

THE ACADEMIC APPROACH OF RESEARCH ON NORTH AFRICA

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ABSTRACT

Alliance for Research on North Africa (ARENA) was launched in April 2004, as an academic research center with the purpose of promoting comprehensive research concerning the North African Region by way of integration of humanities and sciences. Linking North Africa's unique and various potentials with Japan's advanced science and technology, ARENA's research focuses on the region of North Africa, from the Mediterranean to the Sahara, including Egypt, Libya, Tunisia, Algeria, Morocco and Mauritania. Since April 1, 2007, ARENA has been promoted in its organizational position to an inter-department research institute of the University of Tsukuba from being under an umbrella of a graduate school.

Being inspired by its institutional promotion, ARENA intends to further implement unique and useful research activities. Currently, in cooperation with CANMRE (Centre de l'Afrique du Nord et de la Méditerranée pour la Recherche et l'Enseignement) which was established in Tunis April 2006 as the first overseas base of the University of Tsukuba, ARENA endeavors to develop a new research and education system by multi-disciplinary approach through the integration of various fields of sciences, aiming at establishing a new academic field "North African Studies."

Since its establishment, ARENA has achieved plenty of valuable activities in the fields of Bioscience, Arid Land Environment Studies, Humanities and Social Sciences, Information Technology and Management. Taking advantage of such fruitful results in each field, ARENA has significantly contributed to further development and progress of academic activities in the North African countries, through conducting researches on the basis of the specific nature and unique features of the Region, promoting academic exchange, and supporting education and training of young researchers. These achievements could contribute to shifting the pivot of academism from Europe and America to North Africa and Asia, and might lead up to creating a Japan-led new academic area, aiming for co-existence of different civilizations.

Throughout past seven years, ARENA made many achievements in various scientific fields, such as in desert studies, biotechnology, language and culture, information and communication technology, management, and world heritage studies. An important feature of ARENA is that it conducts comprehensive research by integrating humanities and sciences.

Since 2000, we have had Tunisia-Japan Symposia on Society, Science and Technology (TJASST), and the 10th edition of TJASST2009 was held last year. The number of presentations in the TJASST2009 significantly increased to 265, comparing 160 presentations in the TJASST2008. 98 scholars presented (48 from university of Tsukuba, 50 from other Japanese universities), and nearly 100 Japanese participated in the symposium. TJASST has taken root as the biggest opportunity to encounter and discuss between Tunisian and Japanese researchers. To make the Forum more fruitful, we need to call participants from various universities and institutions.

“Valorization of Bio-resources in Semi Arid and Arid Land for Regional Development” (Science and Technology Research Partnership for Sustainable Development) project, Japan Science and Technology Agency (JST) and Japan International Cooperation Agency (JICA) collaborate to promote international joint research that target global issues with developing countries, was started last year. This project targets the arid land in Tunisia in North Africa, and we will deploy the investigation of useful bio-resources based on food culture and traditional medicinal information, investigation of vegetation distribution, investigation of temperature/soil saline characteristics, perform exhaustive component analysis and functionality analysis of bio-resources. Furthermore, the project will develop the technologies for cultivation/breeding methods that aim at adapting to the environment, and will seek a high-degree utilization of arid land bio-resources by introducing food utilization and processing technologies.

ARENA also started implementing a three years project (FY2010-FY2012) entitled “Establishment of Integrative Research Base by Humanities and Sciences on Valorization of Useful Plants for Regional Development in North Arica” funded by the JSPS under the “Asia-Africa Science Platform Program”. The purpose is to conceptualize and establish a regional development model by valorizing useful endemic plants in North Africa and developing seeds for industrialization that consistent with embedded tradition and culture in Islamic society, collaborating with universities in Tunisia, Egypt, Morocco and Algeria.

The North African Region has its own historical and cultural background based on its geopolitical position. But the Region also faces various challenges in the contemporary complicated international relations, with regard to stability of society, economic development, education of youth, etc. ARENA believes that it could help achieve more realistic and practical solution of such problems and make persistent contribution to the international society, by developing its research activities with deep comprehension and deliberation through the interdisciplinary approach and from different viewpoints of natural science and human sociology focusing on that Region.

