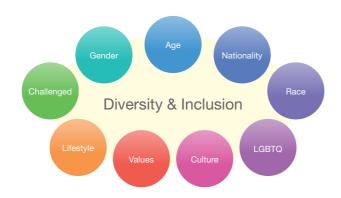
As Kubota expands its operations globally, it is essential for the sustainable growth of the organization to recognize different values and ways of thinking and encourage diverse perspectives. As a first step in promoting diversity, we have been making efforts in the area

Going forward, while welcoming a diversity of human resources (gender, age, challenged, nationality, etc.), we will not only seek to foster a working environment in which every person can maximize their potential, but also provide long-term nursing care and childcare support and other means to enable employees with various constraints to play a productive role in the organization.

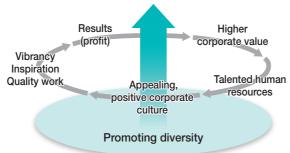
## Empowering women in the workplace

For the Kubota Group, it is essential for the sustainable growth of the organization to recognize different values and ways of thinking and encourage diverse perspectives. Specifically, we are actively promoting three initiatives: (1) increasing the number of women hired, (2) creating an environment where women can continue to work amid various life events, and (3) creating opportunities for women to develop as professionals.

Our efforts thus far have included having female employees participate in various outside forums, launching internal group activities that aim to improve networking, and having round-table talks between female employees and directors. We also held leader development training for female employees expected to undertake leadership roles. To help female employees extend their careers, we believe that men, too, should be involved in housework and raising children, so are proactively encouraging male employees to take childcare leave.



Promoting diversity will lead to a stronger organization and a more powerful company!



#### Support for job creation and establishing a work environment for people with disabilities

The Kubota Group is active in its initiatives towards the employment of people with disabilities that are aimed at supporting self-reliance, especially through its special subsidiary companies (Kubota Works Co., Ltd. and Kubota Sun-Vege Farm Co., Ltd.).

Kubota Works carries out cleaning work, business card and document printing, data entry, and clerical outsourcing. Meanwhile, Kubota Sun-Vege Farm is involved in initiatives to use hydroponic culture to grow vegetables safely and securely with the goals of living in harmony with the community and the practical use of unused agricultural land. The vegetables grown there are used in our company cafeteria and are available for sale to our employees, and some are being sold at supermarkets in Osaka Prefecture. Going forward, we will continue to expand into new business areas and promote further job creation.

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# **Promoting Health and Safety**

# Health & Productivity Management at the Kubota Group

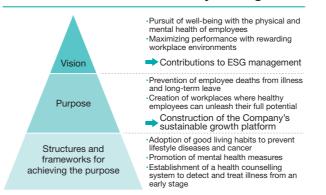
# Basic approach

The Kubota Group recognizes that tying different initiatives-fostering a culture where employee health is valued, ensuring each employee looks after their physical and mental health, and creating motivational workplaces—into sustainable corporate growth is an important management issue.

#### Kubota Group Health Declaration

The Kubota Group declares its commitment to realizing the satisfaction of its employees and their families, and contribute to solving food, water and environmental issues through its business activities, by enabling each individual employee to preserve their physical and mental health in a motivating and positive work environment, being able to utilize their capabilities and individuality in their work.

# Vision for Health & Productivity Management



# **Health & Productivity Management Promotion System**

At Kubota, top management have ultimate responsibility for promoting health & productivity management and they do so by linking the Health & Productivity Management Department, the Kubota Health Insurance Society, industrial insurance staff, and human resources, labor affairs, and other departments.

# Key Issues and KPIs

In the Kubota Group, we use health & productivity management to shine a light on the differences between where the health of individual employees currently is and a health ideal, and have set KPIs in the following three key issues and are pressing forward with initiatives in these areas

- Minimization of lifestyle disease risks
- Mental health measures
- Early detection and treatment of cancer

# Occupational Health and Safety Initiatives

# Basic approach

Kubota formulated its Basic Policies on Safety and Health in April 2013 for the purpose of creating a safer and more secure workplace. Based on these policies, Kubota is enforcing the ethic whereby all people involved in the business, including contractor employees, behave based on the philosophy that "Safety is our First Priority."

#### The Kubota Group Basic Policies on Safety and Health

- "In the KUBOTA Group, there is no work to be carried out without serious consideration for safety and health."
- To achieve this, we established the fundamental principle that all the people involved in the business shall behave based on the philosophy that "Safety is our First Priority."

## Safety is our First Priority

- 1. All the people involved in the business of the Kubota Group shall observe the determined rules and behave based on the philosophy "Safety is our First Priority," to protect themselves from accidents
- 2. Management executives shall operate the business keeping in mind the philosophy "Safety is our First Priority," respect and listen to the voices of frontline worksites, and be reminded that "the worksite is a mirror that reflects yourself."
- 3. Management-level employees shall identify any risk that may lead to a serious accident and take faithful action to address such risk, while endeavoring to create a corporate culture that allows straightforward talk about safety and to develop human resources that support safety.

#### Status of Initiatives in FY2022

Kubota implemented the following initiatives in FY2022.

#### Implemented initiatives:

- Achievement of inherently safe equipment target
   (6 domestic Group companies and 18 overseas Group companies)
- 2. Initiatives to help build a "shut-off culture" (all domestic Group companies) 3. Promotion of risk assessments of work operation activities (all domestic Group companies)
- 4. Initiatives to instill the Basic Guidelines for Safety-Aware Employees (all domestic Group companies)
- 5. Education on how to teach safe operations (all domestic Group companies) 6. Maintaining and improving a safe and healthy working environment (all domestic Ğroup companies)

# Mid-Term Plan (FY2023-2027) Targets and Major Initiatives

In 2022, we created another mid-term plan to cover the next five years.

# Target: Zero "Class A Accidents"\*

#### Major initiatives

- Risk identification activities
- 2. Equipment risk reduction activities
- 3. Activity to reduce risk through safe operating methods
- Enhancing personnel development to support safety
- 5. Maintaining and improving a safe and healthy working environment
- \*A Class-A accident is one that can lead to a serious accident, such as crushing or entanglement in machinery, due to one of the following causes: 1) Contact, etc. with high-heat object, 2) Contact, etc. with heavy load, 3) Entrapment and entanglement by machines, 4) Fall from heights, 5) Contact, etc. and the like with forklift / vehicle, 6) Toppling of or contact with agricultural machines, construction machines or other vehicles (products), 7) Electric shock, 8) Contact with flying / falling object, 9) Contact with hazardous materials, Acute poisoning (including lack of oxygen, etc.), or 10) Occupational accident caused by explosion or fire



Business Incubation

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Special Feature

Employee Roundtable Discussion

Kubota Aims to Enhance Its
"Organizational and Individual Strengths"

—Toward Achievement of Our "GMB2030"—



Kubota is planning ways to enhance its "organizational and individual strengths" in order to "promote employee growth and improve job satisfaction." Employees who will lead the next generation of Kubota gathered to discuss their perceptions about the personnel policies implemented to date, as well as their challenges and expectations toward the realization of the "GMB2030."

# **Promoting Autonomous Human Resources**

Water and Environmental Solutions Developing and Sales Department

S. Wada: Toward the realization of our Long-Term Vision "GMB2030," we are taking on the challenge of transforming our business model from simply selling products to providing total solutions in the areas of food, water, and the environment. To carry through this transformation, a variety of training programs are provided for those who are willing to take on challenges, such as the Cross My Field Program (cross-border learning inside and outside our company), K-WAVE (nurturing of next-generation management-level human resources), and K-Step (acquisition of knowledge and skills required to lead projects and teams) as a means to enhance "organizational and individual strengths." Could you tell us what inspired you to participate in the program you chose and what you learned from it?

T. Wada: I applied for the Cross My Field Program and have been seconded to a venture company since last summer, working to solve local agricultural issues. Before that, I had been in charge of mower development in the Agricultural Solution Engineering Department, but I decided to apply hoping for experiences

I would not be able to get inside the Company and also to gain a higher perspective by putting myself in a different environment.

