# Top Global University Project (Type A): Outline of Nagoya University's Approach

# 1. Concept Outline

#### [Concept Name]

Asian Hub University contributing to a sustainable society in the 21st century

# [Future Vision of Nagoya University through the TGU Project]

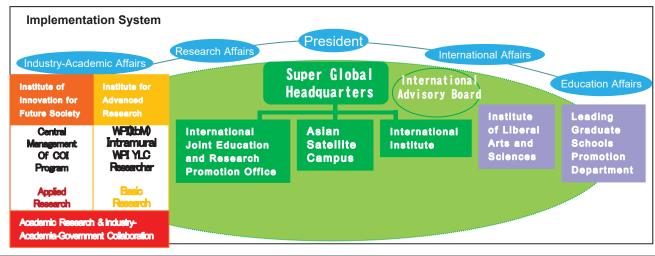
Nagoya university defines the Academic Charter with the fundamental principles of "Contributing to the well-being and happiness of humankind through research and education in all aspects of human beings, society, and nature under a free and vibrant academic culture". Our university plans on becoming the "Hub University of Asia" by setting the research objective of "Supporting World-Class Advanced Research" and educational objective of "Becoming an Attractive Global Nagoya University", and implementing those goals throughout Asia. We will play a role as the hub university of Asia which creates a sustainable society by realizing these aims, and consequently become an undisputed "Top Global University" with the spirit and capability to contribute to human society in the 21th century.

# [ Concept Outline ]

Nagoya university promotes the following four strategies to implement various approaches on a global scale in a multi-layered and multi-polar fashion and develop into a Top Global University that leads the world within the next 10 to 20 years.

- (1) Supporting World-Class Research
- (2) Developing Joint Degree Programs with Top Universities
- (3) Cultivating Global-Minded Leader
- (4) Expanding Academic Network in Asia





#### [10 years Plan Summary]

In creating this plan, we established the research objective of "Supporting World-Class Research", the educational objective of becoming an "Attractive Global Nagoya University", and by implementing these throughout Asia, the objective of becoming an Asian Hub-University.

#### Strategy 1: Supporting World-Class Research

In addition to the TGU project, the Ministry of Education has selected Nagoya University for other large-scale research projects such as WPI and COI. Inspired by our six Nobel Prize laureates, faculty are contributing to the development of an innovation hub and one of Japan's top research institutions. Despite high quality research output however, Nagoya University performs less well than might be expected in many of the world university rankings. Hereafter, we will engage in activities that will allow us to utilize our maximum potential and increase our world ranking.

#### Strategy 2: Developing Joint Degree Programs with Top Universities

To join the upper rankings of the Top 100 universities in the world by 2020, Nagoya University seeks to first, increase our faculty members' peer-reviewed publications with international co-authors and second, to raise the percentage of international faculty on our campus. To make it easier for our researchers to collaborate with those in foreign nations we are establishing an "International Joint Education and Research Unit for the Establishment of Joint Degree Programs".

### Strategy 3-1: Cultivating Global-Minded Leaders "Educational Reinvention"

In addition to increasing the number of international students and courses taught in English, the goal of Nagoya University is to also improve the learning environment. We aim to be a university where the quality of teaching is recognized to the extent that it can attract excellent students from all around the world.

- · Improving our educational system so that it is consistent with current international best practices
- · Improving educational quality

#### Strategy 3-2: Cultivating Global-Minded Leaders "Global Interaction"

To foster a new generation of students with a global mindset, Nagoya University is establishing a new "International Institute" to collaborate more deeply with partner universities, increase student mobility, and develop new international educational programs. We provide a step-by-step process to encourage our students to study abroad. To increase our international students to 3000 by 2020, we are focused on increasing the availability of discipline-specific English-taught courses.

#### Strategy4: Expanding Academic Network in Asia

Nagoya University has always been at the forefront of cultivating Human Resources from various Asian countries in areas such as Law, Medicine, and International Development, and is held in high regard both at home and abroad. It forms part of Nagoya University's Human and Intellectual Networks, and we have established 14 alumni associations overseas and are working to strengthen our networks. Through such efforts to expand our engagement in education and research within an environment of diversity, we aim to become a Hub University that grows together with a Developing Asia. The Asian Satellite Campus Institute has commenced the "Education Program for the Development of Core National Human Resources of Asian Nations" and is currently implementing high quality Ph.D. programs on both the main campus and the Asian Satellite Campuses. Our next objective is to establish Satellite Campuses in 8 countries (Current: Cambodia, Mongolia, Vietnam; Planned: Indonesia, Laos, Uzbekistan, Myanmar etc.) by 2016, and cultivate 50 or more Core National Human Resources across 5 areas (Law, Medicine, Bio-Agriculture, International Development, Environmental Studies) within 10 years.

#### [Characteristic Activities (Internationalization, Governance Reinvention, Education Reinvention etc.)]

We are streamlining the internal decision-making process to make it easier for the President's leadership to be effective. Specifically, the President, Administrative Executives, and Deans will be meeting more often, and interdepartmental sharing of information and awareness of issues. The Internet will be utilized as well for the exchange of suggestions (JAM Sessions). Collection of external data, analysis of the university's strengths, and monitoring of the Strategy Planning Procedures (Departmental Participation) and their effects will also be carried out. Suggestions and opinions from a international perspective as provided by the International Advisory Board and other international advisors will be included.

