



Applied Research Institute – Jerusalem

ARIJ

Annual Report 1999

1. Introduction

As it enters the new millennium, ARIJ is commemorating its tenth anniversary. This is time to reflect and prepare for the future. During 1999, ARIJ adopted a number of structural changes to meet the challenges of the future. At the same time, ARIJ continued its professional research work that earned it the reputation of a center of excellence in Palestine. This is evident from the number of refereed journal articles that was published in 1999 and the growing number of consultancies that ARIJ implemented.

In 1999, ARIJ worked hard to foster a relationship of close cooperation with the Palestinian National Authority (PNA), national and international NGO's and institutions. Also, ARIJ transferred its agricultural, environmental, land use and water data to the Palestinian Ministry of Planning and International Cooperation (MOPIC), Ministry of Agriculture (MOA), Ministry of Environmental Affairs (MENA), Negotiations Affairs Department (NAD), Palestinian Water Authority (PWA) and the Palestinian Central Bureau of Statistics (PCBS). Moreover, ARIJ executed a number of consultancies to FAO, JICA, MOA, UNDP, UNEP and World Vision related to environmental and natural resource management.

Nevertheless, ARIJ enters the new millennium with a state of uncertainty with respect to its sustainability. ARIJ is unable to fully meet its operational expenses, which are solely reliant on projects and consultancies. The board of trustees has been deliberating this issue and will be formulating alternative strategic issues to address it.

2. Administration

The last year before the millennium witnessed a significant transformation in the administrative structure of ARIJ aimed at meeting the new challenges. The expansion of the board of trustees introduced new blood that helped in fostering excellent relationship between the members of the board of trustees on one hand, and ARIJ employees on the other hand. This resulted in the development of new policy guidelines that will promote the role of ARIJ locally and internationally. During 1999, the board of trustees held two general meetings while the executive committee held ten periodic meetings to supervise the overall work program and take the necessary decisions. In addition, members of the board of trustees frequently visited ARIJ, met the employees and discussed their activities and achievements as well as providing guidance, which had a deep impact on strengthening the relations within the family of ARIJ.

2.1 Board of Trustees

- Eng. Abd El-Rahman Abu 'Arafa (Agricultural Engineer)
- Dr. 'Adnan Musallam (Historian)
- Dr. Bishara Abu Ghannam (Electrical Engineer)
- Eng. Daoud Istanbuli (Agricultural Engineer)
- Dr. Elia Awwad (Psychologist)
- Mr. Fuad Rizeq (Economist)
- Mr. Ghassan Andoni (Physicist)
- Dr. Hasan Dweik (Chemist)
- Eng. Issa Al-Taweel (Civil Engineer)
- Dr. Jamal Safi (Toxicologist)
- Eng. Jarasmous Kharroub (Food Scientist)
- Dr. Nabeel 'Edeily (Pharmacist)
- Dr. Nasri Qumsieh (Cardiologist)
- Dr. Norma Masriyah (Political Scientist)
- Dr. Saleem Zughbi (Computer Scientist)
- Mr. Samir Halaileh (Economist)
- Eng. Shehadeh Dejany (Agronomist)
- Dr. Simon Kuttab (Chemist)
- Dr. Walid Mustafa (Geographer)
- Dr. Ziad 'Abdeen (Molecular Biologist)

2.2 Executive Committee

The board of trustees elected the following officers for the executive committee for 1999:

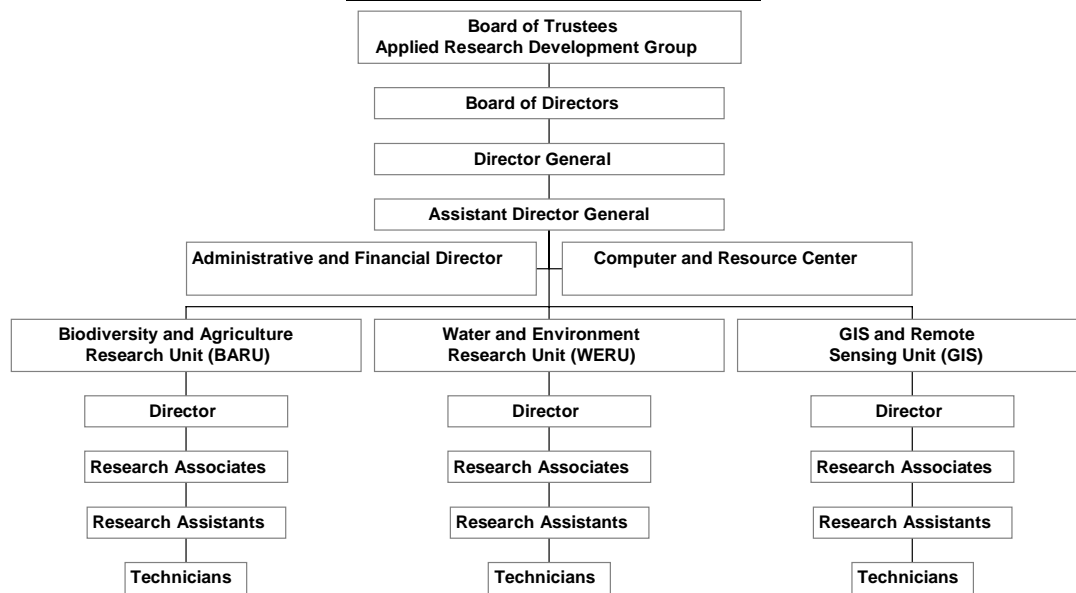
- Eng. Daoud Istanbuli (President)
- Dr. Nasri Qumsieh (Vice President)
- Dr. Hasan Dweik (Treasurer)
- Mr. Fuad Rizeq (member)
- Dr. Norma Masriyah (member)
- Mr. Ghassan Andoni (member)
- Dr. 'Adnan Musallam (member)