Tonoike: I have been in charge of agricultural equipment sales and systems for agricultural corporations, but a lot of this business takes place under the established name of Kubota. I have been





asking myself whether my own abilities are improving. The Cross My Field Program was looking for candidates for dispatch to emerging countries, so I applied for it because I thought it would be a good opportunity to test my abilities. I will be seconded to an NPO in Southeast Asia this fall. I'm a little anxious because I no longer have the backing of Kubota, but I'm already excited about thinking of ways to solve social issues by relating them to myself. Shirai: Lattended K-WAVE in 2021, I listened to lectures given by instructors involving their various perspectives on the world and social trends. We also had thorough group discussions on the ideal situation of Kubota as an organization and the direction each one of us intends to take. This experience has changed my mindset dramatically. Now that I'm in a position of leadership in my team, I'm starting to think that when in doubt, I just have to make decisions based on my target situation; this gives me a sense of my own growth.

Kim: I participated in K-Step and had in-depth discussions about Kubota's competitive advantages. What I learned there is the significance of eliminating bias in decision-making. In group discussions, it is undeniable that the comments from those who are familiar with a topic tend to become a center of focus, and those without much knowledge tend to give less output. In the course of discussion, however. I found that those who are familiar with a theme have biases, and those with less information can correct biases. A discussion held by only knowledgeable people comes to a conclusion quickly, but we cannot always get desired output because of the bias. In this regard, I recognized the importance of diversity.

Tada: Since conventional design work in the water environment field is to be done according to customer "specifications," before participating in K-WAVE, I was entrenched in the concept of "specifications" and had a rigid way of thinking. Through the program, which provides multiple opportunities for interaction with people from startup companies and some farming fieldwork, I learned to think outside the box and from different angles. In



designing a water treatment plant and other facilities, we tend to make a solid choice of following precedent to ensure the quality of drinking water, but this can also be a hindrance to innovation. Currently we have an increasing number of PPP projects in which we, the manufacturers, can propose specifications, rather than the customer. I hope I can add new twists, such as new approaches in the pre-design phase.

Sato: I participated in K-WAVE in 2021. As part of the fieldwork planning new projects, we had an opportunity to conduct interviews with our supervisors and seniors who are playing active roles in our Company. We quantitatively analyzed what motivated them to work and found that the strongest motivation was "contributing to others close to them." It was a great discovery for me to realize that seeing the joy on the faces of teammates and business partners and sharing the joy with them motivates people. Even now, when collaborating with internal teams and external partners, I think about how I can contribute and how we can enjoy working together while doing our best every day before taking action. Of course, individual strengths are important, but I feel that individual relationships within an organization can add something extra to outcomes.



# Improving Organizational Culture

S. Wada: As you have pointed out, we believe that enhancing individual abilities alone is not enough to fully improve organizational performance. Kubota, therefore, is striving to foster a dialogue-oriented corporate culture through one-on-one meetings with supervisors, which aims to enhance individual relationships, and town hall meetings, in which management's ideas are widely communicated to employees. All of you have attended one-on-ones and/or town hall meetings. What do you think about them?

Shirai: Having experienced both positions in one-on-one, as a member with my supervisor and as a manager with my team members, my view of one-on-one meetings has changed. I listen to my subordinates through one-on-one, and this gives me more conversation material at work, thanks to my understanding of their viewpoints and strengths. I genuinely feel that when you get to know someone well, you will have more in-depth daily conversation.

Kim: I have a one-on-one meeting with my supervisor, the section manager, once every two weeks, and also with the department manager on a regular basis. It's very helpful because it gives me an opportunity that I have missed out on to this point to consult with my supervisor about work, including small talk. I rarely talked directly with the department manager, but now I feel that the one-on-one helps us understand his personality and way of thinking, and thereby contributes to bringing harmony to our department.

Tonoike: I have two supervisors, one in Obihiro where I work, and the other in our department, so I regularly use "one-on-two" program. It helps me a lot to have two supervisors on a dual reporting line understand the current situation at the same time. I also have a one-on-one meeting with my department manager at least once every six months, and sharing my thoughts on my career with him motivates me. From a supervisor's standpoint, it promotes better understanding of the personalities of team members, so I think it will help boost team performance.

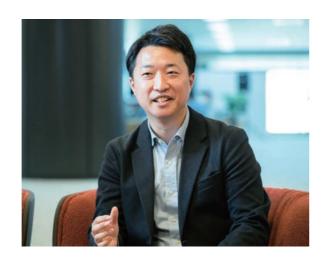
Kim: I have participated in town hall meetings twice, and to be

honest, I felt that a dialogue cannot be held with a large number of participants. It would be more meaningful if the number of participants could be narrowed down for the question-and-answer session.

Tada: I received an answer to the question I submitted beforehand at a town hall meeting held by the chief of the division. Since he came from the same design field I'm engaged in, asking him how he developed his career and what motivated him gave me insight into painting my own vision of the future.

Tonoike: I also participated twice. One was a small group meeting of about 10 people, and it was a valuable experience for me to hear the thoughts of management in a casual atmosphere. On the other hand, in a large town hall meeting, a question is asked and answered before another question is accepted, so it seems to me a bit different from a dialogue. It would prefer to have an opportunity to have a direct dialogue with management in a small group.

T. Wada: I was able to have a dialogue with the President at a small-group town hall meeting. When it comes to the President, there is naturally a distance between him and I, but the dialogue made me feel closer to him. I want to continue to contribute to our company in any way I can.



# Expectations and Challenges for Human Resource Policies Toward Strategies and Goals

S. Wada: In order to realize "GMB2030," Kubota is seeking people who can create value as a team, carving their career paths on their own initiative and developing their individual strengths as employees. Please tell us what you think is necessary to that end and what you expect from Kubota.

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Tonoike: After working as a sales rep for agricultural equipment, I'm now in charge of systems. Kubota has solid branding and organization in terms of products and hardware, but in new market areas with different competitive environments, I feel that the name "Kubota" does not always offer an advantage. I also



have a sense of urgency in that we will not be able to compete to open up frontiers unless every single employee improves his or her abilities. I expect Kubota to create a working environment in which all individuals can perform at their full potential and for Kubota to provide opportunities for competence development.

Sato: Corporate management requires multiple perspectives on sales, engineering, manufacturing, planning, personnel, finance, and other domains, as well as a comprehensive viewpoint. We need to experience various divisions and job types to acquire such perspectives, but I have a feeling that transfer across divisions or job types is not easy at Kubota now. I hope the barriers between departments and job types will be lowered so we can have more opportunities for transfer.

Shirai: In order to carve out a career for ourselves, we have to create our own career plan. In my case, K-WAVE helped me to do so. It seems to me very important to understand the direction Kubota is heading and think about "what I want to be or want to do in 10 years' time." I hope that Kubota will create opportunities to share thoughts about the future of the Company and our own thoughts with our colleagues. I myself will strive to be a supervisor who can enable opportunities like these.

Kim: In the spirit of "On Your Side," frequently cited in our Company, I believe it is important for each employee to have his or her own thoughts on the other's side. I expect the support to encourage teammates to have a "vision for the future" in addition to their routine work, not only in training sessions but also through their relationships with superiors and subordinates, as well as within their teams.

T. Wada: I'm currently on secondment to an agricultural venture company since I was given that opportunity through the cross-border learning program. I realize that I'm able to experience things that I never would have if I had stayed at Kubota. Through discussions about new business ideas with the partner company to which I've been seconded, I have come up with many new ideas and made many discoveries, which greatly broadened my horizons. I hope that there will be more cross-border learning



opportunities for us to leave our workplaces for a certain period and acquire new experiences.

Tada: In order to form a robust organization, we need to have a good understanding of each other's strengths and areas of expertise, so I hope that one-on-one and town hall meetings will continue as a means to foster a culture of mutual understanding. If I add one more thing, in my view, excitement and empathy are part of a highly motivated and strong organization. I will keep taking on challenges that I find interesting, which will become my strength, so I can confidently say, "You'll find excitement like this at Kuhota."