# [Measures to promote collaboration with overseas universities]

Due to the internationalization of university education, world-famous universities promote collaboration in research and education with overseas universities. We have already been engaging in various ways in response to the internationalization of research and education, but there is a need for renewed efforts from graduate departments. In February 2014, the Graduate School of Medicine signed a Joint Degree Program with the University of Adelaide in Australia. We hope to use this as a model to expand our partnerships with approximately 20 other research universities with which we have a history of exchange including the University of Freiburg (Germany), University of Muenster (Germany), Strasbourg University (France), Johns Hopkins University (US), University of Michigan (US), University of Edinburgh (UK), and Kasetsart University (Thailand). To effectively implement these objectives, we have established an international joint research program center, to promote international joint degrees and research projects.

# 2. Progress of our activities (Year 2014)

■ Common Performance Indicators and Objectives

#### Internationalization

# 1. The Asian Satellite Campus Institute's "Education Program for the Development of Core National Human Resources" Inauguration

We established satellite campuses and started accepting students in Mongolia, Cambodia, and Vietnam. Local residents were actively employed as designated lecturers and administrative staff. Environmental preparations were made as necessary with the cooperation of local partner universities, such as the construction of educational and research facilities. Our institute enables students to study as NU students without needing to be away from their workplace in their home countries, providing easy access to our programs and thus contributing to the internationalization (diversification) of NU.



Campus opening ceremony in Cambodia>

#### 2. Joint Degree Activities

The International Joint Education and Research Program Promotion Office was founded to establish International Joint Education and Research Unit in Western and Asian major universities. Throughout this we aim to foster human resources who can work around the world, and help the level of our research and education be recognized by the world best educators and researchers. In March 2014, The graduate school of Medicine signed an memorandum of understanding including the conferral of Medical Doctor degrees, in joint programs with the University of Adelaide and University of Freiburg, and have since been discussing specifics for the implementation of International Research Strategies and Joint Education Programs. In March 2015, we submitted an application for the establishment of a Joint Degree Program with the University of Adelaide, and is the first Japanese university.

#### 3. Increase of English-taught courses

We are now in the process of increasing English-taught courses, responding to increasing overseas undergraduate students. There were 850 courses in 2013, and now there are over 1,000 courses that are English-taught. The G30 English education program accepted 200 undergraduate students overseas in 2014. Additionally, as part of overseas students recruitment, we performed trial lectures in China, Indonesia, and Thailand, to demonstrate the quality of our lectures. As for support of Japanese students, we created IELTS and ILETS-iBT intensive courses for students who want to study abroad, and are currently preparing infrastructure that will allow them to enroll in English-taught courses together with international students, which is expected to contribute to the internationalization of students.

#### Governance reinvention

#### 1. Open symposium for our faculty members

We held a symposium in May 13, 2015 for all faculty members to share information and better understand our strategies and goals for becoming a leading university in the world. Each member in charge fully explained each strategy and action plan (strategies to implement in 2015-2017), and over 550 members attended the symposium. We also invited 4 members from the International Advisory Board (IAB), including foreign teachers, and had a panel discussion about our strategies and their problems with the president and department directors. The symposium was successful to the point that it was necessary to extend the time due to the large number of questions.



<Pre><Pre>resident and directors listening to IAB>

# 2. Preparation for project operation

To actively promote this project, we established the TGU project head office, and prepared the various committees and organizations required for the implementation of the project. 4 individuals with many years of experience in the operations of foreign/domestic universities or international institutes were selected as members of the International Advisory Board (IAB) to establish a system that includes international perspective. Also, we created and presented the Action Plan I (2015-2017) to clarify its objectives to the project members.

#### Education reinvention

# 1. Activities to enhance international applicability of our education system

- •We introduced a quota system-based flexible school term to make it easier for our students to study abroad. We established a educational reform WG, the system of which will be designed within 2015, and will be prepared for implementation by 2016.
- •Along with systemizing and structuring curriculums, we will implement a course numbering system which makes it easier for our student to transfer credits from foreign universities, and create a visualization of where each individual course stands in relation to all curriculums.
- •We are preparing a guideline for creating syllabus in English, so that graduate courses may provide syllabus in both Japanese and English.

#### 2. Activities to enhance international applicability of our educational content

- •We are implementing various policies for the international standardization of liberal arts education, increasing graduate school general education courses, enhancing English-standardization of graduate courses, and promoting students' independent study. From 2015, we have begun offering a training camp-style active learning course on the subject of "Academic Writing and Research Ethics".
- •To enhance academic writing education, we will be hiring two native English speaking teachers for the academic writing education department in the liberal arts institute (to be employed in October 2015).
- ·We extended the university library's night and holiday opening hours to promote students' independent study.

#### ■ Common Performance Indicators and Objectives of Nagoya University

#### 1 Number of Joint Degree Units

Beginning with the establishment of a international joint education and research unit by the Graduate School of Medicine in collaboration with the University of Adelaide and the University of Freiburg, we are pursuing collaboration with Top Universities across all graduate departments, and are aiming to have established 5 units by 2017.

#### 2 Utilization of Study Abroad Savings Accounts

Savings Account system, in which students interested in studying abroad save 10 thousand yen a month, was established in 2015. In case the deposit is not enough for studying abroad, he/she can borrow the necessary amount from the university's loan system without interest. Over 200 people attended the orientation held for parents and guardians in May 2015. This system began in 2015 and we estimate that about 400 students will have utilized this system by 2017.



