

JAPAN INTELLECTUAL SUPPORT NETWORK IN AGRICULTURAL SCIENCES (JISNAS) - ITS OBJECTIVES AND FUNCTION -

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ABSTRACT

Background

In Japan, it is pointed out, on the one hand, that universities and research organizations should form a network to circulate information, exchange faculty, and promote collaborative research. At the same time, however, due to the transformation of national universities into independent administrative agencies, competition within and among academic fields is intensifying. Under such circumstances, although both individual researchers and universities must demonstrate successful results, the status quo is that it is getting harder to cooperate and collaborate among universities. However, with such a competitive world in mind, it is necessary and becoming more important to accomplish these achievements through collaboration, not as individual efforts.

Especially in the area of international cooperation, individual cooperative projects by Japanese researchers are usually carried out independently. However, from the point of view of foreign partners, we are all considered as official visitors or delegations from Japan. While it is important to demonstrate that individual cooperation projects are being implemented, the current challenge is to show a more integrated approach to this international agricultural cooperation.

As above, it is necessary for us to share information domestically and in more effective ways. And at the same time, it is also necessary to form various types of cooperative mechanisms.

Objectives and function

Japan Intellectual Support Network in Agricultural Sciences (JISNAS) was founded on November 30, 2009, as a cooperation network among Japan-based universities, international agricultural research institutions and international cooperation agencies, whose focuses are agricultural sciences and international agricultural cooperation. Members are presently 29 organizations and 5 persons. Its objectives are to promote international research collaboration and higher education for human development, not by a single university but a team of universities of common interest in cooperation with counterpart organizations of developing countries under funding support by MEXT, JICA and so on.

To achieve its objectives, JISNAS acts following activities in cooperation with Japanese/foreign universities, related Ministries/government agencies, and international cooperation organizations: (1) to support for enabling the operation of international cooperation, (2) to integrate and network dispersed knowledge, technologies and human resources, (3) to maintain and promote motivation of researchers/faculty, (4) to promote project entrustments through the network operation,

(5) to promote understandings of international cooperation activities by university faculty/staffs and the general public and (6) any other activities to achieve the objectives of JISNAS.

IReNe-AFF

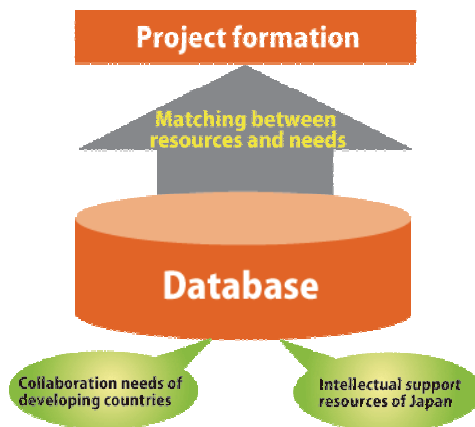
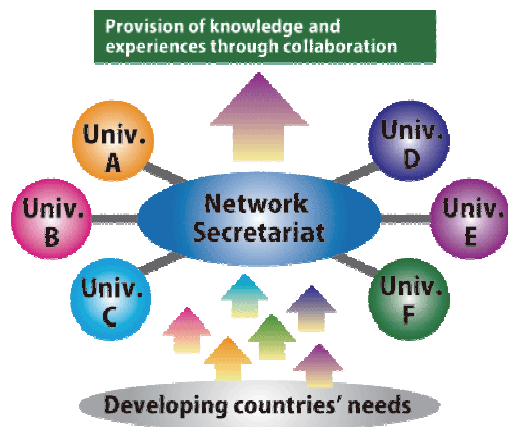
A prominent activity to support the development of collaborative research project is the regular survey of intellectual resources of members and non-members of Japan and international cooperation needs of developing countries by using interactive web system (<http://www.inicaf.org/irene/index.php>) and store the results as a database, IReNe-AFF (Database of Intellectual Resources and Needs in areas of Agriculture, Forestry and Fisheries). By analyzing matching between resources and needs, JISNAS intends to suggest or propose the development of international collaborative research projects by members and, in addition, make a suggestion to MEXT, JICA and others for their policy development of international cooperation. It is true that we need to conduct field surveys on the ground and discuss face to face among foreign and Japanese partners the subjects of common interest for making collaborative research proposals and/or human resources development through the collaboration, but the IReNe-AFF will be useful as well to overview Japan's resources and foreign needs and to find the subjects for possible future collaboration and partners as well.