S. Wada: Your perceptions and opinions on personnel policies designed to enhance organizational and individual strengths were very helpful. What you all said made me realize again that the source of individual strength is the "thoughts" of each one of us. The Human Resources Department will support you to draw out the thoughts of each individual and enhance organizational strength through connections between individuals. I believe we can get closer to the realization of "GMB2030" by transforming the conventional management-control style corporate culture into one where individuals and the Company can co-create value through dialogue.





We are strengthening our R&D capabilities with an R&D system based around six global sites that transcend regional or departmental borders.

# Hiroto Kimura

Deputy General Manager of Innovation Center General Manager of Research and Development Headquarters General Manager of Kubota Global Institute of Technology Director and Senior Managing Executive Officer



# Basic approach

As the globalization of business advances, it is becoming increasingly important to offer products, services, and solutions that not only satisfy the needs of customers throughout the world, but also contribute to solving social issues in every community. To respond to diverse and unique local issues, Kubota is improving its global R&D system with Japan as its hub by clarifying the roles of its R&D sites in Japan and overseas.

# Strengthening regional marketing and R&D

Since Kubota began developing its business overseas, it has followed a model of exporting goods researched, developed, and manufactured in Japan, then introducing local production later on. However, in order to grow into a "Global Major Brand," it is crucial to understand the needs of foreign customers overseas and rapidly realize new products, services, and solutions. For this reason, Kubota is strengthening local-oriented marketing and



KRDE opened in France in 2021

# Establishing new R&D sites

Our new R&D site, the Kubota Global Institute of Technology (KGIT), opened in 2022, bringing together departments and personnel that were previously spread out in different regions. Doing this has significantly improved the efficiency of our R&D. The synergies between diverse experts that this unlocked have also led to innovations and breakthroughs in both core and advanced technologies. As well as acting as a control unit to assess and integrate all R&D-including at sites outside Japan-KGIT's other role involves working to ensure truly global R&D where each site is linked together and where each can demonstrate its own respective strengths.

Overseas, we will add sites in China and India to our existing ones in Thailand, France, and North America, to construct a global R&D network centered on six sites, with the aim of developing strategic products for key markets and local-oriented products. As well as strengthening our product development capabilities, we will also work to bolster our research into areas such as acquiring advanced technologies developed at each site as quickly as



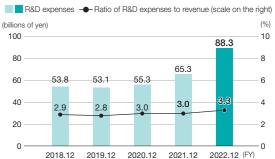
# Strengthening Fundamental and Advanced Technologies, and Focusing on R&D Related to Carbon Neutrality, Such as Electrification and Resource Recycling

## R&D expenses

One of the main themes of Mid-Term Business Plan 2025 is the establishment of the foundation for realizing "GMB2030" that supports the next generation, and as such we are actively investing resources in R&D to achieve sustainable growth on a global scale.

We are also paying close attention to some of the major trends of recent years, including the pursuit of carbon neutrality, and strengthening our R&D capabilities to achieve our Long-Term

# R&D Expenses and the Ratio of R&D Expenses to Revenue



#### R&D on new motive power sources for achieving carbon neutrality

Japan has declared its intention to achieve carbon neutrality by 2050. In the mobility industry, which includes automobiles, buses, trucks, ships, and other products close to agricultural and construction machinery, efforts are ramping up to harness new motive power sources, including electrification, use of hydrogen, such as fuel cells and hydrogen engines, e-fuel (synthetic fuel), and HVO (hydrogenated vegetable oil). Kubota is also promoting R&D on new power sources for agricultural and construction machinery. Specifically for electrification, this has involved the launch of a battery electric vehicle (BEV) tractor in 2023, and we are now working to commercialize a BEV mini excavator next. In addition to satisfying the requirements for functions and performance of agricultural and construction machinery, we also intend to create new value through electrification, and to this end we have been fully engaged in developing the main components for electrification, such as motors, inverters, and battery packs. In R&D on fuel-cell tractors, we are also making use of a demonstration project by the New Energy and Industrial Technology Development Organization

(NEDO) to consider the best form of hydrogen infrastructure and hydrogen filling methods for the agriculture sector.

In addition to working on these new motive power sources, Kubota will also continue to focus on R&D that it has advanced for reducing fuel consumption, such as increasing combustion efficiency, and increasing the content ratio of biodiesel and so forth. In addition, we are bringing together multifaceted initiatives, such as reduction of operation losses through automated driving technology, optimal energy-saving driving, and use of biofuels (made from agricultural and food residues), to achieve carbon

> LXe-261 a BEV tractor launched in 2023

# Co-creation with public institutions and universities

Kubota is strengthening its cooperation with public institutions and national and international universities in order to concentrate wideranging knowledge and technologies. In 2021, we concluded an industry and academia cooperation agreement with the University of Tokyo. Under the agreement, we will work to illuminate and model natural phenomena and phenomena related to material circulation by using both of our knowledge, technology, and networks in the fields of food, water, and the environment under the theme of "What the Earth Can Achieve in 100 Years." Moreover, based on this agreement, we will work on practical R&D, such as machinery design and control technologies, aiming to generate a bio-loop\* of food, water, and the environment, and provide solutions for linking them organically.

\*Bio-loop: A coined word meaning the integration of coexistence with nature (bio) and a recycling-based society (loop).

# Kubota Global Institute of Technology Opened in 2022



# Promoting R&D That Will Create the Future of the World's Food, Water, and the Environment

#### R&D that can resolve social issues

We aim to strike a good balance between the R&D that supports our current business in the fields of food, water, and the environment, and advanced R&D that looks to the future. Through our efforts in areas such as automated driving technologies, carbon neutrality, resource recycling, and product development for new concepts, we will provide solutions to social issues and help to bring about a more sustainable society.

# Building and equipment features

#### (1) Design and research building

- KGIT brings engineers together on a single roughly 18,000 m<sup>2</sup> floor. The design and research building workspace will inspire groundbreaking innovations by fostering active communication across organizational boundaries.
- The office layout includes private concentration booths and a cafeteria designed to create even more opportunities to communicate.
- The eco-friendly architectural design adopts solar panels as well as high-efficiency airconditioning and lighting systems.

#### (2) Test equipment and course

- A gigantic 1.5 km circular test course enables road tests of large-scale agricultural machinery.
- Double the traditional amount of tabletop equipment allows engineers to run automated tests continuously around the clock.
- A test field right next to the design and research building allows engineers to quickly run numerous and diverse field tests on machinery.



1.5 km circular test course



Workspace that brings together engineers on a single floor

# Holding "KUBOTA Group R&D Conference" Each Year To Share Technical Information

# Presenting and sharing technical research findings from engineers from different regions and fields

In order to contribute to solving the food, water, and environmental issues that society faces globally, engineers from different regions and different fields of study have been coming together to announce their findings at "KUBOTA Group R&D Conference" every year since 1983. For the event in 2023 (the first in-person event in four years and the first to be held at KGIT), engineers traveled from associates in Thailand, India, Germany, and across Japan. Including viewers of simultaneous live stream, the event was attended by more than 1,500 people. There were also lively technical discussions at the Q&A session and product exhibition after the presentation.





ecial lecture

Presentation by Thai associates

resentation by Indian associate







resentation by German associates

sentation by the R&D Dept.

roduct exhibition

# Attending a technical research presentation

# Rediscovering the breadth of the field and the depth of the technology



Haruki Yoshida
Analysis Center
Technology Innovation Research and
Development Unit
(Joined Kubota in 2022)

At two different venues, I attended a special lecture and listened to nine presentations. Apart from presentations given by seniors from my department, a lot of it was new to me, but all of the presentations were fascinating.

In particular, for the technologies still in the research stage, it struck me that these will definitely be of benefit to society in the future, and I felt firmly a desire to be involved in the kind of research that can do that.

It was a valuable day, one that reaffirmed my wish to be the kind of engineer who can keep taking challenges—not giving up even after making mistakes—and produce results.

I definitely want to participate in the next one, too.