2.3 Administration and Policy

This year witnessed a restructuring of the Organizational Chart of ARIJ. The Environmental Research Unit and the Water Research Unit were united into Water and Environment Unit (WERU) due to the interrelationship between the two units. The GIS and Land use Unit was replaced by the Geographic Information System (GIS) & Remote Sensing Unit as a result of the increase in the use of remote sensing and its application at ARIJ. The position of the administrative and financial director was cancelled. Nader Hraimat was appointed as an Assistant Director General to be responsible for administrative issues. Dr. Mohammed Ghanayem was employed as the Research Director at ARIJ, and Helen Murad was appointed as

a the financial director. These changes strengthened ARIJ’s administration and helped in improving the relations between the staff and the research units.

ARIJ Organizational Chart



2.4 Staff Affairs

Human resources are the prime element that ARIJ relies upon in creating a research center of excellence in Palestine. Since its establishment, ARIJ adopted a human resources development plan aimed at promoting the technical skills and expertise of its staff. As a result, ARIJ now enjoys the services of a group of experts who have been trained to meet the needs of ARIJ and the community. In 1999, Hanna Maoh returned to ARIJ after completing his M.Sc. in Urban Land use and Transportation Modeling from McMaster University in Canada, while Ihab Abed Rabbo came back with an M.Sc. degree in GIS from Leicester University in the UK. On the other hand, Eyad Al-Araj completed his master degree in Socioeconomic Information for Natural Resources Management in Holland, while Shadi Hannouneh completed a Diploma in Computer Networking from Mohawk College in Canada. Meanwhile, Majed Abu Kubie is attending an M.Sc. program in GIS in the UK, while Khaldoun Rishmawi and Nizar Qattush have left to MAICH in Greece for an M.Sc degree in Environmental Management. Issa Zboun is still pursuing his studies for a diploma in Municipal Planning at Mohawk College. Moreover,

study leaves will be granted to Jane Hilal and Sophia Saa'ed to pursue their studies abroad next year for a master degree in GIS and Air Quality.

In addition to the academic training programs, many of the employees attended other short term training courses. Violet Qumsieh and Faten Junaidi attended a short training course on Environmental Impact Assessment, which was held in Jordan. Helen Mourad participated in another short training course on Integrated Water Management organized by UNESCO at Al-Azhar University in Gaza. Isam Isaac, Reem Abu Aitah and Kholoud Qumsieh attended several courses in ORACLE. Both Khaled Ayyad and Isam Isaac attended a course in Microsoft System Engineering (MSE). In addition, ARIJ invited Dr. Jack Gibbs from Mohawk College in Canada to give a training course on Map Object and GIS Management, and Dr. Ron Bracha from the same college to run another training course on homepage design and html.