In the database collected so far in Japan and in 19 developing countries (10 in Asia/Oceania, 8 in Africa and 1 in Europe), biodiversity, poverty reduction, agricultural extension/education, rural livelihood, genetic resources, conservation agriculture (sustainable agriculture), agricultural policy, farmers' organization, crop protection (diseases & insect pests management, IPM, etc.) and soil conservation are the keywords which show high matching between resources and needs. On the contrary, resources seems to be lack in climate change/global warming, post-harvest, agricultural information, agroforestry and gender although needs for these keywords are high in the developing countries. So it would be recommended to strengthen the research fields of these keywords so as to tackle these needs of developing countries.

Research/training proposals

Examples of collaborative research proposals made through JISNAS activity are a) Project for the promotion of improved crop production in the mountainous areas of North Vietnam (adopted), b) Identification and monitoring of new viral strains from potential disease carrier, the fruit bat (*Pteropus* sp.), c) Improvement of rapid diagnostic kit and production of therapeutic human monoclonal antibody for malaria, and d) JICA Group Training on development of core agricultural researchers for rice promotion in Sub-Saharan Africa. As such, we are trying or challenging to develop research or training proposals as many as possible.


With foundation of JISNAS, we have high expectations that cooperation in agricultural research and education among universities and research organizations in Japan will become more substantial, concrete and visible. Furthermore, we understand that setting up an effective and efficient operational mechanism through which all group members will feel the benefits of membership in JISNAS is a key to make it function and sustainable. Therefore, we expect you active support, understanding, and participation in JISNAS to contribute to the sustainable development of the world.



KEYWORDS

University network, agricultural cooperation, research collaboration, intellectual resource/needs database, international cooperation

TARC-JIRCAS 40th Anniversary International Symposium
(Nov. 8-9, 2010, Tsukuba)



Japan Intellectual Support Network in Agricultural Sciences (JISNAS)

-Its Objectives and Function-

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(<http://jisnas.com/en/outline/organization.html>)
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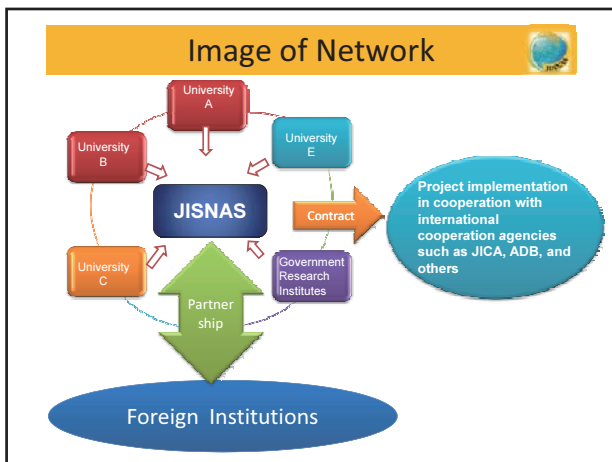
Inaugural Meeting (November 30, 2009)




Prof. K. Tanaka, Chair of the Steering Committee, JISNAS

Mr. K. Asai, a Representative, MEXT

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Background

- International collaboration based on individual efforts and devotion
- Integrated approach to international agricultural cooperation and/or development problems on the ground; technical and socio-economic, specialists or generalists
- Organized and sustainable use of Intellectual resources accumulated at universities and research organizations
- Lack of human capacity both in quality and quantity
- Collaboration among universities and research organizations

Network

- to circulate information
- to exchange faculty
- to promote collaborative research

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Objectives (1)

To promote international research collaboration and higher education for human development, not by a single university but a team of universities of common interest in cooperation with counterpart organizations of developing countries under funding by MEXT, JICA, etc.