KEYWORDS

Alliance for Research on North Africa (ARENA), CANMRE (Centre de l’Afrique du Nord et de la Méditerranée pour la Recherche et l’Enseignement), Tunisia, Egypt, Libia, Algeria, Morocco, Mauritania

<< ARENA Home page ; <http://www.arena.tsukuba.ac.jp/> >>

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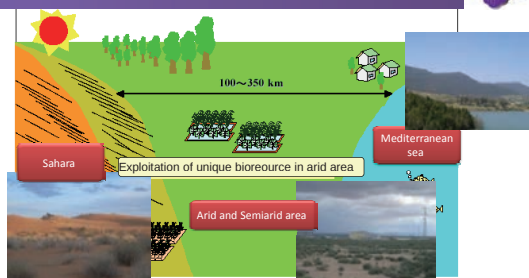
North Africa area

Image on Google Earth



What are the interests in North Africa ?

-Point of view of Natural Science-



Environmental characteristics of North Africa
Wide Biodiversity due to drought gradient in narrow range

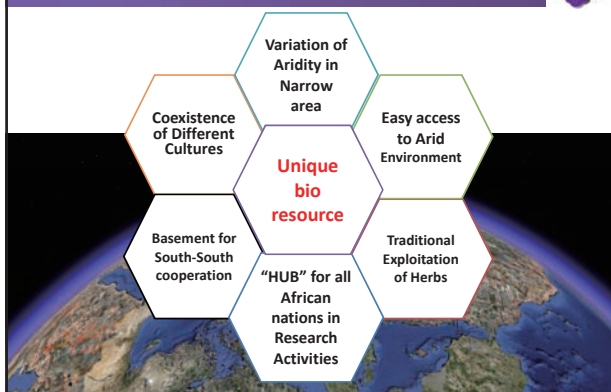
The influence of the global climate change appears drastically

What are the interests in North Africa ?

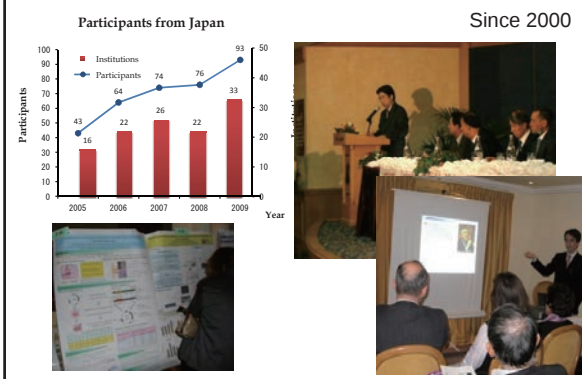
Model Field for study about the solution against the issue on the global environment

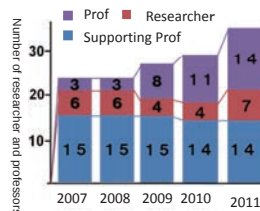


What are the interests in North Africa?



Tunisia Japan Symposium on Science Society and Technology (TJASST10)2009

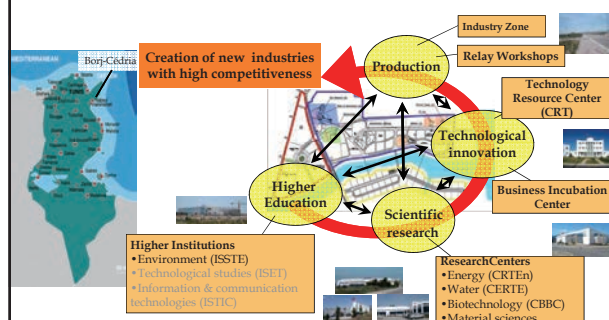
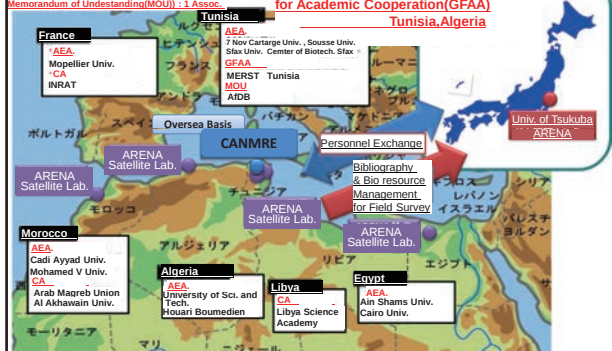




