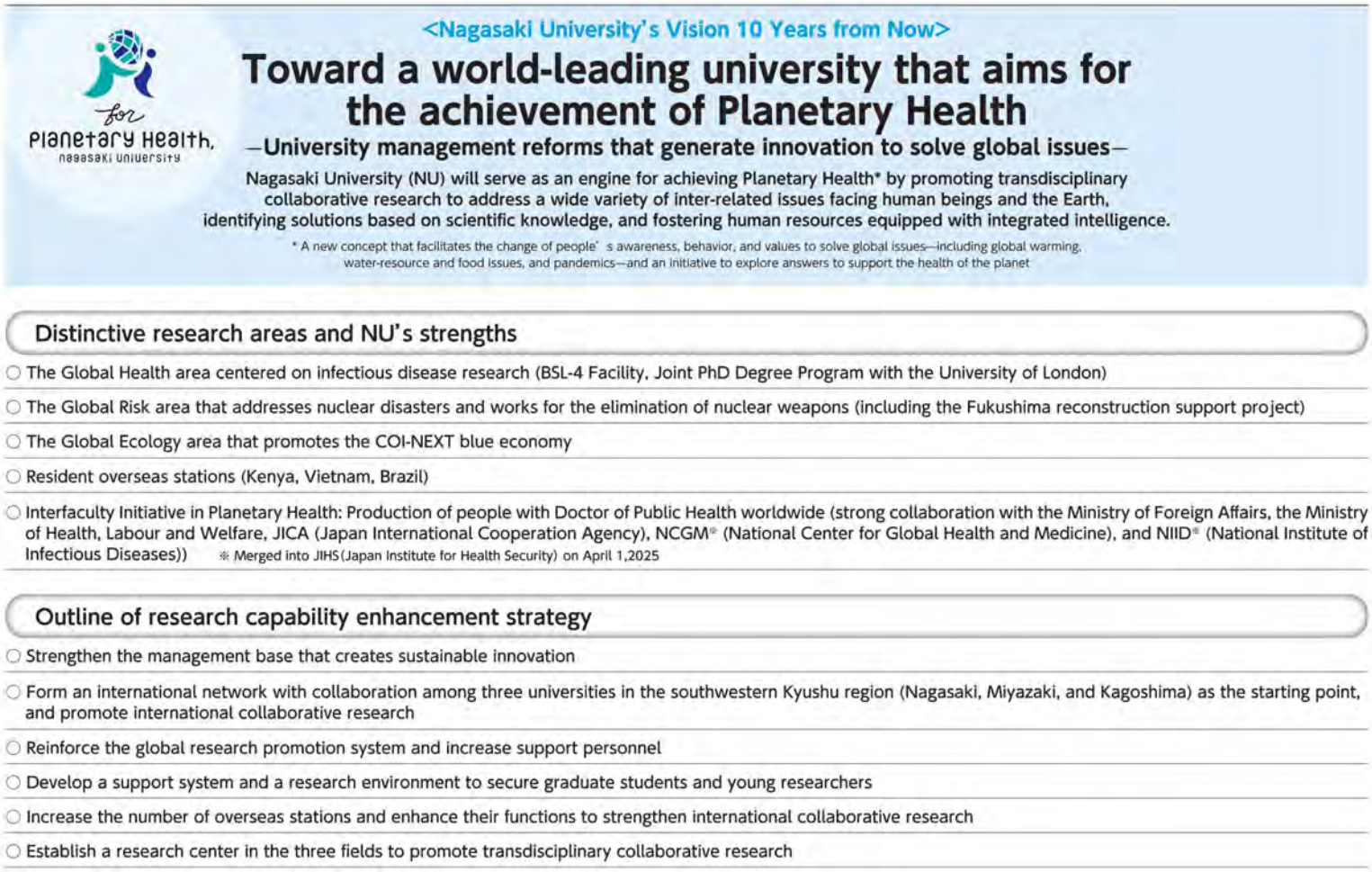
Nagasaki University (University Functions to be Enhanced: 1. Boost academic excellence in specific areas of the university's strength, 2. Generate innovation than can help solve global issues and advance societal reform)

Collaborators : University of Miyazaki, Kagoshima University

Participators : Osaka Metropolitan University, Hokkaido University, The University of Tokyo, National Institute of Infectious Diseases*, National Center for Global Health and Medicine*, JAMSTEC (Japan Agency for Marine-Earth Science and Technology)

Summary



Promoting transdisciplinary collaborative research in the areas of health, risk, and ecology