# Kubota Technical Report

Since 1976, Kubota has been publishing Kubota Technical Report to announce its R&D findings and technical information inside and outside the Company.

Since the 50th issue in 2017, the report has also been available on the Kubota website, and the cover design has been renewed from the 53rd issue.













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Special 2 Feature

R&D and Sales Leader Roundtable Discussion

# Aiming to Solve Social Issues Faced by Farmers Through the Realization of Smart Agriculture



Tetsuya Nakajima General Manager Farm and Industrial Machinery R&D Dept. VI Shinya Ukai Manager M Tractor Team Agricultural Tracto Engineering Dept. Kazuo Fujihara Manager Product Planning Tea Kenichi Iwami General Manager Technology Innovati R&D Dept. II Kiwamu Fukunaga General Manager Research and Developmer Management Dept.

R&D and sales leaders discussed four themes regarding the "smartification and application of autonomous technologies" for agricultural machinery, one of the areas in which the Kubota Group is focusing on accelerating R&D.

Fukunaga: My name is Kiwamu Fukunaga, from the R&D Management Department, and I'm the facilitator for this session. I believe this technical roundtable meeting between R&D and sales leaders will provide our stakeholders with a good opportunity to understand the Kubota Group's R&D activities in the smartification and application of autonomous technology, and also for those within our Company to understand in the interest of deepening cooperation in development activities. To start, could you introduce yourselves?

Fujihara: I'm in charge of product planning for tractors, combine harvesters, and rice transplanters in the Product Planning Team of the Farm Machinery Japan Operation, Sales Promotion and Marketing Dept. Over the past 20 years, I have been working in sales of agricultural machinery for the domestic market.

Nakajima: I'm coordinating the development of automated agricultural equipment, such as tractors, combine harvesters, and rice transplanters. Since I joined the Company, I have mainly been involved in the development of electrical systems, software, and electrical components for combine harvesters.

Ukai: Since joining this Company, I have been working on the design and development of large tractors. Now I'm developing highly functional and automated large tractors, including Agri-Robo tractors.

Iwami: I'm responsible for the development of next-generation products looking 5 to 10 years ahead, mainly in electronic control technology. I have been involved in the development of our "straight line (Go Straight: GS) assist function" and the Agri-Robo series.



# Session 1: Challenges Facing Japanese Agriculture

While Japanese agriculture faces structural challenges, such as an aging population and labor shortages, there is also a rise in core farmers and the number of young farmers interested in new technology has started to increase.

Fukunaga: First, let me ask about the challenges facing Japanese agriculture. Agricultural policies have changed and in 2018 the rice acreage reduction program was abolished. This has given more freedom to rice farmers and other related parties in terms of production. How are the challenges facing Japanese agriculture and demand for farm equipment manufacturers changing?



Fujihara: The biggest challenge in Japanese agriculture is the aging of farmers. In addition to this, a lack of successors is putting some small-scale rice farmers out of the agricultural business. On the other hand, large-scale rice farmers are expanding their acreage and introducing automated farm machinery and large-scale farm machinery. Although there is no tendency toward

acceleration of farmers leaving the industry after the abolition of rice acreage reduction, an increasing number of farmers are shifting to crops other than rice as rice consumption declines.

**Ukai:** There are many requests for simplification of functions that are becoming more complex and improved comfort at a lower cost. Expectations regarding autonomous driving farm machinery, such as Agri-Robo, are also growing year by year.

Nakajima: A large-scale farmer with employees says the farmer wants a labor-saving machine because the acreage under cultivation is increasing. This farmer is buying farmland from farmers who leave the business, but the number of workers available is limited. Another customer who has a family-run farming business in Hokkaido says that the customer's elderly grandfather is retiring, so this customer wants a machine that can save manpower. While the aging of farmers will continue in the future, the number of young farmers interested in new technology is increasing.

Iwami: Hearing frontline voices, it's clear that simple functions are an absolute condition. With that in mind, we have been developing machinery that is as easy to operate as possible for agricultural work with high accuracy. Our "straight-line assist function" was well received as it enables even inexperienced farmers to perform the same tasks as experienced farmers. Japanese agriculture is facing many challenges, and I feel that the need for automated agricultural machinery that can solve these challenges is growing.

# Session 2: Current Status of Autonomous Farm Equipment

What exactly is autonomous farm equipment, what are its advantages, and what challenges are left for us to overcome? Demand from farmers is increasing year by year.

Fukunaga: What are the characteristics of autonomous farm equipment? Could you tell us about the current level of technology, technical issues, and the advantages we can provide to customers?

Nakajima: Regarding autonomous farm equipment, the Ministry of Agriculture, Forestry, and Fisheries has established "Safety Assurance Guidelines for Autonomous Agricultural Machinery." Agricultural machinery is classified into four automation levels, from 0 to 3.\* Level 0 is where the operator performs all operations manually, and Level 1 is where some steering operations, such as moving straight ahead, are automated while the operator remains

\*"Level 0-3 classification" is commonly known as such and is not an official standard. (As at the time of this roundtable discussion)

seated. Level 2 indicates unmanned operation where the user is not on the farm machine itself but watches the unmanned machine on a monitor near the farmland or while on another farm machine. Level 2 tractors and rice transplanters are already in practical use and mass produced, but for Level 2 combine harvesters, guidelines were just formulated in March 2023. Kubota is developing Level 2 combine harvesters that meet these guidelines aiming at early market launch. At Level 3, an unmanned farm machine travels autonomously on farmland, remotely operated and watched on a monitor. Guidelines are expected to be announced around the spring of 2024.

Ukai: Tractors work with an implement (for agricultural work) attached to the rear part. Rice transplanters and combine harvesters are easy to program for autonomous driving because they are used for routine tasks. Conversely, tractors need complex programming with many requirements to be considered because their operations and work paths differ depending on the implement. If we can make tractors that accommodate more automated implements, it will bring more benefits to farmers in mitigating their work.

**Iwami:** Farm machinery requires a higher degree of accuracy in autonomous driving than automobiles. Automobiles run on designated roads, but on farmland seedlings may be planted at 30-centimeter intervals, so centimeter-level driving accuracy is required for farm machinery.

Fujihara: Since autonomous driving technology is being developed mainly for large-size products, applying technology like this to small plots is somewhat difficult. There is also the issue that this technology does not work in mountainous areas where radio waves cannot be received.

Nakajima: The disadvantages at present seem to be high selling prices and the fact that it is difficult to see the effects of the application. Level 2 cannot significantly reduce the number of

workers, and its initial cost is high, at 1.3 to 1.5 times the price of existing products. Some farmers are just waiting to see how things go in terms of cost-effectiveness.

**Ukai:** In the case of Level 3 remote monitoring, the issues are whether it can be monitored properly from a distance and whether the work can be resumed quickly and safely from a distant place when a problem arises. Moreover, existing laws prohibit driving unmanned vehicles on public roads, so the legal landscape needs to be expanded on how autonomous vehicles should be moved to neighboring plots and other matters.



# Session 3: Kubota's Autonomous Driving Proposal

What unique proposals for smartification and autonomous technologies and solutions does Kubota have? Strengthening the differentiation strategy by integrating KSAS is key.

Fukunaga: In terms of Kubota's unique differentiation technologies or integrating KSAS (Kubota Smart Agri System), what technical development issues do you overcome, and how do you want to contribute to solving issues faced by our customers? Nakajima: Kubota aims to bring next-generation products to market ahead of its competitors. One such product enables data linkage among Level 2 models of tractors, rice transplanters, and combine harvesters. In the case of rice cultivation, a farmland map is created when a rice paddy is prepared by tractor, and the map can also be used by rice transplanters and combine harvesters. Furthermore, rice planting location data can be used for accurate rice harvesting with combine harvesters. In dry field farming as well, location information for ridges created by tractors can be utilized to work efficiently.