2.5 ARIJ Staff

January 1999

<i>Staff</i>	<i>Position</i>	<i>Unit</i>
Jad Isaac	Director General	
Nader Hraimat	Assistant Director General	
Mohammed Ghanayem	Research Director	
Helen Mourad	Financial Director	
Nadera Safar	Executive Secretary	
Roubina Bassous	Coordinator	BARU
Fuad Isaac	Research Assistant	GIS & Resource Center
Khaldoun Rishmawi	Research Assistant	GIS & Resource Center
Mohammed Abu Amrieh	Research Assistant	BARU
Nizar Farsakh	Research Assistant	WERU
Wafa Safar	Research Assistant	WERU
Isam Isaac	Unit Director	Computer Unit
Khaled Ayyad	Research Assistant	Computer Unit
Reem Abu Aitah	Research Associate	Computer Unit
Shadi Hannouneh	Computer Technician	Computer Unit
Violet Qumsieh	Unit Director	WERU
Abeer Safar	Research Assistant	WERU
Eyad Al-Araj	Research Associate	WERU
Faten Junaidi	Research Assistant	BARU
Marlene Andonieh	Research Assistant	WERU
Maysoon Banourah	Research Assistant	WERU
Nizar Qattush	Research Assistant	WERU
Hanna Maoh	Coordinator	GIS
Ihab Abed Rabbo	Research Associate	GIS
Issa Zboun	Research Assistant	GIS
Jane Hilal	Research Assistant	GIS
Majed Abu Kubie	Research Assistant	GIS

Manal Daoud	Research Assistant	GIS
Sophia Saa'ed	Research Assistant	GIS
Rose Saqa	Coordinator	Resource Center
Khaled Hreimi	Maintenance	
Khalil Balboul	Security Guard	
Mariam Salahat	Janitor	

3. Activities of Research Units

3.1 GIS and Remote Sensing Unit

This unit continued its main work this year to produce the first Atlas of Palestine which will be published by ARIJ by the beginning of the year 2000. This Atlas represents the output of five years of collection and analysis of historic, geographic and socioeconomic data. This was not an easy task due to the lack of accurate geographical and topographical maps and the presence of different projection grids. To confront this situation, the unit utilized satellite images and used (DGPS) Differential Global Positioning System to validate the data in the field. The unit is now building a new GIS database for all geographical layers of land use in Palestine, which will give the chance to produce maps with better resolutions. The unit is working now on producing the Atlas on a CD, which will make it more dynamic and interactive. The CD is expected to be finished by the middle of the coming year. The unit will later publish the geographic information on the home page of ARIJ to be accessible worldwide.

Throughout the year, the unit has offered its services to all the units of ARIJ by providing them with specific maps matching the units' requirements. It has also offered its services to many official and non-official institutions by producing the required maps.

Moreover, the unit has continued working on the Transportation and Air Pollution Project. A model which links the transportation movement and the demographic changes with the GIS Program by the Emme 2 program, was developed and this model is going to be examined in the coming months.

3.2 Biodiversity and Agriculture Research Unit

This year, the unit completed in cooperation with Dr. Atif Kubursi at McMaster University the development of ASAP (Allocation System for Agriculture in Palestine). This computer program is considered a useful tool for decision makers by which one can plan for the most appropriate use of natural resources, taking into account the population census, the land use, and the crop and water quality. A training course on this program was held for a number of employees in the Ministry of Agriculture on the 20th of May 1999. Procedures for transferring this program to interested ministries, and convening short-term training courses for farmers and agricultural advisors on district levels are being taken into consideration.

In addition, this unit has participated in drafting a strategy for Natural Resources Management to the Palestinian Ministry of Agriculture. The report was presented at the international conference which was organized by the Palestinian Ministry of Agriculture on the 25th - 26th of October 1999.

BARU unit has also participated in developing the program of Water Allocation in the Jordan Valley as part of JOWA project, which is financed by The European Union. Furthermore, the unit with the cooperation of the World Vision worked on assessing the farmers' needs in dryland areas as a preparation to present a joint-project, which aims at developing this important sector of the Palestinian community..

3.3 Water and Environmental Research Unit

This year, the unit has continued its work on monitoring the pollution sources in the West Bank Aquifer for the interest of the Palestinian Consulting Group. It has also continued working on Developing Sustainable Water Management Program in the Jordan Valley; thus creating a dynamic mathematical model for water allocation based on landuse and climatic, geographic and economic factors.

Furthermore, the unit followed up the transfer of the database of the Palestinian Environmental Information System (PEIS) to the Ministry of Planning and International Cooperation, the Ministry of Agriculture, the Water Authority and the Ministry of Environmental Affairs. This included training the staff of the Palestinian ministries on the utilization and the develop of the program, which was extremely welcomed by the ministries. MENA and ARIJ have jointly submitted a project aimed at updating PEIS and developing a decision support system for environmental management.

Friedrich Naumann Foundation granted ARIJ a project targeted to localize Agenda 21 in Palestine. Ten chapters of Agenda 21 were selected, and ten workshops will be held and attended by ministerial and non-governmental organizational staff to discuss each chapter aside in preparation to form a comprehensive mechanism to localize the Agenda. Moreover, WERU is assessing a small WasteWater Treatment Plant Unit, installed at ARIJ and financed by the Ministry of Higher Education and Scientific Research. The treated water is utilized for irrigating a small garden at ARIJ. It is quite clear that such a technology is appropriate in rural areas in Palestine; thus further dissemination of this technology is planned.

