



Japan Society for the Promotion of Science (JSPS): Asia Africa Science Platform Program

Establishment of Integrative Research Base by Humanities and Sciences on Valorization of Useful Plants for Regional Development in North Africa III

Editor Kenichi Kashiwagi



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Contents

Preface	iii
Introduction <i>Kenichi Kashiwagi</i>	1
1. Biological evaluation of <i>Chorisia chodatii</i> Hassl. and <i>Chorisia speciosa</i> A. St.-Hil. <i>John Refaat , Junkyu Han, Samar Y. Desoky, Mahmoud A. Ramadan, Mohamed S. Kamel and Hiroko Isoda</i>	4
2. Natural products as biomaterials for cancer therapy and prevention <i>Ahmed M. Aboul-Enein, Faten Abu El-Ela, Emad A. Shalaby and Hany A. El-Shemy</i>	19
3. Water effects on olive production in Tunisia <i>Faten Mnasri, Mohamed Kefi, Karim Aounallah, Kenichi Kashiwagi, Atsushi Kawachi, Mohamed Tlili, Mohamed Ben Amor and Ali Sahli</i>	41
4. Influence of climatic conditions on phenolic content in rosemary in Tunisia <i>Atsushi Kawachi , Abdelkarim Ben Arfa, Shinji Kondo, Kiyokazu Kawada, Mohamed Neffati and Hiroko Isoda</i>	48
5. Technical efficiency of olive oil manufacturing and efficacy of the industrial modernization program in Tunisia <i>Kenichi Kashiwagi, Nadhem Mtimet and Lokman Zaibet</i>	53
6. Productivity and technical efficiency of olive growing farms in Tunisia <i>Kenichi Kashiwagi, Hajime Kamiyama and Mohamed Kefi</i>	64
7. Cost Benefit Analysis of intensification and valorization of Argan tree project in Taroudant (Morocco) in stochastic environment: Uncertainty and risk analysis <i>Majid Benabdellah, Omar El Yajouri, Kenichi Kashiwagi and Taha Lahrech</i>	75
8. Cost-Benefit Analysis of the Argan intensification and valorization project in Taroudant: The deterministic approach <i>Majid Benabdellah, Taha M. Lahrech, Omar El Yajouri and Kenichi Kashiwagi</i>	83
9. The analysis of the value chain of the Argan in the area of Taroudant <i>Hicham Zaaraoui, Majid Benabdellah and Kenichi Kashiwagi</i>	89

10. Analyse de la chaîne de valeur huile d'argan au Maroc, zone d'étude:
Région Sous Massa Drâa, province de Taroudant
Mohammed Chaker and Majid Benabdellah

98

Preface

Since April 2010, the Alliance for Research on North Africa (ARENA), University of Tsukuba has been implementing a research project entitled “**Establishment of Integrative Research Base by Humanities and Sciences on Valorization of Useful Plants for Regional Development in North Africa**” under the Japan Society for the Promotion of Science (JSPS) “**Asia Africa Science Platform Program**”. The objective of this project is (i) to valorize useful endemic plants in North Africa to develop seeds for technology, (ii) to develop seeds for technology that consistent with embedded tradition and culture in Islamic society, (iii) to conceptualize and establish a regional development model that leads to sustainability and stability of North Africa, and (iv) to establish a integrative research base by humanities and sciences and develop a network with North African partners. What we call “seeds for technology and innovation” have been investigated for the development of medicine, cosmetics and functional foods.

In this project, the five collaborative researches include “**Study of Modern Values on Traditional Usage of Bio-resources in North Africa (R1)**”, “**Research on Sustainable Use of Bio-resources in North Africa (R2)**”, “**Screening of Physiological Function of North African Origin Plants (R3)**”, “**Use of Advanced Technology for Development of High Value-Added Food Production System in North Africa (R4)**”, and “**Valorization of Useful Plants for Regional Development in North Africa (R5)**” were implemented. We collaborating with institutions in four North African countries: Cadi Ayyad University and Hassan II Institute of Agronomy and Veterinary Medicine (Morocco), Houari Boumedine University (Algeria), Sfax University, Carthage University (Tunisia), and Cairo University, Minia University (Egypt).

For the implementation of these projects, eleven Japanese members of this project were dispatched to Tunisia, Egypt and Morocco to conduct these collaborative researches, and three scholars were invited to Japan to further deepen these research activities during FY2012. Three Japanese researchers were dispatched Morocco for a survey on Argan oil and Argan related products in July. Two Moroccan young researchers from Hassan II-IAV was invited to Japan in September to implement a socio-economic survey of Argan producers. We invited one Egyptian young researcher to Japan from Minia University in October for making an analysis on medicinal plants. Also, three Japanese researchers were dispatched to Morocco for a field investigation on Argan in March.

At the end of February 2013, a seminar entitled *Development of Seeds for Innovation and New Market based on Valorization of Traditional Plants in North Africa* was held, inviting scholars from Carthage University and Borj-Cedria Science and Technopark in Tunisia, Cairo University in Egypt, and Hassan II Institute of Agronomy and Veterinary Medicine in Morocco. Also, the majority of the member of this project participated in the **2nd Algeria-Japan Symposium: Sustainable Society through Advanced Sciences** held in May 2012 at University of Science and Technology of Oran, Mohamed Boudiaf, cooperating with Houari Boumedine University. Also, we presented our collaborative research results of olive oil and Argan oil at the **Tunisia-Japan Symposium: Sustainable Society through Advanced Agro-Food Science & Quality**, held at Hammamet (Tunisia) in November 2012. It is noteworthy several collaborative research results on useful plants were presented with North African counterparts.

As a product of the third year, this project issued a book entitled: *Establishment of Integrative Research Base by Humanities and Sciences on Valorization of Useful Plants for Regional Development in North Africa III*. This volume is expected to be useful for students, researchers and engineers who are interested in research and industry-university cooperation to forge the future of industrialization and strengthen the industrial competitiveness of North Africa countries.

Lastly, we would like to express our sincere appreciation to the Japan Society of the Promotion of Science for their financial support to implement this project under the Program of the Asia Africa Science Platform.

Kenichi Kashiwagi
March 2013