<Orientation on Savings Accounts system for studying abroad>

#### 3 Number of Students Studying Abroad through NU Overseas Take-off Initiative(NU-OTI)

To encourage students to study abroad, Nagoya University is pursuing the expansion of short term exchange programs with well-defined curriculums In February of 2015, with the help of our regional office in Bangkok, Thailand, internships with local Japanese companies were implemented on a trial basis. As a result, we were able to offer several new programs in 2014, and increased the number of dispatched students by 25% (from 123 to 155). And, as of June 2015, with the improvement of the Summer exchange program, we are expecting to dispatch 70% more students compared to last year (59 to 98).

# ■ Approaches Enhance Nagoya University's Reputation in the World

#### 1 UBIAS - Intercontinental Academia

UBIAS(University-Based Institutes for Advanced Studies) is an organization that aims to promote a network between national institutes of advanced studies of universities around the world and stimulate international research exchange. Currently, Nagoya University is playing a central role in the planning and operations of the "Intercontinental Academia" project which seeks to nurture leaders of the next generation in collaboration with the University of São Paulo Institute of Advanced Studies. A workshop was held at the University of São Paulo in April 2015 and the next workshop is planned at Nagoya University in March 2016. Nagoya University and the University of São Paulo have discussed, during 2014, the contents and management of the program, and how to recruit applicant over the internet.



<Discussion on Intercontinental Academia at NU>

#### 2 Nagoya University Selected among 10 Universities under HeForShe Campaign's "IMPACT 10X10X10" Program

Nagoya University has been selected as one of 10 World Universities under the HeForShe campaign's "IMPACT 10X10X10" program of UN Women(the United Nations entity engaged in gender equality and women's empowerment). This program is a part of the HeForShe campaign which calls on men for their cooperation and involvement for women's empowerment and 10 leaders(institutions) each have been selected from the governments, corporations and universities. We were evaluated highly for our gender equality activities, especially for the educational program for women leaders' development, support for female students and researchers and preparation of the facilities inside and outside of the university. Presidents of other universities selected include those of the University of Hong Kong, the University of Leicester in the UK, and the University of Waterloo in Canada.

#### [Partnership Achievements with Foreign Universities]

In November 2015, Nagoya University dispatched representatives to the University of Freiburg in German, one of our partner universities, to discuss a comprehensive education and research exchange. Representatives include then Nagoya University President Hamaguchi, Trustee Kunieda and representatives from the schools of law, economics, linguistics, science and the School for Advanced Study. They mainly discussed concrete details for a cooperative system for education and research collaborations as well as the expansion of the partnership between the universities. Joint degree programs and UBIAS Intercontinental Academia mentioned above were also discussed at the time and a comprehensive cooperation system was established.

In January 2015, Nagoya University Day was held at Chulalongkorn University in Thailand. We provided some events such as a trial lesson for senior high school students and discussions by two Nobel Prize Winners and then President of Nagoya University for a potential partnership with local high schools as well as with the university.

Regarding Programs for Leading Graduate Schools (PhD Professional: Gateway to Success), Nagoya University and the University of Edinburgh in England collaborated to hold a symposium on Transferable Skills Training at the University of Edinburgh in September 2014 and at Nagoya University in February 2015.

# ■ Other

# **Efforts for World-Class Research**

Nagoya University has strived to promote an energy saving society since Distinguished Professor Akasaki and Distinguished Professor Amano were awarded a Nobel Prize in 2014. We have also taken the initiative to work towards the establishment of the GaN (Gallium Nitride) Consortium within 2015, in which public and private sectors jointly conduct research for the GaN crystal growth, GaN-based device development, and the organization of a research system. This effort attracts a great deal of interest and 40 organizations, including over 20 companies, participated in the discussion meeting for the GaN Consortium establishment.



<Distinguished Professor Akasaki (right) and Distinguished Professor Amano (left)>

# 3. FY2015 Progress

# Common Indicators and Targets

# Internationalization

#### 1. Asian Satellite Campus

Asian Satellite Campuses were newly established in Uzbekistan, the Philippines, and Laos. Together with the 3 that were established last year, a total of 6 different countries are host to our Satellite Campuses. Beginning with the Graduate School of Environmental Studies in 2015, a total of 5 graduate schools currently provide the "Education Program for the Development of Core National Human Resources of Asian Nations" with access to their doctoral degree programs. Expanding the number of campuses and graduate schools involved has allowed us to provide more programs for more fields, to more countries.

#### 2. Joint Degree Activities

Our university's Graduate School of Medicine launched an International Joint Degree Program with the University of Adelaide, Australia, as the first Japanese university to do so with official recognition from MEXT in October of last year. And in commemoration of this achievement, we invited faculty responsible for international agreements from the University of Adelaide and other universities to participate in a Commemorative Symposium on October 16, 2015, where we discussed our future plans for joint degrees. We will continue to actively pursue, establish, and develop partnerships with Top Universities from overseas with whom we have a history of exchange (University of Freiburg, University of Strasbourg, University of Edinburgh , Kasetsart University, North Carolina State University, etc.)