International research collaboration & higher education

Provision of knowledge and experiences through collaboration

Network Secretariat

Univ. A, Univ. B, Univ. C, Univ. D, Univ. E, Univ. F

Developing countries' needs

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Objectives (2): IReNe-AFF

Database of Intellectual Resources and Needs in areas of Agriculture, Forestry and Fisheries

- Regular survey of intellectual resources of members and non-members of Japan and international cooperation needs of developing countries
- Interactive web system (<http://www.inicaf.org/irene/index.php>)
- To store the results as a database, IReNe-AFF.
- To analyze matching between resources and needs.

Policy development

Project formation

Matching between resources and needs

Database

Collaboration needs of developing countries

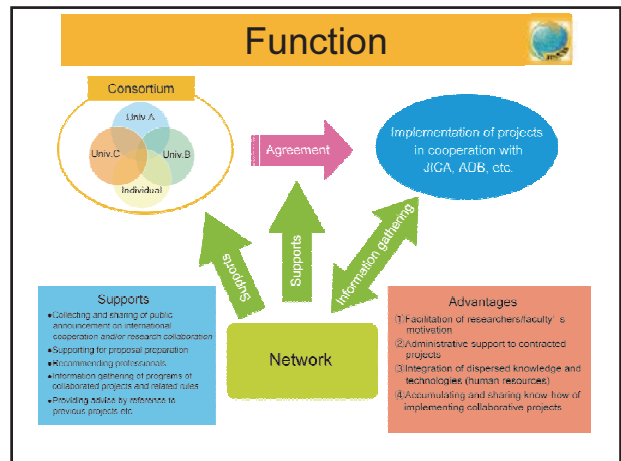
Intellectual support resources of Japan

(cf. IReNe-WE Database (water and environmental issues), Terrestrial Environment Research Center, Univ. of Tsukuba, 2007)

Activities

- (1) to support for enabling the operation of international cooperation,
- (2) to integrate and network dispersed knowledge, technologies and human resources,
- (3) to maintain and promote motivation of researchers/faculty,
- (4) to promote project entrustments through the network operation,
- (5) to promote understandings of international cooperation activities by university faculty/staffs and the general public, and
- (6) any other activities to achieve the objectives of JISNAS

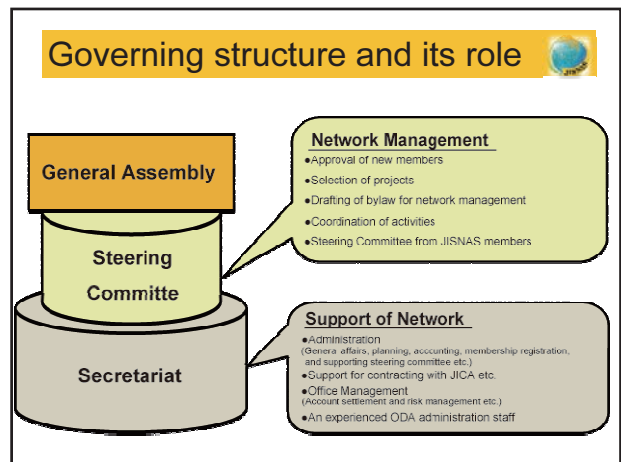
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Organization

- **Advisory organizations**
MEXT, MAFF, JICA & JIRCAS
- **Steering committee**
9 members throughout Japan (from Hokkaido to Kyushu)
- **Secretariat**
ICCAE, Nagoya University
- **Members** (as of November, 2010)
29 organizations & 5 individual persons

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Interactive web system

Field of Resources/Needs	Activity type
1. Resources/energy	1. Structure group training course in abroad (Japan)
2. Environment	2. Structure group training course in your country
3. Rural/agricultural infrastructure	3. Customized technology guidance/OJT in abroad (Japan)
4. Rural development	4. Customized technology guidance/OJT in your country
5. Biosciences	5. Undergraduate/graduate education in Japan (degree program)
6. Crop production	6. Research (study) in Japan (non-degree program)
7. Animal Production	7. Application of technology/agricultural extension from abroad (Japan)
8. Fisheries	8. Verification of technology, survey (research) in your country
9. Forestry	9. Academic exchange/interuniversity education program
10. Use of agricultural, forestry and fisheries produce	
11. Health & food security	
13. Social economy	