Initiative (1): Strengthening the management base

1. Establish an advisory board (including experts from overseas institutions/companies)
2. Raise funds by establishing the Development Office
3. Utilize overseas stations
4. Expand the international alumni network
5. Strengthen/expand profit-making business activities, including naming rights and the active use of real property
6. Expand endowment investment

Initiative (2): Securing and fostering young researchers

1. Lend intensive support to young researchers
2. Secure research time in terms of both quantity and quality
3. Provide career path support
4. Improve the treatment of doctoral students
5. Provide support to foreign researchers and international students

Initiative (3): Reinforcing research support systems

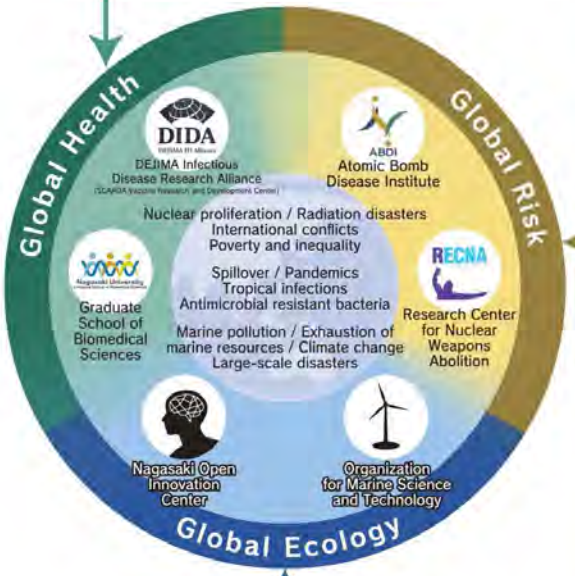
1. Boost the number of and foster URAs (University Research Administrators)
2. Establish an overseas grant support division
3. Increase the number of clerical staff to respond to internationalization
4. Secure shared facilities and foster technical personnel
5. Deploy collaborative research facilitators
6. Deploy overseas liaison faculty members

Initiative (4): Fostering human resources equipped with integrated intelligence

Graduate school-linked program, Interfaculty Initiative in Planetary Health

"Global Risk" doctoral program (quota: 5 students), scheduled to be launched in 2026

"Global Ecology" doctoral program in preparation toward its launch in 2029



Missions and specific initiatives in each area

Initiative (5): Strengthening pandemic prediction research

Create a sustainable human society in preparation for the next pandemic through collaboration among infectious disease experts, data science experts, and education experts

1. Establish a multidisciplinary pandemic research center (facility development project)
2. Form a spillover research team in collaboration with the University of Miyazaki and Kagoshima University
3. Establish a research base on the impacts of climate change on human health (in collaboration with JAMSTEC and the Atmosphere and Ocean Research Institute, The University of Tokyo)
4. Establish a division for information data on international infectious diseases
5. Establish a division for infectious disease literacy

Initiative (6): Develop an international network on global risk

Clarify how infectious diseases, nuclear proliferation, international conflicts, global environmental changes and other factors can deepen and complicate global risk, disseminate to the world information on innovative policy measures that contribute to solving such issues, and implement those policy measures