〈 Opening ceremony of Asian Satellite Campuses in Laos 〉



〈 A Commemorative Symposium on October , 2015 〉

# 3. Increase of English-taught Courses

To provide international students with more access to our renowned academic programs, we have opened courses taught entirely in English across the Humanities and Sciences such as Mathematics, Chemistry, Physics, Biology, Automotive Engineering, Economics, Law, Literature, and Japan-in-Asia Cultural Studies. Since 2015, we have also increased the number of classes taught in English from 820 to over 1700 (Initial goal: 1000). Japanese students enrolled in these courses are provided with an environment in which to improve their English. Also provided are Intensive Courses and classes for IELTS and TOEFL-IBT to improve their English in anticipation of studying abroad.

# **University reform**

# **Preparation for Project Operation**

- This year, the "TGU Head Office", established for reliable operation of the project, formed Accounting and Planning subcommittees to provide support for the project's various activities.
- The "International Joint Education and Research Promotion Office" was established to provide support for international joint academic activities. We created a framework of policies and infrastructure in which schools and graduate schools other than the Graduate School of Medicine could implement International Joint Degree Programs.
- We published and handed out a leaflet titled "Action Plan 1 (2015-2017)" to related personnel in order to clarify our objectives.
- •A symposium was held on May 13, 2015, for faculty and staff, to explain the purpose of the project as well as the efforts being made. The symposium was a success with over 550 participants in attendance, and questions continued well after the time the symposium was set to finish.

# **Education reform**

# 1. Activities to enhance international applicability of our education system

- The Educational Reform Work Group drafted a timeline for Undergraduate programs that would allow for the use of quarter-term courses, prospectively from 2017.
- · A Course Numbering system was implemented for most academic departments
- Templates of English syllabuses were created to implement Japanese-English bilingual syllabuses for most academic departments.
- The decision was made to establish the "Educational Foundation Coordination Headquarters" for educational quality assurance as well as the integrated reform, based on the 3 educational policies, of the admissions process.

#### 2. Activities to enhance international applicability of our educational content

- The Educational Reform Work Group examined the international standardization of our grade evaluation system, including the revision of the symbols used to show the evaluation results.
- The "Academic Writing" course, a common course for all graduate schools, was reformulated to the new and improved "Research Skills" course which addresses thinking skills, writing skills, speaking skills, and research ethics.
- •To stimulate autonomic learning by the students, the open hours of the affiliated libraries in the late hours and on the weekends has been extended, in continuance from last year. The number of students using the library over the weekends has increased by 50% (From 100,000 to over 150,000), and survey results show that students consider this measure an important factor in improving their educational environment.

# 1. Number of Joint Degree Units

Beginning with the establishment of an international joint education and research unit by the Graduate School of Medicine in collaboration with the University of Adelaide and the University of Freiburg, we are pursuing collaborations with Top Universities across all graduate departments, and are aiming to have established 20 units by 2023.

# 2. Utilization of Study Abroad Savings Accounts

Savings Account system, in which students interested in studying abroad save 10 thousand yen a month, was established in 2015. In case the deposit is not enough for studying abroad, he/she can borrow the necessary amount from the university's loan system without interest. Over 200 people attended the orientation held for parents and guardians in May 2015. This system began in 2015 and we estimate that about 400 students will have utilized it by 2017.

#### 3. NU Overseas Take-off Initiative(NU-OTI)

In 2015, programs consisting of coursework both inside Japan and overseas were opened as Liberal Arts and Sciences courses (4 Liberal Education Courses in Interdisciplinary Fields, 3 Literary and Cultural Studies). To take the 4 Liberal Education Courses in Interdisciplinary Fields for example, they were designed to each consist of clear and unique content and implemented with the expansion of the program (USA, Uzbekistan, Thailand, UK). Participants were able to achieve objectives such as experiencing the global expansion of the place of learning (USA) and acquiring the fundamental attitude towards future academic research (Uzbekistan, Thailand, UK). These achievements have been shared both internally and publicly through publications or oral presentations, etc. 101 students participated in NU-OTI courses in 2015, and the total number of students dispatched from Nagoya University this year reached 1,013 (Last year, 605).



⟨ Overseas study tour in Uzbekistan ⟩

Initiatives for the enhancement of international reputation/ Featured initiatives based on the characteristics of the university

#### 1 Academic Consortium: AC21

An Academic Consortium(AC21) with our university serving a central role was formed in June 2002 amongst 24 world leading universities and research institutions at an international forum attended by their representatives with the objective of establishing an academic network. The list of members include North Carolina State University(USA), the University of Adelaide(Australia), or the University of Strasbourg (France), just to name a few. The principle theme of the inaugural forum, "The Role of Universities in the 21st Century", continues to guide AC21's activities to this day. Last year's activities include hosting the Student World Forum in Strasbourg (France) and Freiburg (Germany). The forum's theme was "The European Experience in Local and Regional Democracy", and 38 students from 18 member universities participated in group discussions etc., which student surveys showed to have provided the participants with a great opportunity to enhance their awareness of cooperation and coexistence that transcends national boundaries.

# 2 RENKEI (Research and Education Network for Knowledge Economy Initiatives)

RENKEI was established in March 2012 as a consortium between 12 Japanese and UK universities (6 Japan, 6 UK). Its objective is to promote collaboration between universities or with private sector industries in areas of education and research, and has created workgroups to engage in various activities. In 2014, Nagoya University collaborated with the University of Bristol and the University of Southampton to hold the "2014 RENKEI Japan-UK Joint Workshop on Aerospace Engineering", in which 20 Japanese and UK students and young researchers participated in a week-long workshop. We also dispatched students to each of the workshops held by the University of Southampton, University College London, and Osaka University.