Totally 114 keywords

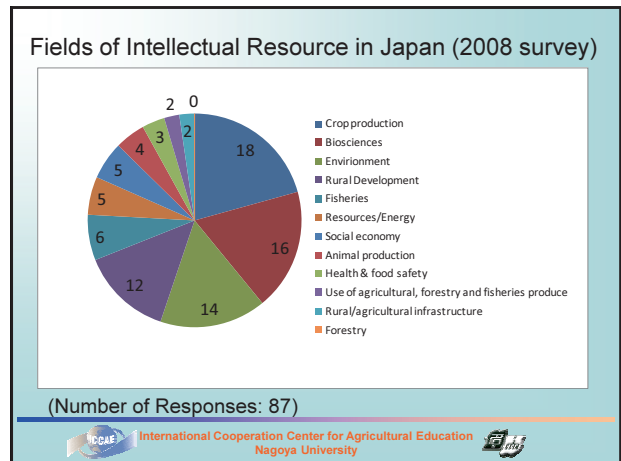
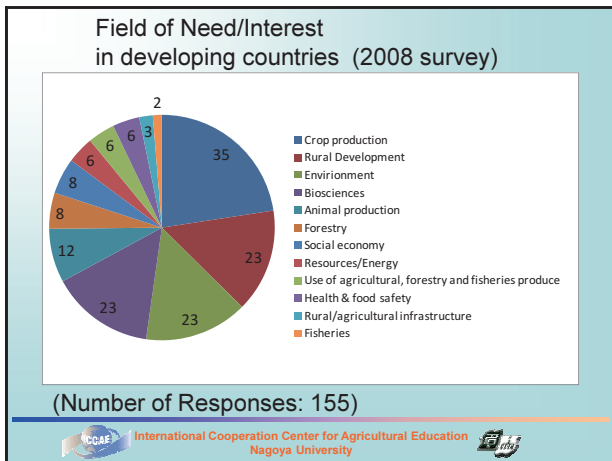
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Number of Responses per Country (2008 survey)

Country	Number	Ratio (%)	Country	Number	Ratio (%)
Kenya	28	18.1	India	4	2.6
Indonesia	25	16.1	China	3	1.9
Tanzania	23	14.8	Benin	2	1.3
Burkina Faso	20	12.9	Philippines	2	1.3
Ghana	15	9.7	Albania	1	0.6
Uganda	14	9.0	New Caledonia	1	0.6
Bangladesh	11	7.1	Vietnam	1	0.6
South Africa	5	3.2			

(Number of Responses: 155)

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IReNe-AFF

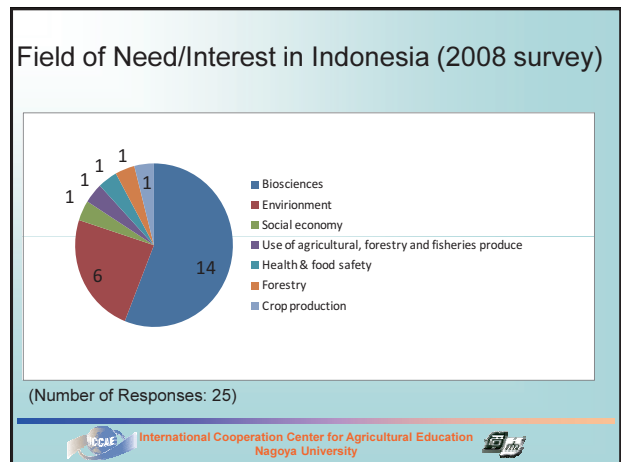
in Japan and in 19 developing countries
(10 in Asia/Oceania, 8 in Africa and 1 in Europe)

Highly Matched
biodiversity, poverty reduction, agricultural extension/education, rural livelihood, genetic resources, conservation agriculture (sustainable agriculture), agricultural policy, farmers' organization, crop protection (diseases & insect pests management, IPM, etc.), soil conservation, etc.