Fujihara: I often hear about the need for farmland map data sharing. Working to solve this issue will lead to differentiation proposals. Also, making use of KSAS, which manages not only agricultural machinery but also water and fertilizer, is Kubota's strength. KSAS is used by 20,000 farmers in Japan, accounting

for about 10% of Japan's rice paddy acreage. Integration of smart farm machinery and KSAS is Kubota's differentiation strategy.



Ukai: Cooperation with other companies on data utilization is also necessary. Currently, information obtained from one company's agricultural machinery cannot be used by other companies' agricultural machinery. Going forward, however,

along with the promotion of open data, through information linkage with KSAS, it will be effective to propose solutions that are easier for customers to use. Regarding tractors, the MR Series acquired the world's first national certification for safety of robot tractors. Since Kubota also develops implements within the Group, we can utilize information collected from implements to achieve Kubota's own growth strategy.

Iwami: Another strength of Kubota is its ability in making

technical proposals that meet customer needs, including machine safety. Kubota is the only company that has brought into reality agricultural robots of three types of rice cultivation equipment ahead of others. In the case of rice planting, if a rice transplanter travels on an area where seedlings are planted, the seedling will be crushed, so on the farmland the rice transplanter should never travel the same paths twice. Kubota's "seedling planting path planning," which solved this challenge, preceded its competitors.

# Session 4: Future Developments at Kubota

Consider the potential for transforming Japanese agriculture into an attractive industry through the introduction of smart agriculture and automated farm machinery, and overseas expansion.

Fukunaga: We should accelerate the development of smart agricultural machinery as a matter of course. What are your thoughts on enhancing the attractiveness of Japanese agriculture through Kubota's solution proposals and technological outlook?

Fujihara: A customer who introduced a rice transplanter with the Going Straight (GS) function was happy and told us, "When I work all day with a conventional manual rice transplanter, I get very tired from long hours of work, from morning to night. However, with the GS rice transplanter, I feel less tired and have the flexibility to spend time with my family when I get home." I believe that the spread of autonomous farm machinery will bring workstyle and lifestyle reforms in agriculture. I hope it will make agriculture look more profitable and stylish and encourage more young people to enter farming.

**Ukai:** The important thing in creating new markets is that customers feel that there are benefits associated with the automation of agricultural machinery. If we can ensure that the machinery is compatible with various implements, it can be set simply, and it requires shorter time spent monitoring, the advantages for customers will quickly increase. For this reason, we need to create and promote products that help customers understand the benefits of introducing these machines. Data management is essential for smart farm equipment to reproduce the skilled work done by experienced farmers with their firsthand experience. As data-based technology moves on to the future, we will see ideal next-generation agriculture.

Iwami: Level 2 Agri-Robos are expected to further spread through the strengthening of technological development in pursuit of user-friendliness. Regarding technological development for the next generation, we will achieve practical application of Level 3, being fully unmanned, ten years from now. In the future, we will have to conduct research that includes operation systems in which multiple agricultural machinery units are interlinked to be flexibly operated on farmland plots, small or large. It will also be

necessary to develop technologies aimed at labor or manpower saving, not only for machines, but also for incidental work before and after. I believe this will usher in an era of complete unmanned farming throughout the whole process.

Nakajima: Next-generation technologies cannot be created by Kubota alone but will emerge as the world evolves. Ten years from now, farming will advance to Level 3, or farming without human intervention including movement between plots, making it easier for people with no experience to start farming and realizing improved agriculture. Improving the international competitiveness of Japanese agriculture is also expected. Overseas, because of differences in climate, weather, soil, and other factors, a lot of demonstration tests need to be conducted before deployment, but moving forward, I expect smart agriculture and automated farm equipment will become increasingly pervasive, mainly in Asian markets.



Fukunaga: Today we discussed the current status of the "smartification and application of autonomous technologies" for agricultural machinery, Kubota's differentiation technologies, and future outlooks. This strengthened my motivation to contribute to building ideal Japanese agriculture, and to help address food problems in Japan and elsewhere, through Kubota's automation and solution proposals. Thank you all for your time today.

# **Manufacturing Capital**

#### Basic approach

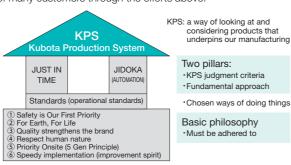
Kubota aims to achieve manufacturing that impresses customers by offering products and services that exceed customers' needs at a speed beyond their expectations. Think less "Made in Japan," and more "Made by Kubota." From locations around the world, we continue to aim for the reliable manufacturing that is synonymous with Kubota products.

# Manufacturing Capital Strengths and Strategies

The strengths of Kubota's manufacturing capital are the Kubota Production System (KPS) and the personnel that put it into practice.

KPS is based on manufacturing judgment criteria and ways of thinking that adhere to its basic philosophy, and is supported by two pillars: Just in Time and Jidoka ("automation"). We aim to expand this to our global production bases, and develop a system that can supply products promptly and swiftly. In terms of personnel, in addition to KPS training, 5-Gen Dojos in Japan, North America, Thailand, and China (with further 5-Gen Dojos to open in Europe in 2023 and in India in 2024) offer guidance into the 5-Gen philosophy, which covers the actual site (Genba), actual things (Genbutsu), actual facts (Genjitsu), principles (Genri), and basic rules (Gensoku).

Kubota's strategy is to become a "Global Major Brand" that can make the greatest possible social contribution by gaining the trust of many customers through the efforts above.



# Possessed Manufacturing Capital and Output/Outcomes We Created

Kubota has established production bases around the world in locations close to their respective markets, with the mother plant supporting all the other plants in order to secure consistent quality. Furthermore, Kubota is promoting the deployment of the KPS at each of its bases, and is implementing initiatives to raise the QCD level throughout the entire supply chain.



#### Manufacturing capital

- Number of production bases Japan: 12; Overseas: 22 \*Bases with production departments
- Output (FY2022) Production results: ¥2,714.8 billion
- Prompt and swift supply of products
- Raising of the QCD level throughout the entire supply chain

# Capital expenditures: amounts and purposes

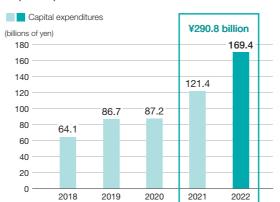
# Medium-term capital expenditure plan for 2021–2025:

- Planned budget is ¥600 billion.
- In the two years that form the first half of the plan, actual expenditure totaled ¥290.8 billion (48% progress), a high pace that puts us in line to exceed targets. The main cause for this was the completion of a new R&D site in Japan (costing approx. ¥84 billion).

#### Capital expenditures in FY2022:

- Total investment: ¥169.4 billion
- Japan: Establishment of a new R&D site achieved shortened development times and strengthened concurrent activities
- North America: Establishment of a new construction machinery plant achieved enhanced production capabilities and a shorter lead-time for supplying products
- India: The making of Escorts Ltd. into a wholly owned subsidiary (as Escorts Kubota Limited) achieved an enhanced product lineup and better procurement

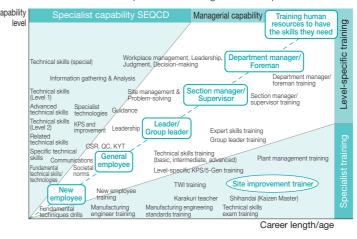
#### Capital expenditures



# Human Resources That Support Manufacturing

# 1. Human resource training roadmap

We have created a roadmap and are working to train our personnel.



# 2. On-the-job improvement training with site improvement trainers

We have started a new training program that aims to develop site improvement trainers, employees who can lead improvement efforts not just through manufacturing improvement skills but by also incorporating other fields. They will be trained to have a mindset that improvements can be used to train human resources. Through these training activities, we have once again recognized the importance of operational standards.