4. Consultancies

The Applied Research Institute has gained a distinctive reputation in its specialized work, which enabled it to execute consultancy to a number of international organizations. This year, ARIJ has performed the following consultancies:

1. A report about the environmental situation in Palestine, submitted to the United Nations Environmental Program.
2. A report about the environment in Palestine, submitted to the Japanese Institution for the International Cooperation.
3. Participation in setting down a national strategy for biodiversity in cooperation with the Palestinian Environmental Authority.

4. A Guidance Program of water and irrigation management, submitted to the World Bank.
5. Needs assessment of dryland farming in the West Bank submitted to the World Vision institute.
6. Natural resources management for the Ministry of Agriculture and the United Nations Food and Agriculture Organization in cooperation with MASAR institute.
7. Various consultancies for producing maps submitted to the Ministry of Tourism, Bethlehem 2000 Project and the Bible College.

These consultancies not only helped ARIJ in gaining more expertise, but also assisted in meeting part of its operational expenses, which are solely reliant on consultancies and projects.

5. Services

This year, the institute has sustained providing its technical and scientific services to many of the PNA organizations and other NGOs. Also, ARIJ will continue working with MOPIC and the Negotiation Affairs Department by providing them all with the information regarding issues of final status negotiations.

ARIJ has also worked with the Liaison Civil Office in all the West Bank districts to collect data about land and the Israeli violations and in return, ARIJ has supplied these offices with the required geographic information. Meanwhile, ARIJ has participated in developing the environmental work plan, the environmental strategy and the comprehensive environmental framework, which is carried out by the Palestinian Ministry of Environmental Affairs. Moreover, the institute cooperated in forming the strategies of water sector, and arranging the meetings of the Negotiating Consulting Committee for Water.

In addition, ARIJ is working with the Ministry of Planning and International Cooperation in Palestine 2020 Program where the director general and the research director of ARIJ are involved in forming a Palestinian concept for the agricultural and environmental sectors. The institute is also participating in the team, which was formulated by the Ministry of Higher Education and Scientific Research to draft a paper for the development of scientific research policies in Palestine.

ARIJ is also partaking in the European Research Cooperation Program (TEAM) in the field of Remote Sensing and its application in civil purposes. This year ARIJ has also worked with the Bethlehem 2000 Project and the Ministry of Tourism in producing numerous maps aimed at promoting the Tourism sector. For the conference of Final Status Settlement, ARIJ has cooperated with MIFTAH preparing papers related to colonies, water and borders.

It is obvious that ARIJ provides essential services to the Palestinian community out of the solid belief of the national interests. Although offering such services is time consuming and requires a lot of expenses and efforts, the institute will continue to apply the Board of Trustees' policy and decision to provide all the data it has to serve the Palestinian national interests.

6. Participation in Conferences, Symposia and Workshops

This year has been eventful in ARIJ's participation in many local and international conferences, symposia and workshops as outlined here:

Date	Activity	Organized by	Participant
25-28/1/99	Workshop on Research Development in the Arab World	International Research Development Centre –Canada	Dr. Jad Isaac
1/1999	Workshop on Biodiversity Strategy in Palestine	PENA	Roubina Basous/ Nader Hraimat
8/2/1999	Water Strategy	PWA	Dr. Jad Isaac/ Walid Sabah
15/2/1999	Water Strategy	PWA	Dr. Jad Isaac/ Walid Sabbah
18-20/2/1999	Pugwash Conference / Sweden	Pugwash Institution	Dr. Jad Isaac
1/3/1999	Workshop on the Transportation Project	ARIJ	Dr.Jad Isaac/Isam Isaac/ Violet Qumsieh/ Nizar Qattush/ Majed Abu Kubie/
3-7/3/1999	Workshop on GIS	ISPRA Institute-Italy	Dr. Jad Isaac
9-10/3/1999	Water Allocation in the Jordan Valley	INCO	Dr. Jad Isaac/ Violet Qumsieh/ Khaldoun Rishmawi
3/1999	Workshop on small grant projects	GEF	Violet Qumsieh/ Roubina Basous
7/4/1999	A Lecture on Colonization activities and the Environment	PARC	Violet Qumsieh
13-17/4/1999	Water conflict in the Middle East	Michigan University	Dr. Jad Isaac
14-16/4/1999	Free Trade Zone Workshop	FOEME	Violet Qumsieh
27/4/1999	The First Geographic Conference	Al-Quds University	Dr.Jad Isaac/ Dr. Nasri Qumsieh
20/5/1999	Workshop on Water and Land Management System	ARIJ	Dr. Jad Isaac/ Nader Hraimat/ Faten Junaidi/ Mohammed Abu Amrieh/ Maysoon Banourah
24/5/1999	Palestinian Environmental Law	Palestinian Ministry of Environmental Affairs	Violet Qumsieh
11-14/6/1999	Social Assessment of environmental projects	The World Bank	Dr. Jad Isaac

