### Prevention of damage to agriculture, forestry, and fisheries through proper management of wildlife

 Promote development and conservation of satochi-satoyama areas and forests that give consideration to the habitat environment of wildlife, as well as appropriately managing wildlife, including alien species, and taking measures to prevent damage to the agriculture, forestry, and fisheries industries.

## (i) Promotion of the reduction of damage due to wildlife and the development and conservation of Satochi-Satoyama areas

- Promote the creation of damage prevention plans by municipalities and provide comprehensive support for community-based initiatives.
- Enhance and strengthen countermeasures to deal with spread and serious damage by developing and securing captors, by strengthening capture systems, and by promoting countermeasures using ICT.
- To promote the effective use of captured wildlife, use them as meat and other uses and develop human resources.



Promotion of integrated community-based animal damage control through "experience" and "sharing"

# (ii) Promotion of forest damage control caused by wild birds and beasts

- In addition to introducing ICT and other measures, implement wide-area and effective forest damage control such as active population control and damage control, as well as taking measures that give consideration to the symbiosis with wildlife, such as conversion to mixed forests of conifers and broadleaf trees and broad-leaved forests.
- In national forests, promote the capture of Sika deer and other activities, as well as making efforts to regenerate and restore forests.

## (iii) Promotion of measures against damage to fisheries caused by wildlife

Implement effective culling and other damage control measures against wildlife that cause damage to fisheries and aquaculture, including feeding damage to catches of fish, while giving consideration to avoiding the extinction of such wildlife species.



#### control measures

### (iv) Prevention of entrenchment of alien species

- In order to prevent damage to agriculture, forestry, and fisheries caused by alien species, in accordance with the Alien Species Act and other laws, promote the capture of alien species, and develop and disseminate management and control measures.
- For alien species used in agriculture, forestry, and fisheries, take measures to prevent their spread and establishment in native species growing areas.





Raccoon

Aromia bungii (Faldermann)

(Alien species damaging agriculture, forestry, and fisheries)

 Promote efforts to build biodiversity-friendly procurement, distribution, consumption, and resource circulation, and mainstream biodiversity throughout the supply chain.

# (i) Establishment of the biodiversity-conscious system of procurement, distribution, consumption, and resource circulation

- In order to recycle plastic resources in the food, agriculture, forestry, and fisheries industries, the government will promote appropriate handling of plastic production materials in agricultural production and systematic disposal waste in fisheries by fishers and others.
- Promote plastic resource recycling efforts in the food industry at each stage of manufacturing, sales, and discharging plastic products.



"Setouchi Oceans" aims to reduce marine litter in the Seto Inland Sea

- Promote the use and distribution of Legally-harvested Wood and Wood Products, taking into account the multiple functions of forests.
- Support priority procurement from producers who are working on conserving biodiversity by promoting the use of forest certification systems, the fisheries eco labels and other biodiversity-friendly systems.
- Minimize business-related food loss and waste by 2050, through technological advances such as AI demand forecasting and development of new packaging materials.
- In light of the expansion of ESG finance, identify and disseminate leading examples, including initiatives to support environmentally friendly production and business activities through financing, etc.

## (ii) Promote understanding of biodiversity and behavioral change

- Support municipalities that consistently engage in organic farming from production to consumption.
- Collaborate with retailers and food and beverage-related businesses to promote efforts to stimulate demand, and foster consumer understanding of environmentally friendly agriculture.



City's own certification of environmentally friendly "Honmamon Agriculture" (Usuki City)

- Promote sustainable production and consumption through the promotion of shokuiku, agriculture, forestry, and fishery experience, and dialogue with various stakeholders through the Sustainable Consortium for Agriculture, Forestry, Fisheries and Food (SCAFFF) Project.
- Promote understanding of the function of agriculture and rural communities by promoting countryside stays and urban agriculture.
- Make public the damage of wildlife to agriculture, forestry, and fisheries and the countermeasures to be taken, promote the development of human resources such as captors and the utilization of captured wildlife.
- With regard to forest and forestry, promote forest creation activities by various actors by networking with companies, NPOs, and other organizations, and by promoting public awareness through the holding of greening events.
- Promote forest environmental education and "Mokuiku" (wood use education).
- In order to promote understanding of the importance of inland water ecosystems and the activities of fisheries cooperatives that are responsible for their conservation and restoration, promote public awareness activities by fisheries cooperatives.