Lack of resources in Japan
climate change/global warming, post-harvest, agricultural information, agroforestry, gender, etc.

➔ It would be recommended to strengthen the research fields of these keywords so as to tackle these needs of developing countries.

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Matching: Indonesia

NEEDS

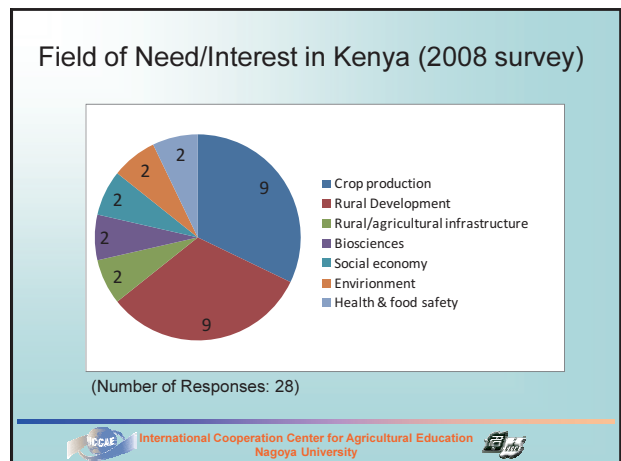
- biodiversity, genetic resources, forest conservation, climate change/global warming, etc.
- Keywords related to bioscience & environment

➔ Approach by bioscience to problems in natural environment

Matched: biodiversity, genetic resources
Unmatched: genomics, agroforestry
Activity type needed: study in Japan, research
Activity type offered: education, research

➔ **Proposal:** collaborative research projects based on bioscience on problems in natural environment

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Matching : Kenya

NEEDS

- poverty reduction, agri-business, agricultural extension/education, rural livelihood, etc.
- keywords related to crop production & rural development

➔ Livelihood improvement through increase in crop production in rural areas

Matched: agricultural extension/education, farmers' organization, agricultural policy

Unmatched: postharvest, marketing/trade

Activity type needed: training, education

Activity type offered: research, education

Proposal: Livelihood improvement by increase in crop production in rural areas through international cooperation with agricultural extension/education, farmers' organization, agricultural policy

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Proposals (2009 & 2010)

- Project for the promotion of improved crop production in the mountainous areas of North Vietnam (adopted),
- Identification and monitoring of new viral strains from potential disease carrier, the fruit bat (*Pteropus* sp.),
- Improvement of rapid diagnostic kit and production of therapeutic human monoclonal antibody for malaria,
- JICA Group Training on development of core agricultural researchers for rice promotion in Sub-Saharan Africa, and
- Some others

Cooperation with JICA: Reconstruction of Afghanistan Education for Master and Doctor degrees

Visited country:
Bangladesh, Cambodia, Indonesia, Malaysia, the Philippines, Ghana, Kenya, Uganda, Madagascar,

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Perspective

- Contribution to agricultural development by strengthening collaboration among universities and research organizations
- Promotion or activation of research activities for domestic and overseas agricultural problems
- Capacity building of domestic and overseas young students and researchers
- Technology development in developing countries through research collaboration and education
- Food security in international community through science & technology cooperation

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Challenge!