17/6/1999	IWRA Conference	IWRA	Abeer Safar/ Faten Junaidi/ Nizar Qattush/ Violet Qumsieh/ Dr. Jad Isaac
19/6/1999	Workshop on for Agricultural Water Strategies	Ministry of Agriculture	Dr. Jad Isaac / Violet Qumsieh
21/6/1999	Desertification Workshop	PENA	Dr. Jad Isaac
21/6/1999	Development of the Jordan Valley Workshop	Palestinian Study Centre	Violet Qumsieh
21/6/1999	Environmental Dispute Workshop	IPCRI	Nader Hraimat
22/6/1999	Workshop on Palestinian Statistics	IPCRI	Nader Hraimat
22/6/1999	Conference on Arab Thought Forum	Arab Thought Forum	Dr. Jad Isaac
24/6/1999	Workshop on Sanitary Cities	International Health Organization	Nizar Qattush
30/6/1999	Workshop on Comprehensive Development Framework	Palestinian Ministry of Environmental Affairs	Dr. Jad Isaac

5/7/1999	Environmental Protection Workshop	IPCRI	Dr. Jad Isaac
7/7/1999	Agricultural Policies Workshop	Ministry of Agriculture	Dr. Jad Isaac
7/7/1999	Symposium on GIS	Hypertech Advanced Systems LTD/ Tel-Aviv	Mohammed Abu Amrieh/ Khaled Ayyad/ Fu'ad Ishaq/ Majed Abu Kubie
25/7/1999	Environmental Wanderers	Bethlehem Governorate	Mohammed Abu Amrieh/ Majed Abu Kubie
27/7/1999	Landuse Workshop	PCBS	Dr. Jad Isaac
28/7/1999	Environmental Work Plan Workshop	Ministry of Environment	Dr. Jad Isaac/ Faten Junaidi/ Abeer Safar/ Nader Hraimat/ Mohammed Abu Amrieh
28/7/1999	Natural Resources Management Workshop	Ministry of Agriculture	Dr. Jad Isaac/ Nader Hraimat/ Mohammed Abu Amrieh/ Faten Junaidi
4/8/1999	Land use Workshop	Ministry of Agriculture	Dr. Jad Isaac/ Nader Hraimat/ Mohammed Abu Amrieh/ Faten Junaidi
4-8/9/1999	Environmental Impact Assessment	Ministry of Environment & KMEMTP	Abeer Safar

5/8/1999	Symposium on Women and Men in Palestine - Trends and Statistics	PCBS	Faten Junaidi
2/9/1999	Natural Resources Management Workshop	Ministry of Agriculture	Dr. Jad Isaac/ Faten Junaidi/ Khaldoun Rishmawi/ Mohammed Abu Amrieh/ Nader Hraimat
8/9/1999	Attending an Agricultural Exhibition	Israeli Ministry of Agriculture	Nader Hraimat/ Mohammed Abu Amrieh
18/9/1999	Conference on Permanent Status Issues	MIFTAH	Dr. Jad Isaac/ Violet Qumsieh
23/9/1999	Technology of Water Treatment	PWA	Abeer Safar
28/9/1999	Natural Resources Management Workshop	Ministry of Agriculture	Dr. Jad Isaac Faten Junaidi/ Nader Hraimat/ Mohammed Abu Amrieh
6/10/1999	Environmental Sector Work Group Meeting	UNSCO	Dr. Jad Isaac
7-10/10/1999	Hazardous Waste Management	IPCRI	Violet Qumsieh
11/10/1999	Water Allocation in the Jordan Valley	INCO	Dr. Jad Isaac/ Maysoon Banourah/Helen Mourad/ Violet Qumsieh/ Ihab Abed Rabbuh

18/10/1999	Memo of Understanding Meeting	Ministry of Agriculture	Dr. Jad Isaac
20/10/1999	Attending GIS Conference	Tel-Aviv	Hanna Maoh/ Ihab Abed Rabbuh/ Sophia Saa'd
21/10/1999	Coordination Meeting	Ministry of Agriculture	Nader Hraimat
25-26/10/1999	Agricultural Strategies Conference	Ministry of Agriculture	Dr. Jad Isaac/ Nader Hraimat Mohammed Abu Amrieh/ Faten Junaidi
26/10-8/11/99	Data Transfer Project		Hanna Maoh/ Ihab Abed Rabbuh/ Maysoon Banourah/ Violet Qumsieh/ Nader Huraimat/ Faten Junaidi
24-25/10/1999	Oracle Second Annual Conference	Oracle & ATS	Reem Abu Aitah/Kholoud Qumsieh/Isam Isaac
7-10/11/1999	Workshop on Remote Sensing	ISRRA	Dr. Jad Isaac
28/11-5/12/99	Agricultural Development Program	Denmark	Nader Hraimat
30/11-5/12/99	Training Course on Environmental Development	The World Bank	Dr. Jad Isaac