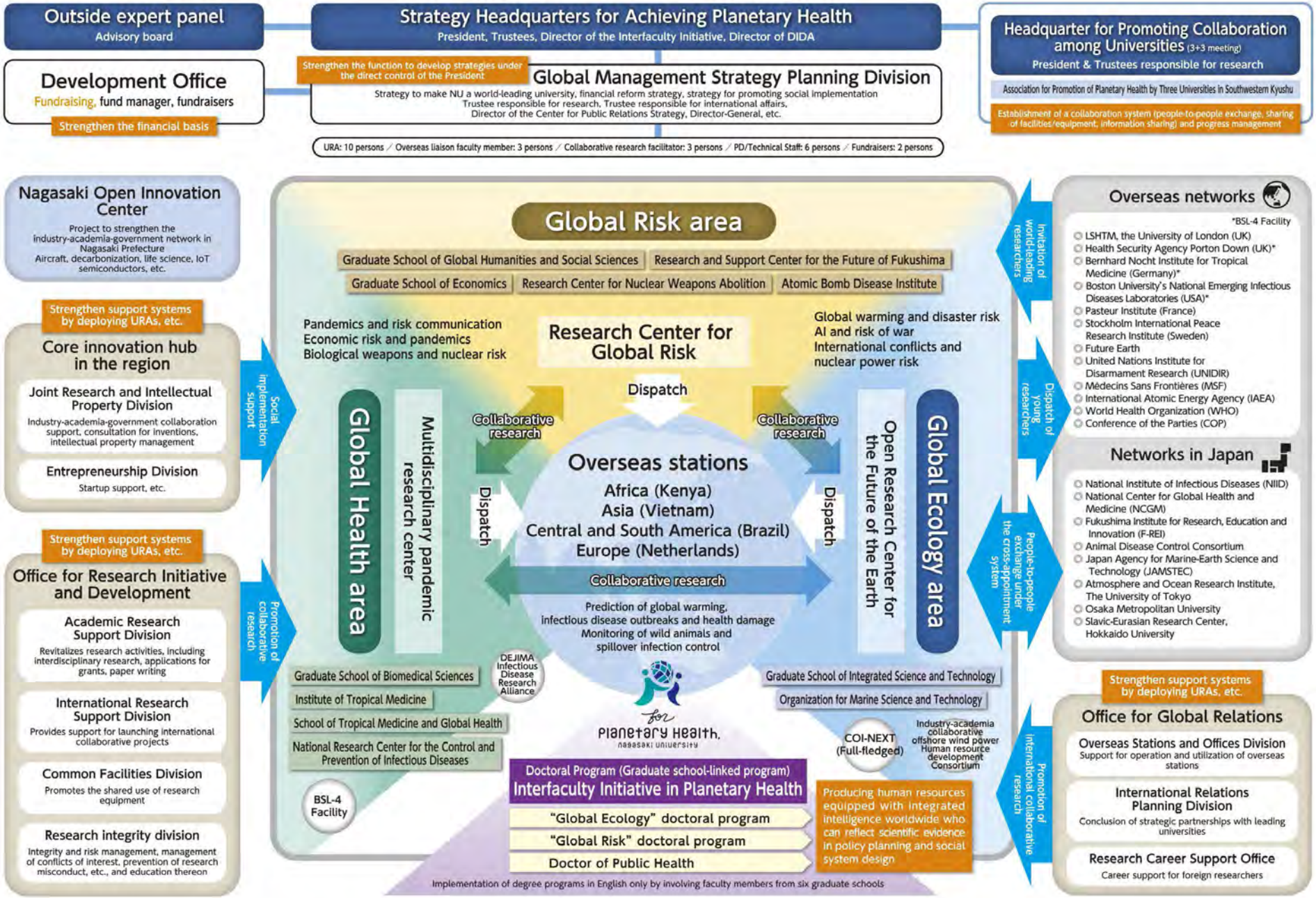
1. Put the Research Center for Global Risk into full operation
2. Conclude partnership agreements with international organizations and risk research centers overseas
3. Invite international conferences
4. Promote collaboration with the Research and Support Center for the Future of Fukushima and strengthen partnerships with the Fukushima Institute for Research, Education and Innovation (F-REI), Fukushima Medical University, and Fukushima University
5. Implement collaborative research on social infrastructure resilience with the Research and Education Center for National Health, Kagoshima University

Initiative (7): Accelerate innovation and social implementation

Promote science to protect the health of the Earth through innovation for building a society that recycles marine resources, food, energy, water, and carbon, and realize social implementation

1. Establish the Open Research Center for the Future of the Earth
2. Accelerate the Satoumi carbon neutrality model project
3. Combine technologies for offshore wind power generation, tidal current power generation, geothermal power generation, solar energy power, electric storage, and hydrogen production through collaboration with the GX Research Center, the University of Miyazaki
4. Conduct collaborative research with the Department of Marine Biology and Environmental Sciences, Faculty of Agriculture, University of Miyazaki
5. Implement collaboration between the team for research on the recycling of water resources and the team for research on the forests-and-green-spaces environment