# [ Results for the promotion of collaboration with foreign universities (Type A only) ]

Our faculty are conducting "Visiting Lectures", focusing mostly on partner universities in developing countries, with the aim of encouraging research and education collaborations as well as acquiring talented graduate students. We are especially active in China where, with the assistance of our Shanghai Office, the Visiting Lectures are conducted under the name "Nagoya University Lecture Series". In 2015 alone, over 500 participants attended Visiting Lectures in Zhejiang University, Nanjing University, Jilin University, Northeastern University, and Huazhong University of Science and Technology. As a result, numerous applications to enter our graduate schools in 2016 were submitted by students from the schools that were visited. We also conducted the Visiting Lectures in Vietnam and Thailand, and we look forward to applications from talented students from those countries as well.

# Free description

#### **Efforts towards World-Leading Research**

Nagoya University was selected to be included in MEXT's 2016 Project "Research and Development of Advanced Semiconductors that Contribute to Establishing an Energy-Efficient Society" for our efforts in utilizing the GaN Research Consortium which was established in October 2015 with involvement from all around Japan. Henceforth, Prof. Hiroshi Amano of the Institute of Materials and Systems for Sustainability will become our research representative and work to accelerate the research through Academia-Industry-Government collaborations towards the early applications of advanced materials such as GaN, etc., with Nagoya University as the center of such efforts.



# 4. FY2016 Progress

# Common Indicators and Targets

# Internationalization

#### 1. Asian Satellite Campus

The satellite campuses established in six Asian countries (Mongolia, Vietnam, Cambodia, Uzbekistan, Philippines, and Laos) accepted 16 students in 2016 (with inaugural students in Uzbekistan); the total number of students is now 30 in total. In addition, a South East Asia Coordinator has been appointed to strengthen collaboration with international research organizations, such as SEARCA and IRRI in the Philippines, and to support the institute's activities. The institute will steadily continue to implement these programs in the future.

#### 2. Implementation of Joint Degree Programs

The International Collaborative Programme in Science was established between the University of Edinburgh (UK) and the Nagoya University Graduate School of Science, and each school started accepting students in October 2016. In commemoration of the program's establishment, a kickoff symposium was held during the same month, to which professors in charge of the program at the University of Edinburgh were invited and more than 200 persons participated in the symposium from both within and outside of the university. The symposium provided an opportunity to promote greater awareness and deeper understanding of the International Collaborative Programme. In November 2016, Nagoya University received approval from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) for the establishment of an International Collaborative Program in Comprehensive Medical Science between Lund University (Sweden) and the Nagoya University Graduate School of Medicine. Following this, in initiating another International Collaborative Program in Comprehensive Medical Science established with the University of Adelaide (Australia) in October 2015, three international collaborative programs were established in April 2017. Furthermore, to establish an International Collaborative Program in Bioagricultural Sciences between Kasetsart University (Thailand) and the Nagoya University Graduate School of Bioagricultural Sciences, the University has begun preparation on a request for approval to be submitted to MEXT in August 2017.

# University reform

# 1. Activities of the Institute of International Education & Exchange

The Institute of International Education & Exchange, established at the end of last year, conducted implementation of international education programs and close investigations of their current status, overseas travel risk management, etc.Especially for the measures against world-wide instability, a risk management advisor has been appointed to enhance risk management for students studying abroad.

### 2. Hosting an International Symposium

On February 17, 2017, the University hosted an international symposium to recognize and share the results of the efforts made for these programs during the previous two and a half years, inviting an International Advisory Board composed of former university presidents. The members shared many valuable opinions and words of encouragement directed at the programs, such as: "The University's aspirations and strategies in implementing these programs are all outstanding. I can see the university has already been making significant progress, and it seems you are proceeding in the right direction. I would like to give you all a big round of applause."; "These joint degree programs will not only result in doctoral degree conferment, but I expect the university will be able to enhance both the quantity and quality of research collaboration with overseas universities, and create a cycle for improving the quality of research papers, promoting education and research funding, and attracting talents."



<International Symposium on Feb 17, 2017>

# **Education reform**

# 1. Appointment of Academic Writing Instructors

In order to improve the thesis writing skills of undergraduate students, which will be the foundation of writing papers in English for graduate students, the University employed Academic Writing Instructors in March and started investigating measures to contribute to improving the thesis (including report) writing skills of undergraduate students enrolled from the next academic year onward.

# 2. Grading Criteria Reform

Upon consideration of the situation in overseas universities, necessary agreements have been obtained in order to change the current five-level evaluation system into a six-level evaluation system for undergraduate schools, incorporating new evaluation symbols, evaluation criteria, and GPA (planned for introduction when the Student Affairs Information System is changed in AY2020).

# 3. Implementation of FD seminars

Over the course of three FD seminars, 42 faculty members participated in total. In participant questionnaires there were many positive responses, such as: "It was a good opportunity to learn the English language teaching methods systematically, as I have hardly had chances to do so."; "Now I better understand how to approach group work, and I would like to put the methods into practice."