11-15/12/99	Conference on Jerusalem-London	The Arab Cultural Scientific Organization	Dr. Jad Isaac
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7. Visits

ARIJ has received many delegations and emissaries who visited the institute to become acquainted with its activities and the extent of mutual cooperation. Following is a list of these visits:

Date	Visitors
9/1/1999	Dr. Victoria Waltz from Dortmund University
20/1/1999	Dr. Barbel Stark from the European Union
7/2/1999	Vice Chairman of the Palestinian Environmental Authority
9/2/1999	Delegation of the Red Cross Committee
11/2/1999	The UNRWA Delegation
16/2/1999	Friedrich Naumann Delegation
17/2/1999	The European Union Representative Delegation
22/2/1999	Earth Monitoring Center Delegation- USA
9/3/1999	The British Council Delegation
13/3/1999	The German Representative Delegation
19/3/1999	Delegation of the Swiss Agency for Development & Cooperation
7/4/1999	Mr. Afif Safieh, Palestinian Ambassador in the UK
7/4/1999	Japanese Delegation
30/4/1999	Dr. Rudolf Orthofer from Austria
8/5/1999	Nablus Liaison Office delegation
17/5/1999	Swiss Delegation
19/5/1999	Governors of the International Development Research Centre- Canada
22/5/1999	AMNESTY International Delegation
25/5/1999	Representative of the South Africa Delegation
29/5/1999	Prof. Tom Sauffter – USA
31/5/1999	Christian Peace Makers Team
3/6/1999	Middle East Council of Churches Delegation
5/6/1999	AMNESTY International Delegation
10/6/1999	United States Information Services Office Delegation
16/6/1999	Delegation of the Swiss Agency for Development & Cooperation
16/6/1999	Prof. Khalil Mancy - University of Michigan
17/6/1999	The British Consul General
21/6/1999	Youth Leaders Delegation from the USA
23/6/1999	World Vision Delegation
26/6/1999	Dr. Gorgio Nambrini, from Switzerland
5/7/1999	Dr. Shukri Arraf
5/7/1999	Danish Delegation

22/7/1999	Eng. Hikmat Zaid/ Minister of Agriculture
24/7/1999	Salah Al-Ta'mary / Member of The Legislative Council
3/8/1999	Al-Jalil Society Delegation
5/8/1999	Christian Peace Makers Team
6/8/1999	Italian Delegation
11/8/1999	American Delegation / Alternative Tourism Study Centre
12/8/1999	American Delegation/ International Center of Bethlehem
14/8/1999	Red Cross Delegation
16/8/1999	Ministry of Culture Delegation
16/8/1999	American Delegation / Alternative Tourism Study Centre
22/8/1999	SAAR Delegation
25/8/1999	Dr. Salman Abu Sitta
25/8/1999	Mr. Yasser Al-Ghazawi -The Egyptian Embassy
26/8/1999	JAICA Delegation
4/9/1999	King Hussein College of Environmental Management
11/9/1999	British Council Delegation- Jerusalem
15/9/1999	American Information Services Office
22/9/1999	European Union Office Delegation
23/9/1999	Quakers Delegation
25/9/1999	Swiss Press Delegation
27/9/1999	Japanese Delegation
4/10/1999	Ministry of Planning and International Cooperation
7/10/1999	American Information Services Office
7/10/1999	French Delegation
16/10/1999	International Research Development Centre-Canada
20/10/1999	GTZ Delegation
30/10/1999	Austrian Press delegation
1/11/1999	Princeton University delegation
1/11/1999	The Canadian Representative to the PNA
13/11/1999	Dr. Yazid Al Sayegh/ NAD
17/11/1999	Mr.Harold Duek - Canada
22/11/1999	GTZ Delegation
26/11/1999	The United Nations Delegation for the Human Rights
4/12/1999	The Arab fund Delegation
5/12/1999	Mohawk College Delegation
9/12/1999	ISQWA Delegation
18/12/1999	Peace Research Centers - Switzerland
20/12/1999	The Norwegian & The Palestinian Geographic Center Delegation