## Promotion of conservation and use of agricultural, forestry, and fishery spaces

- O Promote rural areas through agriculture, forestry, and fisheries to fulfill their multiple functions, such as preserving rich natural environment and biodiversity, and creating good landscapes.
- (i) Securing and developing human resources for the conservation and use of agricultural, forestry, and fisheries spaces
- Provide support to hilly and mountainous areas, etc., as well as supporting joint community-based activities.
- Promote the development and securing of new workers in rural areas, the promotion of diverse management, the development of systems and human resources to support the communities, and the creation of an environment where women can easily engage in activities.



Secure new workers according to the declining and aging population in mountain and fishing villages

A half-farmer, half-X worker (working in agriculture and brewery)

## (ii) Promotion of conservation and use of agricultural, forestry, and fisheries spaces

- Promote a wide range of biodiversity conservation initiatives, in which agriculture, forestry, and fishery workers and diverse actors work together in rural areas, such as community-based organic farming practices, creation of biotopes, installation of fishways to connect between paddy fields and irrigation canals, and the development of satochi-satoyama areas.
- Promote the multiple and continuous use of community-based forests by supporting forest creation activities in cooperation with local communities, companies, NPOs, etc., and by studying measures to utilize community-based forests.
- In fishing villages, promote exchange and settlement between cities and fishing villages, such as *nagisahaku* (Seaside Stay), and deepen the public's understanding and interest in fisheries and fishing villages, to revitalize fishing villages.

# (iii) Promotion of biodiversity conservation through forests, villages, rivers, and seas

- Promote environmental improvement in rural areas and Satochi-Satoyama areas, including the creation of spaces where people can interact with nature.
- Establish and disseminate cultivation techniques that contribute to biodiversity conservation, and take surveys of living creatures in paddy fields and other areas, to promote activities to deepen awareness of agriculture, forestry, and fisheries and biodiversity.
- Promote biodiversity conservation efforts that integrate the interconnected forests, villages, rivers, and seas.

#### (iv) Promotion of ecosystem-based disaster risk reduction

- In order to prepare for more frequent and severe natural disasters, promote the resilience of agriculture and rural communities through watershed flood control measures, etc. such as improvement of drainage facilities and measures for irrigation ponds, and "paddy field dams" using secondary nature.
- Promote forest conservation measures such as construction of forest conservation facilities in protection forests, the management of forests with degraded functions, and the management of coastal disasterprevention forests.



Enhancement of flood prevention functions through "paddy field dams"

### Promotion of Conservation and Sustainable Use of Genetic Resources

O Collect and preserve valuable genetic resources such as superior crop species essential for the development of new varieties and domestic landraces that have passed down our country's unique food culture, as well as actively participating in and contributing to building international consensus.

## (i) Promotion of conservation and sustainable use of genetic resources useful for agriculture, forestry, and fisheries

- Collect and sustainably conserve genetic resources, such as landraces and crop wild relatives, and elucidate gene functions and develop technologies for their utilization, in order to breed innovative new varieties and create new industries.
- In view that the diversification of genetic resources has shaped the unique regional climate, promote the protection and inheritance of food cultures unique to each region.



Preservation of plant genetic resources and regional promotion using traditional foodstuffs

## (ii) Ensuring biodiversity in Japan through regulation of genetically modified crops

- Conduct scientific assessment of the effect of genetically modified crops on biodiversity, and work on preventing the distribution of unapproved genetically modified crops, etc.
- Confirm the effects of genome editing crops, etc. on biodiversity.

# Evaluation and Utilization of Initiatives to Conserve Biodiversity in the Agriculture, Forestry, and Fisheries Sector

O Promote surveys and research on biodiversity in the agriculture, forestry, and fisheries sectors, promote visualization of the effects of biodiversity conservation efforts, and encourage the provision of biodiversity data that can be used in finance and business.

# (i) Survey and research on biodiversity in agricultural, forestry, and fisheries spaces

- Conduct initiatives to assess biodiversity in agricultural production sites in collaboration and cooperation with prefectures and farmers.
- Promote research and development to evaluate and utilize ecosystem services for agriculture derived from biodiversity.
- Collect and analyze data in forest and marine ecosystems through monitoring and other means.

#### (ii) Visualization of initiatives to conserve biodiversity in the agriculture, forestry, and fisheries sector

- Consider methods to display biodiversity conservation efforts on produce.
- Promote "visualization" to link the supply chains, by surveying, analyzing, and providing information on the status of biodiversity conservation methods used in Japan and overseas.