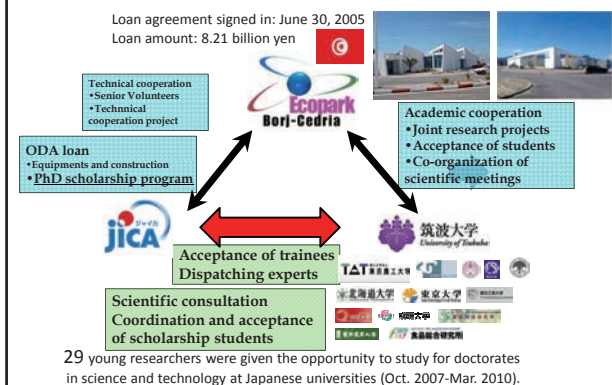
Opening ceremony (2006.05.03)

The center aims to promote the joint research with Tunisian Institutions, academic exchanges between North African countries and Japan, provides public relations of the University of Tsukuba in North African region, and contributes to the development of higher education in the region.

Overseas Basis : 1 (Tunis)
Academic Exchange Agreement(AEA) :10 Univ.
Memorandum of Understanding(MOU) : 1 Assoc.



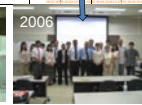
Loan agreement signed in: June 30, 2005
Loan amount: 8.21 billion yen



	JFY2004	JFY2005	JFY2006	JFY2007	JFY2008	JFY2009
Period of Project			August 2006 - July 2009			
Study Mission		▲				
JCC Meeting				▲		▲
PMC Meeting				▲	▲	▲
Experts		2 trainees	1 trainee	1 x 1 year		2 trainees
Training Programs						
Biotechnology		3x3m	3x1m	2x 5.5m	2x 5.5m	
Water and Environment			3x15m	2x 5.5m		2x 5.5m
Renewable Energy		1 trainee		1x11m	1x5.5 1x 5.5m	
Management of Technopark		9 x 1.5 months		6 x 2 weeks	6 x 2 weeks	



Students Studying in Japanese Universities



Training Programs

- Management of Technopark

A group of four people, two men and two women, are gathered around a large document in an office. They are all smiling and shaking hands, suggesting a successful agreement or partnership. The document is held by one of the men. The office has large windows in the background, and there are plants and office supplies on the desk in the foreground.

Yokohama, 28 May 2008

Such international joint research under the program will also address the research and development of capacity and contribute to the sustained research activities in developing countries.

University of Science and Technology Oran

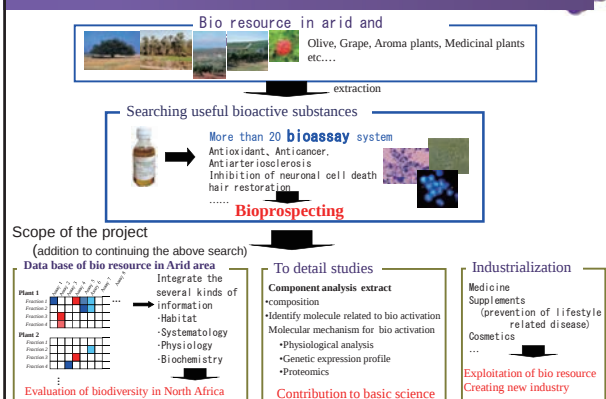
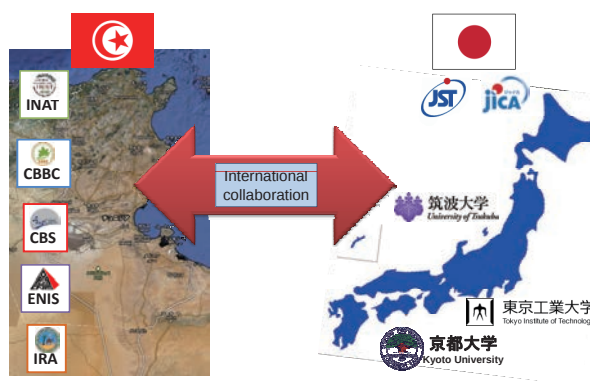
University of Tsukuba