8. Lectures

Many lectures have been held by ARIJ staff about the Israeli colonization activities, water and environmental issues:

Date	Lecture
22/2/1999	American Delegation/ International Center of Bethlehem

19/3/1999	Swiss Delegation
28/4/1999	Earlham University Delegation-U.S.A
30/4/1999	American Delegation/ International centre of Bethlehem
6/5/1999	Haifa University
19/5/1999	International Research Development Centre/ Canada
22/5/1999	American Delegation/ Duke University
31/5/1999	American Peace Makers Delegation
3/6/1999	American Delegation/ Middle East Council of Churches
21/6/1999	Youth Leaders/ USA
22/6/1999	American Delegation/The American Committee for Jerusalem
27/6/1999	British Parliament Delegation
30/6/1999	World Vision International/ USA
22/7/1999	American Delegation/ International Centre of Bethlehem
29/7/1999	British Ministry of Foreign Affairs Delegation
5/8/1999	Christian Peace Makers Team Delegation
11/8/1999	American Delegation/ Alternative Tourism Study Center
12/8/1999	American Delegation/ International Centre of Bethlehem
14/8/1999	Red Cross Delegation
15/8/1999	UNESCO Delegation/ Talitha Kumi
16/8/1999	Red Cross Delegation
18/8/1999	American Delegation/ Calvin College
24/8/1999	Dutch Minister of Foreign Affairs
22/9/1999	Earlham College Delegation / USA
29/9/1999	A Lecture in Baladna Cultural Center in Al-Bireh
30/9/1999	Tour Guides/ International Center of Bethlehem
4/10/99	American Delegation/ Alternative Tourism Study Center
8/10/1999	French Minister of Foreign Affairs
1/11/1999	American Delegation/ International Center of Bethlehem
1/11/1999	American Delegation/ Princeton University
15/11/1999	American Delegation/ American Committee for Jerusalem
22/11/1999	Christian Peace Makers Team Delegation
29/11/1999	Cooperation Movement Delegation
29/12/1999	European Volunteers Delegation

9. Publications of 1999

This year was so distinctive because of ARIJ numerous scientific publications.

1. M. Abu –Amrieh, W. Sabbah and J. Issac (1999), Impoact of irrigated agricultural practices on environmental quality and on human health in the West Bank, American Journal of Alternative Agriculture 14,4,165-170 (1999).
2. Faten Al-Juneidi and Jad Isaac (1999), An Assessment of irrigation efficiency in the Palestinian West Bank, in the Proceedings of Irrigation Management and saline conditions, Nassim Al-Abed editor, Jordan University of Science and Technology.
3. J. Schiewe and J. Isaac (1999).

Improving the reliability of DEM's derived from automatic matching: Experiences from a case study, presented at the 2nd International Symposium on operationalization of remote sensing, International Institute for Aerospace Survey and Earth Sciences, ITC, Netherlands 16-20 August.

4. Faten Al-Juneidi and Jad Isaac (1999), Water and Irrigation Management in the Palestinian West Bank, Agriculture and Rural development, Germany 6, 24-26 (1999).
5. J. Isaac (1999), The Palestinian Water Crisis, Center for Policy Analysis on Palestine, Washington.
6. J. Isaac (1999), Water and Palestinian-Israeli Negotiations, Center for Policy Analysis on Palestine, Washington.
7. H. Maoh and J. Isaac (1999), The status of transportation in the West Bank, World Transport Policy and Practice 5,4, 18-25 (1999).
8. Isaac, Jad "Palestinian Environment under Occupation", Environment & Development, volume 4 Number 19, July –August 1999. (Arabic)
9. Isaac, Jad and Nader Hrimat (1999), Agronomic and economic characteristics of improved wheat varieties under rainfed conditions in the southern West Bank. Rachis, 18, 1, 4-11 (1999).
10. J. Isaac (1999)
Palestinian Statehood and peace in the Middle East, submitted to Pugwash conference on Peace in the Middle East, Sweden 18-20/2/1999.
11. J. Isaac (1999)
The essentials of sustainable water resource management in Israel & Palestine, a University of Michigan Symposium, water conflicts in the Middle East: Environmental of Health and Socioeconomic implications, April 14, 1999.
12. Jad Isaac & Maurice Saadeh (1999)
13. Strategic options for sustainable natural resources management in Palestine, The Palestinian Conference on Agricultural policy and Strategies MOA, Hebron 25-26 October.

Doubtless, the scientific production is a pure evidence of ARIJ good position locally and internationally.

10. Work Plan for the Year 2000

The work plan of ARIJ 2000 includes the following aspects:

- 1) Follow up prevalent projects.
- 2) Submit new research projects.
- 3) Carry out consultancies or research contracts.
- 4) Continue to offer services.