Framework


Outside expert panel
Advisory board
Strategy Headquarters for Achieving Planetary Health
President, Trustees, Director of the Interfaculty Initiative, Director of DIDA
Headquarter for Promoting Collaboration among Universities (3+3 meeting)
President & Trustees responsible for research
Association for Promotion of Planetary Health by Three Universities in Southwestern Kyushu
Establishment of a collaboration system (people-to-people exchange, sharing of facilities/equipment, information sharing) and progress management
Development Office
Fundraising, fund manager, fundraisers
Strengthen the financial basis
Strengthen the function to develop strategies under the direct control of the President
Global Management Strategy Planning Division
Strategy to make NU a world-leading university, financial reform strategy, strategy for promoting social implementation
Trustee responsible for research, Trustee responsible for international affairs,
Director of the Center for Public Relations Strategy, Director-General, etc.
URA: 10 persons / Overseas liaison faculty member: 3 persons / Collaborative research facilitator: 3 persons / PD/Technical Staff: 6 persons / Fundraisers: 2 persons
Nagasaki Open Innovation Center
Project to strengthen the industry-academia-government network in Nagasaki Prefecture
Aircraft, decarbonization, life science, IoT semiconductors, etc.
Strengthen support systems by deploying URAs, etc.
Core innovation hub in the region
Joint Research and Intellectual Property Division
Industry-academia-government collaboration support, consultation for inventions, intellectual property management
Entrepreneurship Division
Startup support, etc.
Social implementation support
Strengthen support systems by deploying URAs, etc.
Office for Research Initiative and Development
Academic Research Support Division
Revitalizes research activities, including interdisciplinary research, applications for grants, paper writing
International Research Support Division
Provides support for launching international collaborative projects
Common Facilities Division
Promotes the shared use of research equipment
Research integrity division
Integrity and risk management, management of conflicts of interest, prevention of research misconduct, etc., and education thereon
Promotion of collaborative research
Global Risk area
Graduate School of Global Humanities and Social Sciences
Research and Support Center for the Future of Fukushima
Graduate School of Economics
Research Center for Nuclear Weapons Abolition
Atomic Bomb Disease Institute
Pandemics and risk communication
Economic risk and pandemics
Biological weapons and nuclear risk
Research Center for Global Risk
Global warming and disaster risk
AI and risk of war
International conflicts and nuclear power risk
Dispatch
Global Health area
Multidisciplinary pandemic research center
Collaborative research
Dispatch
Overseas stations
Africa (Kenya)
Asia (Vietnam)
Central and South America (Brazil)
Europe (Netherlands)
Collaborative research
Prediction of global warming,
infectious disease outbreaks and health damage
Monitoring of wild animals and
spillover infection control
Collaborative research
Dispatch
Open Research Center for the Future of the Earth
Global Ecology area
Graduate School of Biomedical Sciences
Institute of Tropical Medicine
School of Tropical Medicine and Global Health
National Research Center for the Control and Prevention of Infectious Diseases
DEJIMA Infectious Disease Research Alliance
for Planetary Health, Nagasaki University
Graduate School of Integrated Science and Technology
Organization for Marine Science and Technology
COI-NEXT (Full-fledged)
Industry-academia collaborative offshore wind power Human resource development Consortium
BSL-4 Facility
Doctoral Program (Graduate school-linked program)
Interfaculty Initiative in Planetary Health
"Global Ecology" doctoral program
"Global Risk" doctoral program
Doctor of Public Health
Producing human resources equipped with integrated intelligence worldwide who can reflect scientific evidence in policy planning and social system design
Implementation of degree programs in English only by involving faculty members from six graduate schools
Invitation of world-leading researchers
Dispatch of young researchers
People-to-people exchange under the cross-appointment system
Promotion of international collaborative research
Overseas networks
*BSL-4 Facility
LSHTM, the University of London (UK)
Health Security Agency Porton Down (UK)*
Bernhard Nocht Institute for Tropical Medicine (Germany)*
Boston University's National Emerging Infectious Diseases Laboratories (USA)*
Pasteur Institute (France)
Stockholm International Peace Research Institute (Sweden)
Future Earth
United Nations Institute for Disarmament Research (UNIDIR)
Médecins Sans Frontières (MSF)
International Atomic Energy Agency (IAEA)
World Health Organization (WHO)
Conference of the Parties (COP)
Networks in Japan
National Institute of Infectious Diseases (NIID)
National Center for Global Health and Medicine (NCGM)
Fukushima Institute for Research, Education and Innovation (F-REI)
Animal Disease Control Consortium
Japan Agency for Marine-Earth Science and Technology (JAMSTEC)
Atmosphere and Ocean Research Institute, The University of Tokyo
Osaka Metropolitan University
Slavic-Eurasian Research Center, Hokkaido University
Strengthen support systems by deploying URAs, etc.
Office for Global Relations
Overseas Stations and Offices Division
Support for operation and utilization of overseas stations
International Relations Planning Division
Conclusion of strategic partnerships with leading universities
Research Career Support Office
Career support for foreign researchers

Timeline

FY 2025 – FY 2029 » FY 2030 – FY 2035

University management reforms to generate innovation

Promote strategic management

Step up to become an international research university that leads the world in planetary health