Cairo University

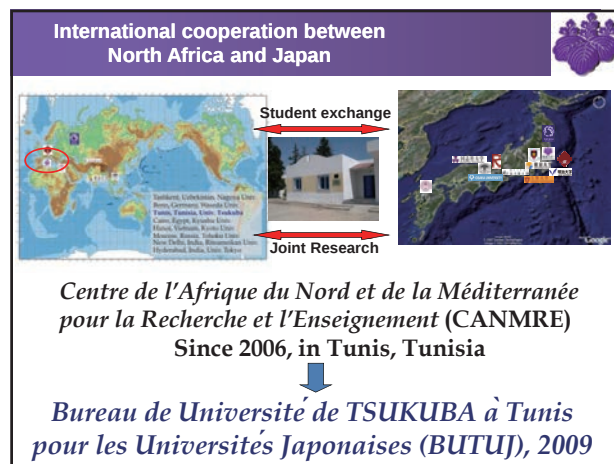
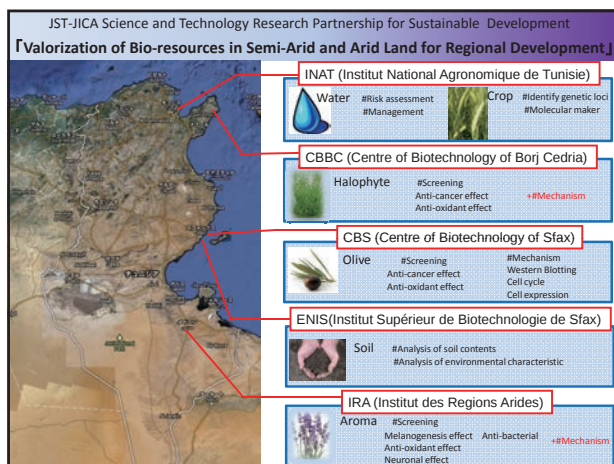
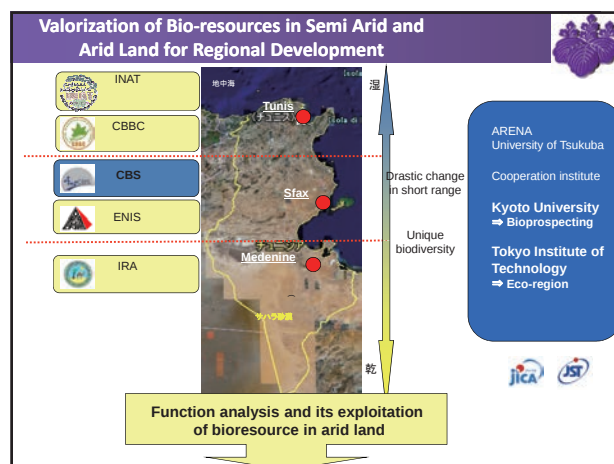
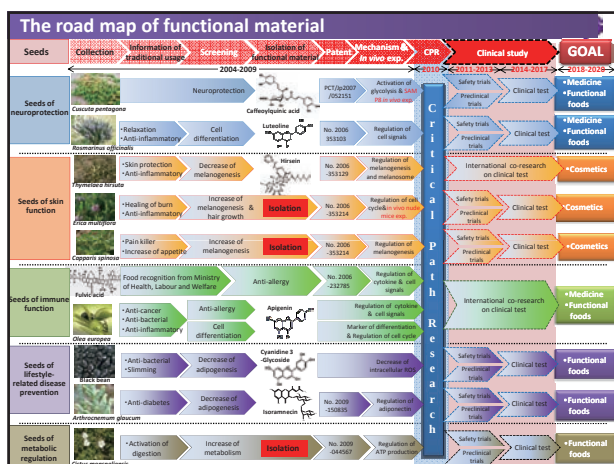


Center of Biotechnology of Sfax, Tunisia
Sami Sayadi

Development]

[illegible]

Increase chance of discovery of novel activities



QUESTION and ANSWER

Akio Takenaka: Thank you, Dr. Han for that excellent presentation. And this is a good example of the multilateral cooperation between Japan and North African countries. Okay, I'd like to yield a few minutes for receiving some questions or comments from the floor. Okay.