# 1. The Number of Joint Degree Program Units

Two International Collaborative Programs established between the University of Adelaide (Australia) and the Nagoya University Graduate School of Medicine, and the University of Edinburgh (UK) and the Nagoya University Graduate School of Science have already started accepting students. The university continues to seek and promote establishment of International Collaborative Programs with overseas leading universities.

# 2. Study Abroad through the NU Overseas Take-off Initiative (NU-OTI)

So far 97 students have participated in Liberal Arts and Sciences courses with overseas training components in Thailand, Scotland, Indonesia, Uzbekistan, Australia, US, Germany, Switzerland, and South Korea; the courses have been well received by students. These courses, which are unique in their overseas training components, may not be properly handled by preexisting systems and administrative procedures in some cases. However, these issues have been clarified.

# ■ Initiatives for the enhancement of international reputation

# 1. Academic Consortium; AC21

An Academic Consortium(AC21) with our university serving a central role was formed in June 2002 amongst 24 world leading universities and research institutions at an international forum attended by their representatives with the objective of establishing an academic network. The list of members include North Carolina State University(USA), the University of Adelaide(Australia), or the University of Strasbourg (France), just to name a few. The principle theme of the inaugural forum, "The Role of Universities in the 21st Century", continues to guide AC21's activities to this day. Recent activities include hosting the 8th International Forum in Chemnitz, Germany in May 2016. The forum's main theme was "Networks of Innovation for the Transformation of Society through Science" and more than 100 participants from AC21-member universities, international partner universities and other institutions attended the forum.

### 2. RENKEI(Research and Education Network for Knowledge Economy Initiatives)

RENKEI was established in March 2012 as a consortium between 12 Japanese and UK universities (6 Japan, 6 UK). Its objective is to promote collaboration between universities or with private sector industries in areas of education and research, and has created workgroups to engage in various activities. In 2014, Nagoya University hosted the "Japan-UK Joint Workshop on Aerospace Engineering" in cooperation with the University of Bristol and the University of Southampton; similarly in 2016, another workshop was hosted at the University of Bristol and the University of Southampton to complete the pair.

### 3. MIRAI Project

A three-year joint project starting from 2017 under the cooperation of seven leading universities in Sweden and eight universities in Japan. Its goal is to contribute to the collaboration in higher education between the two countries through the promotion of joint research as well as the exchange of young researchers. A workshop regarding large-scale facilities is planned to be held in Sweden in October 2017.

#### [Results for the promotion of collaboration with foreign universities]

So that prospective students in foreign countries may experience classes offered by Nagoya University first-hand, and to enhance its international presence, the University offered mock lectures at several locations abroad: in China at Xi'an Jiaotong University, the University of Science and Technology of China, and Nanjing University; and in Thailand at Kasetsart University, Chulalongkorn University, and the Mahidol Wittayanusorn School. In the briefing sessions held following the mock lectures, we introduced our various study abroad programs, including NUPACE (Nagoya University Program for Academic Exchange), NUSTEP (Nagoya University Short-Term Japanese Language Program), our graduate schools, our international programs (G30), and the Chinese government-sponsored program. During the sessions we received numerous questions from the participants and provided individual consultation as much as time allowed. This resulted in receiving high praise from our partner schools.

#### Free description

### Participation in HeForShe

Last year Nagoya University was selected as the only Japanese university to be among the 10 World Universities participating in the "IMPACT 10X10X10" program of the HeForShe Campaign (A movement to advance gender equality led by UN Women). During the 71st United Nations General Assembly on September 20, 2016, UN Women presented the first "HeForShe IMPACT 10×10×10 University Parity Report" regarding gender equality at institutions of higher education worldwide, as part of the HeForShe ceremony held at the United Nations Headquarters in New York City. At the press conference President Matsuo, the only member in attendance from Japan, announced our university's commitment.



< HeForShe IMPACT 10 × 10 × 10 University Parity Report >

# 5. FY2017 Progress

# Common Indicators and Targets

# Internationalization

#### 1. Asian Satellite Campus Institute

There are 29 students currently enrolled in the satellite campuses which have expanded to seven Asian countries (Mongolia, Vietnam, Cambodia, Uzbekistan, Philippines, Laos, Myanmar) and in 2017, two students from the field of law and one from the field of bioagricultural sciences received their doctoral degrees. In the future, we wish to continue carrying out these programs and further cooperation with international research institutes such as SEARCA and IRRI.

#### 2. Joint Degree Programs

In November 2017, we received notice of approval from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to establish an International Collaborative Program in Agricultural Sciences between Nagoya University Graduate School of Bioagricultural Sciences and Kasetsart University, Thailand. With this, four international joint degree programs (ten courses) will have been established as of April 2018. Additionally, in March 2018, documents were submitted to MEXT to establish an international joint degree program between Nagoya University Graduate School of Medicine and the University of Freiburg, Germany.

Furthermore, the Graduate School of Bioagricultural Sciences has begun to prepare a request to be submitted to MEXT in August 2018 regarding the establishment of an international joint degree program between Nagoya University and the University of Western Australia, Australia. The Graduate School of Humanities has continued its negotiations with University of Warwick, England towards the goal of establishing an international joint degree program between them.