1) Follow up Prevalent Projects

- 1) "Monitoring Israeli colonizing activities in the West Bank and Gaza" project which is funded by the European Union and conducted by ARIJ and LRC (The Land Research Committee of the Arab Study Society). Analysis of aerial photos and satellite images, fieldwork, and case studies displaying the impact of colonization activities on the Palestinian environment is the essence of the project.
- 2) Continue working on "Assessing the impact of urbanization on natural resources in the southern West Bank. This project is funded by the International Center for Research Development in Canada, and includes monitoring the land use changes in these areas.
- 3) Follow up Water Allocation project in the Jordan valley, which is funded by the European Union within the INCO program. An integrated database of economic, social, geographic

and water situation in the Jordan Valley has been created. ARIJ is also developing a model on the best water allocation between different sectors (agriculture, industry and domestic use) in the area.

- 4) Follow up the project of Transportation and its effects on the environment, which is funded by DFG. Through this project, a survey of the present status of the roads has been done and a field survey of the traffic movement in more than thirty five centers in the West Bank was carried on. This information has been connected to the Geographic Information System through the Emme2 software, which will offer the possibility of assessing the status of the transportation system based on future scenarios. This program is going to be examined and results are going to be given within the coming months.
- 5) Follow-up the assessment of the waste water treatment unit which was installed at ARIJ and used for agricultural purposes. This unit is based on the oxidation of the organic materials by using aerated sludge. This unit is distinctive for its small size, it doesn't produce any bad smell and for its usefulness for small population communities. So far, this experiment has been successful since, the level of the BOD and the COD has been lowered to the required level. Nevertheless, giving out results of this experiment might be early because of the difficulties of having a state of balance of the Bacteria of the air; therefore, ARIJ will work this year on solving this problem.
- 6) Follow-up the workshops of the Localization of Agenda 21 which is funded by Friedrich Naumann German Institution in cooperation with the Ministry of Environmental Affairs. Out of ten workshops that are going to be held during this year, two of them have been held so far. In each workshop, a Palestinian expert is responsible for preparing a profile including main readings related to the subject of the discussion and a work sheet for what is required to apply Agenda 21 in Palestine. The number of participants in these workshops is between 20-25 Palestinian experts from related Ministries and Institutions.
- 7) Follow-up Air Quality project which is funded by MERC in cooperation with the
- 8) Ministry of Environmental Affairs. Three units for measuring air quality are going to be installed, one in Gaza, the other in the northern part of the West bank and the third in the southern part.
- 9) Produce Instructional Pamphlets for the most proper way of using water in agriculture in the West Bank as a continuation of the Dryland Farming Project which was finished last year.
- 9) Publish the Atlas of Palestine which includes historical, economical, social and geographic aspects.

2) Submit New Research Projects

Since ARIJ depends solely on projects to cover its expenses, ARIJ will work next year on proposing new projects to various potential funders.

Here are some of the proposed projects:

- 1) Improving the environmental information system and build up a system of decision making to manage solid waste treatment in cooperation with the Ministry of Environmental Affairs.
- 2) Using GIS to assess the vegetation cover and its changes in Palestine.
- 3) Assessing the potential impacts of climatic change on natural resources in Palestine.
- 4) Using lichens as biomonitors of air quality .
- 5) Estimate the Green House gas emissions in Palestine.
- 6) Using treated waste water in agriculture.
- 7) Carry a field survey for medical waste in cooperation with the Ministry of Environmental Affairs within METAP program.

- 8) Study Open Space in Palestine and its relationship with development.
- 10) Collecting and classifying legume plants in Palestine and getting to know its qualities and distribution.
- 11) Using GIS for water harvesting.

3) Executing Consultancies or Research Contracts

ARIJ is going to execute the following Consultancies and Contracts:

- 1) build-up a data-base for the Agrobiodiversity Project and connect it to the GIS for the interest of the Palestinian Ministry of Agriculture within the United Nations Development Program.
- 2) Built-up a data-base for the forests in Palestine and connect it to the GIS for the interest of the Palestinian Ministry of Agriculture. This project is supposed to be finished in the mid of May 2000.
- 3) Apply for executing the Consultancy part of land and water optimization Project carried out by the Palestinian Ministry of Agriculture and Water Authority which is funded by the Austrian Government.
- 4) Participating in surveying the hazardous waste in Palestine in cooperation with the Ministry of Environmental Affairs.
- 5) Executing the project of Surveying the Social and Economical Situation of six Palestinian Communities in the Eastern slopes for the interest of the Welfare Association.

4) Continuation of Offering Services

ARIJ is going to continue offering its services to all Palestinian institutions.