- More substantial, concrete and visible
- Effective and efficient operational mechanism through which all group members will feel the benefits of membership
- Key to make JISNAS function and sustainable
Networking and financial sustainability

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Network

AAACU: the Asian Association of Agricultural Colleges and Universities
SEARCA: SEAMEO Regional Center for Graduate Study and Research in Agriculture
MEXT: Ministry of Education, Culture, Sports, Science and Technology
JBIC: Japan Bank for International Cooperation
JICA: Japan International Cooperation Agency
JIRCAS: Japan International Research Center for Agricultural Sciences
AICAD: African Institute for Capacity Development
CAL: Center for Asian Legal Exchange, Nagoya University
CICE: Center for the Study of International Cooperation in Education, Hiroshima University
CRICED: Center for Research on International Cooperation in Educational Development, University of Tsukuba
ICCEED: International Cooperation Center for Engineering Education Development, Toyohashi University of Technology
IRCM: International Research Center for Medical Education, University of Tokyo

- Deliver Japanese knowledge to Africa by Japanese Researcher -

[Target Area]
Agricultural research related to Africa

Trainer
Japanese Researcher

↔

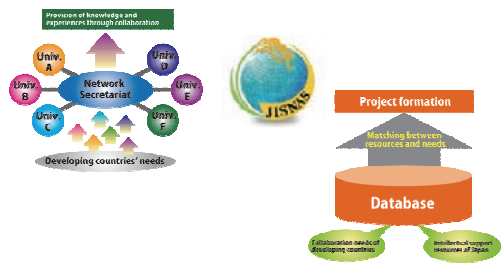
Trainee
Young African Researcher

Host institution
CGIAR, JICA Project, Universities and National Agricultural Institutes (Outside Japan)

Strengthening Research Ability, Collaborative Research, Training, Capacity Building, Technology Transfer

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Think globally, act locally



Thank you for your attention

QUESTION and ANSWER

Masami Yasunaka: Thank you Dr. Asanuma. And now, we will listen to a few question and comments.

Yasuhiro Tsujimoto: Thank you very much for your excellent presentation. I'm very much interested in this IReNe-AFF Network. I'm just wondering if this is just a domestic thing among Japanese universities. Do you have any aim for making this system into the global level in which the system includes the whole university system in the world such as a U.S. universities or European universities? In that case, can the system become available to wider people in the whole world?

Shuichi Asanuma: Thank you very much for your question. The objective of this JISNAS is to promote Japanese universities for the international research collaborations including education. So at the moment, we are limited. We have limited exchanges expanded to include the other developing countries. But we perform the surveys of the needs of many developing countries, not only in Africa or Asia. We are now going to visit Latin America, Brazil, and Argentina this year. So we want to expand some more in the future, but at the moment, we have limitations.

Ram Badan Singh: I must say, Professor Asanuma, excellent presentation and we do note here that it is excellent news for us to see a very proactive move on the part of the universities. To come out from the universities' boundary walls and help developing countries through the network movement project, this is wonderful news. However, I felt that before him, we also heard Mr. Suzuki talk about another network and Professor Asanuma talked about a network and made no mention of Professor Suzuki's network. I mean to say that there are various networks operating in the country that one should take note of the other networks, so possibly there is a scope for working out together. And these various networks could be networked together under one network, which may be a national consortium of a development authority for development, whatever you want to call it. So, to invite, to inform, and to give the message to the outside world, all these can be unified in one umbrella.

The second point which I have is that the networking program should bring some message for Japan also. What is the message? The message is that seen through the survey Professor Asanuma in a series of topics, items which are listed there? Those topics and items are listed in many surveys all over the world. But the important thing is that he mentioned Japan's readiness to match the demands for climate change, both harvest management and quality improvement, as well as gender internalization. In the development process, Japan is not prepared. Japanese universities are at least not prepared to take care of those three or four new areas which you are able to note. My opinion is that it should not be very important for the Japanese universities, which Professor Asanuma is guiding, to develop their own programs in these areas so that they can help the country as well as the whole world in the process; because these are new and most important areas in many countries about which we would like to benefit from Japan--- climate change, value addition, internationalization, now feminization in agriculture. They are more important issues today. So I thought that these would be of some help to you when you develop your program further. Thank you.

Masami Yasunaka: Thank you. It is a very important issue.

Shuichi Asanuma: Well just one second. Just one thing I want to say is that there are several kinds of networks. Mr. Suzuki mentioned about research-oriented network. Ours is a research supporting network to promote research collaboration, you know. So I don't know whether it's better to use different words or not. But, whole Japan should work together, I think.