# University reform

#### 1. Shared Governance

In an effort to contribute to society by delivering world-class education and research and in order to become a world leading research university, the university has formulated a "shared governance" plan, a collaborative system for sharing information, objectives, and strategies between the board of trustees, graduate school executives, faculty and staff members of the university, launched several working groups, and started creating concrete plans. Through this system, the university fosters an environment of reliance and responsibility and is able to implement a form of governance that responds to the changing needs of society in a more flexible way.

# 2. Institute for the Promotion of Doctoral Education, Applied Social System Institute of Asia

The "Institute for the Promotion of Doctoral Education" has been established to provide interdisciplinary education in cooperation with cutting-edge research centers to produce doctoral researchers in various fields who are equipped with research ability, international reach, and power to connect with society in order to take on new challenges, and are capable to play a leading role in the knowledge-based society.

In addition, the "Applied Social System Institute of Asia" has been established to provide a platform to bring together various humanities and social sciences researchers in Asia and, depending on issues, invite science and engineering researchers as well to conduct joint research for finding solutions to problems facing the Asian region and across the world.

We hope to conduct postgraduate education that stands out to researchers and students worldwide through the activities of these organizations.



<Role of Institute for the Promotion of Doctoral Education>

# **Education reform**

#### 1. G30 Program

Graduates of the G30 program, a program with classes conducted entirely in English, have gone on to attend graduate schools at top ranking Western institutions such as University of Oxford and University of Michigan. This reflects the high level and internationally competitive standards of our university's education and its ability to produce results.

#### 2. Quarter system

In 2017, the university adopted a four-quarter system for all departments, offering a simpler alternative of taking classes in one of four quarters a year, in Spring 1, Spring 2, Fall 1, or Fall 2. The quarter system marks the completion of a more flexible academic calendar.

#### 3. FD seminars

In total, 34 faculty members participated in two rounds of FD seminars. Participants responded favorably about the seminars in a survey, stating that "It was practical, and I thought it was great to hold such a seminar" and "The instructor used the actual techniques during the class which was very helpful. (I often thought that I did not know that I could proceed better with a class using those techniques in those ways)." Faculty were able to learn a lot about the kind of teaching methodology necessary for conducting classes in English.

# 1. Number of Keynote Speeches at International Conferences

One of the goals was to increase the number of key note speeches, an indicator of international recognition, and a subsidy system to promote holding international conferences has been introduced. As a result, the number of keynote speeches rapidly increased from 289 in 2013 to 502.

#### 2. NU Overseas Take-off Initiative (NU-OTI)

In 2017, 90 students enrolled in the NU-OTI program. As educational and course operational results, this extracurricular activity (overseas training) has been implemented with the cooperation of offices in the Uzbekistan, Mongolia, Europe, North Carolina (US). This year marks the third year since the program's inception, and the offices in Japan and overseas have reached a stable understanding on the levels of student advisement and training operation policies.

# ■ Initiatives for the enhancement of international reputation

#### 1. Academic Consortium: AC21

With the objective of establishing an academic network, an Academic Consortium (AC21) with our university serving a central role was formed in June 2002 at our international forum attended by the representatives of 24 world leading universities / education and research institutions, which currently has 18 participating universities. On July 11-15, 2017, the "International Graduate Schools (IGS)" program was implemented at Gadjah Mada University, Indonesia, targeting graduate students from participating universities. Also, as one of six universities, our university participated in "Fostering Collaboration in Future Particle Physics" Detectors, one of the three projects selected by the Special Project Fund (SPF), founded eight years ago in order to promote the development of research and educational exchange, and international networking among AC21 members.

# 2. RENKEI(Research and Education Network for Knowledge Economy Initiatives)

The RENKEI academic consortium was established in March 2012 with twelve participating universities, six each from Japan and the UK, including our own, with the objective of promoting the collaboration among universities and the industry in education and research. Member universities create working groups and each plans and carries out its own events. Many researchers and students from our university participated in these workshops, which included "Digital Cultural Heritage Business and Open Data: Bringing Rome to Japan" held in June 2017 by The University of Southampton, Newcastle University, and Ritsumeikan University and "RENKEI PAX SCHOOL 2017 -Emancipating the Mind: History, Politics and Heritage" held the same year in August by the University of Liverpool and Ritsumeikan University. Furthermore, the university attended the annual general meeting held on November 15-16 that same year in the University of Southampton.

# 3. MIRAI Project

This is a three-year collaborative project launched in 2017 conducted with the cooperation from seven prestigious universities in Sweden and eight in Japan. Through promoting joint research and networking between young researchers, the project aims to strengthen the coordination of higher education between Japan and Sweden. On October 16-19, 2017, "Seminar 2017-Large-Scale Research Facilities and their Potential for Research and Society" was held at Lund University. At the same time, sectional meetings were held for three fields: Innovation (17th), Materials Science (17-19th), and Sustainability (17-19th). "Seminar 2018" is planned for next year in Japan as one of the projects to commemorate 150 years of diplomatic relations between Japan and Sweden.

#### 4. APRU

This is a cooperative project between universities with the aim of resolving pressing problems facing the Pacific Rim through education and research. Since its establishment in 1997 at the University of California and other institutions, its membership has increased to 50 universities (as of March 2018). In 2017, Nagoya University became a member. More than ten international symposiums and conferences are being held in a year, with themes such as health, aging, and the digital economy. Our university attended the "Provosts' Forum" on March 11-13, 2018 and plans to attend the "Annual Presidential Meeting" next year in June.