We have established operational standards unique

to Kubota that suit our characteristically large range of products and equipment, and we have begun thorough related activities



Site improvement trainers (wearing vellow helmets) in action

# Manufacturing Case Studies

In 2022, the vertical diesel engine celebrated its 100th anniversary. This assembly line has been constructed in line with the four concepts. The first three are: ① no twisting to look, ② no walking around, and ③ having everything close to hand (to assemble everything within arm's reach). With these in mind, we try to minimize movements that are unnecessary—within the scope of the work being done in what we call the "strike zone," and this leads to a reduction of the burden on workers. The fourth concept that guides us is 4 systems that allow anyone to do the same work. For instance, we have put in place a system for bringing down necessary tools to match the order of jobs. We can make sure that workers all work at similar speeds, regardless of proficiency. Moreover, as part of our quality control activities, we have been focusing on fail-safe equipment. As an example, a piece of fail-safe equipment that does not allow a worker to move on to the next task unless a bolt is completely tightened with a tool, performs an important role in preventing defective products being delivered to customers because a worker forgot to tighten a bolt or did not apply sufficient torque. However, we cannot rely on fail-safe equipment or automation alone; we know that humans can always make mistakes and so we periodically offer guidance or carry out checks to ensure quality, and workers are themselves becoming more aware of quality issues.



Components are provided from in front and tools are all within 40 cm of the worker, enabling them to get on with their work close at hand without twisting to look or walking around.



The system brings down the tools needed at the time they are needed. Four wasteful movements—crouching. walking, reaching, and searching-



Fail-safe equipment prevents workers from forgetting to tighten bolts or applying insufficient torque. If a worker does forget, the equipment does not let them proceed to the next task



Ken Yokota Team Leader and Department Manager Sakai Plant Engine Manufacturing Dept

#### Site patrols by management

Chairmen, presidents, and other members of company management teams visit various sites and listen to employee feedback first-hand, while offering guidance at actual sites for actual products.







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# **Fundamental Policies and Business Status**

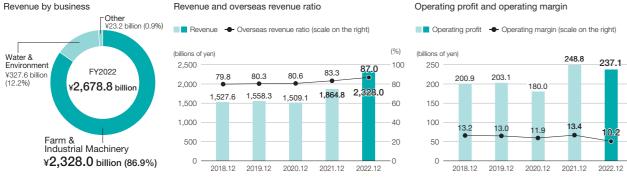
The aim of the Farm & Industrial Machinery business is to contribute to creating and conserving food production and comfortable living environments. Our main products are the agricultural machinery and agriculture-related products that carry the weight of a brighter future for people and food on their shoulders, and the engines and construction machinery that are helping to make people's lives richer. To play our part in bringing about our Long-Term Vision "GMB2030," we are promoting a business strategy that makes the most of growth opportunities in our existing business and expanding the business.

#### **Outline for FY2022**

Revenue in the Farm and Industrial Machinery Consolidated Division increased by 24.8% from the prior year to \$2,328.0 billion, and accounted for 86.9% of consolidated revenue. However, profit in this segment decreased by 4.7% from the prior year to \$237.1 billion. This decrease was due mainly to an increase in the price of raw materials and logistics costs, despite factors that increased profit, such as price rises and improved exchange rates.

#### The social value we create

In food-related fields, we will ensure that food production thrives and is stable by making agricultural management proposals based on the mechanization of agriculture and data collection, centered on the Kubota Smart Agri System (KSAS). Meanwhile, in environment-related fields, we will protect comfortable living environments, through such means as our engines—which are characterized by energy and labor savings in consideration of the environment—and construction machinery that excels in the confined spaces of urban areas.



\*Owing to changes in organizational structure, "Air-conditioning equipment" previously included in the Farm & Industrial Machinery segment has been included in the Water & Environment segment since EV2020. Accordingly, results have been reclassified and restated for EV2010.

#### Source of our strengths

Our roles stretch from metal casting—in which Kubota got its start—to engine assembly and the in-house production of critical components. Furthermore, in a variety of product fields, we have established development styles that match the needs of individual regions. This allows for high-variety, small-lot production, which is one of Kubota's unique strengths. Based on the technologies and techniques that we have built up, as well as our deep-rooted mindset of putting on-site needs first, currently many of our products hold a large market share and we are expanding our business, not just in Japan but around the world.

# Major Farm & Industrial Machinery Products

 Tractor implements used to allow tractors to perform tasks such as tillage by being attached.



Combine
Harvester
used for
simultaneous
harvesting and
threshing of crops
such as rice,
wheat and pulses.



 Rice Transplanter used to transplant rice seedlings to rice paddies, contributing significantly to labor-saving.



Utility Vehicle
 useful in a variety
 of operations,
 including
 agricultural work,
 civil engineering
 and leisure
 activities.



Mini Excavator
 used in civil
 engineering and
 other operations;
 especially useful in
 narrow work areas,
 such as city streets.



 Compact Track Loader used mainly for transporting and stacking tasks (at construction sites farms, etc.).



Engines
 responding to a
 variety of needs as
 compact industrial
 engines.



Feeders
 used to feed a set
 amount of powder or
 liquid to the next
 process.



# Analysis of the Status of Farm & Industrial Machinery and Basic Strategies

Strengths	Weaknesses
<ul> <li>Local production system and strong sales network in North America</li> <li>Local production system and strong sales network in Thailand</li> <li>Improved presence in the Indian market through our consolidated subsidiary Escorts Kubota Ltd.</li> <li>Steady sales growth for service parts</li> </ul>	<ul><li>Lineup of electric-powered products</li><li>Global supply chain</li><li>Presence in the dry-field-farming market</li></ul>
Opportunities	Threats
	Tilleats
<ul> <li>Strong demand for infrastructure development in developed nations</li> <li>Urbanization in the ASEAN region</li> <li>Increased demand for food with population increases in Asia and Africa</li> <li>Room for utilization of abundant operating machinery</li> </ul>	Accelerating efforts to achieve carbon neutrality     Increased frequency of natural disasters worldwide due to climate change     Rapid changes to the business environment due to technological innovations

# Growth through strengthening existing businesses

- North America: expansion of our construction machinery lineup and promotion of integrated local operations
- ASEAN: encouragement of agricultural mechanization and development of compact construction machinery to meet the region's needs
- India: entry into the basic machinery market
- Expansion of our servicing business that utilizes abundant operating machinery

# Response to issues

- Accelerating R&D in response to changes in the business environment
- Accelerating BCP measures
- Encouraging business expansion via M&As

\*More details of our responses to issues can be found on the following page.

## Growth through strengthening existing businesses



# **Construction Machinery** business in North America

- In North America there is stable growth in housing demand and there is a chronic shortage of labor. As a result, sales of construction machinery are growing steadily in the region. We have started local production of CTLs aimed at the market, and we will supply products in a timely fashion to capture this growth in demand.
- We have started to prepare a local development system, and we will expand our product lineup, and expand our business through operations that integrate development, production, and sales.



Expansion of the Indian business and entry into the basic machinery market

- We will pursue synergies between Kubota Corporation and Escorts Kubota Ltd. We will aim to be a brand with a full lineup, which can approach all customer segments and utilizing each dealer network, we work to raise the efficiency of our sales activities.
- We will incorporate parts and units that utilize Escorts Kubota Ltd.'s procurement network into Kubota products to enhance our cost competitiveness.



Farm and Industrial Machinery business in the ASEAN region

- We are accelerating our expansion into the dry-field-farming market, and sales of tractors aimed at dry-field farming-in which crop prices remain strong—are growing steadily. By fusing our products (mechanization) and services (cutting-edge agricultural methods), we will strengthen our ability to make proposals for agricultural solutions optimized to each farmers' location, crops, and work system.
- For construction machinery-for which we expect demand to rise as urbanization continues—we will successively introduce new products (e.g., 5-metric-ton-class machinery) that meet the market's needs.