#### (iii) Consideration of providing biodiversity data that finance and business can use

In light of the accelerated trend toward disclosure of biodiversity-related information by the Task Force on Nature-related Financial Disclosures (TNFD), consider providing biodiversity data that can be used for corporate evaluations.  Encourage diverse actors such as relevant ministries and agencies, private companies, local governments, research institutes, and financial institutions to act independently in cooperation with each other.

### **Roles expected for each actor**

Citizens	Learn about the relationship between biodiversity and the products an services used in people's daily lives, and make more sustainable choice	
Educational institutions	In the field of education, educate students about the relationship betw biodiversity and ecosystem services and people's daily lives, and abo the background of biodiversity loss	
Media	Widely disseminate the importance of biodiversity conservation efforts, based on scientific findings	
NGOs/NPOs	Encourage initiative through activities and support, and help people realize the blessings of nature and raise awareness of the knowledge	
Agricultural, forestry, and fishery workers	Comply with the law, respect various plans, and aim to use technologie that have a lower environmental load and can maintain productivity	
Private companies and cooperatives	Incorporate this strategy into management policy, promote information disclosure, and contribute to the reduction of environmental load at production sites	
Financial institution	Evaluate companies that sustainably conduct environmentally friendly management, including biodiversity, and increase in investment in such companies	
Research institute development of data and evaluation methods to serve as evidence for their efforts		
Local government	Work with relevant organizations and departments, including neighboring municipalities, conserve the biodiversity of the area and promote the sustainable use	
National government	MAFF and related ministries and agencies will work with various actors, including local organizations, to support the activities and information dissemination by the actors	



# (Reference) History of the review of the revised Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries

### **Background of Revision**

<mark>FY 2019</mark>					
(Experts for the Review of the Biodiversity Strategy of the Ministry of Agriculture,					
-	Forestry and Fisheries) Workshop (held twice)				
FY 2020					
February 17	Announced suggestion for the review of the Biodiversity Strategy of the Ministry of Agriculture				
August 18	Established the New Biodiversity Strategy Review Committee of the Ministry of Agriculture, Forestry and Fisheries				
August 31	First review meeting of the review meeting (discussion of the composition plan of the Biodiversity Strategy based on the study group)				
October 19	Second review meeting (discussion of the main body of the strategy - background, composition plan, main points to be added -)				
FY 2021					
January 18	Third review meeting (discussion of the main body of the strategy - overall composition plan, first half of the main body of the strategy-)				
March 9	Fourth review meeting (discussion of the main body of the strategy to second half of the main body of the strategy-)				
October 14	Fifth review meeting (discussion of the main body of the strategy to second half of the main body of the strategy-)				
<mark>FY 2022</mark>					
February 8	Sixth review meeting (discussion about the interim summary of the strategy review plan)				
June 22	Publication of "Summary of discussions to date on the revision of the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries"				
<mark>FY 2023</mark>					
January 10	Seventh review meeting (discussion of the strategy review plan)				
March 7	Eighth review meeting (summary of the strategy review plan)				
March 30	Decided in <u>the MIDORI Strategy Headquarters of the Ministry of</u> Agriculture, Forestry and Fisheries				

#### List of members of the New Biodiversity Strategy Review Committee of the Ministry of Agriculture, Forestry and Fisheries

● Shiro Wakui ○ Shizuka Hashimoto	Distinguished Professor, Tokyo City University Associate Professor, Graduate School of Agricultural and Life Sciences, The University of Tokyo (also serves as the Research Center for Future Vision, The University of Tokyo)
Mikako Awano	(General Incorporated Association) Representative Director, SusCon Japan
Seiji IKube	(General Incorporated Association) Manager, Agricultural Policy Planning Department, Central Union of Agricultural Cooperatives
Shinjiro Imura	(Public Interest Incorporated Association) Director, Japan Agricultural Corporations Association, organic farmer
Eri Otsu	In charge of the sixth industry at O2Farm; Director, Heroines for Environment and Rural Support (NPO)
Ai Oba	Vice Manager, Science and Environment Department, The Mainichi Newspapers
Kimiko Okabe	Research Specialist, Center for Biodiversity, Forestry and Forest Products Research Institute, Forest Research and Management Organization (national research institute)
Mariko Kawaguchi	Assistant to CEO (in charge of ESG and market value creation), Fuji Oil Holdings, Specially Appointed Professor, Graduate School of Social Design Studies, Rikkyo University
Shin Kikuchi	Founder and President, Iki-Mono Co.
Chikako Futamura	Executive Director, Japanese Consumers' Cooperative Union
Minoru Matsubara	Executive Officer, Responsible Investment Division, Resona Asset Management
Shigeo Morii	Manager, Sustainability Department, Nissui ●Chairperson, OVice Chairperson