# [Results for the promotion of collaboration with foreign universities]

Nagoya University has expanded its presence with its visiting lectures held at Huazhong University of Science and Technology, Tongji University, Northeastern University, and Dalian University of Technology. An informative talk is given at the end of each lecture introducing the various international exchange programs available at our university, such as NUPACE (Nagoya University Program for Academic Exchange), NUSTEP (Nagoya University Short-Term Japanese Language Program), G30 International Programs, and other Chinese government-sponsored programs. We received favorable evaluations by giving proper explanations to any questions and concerns voiced by individual participants.

# ■ Free description

#### **Campus management**

Our university strives to realize a sustainable campus that meets global standards through collaborative work between faculty and staff members for a comprehensive management system, from the planning and designing stages of campus maintenance to its implementation and application.

These initiatives received favorable evaluation and were awarded the first MEXT Infra-maintenance award established by MLIT, MIC, MEXT, MHLW, MAFF, and MOD.



< Current conditions >



< Thirty years later >

# 6. FY2018 Progress

Common Indicators and Targets

# Internationalization

# 1. Asian Satellite Campus Institute

With the continuous implementation of the "Transnational Doctoral Programs for Leading Professionals in Asian Countries", in October 2018, 6 graduate schools have accepted a total of 14 new students from Uzbekistan, Cambodia, the Philippines, Mongolia and Laos. There are currently 45 students in total enrolled in the programs. With the addition of the Graduate School of Education and Human Development in 2018, there are now a total of 6 graduate schools implementing the programs.

#### 2. Joint Degree Programs

In October 2018, the "International Collaborative Program in Comprehensive Medical Science between Nagoya University and the University of Freiburg" was established in October 2018, and the establishment of the "International Collaborative Program in Agricultural Sciences between Nagoya University and The University of Western Australia" has been approved and is scheduled to begin in April 2019.

In addition, important steps have been taken for the establishment of other joint degree programs. Preparations are underway for a cotutelle agreement in anticipation of the establishment of a Joint Degree Program between the Graduate School of Humanities and The University of Warwick (United Kingdom), and progress is being made in the application for the establishment of a Joint Degree Program between the Graduate School of Engineering and Chulalongkorn University (Thailand).

# **University reform**

#### Basic Agreement Towards the Establishment of the Tokai National University System

In an effort to contribute to society by delivering world-class education and research and in order to become a world leading research university, the university has formulated a "shared governance" plan, a collaborative system for sharing information, objectives, and strategies between the board of trustees, graduate school executives, faculty and staff members of the university, launched several working groups, and started creating concrete plans. Through this system, the university fosters an environment of reliance and responsibility and is able to implement a form of governance that responds to the changing needs of society in a more flexible way.



<State of the ceremony>

#### **Education reform**

#### 1. G30 for Everyone

A total of 15 lectures in English were presented by Nagoya University faculty members on a wide variety of topics, aimed at those interested in lectures in English at Nagoya University, with a broad range of audience members ranging from the affiliated high school students to the university faculty and staff members. Lectures were presented in such a way that people with little knowledge about English and/or these topics could easily understand and experience English in an academic atmosphere.

#### 2. FD seminars

Over the course of five rounds of FD seminars, a total of 80 faculty members have participated. The majority of participants wrote in questionnaires that the seminars were effective, with many positive responses such as "I was able to learn Active Learning Methods while experiencing them" and "I was able to reevaluate my own teaching methods". Faculty members were able to acquire teaching methods they could use when teaching classes in English.

# **NU Overseas Take-off Initiative (NU-OTI)**

In 2018, 139 students participated in the NU-OTI Program implemented in 2018. With the cooperation of offices in Uzbekistan, Mongolia, Europe and North Carolina (United States), we were able to implement extra-curricular activities (Overseas Training). Utilizing the knowledge garnered in the program, we were able to implement the NU-OTI Program in Thailand in 2018. From now on, we will continue with the implementation of the NU-OTI Program through cooperation between offices in Japan and overseas.

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#### [Results for the promotion of collaboration with foreign universities]

At the Visiting Lectures held at 6 universities in China, there were a total of about 600 participants. In amongst the participants, many students became interested in advancing to graduate school or doing short-term exchange study at Nagoya University, and the respective schools/graduate schools and relevant departments are providing follow ups as necessary for those who wish to come to study at Nagoya University. In addition, we had the opportunity to exchange opinions actively with those in charge of international exchange at our partner universities. We had discussions with the Dalian University of Technology, and it has officially been decided that our university will accept short-term research students at the Graduate School of Engineering from Fall 2019. Moreover, these discussions yielded other results such as an agreement to send 13 of our students to the Japan-China Student Exchange Meeting for Dalian University of Technology's 70th Anniversary to be held in May 2019.

# Free description

### Receiving the Highest Grade of COI [S+]

Of the 18 research centers selected from across Japan for the "Center of Innovation (COI) Program" led by the Ministry of Education, Culture, Sports, Science and Technology, and the Japan Science and Technology Agency, the "'Mobility' Innovation Center (Nagoya University COI)" was awarded an "S+" grade by the COI Visionary Team at the end of the phase 2 as a result of the mid-term evaluation this year. This accomplishment is on a level with the "S" grades Nagoya University received in the midterm evaluations for the WPI Program and SGU Project.



<Person concerned>