**Customer solutions** business

- Using KSAS and telematics, we will promote the expansion of farm management support and servicing businesses based on data from agriculture and agricultural machinery.
- We have started constructing global parts supply bases, and we will aim to shorten lead times by concentrating disparate storage locations and work sites, and through other efficiency-raising measures.
- We have introduced a secondary brand, K3R,\* which has a different price/quality concept than our standard parts.
- \*K: Kubota

3R: Resolution, Reasonable, and Reliable

### Response to issues

Issue	Response
Accelerating R&D in response to changes in the business environment	<ul> <li>We have constructed a priority field R&amp;D system that looks to a future, carbon-neutral society and we are accelerating our activities in the area.</li> <li>We are working to formulate and implement a grand design that will help us to achieve smart agriculture and smart urban development (autonomous, unmanned operations; cooperated operation; data-driven agriculture, etc.).</li> </ul>
BCP measures	<ul> <li>In order to stabilize procurement, in the short term we hold inventory, and in the medium to long term we plan to expand procurement to include multiple suppliers from multiple countries.</li> <li>We are systematically promoting and implementing disaster preparedness work at factories and sales companies in Japan.</li> </ul>
Encouraging business expansion through M&As	<ul> <li>When expanding the range of businesses we operate in, in addition to utilizing the resources that we have cultivated thus far in-house, we will make use of resources from outside the company—for technologies or products we lack or markets that would need time to open up—to promote that expansion.</li> <li>M&amp;As are carried out with the aim of achieving synergies with our existing businesses and to offer more customers Kubota value.</li> </ul>

# (Reference) M&As in 2022

- Escorts Limited (based in India, now Escorts Kubota Ltd.), a tractor manufacturer, was made a consolidated subsidiary
- Brabender Technologie GmbH & Co. KG (based in Germany, now Kubota Brabender Technologie GmbH), a feeder manufacturer, was made a subsidiary
- The mower business of Officine BIEFFEBI (BFB; based in Italy), a mower manufacturer, and its subsidiary Gianni Ferrari s.r.l. (GF; based in Italy) were merged to form Kubota Gianni Ferrari s.r.l., which was made a Kubota Group company



by Brabender

Technologie





Mower by BFB (GF)

# Mid-Term Business Plan 2025 and Farm & Industrial Machinery Business Results

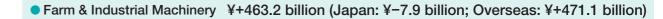
#### Mid-Term Business Plan 2025 goals

- Aiming to increase sales in all regions by expanding product lineup, expanding business through taking advantage of increasing demand for mechanization, and expanding after-sales business by utilizing abundant operating machineries.
- Aiming to dramatically increase market share for the North American Construction Machinery business through locally integrated operations that bring together development, production, and sales.
- Aiming to further increase in sales of farm equipment and construction machinery in the ASEAN Farm and Industrial Machinery business alongside urbanization in the region.
- . Aiming to increase market share, particularly in India, through measures such as launching products onto the budget basic machinery

#### Progress of Mid-Term Business Plan 2025

- In FY2022, revenue increased dramatically in all regions and is growing steadily.
- In particular, sales of tractors and construction machinery grew significantly in North America due to healthy demand resulting from factors such as more people moving into suburban areas
- In India, revenue increased markedly due to the addition of a new consolidated subsidiary, Escorts Kubota Ltd.

#### FY2022 segment revenue (compared to FY2021 results)



Sales dropped compared to FY2021 due to a slump in rice prices

and the end of business succession subsidies.

In the latter half of the year, residential tractor demand dropped but retail sales of construction machinery and engines were positive, and rose compared to FY2021. On a cash basis, price rises contribute to major sales growth.

In each business area, the market was positive. While there were issues with product supply, sales increased compared to FY2021.

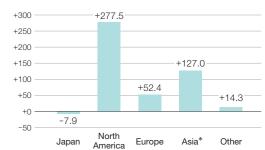
In Thailand, as a repercussion of sales to a government program (measures to distribute agricultural machinery free of charge), sales overall dropped.

Elsewhere in the ASEAN region, sales decreased, particularly due to a drop in bidding contracts for the Philippines government. In China, sales increased because of a rush in demand ahead of Phase IV emission standards for tractors.

In India, sales grew considerably due to the inclusion of figures for Escorts Kubota Ltd. (from Q2) and increased sales of MU tractors.

The number of shipped items saw positive growth, particularly for tractors and construction machinery.

Revenue increases/decreases by Farm & Industrial Machinery market (billions of yen)



\*During FY2022 Q2, Escorts Kubota Ltd. became a consolidated subsidiary

#### FY2023 segment revenue forecast (compared to FY2022 results)

# Farm & Industrial Machinery ¥+182.0 billion (Japan: ¥+4.4 billion; Overseas: ¥+177.6 billion)

The situation for agricultural machinery remains challenging, due to a slump in the price of rice and increases in production costs

Tractor sales are sluggish as the residential tractor market suffers with the recession. Construction machinery, however, is performing well, supported by a backlog of housing construction orders and demand for governmental infrastructure development. Engines, as well as the construction and industrial machinery markets, continue to see strong sales growth.

Construction machinery achieves positive sales in each country, supported by demand for public works. Engines, as well as the construction and industrial machinery markets, continue to see strong sales growth. While the tractor market weakens slightly due to some concerns about an economic slowdown, elimination of lost sales due to last year's supply shortages mean that increased profit is forecast.

In Thailand, increased sales are forecast in the dry-field-farming market due to rising sales prices for crops.

In China, a decrease in sales is forecast for tractors because of price rises linked to emission standards. However, forecasts suggest that sales of general-purpose combine harvesters will grow, and so will engines through the launch of new products, including shovels and forklifts

In India, Escorts Kubota Ltd.'s performance is incorporated (full-year results) and further sales growth is forecast for MU tractors.

In Australia, while there are concerns about an economic slowdown, overall sales are forecast to increase.

# Welcoming Escorts Kubota Ltd. and the Challenge to Crack India, the World's Biggest Market



Senior Managing Executive Officer Nikhil Nanda

GM of Value-Innovative Farm and Industrial Machinery Strategy and Operations Department, Chairman and Managing Director of Escorts Kubota Limited

#### Message from Nanda, CMD

Hello. I am Nikhil Nanda, Chairman and Managing of Escorts Kubota Limited.

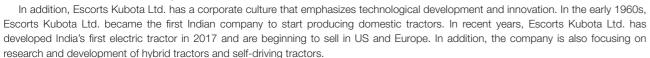
First of all, I am honored to be part of the Kubota family. I am also very pleased to be able to contribute to Kubota becoming a major global brand.

**Escorts Kubota Limited** 

#### Introduction of Escorts Kubota Ltd.

Escorts Kubota Ltd. is an Indian tractor manufacturer established in 1944. The company joined the Kubota Group in April 2022, and the third-generation CEO is still a member of the founding family.

Escorts Kubota Ltd. has a wide lineup of tractors ranging from 12 horsepower to 120 horsepower. Over the years, it has responded to the diverse needs of Indian farmers and contributed to improving the productivity of Indian farmers.



# Our vision

- 1. We will make Kubota the number one Tractor Manufacturer (in terms of Volume) in the world.
- 2. Contribute to further expansion of Kubota's sales and improvement of profit margin.
- 3. Further promote mechanization not only in India but also in the world.

First, we will make Kubota the world's number one tractor manufacturer in terms of volume. If we can make good use of the strengths of both companies, we believe that this is a fully achievable goal.

The second goal is to establish a global R&D base in India, utilizing Escorts Kubota Ltd.'s frugal engineering (Thrift thinking in design and development) and Kubota's world-class systems and processes to create a highly competitive future. We will continue to manufacture products at competitive prices. We believe that this will allow Kubota to compete at lower prices than it does now, and that it will be able to expand its volume and share in the European and American markets.

In addition, by becoming Kubota's global production base, we will be able to take advantage of Escorts Kubota Ltd.'s low-price cost structure and as well as ensuring high profitability, we will able to supply Indian-made parts to factories around the world. We will also contribute to the improvement of Kubota's consolidated earnings on a global scale.



Tractor by Escorts Ltd., sales will begin through Kubota's global network

And the third goal is the strongest thought in my heart. It is to promote agricultural mechanization not only in India but around the world. In doing so, we remove the heavy labor from farmers and provide them with a safe and prosperous life, giving them the opportunity to spend time on other valueadding activities.

I feel that our major mission going forward is to contribute to the growth of Kubota's global business and to the safe and prosperous lives of the people of India.