Kazumi Yamaoka: Thank you, Jim. My name is Kazumi Yamaoka from JIRCAS. Thank you for your nice, excellent and interesting explanation. Based on your explanation in this slide, I found no name of any private company joining this kind of research activity. You mentioned only the universities and research institute. However, according to your slide, one example of such research program showed that the goal of research activities is to find out functional materials, which are very interesting like medicine, functional food, or cosmetics. I think it's very attractive to the private companies. So I'd like to know the real situation of the participation of private company in this kind of program.

Han Junkyu: So actually, we have a chorus call research with some companies using some of such functional materials. And also, now we are preparing the database of the functional information of medicine plants. And also, such information is very useful to the companies. The companies found some base material and some component for medicine, functional food and cosmetics.

Akio Takenaka: Okay? Okay.

GanesanBalachander: Just to follow the question. You talked about traditional usage and there is already information, all over the world, about bio-prospecting, concern about prior informed consent with local communities and benefit sharing. So actually, who is going to get the benefit? You talk about companies, but there are the communities involved and there is local knowledge and they have been using it. Is there some way of sharing benefits with the communities? And have you thought about that mechanism? Secondly, a gentle comment. Around the world, bio-prospecting is more like a lottery. Very few actual products have come about through this kind of process. I'm not saying this won't succeed, but one needs to keep in mind that expectations are not very high that somehow if you do bio-prospecting that you will get a lot of resources coming.

Akio Takenaka: Do you have the same?

Ram Badan Singh: Yes, on the same line. I'll pick up from where my colleague on my right, Mr. Balachander left. Again, on bio-prospecting, You did mention that you believe in working with the trust on both sides. You underlined that, which means a very high degree of transparency. You also mentioned that a very large number of the products have been patented and there are a large number still to be patented. And then, there is the international system. One is called the International Treaty on Plant Genetic Resources which follow the products of agriculture and food products, for Japan is not a signatory. And the exchange of genetic material of this kind involves obviously the material transfer agreements, pre-informed assessment of the situation. And then, there is the sharing of the assets, which are derived from these bio-prospected materials. So on one hand, Japan is not signatory of the international treaty. On the other hand, tremendous works on applied natural resources are ongoing. There are quite a few patents, so in the benefit-sharing along with the harmonization with existing international agreements, there seems to be some disparity. And probably, hopefully, if not you and Tsukuba University, the government of Japan should be able to take this into account so that when we do all these beautiful work, I think, there will be less chance of any contradiction with any of the international agreements.

The second point is that your good work in ARENA is something wonderful. Dr. Han, we must congratulate you. CIRAD, is also doing the same kind of work that JIRCAS is doing. And CIRAD wants to combine with JIRCAS wherever this good work is going on. I must mention to you that where ARENA is working, there is also ERENINA. I hope you know what ERENINA is. While you're working for ARENA, there is ERENINA – working for the North African and the Arabian countries and that's the same countries with which you are working at. And this ERENINA is one of the regional forums of agricultural research institutions for North African and Arabian countries. So ERENINA and ARENA should have immediate linkage so that both will be working on the same lines as the other already existing and operating international systems.. As Christian mentioned, JIRCAS collaboration with CIRAD is appropriate , so is the ARENA collaboration with ERENINA . Hence, I highlighted this point.

Han Junkyu: So our goal is to make some products from functional materials. And we also try to add value to the plants from their origin in North Africa as medical plants. And so we hope that some benefits are provided to the origin countries like Tunisia and Egypt. And also, we have some collaboration with other European institutes, like Montpellier University. So we have some collaboration not only with North African site but also with some European Institutes.

Akio Takenaka: Okay. Any other questions? And Dr. Han understands and speaks Japanese very well so if you have any question in Japanese, it is acceptable for him. Okay, probably the problem is the benefit from these materials, for example, the rural development is very important for the original countries. And okay, so thank you very much again, Dr. Han.