- ○ Establish the Strategy Headquarters for Achieving Planetary Health
- ○ Establish the Development Office and expand the methods of fund procurement, such as expansion of NUGAN
- ○ Assessment by and feedback from an outside expert panel
- ○ Support acquisition of university operation funds: establishment of marketing methods, enhancement of PR activities
- ○ Strengthen the collaboration system by establishing a headquarters to promote collaboration among three universities in the southwestern Kyushu region
- ○ Establish the Global Management Strategy Planning Division and develop a management strategy

Support young researchers, foreign researchers, and international students

Toward a university that enables young researchers and foreign researchers to play an active role

- ○ Enhance financial support for doctoral students, career development support, etc.
- ○ Implement a program to dispatch young researchers overseas, provide research funds to young researchers, improve the treatment of young researchers, improve research environments
- ○ Enhance support for foreign researchers and international students
- ○ Strengthen the global research promotion system by establishing an NU station(s) in Europe

Strengthen research support systems

Toward a university in which people with various positions work together harmoniously and researchers can concentrate on research

- ○ Significant increase in and fostering of research support personnel
- ○ Upgrading/expansion of shared facilities and fostering of technical staff
- ○ Employment of collaborative research facilitators, creation of opportunities to promote research cooperation, and support for the creation of collaborative research projects
- ○ Promotion of collaborative research and startup support by upgrading/expanding the Tokyo office
- ○ Development and implementation of a URA job-ranking system
- ○ Internationalization of clerical staff

Achieve self-sustaining university management

Serve as a brain circulation base that fosters and produces a diversity of human resources who can play an active role on the global stage

Realize a research environment that supports world-leading research and an advanced support system

Output & Outcomes

The amount acquired from external funding (contracted research, collaborative research, donations)

7.2 billion yen at the time of application

FY 2035: 10.3 billion yen

Establishment of an international graduate school program that contributes to achieving planetary health

- FY 2026 Global Risk doctoral degree program
- FY 2029 Global Ecology doctoral degree program

Rate of NU papers ranked in the top 10% of international collaboration papers

12.9% at the time of application

FY 2035: 18.0%

World ranking in the number of papers in the infection area

162nd at the time of application

FY 2035: Within the top 50

Rate of NU papers ranked in the top 10% of papers in the infection area

9.6% at the time of application

FY 2035: 15.0%

Holding of an international forum on Global Risk

- Cumulative number of forums in FY 2030: 2 or more
- Cumulative number of forums in FY 2035: 7 or more

Cumulative number of startups

8 startups at the time of application

FY2035: 50 startups

FY 2025 – FY 2029 | FY 2030 – FY 2035

Transdisciplinary research initiatives

for Planetary Health, Nagasaki University

Toward a world-leading research university in the infectious diseases area

- ○ Establish a multidisciplinary pandemic research center, a division for information data on international infectious diseases, and a division for infectious disease literacy
- ○ Form a project team for research on spillover infectious diseases in collaboration with the University of Miyazaki and Kagoshima University
- ○ Start the monitoring of wild animals by using overseas stations
- ○ Predict climate change and infectious disease outbreaks, and conduct health impact surveys
- ○ Climate change and resulting changes in wild animals' behavior and the ecology of transmitting insects

Establish a world-class system to monitor spillover infection, and advance toward being ranked among the world's best 50 universities in the infection area

Lead the world by fostering human resources equipped with integrated intelligence and PhDs with the capability to implement policy measures

- ○ Put the Research Center for Global Risk into full operation and start research on complex risk
- ○ Promote research on climate change and disaster risks and research on international conflicts and nuclear power risks, and make policy proposals
- ○ Build an international network with UN and overseas research institutes, etc. and hold international conferences
- ○ Establish a global risk degree program

Establish NU's status as a think tank that disseminates to the world solutions to increasingly complex global risks

Creation of innovation as breakthrough solutions for global environmental issues, and social implementation of research achievements

- ○ Establish the Open Research Center for the Future of the Earth
- ○ Establish a global ecology degree program
- ○ Start collaborative research with the GX Research Center, the University of Miyazaki and the Research and Education Center for National Health, Kagoshima University
- ○ Collaborative research by the team for research on the recycling of water resources and the team for research on the forests-and-green-spaces environment; integrated research on offshore wind power generation, tidal current power generation, geothermal power generation, solar energy power; and development of power storage devices
- ○ Demonstration experiments and social implementation of the Satoumi carbon neutrality model

Toward a research base for a decarbonized society with an eye toward realizing a society in which humans can live in harmonious coexistence with the environment

Output & Outcomes

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