Eiji Yoshioka General Manager of Water and Environment Infrastructure Consolidated Division Director and Senior Managing

# **Fundamental Policies and Business Status**

The Water & Environment business started in 1893 with the development of cast iron water pipes. In the decades since, we have worked to tackle the problems that society has faced in each era. By doing so, we have helped to put in place social infrastructure around the world. Going forward, we will continue to provide solutions that address problems on a global scale-such as climate change and resource recycling—and to realize our Long-Term Vision "GMB2030."

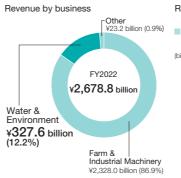
#### Outline for FY2022

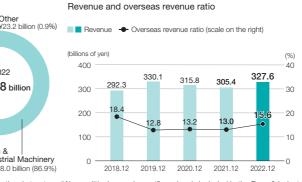
Revenue in this segment increased by 7.3% from the prior year to ¥327.6 billion. Domestic revenue increased by 4.1% from the prior year to ¥276.6 billion, and overseas revenue increased by 28.6% from the prior year to ¥51.0 billion. Profit in this segment decreased by 22.5% from the prior year to ¥17.3 billion due to an increase in expenses resulting from inflation and other factors, even though price rises covered the rise in the price of raw materials.

## The social value we create

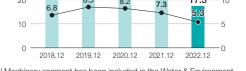
- Contribution to the development of sustainable water environment infrastructure by resolving social issues such as aging facilities, population decline, and disaster preparedness.
- Contribution to the forming of a recycling-based society by providing solutions that encourage water resource recycling and waste recycling.

Operating profit and operating margin









\*Owing to changes in organizational structure, "Air-conditioning equipment" previously included in the Farm & Industrial Machinery segment has been included in the Water & Environment segment since FY2020. Accordingly, results have been reclassified and restated for FY2019.

#### Source of our strengths

- Possession of many products with high shares of water-related markets, and product and technical development that is ahead of our competitors, in areas such as earthquake-resistance technologies and water-processing technologies.
- World-class water-related comprehensive corporation that can provide total solutions—that combine design, procurement, construction, and management—and possession of an extensive lineup of products in the water environment fields.
- Track record of processing illegally dumped waste from Teshima and radioactive waste from Futaba, and the incineration and melting technical capabilities that enabled this.

# Major Water & Environment Products

## (Pipe system products)













(Industrial machinery and material products)

 Air-conditioning equipment

(Environment products)



plants

71





•Submerged membranes •Wastewater treatment •Waste incineration plant (Johkasou)



and melting plants

Recycling plants

# **Analysis of Water & Environment Business**

Strengths	Weaknesses
<ul> <li>The Kubota brand, backed up by an extensive track record of shipped products</li> <li>Several products with big market shares (ductile iron pipes, submerged membranes, etc.) and original technologies</li> <li>Extensive product lineup</li> </ul>	<ul><li>Reliance on public projects in Japan</li><li>Strengthening of overseas business</li><li>Creation of new businesses</li></ul>
Opportunities	Threats
Increase in the number of contracts awarded to private companies due to regional authorities suffering from	

# Water & Environment business strategies and issues/responses

Business strategy	Response
Shift to a solutions provider     Expansion of the environment O&M business     Expansion of the solutions business (public-private partnership)	<ul> <li>In April 2022, we established KUBOTA Environmental Engineering Corporation by merging three subsidiaries, and concentrated management resources for tasks such as operations, maintenance, and management of facilities that were previously spread out.</li> <li>Utilizing IoT solutions "Kubota Smart Infrastructure System (KSIS)," we promote the construction of platforms that cover overall operations for water and sewage pipelines and facilities.</li> </ul>
Expand the resource recycling business     Expansion of the business in the public-demand domain	<ul> <li>In cooperation with Terrarem Group Co., Ltd., in which we acquired capital in December 2021, we are strengthening our waste resource recycling business.</li> <li>In April 2023, we concentrated the resources of our incineration/melting and recycling business through an internal reorganization.</li> </ul>
Expand overseas business     Expansion of the business in the ASEAN and North American markets	<ul> <li>In October 2022, we established the ASEAN Regional Water Business Management Office, and we are strengthening business expansion in the ASEAN region.</li> <li>We will expand our business in the North American market by increasing sales of submerged membranes to water reclamation facilities and sales of hazard-resilient ductile iron pipes.</li> </ul>

# Water & Environment Business Results and Mid-Term Business Plan 2025 Progress

#### FY2022 segment revenue (compared to FY2021 results)

# Water & Environment ¥+22.2 billion (Japan: ¥+10.9 billion; Overseas: ¥+11.3 billion)

Revenue increased due to the effect of price rises for steel and

Sales of plastic pipes to infrastructure projects decreased, but they increased to construction markets

ndustrial products

O&M and public-private partnerships (PPP) projects increased

Overseas sales of cracking tubes to petrochemical plants performed well

		(b	illions of yen)
	2021 results	2022 results	Change from 2021
Pipe systems	126.6	134.6	+8.0
Environment	120.8	124.0	+3.2
Industrial products*	58.0	69.0	+11.0
Total	305.4	327.6	+22.2

# FY2023 segment revenue forecast (compared to FY2022 results)

# Water & Environment ¥+43.4 billion (Japan: ¥+35.4 billion; Overseas: ¥+8.0 billion)

ripe systems
Environment

Sales of plastic pipes to construction facility markets, for non-housing purposes, etc., are robust

PPP and O&M projects continues to increase

Sales of cracking pipes stays similar to the previous year due to large projects Air-conditioning business sales to plants in Japan do well

## Mid-Term Business Plan 2025 goals

- Aiming to switch our business domain from a focus on product and equipment sales to a solution proposal business that combines products and services, and expand our business.
- Aiming to construct a resource-recycling solutions business that utilizes our proprietary waste recycling, incineration, and melting
- Aiming to achieve Water & Environment revenue of ¥400 billion in 2025 under Mid-Term Business Plan 2025, by working to strengthen the foundations of our existing businesses.

# Mid-Term Business Plan 2025 progress

- The solutions business, which we have positioned as a future driver of growth, is making steady progress. We are also steadily building up a record for orders for PPP projects.
- Revenue for FY2023 is forecast to increase ¥43.4 billion from FY2022 levels to reach ¥371.0 billion. In terms of progress toward achieving the revenue targets of Mid-Term Business Plan 2025, it is in line with plans.

# **Examples of Solutions Business Initiatives**

# 1 Expansion in contracted PPP projects

- In the water and sewage market, in recent years the number of PPP projects is growing. Kubota is utilizing the entire strength of the Kubota Group, and providing total solutions products, technologies, and services—to build up a track record in the PPP market. Examples of major PPP projects
- Operation management and maintenance service and incinerator equipment renewal for Imaike Sewage Treatment Center Yamato River Downstream Regional Sewerage in Osaka Prefecture: tasks including updating the sludge incinerator and operating and managing the sewage treatment facility
- Water pipe and pump site design and build project for the Osaka Water Supply Authority: Establishment of water pipes, pump sites, and other facilities under the DB model\*
- Joint water treatment plant development project in Kitajima, Naruto, for Naruto City Enterprise Bureau: development of a water treatment plant shared between the town of Kitajima and the city of Naruto, under the DB model\*1

## 2 First concession model contract (Miura City public sewerage operation)

- In December 2022, a special purpose company (SPC) established by a group of private companies that includes Kubota, signed an agreement with the government of Miura, a city in Kanagawa Prefecture, to operate the management rights to public facilities under the concession model\*2 (to run between April 1, 2023 and March 31, 2043).
- This project is the first example in Japan of the concession model being applied to a contract to operate, manage, repair, and update all public sewage facilities (including treatment facilities, pump sites, and pipes).
- \*1 Design & Build: a single project incorporating design and building
- \*2 Concession model: Where local authorities retain ownership rights to facilities but outsource management rights to a



Artist's impression of the completed joint water treatment plant (Naruto City Enterprise Bureau)



Miura City public sewerage operation (concession model)

<sup>\*</sup>The Industrial Products segment was established in January 2023.