# (Reference) Changes in the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries and the National Biodiversity Strategy

The Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries	National strategy		Global goal	
July 2007 Decided the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries	October 1995 March 2002 November 2007	National Biodiversity Strategy New National Biodiversity Strategy Third National Biodiversity Strategy	April 2002	Strategic Plan 2010 target (COP 6)
February 2012 Revised the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries	(June 2008 (December 2010 March 2010	Basic Act on Biodiversity) Act on the Promotion of Regional Cooperation for Biodiversity) <u>National Biodiversity Strategy 2010</u>	October 2010	Strategic Plan 2011-2020 Aichi Biodiversity Targets
(May 2021 the MIDORI Strategy) (May 2022 the Green Food Systems Law)	September 2012	National Biodiversity Strategy 2012-2020		(COP 10)
February 2023 Revised the Biodiversity Strategy of the Ministry of Agriculture, Forestry and Fisheries	March 2023 <u>Natio</u>	nal Biodiversity Strategy 2023-2030	December 2022	Kunming-Montreal Global Biodiversity Framework (to 2030) (COP15)

# Strategy for Sustainable Food Systems MIDORI

~ Innovation will be the key to enhance both productivity potential and sustainability~

## "MIDORI," the medium-long term strategy will pave the way for the future.

- Enhancing engagement of stakeholders at each stage of food supply chains
- Promoting innovation to reduce environmental burden

Challenges	Key Performance Indicators by 2050					
<ul> <li>Depopulation and aging of producers</li> <li>Stagnant rural communities</li> <li>Climate change and increasing natural disasters</li> <li>Disrupted supply chains due to the COVID-19</li> <li>Achievement of SDGs</li> </ul>	<ul> <li>Zero CO2 emission from fossil fuels combustion in the agriculture, forestry and fisheries sectors</li> <li>50% reduction in risk-weighted use of chemical pesticides by dissemination of the Integrated Pest Management and newly-developed alternatives</li> <li>30% reduction in chemical fertilizer use</li> <li>Increase in organic farming to 1Mha (equivalent to 25% of farmland)</li> <li>At least 30% enhancement in productivity of food manufacturers (by 2030)</li> <li>Sustainable sourcing for import materials (by2030)</li> <li>90% and more superior varieties and F1 plus trees in forestry seedling</li> <li>100% of artificial seedling rates in aquaculture of Japanese eel, Pacific bluefin tuna,etc.</li> </ul>					
	which will be enabled through: - development and dissemination of innovative technologies					

- greening of MAFF's policy tools

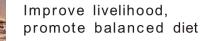
## **MAFF** endeavors to accomplish the triple win of;

### **Economic sustainability**



Ensure robust and resilient food industry

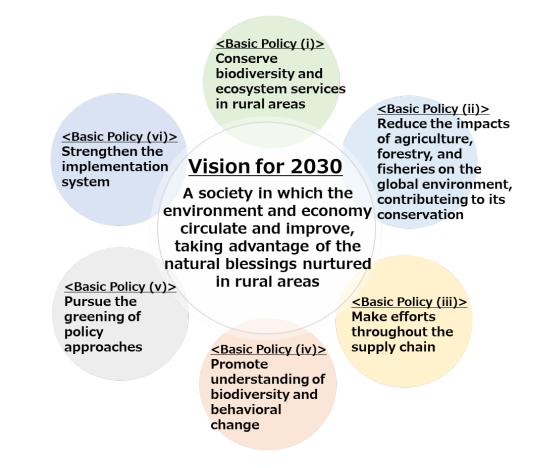




#### Environmental sustainability



Save global environment for the future generation





For further information, please contact:

MIDORI Sustainable Food Systems Strategy Division, Global Environment Policy Office, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries Main phone number: 03-3502-8111 (Extension: 3297) Direct phone number: 03-6744-2017 https://www.maff.go.jp/e/policies/env/env\_policy/biodivstrategy.html

